



CONTACT INFORMATION

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PRINTED: 06/20/2002

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: RIO VISTA MINE

ALTERNATE NAMES:

QUARTZ KING
COPPER TOP

LA PAZ COUNTY MILS NUMBER: 37

LOCATION: TOWNSHIP 10 N RANGE 19 W SECTION 26 QUARTER NE
LATITUDE: N 34DEG 11MIN 02SEC LONGITUDE: W 114DEG 12MIN 06SEC
TOPO MAP NAME: BLACK PEAK - 15 MIN

CURRENT STATUS: PAST PRODUCER

COMMODITY:

COPPER OXIDE
GOLD LODE
SILVER

BIBLIOGRAPHY:

KEITH, S.B., 1978, AZBM BULL. 192, P. 142
ADMMR RIO VISTA MINE FILE
GJBX-213(82), P 83
USGS BULL 451, P 73
AZBM BULL 137, P 127
ADMMR "U" FILE, AU 32
AZ GEOLOGICAL SOCIETY - 1980 SPRNG TOUR P 31
ADMMR QUARTZ KING COLVO FILE

HIST, PHOTOS

RIO VISTA MINE

YUMA COUNTY

USGS Bull. 451 p. 73

ABM Bull. 137 p. 127

Quartz King "U" file
North Sede "U" file

BG&MT BULLETIN 192 - page 142

GJBX-213(82) Pg. 83

MILS Sheet sequence number 0040270344 and 0040270345

Arizona Geological Society - 1980 Spring Tour p. 31 - Geological file

RIO VISTA MINE

Au, Ag

Yuma

14 - 1

T 10 N, R 19 W

E. S. Osborne, Box 1587, Parker

'43

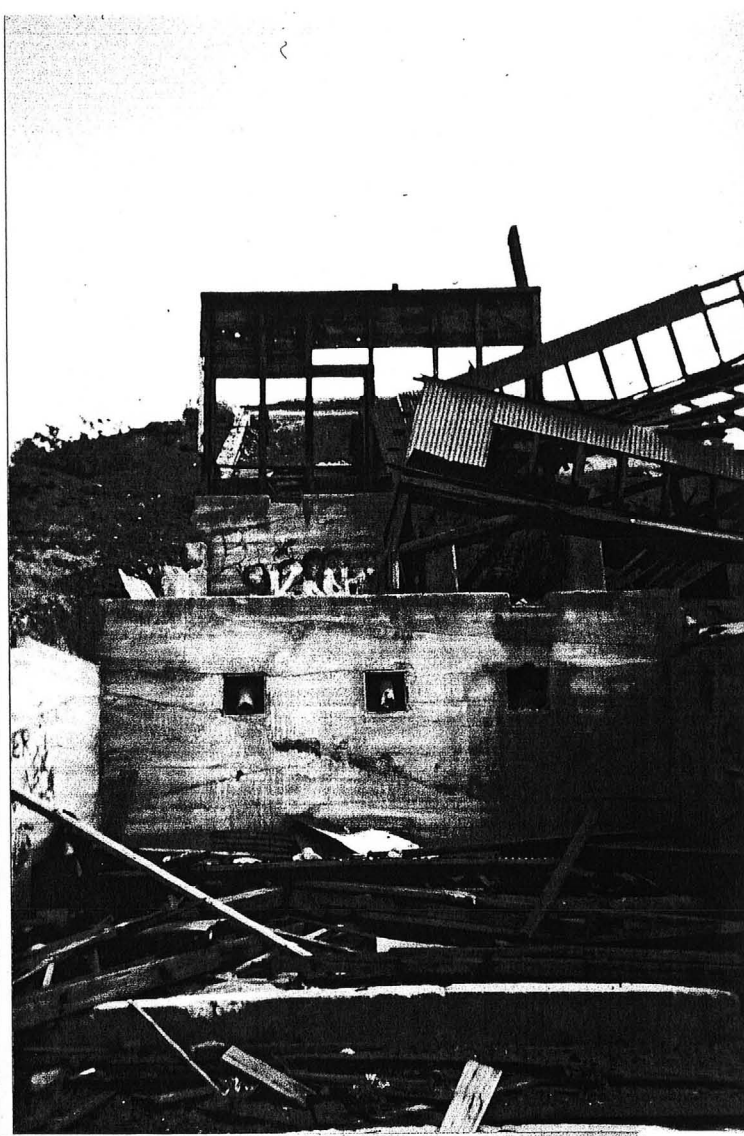
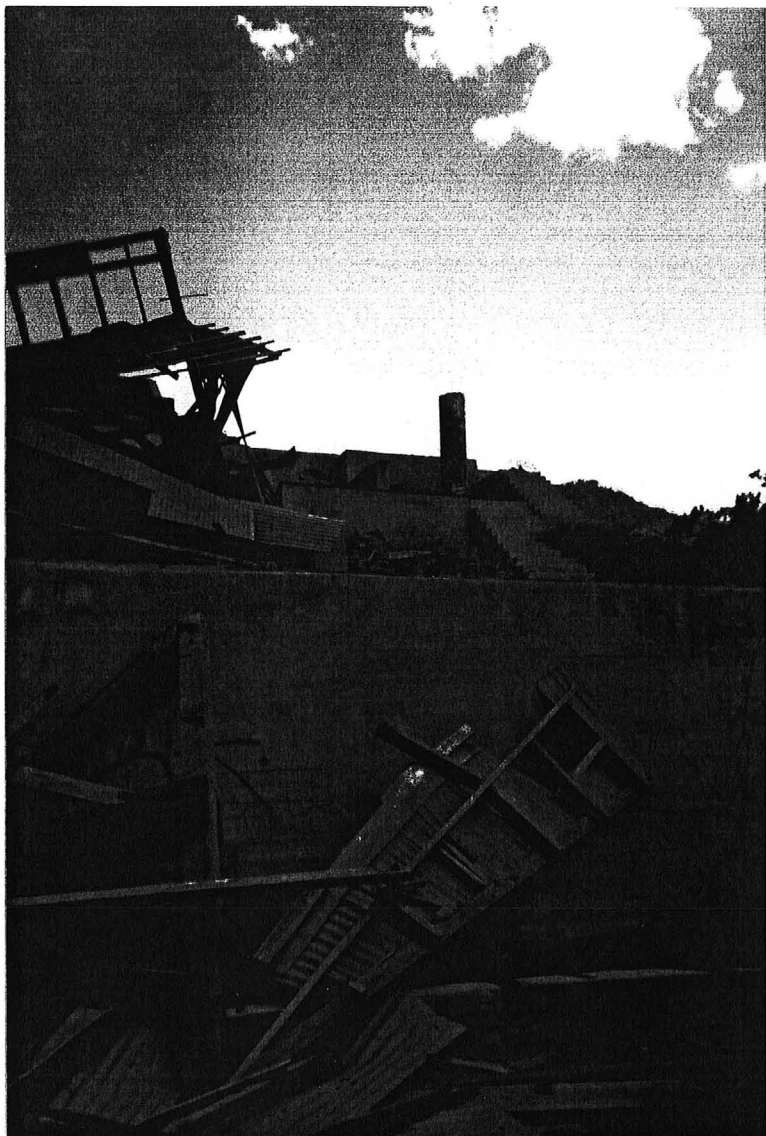
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1st Photo coll.

















FEBRUARY 1965

RIO VISTA MINE

Clara Osborne Botzum - Owner
Box 1617
Parker, Arizona

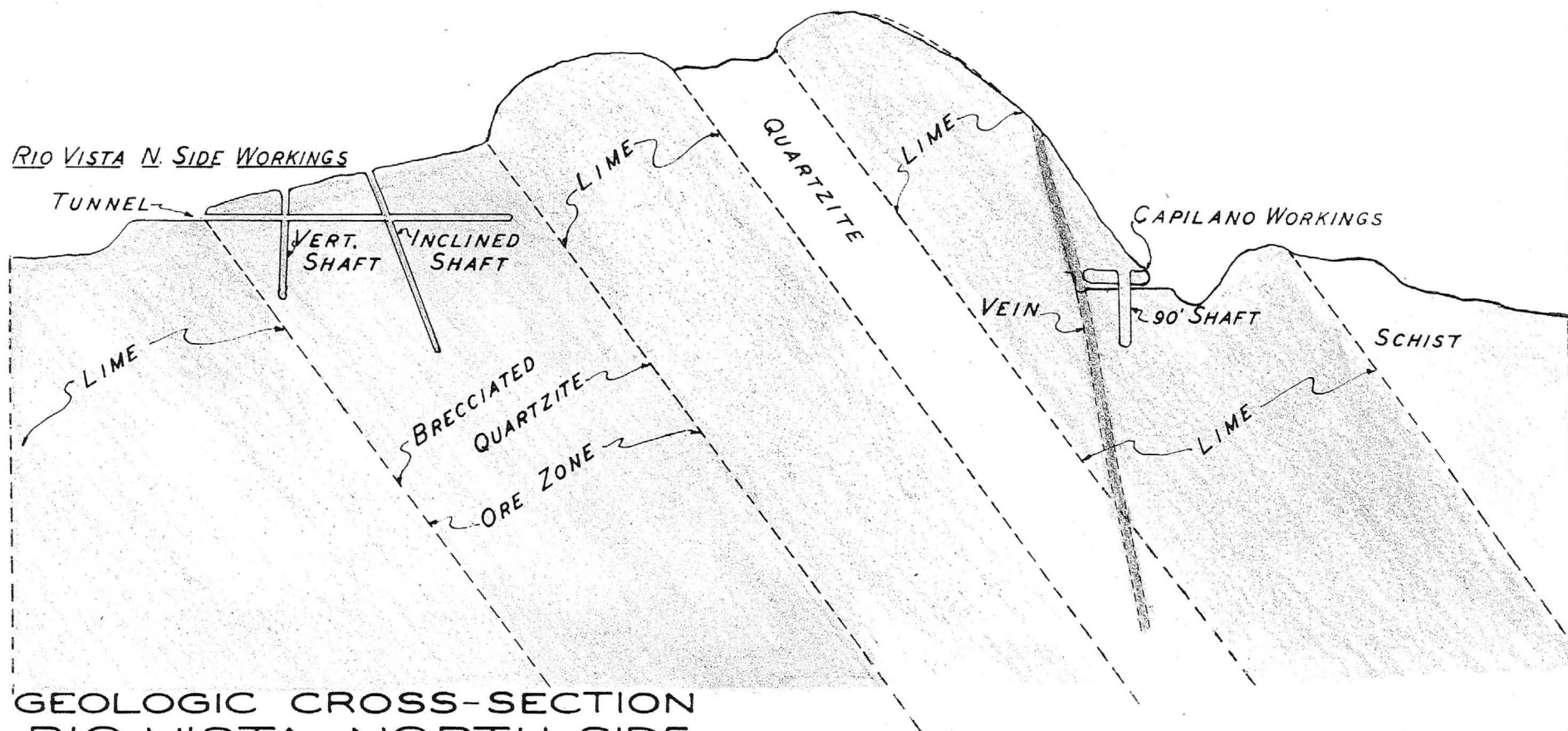
The RIO VISTA mining group consists of twenty-six (26) lode claims (patent pending) located about six (6) miles northeast of Parker, Arizona, Cienega mining District, Yuma County, State of Arizona. Parker is served by the Santa Fe Railroad and is 270 miles from Los Angeles, California, and 165 miles from Phoenix, Arizona. The mine is situated in the west foothills of the Planet Range of mountains. These foothills are rolling at the mine. The mine is reached from Parker over four(4) miles on a paved state highway and two (2) miles of good dirt road maintained by the county.

There is plenty of electric power and water within a mile distance available to this mining property at an economical cost.

There is approximately a quarter of a million dollars in development work upon the Rio Vista Group. There is about 1,000 feet of vertical and incline shaft work and about 3,000 feet of tunnel and other workings. There is considerable surface work on these claims. The main workings are the 6x12 foot timbered vertical double compartment shaft with numerous tunnels and other mine workings on the quartz Hill and Copper Top claims and are known as the Rio Vista South Side workings. There is a 240 foot incline shaft and a 135 foot vertical shaft with number tunnels and other work upon the Quartz Hill No.2 claim known as the Rio Vista North Side workings.

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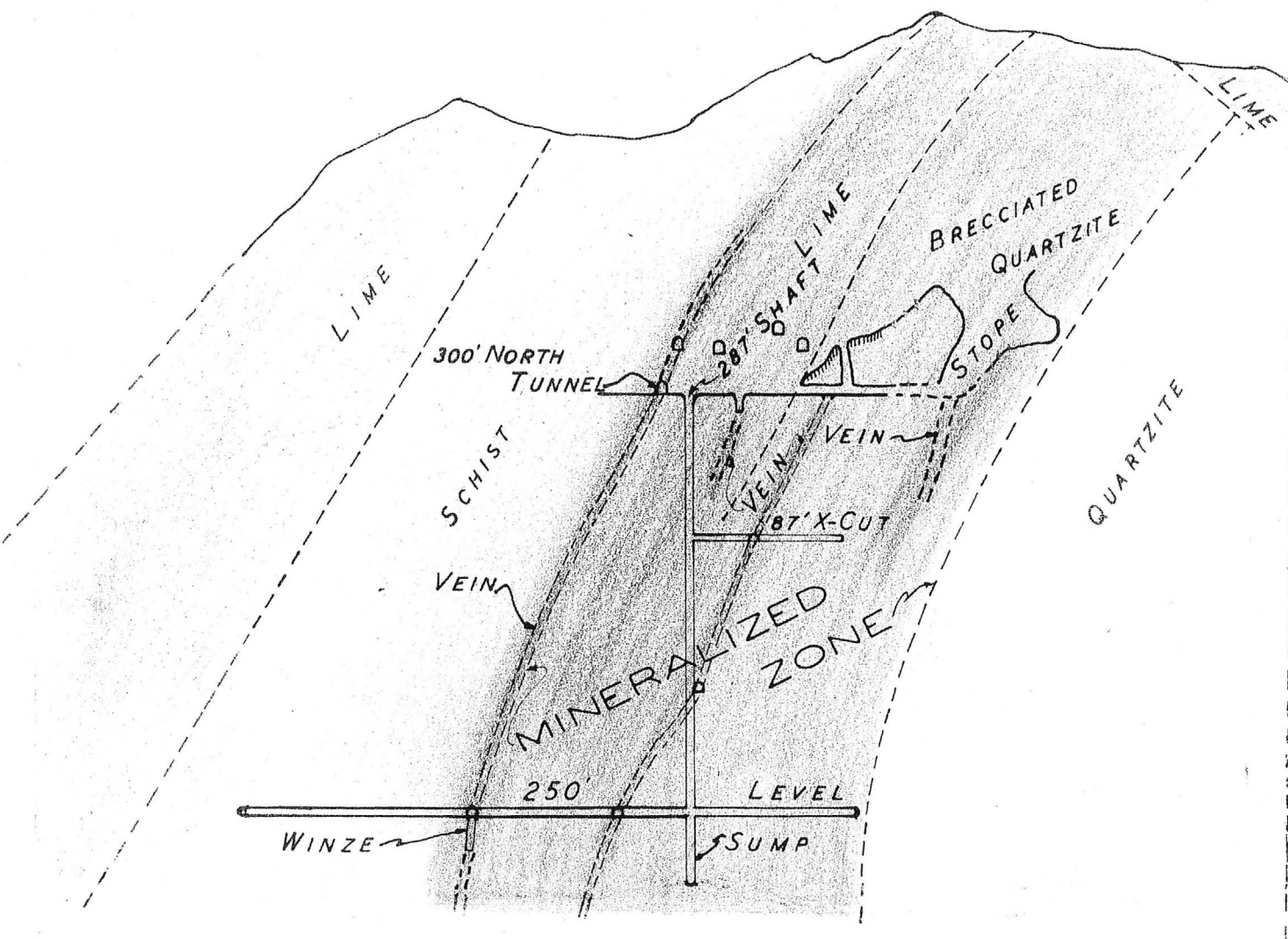


GEOLOGIC CROSS-SECTION
RIO VISTA NORTH SIDE

AND
CAPILANO MINES
CIENEGA DISTRICT
YUMA COUNTY, ARIZ.

SKETCH MAP
LOOKING SOUTH

Scale: 1" = 200'



CROSS-SECTION
 RIO VISTA SOUTH SIDE MINE
 CIENEGA DISTRICT
 YUMA COUNTY, ARIZ.

SKETCH MAP
 Scale: 1" = 100'

710N., R. 19W., G. & S. R.M.

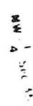
天

NO. 1, 2, 3, 4, 5
ROYALTY TRACY NOS. 1, 2, 3, 4, 5
TRACY, TRACY

Secs. 25, 26, 27, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863

Arizona
Lat. $34^{\circ}10'54''$ N. Long. $114^{\circ}12'24''$ W.
Quartz Hill No. 2

5 Nov 2013



1st
Magnetic Urrington, 15-001

FEBRUARY 1965

RIO VISTA MINE

Clara Osborne Botzum - Owner
Box 1617
Parker, Arizona

The RIO VISTA mining group consists of twenty-six (26) lode claims (patent pending) located about six (6) miles northeast of Parker, Arizona, Cienega mining District, Yuma County, State of Arizona. Parker is served by the Santa Fe Railroad and is 270 miles from Los Angeles, California, and 165 miles from Phoenix, Arizona. The mine is situated in the west foothills of the Planet Range of mountains. These foothills are rolling at the mine. The mine is reached from Parker over four(4) miles on a paved state highway and two (2) miles of good dirt road maintained by the county.

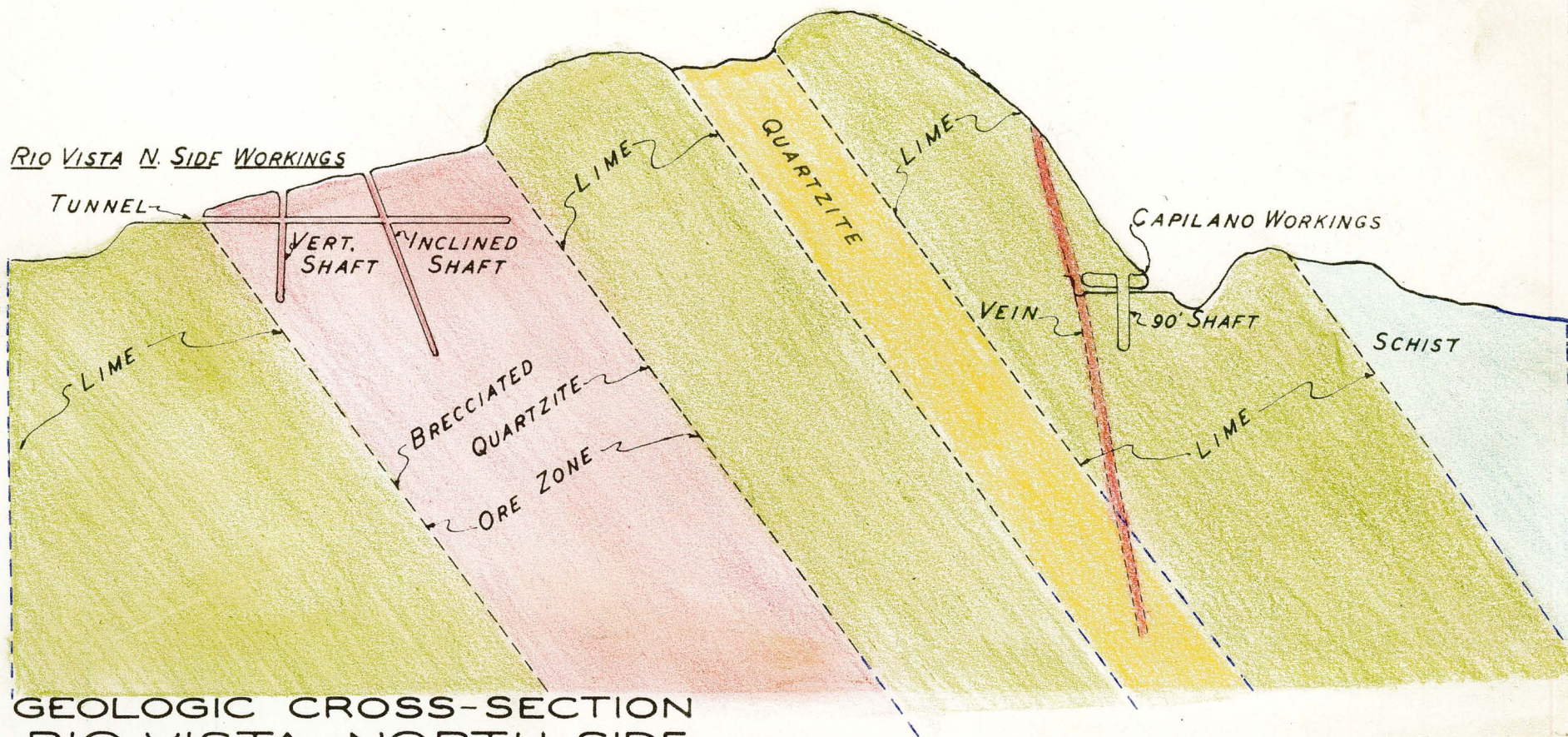
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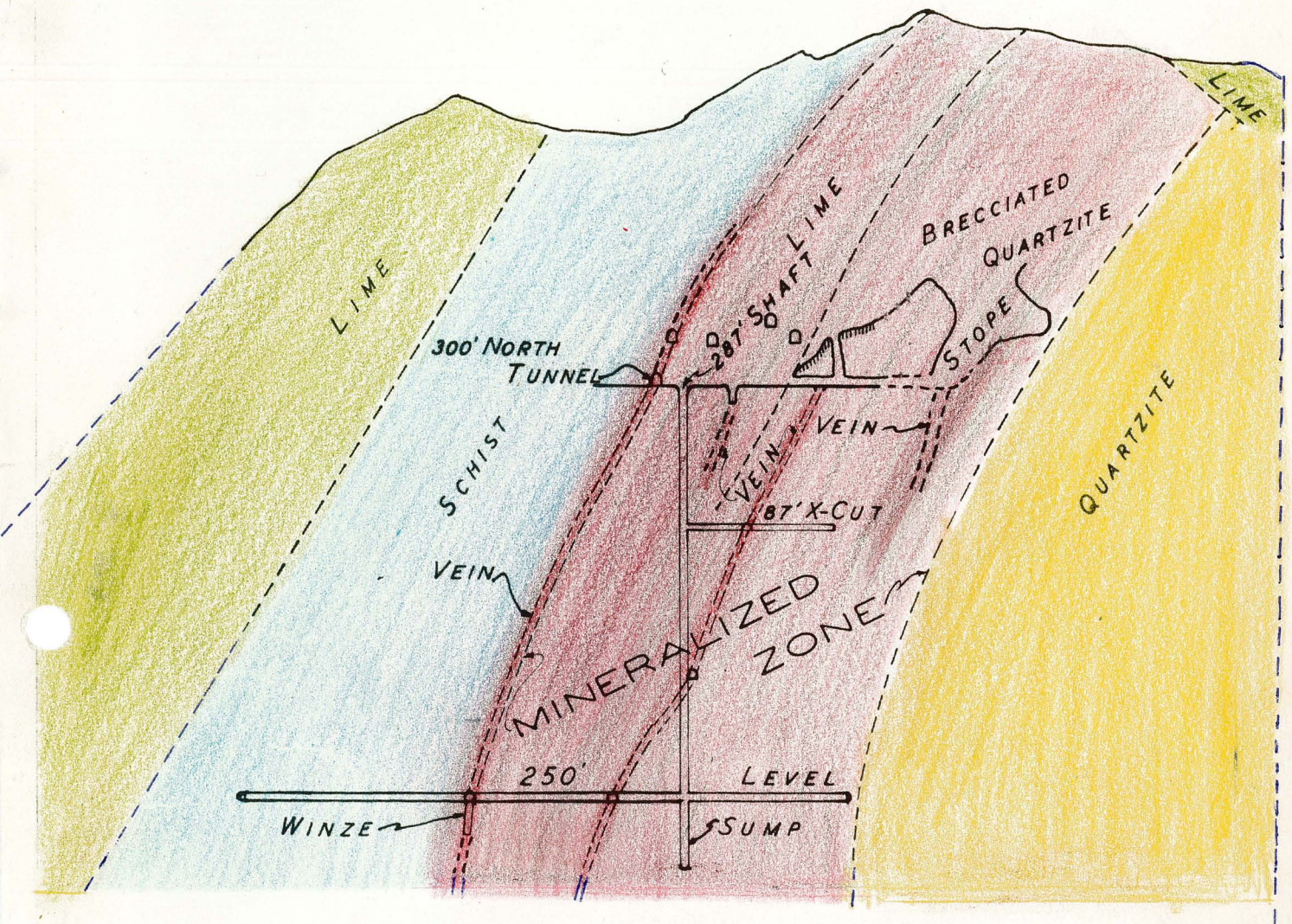
Up to date data will be available shortly.



**GEOLOGIC CROSS-SECTION
RIO VISTA NORTH SIDE
AND
CAPILANO MINES
CIENEGA DISTRICT
YUMA COUNTY, ARIZ.**

**SKETCH MAP
LOOKING SOUTH**

Scale: 1" = 200'



CROSS-SECTION
 RIO VISTA SOUTH SIDE MINE
 CIENEGA DISTRICT
 YUMA COUNTY, ARIZ.

SKETCH MAP
 Scale: 1" = 100'

T.10N., R.19W., S.5R.M.

MINERAL SURVEY
No. 4595
ARIZONA

CLAIM OF
CLARA OSBORNE BOTZUM

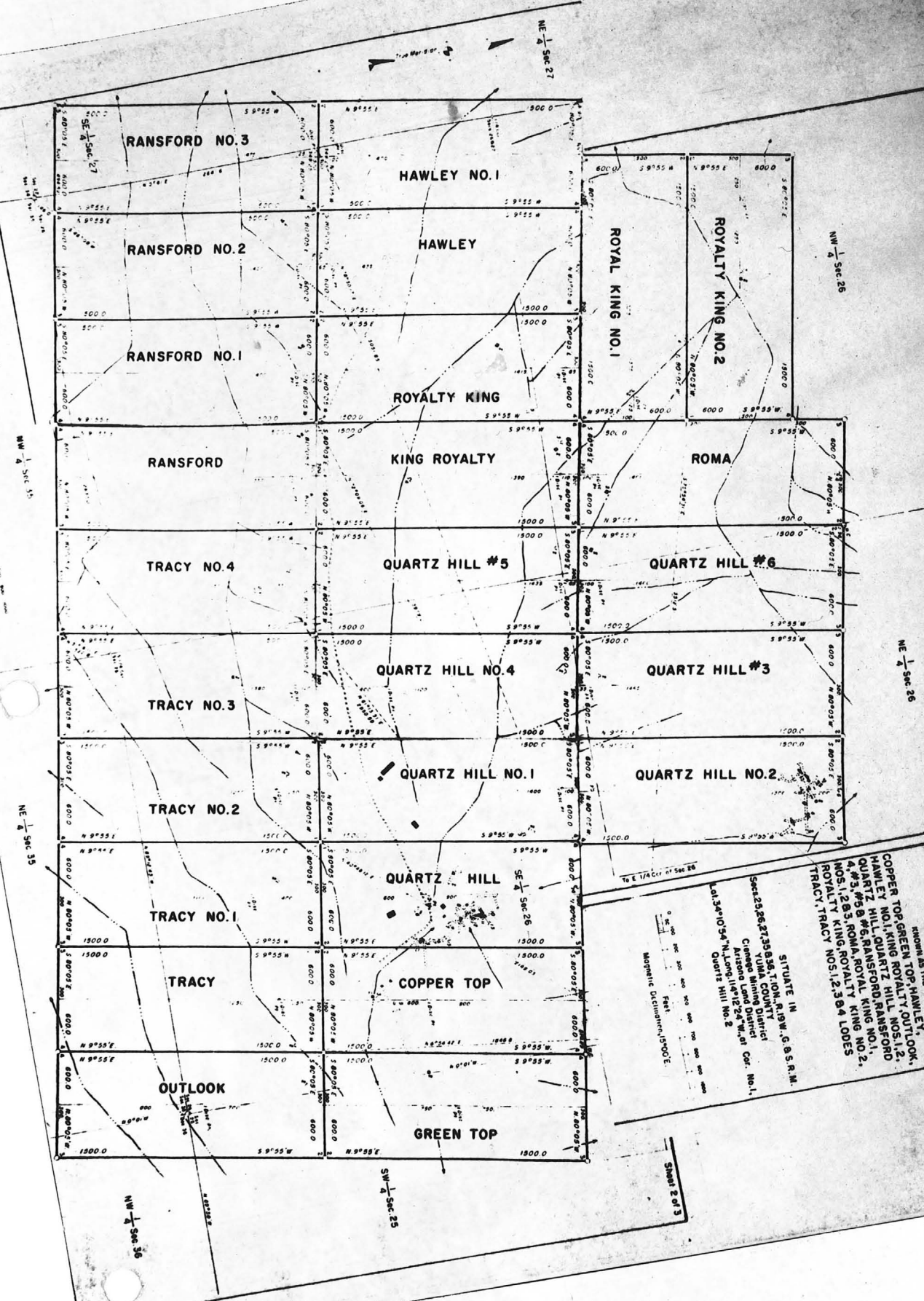
KNOWN AS THE
COPPER TOP GREEN TOP, HAWLEY,
HAWLEY NO.1, HAWLEY NO.2, HAWLEY
HAWLEY HILL, QUARTZ HILL, RANSFORD
QUARTZ #5, QUARTZ #6, RANSFORD NO.1,
QUARTZ #3, QUARTZ #4, QUARTZ #1,
QUARTZ #2, ROMA, ROYALTY KING NO.2,
ROYALTY KING NO.1, TRACY NO.1, TRACY NO.2,
TRACY NO.3, TRACY NO.4, TRACY, OUTLOOK,
GREEN TOP

SITUATE IN
SECS. 25, 26, 27, 35, 36, T.10N., R.19W., S.5R.M.

YUMA COUNTY
Cienega Land District
Ariz. 1147125 W. 1/4 Sec. No. 1,
Quartz Hill No. 2

Magnetic Declination, 1900 E.

Sheet 2 of 3



Magnetic Declination, 1900 E.

RIO VISTA & CAPILANO MINES

YUMA COUNTY
CIENEGA DISTRICT

Conference with Mrs. Clara Botzum 2/11/65

Mrs. Botzum gave the Department a brochure about the mine that includes a resume of mine data, a claim map and geological cross-sections. The principal shaft is 287 feet deep and the property has about 3000 feet of workings including 135-foot and a 240 foot-inclined shafts. The main ore shoots are in 3 veins that are roughly parallel and which strike N-NW and generally dip W at fairly steep angles. The gangue is mainly quartz that carries values in copper and gold. It is said to average \$20 in ore shoots. The mine needs retimbering of the shafts and other workings.

The three veins in the south portion are in a schist-limestone contact and two are in brecciated quartzite near the limestone-quartzite contact. The mineralized zone is about 200 feet wide and contains about 1/3 of limestone (W) and 2/3 of brecciated quartzite. This is opened by the 287-foot shaft that has 2 levels at 87 feet and 250 feet. The shaft collar is 70 feet east from a tunnel that extends 300 feet N in the W. vein.

The north side cross-section shows part of the Capilano workings, and the two shafts on Rio Vista Mineralized zone in brecciated quartzite. The Capilano workings are in limestone in a steeply west dipping vein that roughly parallels the Rio Vista veins (Quartz Hill No. 2).

MEMO LAS 2/11/65

Conference with Mrs. Clara Botzum, at Parker, 6/10/65.

Mrs. Botzum expressed pleasure over a summary of the Cienega District Geology by the Department of Mineral Resources and further stated that a California Group seemed favorable to doing some drilling. However, this has not reached a point where definite information can be made available.

LAS MEMO 6/10/65.

RIO VISTA MINE

YUMA COUNTY

Interviewed Harry Osborne also Clara Botzum. They report that a Mr. Joslyn of Denver has taken an option on their properties - Sue, Mammon, Rico, Rio Vista - and will explore by drilling. TPL WR 10-15-60

November 28 Don D. Joslyn, 8799 W. Colfax, Denver, Colorado visited re the Osborne properties - Rio Vista, Sue, etc. near Yuma. He and associates are planning to develop the properties. TPL WR 12-3-60

Interviewed Harry Osborne who said that his and Clara Botzum's properties - the Sue, Rio Vista, Mammon and Rico - were under lease and option to Anaconda Lead & Silver Mining Co. of Denver, Donald Joslyn, Pres. A geologic study and economic evaluation are being made. Diamond drilling is planned. Mr. Osborne also said his iron properties in the Swansea-Planet area - the Dome, El Molino and Mineral Zone - were under lease to Alexander Preston who hopes to ship to Japan. TPL WR 2-18-61

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
FIELD ENGINEERS REPORT

Mine RIO VISTA MINE
District Cienega Dist., Yuma County
Subject: Visit to property.

Date October 17, 1957

Engineer Frank P. Knight

Visited Rio Vista (south side) on October 10th with Clara Botzum, owner, and B. M. Reynolds, a disinterested party.

Department files contain a report by Elgin B. Holt of his March 10, 1943 visit. Copy of his earlier report of March, 1941 is not available.

U.S.G.S. Bulletin No. 451, pages 73-74 gives Howland Bancroft's discussion of the Quartz King property, an earlier name for the Rio Vista.

A cursory examination of one section only showed a NW-SE steeply dipping vein structure apparently following the bedding of a pre-Cambrian schist.

The two small workings looked at showed scarce mineralization. Diamond drilling, steered by a competent geologist after thorough examination, is indicated as the only initial work.

Apparently, production from the property has been negligible.

The mine and mill buildings have been exceptionally well taken care of, as have the few remaining pieces of equipment. The headframe and 2 compartment shaft collar require very little work for a start. Condition of the shaft timber was not known by Mrs. Botzum. Road into the property was narrow but in good condition.

Mrs. Botzum said that the last work by mine lessees was promotional and of little present value. She also stated that the mine has recently been again leased and that exploration work is expected to be started soon.

Parker dam power is within 2 miles. Mill water was pumped from the Colorado river with a lift of about 400 feet and distance of probably less than 2 miles.

Miss Moore says that Clara Botzum
about 5 years ago sold or leased a
lot of claims. A man named Berger?
was involved but she couldn't remember
the purchaser or lessee.

8-21-57

✓
The Associated Mining Company had some
activity on this property in 1950 but evidently
plans blew up - nothing more since.
This info. from Miss Moore.

8-26-57

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

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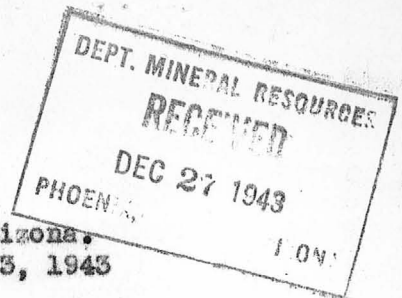
F. Knight

From Mining World magazine - September 1950 issue

FIVE ARIZONA MINES REACTIVATED



COPY



Parker, Arizona.
December 23, 1943

Mr. W.B. Gohring,
Supervising Engineer,
Reconstruction Finance Corp.,
Phoenix, Arizona.

Re: Clara Osborne Botzum, et al
Docket No. C-MD-7832

Dear Mr. Gohring:

Referring to your letter of December 1st regarding work at the Rio Vista South Side Mine stating as follows, quote- All the information I have from you as to what was accomplished with the loan money is that which is contained in your letter of October 12th. That is all right as far as it goes, but it does not tell us much about the mine. If Mr. Holt made a report on it can't you send us a copy showing what he found. End of quote.

In reply after the \$5,000 RFC loan was spent work was suspended.

I wish to advise that on March 1943 Mr. Elgin B. Holt, Field Engineer, Department of Mineral Resources, visited the Rio Vista South Side Mine in company with Harry Osborne and made a careful inspection of all the work carried out by ourselves with the said \$5,000 loan. A copy of his report concerning this matter to Mr. J.S. Coupal is herewith attached. I particularly call your attention to the following paragraph in Mr. Holt's report. quote-

All in all, the showings of copper ore on the 250-foot level, or in the workings of this level just described, are not so good as is found in the surface workings; but this is as it should be; because the rise and fall of the water level, through the ages, would naturally tend to leach out any copper values in this intermediate section of the ore zone mentioned. Hence, there is a good possibility for the migration of copper values downward. So again I say there is a splendid chance to pick up a zone of secondarily enriched copper sulphides at or near the permanent water level of this mine; and this permanent water level should be found about 400 feet below the collar of the main shaft. (See my report on this property.) End of quote.

I wish to advise you Mr. Gohring that we have not given up our plans to do deeper work at the Rio Vista by means of private capital. We are still desirous of sinking to water level with a view to uncover sulphide ores.

Trusting this is the information desired and appreciating your cooperation, I am,

Yours very truly

Clara Osborne Botzum
Clara Osborne Botzum

cc: Elgin B. Holt
J.S. Coupal

November 18, 1943

Mrs. Clara Botzum
P. O. Box 1587
Parker, Arizona

Dear Clara:

Mr. R. J. Portis, 525 South Central, Phoenix, is in the office and made certain remarks about a centro-pak mill. If my memory serves me right, this is the mill you have on the Rio Vista. If so, please send Mr. Portis full information with sketch, price, and any other details that you have available.

I would like to be advised regarding this as I see Mr. Portis frequently.

Yours very truly,

J. S. Coupal, Director

JSC:LP

March 15, 1943

Mrs. Clara Osborne Botzum
P. O. Box 1587
Parker, Arizona

Dear Clara:

I am enclosing a copy of the progress report on the Rio Vista made by Elgin B. Holt dated March 12. I also asked Holt to make a strictly confidential report to me and as the confidential report contains nothing contrary to the progress report, I am enclosing a copy of it also.

Sizing up the situation, it looks to me as though Holt is quite convinced that the property has sufficient merit to warrant sinking to a lower level, say to the 400 or 500 foot level, and then cross-cutting the brecciated mineralized zone which he states would be 300 or more feet in width. Holt distinctly recommends this work. He is right in his statement, however, that such a loan is doubtful under the present mine loan policy. By that, I mean, that the work recommended by Holt is of a distinctly exploratory nature. I was in hopes that other evidence would be uncovered and that we would have a good chance of asking for an additional loan on the Rio Vista, but from the information submitted, I do feel as though the granting of such a loan is quite questionable; in fact, so questionable that I believe time would be wasted in making an application. However, since the RFC has advanced money for the accessibility loan, it does seem as though a report of the present findings should be made and a request that they examine and, accompanying your request, that they re-examine, should be the statement that you desire to make application for a loan to sink the shaft 150 feet and drive 300 feet of cross-cutting.

With best wishes and kindest regards, I am

Very truly yours,

J. S. Coupal, Director

JSC:kk
Enclosures

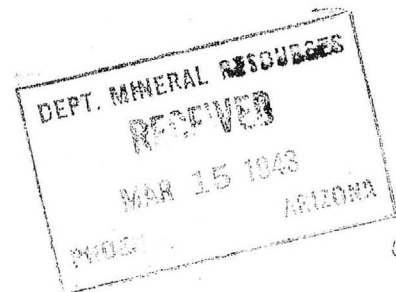
P. S. As soon as I know the outcome of your bill, I will write or wire you but feel confident it will be signed.

March 12, 1943

MEMORANDUM

RIO VISTA

To: J. S. Coupal
From: Elgin B. Holt



CONFIDENTIAL

In your memorandum of March 7, I note you have told Clara that unless a good showing had been uncovered by the "C" loan, an additional loan would be hard to get. That you will try to get over and spend a full day on the property soon; but meantime you would like my confidential report about the same.

As to making two reports, one a formal report and the other a confidential report to you, as I have stated the exact facts in the formal report, I have nothing much to add in this confidential statement, except to say again, the spending of the "C" funds did not result in the uncovering of commercial ore in quantity, although one small stringer shows up where sample No. 1 was taken.

I hardly think RFC will gamble the money to sink to water level where enriched sulphide ore in quantity might be found. The mineralized zone is several hundred feet wide with numerous copper stained veins, and even veins of ore carrying fairly good copper values, are found. Also, this zone material on the 250-foot level shows extensive leaching action, so by and large sulphide ores of importance should be found deeper, at or near water level.

But, knowing RFC rules as I do; that RFC will spend money only on showings of commercial ore, I am afraid the handwriting is now visible on the wall - that no new loan will be granted.

I am inclosing a copy of my formal report on this property. I see no reason why you should not hand this to Clara for her files, as you will note I put the best face on the showings of ore, and the possibilities of finding ores, that I could possibly do. But an engineer cannot report on ore that is non-existent.

A handwritten signature in cursive script, appearing to read "EBH".

Elgin B. Holt,
Field Engineer.

MEMO:

Phoenix, March 7, 1943.

TO:- Elgin B. Holt.

FROM- J. S. Coupal.

While in Parker please look over the work done on the Rio Vista and render me two reports: make one a formal report of progress record and the other a strictly personal confidential report as to what you think of the property and what can be done.

I have told Clara that unless a good showing had been uncovered by the "C" loan expenditure an additional loan would be hard to get.

I will try to get over and spend a full day on the property some day soon but meanwhile I would like your confidential report for my own personal benefit so as to be able to properly advise Clara.

PS. I tried to get you on the phone Saturday and today but could not connect. Senator Hayden had wired Charlie about a news item in the Mohave Miner of March 4 or 5 which spoke of some \$ 2,000,000 of Metals Reserve money going into dirict and Hayden could not confirm it in Washington and wanted us to check. We will see the item tomorrow and be able to judge how sound it is.

C

January 9, 1943

Major General A. M. Tuthill
State Director
Selective Service System
318 Professional Building
Phoenix, Arizona

Dear Sir:

Enclosed is a copy of a letter from Clara Osborne Botzum relative to Perfecto Gonzalez Leivas, Jr. who has been called for Army service.

This selectee is now engaged as a workman in the Rio Vista Copper Mine. It will, likewise, be noticed that he has six minor children all dependant upon him.

The Rio Vista Copper Mine is operating under a Reconstruction Finance Corporation loan which was made through the recommendation of this Department. It is considered that the mine has merit and the attached correspondence would indicate that the selectee in question is important to the operation of the property.

Very truly yours,

Earl F. Hastings
Assistant Director
and Projects Engineer

EFH:kk
Enclosures

cc - Mrs. Clara Osborne Botzum
Box 87
Parker, Arizona

March 12, 1943

PROGRESS REPORT

RIO VISTA MINE

C. O. Botzum, et al.,

Parker, Ariz.

DEPT. MINES

RECEIVED

MAR 15 1943

PHOENIX,

ARIZONA

MEMORANDUM

To: J. S. Coupal

From: Elgin B. Molt

As per your memorandum of March 7, in company with Harry Osborne, I visited the Rio Vista mine on March 10th. This property has been reconditioned for sampling by means of an RFC loan in the sum of \$5000.

Harry Osborne has been in charge of the work. On my arrival at property, I found the main two-compartment shaft had been reconditioned to the 250-foot level, and the water, which originally stood just even with the floor of this level, had been bailed out to 8 feet below the said level. Here the water now stands and is not increasing, so no doubt the shaft was filled to the level mentioned by rain water, and hardly by seepage water.

Property is equipped with a head frame and 25-HP gas hoist, both being in good condition. Harry Osborne ran the hoist and I went down in the bucket with one of his miners. Although no ventilation had been provided, the air was good on the said level.

As you know, I made a report on this property during March, 1941; but have not a copy of this report before me. However, it is attached to the application by C. O. Botzum for the loan mentioned. Per this report, the country rock is composed of alternating bands of limestone, schist, or shale, and quartzite. This formation is traversed by a huge mineralized fault zone about 300, or more, feet wide, in which is found a stockwork of veins and veinlets, as well as deposits of oxidized copper ore carrying gold values. In all the workings of the property, the surface workings, which I inspected when I wrote the said report, no commercial bodies of copper-gold ore had ever been found, aside from small lenses of copper ore of no importance. While I was unable to inspect the shaft workings, I reported it was my firm opinion and belief that no commercial bodies of ore would be found until the permanent water level is reached, where I expected an enrichment of copper sulphide ores. I have no reason now to alter that statement.

When I got down to the 250-foot level, I found it was dry and open for inspection. This level runs S. W. 240 feet and N. E. 90 feet, across the mineralized zone. I first inspected the S. W. cross cut; but found no commercial ore in the same. Sixty feet S. W. of the shaft a cross-cut was run around 20 feet N. W. of the said 240-ft. cross-cut where a small cross-vein about 12 inches wide was encountered showing bunches of oxidized copper ore. Here I cut sample No. 1. (See attached map). At a point 105 feet S. W. of shaft, I found a well defined veinlet about 18 inches wide crossing the said 240-foot cross-cut. This vein was leached iron-stained material, showing stains of copper. Here I cut sample No. 2. These samples were sent you by express yesterday and I suggest you have the same assayed and plotted on the sketch map attached hereto.

RIO VISTA

Referring to the cross-cut driven 90 feet N. E. from the shaft, on the said 250-foot level, this cross-cut penetrates an area of brecciated quartzite; but no commercial ore was encountered in this cross-cut.

All in all, the showings of copper ore on the 250-foot level, or in the workings of this level just described, are not so good as is found in the surface workings; but this is as it should be; because the rise and fall of the water level, through the ages, would naturally tend to leach out any copper values in this intermediate section of the ore zone mentioned. Hence, there is a good possibility for the migration of copper values downward. So again I say there is a splendid chance to pick up a zone of secondarily enriched copper sulphides at or near the permanent water level of this mine; and this permanent water level should be found about 400 feet below the collar of the main shaft. (See my report on this property).

Be all this as it may, no commercial ore in quantity was found in the workings referred to on the 250-foot level of the Rio Vista mine. Hence, if and when the owners of this property should apply for a development loan, I would suggest that RFC consider the granting or refusal of such application based on the geological features of this property only. In other words, will deeper sinking result in the uncovering of enriched sulphide ore reserves of importance, or has the bottom of the mine already been reached? My own opinion is already set forth in the report mentioned. As stated, I see no reason why I should now change this opinion.

At the time of visit, March 10, 1943, Mr. Harry Osborne was doing some stoping from a surface workings, known as the Blacksmith Tunnel. At that time he had piled on dump about 12 tons of oxidized copper ore which he stated averages about 17% copper and around \$1.50 gold per ton. This lot of ore was obtained from small lenses within the tunnel mentioned.

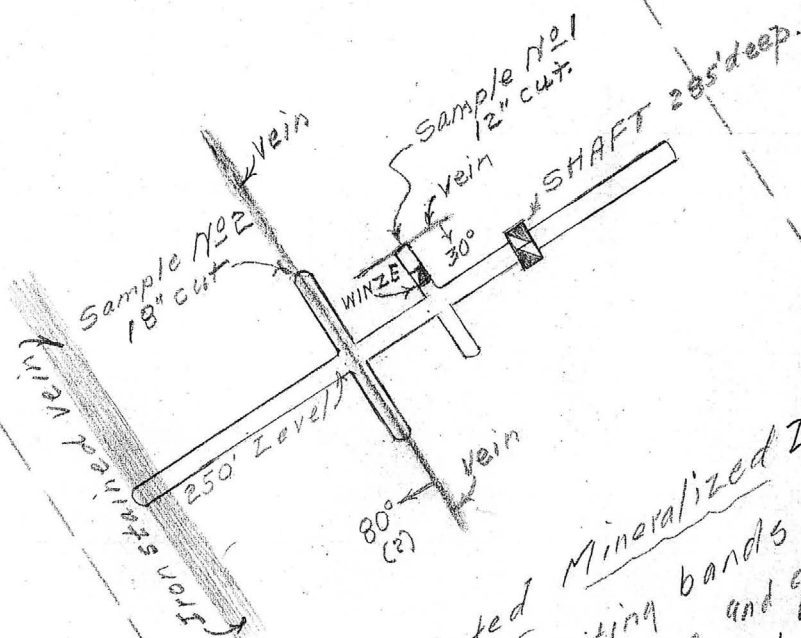


Elgin B. Holt,
Field Engineer.

PLAN
250-FT. LEVEL OF THE
RIO VISTA MINE
PARKER, ARIZ.
C. O. BOTZUM, ET AL.
Scale: 1" = 100'

Sketch By E.B.H.

N



Brecciated Mineralized Zone
 With alternating bands of
 schist, limestone and quartzite;
 the zone material more or
 less copper stained. In
 surface workings lenses
 of oxidized copper ore
 now being mined, assay-
 ing around 17% Cu.

ASSAYS.	AU-oz.	CU %
SAMPLE No. 1.	Tr.	0.71
" No. 2.	0.01	0.60
TRACE Ag. - IN BOTH.		

RIO VISTA MINES

October 7, 1942

Cienega Mining District
Yuma County, Arizona
Reconstruction Finance Corporation
Preliminary Development Loan

J. S. Coupal

Docket No.

Phoenix #62

Date Application Received

October 1, 1942

Date of Field Examination

Feb. 2, 1942 (Elgin B. Holt)

Date of Report

October 7, 1942

1. Name and address of applicant (correspondent):
Geo. E. Trowbridge, Atty., 1113 Edison Bldg., 601 W. 5th Street, Los Angeles, California.
2. Character of project and estimated cost thereof:
To rehabilitate shaft and clear drifts exposing copper ore in lower workings.
Estimated cost, \$5,000.
3. Location of property:
Cienega Mining District, Yuma County, Arizona, 5 miles northeasterly from Parker, Arizona.
4. Applicant's interest in or ownership of property:
Applicant is owner of the property.
5. Loan requested:
\$5,000.
6. Loan recommended:
\$5,000.
7. Comments:
(A) I knew the deceased father of the applicant mentioned who located the claims in 1921 and four years ago he discussed with me the copper showing opened up in the 200 foot and 250 foot levels on a casual visit to the mine with him. Specimens from the dump confirmed the ore occurrence.

(B) The upper zone on the oxidized outcrop of the mineralized area showed copper minerals with the major values in gold in the harder more resistant rocks and confirm the probable existence of commercial copper ore in depth as shown on dump.

(C) The data presented is rather meagre but the reliability of the statements by E. S. Osborne are unquestionable as his integrity and experience were well established in my three years acquaintance with him.

(D) I do not hesitate in recommending this loan.

ARIZONA DEPARTMENT OF MINERAL RESOURCES

J. S. Coupal, Director

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
OWNERS MINE REPORT

Date August 28, 1941

Mine Rio Vista Mine (South Side)

District - Cienega Mining District
Yuma County, Arizona

Former Name - Quartz King

Location - About five (5) miles
northeasterly of Parker,
ArizonaOwners - C. Osborne Botzum, E. S. Osborne Jr.
and H. M. OsborneAddress - Box 1587
Parker, Arizona

Operator - Owners

Address

President

Gen. Mgr.

Mine Supt.

Mill Supt.

Principal Metals - Gold and Copper

Men Employed

Production Rate

Mill: Type & Cap.

Power: Amt. & Type - Boulder Dam Power
available from U.S. I.S.Operations: Present - Plans are in effect at this time to carry on a new
development and operation program.

Operations Planned

Number Claims, Title, etc. - Sixteen (16) unpatented lode mining claims. Held by location and annual assessment work in accordance with State and United States Mining Laws.

Description: Topography & Geography - Mine is located in west foothills of the Planet Range of Mts. Foothills are rolling at mine and easy access by truck and automobile. Country rock of this area is of the pre-cambrian complex granite, gneiss and schist. On the claims principal rock is granite gneiss which has been intruded by diorite on east and westerly line while andesite trends northeasterly and southwesterly.

Mine Workings: Amt. & Condition - Great amount of work has been done on property. Main working is a double compartment shaft 287 ft. deep with drifts and a series of tunnels and winze on the ore. Average width of ore in various cuts, shallow shafts, tunnels, upraises from four ft. to unknown width. No walls. Values vary as ore has been crushed and twisted by intrusions rendering channel cuts hard to make on account of soft ore running. Bottom of main double compartment shaft is changing in formation evidently getting away from crushed zone. Vein is firm and strong. About 2,000 ft. of shaft and tunnel development as well as several hundred ft. of surface workings.

Geology & Mineralization - Intrusion of diorite is evident cause of fissure and to its inclusion mineralization is due. Composition of the ore is almost ideal amalgamation and cyanidation treatment. Ore being of easily crushed quartz schist and andesite impregnated with oxides of iron. At points copper is in evidence but no mineral shows which would render ore difficult of complex in treatment. In such class of ore as now exposed a laboratory test is the only way (except mill test) to average tonnage and mill values.

Ore: Positive & Probable, Ore Dumps, Tailings - A great amount of ore can be mined in the development of crosscuts from shaft but at this time no width can be determined to estimate tonnage.

Mine, Mill Equipment & Flow Sheet - Mill building capacity 125 tons daily. All concrete reinforced, galvanized iron buildings. Laboratory connecting mill with bunkers main shaft. Machine shop. Mill and mine operation could be electrified with cheap power from the United States Indian Irrigation Service. This is Boulder Dam Power.

Road Conditions, Route - Between the mines and Parker very good automobile road.

Water Supply - Ample to supply water in excess for a large reduction from Colorado river about two miles from mine. Double compartment shaft has water in bottom but at present would not be sufficient for operation but should develop plenty when shaft is sunk to greater depth.

Brief History - Originally known as the Quartz King Mine.

Special Problems, Reports Filed - Mr. C. C. A. Hammond, E.M. report on file. In this report Mr. Hammond states that the mining work has been fairly well done, enough workings to prove that the structure, fissure, dip and strike and gold values are there.

Remarks

If property for sale: Price, terms and address to negotiate

SIGNED - C. Osborne Botzum

RETURN RECEIPT

Received from the Postmaster the Registered or Insured Article, the original number of which appears on the face of this Card.

Mrs Clara Osborne Botzum
(Signature or name of addressee)

J. J. D. Smith
(Signature of addressee's agent)

Date of delivery, *Aug 28*, 19

Form 3811

U. S. GOVERNMENT PRINTING OFFICE

RM ((02))

SYMBOLS

DL=Day Letter

NT=Overnight Telegram

LC=Deferred Cable

NLT=Cable Night Letter

Ship Radiogram

J. C. WILLEVER
FIRST VICE-PRESIDENT

Time of receipt is STANDARD TIME at point of destination

1940 AUG 28 PM 9 03

ATA IMPORTANT BEST

WISHES

CLARA OSBORNE BOTZUM

*Sent
8/30/40*

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

proper sampling of a decimated ore body by the ordinary channel methods of sampling, such as used on lode properties. The ore at the Rio Vista occurs in a braced quartz site in a crushed shear zone and the gold values are irregularly distributed.

It has been our experience in Arizona that in ore bodies of this type the only fair method of sampling is by bulk sampling and semi-commercial pilot plant treatment of large sized samples. Where this is possible one is able to get a fair valuation of the property from sampling. Such sampling not only allows one to get a fair average, such as would be expected under operating conditions, but in addition, is able to determine the proper flow sheet to be used in larger scale operations.

I can cite an example of this method by mentioning the Rio Grande Mine at Wickenburg. This property has a large body of ore and the ordinary hand cut channel sampling failed to show the proper distribution of values. A pilot mill was installed and mill tests made on 25 to 50 ton sections of ore in the mine which showed the general average to be commercial.

There are many other properties which I might mention. One of the major ones is the Phelps Dodge operations at Morenci. This property has been known for many years and has been drilled and sampled a number of times. A pilot plant was installed and by its use the

CLASS OF SERVICE

This is a full-rate Telegram or Cablegram unless its deferred character is indicated by a suitable symbol above or preceding the address.

WESTERN UNION

((02))

SYMBOLS

DL=Day Letter

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Ship Radiogram

R. B. WHITE
PRESIDENT

NEWCOMB CARLTON
CHAIRMAN OF THE BOARD

J. C. WILLEVER
FIRST VICE-PRESIDENT

The filing time shown in the date line on telegrams and day letters is STANDARD TIME at point of origin. Time of receipt is STANDARD TIME at point of destination

SA551 9=LOSANGELES CALIF 28 847P

1940 AUG 28 PM 9 03

J S COUPAL=

ADAMS HOTEL PHOENIX ARIZ=

SEND VIA REGISTERED MAIL RIOVISTA DATA IMPORTANT BEST WISHES=

CLARA OSBORNE BOTZUM.

*Sent
8/20/40*

THE COMPANY WILL APPRECIATE SUGGESTIONS FROM ITS PATRONS CONCERNING ITS SERVICE

RETURN RECEIPT

Received from the Postmaster the Registered or Insured Article, the original number of which appears on the face of this Card.

Mrs Clara Osborne Botzum
(Signature or name of addressee)

J. J. Parke
(Signature of addressee's agent)

Date of delivery, *8/20/40*, 19

Form 3811

U. S. GOVERNMENT PRINTING OFFICE

February 20th 1940

Phoenix, Ariz.

Mr. David S. Tait
521 Metropolitan Building
Vancouver, B.C.
CANADA

Dear Mr. Tait:

While here in Los Angeles I fortunately met Mrs. Botzum and Mr. Osborne of Parker, Arizona, and Mr. E. Butterworth, of Los Angeles, and had an opportunity to discuss with them the plans for sampling the Rio Vista Mine.

In a general way I am quite familiar with the ore occurrence at this property and know of the difficulties in attempting to get a proper sampling of a decimated ore body by the ordinary channel methods of sampling, such as used on lode properties. The ore at the Rio Vista occurs in a bracciated quartz site in a crushed shear zone and the gold values are irregularly distributed.

It has been our experience in Arizona that in ore bodies of this type the only fair method of sampling is by bulk sampling and semi-commercial pilot plant treatment of large sized samples. Where this is possible one is able to get a fair valuation of the property from sampling. Such sampling not only allows one to get a fair average, such as would be expected under operating conditions, but in addition, is able to determine the proper flow sheet to be used in larger scale operations.

I can cite an example of this method by mentioning the Rio Grande Mine at Wickenburg. This property has a large body of ore and the ordinary hand cut channel sampling failed to show the proper distribution of values. A pilot mill was installed and mill tests made on 25 to 50 ton sections of ore in the mine which showed the general average to be commercial.

There are many other properties which I might mention. One of the major ones is the Phelps Dodge operations at Morenci. This property has been known for many years and has been drilled and sampled a number of times. A pilot plant was installed and by its use the

Feb. 20, 1940

general average of the ore body and a proper flow sheet was determined which warranted the company in going ahead with a twenty-eight million dollar investment to put the property in operation on a 25,000 ton daily capacity.

In a general way in sampling these ore bodies where the values are irregular, but are widely distributed, large samples are absolutely necessary. In some instances these large bulk samples are shipped outside for mill run tests or are crushed and carefully sampled by smelter methods. In a number of instances, however, it has been found advisable to install local test plants of from 25 to 50 or 100 ton daily capacity. In this manner it is possible to open up the property and determine the general average of the mine through a proper development program.

Knowing the ore body at the Rio Vista, I would suggest that this method of sampling be given careful consideration.

The Department of Mineral Resources of the State of Arizona, was created to work on and assist in the solving of the economic problems of mining within the state. We have four engineers in the field to assist in such preliminary work and carry on other research work. Our services are always available when new capital is considering opening up any of the properties within the state. When time permits me to get away from the office I join with the Field Engineer in any particular district to assist on such work with him.

If we can be of any service to you and to the Rio Vista Mine in the plans for getting this property into operation, we will be only glad to tender our services to you.

Very truly yours,

J. S. Coupal
Director

JSC:fe

MR-22

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
OWNERS MINE REPORT

Date May 1940

Mine Rio Vista Mines (South side)

District Cienega Mining District,

Former name Quartz King Mine

Owner E. S. Osborne and C. Osborne Botzum
(Co-owners)

Operator

President

Mine Supt.

Principal Metals Gold and Copper

Production Rate

Power: Amt. & Type

Operations: Present None at present.

Location About five (5) miles northeasterly
of Parker, Arizona

Address Box 87, Parker, Arizona

Address

Gen. Mgr.

Mill Supt.

Men Employed

Mill: Type & Cap.

Operations Planned Future operations depend upon outcome of examination of the property
and present exploratory work by prospecting operators.

Number Claims, Title, etc. The Rio Vista Mines (South Side) Group of sixteen (16) Lode
Mining Claims. Held by location and annual assessment work
in accordance with State and United States Mining Laws.

Description: Topog. & Geog. Mines are located in west foothills of the Planet Range of Mts.
Foothills rolling at mine and are easy of access by truck and automobile. Country rock
of this area is of the pre-cambrian complex granite, gneiss and schist. On the claims
principal rock is granitic gneiss which has been intruded by diorite on east and
westerly line while andesite trends northeasterly and southwesterly

Mine Workings: Amt. & Condition Great amount of work has been done on property principally on
double compartment main shaft to an approximate depth of 287 ft.
with cross cuts and a series of tunnels and winze on the ore. Average width of ore
in various cuts, shallow shafts, tunnels, upraises from four to unknown width. No
walls. Values vary as ore has been crushed and twisted by intrusions rendering
channel cuts hard to make on account of soft ore running. Bottom of main double
compartment shaft is changing, evidently, getting away from crushed zone. Vein is firm
and strong. About 2,000 ft. of shaft and tunnel and several hundred ft. surface work.

Geology & Mineralization

Intrusion of diorite is evident cause of fissure and to its influence the mineralization is due. Composition of the ore is almost ideal for amalgamation and cyanidation treatment. Ore being of an easily crushed quartz, schist and andesite impregnated with oxides of iron. At some points copper is in evidence but no mineral shows which would render ore difficult of complex in treatment.

Ore: Positive & Probable, Ore Dumps, Tailings

In such class of ore as now exposed a laboratory test is the only way (except mill test) to average tonnage and mill values. A great amount of ore can be mined in the development of cross cuts from main shaft, but at this time no width can be determined to estimate tonnage.

Mine, Mill Equipment & Flow Sheet

Mill capacity 125 ton. All concrete reinforced, galvanized iron equipment. Laboratory, connecting mill with bunkers at main shaft. Air compressor engine room. Mill to be equipped with new standard equipment and necessary mining machinery after drilling operations are completed and further development completed. With cheap boulder dam hydro-electric power coming into this area, mining and milling power costs will be quite nominal.

Road Conditions, Route

Between the mines and Parker is a very good road of easy grades.

Water Supply

Ample to supply water in excess for a large reduction works and camp. From Colorado Rim - lift of 450 ft. to mine.

Brief History

Formerly called Quartz King. Mined by foreign interests in 1908-13. Osborne acquired title in 1916.

Special Problems, Reports Filed

Wide disseminated gold values in schist, bricceated quartz, calling for bulk sampling to fairly determine carage values.

Remarks

Rio Vista South Side Mine is yet to be opened up. The mining work has been fairly well done enough workings to prove that the structure, fissure, dip and strike and gold values are there.

If property for sale: Price, terms and address to negotiate. For sale, see owner for terms.

Signed C. Osborne Botzum

Use additional sheets if necessary.

Serving *12 States*

Arizona
California
Colorado
Illinois

Iowa
Kansas
Louisiana
Missouri

Nebraska
New Mexico
Oklahoma
Texas

INQUIRY on the RIO VISTA MINE -

See Letter in File - W IESLER, N. H.
Wabeek State Bank of Detroit
Detroit, Michigan

FOR DEPENDABLE SERVICE *Ship Santa Fe*

See MR-21

Application for "C" loan

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
OWNERS MINE REPORT

Date August 28, 1941

Mine Rio Vista Mine (North Side)

District - Cienega Mining District
Yuma County, Parker, Arizona
Former Name,

Location - About five (5) miles
northeasterly of Parker,
Arizona.

Owners - E. S. Osborne, Jr., Clara Osborne
Botzum and H. M. Osborne

Address - Box 1587
Parker, Arizona

Operator - Owners

Address

President

Gen. Mgr.

Mine Supt.

Mill Supt.

Principal Metals - Gold and Copper

Men Employed

Production Rate

Mill: Type & Cap.

Power: Amt. & Type

Operations: Present - Plans are now in effect to carry on a new development and operation program in connection with the Rio Vista South Side Mine.

Operations Planned

Number Claims, Title, etc. - Ten (10) unpatented lode mining claims. Held by location and annual assessment in accordance with State and United States Mining Laws.

Description: Topography & Geography - Located in the west foothills of the Planet Range of Mts. Foothills rolling at mine and easy of access by truck or automobile. Most common is the metamorphosed limestones, shale and quartzite. The crushing and faulting of the porphyrite schist has opened channels and beds which have been filled by circulating solutions to such an extent that a great deal of the mass has been filled with ore-bearing material.

Mine Workings: Amt. & Condition - Main workings: 240 foot incline shaft, 127 ft. vertical shaft. Approximately 800 ft. of tunnels, crosscuts, drifts, winzes, upraises and surface work. Other parts of the property other than around the main workings are developed with about 250 ft. of shaft and surface development work.

Geology & Mineralization - The deposit occurs in a low ridge within a wide, silica brecciated zone that strikes south 15 degrees west and separates metamorphosed limestone on the west from the schistose quartzite on the east. The numerous veins and fissures upon this property discloses a condition of mineralization with favorable gold and copper values.

Ore: Positive & Probable, Ore Dumps, Tailings.

Mine, Mill Equipment & Flow Sheet - Small mine equipment for small mine development operation at the present time.

Road Conditions, Route - There is a good automobile road from Parker to the mine.

Water Supply - Abundance of water for large scale operation available from the Colorado river which is about $1\frac{1}{2}$ miles from the property. It is possible to develop water on the property in a near by wash.

Brief History - Originally a part of the Quartz King Mine.

Special Problems, Reports Filed - Mr. C. C.A. Hammond, E.M. report on file which is very favorable.

Remarks - At this time this property and the Rio Vista South Side Mine owners are the same. The properties adjoin each other and are more or less a part of each other and are known as the Rio Vista Mines.

If property for sale: Price, Terms and address to negotiate

SIGNED - C. Osborne Botzum

DEPARTMENT OF MINERAL RESOURCES

News Items

Date

4/29/40

Mine

ROVISTA

Location

6 MI. N.E. OF PARKER

Owner

E. S. OSBORNE

Address

PARKER.

Operating Co.

SINKING 240 H. WINZE

Address

ON NORTH SIDE CLAIM

ON HIGH GRADE ORE.

Pres.

PARTIES MAKING EXAMINATION

Genl. Mgr.

OF MINE -

Mine Supt.

Mill Supt.

Principal Metals

GOLD

Men Employed

3

Production Rate

Mill, Type & Capacity

Power, Amt. & Type

Signed

JJC

(Over)

MR-21

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
OWNERS MINE REPORT

Date June 1939

Mine Rio Vista Mine (North Side)

District Cienega Mining District

Location About five (5) miles northeasterly
of Parker, Arizona

Former name

Owner E. S. Osborne

Address Box 87, Parker, Arizona.

Operator

Address

President

Gen. Mgr.

Mine Supt.

Mill Supt.

Principal Metals Gold and Copper

Men Employed

Production Rate

Mill: Type & Cap.

Power: Amt. & Type

Operations: Present 3 men sinking 240 incline shaft in high grade gold ore.

Operations Planned Being examined for extension operation.

Number Claims, Title, etc. The Rio Vista Mine (North Side) Group of ten (10) Lode Mining Claims. Held by location and annual assessment in accordance with State and United States Mining Laws.

Description: Topog. & Geog. Located in the west foothills of the Planet Range of Mts.

Foothills rolling at mine and easy of access by truck or automobile.

Most common is the metamorphosed limestones, shale and quartzite. The crushing and faulting of the porphyritic achist has opened channels and beds which have been filled by circulating solutions to such an extent that a great deal of the mass has been filled by ore-bearing material.

Mine Workings: Amt. & Condition 127 foot vertical shaft, 240 foot incline and approximately 800 feet of tunnels, cross-cuts, winzes, up-raises and surface work at the main workings. Other parts of this property has been developed by about 250 feet of shaft and other shallow surface workings.

Geology & Mineralization The deposit occurs in a low ridge, within a wide, silicified, brecciated zone that strikes S. 15 degrees W. and separates metamorphosed limestone on the west from the schist ore quartzite on the east. The numerous veins and fissures upon this property discloses a condition of mineralization with favorable gold and copper values.

Ore: Positive & Probable, Ore Dumps, Tailings Large tonnage indicated.

Mine, Mill Equipment & Flow Sheet New immediate installation of mine and mill machinery will consist of a hoist, air compressor and other mining equipment. Mill equipment for a 50 ton capacity complete. Flow sheet available later.

Road Conditions, Route There is a good road to the property.

Water Supply Abundance of water for large scale operation from the Colorado river which is about $1\frac{1}{2}$ miles from the property.

Brief History Formerly part of Quartz King operated in 1908 by foreign interests. Acquired by Osborne in 1916.

Special Problems, Reports Filed

Remarks The future of the mine contains large possibilities and further development justified.

If property for sale: Price, terms and address to negotiate. For sale, see owner for terms.

Signed.....E. S. Osborne.....

Use additional sheets if necessary.

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine RIO VISTA MINE Date October 17, 1957
District Cienega Dist., Yuma County Engineer Frank P. Knight
Subject: Visit to property.

Visited Rio Vista (south side) on October 10th with Clara Botzum, owner, and B. M. Reynolds, a disinterested party.

Department files contain a report by Elgin B. Holt of his March 10, 1943 visit. Copy of his earlier report of March, 1941 is not available.

U.S.G.S. Bulletin No. 451, pages 73-74 gives Howland Bancroft's discussion of the Quartz King property, an earlier name for the Rio Vista.

A cursory examination of one section only showed a NW-SE steeply dipping vein structure apparently following the bedding of a pre-Cambrian schist.

The two small workings looked at showed scarce mineralization. Diamond drilling, steered by a competent geologist after thorough examination, is indicated as the only initial work.

Apparently, production from the property has been negligible.

The mine and mill buildings have been exceptionally well taken care of, as have the few remaining pieces of equipment. The headframe and 2 compartment shaft collar require very little work for a start. Condition of the shaft timber was not known by Mrs. Botzum. Road into the property was narrow but in good condition.

Mrs. Botzum said that the last work by mine lessees was promotional and of little present value. She also stated that the mine has recently been again leased and that exploration work is expected to be started soon.

Parker dam power is within 2 miles. Mill water was pumped from the Colorado river with a lift of about 400 feet and distance of probably less than 2 miles.

From Mining World magazine - September 1950 issue

FIVE ARIZONA MINES REACTIVATED

Development of copper-gold mines in the Cienega Mining District near Parker, Arizona, has been started by the Associated Mining Company. It has taken long-term leases on the Rio Vista, Billy Mack, Sue, Capilano, Mammon and Lion Hill mines, owned by the Osborne family of Parker and comprised of some 50 claims. The properties will be consolidated into one large operation directed by A.P. Lofquist, mining engineer. A.C. Burger of St. Louis, Missouri, heads Associated. The initial development work will be concentrated on the Rio Vista and Lion Hill Mines. The picture (which was just above this write-up on the page) shows the mill building at the Rio Vista, which is the key property in the group. The building is capable of housing a 300-ton plant. Unwatering of the 287-foot double compartment shaft at the Rio Vista South mine has started, the headframe is being rebuilt, and the shaft repaired and retimbered. New cages, pump, ventilating equipment and air lines will be installed in the shaft and then exploration by core drilling on the 250 level will begin.

A new change room is to be constructed and all mine buildings will be modernized with cooling systems and other accommodations, as this camp will be headquarters for all of the company's operations in the district. At the Rio Vista North the 244-foot incline will be extended. At the Lion Hill mine the main adit is to be continued for about 600 feet with several hundred feet of drifts and cross-cuts. At the Capilano additional development work will be done in the 90-foot vertical shaft. At the Sue a new double-compartment shaft will be sunk to avoid flood waters in the old workings. At the Mammon core drilling is planned. A large quantity of machinery already has been moved to the camp; road building and power line installation are under way. These old mines once were good producers and the Rio Vista particularly has quite a history. However, there has been little activity in them since the beginning of the last war.

November 18, 1943

Mrs. Clara Botzum
P. O. Box 1587
Parker, Arizona

Dear Clara:

Mr. R. J. Portis, 525 South Central, Phoenix, is in the office and made certain remarks about a centro-pak mill. If my memory serves me right, this is the mill you have on the Rio Vista. If so, please send Mr. Portis full information with sketch, price, and any other details that you have available.

I would like to be advised regarding this as I see Mr. Portis frequently.

Yours very truly,

J. S. Coupal, Director

JSC:LP

March 15, 1943

Mrs. Clara Osborne Botzum
P. O. Box 1587
Parker, Arizona

Dear Clara:

I am enclosing a copy of the progress report on the Rio Vista made by Elgin B. Holt dated March 12. I also asked Holt to make a strictly confidential report to me and as the confidential report contains nothing contrary to the progress report, I am enclosing a copy of it also.

Sizing up the situation, it looks to me as though Holt is quite convinced that the property has sufficient merit to warrant sinking to a lower level, say to the 400 or 500 foot level, and then cross-cutting the brecciated mineralized zone which he states would be 300 or more feet in width. Holt distinctly recommends this work. He is right in his statement, however, that such a loan is doubtful under the present mine loan policy. By that, I mean, that the work recommended by Holt is of a distinctly exploratory nature. I was in hopes that other evidence would be uncovered and that we would have a good chance of asking for an additional loan on the Rio Vista, but from the information submitted, I do feel as though the granting of such a loan is quite questionable; in fact, so questionable that I believe time would be wasted in making an application. However, since the RFC has advanced money for the accessibility loan, it does seem as though a report of the present findings should be made and a request that they examine and, accompanying your request that they re-examine, should be the statement that you desire to make application for a loan to sink the shaft 150 feet and drive 300 feet of cross-cutting.

With best wishes and kindest regards, I am

Very truly yours,

J. S. Coupal, Director

JSC:kk
Enclosures

P. S. As soon as I know the outcome of your bill, I will write or wire you but feel confident it will be signed.

(C O P Y)

March 12, 1943

MEMORANDUM

RIO VISTA

To: J. S. Coupal
From: Elgin B. Holt

CONFIDENTIAL

In your memorandum of March 7, I note you have told Clara that unless a good showing had been uncovered by the "C" loan, an additional loan would be hard to get. That you will try to get over and spend a full day on the property soon; but meantime you would like my confidential report about the same.

As to making two reports, one a formal report and the other a confidential report to you, as I have stated the exact facts in the formal report, I have nothing much to add in this confidential statement, except to say again, the spending of the "C" funds did not result in the uncovering of commercial ore in quantity, although one small stringer shows up where sample No. 1 was taken.

I hardly think RFC will gamble the money to sink to water level where enriched sulphide ore in quantity might be found. The mineralized zone is several hundred feet wide with numerous copper stained veins, and even veins of ore carrying fairly good copper values, are found. Also, this zone material on the 250-foot level shows extensive leaching action, so by and large sulphide ores of importance should be found deeper, at or near water level.

But, knowing RFC rules as I do; that RFC will spend money only on showings of commercial ore, I am afraid the handwriting is now visible on the wall - that no new loan will be granted.

I am inclosing a copy of my formal report on this property. I see no reason why you should not hand this to Clara for her files, as you will note I put the best face on the showings of ore, and the possibilities of finding ores, that I could possibly do. But an engineer cannot report on ore that is non-existent.

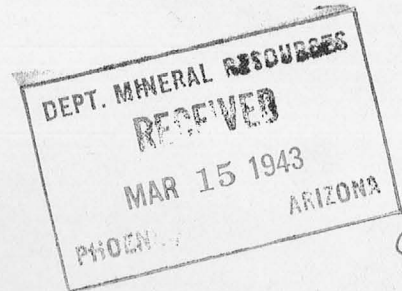
(Signed) E. B. H.
Elgin B. Holt,
Field Engineer.

March 12, 1943

MEMORANDUM

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To: J. S. Coupal
From: Elgin B. Holt



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Elgin B. Holt,
Field Engineer.

MEMO:

Phoenix, March 7, 1943.

TO:- Elgin B. Holt.

FROM- J. S. Coupal.

While in Parker please look over the work done on the Rio Vista and render me two reports: make one a formal report of progress record and the other a strictly personal confidential report as to what you think of the property and what can be done.

I have told Clara that unless a good showing had been uncovered by the "C" loan expenditure an additional loan would be hard to get.

I will try to get over and spend a full day on the property some day soon but meanwhile I would like your confidential report for my own personal benefit so as to be able to properly advise Clara.

PS. I tried to get you on the phone Saturday and today but could not connect. Senator Hayden had wired Charlie about a news item in the Mohave Miner of March 4 or 5 which spoke of some \$ 2,000,000 of Metals Reserve money going into direct and Hayden could not confirm it in Washington and wanted us to check. We will see the item tomorrow and be able to judge how sound it is.

C

January 9, 1943

Major General A. M. Tuthill
State Director
Selective Service System
318 Professional Building
Phoenix, Arizona

Dear Sir:

Enclosed is a copy of a letter from Clara Osborne Botzum relative to Perfecto Gonzales Leivas, Jr. who has been called for Army service.

This selectee is now engaged as a workman in the Rio Vista Copper Mine. It will, likewise, be noticed that he has six minor children all dependent upon him.

The Rio Vista Copper Mine is operating under a Reconstruction Finance Corporation loan which was made through the recommendation of this Department. It is considered that the mine has merit and the attached correspondence would indicate that the selectee in question is important to the operation of the property.

Very truly yours,

Earl F. Hastings
Assistant Director
and Projects Engineer

EFH:kk
Enclosures

cc - Mrs. Clara Osborne Botzum
Box 87
Parker, Arizona

March 12, 1943

PROGRESS REPORT

RIO VISTA MINE

C. O. Botzum, et al.,

Parker, Ariz.

DEPT. MINE

RECEIVED

MAR 15 1943

PHOENIX,

ARIZONA

MEMORANDUM

To: J. S. Coupal
From: Elgin B. Molt

As per your memorandum of March 7, in company with Harry Osborne, I visited the Rio Vista mine on March 10th. This property has been reconditioned for sampling by means of an RFC loan in the sum of \$5000.

Harry Osborne has been in charge of the work. On my arrival at property, I found the main two-compartment shaft had been reconditioned to the 250-foot level, and the water, which originally stood just even with the floor of this level, had been bailed out to 8 feet below the said level. Here the water now stands and is not increasing, so no doubt the shaft was filled to the level mentioned by rain water, and hardly by seepage water.

Property is equipped with a head frame and 25-HP gas hoist, both being in good condition. Harry Osborne ran the hoist and I went down in the bucket with one of his miners. Although no ventilation had been provided, the air was good on the said level.

As you know, I made a report on this property during March, 1941; but have not a copy of this report before me. However, it is attached to the application by C. O. Botzum for the loan mentioned. Per this report, the country rock is composed of alternating bands of limestone, schist, or shale, and quartzite. This formation is traversed by a huge mineralized fault zone about 300, or more, feet wide, in which is found a stockwork of veins and veinlets, as well as deposits of oxidized copper ore carrying gold values. In all the workings of the property, the surface workings, which I inspected when I wrote the said report, no commercial bodies of copper-gold ore had ever been found, aside from small lenses of copper ore of no importance. While I was unable to inspect the shaft workings, I reported it was my firm opinion and belief that no commercial bodies of ore would be found until the permanent water level is reached, where I expected an enrichment of copper sulphide ones. I have no reason now to alter that statement.

When I got down to the 250-foot level, I found it was dry and open for inspection. This level runs S. W. 240 feet and N. E. 90 feet, across the mineralized zone. I first inspected the S. W. cross cut; but found no commercial ore in the same. Sixty feet S. W. of the shaft a cross-cut was run around 20 feet N. W. of the said 240-ft. cross-cut where a small cross-vein about 12 inches wide was encountered showing bunches of oxidized copper ore. Here I cut sample No. 1. (See attached map). At a point 105 feet S. W. of shaft, I found a well defined veinlet about 18 inches wide crossing the said 240-foot cross-cut. This vein was leached iron-stained material, showing stains of copper. Here I cut sample No. 2. These samples were sent you by express yesterday and I suggest you have the same assayed and plotted on the sketch map attached hereto.

RIO VISTA

Referring to the cross-cut driven 90 feet N. E. from the shaft, on the said 250-foot level, this cross-cut penetrates an area of brecciated quartzite; but no commercial ore was encountered in this cross-cut.

All in all, the showings of copper ore on the 250-foot level, or in the workings of this level just described, are not so good as is found in the surface workings; but this is as it should be; because the rise and fall of the water level, through the ages, would naturally tend to leach out any copper values in this intermediate section of the ore zone mentioned. Hence, there is a good possibility for the migration of copper values downward. So again I say there is a splendid chance to pick up a zone of secondarily enriched copper sulphides at or near the permanent water level of this mine; and this permanent water level should be found about 400 feet below the collar of the main shaft. (See my report on this property).

Be all this as it may, no commercial ore in quantity was found in the workings referred to on the 250-foot level of the Rio Vista mine. Hence, if and when the owners of this property should apply for a development loan, I would suggest that RFC consider the granting or refusal of such application based on the geological features of this property only. In other words, will deeper sinking result in the uncovering of enriched sulphide ore reserves of importance, or has the bottom of the mine already been reached? My own opinion is already set forth in the report mentioned. As stated, I see no reason why I should now change this opinion.

At the time of visit, March 10, 1943, Mr. Harry Osborne was doing some stoping from a surface workings, known as the Blacksmith Tunnel. At that time he had piled on dump about 12 tons of oxidized copper ore which he stated averages about 17% copper and around \$1.50 gold per ton. This lot of ore was obtained from small lenses within the tunnel mentioned.

Elgin B. Holt.

Elgin B. Holt,
Field Engineer.

March 12, 1943

PROGRESS REPORT
RIO VISTA MINE
C. O. Botzum, et al.,
Parker, Ariz.

*From old
notebook
file*

MEMORANDUM

March 12, 1943

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cc. O. C. Botzum.

Elgin B. Holt,
Field Engineer.

(COPY)

March 12, 1943

PROGRESS REPORT
RIO VISTA MINE
C. O. Botzum, et al.,
Parker, Arizona

MEMORANDUM

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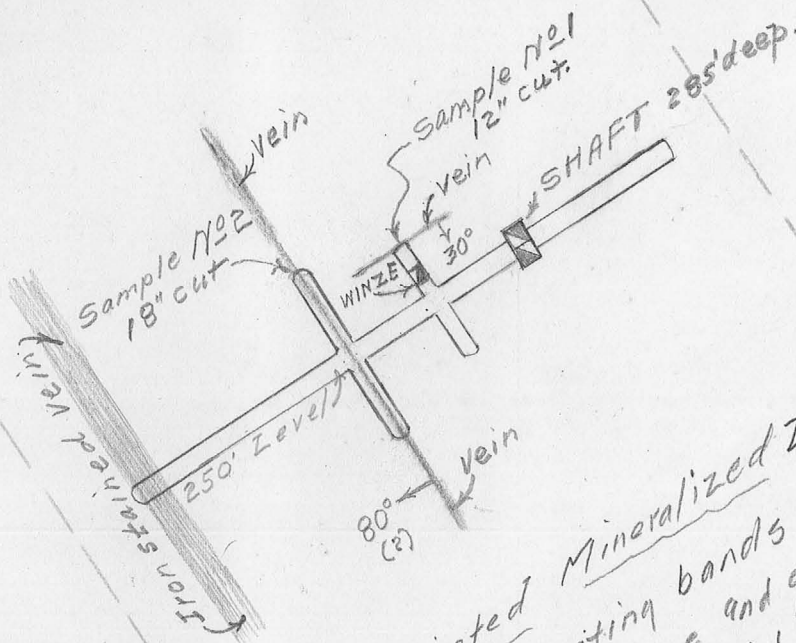
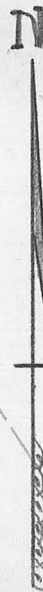
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(Signed) ELGIN B. HOLT.
Field Engineer.

PLAN
250-FT. LEVEL OF THE
RIO VISTA MINE
PARKER, ARIZ.
C. O. BOTZUM, ET AL.
Scale: 1" = 100'

Sketch By E.B.H.



Brecciated Mineralized Zone
 With alternating bands of
 schist, limestone and quartzite;
 the zone material more or
 less copper stained. In
 surface workings lenses
 of oxidized copper ore
 now being mined, assay-
 ing around 17% Cu.

ASSAYS.	AU-oz.	CU %
SAMPLE No. 1.	TR.	0.71
" No. 2.	0.01	0.60
TRACE Ag - IN BOTH		

RIO VISTA MINES

October 7, 1942

Cienega Mining District
Yuma County, Arizona
Reconstruction Finance Corporation
Preliminary Development Loan

J. S. Coupal

File
Granted

Docket No.

Phoenix #62

Date Application Received

October 1, 1942

Date of Field Examination

Feb. 2, 1942 (Elgin B. Holt)

Date of Report

October 7, 1942

1. Name and address of applicant (correspondent):
Geo. E. Trowbridge, Atty., 1113 Edison Bldg., 601 W. 5th Street, Los Angeles, California.
2. Character of project and estimated cost thereof:
To rehabilitate shaft and clear drifts exposing copper ore in lower workings.
Estimated cost, \$5,000.
3. Location of property:
Cienega Mining District, Yuma County, Arizona, 5 miles northeasterly from Parker, Arizona.
4. Applicant's interest in or ownership of property:
Applicant is owner of the property.
5. Loan requested:
\$5,000.
6. Loan recommended:
\$5,000.
7. Comments:
(A) I knew the deceased father of the applicant mentioned who located the claims in 1921 and four years ago he discussed with me the copper showing opened up in the 200 foot and 250 foot levels on a casual visit to the mine with him. Specimens from the dump confirmed the ore occurrence.

(B) The upper zone on the oxidized outcrop of the mineralized area showed copper minerals with the major values in gold in the harder more resistant rocks and confirm the probable existence of commercial copper ore in depth as shown on dump.

(C) The data presented is rather meagre but the reliability of the statements by E. S. Osborne are unquestionable as his integrity and experience were well established in my three years acquaintance with him.

(D) I do not hesitate in recommending this loan.

ARIZONA DEPARTMENT OF MINERAL RESOURCES

J. S. Coupal, Director

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
OWNERS MINE REPORT

Date August 28, 1941

Mine Rio Vista Mine (South Side)

District - Cienega Mining District
Yuma County, Arizona
Former Name - Quartz KingLocation - About five (5) miles
northeasterly of Parker,
ArizonaOwners - C. Osborne Botzum, E. S. Osborne Jr.
and H. M. OsborneAddress - Box 1587
Parker, Arizona

Operator - Owners

Address

President

Gen. Mgr.

Mine Supt.

Mill Supt.

Principal Metals - Gold and Copper

Men Employed

Production Rate

Mill: Type & Cap.

Power: Amt. & Type - Boulder Dam Power
available from U.S. I.S.Operations: Present - Plans are in effect at this time to carry on a new
development and operation program.

Operations Planned

Number Claims, Title, etc. - Sixteen (16) unpatented lode mining claims. Held by
location and annual assessment work in accordance
with State and United States Mining Laws.Description: Topography & Geography - Mine is located in west foothills of the Planet
Range of Mts. Foothills are rolling at mine and easy access
by truck and automobile. Country rock of this area is of
the pre-cambrian complex granite, gneiss and schist. On the
claims principal rock is granite gneiss which has been
intruded by diorite on east and westerly line while andesite
trends northeasterly and southwesterly.Mine Workings: Amt. & Condition - Great amount of work has been done on property.
Main working is a double compartment shaft 287 ft. deep with drifts and
a series of tunnels and winzé on the ore. Average width of ore in
various cuts, shallow shafts, tunnels, upraises from four ft. to unknown
width. No walls. Values vary as ore has been crushed and twisted by
intrusions rendering channel cuts hard to make on account of soft ore
running. Bottom of main double compartment shaft is changing in formation
evidently getting away from crushed zone. Vein is firm and strong. About
2,000 ft. of shaft and tunnel development as well as several hundred ft.
of surface workings.

Geology & Mineralization - Intrusion of diorite is evident cause of fissure and to its inclusion mineralization is due. Composition of the ore is almost ideal amalgamation and cyanidation treatment. Ore being of easily crushed quartz schist and andesite impregnated with oxides of iron. At points copper is in evidence but no mineral shows which would render ore difficult of complex in treatment. In such class of ore as now exposed a laboratory test is the only way (except mill test) to average tonnage and mill values.

Ore: Positive & Probable, Ore Dumps, Tailings - A great amount of ore can be mined in the development of crosscuts from shaft but at this time no width can be determined to estimate tonnage.

Mine, Mill Equipment & Flow Sheet - Mill building capacity 125 tons daily. All concrete reinforced, galvanized iron buildings. Laboratory connecting mill with bunkers main shaft. Machine shop. Mill and mine operation could be electrified with cheap power from the United States Indian Irrigation Service. This is Boulder Dam Power.

Road Conditions, Route - Between the mines and Parker very good automobile road.

Water Supply - Ample to supply water in excess for a large reduction from Colorado river about two miles from mine. Double compartment shaft has water in bottom but at present would not be sufficient for an operation but should develop plenty when shaft is sunk to greater depth.

Brief History - Originally known as the Quartz King Mine.

Special Problems, Reports Filed - Mr. C. C. A. Hammond, E.M. report on file. In this report Mr. Hammond states that the mining work has been fairly well done, enough workings to prove that the structure, fissure, dip and strike and gold values are there.

Remarks

If property for sale: Price, terms and address to negotiate

SIGNED - C. Osborne Botzum

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
OWNERS MINE REPORT

Date August 28, 1941

Mine Rio Vista Mine (South Side)

District - Cienega Mining District
Yuma County, Arizona
Former Name - Quartz KingLocation - About five (5) miles
northeasterly of Parker,
ArizonaOwners - C. Osborne Botzum, E. S. Osborne Jr.
and H. M. OsborneAddress - Box 1587
Parker, Arizona

Operator - Owners

Address

President

Gen. Mgr.

Mine Supt.

Mill Supt.

Principal Metals - Gold and Copper

Men Employed

Production Rate

Mill: Type & Cap.

Power: Amt. & Type - Boulder Dam Power
available from U.S. I.S.Operations: Present - Plans are in effect at this time to carry on a new
development and operation program.

Operations Planned

Number Claims, Title, etc. - Sixteen (16) unpatented lode mining claims. Held by
location and annual assessment work in accordance
with State and United States Mining Laws.Description: Topography & Geography - Mine is located in west foothills of the Planet
Range of Mts. Foothills are rolling at mine and easy access
by truck and automobile. Country rock of this area is of
the pre-cambrian complex granite, gneiss and schist. On the
claims principal rock is granite gneiss which has been
intruded by diorite on east and westerly line while andesite
trends northeasterly and southwesterly.Mine Workings: Amt. & Condition - Great amount of work has been done on property.
Main working is a double compartment shaft 287 ft. deep with drifts and
a series of tunnels and winze on the ore. Average width of ore in
various cuts, shallow shafts, tunnels, upraises from four ft. to unknown
width. No walls. Values vary as ore has been crushed and twisted by
intrusions rendering channel cuts hard to make on account of soft ore
running. Bottom of main double compartment shaft is changing in formation
evidently getting away from crushed zone. Vein is firm and strong. About
2,000 ft. of shaft and tunnel development as well as several hundred ft.
of surface workings.

Geology & Mineralization - Intrusions of diorite is evident cause of fissure and to its inclusion mineralization is due. Composition of the ore is almost ideal amalgamation and cyanidation treatment. Ore being of easily crushed quartz schist and andesite impregnated with oxides of iron. At points copper is in evidence but no mineral shows which would render ore difficult of complex in treatment. In such class of ore as now exposed a laboratory test is the only way (except mill test) to average tonnage and mill values.

Ore: Positive & Probable, Ore Dumps, Tailings - A great amount of ore can be mined in the development of crosscuts from shaft but at this time no width can be determined to estimate tonnage.

Mine, Mill Equipment & Flow Sheet - Mill building capacity 125 tons daily. All concrete reinforced, galvanized iron buildings. Laboratory connecting mill with bunkers main shaft. Machine shop. Mill and mine operation could be electrified with cheap power from the United States Indian Irrigation Service. This is Boulder Dam Power.

Road Conditions, Route - Between the mines and Parker very good automobile road.

Water Supply - Ample to supply water in excess for a large reduction from Colorado river about two miles from mine. Double compartment shaft has water in bottom but at present would not be sufficient for an operation but should develop plenty when shaft is sunk to greater depth.

Brief History - Originally known as the Quartz King Mine.

Special Problems, Reports Filed - Mr. C. C. A. Hammond, E.M. report on file. In this report Mr. Hammond states that the mining work has been fairly well done, enough workings to prove that the structure, fissure, dip and strike and gold values are there.

Remarks

If property for sale: Price, terms and address to negotiate

SIGNED - C. Osborne Botzum

MR-21
R.C. Osborne Botzum
properties - Rio Vista
Botzum 2/18th
owned good

February 20th 1940

Phoenix, Ariz.

Mr. David S. Tait
521 Metropolitan Building
Vancouver, B.C.
CANADA

Dear Mr. Tait:

While here in Los Angeles I fortunately met Mrs. Botzum and Mr. Osborne of Parker, Arizona, and Mr. E. Butterworth, of Los Angeles, and had an opportunity to discuss with them the plans for sampling the Rio Vista Mine.

In a general way I am quite familiar with the ore occurrence at this property and know of the difficulties in attempting to get a proper sampling of a disseminated ore body by the ordinary channel methods of sampling, such as used on lode properties. The ore at the Rio Vista occurs in a brecciated quartz site in a crushed shear zone and the gold values are irregularly distributed.

It has been our experience in Arizona that in ore bodies of this type the only fair method of sampling is by bulk sampling and semi-commercial pilot plant treatment of large sized samples. Where this is possible one is able to get a fair valuation of the property from sampling. Such sampling not only allows one to get a fair average, such as would be expected under operating conditions, but in addition, is able to determine the proper flow sheet to be used in larger scale operations.

I can cite an example of this method by mentioning the Rio Grande Mine at Wickenburg. This property has a large body of ore and the ordinary hand cut channel sampling failed to show the proper distribution of values. A pilot mill was installed and mill tests made on 25 to 50 ton sections of ore in the mine which showed the general average to be commercial.

There are many other properties which I might mention. One of the major ones is the Phelps Dodge operations at Morenci. This property has been known for many years and has been drilled and sampled a number of times. A pilot plant

Feb. 20, 1940

was installed and by its use the general average of the ore body and a proper flow sheet was determined which warranted the company in going ahead with a twenty-eight million dollar investment to put the property in operation on a 25,000 ton daily capacity.

In a general way in sampling these ore bodies where the values are irregular, but are widely distributed, large samples are absolutely necessary. In some instances these large bulk samples are shipped outside for mill run tests or are crushed and carefully sampled by smelter methods. In a number of instances, however, it has been found advisable to install local test plants of from 25 to 50 or 100 ton daily capacity. In this manner it is possible to open up the property and determine the general average of the mine through a proper development program.

Knowing the ore body at the Rio Vista, I would suggest that this method of sampling be given careful consideration.

The Department of Mineral Resources of the State of Arizona, was created to work on and assist in the solving of the economic problems of mining within the state. We have four engineers in the field to assist in such preliminary work and carry on other research work. Our services are always available when new capital is considering opening up any of the properties within the state. When time permits me to get away from the office I join with the Field Engineer in any particular district to assist on such work with him.

If we can be of any service to you and to the Rio Vista Mine in the plans for getting this property into operation, we will be only glad to tender our services to you.

Very truly yours,

J. S. Coupal
Director

JSC:fe

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

OWNERS MINE REPORT

Date August 28, 1941

Mine RIO VISTA MINE (South Side)

District CIENEGA MINING DISTRICT,
YUMA COUNTY, ARIZONA

Former name Quartz King

Location About five (5) miles
northeasterly of Parker,
Arizona.

Owner C.Osborne Botzum, E.S.Osborne Jr.,
and H.M.Osborne

Address Box 1587, Parker, Arizona

Operator Owners

Address

President

Gen. Mgr.

Mine Supt.

Mill Supt.

Principal Metals Gold & Copper

Men Employed

Production Rate

Mill: Type & Cap.

Power: Amt. & Type Boulder Dam Power available from U.S.I.S.

Operations: Present Plans are in effect at this time to carry on a new develop-
ment and operation program.

Operations Planned

Number Claims, Title, etc. Sixteen (16) unpatented lode mining claims. Held by
location and annual assessment work in accordance
with State and United States Mining Laws.

Description: Topog. & Geog. Mine is located in west foothills of the Planet Range /
of mts. Foothills rolling at mine and easy of access by truck and automo-
bile. Country rock of this area is of the pre-cambrian complex granite,
gneiss and schist. On the claims principal rock is granite gneiss whichas
been intruded by diorite on east and westerly line while andesite trends
northeasterly and southwesterly.

Mine Workings: Amt. & Condition Great amount of work has been done on property. Main
working is a double compartment shaft 287 ft. deep with drifts and a series
of tunnels and winze on the ore. Average width of ore in various cuts,
shallow shafts, tunnels, upraises from four/^{feet} to unknown width. No walls.
Values vary as ore has been crushed and twisted by intrusions rendering
channel cuts hard to make on account of soft ore running. Bottom of main

double compartment shaft is changing in formation, evidently getting away from crushed zone. Vein is firm and strong. About 2,000 feet of shaft and tunnel development as well as several hundred feet of surface workings.

Geology & Mineralization Intrusion of diorite is evident cause of fissure and to its inclusion mineralization is due. Composition of the ore is almost ideal amalgamation and cyanidation treatment. Ore being of easily crushed quartz, schist and andesite impregnated with oxides of iron. At points copper is in evidence but no mineral shows which would render ore difficult of complex in treatment. In such class of ore as now exposed a laboratory test is the only way (except mill test) to average tonnage and mill values. Ore: Positive & Probable, Ore Dumps, Tailings. A great amount of ore can be mined in the development of cross cuts from shaft but at this time no width can be determined to estimate tonnage.

Mine, Mill Equipment & Flow Sheet Mill building capacity 125 tons daily. All concrete reinforced, galvanized iron buildings. Laboratory connecting mill with bunkers main shaft. Machine shop. Mill and mine operation could be electrified with cheap power from the United States Indian Irrigation Service. This is Boulder Dam Power.

Road Conditions, Route Between the mines and Parker very good automobile road.

Water Supply Ample to supply water in excess for a large reduction from Colorado river about two miles from mine. Double compartment shaft has water in bottom but at present would not be sufficient for a operation but should develop plenty when shaft is sunk to greater depth.

Brief History Originally known as the Quartz King Mine.

Special Problems, Reports Filed Mr. C.C.A. Hammond E.M. report on filw. In this report Mr. Hammond states that the mining work has been fairly well done enough workings to prove that the structure, fissure, dip and strike and gold values are there.

Remarks

If property for sale: Price, terms and address to negotiate.

Signed

C. O. Deane Botzum

Use additional sheets if necessary.

MR-22

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

OWNERS MINE REPORT

Date May 1940

Mine Rio Vista Mines (South side)

District Cienega Mining District,

Location About five (5) miles northeasterly of Parker, Arizona

Former name Quartz King Mine

Owner E. S. Osborne and C. Osborne Botzum
(Co-owners)

Address Box 87, Parker, Arizona

Operator

Address

President

Gen. Mgr.

Mine Supt.

Mill Supt.

Principal Metals Gold and Copper

Men Employed

Production Rate

Mill: Type & Cap.

Power: Amt. & Type

Operations: Present None at present.

Operations Planned Future operations depend upon outcome of examination of the property and present exploratory work by prospecting operators.

Number Claims, Title, etc. The Rio Vista Mines (South Side) Group of sixteen (16) Lode Mining Claims. Held by location and annual assessment work in accordance with State and United States Mining Laws.

Description: Topog. & Geog. Mines are located in west foothills of the Planet Range of Mts. Foothills rolling at mine and are easy of access by truck and automobile. Country rock of this area is of the pre-cambrian complex granite, gneiss and schist. On the claims principal rock is granitic gneiss which has been intruded by diorite on east and westerly line while andesite trends northeasterly and southwesterly

Mine Workings: Amt. & Condition Great amount of work has been done on property principally on double compartment main shaft to an approximate depth of 287 ft. with cross cuts and a series of tunnels and winze on the ore. Average width of ore in various cuts, shallow shafts, tunnels, upraises from four to unknown width. No walls. Values vary as ore has been crushed and twisted by intrusions rendering channel cuts hard to make on account of soft ore running. Bottom of main double compartment shaft is changing, evidently, getting away from crushed zone. Vein is firm and strong. About 2,000 ft. of shaft and tunnel and several hundred ft. surface work.

Intention of diorite is evident cause of fissure and to its influence the mineralization is due. Composition of the ore is almost ideal for amalgamation and cyanidation treatment. Ore being of an easily crushed quartz, schist and andesite impregnated with oxides of iron. At some points copper is in evidence but no mineral shows which would render ore difficult of complex in treatment.

Ore: Positive & Probable, Ore Dumps, Tailings In such class of ore as now exposed a laboratory test is the only way (except mill test) to average tonnage and mill values. A great amount of ore can be mined in the development of cross cuts from main shaft, but at this time no width can be determined to estimate tonnage.

Mine, Mill Equipment & Flow Sheet Mill capacity 125 ton. All concrete reinforced, galvanized iron equipment. Laboratory, connecting mill with bunkers at main shaft. Air compressor engine room. Mill to be equipped with new standard equipment and necessary mining machinery after drilling operations are completed and further development completed. With cheap boulder dam hydro-electric power coming into this area, mining and milling power costs will be quite nominal.

Road Conditions, Route Between the mines and Parker is a very good road of easy grades.

Water Supply Ample to supply water in excess for a large reduction works and camp. From Colorado Rim - lift of 450 ft. to mine.

Brief History Formerly called Quartz King. Mined by foreign interests in 1908. Osborne acquired title in 1916.

Special Problems, Reports Filed Wide disseminated gold values in schist, bricceated quartz, calling for bulk sampling to fairly determine carraige values.

Remarks Rio Vista South Side Mine is yet to be opened up. The mining work has been fairly well done enough workings to prove that the structure, fissure, dip and strike and gold values are there.

If property for sale: Price, terms and address to negotiate. For sale, see owner for terms.

Signed C. Osborne Botzum

Use additional sheets if necessary.

MR-22

DEPARTMENT OF MINERAL RESOURCES
STATE OF ARIZONA
OWNERS MINE REPORT

MAY 1940
Date ~~JUNE 1939~~

Mine RIO VISTA MINES (South side)

District Cienega Mining District.

Location About five (5) miles north-easterly of Parker, Arizona.

Former name QUARTZ KING MINE

Owner E.S. Osborne and C. Osborne Botzum
(Co-Owners)

Address Box 87, Parker, Arizona.

Operator ~~_____~~

Address

President

Gen. Mgr. ~~_____~~

Mine Supt.

Mill Supt.

Principal Metals Gold and Copper

Men Employed ~~_____~~

Production Rate

Mill: Type & Cap.

Power: Amt. & Type

Operations: Present ~~Lease effective June 20, 1939. New operations just getting under way.~~
none at present

Examination
Operations Planned future operations depend upon outcome of drilling the property and present exploratory work. *by prospecting operations*

Number Claims, Title, etc. The Rio vista Mines (South side) group of sixteen (16) Lode Mining claims. Held by location and annual assessment work in accordance with state and United States Mining Laws.

Description: Topog. & Geog. Mines are located in west foothills of the Planet Range of Mts. Foothills rolling at mine and are easy of access by truck and automobile.

country rock of this area is of the pre-cambrian complex granite, gneiss and schist. On the claims principal rock is granitic gneiss which has been intruded by diorite on east and westerly line while andesite trends north-easterly and southwesterly.

Mine Workings: Amt. & Condition Great amount of work has been done on property principally on double compartment main shaft to an approximate depth of 287 feet with cross cuts and a series of tunnels and winze on the ore. Average width of ore in various cuts, shallow shafts, tunnels, upraises from four to unknown width. No walls. Values vary as ore has been crushed and twisted by intrusions rendering channel cuts hard to make on account of soft ore running. Bottom of main double compartment shaft is changing, evidently, getting away from crushed zone. vein is firm and strong. About 2,000 feet of shaft & tunnel and several hundred ft. surface work.

Geology & Mineralization Intrusion of diorite is evident cause of fissure and to its influence the mineralization is due. Composition of the ore is almost ideal for amalgamation and cyanidation treatment. Ore being of an easily crushed quartz, schist and andesite impregnated with oxides of iron. At some points copper is in evidence but no mineral shows which would render ore difficult of complex in treatment.

Ore: Positive & Probable, Ore Dumps, Tailings

In such class of ore as now exposed a laboratory test is the only way (except mill test) to average tonnage and mill values. A great amount of ore can be mined in the development of cross cuts from main shaft, but at this time no width can be determined to estimate tonnage.

Mine, Mill Equipment & Flow Sheet

Mill capacity 125 ton. All concrete reinforced, galvanized iron equipment. Laboratory, connecting mill with bunkers at main shaft. Aircompressor engine room. Mill to be equipped with new standard equipment and necessary mining machinery after drilling operations are completed and further development completed. with cheap Boulder Dam hydro-electric

Road Conditions, Route power coming into this area, mining and milling power costs will be quite nominal.

Between the mines and Parker is a very good desert road of easy grades.

Water Supply

Ample to supply water in excess for a large reduction works and camp.

from Colorado River - lift 7450 ft. to mine.

Brief History

Formerly ~~call~~ called Quartz King owned by foreign interests about 1908. Osborne acquired title in 1916.

Special Problems, Reports Filed

Wide disseminated gold values in schist. Increased quartz - calling for bulk sampling to fairly determine average values

Remarks

Rio vista south side mine is yet to be opened up. The mining work has been fairly well done enough workings to prove that the structure, fissure, dip and strike and gold values are there.

- If property for sale: Price, terms and address to negotiate.

~~At this time the property is not for sale.~~

For Sale - see notes for terms

Signed

C. Osborne Bolger

Use additional sheets if necessary.

DEPARTMENT OF MINERAL RESOURCES

MR-21 STATE OF ARIZONA
OWNERS MINE REPORT

Date August 28, 1941

Mine Rio Vista Mine (North Side)

District - Cienega Mining District
Yuma County, Parker, Arizona

Location - About five (5) miles
northeasterly of Parker,
Arizona.

Former Name,

Owners - E. S. Osborne, Jr., Clara Osborne
Botzum and H. M. Osborne

Address - Box 1587
Parker, Arizona

Operator - Owners

Address

President

Gen. Mgr.

Mine Supt.

Mill Supt.

Principal Metals - Gold and Copper

Men Employed

Production Rate

Mill: Type & Cap.

Power: Amt. & Type

Operations: Present - Plans are now in effect to carry on a new development
and operation program in connection with the Rio Vista
South Side Mine.

Operations Planned

Number Claims, Title, etc. - Ten (10) unpatented lode mining claims. Held by
location and annual assessment in accordance with
State and United States Mining Laws.

Description: Topography & Geography - Located in the west foothills of the Planet
Range of Mts. Foothills rolling at mine and easy of access by truck
or automobile. Most common is the metamorphosed limestones, shale and
quartzite. The crushing and faulting of the porphyrite schist has
opened channels and beds which have been filled by circulating solutions
to such an extent that a great deal of the mass has been filled with
ore-bearing material

Mine Workings: Amt. & Condition - Main workings: 240 foot incline shaft. 127 ft.
vertical shaft. Approximately 800 ft. of tunnels, crosscuts, drifts,
winzes, upraises and surface work. Other parts of the property other
than around the main workings are developed with about 250 ft. of
shaft and surface development work.

SIGNED - C. Osborne Botzum

Geology & Mineralization - The deposit occurs in a low ridge within a wide, silica brecciated zone that strikes south 15 degrees west and separates metamorphosed limestone on the west from the schistose quartzite on the east. The numerous veins and fissures upon this property discloses a condition of mineralization with favorable gold and copper values.

Ore: Positive & Probable, Ore Dumps, Tailings.

Mine, Mill Equipment & Flow Sheet - Small mine equipment for small mine development operation at the present time.

Road Conditions, Route - There is a good automobile road from Parker to the mine.

Water Supply - Abundance of water for large scale operation available from the Colorado river which is about $1\frac{1}{2}$ miles from the property. It is possible to develop water on the property in a near by wash.

Brief History - Originally a part of the Quartz King Mine.

Special Problems, Reports Filed - Mr. C. C.A. Hammond, E.M. report on file which is very favorable.

Remarks - At this time this property and the Rio Vista South Side Mine owners are the same. The properties adjoin each other and are more or less a part of each other and are known as the Rio Vista Mines.

If property for sale: Price, Terms and address to negotiate

SIGNED - C. Osborne Botzum

M R-21
DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

OWNERS MINE REPORT

Date **August 28, 1941**

Mine **RIO VISTA MINE (North Side)**

District **CIENEGA MINING DISTRICT**
PARKER, ARIZONA. Yuma County.

Former name

Location **About five (5) miles**
northeasterly of Parker,
Arizona.

Owner **E.S.Osborne Jr. Clara Osborne -**
Botzum and H. M. Osborne

Address **Box 1587, Parker, Arizona.**

Operator **Owners**

Address

President

Gen. Mgr.

Mine Supt.

Mill Supt.

Principal Metals **GOLD AND COPPER**

Men Employed

Production Rate

Mill: Type & Cap.

Power: Amt. & Type

Operations: Present **Plans are now in effect to carry on a new development and**
operation program in connection with the Rio Vista South
Side Mine.

Operations Planned

Number Claims, Title, etc. **Ten (10) unpatented lode mining claims. Held by location**
and annual assessment in accordance with State and
United States Mining Laws.

Description: Topog. & Geog. **Located in the west foothills of the Planet Range of**
mts. Foothills rolling at mine and easy of access by truck or automobile.
Most common is the metamorphosed limestones, shale and quartzsite. The
crushing and faulting of the porphyrite schist has opened channels and beds
which have been filled by circulating solutions to such an extent that a
great deal of the mass has been filled with ore-bearing material.

Mine Workings: Amt. & Condition **Main workings: 240 foot incline shaft. 127 ft.**
vertical shaft. Approx. 800 feet of tunnels, cross-cuts, drifts, winzes,
up-raises and surface work. Other parts of the property other than around
the main workings are developed with about 250 feet of shaft and surface
development work.

(over)

Geology & Mineralization The deposit occurs in a low ridge within a wide, silica brecciated zone that strikes south 15 degrees west and separates metamorphosed limestone on the west from the schistose quartzite on the east. The numerous veins and fissures upon this property discloses a condition of mineralization with favorable gold and copper values.

Ore: Positive & Probable, Ore Dumps, Tailings

Mine, Mill Equipment & Flow Sheet Small mine equipment for small mine development operation at the present time.

Road Conditions, Route There is a good automobile road from Parker to the mine.

Water Supply Abundance of water for large scale operation available from the Colorado river which is about $1\frac{1}{2}$ miles from the property. It is possible to develop water on the property in a near by wash.

Brief History Originally a part of the QUARTZ King Mine.

Special Problems, Reports Filed Mr.C.C.A.Hammond E.M. report on file which is very favorable.

Remarks At this time this property and the Rio Vista South Side Mine owners are the same. The properties adjoin each other and are more or less a part of each other and are known as the Rio Vista Mines.

If property for sale: Price, terms and address to negotiate.

Signed

G. Calver Batz

RETURN RECEIPT

Received from the Postmaster the Registered or Insured Article, the original number of which appears on the face of this Card.

Mrs Clara Oster Bolger

(Signature or name of addressee)

J. L. Darch

(Signature of addressee's agent)

8/31/10
Date of delivery, -----, 19

Form 3811

U. S. GOVERNMENT PRINTING OFFICE

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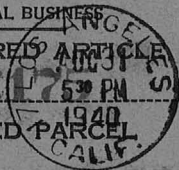
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No. _____



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or Post Office Box, }

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ARIZONA.

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WESTERN UNION

(102)

SYMBOLS

DL = Day Letter

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PRESIDENTNEWCOMB CARLTON
CHAIRMAN OF THE BOARDJ. C. WILLEVER
FIRST VICE-PRESIDENT

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J S COUPAL=

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SEND VIA REGISTERED MAIL RIOVISTA DATA IMPORTANT BEST
WISHES=

CLARA OSBORNE BOTZUM.

Reut
8/30 1*

February 20th 1940

Phoenix, Ariz.

Mr. David S. Tait
521 Metropolitan Building
Vancouver, B.C.
CANADA

Dear Mr. Tait:

While here in Los Angeles I fortunately met Mrs. Botzum and Mr. Osborne of Parker, Arizona, and Mr. E. Butterworth, of Los Angeles, and had an opportunity to discuss with them the plans for sampling the Rio Vista Mine.

In a general way I am quite familiar with the ore occurrence at this property and know of the difficulties in attempting to get a proper sampling of a decimated ore body by the ordinary channel methods of sampling, such as used on lode properties. The ore at the Rio Vista occurs in a braced quartz site in a crushed shear zone and the gold values are irregularly distributed.

It has been our experience in Arizona that in ore bodies of this type the only fair method of sampling is by bulk sampling and semi-commercial pilot plant treatment of large sized samples. Where this is possible one is able to get a fair valuation of the property from sampling. Such sampling not only allows one to get a fair average, such as would be expected under operating conditions, but in addition, is able to determine the proper flow sheet to be used in larger scale operations.

I can cite an example of this method by mentioning the Rio Grande Mine at Wickenburg. This property has a large body of ore and the ordinary hand cut channel sampling failed to show the proper distribution of values. A pilot mill was installed and mill tests made on 25 to 50 ton sections of ore in the mine which showed the general average to be commercial.

There are many other properties which I might mention. One of the major ones is the Phelps Dodge operations at Morenci. This property has been known for many years and has been drilled and sampled a number of times. A pilot plant was installed and by its use the

Feb. 20, 1940

general average of the ore body and a proper flow sheet was determined which warranted the company in going ahead with a twenty-eight million dollar investment to put the property in operation on a 25,000 ton daily capacity.

In a general way in sampling these ore bodies where the values are irregular, but are widely distributed, large samples are absolutely necessary. In some instances these large bulk samples are shipped outside for mill run tests or are crushed and carefully sampled by smelter methods. In a number of instances, however, it has been found advisable to install local test plants of from 25 to 50 or 100 ton daily capacity. In this manner it is possible to open up the property and determine the general average of the mine through a proper development program.

Knowing the ore body at the Rio Vista, I would suggest that this method of sampling be given careful consideration.

The Department of Mineral Resources of the State of Arizona, was created to work on and assist in the solving of the economic problems of mining within the state. We have four engineers in the field to assist in such preliminary work and carry on other research work. Our services are always available when new capital is considering opening up any of the properties within the state. When time permits me to get away from the office I join with the Field Engineer in any particular district to assist on such work with him.

If we can be of any service to you and to the Rio Vista Mine in the plans for getting this property into operation, we will be only glad to tender our services to you.

Very truly yours,

J. S. Coupal
Director

JSC:fe

MR-21

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

OWNERS MINE REPORT

Date JUNE 1939.

Mine RIO VISTA MINE (North Side).

District Cienega Mining District.

Location About five (5) miles north-easterly of Parker, Arizona.

Former name

Owner E. S. Osborne

Address Box 87, Parker, Arizona.

Operator Marcus White and Earl Wilcox

Address Parker, Arizona.

President

Gen. Mgr.

Mine Supt.

Mill Supt. H. Earl Wilcox

Principal Metals Gold and copper

Men Employed

Production Rate

Mill: Type & Cap.

Power: Amt. & Type

Operations: Present ~~Establishing a 50 ton capacity Rod mill with amalgamation and concentration. To be completed within ninety (90) days. Connecting 127 foot vertical shaft with 248 foot incline shaft and will draw ore from this source for mill.~~

Operations Planned

3 men sinking 2 to incline shaft - in high grade gold ore.

Being examined for extension operations

Number Claims, Title, etc. The Rio vista Mine (North Side) Group of Ten (10) Lode Mining claims. Held by location and annual assessment in accordance with State and United States Mining Laws.

Description: Topog. & Geog. Located in the west foothills of the Planet Range of mts. Foothills rolling at mine and easy of access by truck or automobile. Most common is the metamorphosed limestones, shale and quartzite. The crushing and faulting of the porphyritic schist has opened channels and beds which have been filled by circulating solutions to such an extent that a great deal of the mass has been filled by ore-bearing material.

Mine Workings: Amt. & Condition

127 foot vertical shaft. 240 foot incline and approximately 800 feet of tunnels, cross-cuts, winzes, up-raises and surface work at the main workings. Other parts of this property has been developed by about 250 feet of shaft and other shallow surface workings.

Geology & Mineralization The deposit occurs in a low ridge, within a wide, silicified, brecciated zone that strikes S. 15 degrees W. and separates metamorphosed limestone on the west from the schistose quartzite on the east. The numerous veins and fissures upon this property disclose a condition of mineralization with favorable gold and copper values.

Ore: Positive & Probable, Ore Dumps, Tailings

~~The present plan of operations will in three months time determine the greater tonnage of commercial ore.~~

Large tonnage probable indicated.

Mine, Mill Equipment & Flow Sheet

New immediate installation of mine and mill machinery will consist of a hoist, air compressor and other mining equipment. Mill equipment for a 50 ton capacity complete. Flow sheet available later.

Road Conditions, Route

There is a good road to the property.

Water Supply

Abundance of water for large scale operation from the Colorado River which is about 1 1/2 miles from the property.

Brief History

Formerly part of Quartz King located in 1908 by foreign interests. Acquired by Osborne in 1916.

Special Problems, Reports Filed

Remarks

The future of the mine contains large possibilities and further development justified.

If property for sale: Price, terms and address to negotiate.

~~At this date the property is not for sale.~~ *In Sale See*

owner for terms

Signed

E. S. Osborne

Use additional sheets if necessary.

Post Office Department

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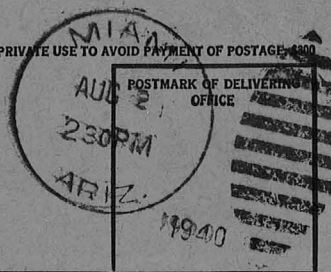
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