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RECONNAISSANCE EVALUATION

CATALINA CLAIM GROUP

T22S, R16E & R17E

Santa Cruz County, Arizona

for

Robert T. Englund

&

R. C. Campbell

May 31 & June 1 & 2, 1960

CATALINA CLAIM GROUP

Santa Cruz County, Arizona

INTRODUCTION

At the request of Mr. R. C. Campbell of 5972 East Waverly Place, Tucson, Arizona on 24 May 1960, the Catalina Claim Group was examined on 31 May thru 2 June 1960 in reconnaissance fashion to determine the advisability of holding any or all of the claims and completing the location work on them.

RECOMMENDATIONS

Expense and effort required to complete location work and hold such a large group of claims in this area from presently available data seems hardly justified and is not recommended. More detailed examination could reveal some important factors missed in such a necessarily brief coverage of such a large area. However, the probability for anything currently more than economically marginal is considered very slim. This is especially true when relatively compared with other more favorable existing and available opportunities for equivalent investment in similar venture-risk capital exploration programs elsewhere.

Without any especially favorable geologic indications, it is difficult to appraise how, where or if geophysics would be useful. However, there is no question that wildcat geophysics, such as magnetics or geochem reconnaissance, would help to

further evaluate the area, even if only more negatively, and should be considered before any further wildcat exploration is attempted. In any case, no additional work of any sort is recommended without more detailed geological examination, mapping and sampling. Following this, if encouraging results were obtained, then geophysical work should be considered along with other methods for continuing the exploration.

CONCLUSIONS

Although there is technically base metal mineralization throughout much of the district, evidence of any major deposit seems to be lacking--at least at the surface. No major intrusive body was seen in the area which might have carried a large mineralizing charge. No significant bodies of limestone, schist or other types of more favorable host rocks which might serve as major replacement areas were noted. The only apparent potential appears to be with veins and faults, none of which are exceptionally large or strongly altered.

In general, we feel that the district is not too favorable for a large major copper deposit near the surface. There is, however, some possibility for small high grade pockets or veins. This would be more particularly true in the eastern sector, say sections 22 & 23. Small deposits of possible high grade lead, silver and zinc could exist almost anywhere in the area, but more favorably in the central to western portion. Based on

known occurrences, they would most likely be found along, in,
or near dikes and faults, similar to the presently observed
old workings.

Depending on specific objectives, a few claims on a few of these occurrences might well be held during any period of active work in the vicinity. Most important of these observed within the present claim group would be the Sheehy and Meadow Valley prospects and the La Plata and New York prospects NE of the claim group. All of these, as reported by Schrader, were somewhat more optimistically cited than our present observations would indicate was justified.

LOCATION AND ACCESSABILITY

The 234 claims of the group are located south of the Canelo Hills in the Coronado National Forest in Santa Cruz County, Ariz. They cover all of Sec. 17, 19, 20, 21 & 22 of R17E, T22S and parts of Sec. 16, 18, 23, R17E, T22S and parts of Sec. 24, R16E, T22S. The western portion of the claim group is about 6 miles southeast of the town of Patagonia.

There are three routes by which the property may be reached by vehicle. The poorest is by following Redrock Canyon upstream from the Siebold Ranch in Section 4, R16E, T22S. A slightly better trail road starts at the Bergier Ranch in Section 23, R16E, T22S and goes easterly into the property. The best road goes from the Canelo Road, northerly, entering the property

in Section 21, R17E, T22S. A four wheel drive vehicle is a practical necessity.

GEOLOGY

No modern geology map was found available and in the brief time spent no practical geologic mapping was possible. In the near future the Arizona State Bureau of Mines will publish, for public purchase, a geologic map of Santa Cruz County as one of a series they are putting out covering all counties of the State of Arizona. This may likely show some modifications of that put out previously. We used as a reference a map by Schrader and Hill--Plate II of U.S.G.S. Bulletin 582, "Mineral Deposits of the Santa Rita and Patagonia Mountains, Arizona" published in 1915. This map shows in general, that the area covered by the Catalina claims is capped by Tertiary Andesite and/or Basalt, a brownish, porphorite extrusive igneous rock. In the western part of the group there is Tertiary rhyolite overlying the Andesite-Basalt and in places intruding it. This rhyolite often weathers to bright oranges and reds and is responsible for some of the geographic names in the vicinity. In the extreme eastern sector there is some granite porphory lying northeast-southwest across sections 23 and 24 forming an island between the Andesite and the Carboniferous-Devonian limestones of the Canelo Hills. A few basic dikes are shown to the west of the claims, and a few siliceous rhyolite porphory dikes are shown

in sections 14, 15, 16 & 23 to the east, along which some of the prospects and old mines occur.

We found no strong exceptions with Schrader's map except in detail where he does not show any of the dikes that are present and much of the faulting and shearing. Also, some areas of igneous intrusive rock of possibly dioritic composition, etc. are not shown.

Although not greatly complex there is considerable geologic variation in rock type and facies as well as structural changes. These have a definite bearing on the known mineralized outcrops and former workings and close geologic mapping would be advisable before attempting any major exploration in the area.

No petrographic work, thin sections, or assaying was done, so conclusions as to rock types and minerals are based on field identification of hand specimens. Rock types noted include rhyolite, basalt, granite, limestone, jasper, sandstone, conglomerate, and very acid and very basic dikes. Minerals include malachite, azurite, chalcopryrite, pyrite, galena, sphalerite, manganese, hematite, limonite and possibly silver sulphide and doubtless others not noted.

PROCEDURE AND SCOPE OF OPERATION

After preliminary search for and study of available literature and maps pertaining to the area, Mr. W. E. Heinrichs, Jr., and Mr. John W. Marlatt of Heinrichs GEOEXploration Co. of Tucson, went to the Patagonia area on 31 May 1960 and had some

discussion there with Mr. Robert Lenon under whose auspices the ground had been located. In company of a guide furnished by Mr. Lenon the party then proceeded to reconnoiter the claimed area. June 1 and part of June 2, 1960 were also spent in the field. A four wheel drive vehicle was used to drive over the accessible ground and this was supplemented by walking over the more rugged terrain. All in-operative mines and prospect pits that could be located in this space of time were visited and studied, including those nearby, but outside the claim boundaries. No mining is presently being done in the immediate area although there has been some recent minor dozing and shallow-wagon drilling with little apparent success.



Respectfully submitted,
HEINRICHS GEOEXPLORATION CO.

Walter E. Heinrichs, Jr.

John W. Marlatt

9 June 1960
P. O. Box 5671
Tucson, Arizona

July 5, 1960

Wait

MEMO TO: Mr. R. C. Campbell

Re: San Pedro Area, Santa Fe County, New Mexico

1. Land Situation. In a general sense the land situation is good in that it involves dealing mainly with two or three principals: owner of the San Pedro Mine, owner of the San Pedro Land Grant, and possibly some minor claim holders. Any ground possibly open for staking would be to the north and west of the anomaly of interest. We have on file, letters of former contacts with the two principals.
2. Geology. We have on file some detail of the San Pedro Mine area and a little of a more regional scope. We also have at least a partial list of publications pertaining to the area. Of particular interest is a map showing a major fault crossing the anomaly of interest.
3. Geophysics. We have done reconnaissance and some detail magnetics. Several anomalies were found with at least one detailed. It is a closed anomaly of over 500 gammas. Others look interesting. Several more geophysical methods would be applicable, such as Electro-magnetics, Induced potential, self potential, gravity and geochem.
4. Past Production. Monetary: Gross of over \$20,000,000.00
Minerals: Copper, gold, manganese, and magnetite iron. Possibly others.
5. Aids to exploration and development. a). Close to Albuquerque for supplies and manpower. b). Roads are good and everything of interest is readily accessible. c) good climate. d) Plentiful water should be easily developed. e) Power, etc. available.
6. Factors why it should be especially attractive for a deal.
 - a) Principals involved are accustomed to large financial deals and on being approached previously were anxious to get some action started.
 - b) If an immediate drill target is desired, the one anomaly that was detailed is worthy of drilling without further work although more work over it might be desirable.
 - c) The San Pedro Mine was approved for a considerable D.M.E. loan which was never used but likely could be re-instated.
 - d) Geophysical anomalies and large inferred ore tonnages were obtained some years ago by another independent operation.

Walt

Things to consider for a business deal between Ralph Campbell and Heinrichs Geoexploration Company.

1. Mr. Campbell will attempt to raise venture capital.
2. Both parties will co-operate in selecting areas of interest.
3. Heinrichs Geoex will do necessary land studies and stake claims out of money put up by backer.
4. Mr. Campbell will negotiate with land owners when private land is involved and get paid for this out of funds put up by backer.
5. Geology and/or geophysics will be done by GEOEX out of money put up by backer.
6. Initial drilling by Campbell done by money out of fund by backer. Further detailed drilling by either Campbell or independent contractor as seems advisable. Core logging and interpretation by Geoex in consultation with Campbell.
7. Financial agreement with backer: 50/50 or 60/40 split along best deal Campbell can make.
8. From above (7) the arranged split to be evenly divided between GEOEX and Campbell.
9. Draw up a legal agreement involving above to be signed by all concerned.

July 5, 1960

Company

R. Campbell

Location

Diablo Canyon Mine

Date

6/30/60

Description:

25' face North side

Westerly striking structure

magnetic association on shear zone

Assay Cu, Mo

Sample

Nº

2577

Gas Tickets

62765.9

62388

377

6/1/60

Rich - 118

410

5/1/60

Unm 97

349

1 oil @ 50

top. 02

4.01

Campbell & Englin

6/30/60

Whitlow's Ranch Dam
Queen Creek Reservoir.

T 1 $\frac{1}{2}$ 25

R 10 $\frac{1}{2}$ 11 E

Gila Indian Reservation
So Boundary

GEORGE FIBRE

SE

1 & 3 cc.

Campbell F

PRELIMINARY RECONNAISSANCE EXAMINATION

Date: 17 JUNE, 1960

By: JOHN W. Marlatt & Ralph Campbell

Name of Property: Mineral Butte area State: Arizona County: Pinal

Location: on E around Sec. 36 T35, R7E, Pinal Co. District: Blackwater

Date of this Report: 18 JUNE, 1960 By: J.W.M.

Map & Aerial Photo Ref.: Pinal Co. Geology, Pinal Co. General Hwy. Sheet #3 Sacaton Quad.

Extent of Property: a couple of square miles

Ownership (Name & Address): Leased or Optioned to (Name & Address):
major part on Gila River Indian Reservation possibly. Rest unknown.

- Facilities:
- (a) Accessibilities (Roads, Trails, etc.): Good from two directions. See Co. Hwy. map
 - (f) Water: Table not deep nearby.
 - (b) Air Fields: Easily constructed. (g) Labor: Should be readily available.
 - (c) Power: Close (h) Climate: Arid
 - (d) Telephone: NO (i) Supply Source: Florence, Coolidge, Phoenix
 - (e) Housing: NO (j) Miscellaneous: Railroads on both sides.

Type of Deposit: (Describe briefly under following headings; Structure, Lithology, Mineralogy, Stratigraphic conditions, Physiographic conditions, Reserves, Possible Extensions, Geology, Geophysics & Drilling):

Some small production from oxide coppers. Some sulfide present especially one zone of disseminated pyrite. Schist & igneous rocks including granite, diorite, and probably alaskite, rhyolite & monzonite. NO sediments seen. Considerable alteration & some faulting. Several old large diameter churn drill holes reported to be 1916. Some recent Mine Workings: (Brief description of methods used, map to be attached if available) dozing.

old shafts & stopes. Little dump material as every thing was shipped.

Production Data: (Past, present and possible future) not over a few hundred tons - mainly oxidized copper. Reported as about 5%

Sampling and Analysis: (By whom--Results)

None done.

PRELIMINARY RECONNAISSANCE EXAMINATION

Mining Equipment on Property: NONE
Date:

Mill Equipment on Property: NONE
By: County: State:

Misc. Equipment on Property: NONE
District: By: Location: Date of this Report:

Camp Facilities: NONE
Map & Aerial Photo Ref.: Extent of Property:

Ore Reserve Estimates: NO estimate
Leased or Optioned to (Name & Address): Ownership (Name & Address):

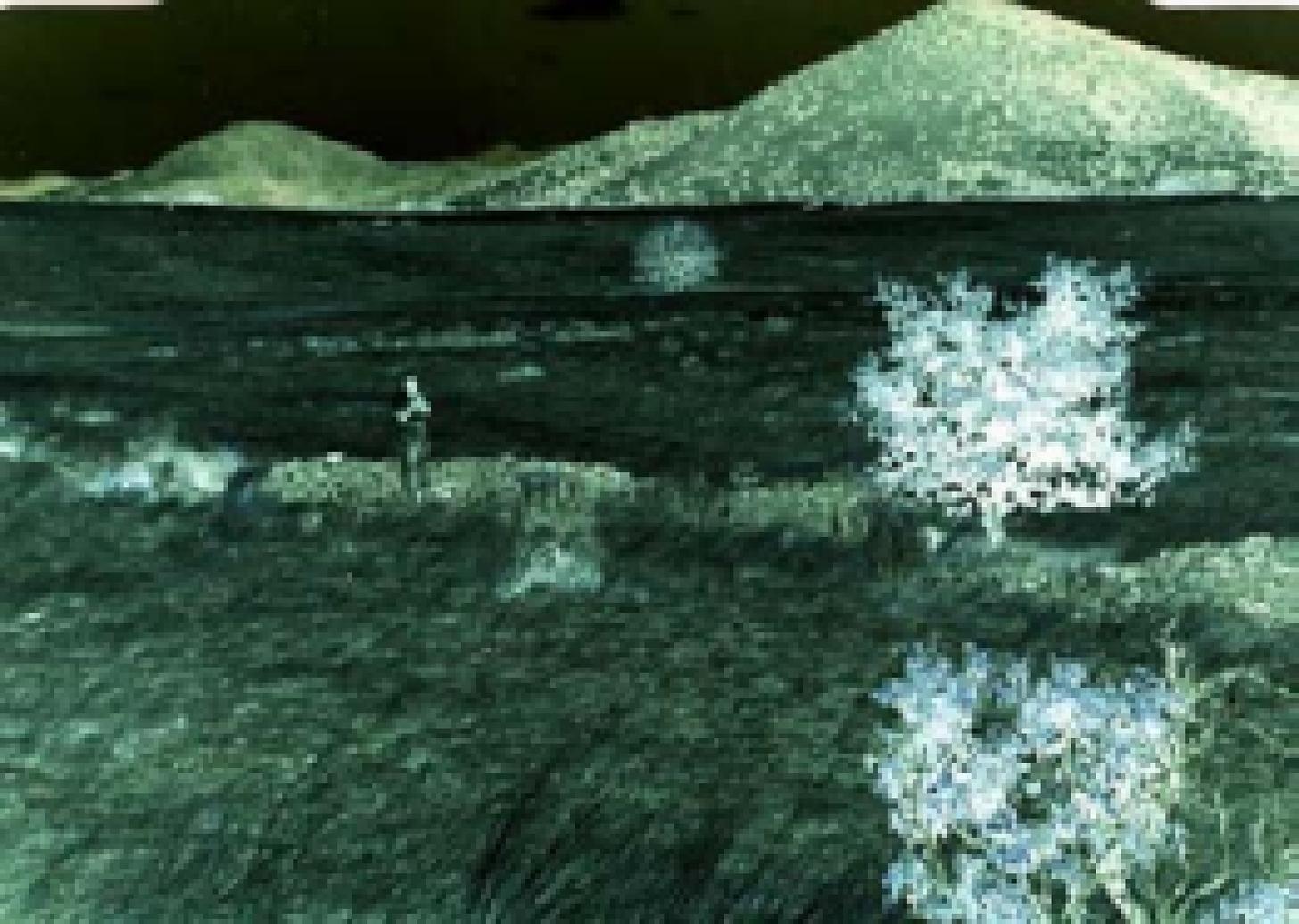
Recommendations and Conclusions: Rock types are favorable for copper mineralization in this region. Considerable alteration & leaching might have formed an enrichment ore body. Disseminated sulphide is reported & is likely at depth, but whether economic or not is debatable. Land status might be quite good even though much of it might have to be negotiated with Indian Service - at least it does not appear that

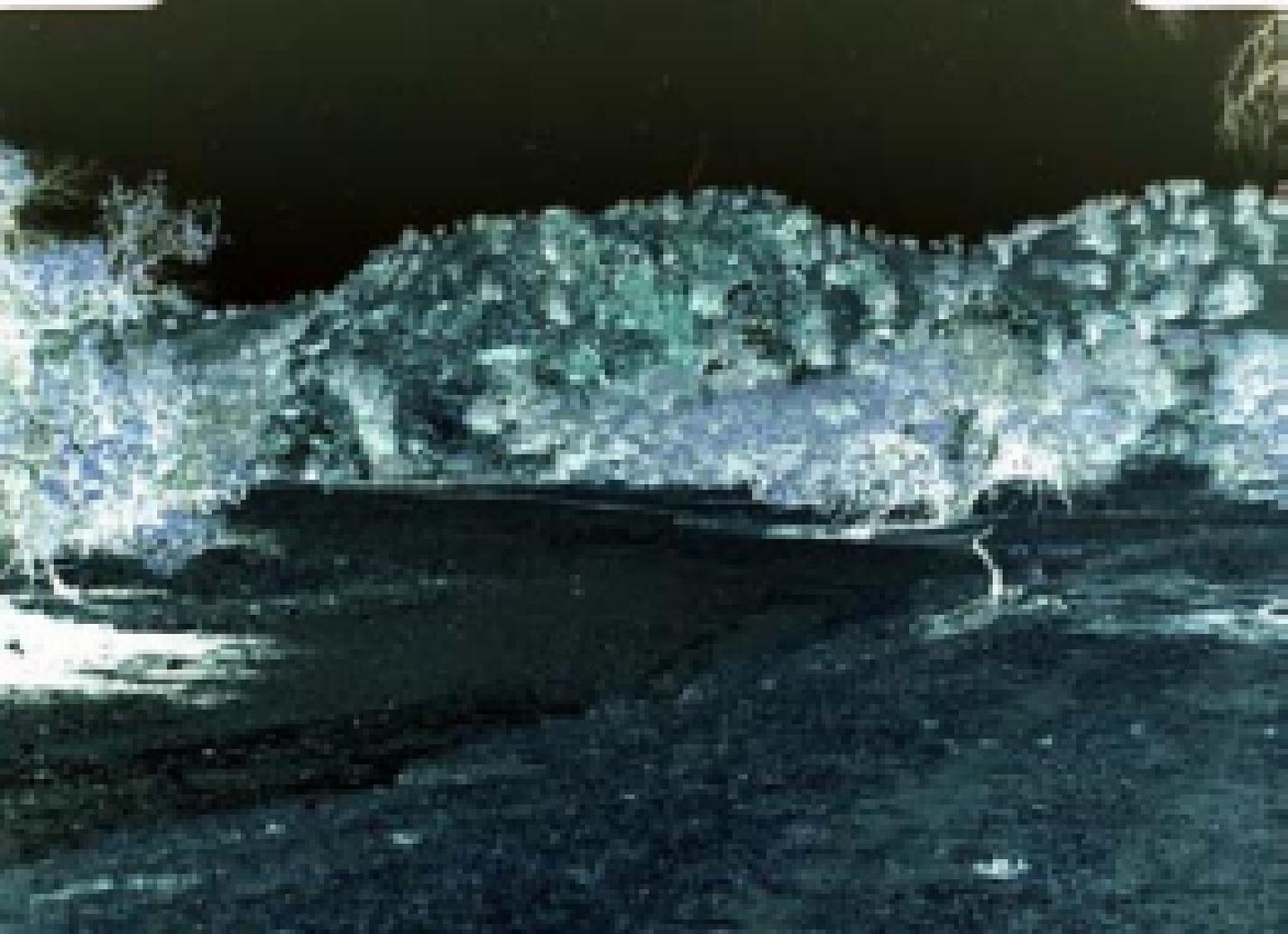
References: (Bibliography, Maps, Former Workers or Engineers)

there would be a lot of individual parcels to be dealt for.

A quick MoMag reconnaissance might be of value and the terrain is not bad - could get essential coverage in one day. Geology would need to be mapped in detail. After above two things, I. P. could be used if it seemed warranted to continue. Property offers some wildcat potential but would proceed cautiously and cheaply until more favorable indications were uncovered.

SLIDES

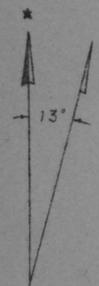




T 2 25
R 16 E R 17 E

T 2 25
R 17 E R 18 E

81	80	153	152	99	98														
83	82	155	154	101	100														
85	84	157	156	103	102														
87	86	159	158	105	104														
89	88	161	160	107	106														
91	90	163	162	109	108														
93	92	165	164	111	110														
95	94	167	166	113	112														
97	96	169	168	115	114														
61A	62	45	44	27	26	243	242	225	224	207	206	135	134	117	116	171	170	189	188
63	64	47	46	29	28	245	244	227	226	209	208	137	136	119	118	173	172	191	190
65	66	49	48	31	30	247	246	229	228	211	210	139	138	121	120	175	174	193	192
67	68	51	50	33	32	249	248	231	230	213	212	141	140	123	122	177	176	195	194
69	70	53	52	35	34	251	250	233	232	215	214	143	142	125	124	179	178	197	196
71	72	55	54	37	36	253	252	235	234	217	216	145	144	127	126	181	180	199	198
73	74	57	56	39	38	255	254	237	236	219	218	147	146	129	128	183	182	201	200
75	76	59	58	41	40	257	256	239	238	221	220	149	148	131	130	185	184	203	202
77	78	61	60	43	42	259	258	241	240	223	222	151	150	133	132	187	186	205	204

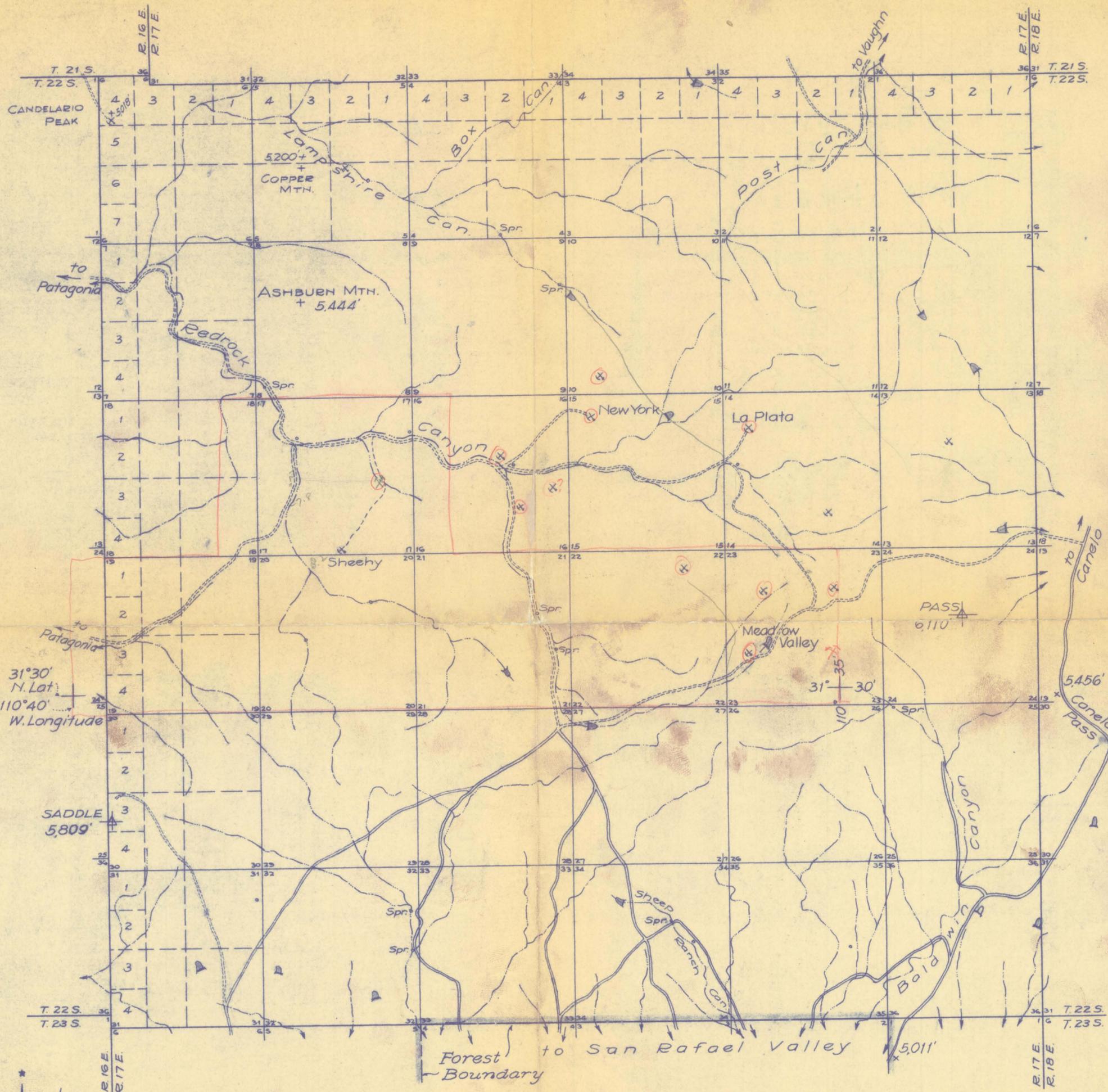


R. C. Campbell II
 Sketch Map of
 Catalina Group
 Redrock Area
 1" = 2000 Feet

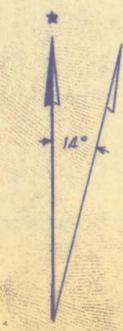
R. 16 E.

Range 17 East

R. 18 E.



31° 30'
N. Lat.
110° 40'
W. Longitude

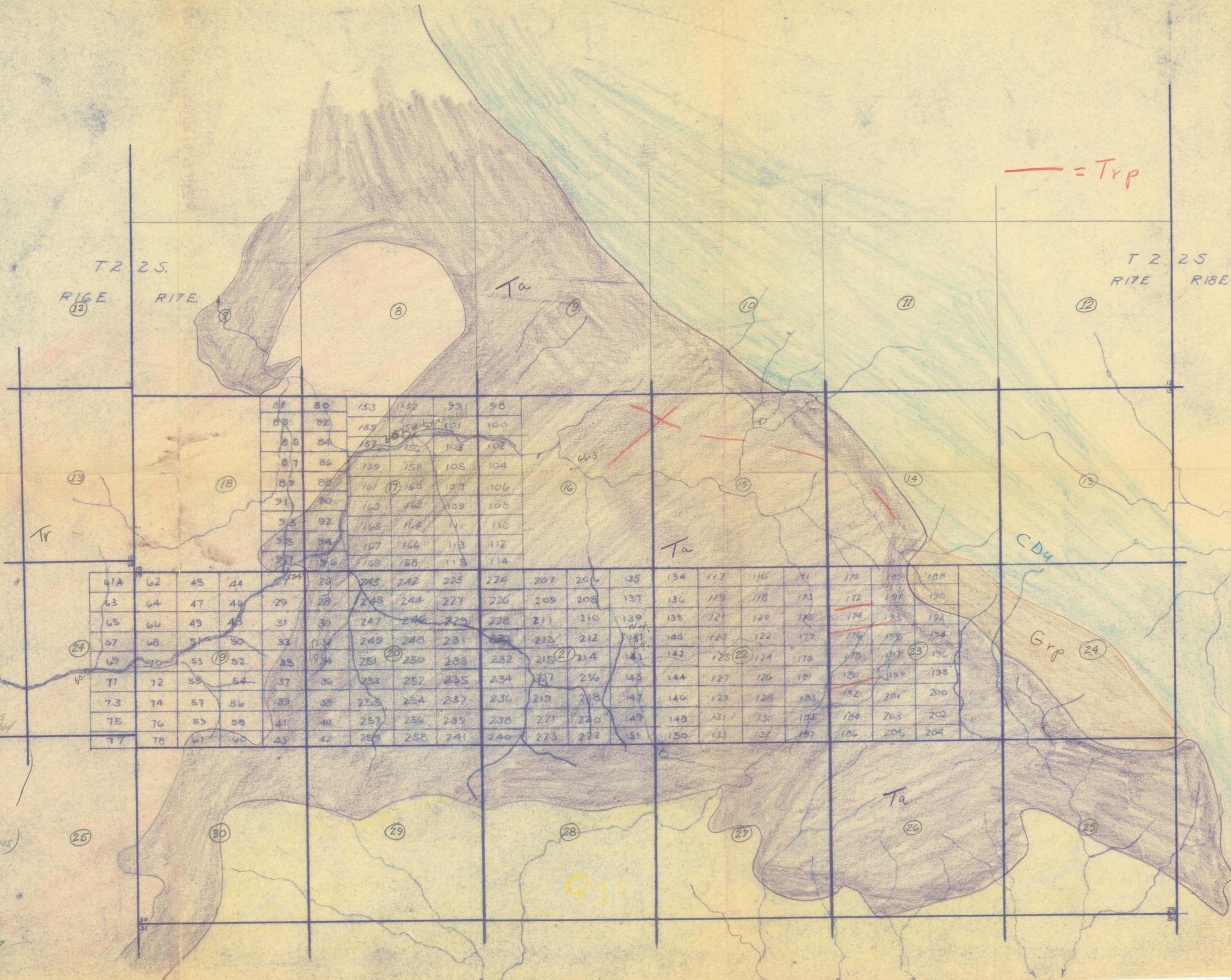


MAP OF T. 22 S., R. 17 E.
 Showing Land-lines, Roads, Principal Mines & Prospects,
 Settlements, Drainage, Benchmarks, and Triangulation Stations.
 Compiled by: Robt. Lenon, Reg. Min. Engr. & Mineral Surveyor, G.L.O.
 Patagonia, Arizona July, 1947 Rev. 1/59
 2 in. = 1 mile 2 Miles
 0 1/2 1 2 Miles
 1,000 0 5,000 10,000 Feet

T. 21 S.

Township 22 South

T. 23 S.



— = Trp

T2 25
R16E

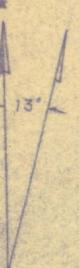
T2 25
R18E

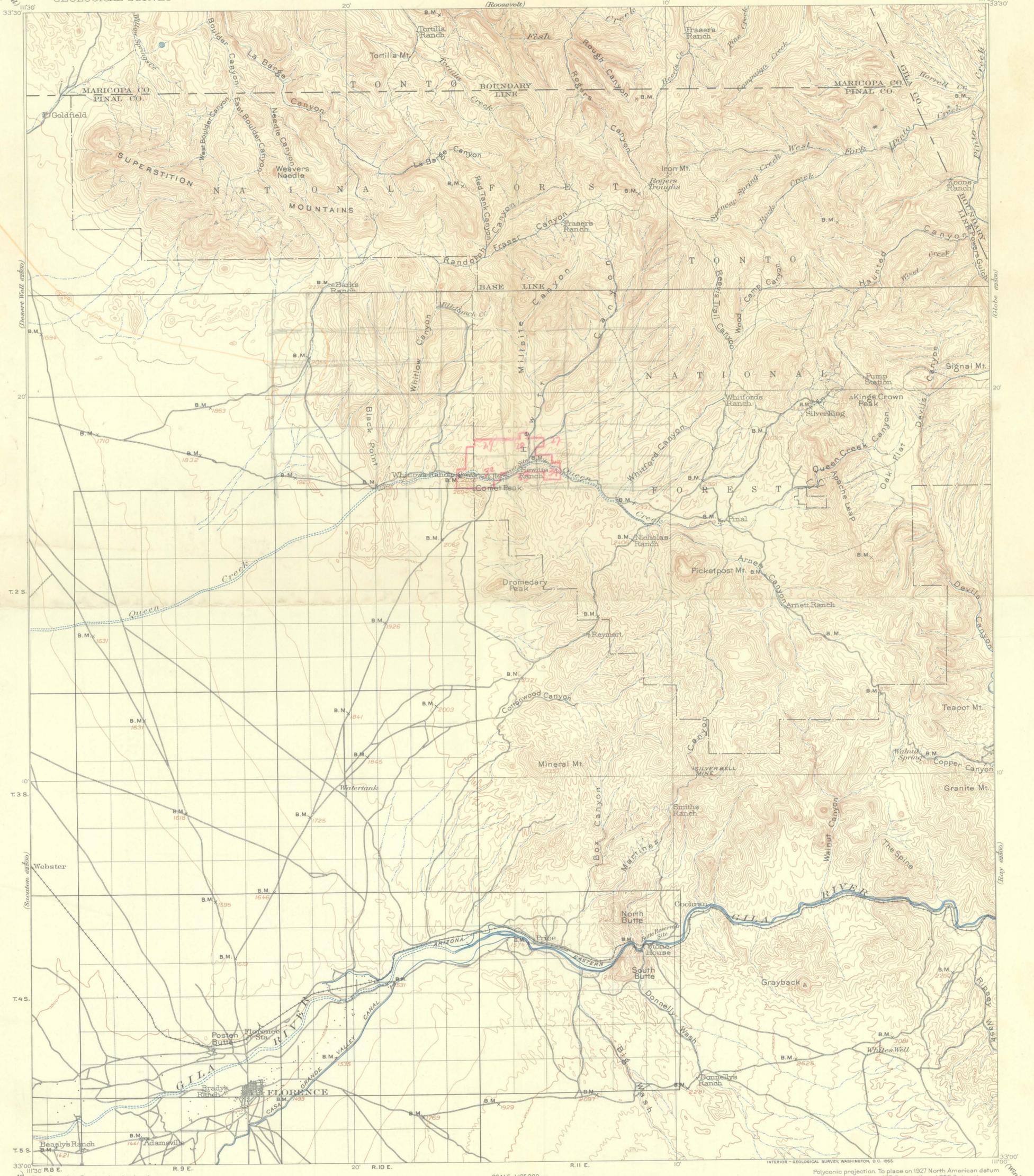
81	80	53	52	53	58
82	82	55	54	55	60
83	84	57	56	57	62
85	86	59	58	59	64
87	88	61	60	61	66
89	90	63	62	63	68
91	92	65	64	65	70
93	94	67	66	67	72
95	96	69	68	69	74

61A	62	43	44	24	20	245	242	225	224	207	206	135	134	117	116	171	170	185	188
63	64	47	48	29	28	245	244	227	226	209	208	137	136	119	118	173	172	191	190
65	66	49	48	31	30	247	246	229	228	211	210	139	138	121	120	175	174	193	192
67	68	51	50	33	32	249	248	231	230	213	212	141	140	123	122	177	176	195	194
69	70	53	52	35	34	251	250	233	232	215	214	143	142	125	124	179	178	197	196
71	72	55	54	37	36	253	252	235	234	217	216	145	144	127	126	181	180	199	198
73	74	57	56	39	38	255	254	237	236	219	218	147	146	129	128	183	182	201	200
75	76	59	58	41	40	257	256	239	238	221	220	149	148	131	130	185	184	203	202
77	78	61	60	43	42	259	258	241	240	223	222	151	150	133	132	187	186	205	204

- Qgs = Quaternary gravels & sand
- CDu = Carboniferous-Devonian Limestones undifferentiated
- Ta = Tertiary andesite
- Tr = " rhyolite
- Tpr = " " porphyry dices
- Bd = Basic dices
- Grp = Granite porphyry (cretaceous)

Sketch Map of
Catalina Group
Redrock Area
1" = 2000 feet
T225 R16, 17E





Dr. McAdams
1882

(Desert Well station)

(Vacation station)

(Signal Peak)

(Roosevelt)

(Rocky Mountain)

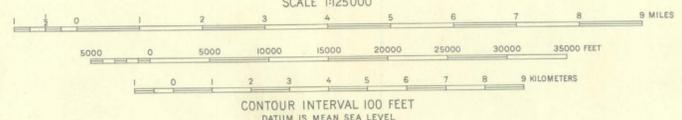
(Troy station)

(Windsor)

E. M. Douglas, Geographer in charge.
Triangulation by A. H. Thompson.
Topography by T. M. Bannon and W. J. Lloyd.
Surveyed in 1900.

DIAGRAM OF TOWNSHIP

6	5	4	3	2	1
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36



Interior - Geological Survey, Washington, D.C. 1905

Polyconic projection. To place on 1927 North American datum move projection lines 465 feet south and 350 feet west.

Maps of the Haunted Canyon, Iron Mtn., Picketpost Mtn., and Superior quadrangles, scale 1:24,000, from later and more detailed surveys, covering the northeast quarter of this area, are available.

FLORENCE, ARIZ.
N3300-W1100/30
1900