



CONTACT INFORMATION
Mining Records Curator
Arizona Geological Survey
3550 N. Central Ave, 2nd floor
Phoenix, AZ, 85012
602-771-1601
<http://www.azgs.az.gov>
inquiries@azgs.az.gov

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R12 #26-1
 R12 #27-51
 R44 #199-164
 R44 #199-164
 R16 #161-132
 R16 #161-132
 R39-#118-82
 R16-#99-65
 R44-#130-163
 R16 #32-64
 R16-#30-1
 R46-#43-76, R12 #192-185
 R12-#152-184
 R12-#109-141
 R46 #42-32, R12 #94-72
 R46-#31-16, R12 #151-142
 R12 #55-71
 R12 #95-108

L155-R17-#74-61
 L17-#45-35
 L17-#46-66
 L18-R11-#59-116
 L19-R11-#1-45, L19-R44-#17-48
 L20-R10-#121-180
 L21-R10-#1-61
 L13-R17-#75-80
 L14-R17-#149-121
 L12-R17-#150-170
 L11-R10-#206-226
 L10-R17-#186-208
 L9-R44-#16-13
 L8-R18-#1-18
 L7-R18-#19-53
 L2-R6-#85-104
 L3-R46-#1-15
 L3-R6-#15-68
 L1-R6-#19-17
 L6-R6-#41-20
 L5-R6-#42-67
 L4-R6-#130-105

L1-R10-#110-120
 L4-R10-#108-97
 L3-R10-#84-96
 L2-R10-#83-73
 L1-R10-#62-72
 L1-R9-#152-163
 L2-R9-#13-31
 L4-R9-#50-69
 L5-R9-#90-70
 L6-R9-#91-111
 L7-R9-#49-32
 L8-R9-#30-112
 L9-R9-#31-141
 L1-R9-#193-185
 L2-R9-#192-186
 L3-R9-#201-186
 L4-R34-#18-1
 L5-R34-#19-29
 L1-R9-#192-186
 L2-R9-#193-185
 L3-R9-#201-186
 L4-R34-#18-1
 L5-R34-#19-29

L415-R33 #1-35
 L395-R32-#97-105
 L358-R32-#1-13
 L348-R32-#25-14
 L355-R32-#26-36
 L265-R32-#49-37
 L1-R28-#107-88
 L2-B28-#66-81
 L3-R28-#108-129
 L4-R31-#191-212
 L5-R33-#151-133
 L6-R33-#152-170
 L7-R33-#187-171
 L8-R33-#188-206
 L9-R33-#200-207
 L10-R33-#40-130
 L1-R28-#107-88
 L2-B28-#66-81
 L3-R28-#108-129
 L4-R31-#191-212
 L5-R33-#151-133
 L6-R33-#152-170
 L7-R33-#187-171
 L8-R33-#188-206
 L9-R33-#200-207
 L10-R33-#40-130

L504-R42-#94-113
 L19
 L53-R26-#25-46
 L54-R26-#99-138
 L53-R26-#99-138
 L53-R27-#188-81, L53-R26-#91-47
 L52-R26-#215-198, L52-R26-#189-131
 L51-R27-#33-98, L51-R27-#76-98
 L50-R27-#160-99
 L49-R29-#147-186, L49-R29-#187-221
 L48-R29-#146-93, L48-R29-#92-94
 L47-R29-#1-93
 L46-R42-#114-140, L46-R30-#91-1
 L45-R30-#115-148, L44-R31-#147-88
 L44-R31-#39-21, L44-R31-#16-1, L44-R30-#217-176
 L43-R31-#40-112
 L42-R31-#190-116
 L41-R32-#187-164
 L40-R33-#67-98
 L39-R32-#134-163
 L38N-R33-#132-99
 L37N-R34-#40-69
 L36N-R34-#99-70
 L35N-R34-#131-100
 L34N-R34-#165-132
 L33N-R34-#166-194
 L32N-R34-#225-195
 L31N-R35-#1-31
 L30-R35-#80-56, L30-R35-#57-22
 L29-R35-#90-144
 L28-R35-#203-144
 L27-B36-#2-35, L27-R36-#36-62
 L26-R36-#123-63
 L25-R36-#126-190
 L24-R37-#90-67, L24-R36-#212-111
 L23-R37-#2-66
 L22-R41-#151-141, L22-R41-#140-81
 L21-R41-#19-47, L21-R42-#159-171
 L20-R39-#124-184, L20-R42-#159-171
 L19-R41-#152-214
 L18-R38-#14-1
 L17-R41-#16-1, L17-R39-#220-185
 L165-R42-#192-184
 L175-R15-#98-110
 L18-R13-#52-97
 L19-R21-#117-138
 L20-R13-#51-25
 L21-R13-#1-24
 L22-R21-#68-92
 L23-R21-#116-97
 L24-R21-#67-49
 L25-R21-#24-48
 L26-R20-#143-184
 L27-R21-#33-19
 L28-821-#1-18
 L29-R20-#142-122
 L30-R20-#103-121
 L31-R20-#104-81
 L32-R20-#64-80
 L33-R20-#65-45
 L34-R20-#26-44
 L35-R20-#20-1
 L36-R19-#206-188
 L37-R19-#181-171
 L38-R19-#154-176
 L39-R19-#153-136
 L40-R19-#120-135
 L41-R19-#119-105
 L42-R19-#86-70
 L43-R19-#53-69
 L44-R19-#52-35
 L45-R19-#20-34
 L46-R19-#19-1
 L47-R29-#1-93
 L48-R29-#146-93, L48-R29-#92-94
 L49-R29-#147-186, L49-R29-#187-221
 L50-R29-#160-99
 L51-R27-#33-98, L51-R27-#76-98
 L52-R26-#215-198, L52-R26-#189-131
 L53-R27-#188-81, L53-R26-#91-47
 L54-R26-#99-138
 L55-R26-#25-46
 L56-R26-#24-1

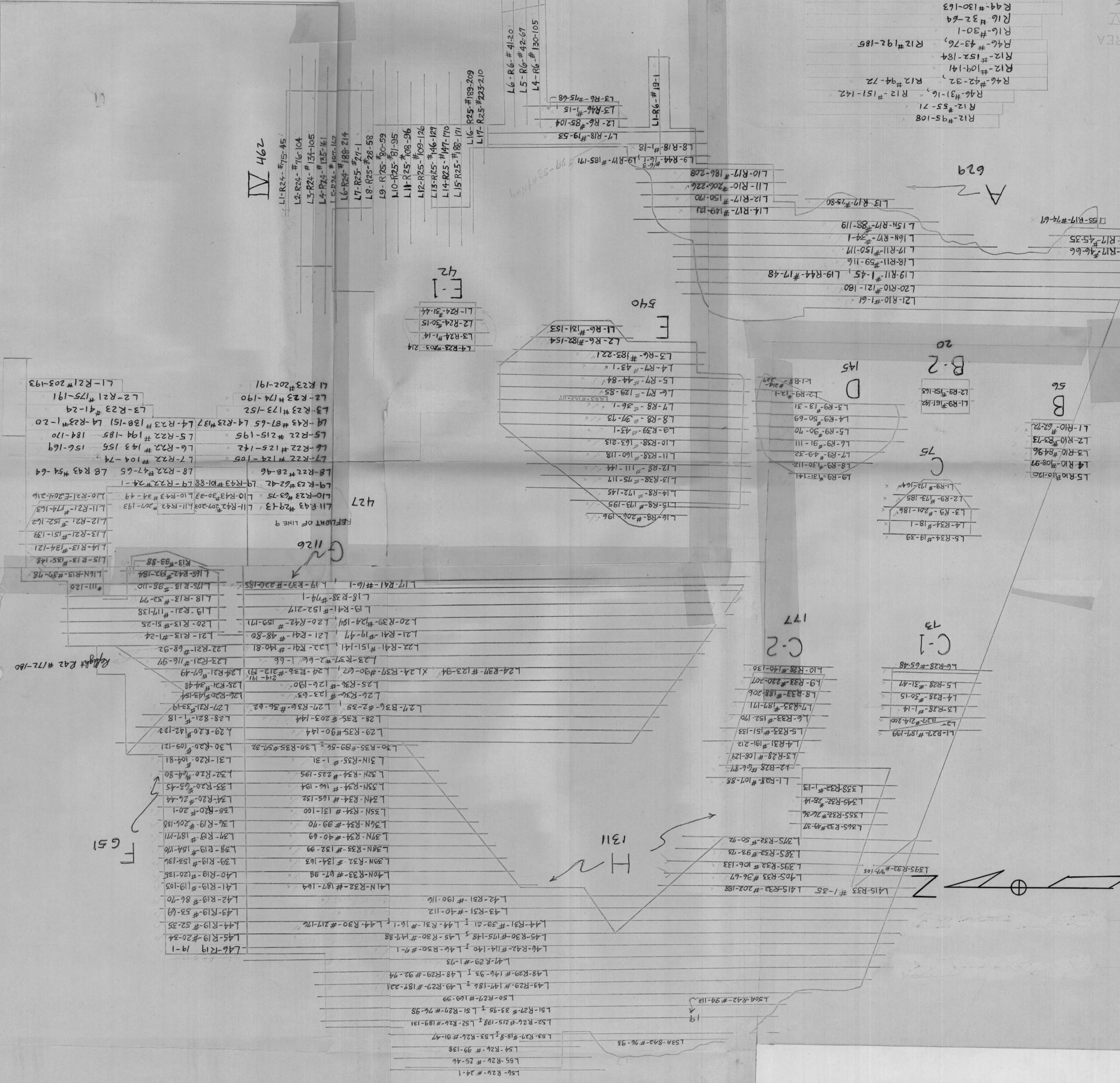
IV H62
 L1-R24-#75-45
 L2-R24-#76-104
 L3-R24-#134-105
 L4-R24-#135-161
 L5-R24-#105-167
 L6-R24-#188-214
 L7-R25-#271-1
 L8-R25-#28-58
 L9-R25-#80-59
 L10-R25-#81-95
 L11-R25-#108-96
 L12-R25-#109-126
 L13-R25-#146-129
 L14-R25-#147-170
 L15-R25-#88-171
 L16-R25-#189-209
 L17-R25-#203-210

E-1
 L1-R24-#31-44
 L2-R24-#50-15
 L3-R24-#1-14
 L4-R23-#203-214

E
 L1-R6-#131-153
 L2-R6-#182-154
 L3-R6-#183-221
 L4-R7-#43-1
 L5-R7-#44-84
 L6-R7-#29-85
 L7-R8-#36-1
 L8-R8-#37-13
 L9-R39-#43-1
 L10-R38-#163-213
 L11-R38-#160-118
 L12-R8-#111-144
 L13-R38-#75-117
 L14-R8-#172-145
 L15-R8-#173-195
 L16-R8-#206-196

REFLIGHT OF LINE 9
 L1-R23-#202-191
 L2-R23 #174-190
 L3-R23 #173-152
 L4-R23 #137
 L4-R23 #137, L4-R23 #130-151, L4-R23 #1-20
 L5-R22 #215-195
 L6-R22 #143-155, L6-R22 #125-142
 L7-R22 #104-74
 L8-R22 #28-46
 L9-R23 #62-42, L9-R23 #61-88
 L10-R43 #30-33, L10-R43 #34-49
 L11-R42 #209-208, L11-R42 #207-193
 L12-R21-#152-162
 L13-R21-#151-139
 L14-R13-#134-121
 L15-R13-#135-148
 L16N-R13-#89-78
 L111-R43 #29-43, L11-R42 #209-208, L11-R42 #207-193
 L10-R43 #30-33, L10-R43 #34-49
 L9-R23 #62-42, L9-R23 #61-88
 L8-R22 #28-46
 L7-R22 #104-74
 L6-R22 #143-155, L6-R22 #125-142
 L5-R22 #215-195
 L4-R23 #137, L4-R23 #130-151, L4-R23 #1-20
 L3-R23 #173-152
 L2-R23 #174-190
 L1-R23 #202-191

F G51
 L17-R41-#16-1, L17-R39-#220-185
 L18-R38-#14-1
 L19-R41-#152-214
 L20-R39-#124-184, L20-R42-#159-171
 L21-R41-#19-47, L21-R42-#159-171
 L22-R41-#151-141, L22-R41-#140-81
 L23-R37-#2-66
 L24-R37-#90-67, L24-R36-#212-111
 L25-R36-#126-190
 L26-R36-#123-63
 L27-B36-#2-35, L27-R36-#36-62
 L28-R35-#203-144
 L29-R35-#90-144
 L30-R35-#80-56, L30-R35-#57-22
 L31N-R35-#1-31
 L32N-R34-#225-195
 L33N-R34-#166-194
 L34N-R34-#165-132
 L35N-R34-#131-100
 L36N-R34-#99-70
 L37N-R34-#40-69
 L38N-R33-#132-99
 L39N-R32-#134-163
 L40N-R33-#67-98
 L41N-R32-#187-164
 L42-R31-#190-116
 L43-R31-#40-112
 L44-R31-#39-21, L44-R31-#16-1, L44-R30-#217-176
 L45-R30-#115-148, L44-R31-#147-88
 L46-R42-#114-140, L46-R30-#91-1
 L47-R29-#1-93
 L48-R29-#146-93, L48-R29-#92-94
 L49-R29-#147-186, L49-R29-#187-221
 L50-R29-#160-99
 L51-R27-#33-98, L51-R27-#76-98
 L52-R26-#215-198, L52-R26-#189-131
 L53-R27-#188-81, L53-R26-#91-47
 L54-R26-#99-138
 L55-R26-#25-46
 L56-R26-#24-1



113° 00'
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PHOTO INDEX of the PAPAGO INDIAN RESERVATION and ADJACENT AREAS

Area II
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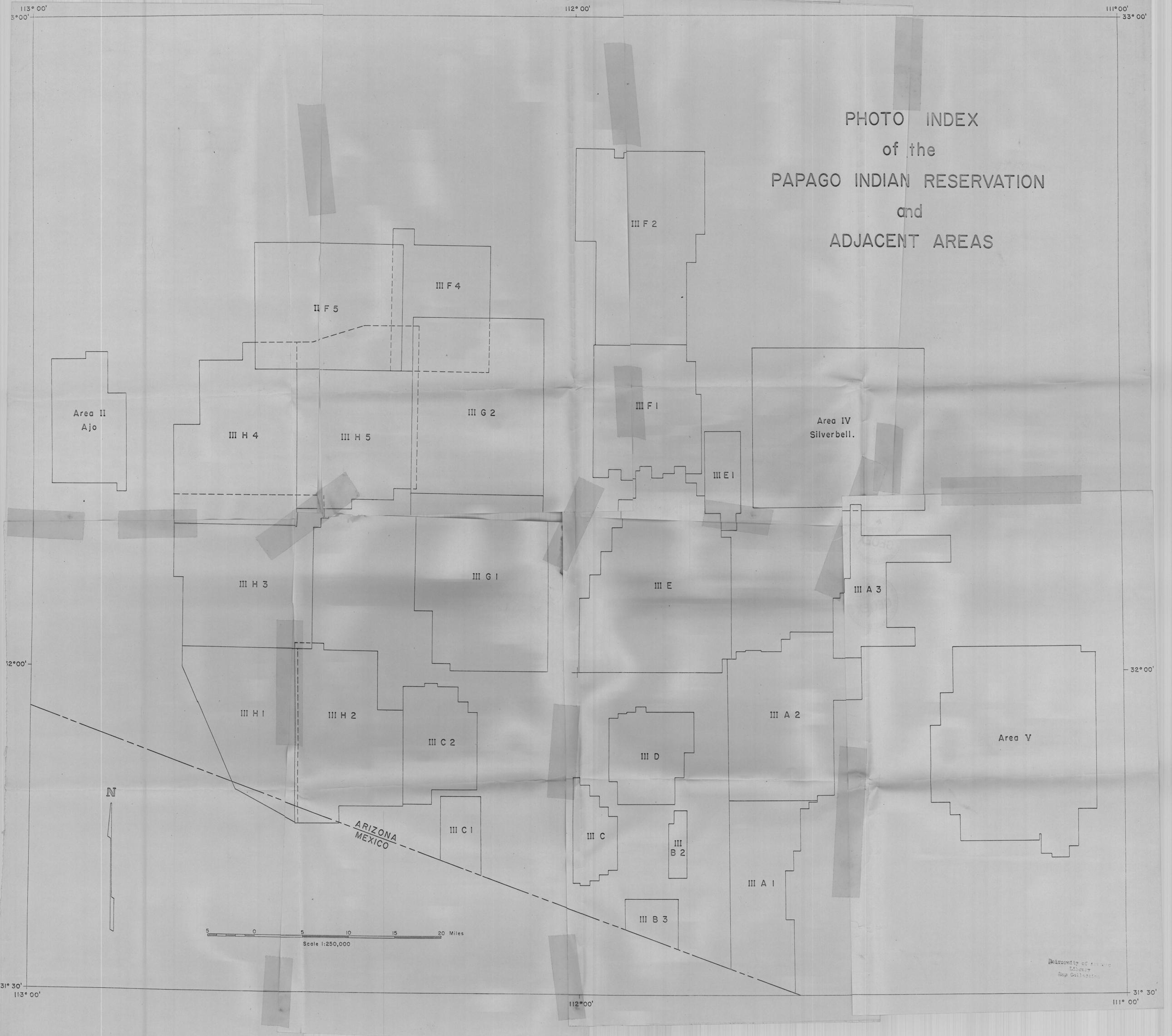
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PHOTO INDEX

MEXICO
ARIZONA

V 001A

III V S

III D

III C S

III H S

III H I

III

III O III

III H 2

III E I

III E I

III O S

III H 2

III H 3

III S III

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III O J

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HISTORY OF CERRO COLORADO OR TOLTEC
MINES.

The first authentic history of these mines and district is derived from writings of Jesuit padres, which speak of them as the "Mines of Tubac", which they consider to be the richest and most valuable of the holdings of the Mission of San Jose del Tumacacori, which mission church still exists situated some 25 miles southeast of these mines.

At the extensive settlement that was established at the mines, a mission church was established and named Santa Eulalia, (see Jesuit map of 1698). Of this building, only part of the original stone foundations are now to be found, as later the American owners and operators of the property built adobe buildings and houses on parts of these foundations and tore up other sections to obtain desirable stones for building purposes.

The Society of Jesus, or "Jesuits", was expelled and all of its property confiscated, by decree of the Spanish government in the year 1767, but the Jesuit padres were still holding and operating from Tumacacori up to 1775 at which date their records show they had 52 silver mines in operation.

The explanation of this condition is as follows: It required a year for a copy of the decree to reach the government at Guadalajara, and this mission was situated over 1,200 miles away in the heart of the Apache country, and the Jesuit fathers claimed 40,000 Indian converts. For these reasons they were not dispossessed until 1775, when their extensive properties and vast holdings, which they had hewn out of the desert, were taken from them and handed over to the (barefooted) Franciscans. The Franciscans thrived on the plunder of the Jesuits, and soon became opulent and such oppressive task-masters, that in the year 1802, a war broke out, a coalition of all the Indian tribes of the "Primeria Alta", led by a Seri Indian, who claimed to be a magician; this war lasted three years and extended over a territory as large as New England and the Middle States combined. Before its close, every mission, every mine in Pimeria Alta, had been destroyed, and every padre killed, so one history states. With the return of peace, new priests and monks came to rebuild, and to re-Christianize the natives, but the mines were not reopened; many were absolutely lost, filled in and obliterated, and it was certain death at the hands of his followers to the native who showed the site of one.

Shortly thereafter came the war for independence against Spain, which lasted for nine years, 1812 to 1821, and then the unsettled state of the country, together with the exodus of the Spanish population, and with them the bulk of capital and energy, and the mining industry remained in a state of "innocuous desuetude" for the next half century, at least as far as Mexico was concerned.

Then came the revolt of Texas and the Mexican War, by which Mexico lost half her territory to this country, with the Gila River as our southern boundry, in 1847.

In 1853 our government purchased a "small strip", known as the "Gadsen Purchase" from Mexico, for 10 million dollars: this strip was some 150 miles wide by 400 long, was in the heart of the Apache country and included a number of the ancient Jesuit missions, among them the Mission San Jose del Tamacacori with the long-forgotten mines of Tubac with the extensive settlement and workings, of which no noticeable signs remained, only foundations buried beneath piles of adobe. Shortly after the purchase was completed and before the boundary survey had been finished, this wild and dangerous section was visited by a number of adventurous citizens, who in the publications of that day were credited with making the perilous trip, 1,200 miles beyond a railroad and into the worst Indian country in the world for the purpose of "spying out the new purchase".

Among those early visitors may be mentioned: Col. Samuel Colt, of Colt revolver fame; Prof. Rafael Pumpelly, later professor of geology at Harvard University; Major Charles D. Posten, later delegate to Congress from the new territory of Arizona, and many others of note.

In the year 1858, Major Hintzelman, then stationed at Fort Crittenden, New Mexico (now Arizona) on the Gadsen Purchase, bought from a Mexican discoverer, a filled-in ancient mine, on which he at once started work, and during succeeding years extracted, from a 50 ft. shaft, 75,000 dollars (see U. S. Government report, 1868).

Near the close of the year 1859, Hintzelman was ordered off the property by the Ortez heirs - (Note: The Gadsen Purchase strip, since its acquisition by the United States, has produced from its metal mines alone, over one billion dollars in wealth for its citizens, at a huge profit), who claimed the property as being on the Spanish Grant of Arabac or Arivaca. Satisfying himself that was the case, Hintzelman undertook to purchase a portion of said Grant, (which covered many square miles of country). This the owners refused to consider, as the land became taxable should the Grant become subdivided; otherwise, it was "free from taxation forever".

The owner's price of half a million dollars in gold being beyond the ability of Hintzelman to pay, he went to his friend Major O. D. Posten, who in turn travelled east to see his friend Col. Samuel Colt.

These conditions resulted in the formation of the "Sonora Mining and Exploration Company", with Posten as manager, and ample capital from which the sum of \$500,000 in gold was paid for the Arivaca Grant, a huge sum for that day. This transaction was in Dona Anna County, New Mexico, and Arizona Territory was cut off of New Mexico three years later, in 1862. However the copy of the deed appears as the first real estate transaction, copied into the records of Pima County, Arizona, since the purchase of the Territory from Mexico.

During the four succeeding years Posten operated the property, employing some twelve Americans and over 200 Mexicans at the mines, besides 20 men at the extensive reduction plant, which he built on Arivaca Creek, twelve miles from the mines. The ore was assorted at the mines, the high grade being sacked for shipment, and that of lesser grade teamed to the milling plant, where it was crushed and reduced to concentrates, which were also sacked, and together with the high grade ores, shipped to Guaymas, Mexico, 320 miles by bull teams, for reshipment to Swansea, Wales, Great Britain, by sailing vessel around Cape Horn so that it could be smelted, and the copper and silver separated, as we had neither smelters nor refineries in this country at that early date. Under these conditions, it required well over a year to obtain returns on a shipment of ore from the mines.

All supplies and machinery coming from the East for the property, were hauled 1,230 miles on wagons, after leaving the railroad at Texarkana, Texas, at a cost of thirty cents a pound, through a hostile Indian country.

Cavalry maintained at the mines by the U. S. Government for a number of years, protected it from both Apache and prowling Mexican bands, and even under these conditions it prospered and was able to much more than pay the heavy expenses under which it operated, and became the largest producing lode mine in the United States, until forced to close down late in 1863, because of the withdrawal of the troops and the Apache depredations which followed.

Mexican looters from across the border also planed their part, and the last act was when 60 Sonorans, bent on plunder, slaughtered John Posten, brother of Major Posten and six others who were guarding the mines and stores after the property was closed down. After the killing of John Posten and his men, an armed force from Tucson proceeded to the property, buried the bodies and heaped stones over graves, which still exist on the hill above the mine openings. Shortly thereafter two of the employees of the company, Lord and Williams, former doctor and storekeeper, hauled to Tucson the remnants of the huge stores at the property that still remained after the killing and looting, and established the mercantile firm of Lord and Williams, with the largest stock of goods in the territory.

For nearly twenty years thereafter this section was given up to Apache Indians and Mexican raiders, and abandoned by Americans. However, the natives of the town of Serac, Sonora, Mexico, and others from as far away as Magdalena intermittently worked in the abandoned mines, robbing the rich ores in sight, cutting out the protecting pillars and generally wrecking the property; sometimes to their own cost, for on two occasions parties of mine robbers were killed in the cave-ins caused by their own greed and carelessness, and their descendents acknowledge eleven deaths from such mishaps.

The books of Major Posten were destroyed by fire when the mercantile house of Lord & Williams was burned in Tucson in 1881, but the exact figures of production and expenditures taken from same had been published in a work on Arizona, printed in 1878, and said figures are here given as derived from Posten's books and records:

"EXTRACTS FROM REPORTS BY ENGINEERS AND SCIENTISTS OF HIGH STANDING ON THE HINTZELMAN OR CERRO COLORADO MINE".

J. Ross Brown states in his report to the U. S. Government: -

"The lode runs nearly north and south, and may average 22 feet in thickness; it is about 2000 feet long, and is distinct and separate from the country rock on both sides"

Gen. Hintzelman states in a letter from the mines, dated 1859, that "All of the ore smelted, to date, yielded \$920.00 per ton".

Guide Rustel reported: "The main shaft, 6 x 12 ft., well timbered and furnished with substantial ladders, is placed on the west side of the lode which, pitching west, changes its inclination in the depth, so that the shaft, which was calculated to strike the lode at 160 ft. below the surface, may not reach it before 400 or 500 feet depth.

"There are shafts and some tunneling and drifts, the actual workings is 120 ft."

"The characteristic feature of the mines is the rich ore which shows everywhere".

"The principal ore, at depth, is silver copper glance, containing from 2% to 10% silver, accompanied by argentiferous gray copper ore, with from 1% to 3% silver.

Prof. Raphael Pomplly (late) Professor of Geology at Harvard University, Graduate of Freiberg University, Germany; Geologist of the Japanese Government, Chinese Government, etc., states, in a mineral sketch of the silver mines of Arizona, 1860: -

"The most important of the mines known and worked is the Hintzelman; the vein runs nearly north and south, has a vertical dip and is enclosed in a brown porphyry rock, very hard to free from quartz. The gangue is principally quartz with some pyrites and brown spar. The ore is separated into two classes by hand, rendered necessary by the difference in their chemical character and in their richness in silver.

The first consists of the more massive and richer ore, composed of strymerite, tetrahedrite, blende, and sulphurite. The percent of silver in this class is too great to allow of its being treated profitably in barrels. It represents about 100% of the entire amount smelted, is nearly \$1,000 to the ton of 2000 lbs. while the amount contained is 15% more".

"The second class contains the same minerals as the first, but they are more intimately associated with the gangue, which in this class forms the bulk of the ore. The blende has a moderate percent of silver, while the tetrahedrite (fahlrenz or grey copper ore) varies from 1% to 1- $\frac{1}{2}$ %. Chloro-bromide of silver and native copper have occurred, and native silver in small flakes is present".

"Two varieties of quartz are found, one of the ordinary glassy form of tencomby, and an opaque, white variety, a very brittle and associated with the rich minerals: native silver occurs in the common filagree form, in cavities in the argentiferous copper glance, and is often observable in minute specks on the tarnished surface of blende and tetrahedrite".

"The first class ore from the Hintzelman Mines was formerly smelted at the mines in Castillian furnaces, with the addition of an ore sulphide and carbonate of lead, litharge and iron. The yield as before stated, was nearly \$1000.00 per ton. 75 tons reduced by smelting, yielded \$41,180.00 in silver".

"The production of silver at the Hintzelman mines during this time (year 1859) was over \$100,000.00 (not including large amounts stolen and worked in Sonora), but had it been well and regularly worked, it might have produced over \$1,000,000.00 in the same length of time".

NOTE: Correctness of the data is proved by the following:

Col. Hinton in his work on Arizona, says:-

"It is well known that the town of Saric, in Sonora, Mexico, was built upon the proceeds of ore stolen from the Hintzelman mine."

"Up to 1864, when the works were left idle, there had been taken from these shafts in silver, \$3,990,546.40 or less than \$82.00 per ton".

"The cost for the 48,743 tons was \$2,222.303".

"Shafts, 140,45 and 40 feet deep".

Herman Ehrenberg, Mineralogist and Topographical Engineer, educated in the best school of Germany and of extended travels and wide experience, said officially in his reports:-

"We own in the Hintzelman Mine vein, one of the richest in the world".

Frederick Brocknow, graduate of the Royal Mining Academy of Berlin, and a talented geologist, mineralogist and mining engineer, states:

"The ores from the 60 ft. level were carefully assayed by me and their yield ascertained to be from 1000 to 4000 ounces of silver to the ton; some of the ores gave enormous results, \$20,000 per ton".

John Hitchens, an English Mining Engineer, who visited the property, reports: "According to instructions which have been given me, I have visited the property and found at the Hintzelman Mine, houses constructed after the ordinary method of the country; I took samples and specimens to make assays, and I only chose them in the end to make my judgment clear, and to express sincerely my opinion in this report".

"If these assays had not been made by the reputable house (Johnson Mathey & Co. of London, assayers to the Bank of England) they passed my expectations to such a point that I should have doubted the genuineness of the assays".

LIST OF ASSAYS:

	PER TON
Johnson, Mathey & Co.	\$ 875.00
U. S. Mint of Philadelphia	1342.00
U. S. Mint Branch at San Francisco	8642.00

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* * * * *

REPORT ON MARY G. MINE

The Mary G. Mine is located in the Cerro Colorado Mining District, Pima County, Arizona, about 55 miles south-west of Tucson. The Southern Pacific branch line between Tucson and Nogales passes within 20 miles of the mine and a good county-maintained road runs downhill from the mine to Amado where a good loading platform is available.

The mine has been worked in a small way for many years, probably dating back to the time when the Old Cerro Colorado, which is about three miles to the south east. While the total tonnage has probably not been great, all these operations have been very profitable owing to the high value of the ores. These ores are very similar to those encountered in the old Cerro Colorado.

The district topographically is one of the low rounding hills that seldom rises over 300 feet above the general elevation of about 3200 feet. All drainage is generally to the north through the Santa Cruz and the Atlas Rivers. The country in the immediate vicinity of the mine is very sparsely wooded, but plenty of fine wood can be obtained in the lower valleys to the northwest close by.

The district consists of igneous porphyries intruded by andesite and rhyolite flows with here and there an outcropping of diocrite. The veins of the district are true faults fissures with considerable subsequent movement and faulting after mineralization. The general trend of the veins on the Mary G. are from the northeast to the southwest and dipping to the northwest. The main vein of the Mary G. system which in some points reaches a width of almost thirty feet, has a very highly altered diority for both walls and upon coming in contact with water dissolves into a soft mud. It undoubtedly was this fact that caused the upper workings to be lost by improper timbering. This highly altered condition, however, is indicative of depth and permanence of the vein

All work is still in the oxidized zone, where such types of silver ore are found as phrargyrite, proustite, argentite, and considerable amounts of cerargyrite, and small thin leaves of native silver. Occasionally small amounts of cinnibar are found with the cerargyrite. The fact that these ores are found along with a considerable amount of manganese indicates a vein of considerable depth with good values in the sulphide zone. The ores in the Old Cerro Colorado at a depth of 350 feet in the sulphide zones ran 14-20% copper and carried a considerable amount of antimony. There are three lenses of ore in the vein, one on each wall and one at varying distances in between. Subsequent movement after mineralization has resulted in considerable faulting in places where the present work has been done. The vein at this place strikes in a southerly direction and undoubtedly the ore is more in place and permanent to the northeast or southwest where the strike is more in conformity with the general course of the vein. Northwest from the present shaft a very strong vein comes in on the hanging wall and this, coupled with the fact that a high grade stringer of four inches was encountered about 75 feet while sinking the shaft, running east and west which would also contact the main vein on the hanging wall to the northeast of the shaft, all points to a good ore shoot in that direction.

In conclusion, it may be said that this property has all the requisites of a big mine. A considerable amount of ore could be stopped by sinking the present shaft another fifty feet and then drifting back under the present known ore shoot.

HORACE A. BROWN

Alice J. Worsley.

C O P Y

536 So. Hope St.
Los Angeles, Calif.
April 3, 1944

Mr. J. J. O'Dowd
Tucson, Arizona

Dear Mr. O'Dowd:

Mr. Turner tells me you are making an abstract of the title to the Mary G. Mine, a procedure which I heartily approve and in which I want to assist. Titles to mines are much more difficult to trace than other properties because the searcher often runs up against a dead-end street. Especially is this true when the mine has been relocated as was the Mary G.

No doubt you have found that the mine was located years ago and abandoned several times. When Mr. Worsley and I went to Tucson in 1900, it was owned by two New York socialites, Blanch Whitwell and Ella Noyes. It seems they came to Tucson winters and when they returned to New York, neglected to do the annual assessment work. So, on January 1, 1917, a James Guy "jumped" the mine and called it the Mary G. (Book AAA, Page 126, Records of Mines).

Then, Sturgis B. Whitwell, Blanch Whitwell's son, bought it from James Guy on October 13, 1919. (Book 29, Page 266) Afterwards, a man by the name of Goodsell "jumped" it, claiming that the assessment work had not been done for the previous year. He was wrong, for I found the man, Mr. Bevil Granville, who did the work.

Goodsell had a lawsuit against Baker over the title and Mr. Whitwell intervened, as he was really the legal owner. Whitwell lost in Superior Court and his attorney, Tom Rickey, appealed the case and won out in the Supreme Court "as against All others". (See enclosed letter) This was February 11, 1931.

On July 31, 1933, Mr. Whitwell transferred title to a one-fifth interest to me, (Book 32, Page 413) and the remaining four-fifth interest on February 26, 1938. (Book 34, Page 74) Since that time I have been sole owner.

I don't know how it came about, but on January 1, 1920, Mrs. Noyes gave Mr. Worsley a deed to a one-fourth interest in the mine. It was probably because he had advanced her money when she needed it. The truth is, she lost her title when James Guy "jumped" the mine in 1917. The deed had no value whatsoever.

Trusting I have been of some assistance to you and with kind personal regards to yourself and splendid family, I am,

Very truly yours,

Alive J. Worsley

AJW/ml

HISTORY OF CERRO COLORADO OR TOLTEC

MINES.

The first authentic history of these mines and district is derived from writings of Jesuit padres, which speak of them as the "Mines of Tubac", which they consider to be the richest and most valuable of the holdings of the Mission of San Jose del Tumacacori, which mission church still exists situated some 25 miles southeast of these mines.

At the extensive settlement that was established at the mines, a mission church was established and named Santa Eulalia, (see Jesuit map of 1698). Of this building, only part of the original stone foundations are now to be found, as later the American owners and operators of the property built adobe buildings and houses on parts of these foundations and tore up other sections to obtain desirable stones for building purposes.

The Society of Jesus, or "Jesuits", was expelled and all of its property confiscated, by decree of the Spanish government in the year 1767, but the Jesuit padres were still holding and operating from Tumacacori up to 1775 at which date their records show they had 52 silver mines in operation.

The explanation of this condition is as follows: It required a year for a copy of the decree to reach the government at Guadalajara, and this mission was situated over 1,200 miles away in the heart of the Apache country, and the Jesuit fathers claimed 40,000 Indian converts. For these reasons they were not dispossessed until 1775, when their extensive properties and vast holdings, which they had hewn out of the desert, were taken from them and handed over to the (barefooted) Franciscans. The Franciscans thrived on the plunder of the Jesuits, and soon became opulent and such oppressive task-masters, that in the year 1802, a war broke out, a coalition of all the Indian tribes of the "Primeria Alta", led by a Seri Indian, who claimed to be a magician; this war lasted three years and extended over a territory as large as New England and the Middle States combined. Before its close, every mission, every mine in Primeria Alta, had been destroyed, and every padre killed, so one history states. With the return of peace, new priests and monks came to rebuild, and to re-Christianize the natives, but the mines were not reopened; many were absolutely lost, filled in and obliterated, and it was certain death at the hands of his followers to the native who showed the site of one.

Shortly thereafter came the war for independence against Spain, which lasted for nine years, 1812 to 1821, and then the unsettled state of the country, together with the exodus of the Spanish population, and with them the bulk of capital and energy, and the mining industry remained in a state of "innocuous desuetude" for the next half century, at least as far as Mexico was concerned.

Then came the revolt of Texas and the Mexican War, by which Mexico lost half her territory to this country, with the Gila River as our southern boundry, in 1847.

In 1853 our government purchased a "small strip", known as the "Gadsen Purchase" from Mexico, for 10 million dollars: this strip was some 150 miles wide by 400 long, was in the heart of the Apache country and included a number of the ancient Jesuit missions, among them the Mission San Jose del Tumacacori with the long-forgotten mines of Tubac with the extensive settlement and workings, of which no noticeable signs remained, only foundations buried beneath piles of adobe. Shortly after the purchase was completed and before the boundary survey had been finished, this wild and dangerous section was visited by a number of adventurous citizens, who in the publications of that day were credited with making the perilous trip, 1,200 miles beyond a railroad and into the worst Indian country in the world for the purpose of "spying out the new purchase".

Among those early visitors may be mentioned: Col. Samuel Colt, of Colt revolver fame; Prof. Rafael Pumpelly, later professor of geology at Harvard University; Major Charles D. Posten, later delegate to Congress from the new territory of Arizona, and many others of note.

In the year 1858, Major Hintzelman, then stationed at Fort Crittenden, New Mexico (now Arizona) on the Gadsen Purchase, bought from a Mexican discoverer, a filled-in ancient mine, on which he at once started work, and during succeeding years extracted, from a 50 ft. shaft, 75,000 dollars (see U. S. Government report, 1868).

Near the close of the year 1859, Hintzelman was ordered off the property by the Ortez heirs - (Note: The Gadsen Purchase strip, since its acquisition by the United States, has produced from its metal mines alone, over one billion dollars in wealth for its citizens, at a huge profit), who claimed the property as being on the Spanish Grant of Arabac or Arivaca. Satisfying himself that was the case, Hintzelman undertook to purchase a portion of said Grant, (which covered many square miles of country). This the owners refused to consider, as the land became taxable should the Grant become subdivided; otherwise, it was "free from taxation forever".

The owner's price of half a million dollars in gold being beyond the ability of Hintzelman to pay, he went to his friend Major C. D. Posten, who in turn travelled east to see his friend Col. Samuel Colt.

These conditions resulted in the formation of the "Sonora Mining and Exploration Company", with Posten as manager, and ample capital from which the sum of \$500,000 in gold was paid for the Arivaca Grant, a huge sum for that day. This transaction was in Dona Anna County, New Mexico, and Arizona Territory was cut off of New Mexico three years later, in 1862. However the copy of the deed appears as the first real estate transaction, copied into the records of Pima County, Arizona, since the purchase of the Territory from Mexico.

During the four succeeding years Posten operated the property, employing some twelve Americans and over 200 Mexicans at the mines, besides 20 men at the extensive reduction plant, which he built on Arivaca Creek, twelve miles from the mines. The ore was assorted at the mines, the high grade being sacked for shipment, and that of lesser grade teamed to the milling plant, where it was crushed and reduced to concentrates, which were also sacked, and together with the high grade ores, shipped to Guaymas, Mexico, 320 miles by bull teams, for reshipment to Swansea, Wales, Great Britain, by sailing vessel around Cape Horn so that it could be smelted, and the copper and silver separated, as we had neither smelters nor refineries in this country at that early date. Under these conditions, it required well over a year to obtain returns on a shipment of ore from the mines.

All supplies and machinery coming from the East for the property, were hauled 1,230 miles on wagons, after leaving the railroad at Texarkana, Texas, at a cost of thirty cents a pound, through a hostile Indian country.

Cavalry maintained at the mines by the U. S. Government for a number of years, protected it from both Apache and prowling Mexican bands, and even under these conditions it prospered and was able to much more than pay the heavy expenses under which it operated, and became the largest producing lode mine in the United States, until forced to close down late in 1863, because of the withdrawal of the troops and the Apache depredations which followed.

Mexican looters from across the border also planned their part, and the last act was when 60 Sonorans, bent on plunder, slaughtered John Posten, brother of Major Posten and six others who were guarding the mines and stores after the property was closed down. After the killing of John Posten and his men, an armed force from Tucson proceeded to the property, buried the bodies and heaped stones over graves, which still exist on the hill above the mine openings. Shortly thereafter two of the employees of the company, Lord and Williams, former doctor and storekeeper, hauled to Tucson the remnants of the huge stores at the property that still remained after the killing and looting, and established the mercantile firm of Lord and Williams, with the largest stock of goods in the territory.

For nearly twenty years thereafter this section was given up to Apache Indians and Mexican raiders, and abandoned by Americans. However, the natives of the town of Serac, Sonora, Mexico, and others from as far away as Magdalena intermittently worked in the abandoned mines, robbing the rich ores in sight, cutting out the protecting pillars and generally wrecking the property; sometimes to their own cost, for on two occasions parties of mine robbers were killed in the cave-ins caused by their own greed and carelessness, and their descendents acknowledge eleven deaths from such mishaps.

The books of Major Posten were destroyed by fire when the mercantile house of Lord & Williams was burned in Tucson in 1881, but the exact figures of production and expenditures taken from same had been published in a work on Arizona, printed in 1878, and said figures are here given as derived from Posten's books and records:

"EXTRACTS FROM REPORTS BY ENGINEERS AND SCIENTISTS OF HIGH STANDING. ON THE HINTZELMAN OR CERRO COLORADO MINE".

J. Ross Brown states in his report to the U. S. Government: -

"The lode runs nearly north and south, and may average 22 feet in thickness; it is about 2000 feet long, and is distinct and separate from the country rock on both sides".

Gen. Hintzelman states in a letter from the mines, dated 1859, that "All of the ore smelted, to date, yielded \$920.00 per ton".

Guide Eustel reported: "The main shaft, 6 x 12 ft., well timbered and furnished with substantial ladders, is placed on the west side of the lode which, pitching west, changes its inclination in the depth, so that the shaft, which was calculated to strike the lode at 160 ft. below the surface, may not reach it before 400 or 500 feet depth.

"There are shafts and some tunneling and drifts, the actual workings is 120 ft."

"The characteristic feature of the mines is the rich ore which shows everywhere".

"The principal ore, at depth, is silver copper glance, containing from 2% to 10% silver, accompanied by argentiferous gray copper ore, with from 1% to 3% silver.

Prof. Raphael Pompelly (late) Professor of Geology at Harvard University, Graduate of Freiberg University, Germany; Geologist of the Japanese Government, Chinese Government, etc., states, in a mineral sketch of the silver mines of Arizona, 1860: -

"The most important of the mines known and worked is the Hintzelman; the vein runs nearly north and south, has a vertical dip and is enclosed in a brown porphyry rock, very hard to free from quartz. The gangue is principally quartz with some pyrites and brown spar. The ore is separated into two classes by hand, rendered necessary by the difference in their chemical character and in their richness in silver.

The first consists of the more massive and richer ore, composed of strymerite, tetrahedrite, blende, and sulphurite. The percent of silver in this class is too great to allow of its being treated profitably in barrels. It represents about 100% of the entire amount smelted, is nearly \$1,000 to the ton of 2000 lbs. while the amount contained is 15% more".

"The second class contains the same minerals as the first, but they are more intimately associated with the gangue, which in this class forms the bulk of the ore. The blende has a moderate percent of silver, while the tetrahedrite (Fahrenz or grey copper ore) varies from 1% to 1- $\frac{1}{2}$ %. Chloro-bromide of silver and native copper have occurred, and native silver in small flakes is present".

"Two varieties of quartz are found, one of the ordinary glassy form of tencomby, and an opaque, white variety, a very brittle and associated with the rich minerals: native silver occurs in the common filagree form, in cavities in the argentiferous copper glance, and is often observable in minute specks on the tarnished surface of blende and tetrahedrite".

"The first class ore from the Hintzelman Mines was formerly smelted at the mines in Castillian furnaces, with the addition of an ore sulphide and carbonate of lead, litharge and iron. The yield as before stated, was nearly \$1000.00 per ton. 75 tons reduced by smelting, yielded \$41,120.00 in silver".

"The production of silver at the Hintzelman mines during this time (year 1859) was over \$100,000.00 (not including large amounts stolen and worked in Sonora), but had it been well and regularly worked, it might have produced over \$1,000,000.00 in the same length of time".

NOTE: Correctness of the data is proved by the following:

Col. Hinton in his work on Arizona, says:-

"It is well known that the town of Saric, in Sonora, Mexico, was built upon the proceeds of ore stolen from the Hintzelman Mine."

"Up to 1864, when the works were left idle, there had been taken from these shafts in silver, \$3,990,546.40 or less than \$82.00 per ton".

"The cost for the 48,745 tons was \$8,222,503".

"Shafts, 140, 45 and 40 feet deep".

Herman Ehrenberg, Mineralogist and Topographical Engineer, educated in the best school of Germany and of extended travels and wide experience, said officially in his reports:-

"We own in the Hintzelman Mine vein, one of the richest in the world".

Frederick Brocknow, graduate of the Royal Mining Academy of Berlin, and a talented geologist, mineralogist and mining engineer, states:

"The ores from the 60 ft. level were carefully assayed by me and their yield ascertained to be from 1000 to 4000 ounces of silver to the ton; some of the ores gave enormous results, \$20,000 per ton".

John Hitchens, an English Mining Engineer, who visited the property, reports: "According to instructions which have been given me, I have visited the property and found at the Hintzelman Mine, houses constructed after the ordinary method of the country; I took samples and specimens to make assays, and I only chose them in the end to make my judgment clear, and to express sincerely my opinion in this report".

"If these assays had not been made by the reputable house (Johnson Mathey & co. of London, assayers to the Bank of England) they passed my expectations to such a point that I should have doubted the genuiness of the assays".

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* * * * *

Mary G.
in Grawana District

Box 49, Ruby Star Route.

Tucson, Arizona,

June 30, 1952.

United Geophysical Company,

Tucson, Arizona.

Dear Sirs. -

Some time ago I talked with
your Mr. Heinrichs about a lease on
my mine, the Mary G. At that time
it was under lease with option to
purchase and Mr. Heinrichs was re-
luctant to take any action until such
time as the then lessee vacated the
property. The property is now clear and
open for further negotiations.

It is a silver-lead-copper-gold mine
near the Old Cerro Colorado Mine, which at
one time was said to be one of the richest
mines in the world. It netted \$4,000,000
a month. So the reports show.

The Mary G is one claim but my son owns six adjoining ones and would cooperate in any fair deal.

I have a winning engineer's report, copies of liquidation sheets from the smelter and other documents which show the Mary G to have been producing for many years. And that in spite of the fact that no really substantial group has operated it.

I am sole owner. The title is perfect. There are no encumbrances.

To reach the Mary G, drive down the Nogales highway to Kinsley's Ranch, turn to the right over a good county highway to the Mary G sign. Then turn to the right and drive about three miles to the mine.

Hoping to hear from you.

I am,

Very truly yours,

(Mrs.) Alice J. Rowley.

August 1, 1952

Mrs. Alice J. Worsley
Box 49, Ruby Star Route
Tucson, Arizona

Dear Mrs. Worsley:

We are keeping your information on the Mary G. Mine on file and should we do any exploration work in the area we will include that property in our examinations.

We appreciate your kindness in furnishing information on the Mary G. Mine.

Sincerely yours,

UNITED GEOPHYSICAL COMPANY, INC.

William T. Griswold
Land Agent

WTG:eq