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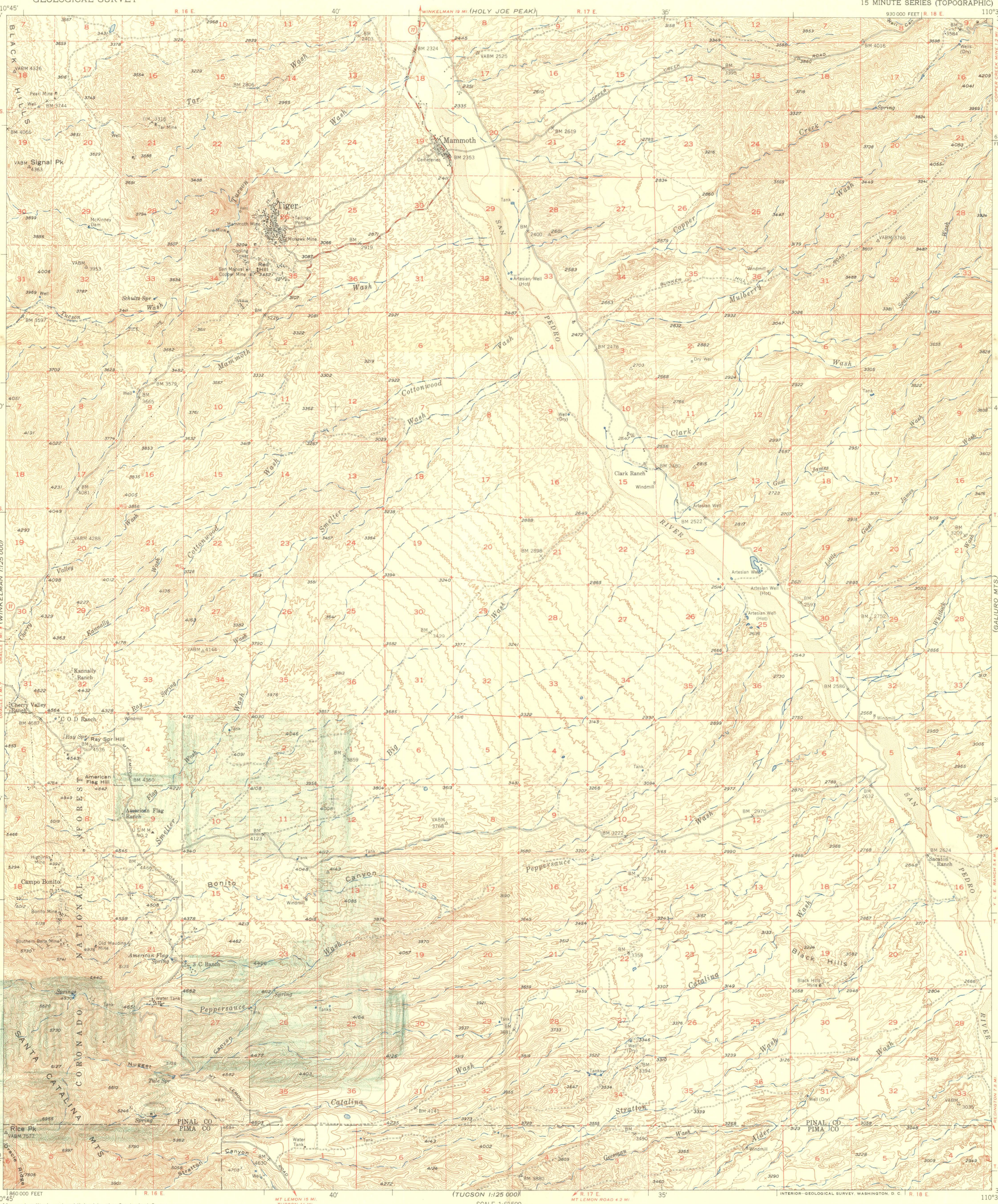
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

MAMMOTH QUADRANGLE
ARIZONA
15 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography from aerial photographs by multiplex methods
Aerial photographs taken 1945. Field check 1948

Polyconic projection. 1927 North American datum
10,000-foot grid based on Arizona coordinate system, central zone

Dashed land lines indicate approximate location

TRUE NORTH
MAGNETIC NORTH
14°
APPROXIMATE MEAN DECLINATION, 1948

SCALE 1:62 500

1 ½ 0 1 2 3 4 MILES

3000 0 3000 6000 9000 12000 15000 18000 21000 FEET

1 .5 0 1 2 3 4 5 KILOMETERS

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS

FOR SALE BY U. S. GEOLOGICAL SURVEY, FEDERAL CENTER, DENVER, COLORADO OR WASHINGTON 25, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

Maps of the Campo Bonito, Clark Ranch, Mammoth and Peppersauce Wash quadrangles, scale 1:24 000, covering this area are available.

ROAD CLASSIFICATION

Heavy-duty — 4 LANE | 6 LANE
Medium-duty — 4 LANE | 6 LANE
Light-duty
Unimproved dirt
U. S. Route
State Route

MAMMOTH, ARIZ.
N3230—W11030/15

EDITION OF 1951

RECEIVED MAR 1 1961

NORMAN S. HULL
ATTORNEY AT LAW
404 PIMA BUILDING
149 NORTH STONE AVENUE
TUCSON, ARIZONA
MAIN 4-8521

February 28, 1961

Mr. Walter E. Heinrichs, Jr.
President and General Manager
Heinrichs Geoexploration Company
P. O. Box 5671
Tucson, Arizona

Re: Mr. and Mrs. Theodore J. Vaitses -
3-C Ranch - Mary West Mining Claims

Dear Mr. Heinrichs:

Since you prepared and submitted to me your preliminary reconnaissance investigation under date of July, 1960, the following events have transpired:

1. Suit was filed in Pinal County by the Vaitseses against Border Land And Mining Co., Cause No. 15472, to quiet title to the following property in Township 10 South, Range 16 East, G.&.S.R.B.& M., Pinal County:

South Half of South Half and North Half of Southeast Quarter and Northeast Quarter of Southwest Quarter and Northwest Quarter of Southwest Quarter, Section 22.

East Half of West Half and East Half of Section 24.

Southwest Quarter of Northwest Quarter of Section 26.

North Half of Section 27.

Unpatented mining claims in the name Mary West 50 to 65, 67, 73 to 83, 85 to 93, 109 to 112, 217 to 228, 828, 830, 832, 834, 836, 838, 842, 843 and 844.

In this suit, we assert two theories: First, that we own all of said lands and unpatented mining claims under and by virtue of a deed of June 12, 1959 from Mary West to the Vaitseses; and, second, that said unpatented mining claims, or the vast majority thereof, are invalid and

unsuitable for mining or mining exploration,development, use or patent purposes, in that the lands embraced within their boundaries are of nonmetallic, nonmineral character and in that no discovery has been made therein of lodes or veins of mineral bearing rock as required by the mining laws of the United States of America and the State of Arizona.

This case has been set for trial in the Superior Court, Pinal County, at 10 a.m. March 21. Unless the trial date should be changed, we should be prepared at that time to offer evidence in support of the two theories aforesaid.

2. Suit was filed in Pinal County by the Vaitseses against Mary West, Border Land And Mining Co., and Michael Hodges Realty Co., Cause No. 15430, to enjoin the sale and continued advertisements and offers to sell the unpatented mining claims following:

> Mary West Nos. 2 to 49, 66, 68, 69 to 72, 84, 94 to 108, 113 to 143 (two claims with Nos. 123, 124 and 125), 145 to 216 (two claims Nos. 157 and 158), 231 to 235, 298 to 308, 400, 401, 404, 795 to 812, 900, 901 - all in Pinal County, together with Greenhouse, Greenhouse No. 1, Sitting Bull, and Mary West - all in Pinal County, and together with the following Mary West claims in Pima County: Nos. 866 to 905 inclusive.

The theory of this suit is that all of said unpatented mining claims, or the vast majority thereof, are invalid and unsuitable for mining or mining exploration, development, use or patent purposes, in that the lands embraced within their boundaries are of nonmetallic, nonmineral character and in that no discovery has been made therein of lodes or veins of mineral bearing rock as required by the mining laws of the United States of America and the State of Arizona.

This case has not yet been set for trial. I would appreciate receiving an expression of opinion from you as to whether or not you can, and will, undertake employment to make a more thorough examination and

NORMAN S. HULL
ATTORNEY AT LAW

report covering the mining claims involved in the two suits, whether such a study and report could be completed sufficiently far in advance of the trial date on the quiet title suit to prepare you to testify at the trial on March 21, and whether or not it would be necessary for you to have permission from Border Land And Mining Co. (or from the court) to examine those unpatented mining claims on the forest involved in the injunction suit. Also, I would like to have an estimate of cost covering such examination and report, together with a statement from you as to what additional fees would be involved in the event that you were called upon to testify as a witness in either or both of the above cases. Furthermore, if it appears to you that both cases should be tried at or about the same time, and if you can give me strong reasons for such procedure, then I can request the court to vacate the trial setting in the quiet title action and to set both cases for trial on the same date.

Sincerely,

Norman S. Hull

Norman S. Hull

NSH:er

NORMAN S. HULL
ATTORNEY AT LAW
404 PIMA BUILDING
149 NORTH STONE AVENUE
TUCSON, ARIZONA
MAIN 4-8521

November 2, 1960

RECEIVED NOV - 3 1960

Mr. Walter E. Heinrichs, Jr.
President & General Manager
Heinrichs Geoexploration Company
P.O. Box 5671
Tucson, Arizona

Dear Mr. Heinrichs:

Thank you for your letter to me of October 26 with enclosure.

The defendants have not yet answered the suit which I instituted against them last month contesting their claims on the Forest. Within the next few days, I expect to file another suit against the same defendants (with the exception of the Michael Hodges Realty Company) to contest the validity of the claims on our patented lands. The pending suit is one for injunction and ejectment. The suit to be filed will be to quiet title.

In the event that either or both of the cases are tried, I will undoubtedly need your services in connection with proof of my allegations to the effect the vast majority of the unpatented claims are invalid because the ground is of nonmineral character.

The enclosure with your letter to me of October 26 bears upon both lawsuits. I thank you for your courtesy in letting me borrow it. It is returned herewith.

Sincerely,

Norman S. Hull

Norman S. Hull

NSH:ag
Enclosure

NORMAN S. HULL
ATTORNEY AT LAW
404 PIMA BUILDING
149 NORTH STONE AVENUE
TUCSON, ARIZONA
MAIN 4-8521

RECEIVED AUG 23 1960

August 19, 1960

Heinrichs Geoexploration Company
P.O. Box 5671
Tucson, Arizona

Gentlemen:

Enclosed is check of Theodore J. and Elizabeth B. Vaitses payable to your order in the sum of $662.20, for professional services and expenses billed to me in your statement of July 27.

We decided not to go ahead on the acquisition of the mining claims for the reason that we felt that they were over priced.

Very truly yours,

Norman S. Hull

NSH:ag
Enclosure

NORMAN S. HULL
ATTORNEY AT LAW
404 PIMA BUILDING
149 NORTH STONE AVENUE
TUCSON, ARIZONA
MAIN 4-8521

July 19, 1960

RECEIVED JUL 20 1960

Surety Title and Trust Company
1207 Main Street
Florence, Arizona

Attention: Teresa M. Argel
Title Department

Re: Mary West Mining Claims

COPY

Gentlemen:

Thank you for the list of claims and information supplied in your letter of July 15.

My list does not conform to yours, in that there has been omitted from my list location notices shown on your list to have been recorded with incorrect descriptions. Whether or not the descriptions actually were incorrect, I cannot say.

At your request I am enclosing for your consideration, and return to me at your earliest convenience, your report entitled Abstract No. 11583, which you prepared for me some time ago.

Regulation §185.54 (d) reads as follows:

> "A certificate to an abstract of title must state that the abstract is a full, true, and complete abstract of the location certificate or notice, and all amendments thereof, and of all deeds, instruments, or actions appearing of record purporting to convey or to affect the title to each claim."

Very truly yours,

Norman S. Hull

Norman S. Hull

enclosure
NSH:er

bcc: Mr. Walter E. Heinrichs, Jr.
Heinrichs Geoexploration Company

P. S. Mary Thesis is pressing for prompt action

NORMAN S. HULL
ATTORNEY AT LAW
404 PIMA BUILDING
149 NORTH STONE AVENUE
TUCSON, ARIZONA
MAin 4-8521

RECEIVED JUL 18 1960

July 15, 1960

Mr. Nolen L. McLean
Attorney at Law
187 North Church Street
Tucson, Arizona

Dear Mr. McLean:

Receipt is acknowledged of your letters of July 13 and 15, together with the enclosures and supplemental material referred to therein. I do not understand your comment in your letter of July 15, to the effect that Mrs. West will not tolerate much further delay on closing. I believe that you are aware, from our numerous conferences and mutual exchange of voluminous material, that I am devoting full time to this matter. Mrs. West knows that I have insisted upon the right to examine the ground and that I would not even think of spending $87,000 for unpatented mining claims without having some kind of an idea as to the possibilities of patenting some or all of the claims.

I have retained Heinrichs Geoexploration Company to examine the properties. This company has all of the relevant material which you have delivered to me, and it will undertake the work immediately. In this respect, it would be helpful if Mrs. West would allow the representatives of this company to go over the ground, without interference, and also to examine drill logs, drill cores, assay reports, aerial photographs, maps, etc.

Inasmuch as Mary West located the Sitting Bull, Green House and Green House No. 2 claims as Mary West Cardenas, I think that the deeds should refer to her as formerly Mary West Cardenas.

I have made a rapid examination of both abstracts of title. I am at a loss to understand why the list of unpatented claims annexed to the proposed deed does not contain location notices for the following claims, which appear in the abstract of title No. 11746 (Pinal County),

NORMAN S. HULL
ATTORNEY AT LAW

in addition to location notices for the same claims which are contained in the list:

No. 71	Docket 144	Page 94	Abstract p. 227
No. 72	Docket 144	Page 76	Abstract p. 209
No. 96	Docket 144	Page 119	Abstract p. 252
No. 97	Docket 144	Page 77	Abstract p. 210
No. 98	Docket 144	Page 120	Abstract p. 253
No. 99	Docket 144	Page 78	Abstract p. 211
No. 100	Docket 144	Page 121	Abstract p. 254
No. 101	Docket 144	Page 79	Abstract p. 212
No. 102	Docket 144	Page 122	Abstract p. 255
No. 103	Docket 144	Page 80	Abstract p. 213
No. 104	Docket 144	Page 95	Abstract p. 228
No. 105	Docket 144	Page 81	Abstract p. 214
No. 106	Docket 144	Page 96	Abstract p. 229
No. 107	Docket 144	Page 82	Abstract p. 215
No. 108	Docket 144	Page 97	Abstract p. 230
No. 109	Docket 139	Page 108	Abstract p. 143
No. 113	Docket 144	Page 83	Abstract p. 216
No. 114	Docket 144	Page 88	Abstract p. 221
No. 115	Docket 144	Page 84	Abstract p. 217
No. 116	Docket 144	Page 103	Abstract p. 236
No. 117	Docket 144	Page 85	Abstract p. 218
No. 118	Docket 144	Page 104	Abstract p. 237
No. 119	Docket 144	Page 105	Abstract p. 238
No. 120	Docket 144	Page 64	Abstract p. 197
No. 121	Docket 144	Page 86	Abstract p. 219
No. 123	Docket 144	Page 65	Abstract p. 198
No. 125	Docket 144	Page 87	Abstract p. 220
No. 137	Docket 144	Page 66	Abstract p. 199
No. 145	Docket 152	Page 75	Abstract p. 261
No. 161	Docket 152	Page 74	Abstract p. 260
No. 192	Docket 144	Page 89	Abstract p. 222
No. 193	Docket 144	Page 99	Abstract p. 232
No. 194	Docket 144	Page 90	Abstract p. 223
No. 198	Docket 152	Page 72	Abstract p. 258
No. 199	Docket 152	Page 73	Abstract p. 259
No. 231	Docket 144	Page 100	Abstract p. 233
No. 232	Docket 144	Page 91	Abstract p. 224
No. 233	Docket 144	Page 101	Abstract p. 234
No. 234	Docket 144	Page 92	Abstract p. 225
No. 235	Docket 144	Page 102	Abstract p. 235
No. 828	Docket 159	Page 45	Abstract p. 302

NORMAN S. HULL
ATTORNEY AT LAW

No. 830	Docket 159	Page 46	Abstract p. 303
No. 832	Docket 159	Page 47	Abstract p. 304
No. 834	Docket 159	Page 48	Abstract p. 305
No. 836	Docket 159	Page 49	Abstract p. 306
No. 838	Docket 159	Page 50	Abstract p. 307

I have not had an opportunity of comparing the descriptions in the omitted location notices with the descriptions in the location notices contained in your list. I must assume that both the omitted and the listed location notices apply to the same claims. In any event, it would seem to me that they should all be included in the list annexed to the deed, etc.

Very truly yours,

Norman S. Hull

NSH:er

cc: Mr. and Mrs. Vaitses
Melrose, Massachusetts

Mr. V. E. Mercer
Oracle, Arizona

Mr. Walter E. Heinrichs, Jr.
P. O. Box 5671
Tucson, Arizona

NORMAN S. HULL
ATTORNEY AT LAW
404 PIMA BUILDING
149 NORTH STONE AVENUE
TUCSON, ARIZONA
MAIN 4-8521

RECEIVED JUL 14 1960

July 13, 1960

Mr. Walter E. Heinrichs, Jr.
Heinrichs Geoexploration Company
P. O. Box 5671
Tucson, Arizona

Dear Mr. Heinrichs:

My proposed purchase of Mary West's mining claims is moving up quite rapidly. I think it is time for you and I to confer on what services you can perform for us leading to applications for patents of the unpatented claims.

I have been furnished with an abstract of title prepared by Surety Title & Trust Company, Florence, Arizona, as of July 8, 1960 at 2 p.m. This abstract covers approximately 280 unpatented claims in Pinal County. I will soon be furnished with another abstract brought down to date, covering approximately 40 claims in Pima County. These abstracts can be made available to you for inspection, and they should do away with most, if not all, of the land status investigation mentioned in paragraph one of your letter to me of June 15.

Blanton & Cole have just performed, for Mary West, an on-the-ground inspection of claim corners, notices and location work. Affidavits are in my possession, and you are at liberty to examine these, to the end that it may not be necessary for you to do a complete on-the-ground inspection, as mentioned in paragraph two of your letter of June 15.

Drill cores, drill logs, assays, aerial maps, etc. will be in the hands of V. E. Mercer, ranch manager for my clients, at the Three C Ranch, which is adjacent to the unpatented mining claims. You will be at liberty to examine those articles.

NORMAN S. HULL
ATTORNEY AT LAW

What I am most interested in, as you know, is whether or not the claims, or any of them, are subject to patent. Our decision to purchase the mining claims will hinge largely upon whether or not we have reasonable prospects to patent a substantial number of these claims.

It will be appreciated if you can arrange to drop in to see me on Friday, July 15, or on some day early in the next week.

Very truly yours,

Norman S. Hull

Norman S. Hull

NSH:er

cc: Mr. and Mrs. Vaitses

NORMAN S. HULL
ATTORNEY AT LAW
404 PIMA BUILDING
149 NORTH STONE AVENUE
TUCSON, ARIZONA
MAIN 4-8521

RECEIVED JUN 27 1960

June 24, 1960

Mr. and Mrs. Theodore J. Vaitses
13 Laurel Street
Melrose, Massachusetts

Re: Purchase of Mary West Mining Claims

Dear Mr. and Mrs. Vaitses:

COPY

The agreement which you signed in triplicate is in my office. Mrs. West has not signed it. The situation as it now stands is as follows: Mrs. West is having a local surveying firm, Blanton and Cole, prepare corrected maps and filings of the unpatented claims. She is also arranging to have the Surety Title Company of Florence either issue an abstract of title or issue certificates of title. All of this material should be in my hands within the next two or three weeks.

There probably will be no agreement of purchase and sale signed. In lieu thereof, I will have the opportunity of examining the material mentioned above, and either to accept or reject all of the patented and unpatented claims. Mrs. West has procured a sixty day extension of her option to repurchase the three patented claims, so these claims will present no problem. As to the unpatented claims, she takes the position that all are either good or bad, in that they were all located for her by Blanton and Cole, and that she will not enter into any arrangement permitting us to reject any of those claims. I regard her present position as being beneficial rather than detrimental to us, because we do not have to tie outselves down at this time to any definite commitment. After the material is in my hands, I can determine whether or not there are title complications which would make it expedient for us to refuse to purchase the claims.

I am sending a copy of this letter to Heinrichs Geo-exploration Co., as a partial reply to their letter to me of June 15, of which you have a copy. Until I find

out just what Blanton and Cole are doing, and until I see the title work from the Surety Title Company, I cannot determine whether or not it will be necessary for us to seek help on the matters outlined in the letter of Heinrichs Geoexploration Co.

Sincerely,

NSH:ag

cc: Heinrichs Geoexploration Co.

PRELIMINARY RECONNAISSANCE INVESTIGATION

of

THE MARY WEST MINING CLAIMS

on

THE 3C RANCH, ORACLE, ARIZONA

COPY

for

Mr. & Mrs. Theodore J. Vaitses

July 1960

by

Heinrichs GEOEXploration Company
P. O. Box 5671 Tucson, Arizona

INTRODUCTION

At the request of Mr. Norman S. Hull, attorney for Mr. and Mrs. Theodore J. Vaitses of Melrose, Massachusetts, owners of the 3C Ranch, Oracle, Arizona, Heinrichs Geoexploration Company of Tucson, Arizona agreed to examine the Mary West unpatented mining claims located on the 3C Ranch. It was originally proposed that GEOEX examine all the claims in some detail to evaluate not only their validity, but also the possible potential any or all of them might have for initiating steps toward eventually obtaining mineral patents. However, time being of the essence, it was decided that GEOEX should at this time make only a reconnaissance inspection and evaluation sufficient in scope that some general preliminary conclusions could be drawn and recommendations be made which would aid and guide Mr. Hull and Mr. and Mrs. Vaitses in their negotiations with Mrs. Mary West.

CONCLUSIONS

There is mineralization on many of the claims. We saw it in place--in mine workings underground, in surface exposures, in bulldozed cuts, in stockpiled rocks and dumps and in float. Types, kinds and occurrences are discussed in a later part of this report. However, very little was seen that could be considered as economically producable-grade or tonnage (ore)

today and where the mineralization was of good grade it was erratic in occurrence as small pods, lenses and seams. The best seen was in the major underground workings, but much of these are not accessible to inspection due to water flooding and caving or sluffing.

Mrs. West states that she has many assay reports, drill logs, maps and reports that confirm the presence of sufficient mineralization to warrant patent proceedings. A few of these were shown to us and some are somewhat favorable. However, for patent purposes some of them undoubtedly would not be accepted as evidence as is, because they could not be sufficiently accurately re-checked and confirmed by an independent and unbiased observer, and the places where some of them reportedly were obtained could not, under present conditions, be viewed by a government inspector as is usually required, with the possible exception of properly affidavited drill hole sample evidence.

The government takes the position that no mineral patent will be issued unless sufficient evidence is presented to it that enough indication of mineralization is present on the claim to justify a prudent person to expend further time and effort in attempting to prove up a valuable and workable deposit. There is even some tendency to extend interpretation of the law beyond "prudence" toward actual evidence of <u>present</u> economic potential.

COPY

It would appear that Mrs. West has explored to some degree, by drilling, bulldozing and mining, all the more readily apparent mineral shows. A logical assumption then is that, in places where she has not done any or much development work, there is not sufficient evidence to present a case for a patent. A total of 25 to 30 claims, not including the mica-feldspar area, has had some degree of work done on them other than location holes. Of these, only five olaims seem to offer the best chance of being patentable, they being the ones covered by numbers 118, 135, 137, 139 & 143 over the 4, 12 & 17 mines. Each claim is considered by the government on its own merit and claims adjoining one that looks good and appears favorable for issuance of patent will probably not be considered on any such basis as possible extension of an ore body or vein until this is proven by an actual discovery on that claim.

There appears to be enough scattered mineralization on much of the ranch to encourage prospectors and small operators to keep digging holes and staking claims where the ground is open. So if these claims are allowed to lapse, eventually someone will probably again stake and work on them.

A legal point is involved concerning some of the deposits. Certain natural resources cannot validly be extracted and/or utilized by filing mineral claims on them, but are usable under the Materials Disposal Act. Probably a suitable grade deposit

COPY

of mica and feldspar can be legally located as lode mining claims, but deposits of limestone and quartzite, etc. are questionable cases and must be individually determined by the proper authorities.

RECOMMENDATIONS

Although the ultimate decision rests with the government, we do not feel that any of the claims can be easily patented and that only 4 or 5 have much chance. One thing that could and should be done if patent proceedings are to be initiated is to relocate over the three mined areas--No. 4, No. 12 and No. 17 mines--with new claim groups, so surveyed that a common corner of four claims falls over the better mineralized zone of each mine. This will give a total of at least twelve possibly patentable claims over the three main past producers and best known mineral showings.

If it is desired to try to prove up these claims it will be necessary to assemble all facts and data that Mrs. West has available, to cut for assay some accurate samples of ore in place, prepare some maps, etc., and have visible areas open for viewing by a government inspector. This could involve such things as more dozer work to reopen exposures in trenches and cuts that are covered by caving and sluffing, cleaning faces in underground workings, and conceivably even dewatering the No 4 mine.

COPY

Assessment work for this year must soon be completed. If a transaction is completed that transfers title of the mining claims from Mrs. West to Mr. and Mrs. Vaitses, and they should desire to do so, much of the work done for assessment purposes could be done along the lines mentioned above--that of preparing some of the claims for inspection by a patent official. Also, geophysical work to locate more drill holes which might encounter favorable ore zones that would enhance patent possibilities is applicable to assessment work and should be considered.

If the claims are to be acquired and held we further recommend that existing fractions, or gaps in the claim group be staked immediately as there is open ground in several places that can be located by the Vaitses, Mrs. West (unless she signs an agreement not to engage in any further mineral activity on the ranch) or any third party. Also, going by Blanton and Cole's Map the claims around and over the three patented claims of the Poor Man's Luck group are not valid due to location monuments and notices being posted on the patented claims.

COPY

GEOLOGY AND MINERALIZATION

It was not the purpose of this investigation to work out detailed geology, but since geologic enviornment is important to any ore deposit it is necessary to consider the claims in this light. Before going to the field, two theses on the area,

by R. W. Ludden, Jr. and Calvin S. Bromfield, were obtained from the University of Arizona Library and read. Briefly, these state that the area is underlain by the Oracle granite and resting on it in places are various sedimentary deposits that can be essentially divided into two groups--those laid down in Pre_Cambrian time and those laid down in Paleozoic time. Also present are quartz and diabase dikes and sills that have intruded the granite and Pre-Cambrian sediments.

Mineralization on the Mary West ~~claim~~ group apparently is mainly confined to the granite and Pre-Cambrian sediments and it seems likely that it was controlled and even possibly brought in by the quartz and diabase intrusions. The majority of the mineral occurrences noted were actually in quartz and diabase with some minor amount in the Pioneer shale. The mica and feldspar are in the granite.

The claims are divisable into areal groupings. The ones to the north in the American Flag area contain small veins in the granite and show signs at the surface of having been mineralized. No deep workings were seen on this group. Small concentrations of gold and traces of copper would be expected in them. The mica-feldspar area is a pegmatitic facies of the granite and in places some sizable crystals of these minerals are found, but apparently as yet, a large concentration of them has not been uncoverable. In the area south and east of the ranch

headquarters only an occasional sulfide crystal and minor staining was noted. The incline shaft and drift near the buildings never encountered any mineral of consequence. The claims near the millsite are similar to the largest area to the southwest, in the mountains. Both of these are considered to be essentially lead bearing areas, with accessory silver, some gold and occasionally copper.

Mineralogically the chief minerals of interest on the property are galena, silver (probably contained in the galena), copper ores, leached gossans carrying gold and copper values, orthoclase feldspar and mica.

High grade galena, the ore of lead, was seen in the incline shaft of the No. 4 mine all the way down to the water level. The vein, or seam, where it is exposed contains lenses and pockets of ore and during the mining operations undoubtedly commercial ore was extracted. What still remains and could be viewed does not apparently have sufficient tonnage to be worth extracting. Whether any amount of ore remains in the flooded part of the mine or not is not known by us. Mrs. West has had some good silver assays and silver is a common accessory mineral in galena so presumably it occurs this way on her claims. Fair, to hardly noticeable amounts of galena can be found at most of the other workings. Some nice pieces were found around and in the old No. 17 mine especially, and also in the No. 12 mine.

COPY

Copper minerals are not abundant. Some primary sulfide (chalcopyrite) and some of the green oxidized copper minerals were found at the new No. 17 and the No. 4 mines, but are pretty scarce elsewhere. Mrs. West's statement of some fair to good assays from the quartz veins may indicate that the red, yellow and brown limonite oxidation and box works may carry some copper, possibly in cuprite and chalcocite forms. Her gold assays came mainly from the leached and vuggy quartz and it is usual that such may sometimes carry gold and also usual that seldom can any gold in such an enviornment be seen by the naked eye.

Iron pyrite, psuedomorphs after pyrite and box work left from leached pyrite were found at most of the workings, but not massive or in great abundanse. Mrs. West has had some samples assayed for titanium, but the returns indicate only amounts of no interest. Tungsten ores are a possibility in the area, but they are hard to determine in the field and apparently Mrs. West has not found much encouragement for this mineral although mines just to the north have had some production. A suspected possibility was uranium mineralization, but Mrs. West stated she had had the area thoroughly examined for this possibility with negative results. Mention was also made of molybdenite, but none was seen.

Operating smelters often have a critical need for quartz and limestone for fluxing purposes, etc. Certain minerals contained in quartz often bring premium prices, and there appears

to be a potential on these claims for some of this type of rock but, economically, at present probably the only mill near enough to utilize it would be San Manuel and presumably they have an adequate source elsewhere that supplies their needs for the present.

should have said smelter

The mica and feldspar deposit is large, but appears to be definitely sub-economic in grade and extent. Only two of the workings were actually visited, but they are reportedly the better ones. Intuitively we feel that as Mrs. West rather thoroughly investigated this potential as to means of milling, concentrating and upgrading as well as possible markets, that under present conditions this part of the property cannot be mined and would not be patentable.

COPY

PROCEDURES AND SCOPE

Following discussions with Mr. Hull, phone conversations with all interested parties, and a review of maps, affidavits and other pertinent data, John W. Marlatt and Chris Ludwig of GEOEX examined the property in the field, part of the time in the company of Mrs. West or guides provided by her. Surface exposures were looked at, drill hole sites were visited, whenever possible underground workings were entered, and samples of highest grade mineralization that could be found, as well as general host and country rocks were bagged, tagged and taken to the office for further study. Mrs. West was visited at her

home to see some of the reports, assay results and maps that she has there. Other such data and core were looked at at the mill site office. No accurate sampling was done for assay purposes. Travel was mainly by jeep supplemented by walking where it was not practical to drive.

Much more time and detailed work would be required for a comprehensive and thorough evaluation of this property, but it is felt that the overall picture would not be materially changed.

Respectfully submitted.

John W. Marlatt

John W. Marlatt, Geologist

Approved: W. E. Heinrichs, Jr.

Walter E. Heinrichs, Jr.
Registered Engineer

Registered Professional Engineer (Mining)
CERTIFICATE EXPIRES
WALTER E. HEINRICHS, JR.
DEC. 31, 1960
ARIZONA, U.S.A.

July 25, 1960
P. O. Box 5671
Tucson, Arizona

HEINRICHS GEOEXPLORATION COMPANY
MINERAL ENGINEERING CONSULTANTS AND CONTRACTORS
GEOPHYSICAL, GEOLOGICAL AND ECONOMIC APPRAISALS
TUCSON, ARIZONA

WALTER E. HEINRICHS, JR.
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PHONE: MAIN 2-4202
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MAIL: P. O. BOX 5671

June 15, 1960

Mr. Norman Hull, Attorney
404 Pima Building
Tucson, Arizona

Re: 3C Ranch and vicinity
Mineral Evaluation
and Appraisal

Dear Mr. Hull:

Pursuant to our conversation with you on June 15, 1960 and in accordance with the subjects discussed, the suggestions given below are submitted for your consideration.

The logical procedure may be outlined in four steps:

1. Land status investigation (Pima & Pinal County Courthouses and Bureau of Land Management Office and State Land Department Office in Phoenix.
2. On-the-ground inspection of all claim corners, notices and location work. In conjunction with this, geology and mineralization would be noted to some degree.
3. Ground inspection of possible favorable mineral ground after review of published literature and study of notes made during the claims inspection.
4. Office preparation of report and maps. This report will include: a) recommendations, if any, as to the possibility of taking to patent any presently unpatented lode mining claims; b) the degree of mineralization existing on each claim and its present status.

Now, to break down the above into reasons, methods, time involved, etc. we feel first of all that accurate knowledge of the land status is necessary. You may be already satisfied that the mineral ownership is sufficiently established to warrant ignoring this phase. Otherwise, a complete picture of all patent claims, federal mineral reservations and state owned mineral lands should be established. For instance, simply knowing that a given section of land is state owned is not sufficient, for the federal government has retained the

mineral rights on some state land. Then of course, it is necessary to check on claims recorded on the sections of interest, see if the annual assessment work affidavit has been recorded, etc. This you have done in some measure. All of the above involve visits to the Pinal and Pima County courthouses and some State and Federal offices in Phoenix. We estimate about four (4) days to complete such work and get it on paper with a suitable map.

The next phase, checking the claims and some geology, involves walking over all the claims both on end lines and side lines, to examine the monumenting, notices, and locations and to study outcrops and mineralization from the standpoint of possible economic working to determine if it might be practical to apply for patent. This is estimated to take the better part of ten days.

Following this, it is advisable to study available geological literature on the area. There is some available, including at least two University of Arizona theses. Forearmed with notes and observations made during the broad examination of the claims, plus help from previously published data, areas of specific interest would be examined in some detail for three or four days only.

Finally, a report would be written and appropriate maps prepared. This office work would approximate four days.

On such a job as this we assign an experienced geologist and a helper. The charge for this two man team is $125.00 per day plus a vehicle charge of $7.50 per day and $0.10 per mile travelled. Other direct expenses are charged at cost, such as map reproductions, etc. The estimated total for the work as proposed above amounts to $3000.00 more or less.

The examination might reveal areas that would suggest an active geophysical program of evaluation. This could be done if so desired, to fulfill annual assessment during the next assessment year. We offer a complete geophysical service, utilizing all practical methods, one or more of which are applicable in any area. Charges for these services range from $125.00 to $500.00 per day, plus expenses, depending on which methods are used. In the event you have not already received

one, two copies of our brochure describing these services are enclosed.

In closing, a reminder that we noted on your claim map that several fractions exist that are open for location, as well as some larger areas. If you desire to have any of this ground occupied by claims, we have experienced survey crews available.

Very truly yours,

HEINRICHS GEOEXPLORATION COMPANY

E. Grover Heinrichs
Vice-President & Field Manager

EGH:jh

Encl: 3

March 2, 1961

Mr. Norman S. Hull
Attorney at Law
404 Pima Building
149 North Stone Avenue
Tucson, Arizona

MEMORANDUM

To: Mr. Norman Hull

Re: Addendum to GEOEX report dated July 1960 "Preliminary Reconnaissance Investigation of The Mary West Mining Claims on the 3C Ranch, Oracle, Arizona".

On page 4, in the first paragraph of RECOMMENDATIONS the second sentence is ambiguous and misleading. It should read, in part, as follows:

"---------is to relocate over the three mined areas--No. 4, No. 12 and No. 17 mines--by amending the location of the four claims nearest to each mine, so surveyed that a common corner of four amended claims falls over the better mineralized zone of each mine."

The phrase "new claims groups" used previously is false and misleading since on a truly new claim, no previous work counts for anything, whereas on an amended location all previous work is valid for location, discovery, annual assessment, patent proceedings or whatever.

Time being of the essence when our report was written this was a serious oversight missed in getting it out quickly. We offer our sincere apologies and trust it has not been misleading in any way.

Very truly yours,
HEINRICHS GEOEXPLORATION CO.

J. W. Marlatt, Geologist

JWM:jh

July 25, 1960

MEMORANDUM

To: Mr. Norman Hull

Re: Pink extract from Abstract #11746

It apparently was the intention to amend some of the claims---possibly due to surveying error? The long list of claims beginning with #71 and ending with #838 has bearings and distances changed and the abstract pages penciled on the side beginning 297 and ending 330 appear to be correct. Because there are actually two #125 claims the abstract page 105 is correct for the one in Section 19 and page 277 is correct for the one in the southeast corner of section 30.

It appears that there was similar intention for claims 145, 161, 198 and 199 but on the later notices a typing error is suggested which gave distance and bearing from a corner of Section 21 instead of Section 34. Thus, if this assumption is correct, new notices should be made out correctly, as amended notices, recorded, and copies posted on the claims.

The five instances of duplication in numbers is unfortunate but legal and otherwise of no great concern. The column of Section numbers 21 and 34 with question marks is interpreted as meaning that someone wondered about the references on the notices to corners of these sections. Apparently land office section corner markers are hard to find in the area and the surveying was tied to the respective corners of these two sections that were located. The notices give directions and distances from these fixed points at the section corners.

These conclusions and assumptions should be checked with Blanton and Cole and if correct they should remedy the situation on the four claims mentioned in paragraph two. We called Blanton and Cole but Mr. William Mardon is out in the field and so we could not discuss matters with him at this time.

None of the later notices, presumed to have been intended to be amended notices are so indicated specifically. It is legally recommended that amended notices be so marked though this may not be absolutely necessary.

This is the only sense we could make out of the apparent discrepancies and resulting questions raised.

Very truly yours,

Heinrichs GEOEXploration Co.

John W. Marlatt, Geologist

JWM:jh

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