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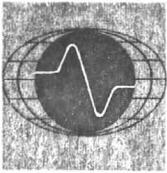
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ANDERSON PROPERTYS

10-1970

G. H.



HEINRICHS GEOEXPLORATION COMPANY

806 WEST GRANT ROAD, TUCSON, ARIZONA, 85703. P.O. BOX 5671. PHONE: (AREA CODE 602) 623-0578

October 2, 1970

ESSEX International Inc.  
Room 216 - Sun Building  
2030 East Speedway  
Tucson, Arizona 85719

Attention: Mr. Howard Lanier

Dear Howard:

Enclosed is the original and one carbon copy of  
PRELIMINARY RECONNAISSANCE GEOLOGIC EXAMINATION of  
Guy Anderson Properties, Safford-Clifton Area, Arizona.

Please let us know at once if you have any questions  
regarding this examination.

Sincerely,  
HEINRICHS GEOEXPLORATION COMPANY

E. Grover Heinrichs  
Vice President

Enclosures  
EGH/dm

*This copy made Feb 9, 1971 at the request of  
Grover Heinrichs*

PRELIMINARY RECONNAISSANCE GEOLOGIC EXAMINATION

OF

GUY ANDERSON PROPERTIES

SAFFORD-CLIFTON AREA, ARIZONA

FOR

ESSEX INTERNATIONAL INC.

OCTOBER 1970

BY

HEINRICHS GEOEXPLORATION COMPANY  
P.O. BOX 5964, TUCSON, ARIZONA 85703  
TEL: 623-0578

GEOEX JOB # 532-70

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Maps showing approximate claim group locations

Safford Quadrangle  
    Nail Keg  
    Horseshoe  
    Blue Crystal

Guthrie Quadrangle  
    Blue Crystal

Clifton Quadrangle  
    Cuprite  
    Yakie

Big Lue Mountains Quadrangle  
    Yakie

GENERAL LOCATION  
of  
CLIFTON-SAFFORD AREA  
for  
ESSEX INTERNATIONAL, INC.

ARIZONA



HEINRICHS  
**GEOEXPLORATION COMPANY**

	<u>AUSTRALIA</u> (SYDNEY) 39 Hume Street Crows Nest, NSW Phone: 439-1793	<u>U.S.A.</u> Post Office Box 5964 Tucson, Arizona 85703 Phone: (602) 623-0578 Cable: GEDEX, Tucson
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GEOPHYSICAL ENGINEERS

## INTRODUCTION

At the request of Mr. Howard Lanier of Essex International Inc., Heinrichs GEOEXploration Company is conducting a geological reconnaissance, for the purpose of presenting an exploration program, over various (4) properties in the Safford-Clifton-Morenci Area, Arizona. This report is being submitted at the end of the initial reconnaissance stage as a recommendation for the second phase of program planning.

The properties under consideration were brought to the attention of Essex by Mr. Guy Anderson, a Safford attorney, who has at least nominal control of all but the Nail Keg group which is apparently held by Mr. Alf Claridge. All of these properties are adjacent to, or very near, operating mines or a mine apparently now in the development stage. For general information refer to: The Safford Copper Deposit, Lone Star Mining District, Graham County, Arizona, by Robinson, R.F. and Cook, Annan in; The geology of the porphyry copper deposits (Titley and Hicks).

The Nail Keg, Knob Hill and Horseshoe are all located a few miles north of Safford and can be reached by good dirt roads. The Knob Hill and Horseshoe claim groups are presently under lease to Producers Chemical Corporation who are presently developing the San Juan (Peacock) as an oxide leaching operation. The San Juan property also has good sulfide potential at depth. The Blue Crystal is located about 15 miles northeast of Safford adjacent to the Sanchez property under development by Inspiration Copper Company.

The terms copper oxide or oxide copper as used in this report actually refer to the common group of non-sulfide oxidized copper minerals which include the carbonates and silicates (etc.) of copper as well as true oxides of copper.

## PROPERTY APPRAISAL

Nail Keg - A021

This property is approximately 23 claims, some of which overlap or are overlapped by adjacent claims. The exact number of claims, their names and position and location established on the ground, is the first thing that must be done if this property is to be acquired. These claims lie mostly in Sec., 3, T. 6 S., R. 26 E., and are covered by alluvium, with some

volcanic rock outcrop. Two drill holes were found in the field, A5 and A21 and an A19 is also indicated on the claim map. Near A21 an induced polarization electrode was found and a newspaper partly buried at this location was dated 8 April 1969. Copper mineralization is very slight on the surface of this property.

The north boundary of the Nail Keg group is coincident with the south boundary of the Phelps Dodge property now under development. Phelps Dodge's shaft  $1\frac{1}{2}$  miles north is almost complete and some underground development is reported underway. The San Juan property (Peacock) now under development by Producers Chemical for oxide copper is immediately adjacent to the Nail Keg group, to the east, their respective west and east boundaries being coincident. The property is thus strategically located between two mines reportedly soon to be in production with the San Juan actually producing some copper during the development stage. The possible ore deposits are concealed, probably 1500 - 2000 feet deep and a complete I.P. program is strongly recommended for this property.

#### Blue Crystal - A017

This claim group consists of approximately 240 claims mostly located in Sections 28, 29, 30, 32, 33 and 34 T. 55, R. 28 E., Sections 3, 4, 5, 9 and 10 T. 6S., R. 28 E. The area is approximately one hour's drive from Safford on mostly fair quality dirt roads until you get on to the property which has some roads that are driveable in four wheel drive vehicles. Bonita Creek runs along the southwest edge of the claim group and is part of the City of Safford water supply. Inspiration Consolidated Copper Company has claims that adjoin these on the southwest and are developing their Sanchez property at this time although the actual mine area is a few miles away.

This property has mostly volcanic rock and Gila Conglomerate on the surface. Some of this is shown on the map and report by W.C. Lacy which is attached. A few thin fracture fillings of chrysocolla and chalcocite have been tested by small workings, but are not economically significant. They do indicate however, that these volcanics are probably pre-mineral in age. Phelps Dodge has drilled 3 holes on the property and AMAX two holes. At this time no information is available on these holes other than that in Lacy's report. The orientation and nature of the mineralized

fractures suggest that a possible shear zone may exist such as exists at the Phelps Dodge-Kennecott areas that is an aid in concentrating the copper mineralization. Considerable effort would be required to work this out as it is only slightly more than speculation now.

The geochemical data shown on the map is presently of very little practical use, and has very little bearing on solving the problems here. The area of alteration should be examined and sampled. Lacy's recommendation to drop the claims south of the Bonita Fault as mapped, should be held in abeyance until more is known of the property on a definite quantitative basis.

This represents a "blind ore body" exploration target and will require concentrated effort and considerable attention to properly evaluate it. A complete I.P. program is recommended over this property.

#### Yakie - A016

The Yaki claim group comprises some 75 claims mostly in sections 3 and 4 T. 5S., R. 30 E., about one mile due east of Clifton, Arizona. A paved road runs along the south and western boundaries of the claim group. The Clifton Cemetery is located on the south boundary of the claim group. Possibly some additional land may be included, primarily sections 33 and 34 and part of 32 in T. 4 S., R. 30 E. This needs to be checked on during any preliminary negotiations.

Part of the area is covered with alluvium, a small part in the northwest corner has some sedimentary rocks but most of the outcrop is granitic rock that is fairly well weathered on the surface. All rock types are red stained. Some minor copper oxide stains are visible locally. One very small adit is shown on the map.

This property probably does not have much of a chance to make a mine but probably warrants a few lines of I.P. on a wildcat basis to be certain nothing is overlooked.

#### Cuprite - A014

The Cuprite group is 16 patented claims in sec. 29, 30 and 31 and 32 T. 3 S., R. 29 E., and some state lease land

in Sec. 32. Phelps Dodge owns the ground around this property at least on the east and south sides. The property lies about a mile from the northwest corner of the Phelps Dodge Morenci Pit.

This property can be approached to within  $\frac{1}{2}$  mile by driving on a paved road, but accessibility is extremely difficult from there on. The terrain is rugged and the only way to cover the property is on foot. A helicopter would speed up any further reconnaissance of this property. Permission to cross Phelps Dodge ground or to use their roads would make things much easier, if a helicopter is not available.

At this time only a small part of the claim group has been examined. There is a shaft, drift with winze, and moderate sized dump on the Cuprite claim. Some copper mineralization is present along a six to eight foot siliceous vein. A road about  $\frac{1}{2}$  mile long would have to be constructed up the canyon at considerable cost from the new by-pass road Phelps Dodge is building. Malachite, pyrite, hematite and probably some cuprite was found on the dumps at this mine. The patented claim corner common to the Cuprite, Cuprite No. 2, Eunice and Ironsides claims was found. These claims and parts of adjoining claims were looked over, but no other mineralization was seen. The rock here is granitic with some staining and minor alteration around the vein on the Cuprite claim. Conglomerates and quartzite are found westward at the top of the canyon. The potential of this part of the property is not very promising, but the rest of the property should be carefully examined.

#### RECOMMENDATIONS

Several years ago when this area was quiet, exploration-wise, Kennecott and Phelps Dodge had sufficient time (and area) to work out the geology and run district wide geological and geophysical exploration programs to search for the most advantageous locations to spend their exploration dollars. This situation no longer exists as most of the ground hereabouts has been claimed as a result of the large amount of development going on here by the major producers. Because of this, and their strategic locations adjacent to properties which are under development or already producing, the Nail Keg and Blue Crystal groups should have very high priorities for a preliminary geophysical reconnaissance examination and probable subsequent

drilling. The possibility here of acquiring large areas of ground in favorable areas is important and in this particular case the often considerable geologic expense required to selectively eliminate large portions of an area under consideration is not needed because this is already defined as the claim-group perimeters.

On the Nail Keg and Blue Crystal properties the possible "ore bodies" apparently do not come to the surface and probably lie between 1000 and 2000 feet deep on both properties. Because of the depth and rugged terrain at the Blue Crystal will make exploration fairly expensive, approximately 20,000 - 25,000 dollars may be required to process both claim groups, prior to drilling. These costs include the necessary supervision, claim checking etc.

The Cuprite claim group evaluation at this instant consists primarily of geologic reconnaissance only and until the entire property has been examined quantitative recommendations cannot be made. This may take some time and effort and possibly could be done in conjunction with other work going on in the area. A more specific program would be forthcoming at the end of that examination.

The further exploration and evaluation of the Yalie should consist of locating a few claim corners to be sure of their actual position on the ground, the running of a few wildcat I.P. lines partly on speculation and partly to be applied as the annual labor requirement to hold the ground from third party entry.

If all of these claim groups can be obtained as a single package deal with an absolute minimum amount, or no cash consideration, to get on to the property, and provided that assuming and fulfilling the annual assessment work obligations rather than making any rental payments for a couple of years, can be made acceptable to the owners, then these claims should be taken up and processed as soon and as completely as possible.

Respectfully submitted,  
HEINRICHS GEOEXPLORATION COMPANY

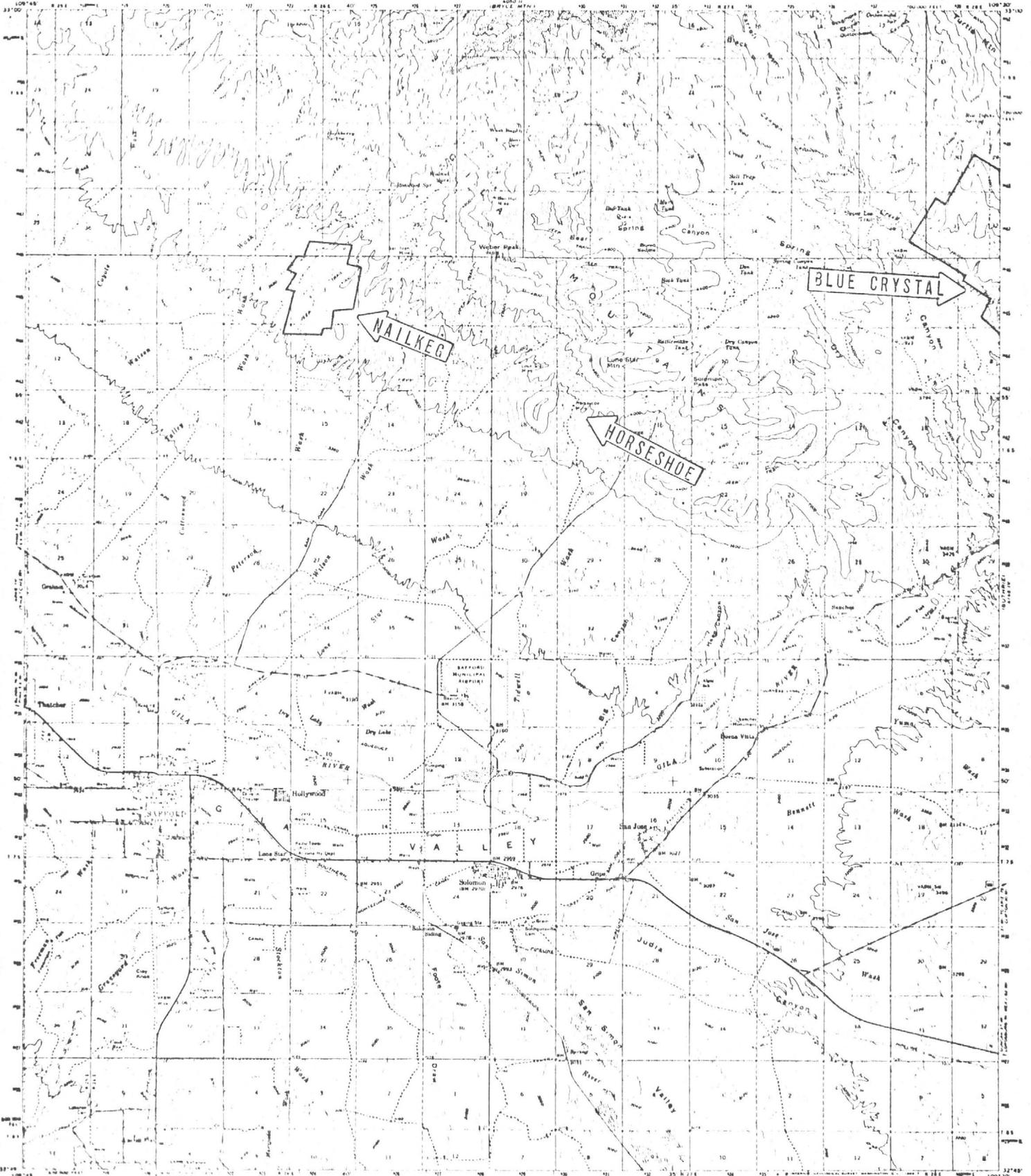
*Donald B Cooley*

Donald B. Cooley  
Senior Geologist

APPROVED: *Walter E. Heinrichs, Jr.*  
Walter E. Heinrichs, Jr.  
President

Box 5964  
Tucson, Arizona 85703  
October 1970

GEOEX Job 532-70



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Photoduplicate from 1927 edition & corrected edition  
10. (All) topographic features are shown in black ink on a white background. Contour lines are shown in brown ink. U.S. Routes are shown in red ink. Other roads are shown in black ink. The map is printed on a white background. The map is published by the Geological Survey, Department of the Interior, Washington, D.C. 20242.

SCALE 1:62,500  
CONTOUR INTERVAL 80 FEET  
DOTTED LINES REPRESENT ADJUSTED CONTOURS  
DATUM: N. MEAN SEA LEVEL

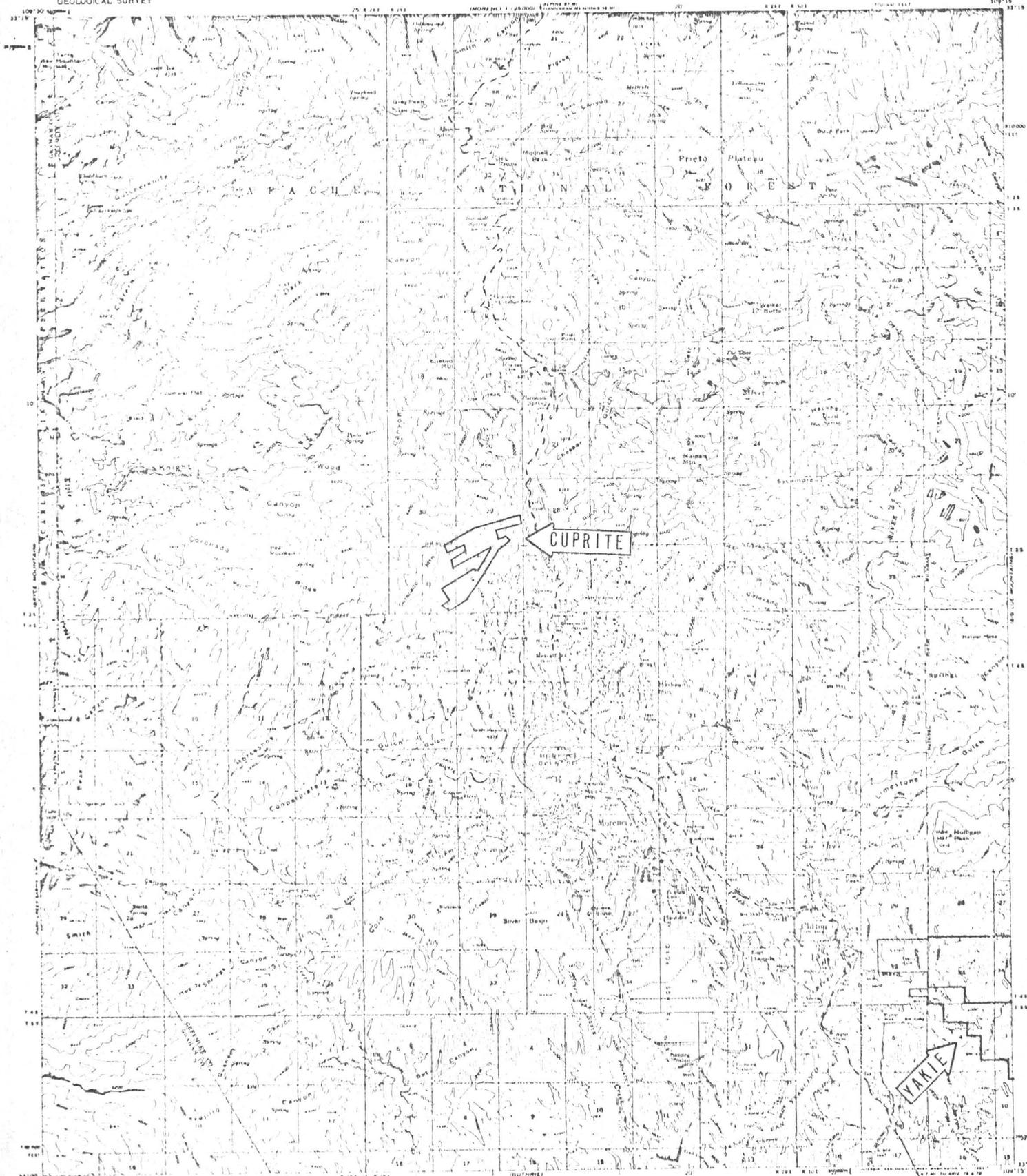
ROAD CLASSIFICATION  
Heavy duty ————  
Medium duty ————  
Light duty ————  
Unimproved dirt ————  
U.S. Route ————



THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS  
FOR SALE BY U.S. GEOLOGICAL SURVEY, CENTER FOR LAND-USE DATA, WASHINGTON, D.C. 20242  
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

SAFFORD, ARIZ.  
N3245-W10930/15  
1960  
AM 4061 58MB 118





CUPRITE

WINKIE

Map was edited and published by the Geological Survey  
Controlled by U.S.G.S. 1:62,500 and U.S. National Geographic Society  
Topography by stereographic projection, from aerial  
photographs taken 1959-61 and 1964-65.  
Photographic projection: 1957 Modified Universal Transverse  
Mercator, based on the datum of the same, spheroid system, used in  
U.S.G.S. maps under the International Geodetic System of 1957,  
zone 12, unless stated.

SCALE 1:62,500

1:62,500

CONTOUR INTERVAL 80 FEET  
DATUM IS MEAN SEA LEVEL

ROAD CLASSIFICATION

Medium duty

Light duty

Unimproved dirt

U.S. Route





VIA GROVER H

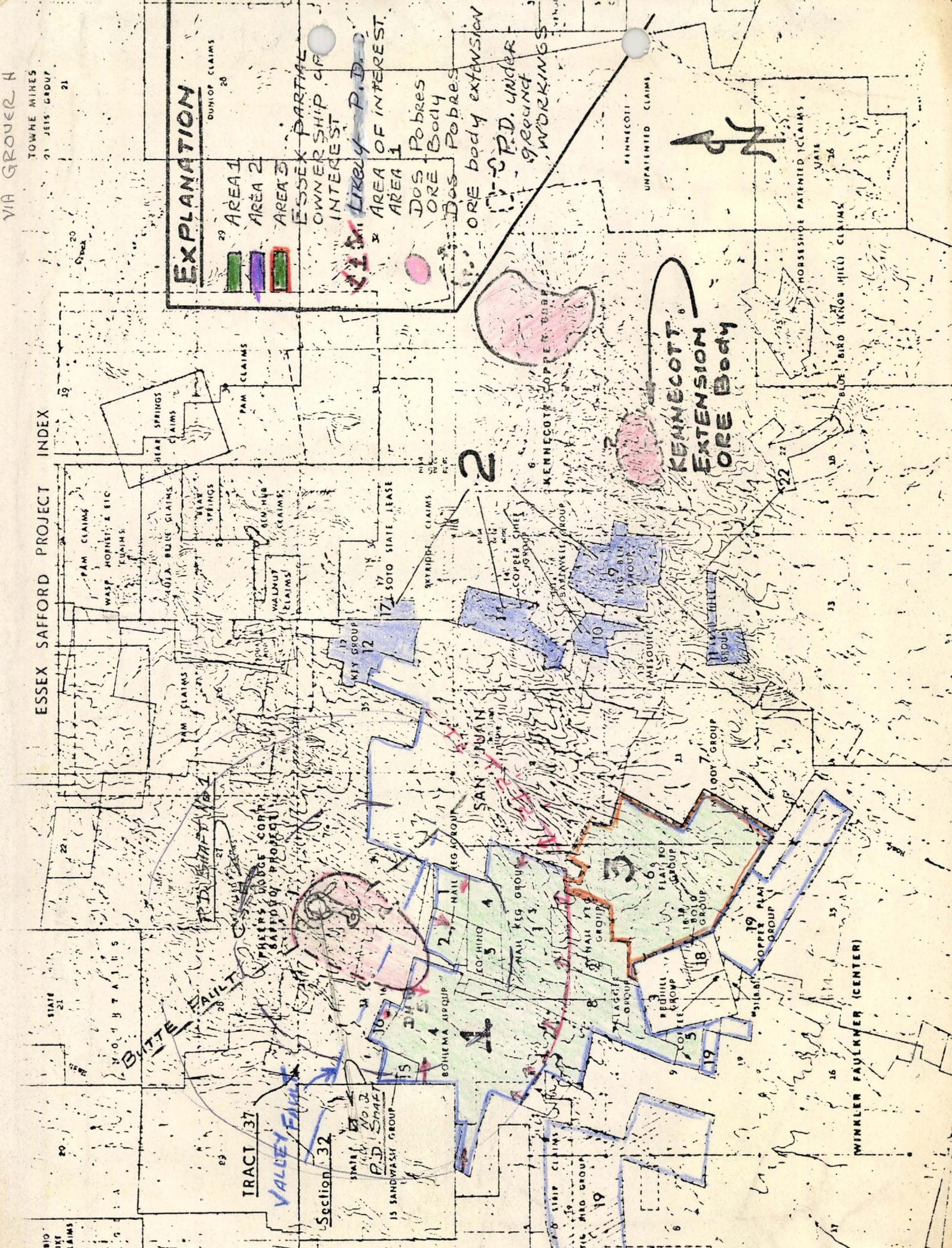
TOWHE MINES  
21 JEIS GROUP

ESSEX SAFFORD PROJECT INDEX

EXPLANATION

- AREA 1
- AREA 2
- AREA 3

ESSEX PARTIAL  
OWNERSHIP OF  
INTEREST  
~~P.D.~~ LIKELY P.D.  
AREA OF INTEREST  
AREA 1  
DOS Pobres  
ORE Body  
Dos Pobres  
ORE body extension  
P.D. UNDER  
GROUND  
WORKINGS



BIO  
157  
CLAIMS

STATE  
21

VALLEY FAULT

BITTE FAULT

TRACT 37

Section 32

SANDWASH GROUP  
P.D. SHAFT  
NO. 2

2

KENNEDY  
EXTENSION  
ORE BODY

WINKLER FAULKNER (CENTER)



HORSESHOE PATENTED CLAIMS  
STATE  
26

BLOE BIRD (KNOW HILL) CLAIMS

UNPATENTED CLAIMS

KENNEDY COPPER BOBB

SKYRIPE CLAIMS

171 SOTO STATE LEASE

KEY GROUP

WALNUT CLAIMS

33

30

27

26

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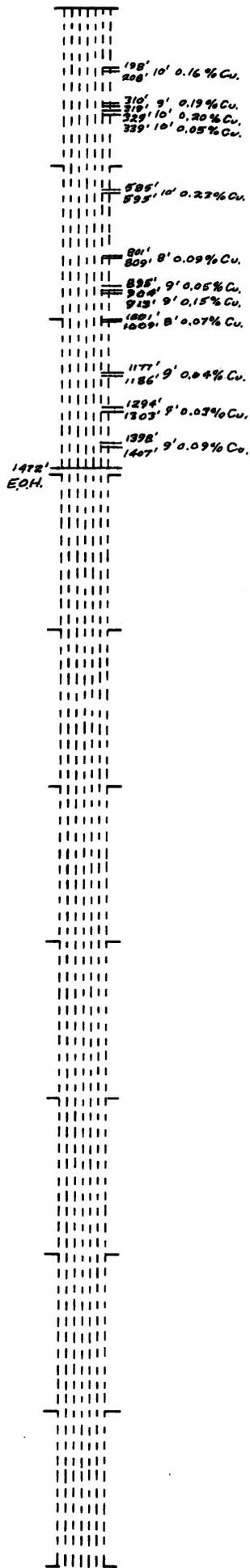
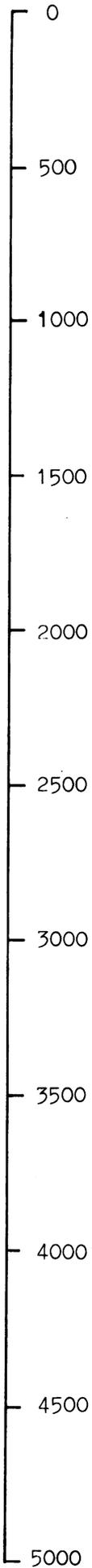
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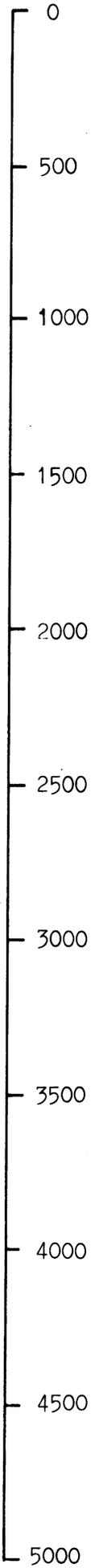
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SCALE: 1" = 500'



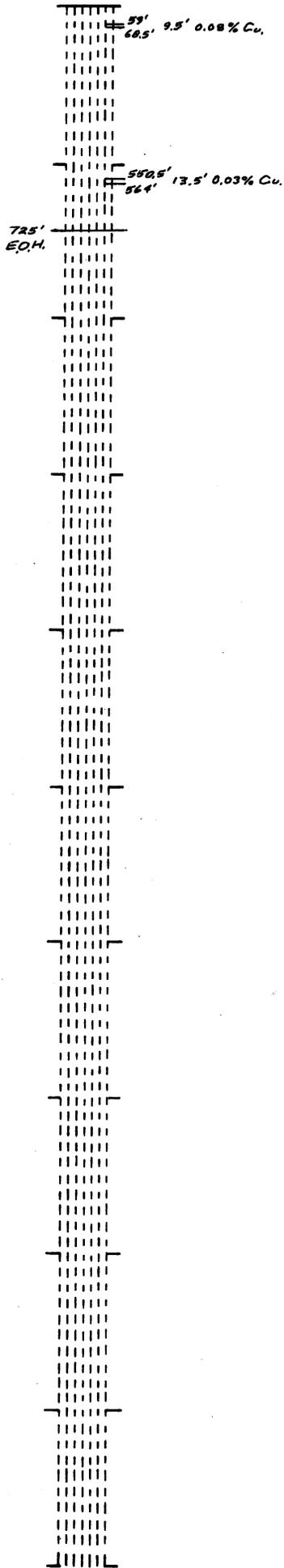
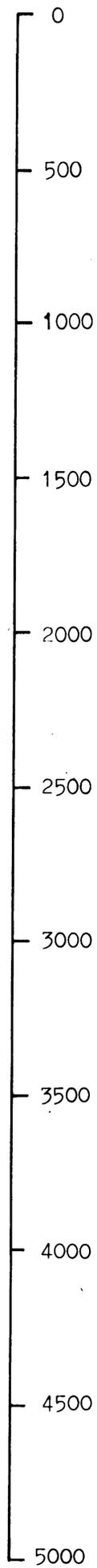
SCALE: 1" = 500'



957'  
966' 9' 0.11% Cu.  
1066'  
E.O.H.



SCALE: 1" = 500'









SAN JUAN PROPERTY

Anderson Co. - DDH's

Hole No.	Interval (feet)	Tot. Cu. %	Approx. Base of Oxides (feet)	Anaconda - Check Assays						
				Interval (feet)	Tot. Cu. %	Ox. Cu. %	Mo. %	Au.	Ag.	
#1	No Anderson assays available		<205	198-208	0.16					
#1				310-319	0.19					
#1				319-329	0.20					
#1				329-339	0.23					
#1				585-595	0.02		Nil	Nil	Tr	
#1				801-809	0.09					
#1				895-904	0.05					
#1				904-913	0.15					
#1				1001-1009	0.07					
#1				1177-1186	0.04		0.002	Nil	Tr	
#1				1294-1303	0.03		Nil	Nil	Tr	
#1				1398-1407	0.09					
#2			100	957-966	0.11					
#3			120	59.0-68.5	0.08					
#3				550.5-564.0	0.03					
				<u>Kerr-McGee Oil Industries, Inc. Assays</u>						
#5			900	0-103	Not assayed					
#5				103-220	0.41		0.001	0.005	0.	
#5				220-390	0.26		Nil	Tr.	0.	
#5				390-480	0.39			Tr.	0.	
#5				480-500	0.69			Nil	0.	
#5				500-550	0.51			0.01	0.	
#5				550-610	0.43			Nil	Nil	
#5				610-650	0.32			Tr.	0.	
#5				650-700	0.38			Tr.	0.	
#5				700-750	0.33			Tr.	0.	
#5				750-800	0.34		0.003	Tr.	0.	
#5				800-850	0.34		0.001	Tr.	0.	
#5				850-920	0.22			Nil	Tr.	
#5				920-960	0.38			Nil	0.	
#5				960-1014	0.31			Tr.	0.	
#5				1014-1070	0.35		0.002	Tr.	0.	

SAN JUAN PROPERTY

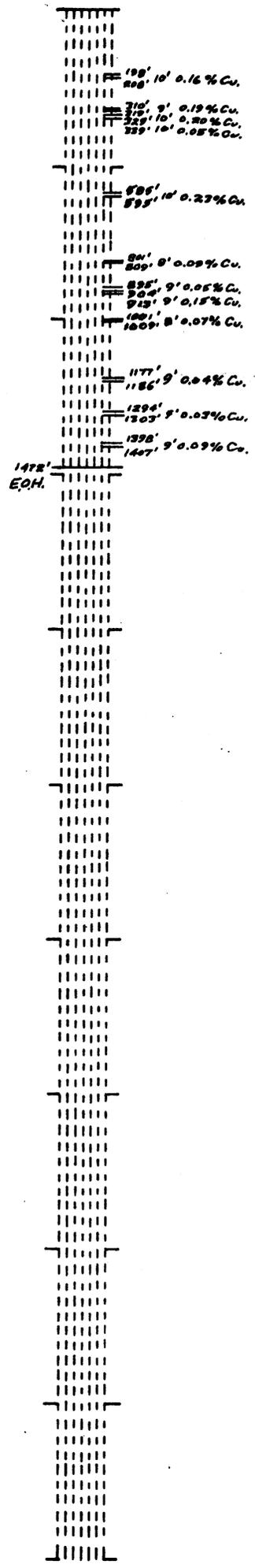
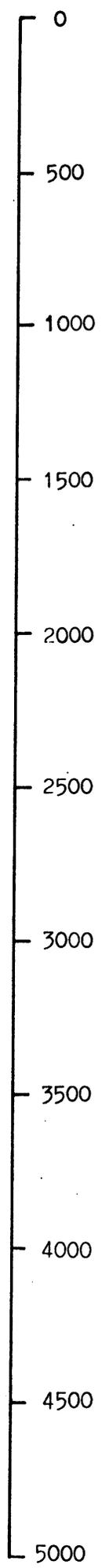
Anderson Co. - DDH's (continued)

<u>Hole No.</u>	<u>Interval (feet)</u>	<u>Tot. Cu.%</u>	<u>Approx. Base of Oxides (feet)</u>	<u>Kerr-McGee Oil Industries, Inc. assays</u>					
				<u>Interval (feet)</u>	<u>Tot. Cu.%</u>	<u>Ox. Cu.%</u>	<u>Mo. %</u>	<u>Au.</u>	<u>A</u>
#5				1070-1120	0.14			Nil	0
#5				1120-1230	0.21			0.01	0
#5				1230-1280	0.32			Nil	0
#5				1280-1311	0.19				0



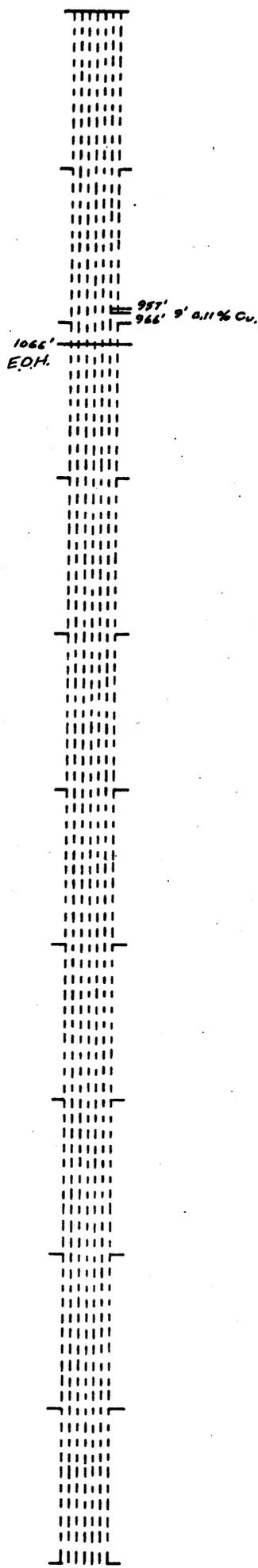
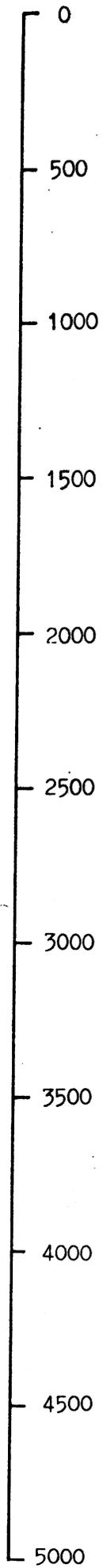
D.P.H. 1

SCALE: 1" = 500'



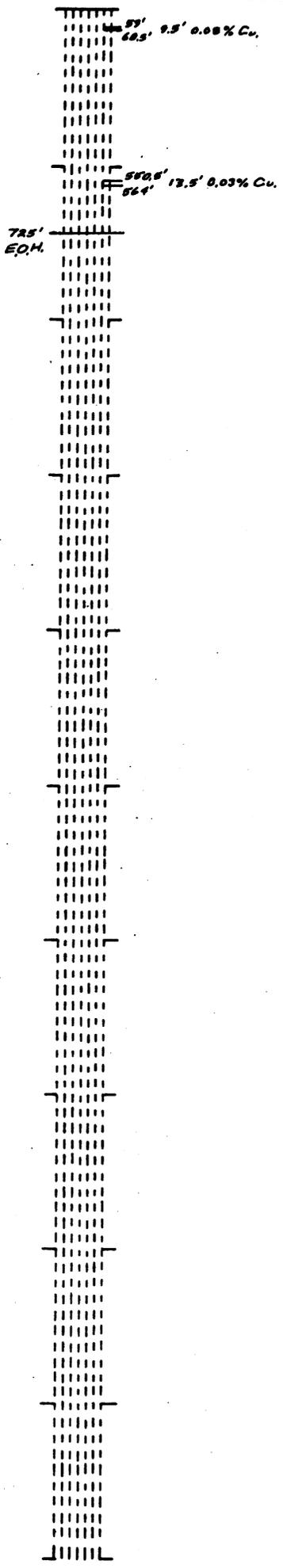
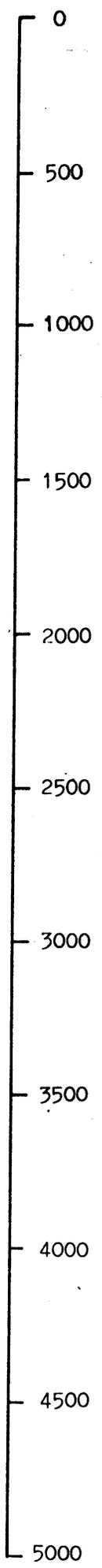


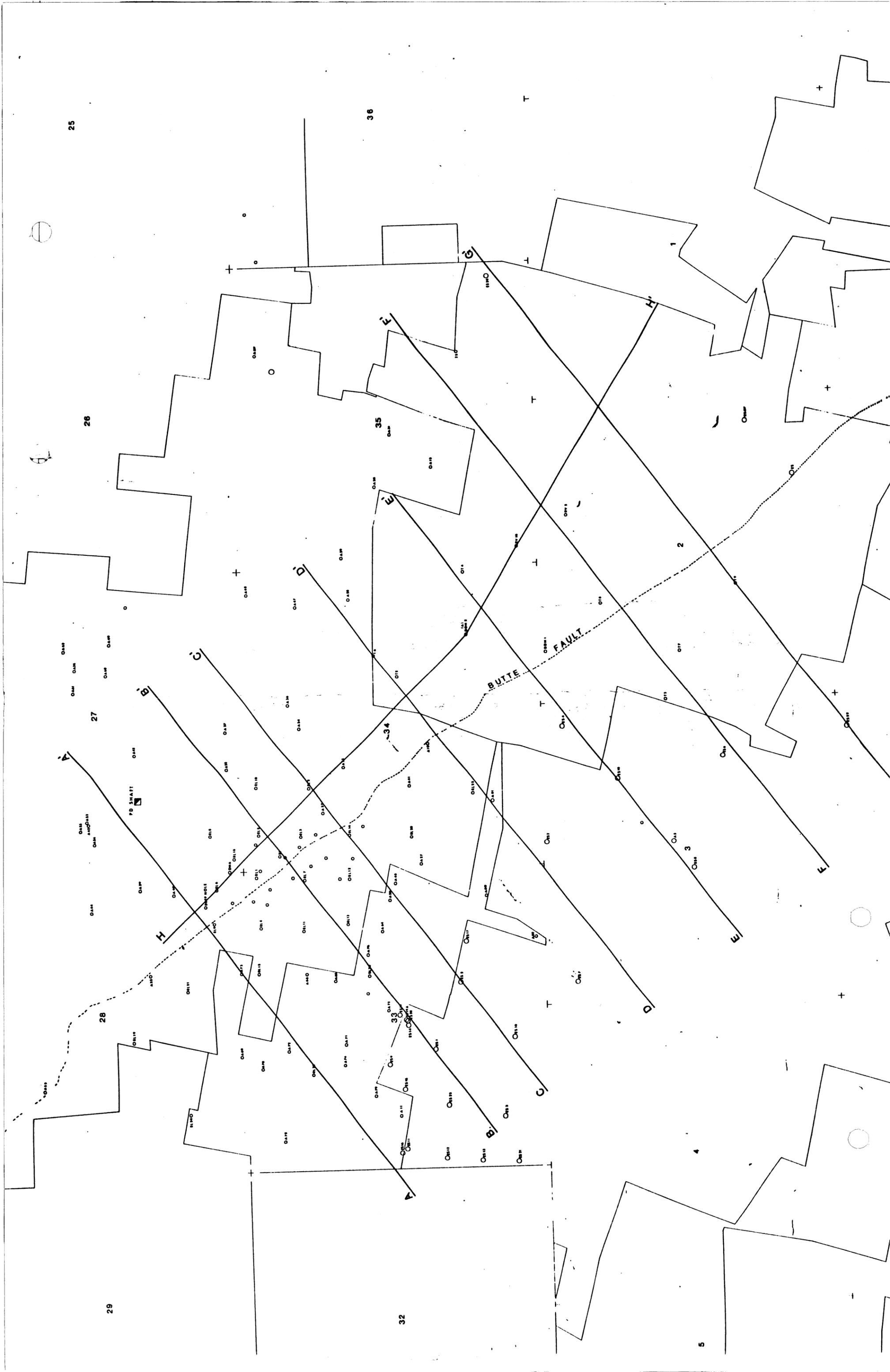
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BUTTE FAULT

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