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01/10/97

ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES FILE DATA

PRIMARY NAME: AUSTERLITZ

ALTERNATE NAMES:

ADDITION CLAIM  
ARGINROCK

SANTACRU COUNTY MILS NUMBER: 25A

LOCATION: TOWNSHIP 22 S RANGE 10 E SECTION 36 QUARTER SE  
LATITUDE: N 31DEG 28MIN 03SEC LONGITUDE: W 111DEG 16MIN 08SEC  
TOPO MAP NAME: BARTLETT MTN. - 7.5 MIN

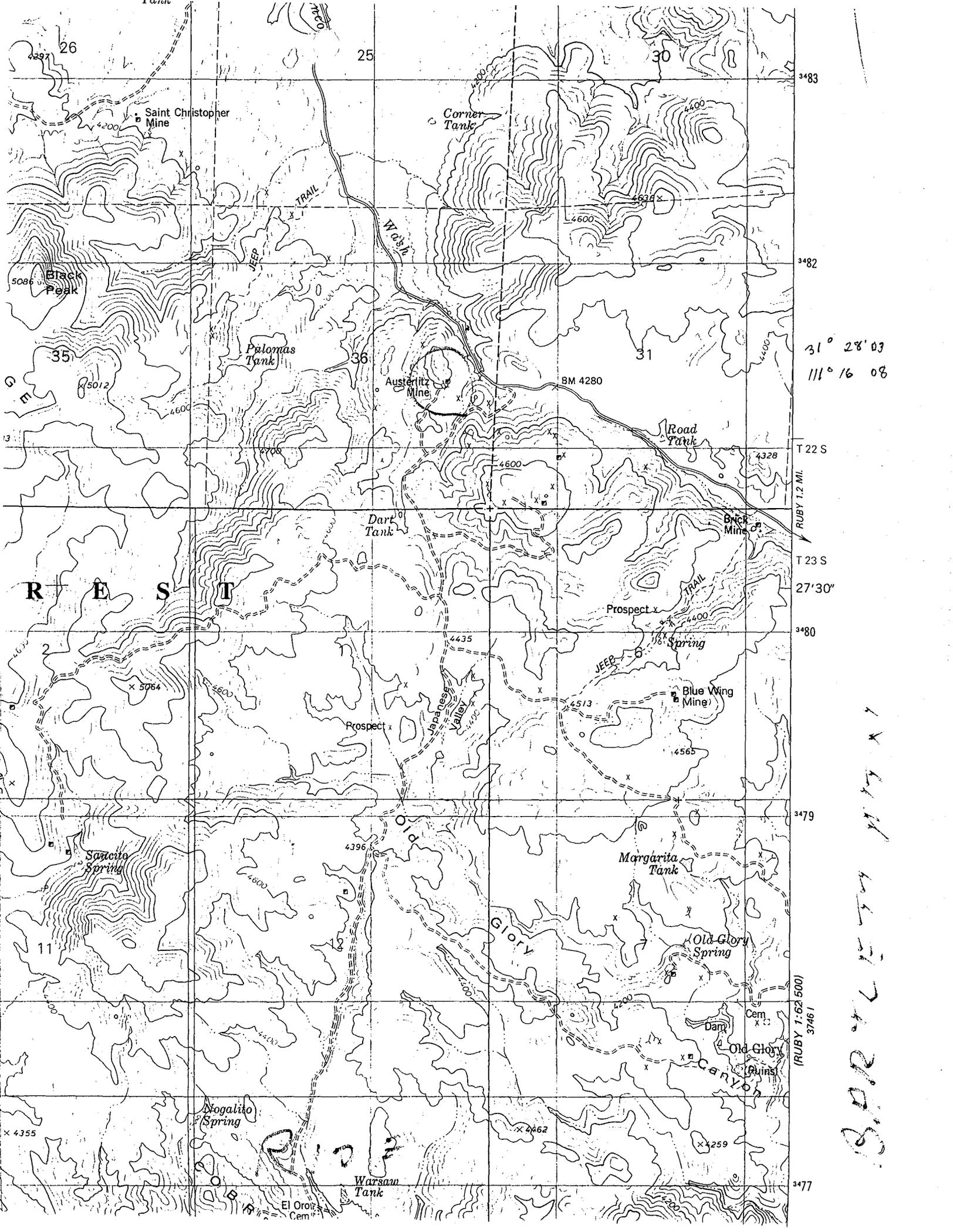
CURRENT STATUS: EXP PROSPECT

COMMODITY:

AU  
AG  
PB

BIBLIOGRAPHY:

ADMMR AUSTERLITZ MINE FILE  
GREGORY, F.E., 1935, RPT OF THE FIELD WORK, PROS-  
PECTING IN AREA OF MONTANA MINE, IN GEO FILE  
INDEX TO MINING PROPERTIES OF SANTA CRUZ CO,  
AZBM BULL 191, P 62  
KNIGHT, L.H. JR., 1970, STRUCTURE & MINERALIZA-  
TION OF DIST CONTIGUOUS TO MONTANA MINE, AZ  
AZ LODE GOLD DEPOSITS, AZBM BULL. 137, P. 188



31° 28' 03"  
111° 16' 08"

T 22 S  
RUBY 1.2 MI.

T 23 S

27' 30"

3480

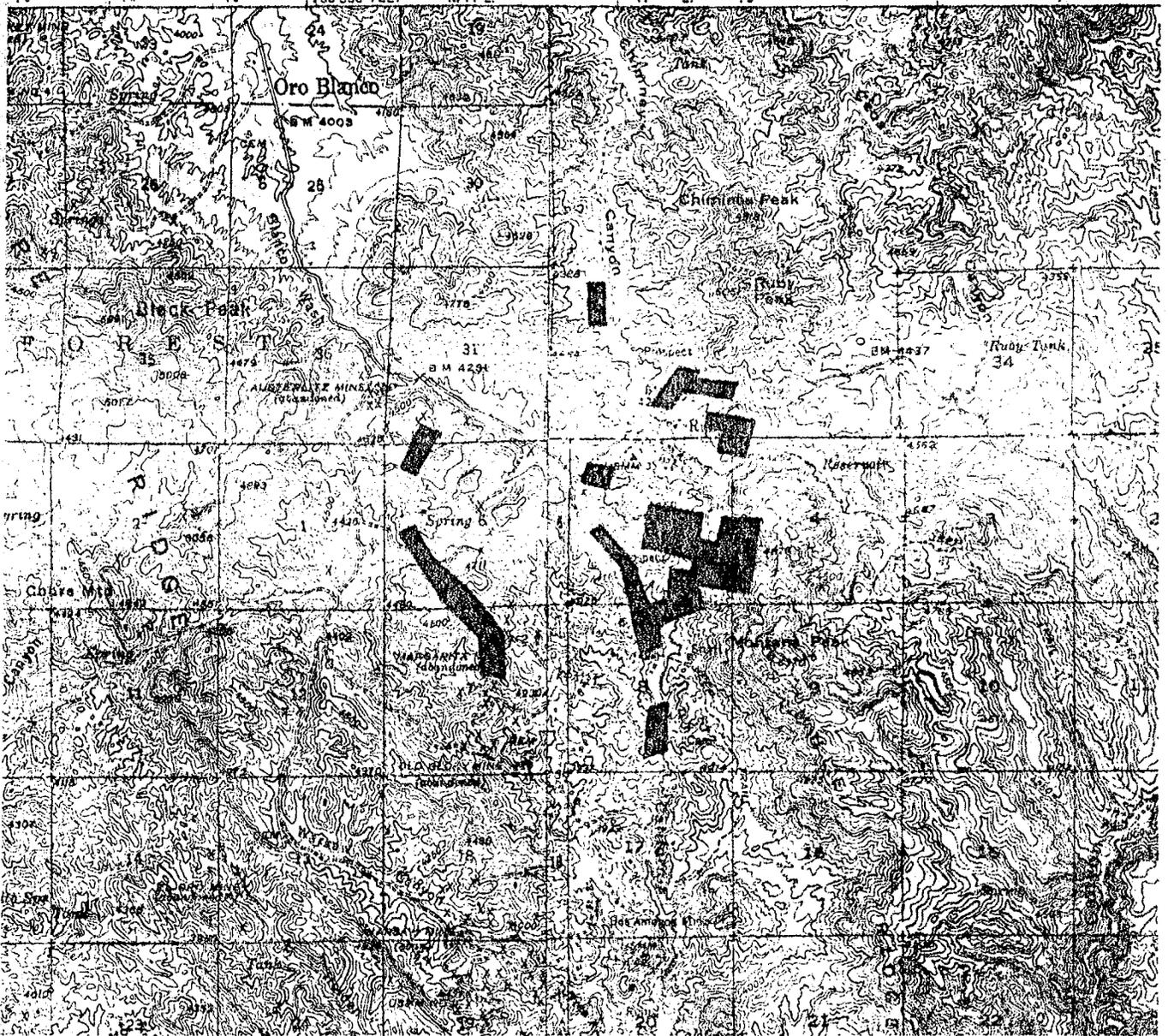
3479

(RUBY 1:62 500)  
3746 1

3477

R E S I S T

B.P.R. 1:62 500



COMPANY LAND POSITION, RUBY PROJECT



ARIZONA



AUSTERLITZ MINE

SANTA CRUZ COUNTY

NJN WR 10/7/83: Richard Renn of Goldsil Resources, reported they have the Austerlitz Mine leased from Mrs. Noon. They view the mineralization there as dipping auriferous silicified sheets between or in the volcanics. The mineralization came up the Montana Fault.

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MG WR 3/2/84: Goldsil Resources, Ltd. (c) reports drilling approximately 17 air-track holes on the Austerlitz and 5 air-track holes on the nearby Jackpot claims (Sec 6, T23S R11E) both in Santa Cruz Co. These properties are gold targets. Results were apparently disappointing.

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AUSTERLITZ MINE

Do Not Copy

SANTA CRUZ CO.

MG/WR 9/18/79 - Mr. Norton Noon of Nogales, Az., Phone: 287-8844, is reported to own the Austerlitz mine in Santa Cruz, Co.

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MG WR 11/28/80: Visited the Austerlitz Mine. I saw no sign of activity. A separate report will be written.

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MG WR 2/5/82: Mr. Horton E. Noon, Patagonia Rd., Box 148, Nogales, AZ 84521; phone 187-8844, owns the Austerlitz Mine (Santa Cruz County). This property consisting of eight unpatented lode claims is in Section 31, T22S R11E and Section 36, T22S R10E. The claims are the Austerlitz, Addition, Central, Gilroy, John J., Kimberly, Switzerland, and Terry.

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MG WR 9/24/82: the U. S. Bureau of Mines Reported production from the Oro Blanco Mining District, Santa Cruz County of the Austerlitz mine. The years 1912-13, 1916, 1922, 1936, 1939-42, 1949, 1959, 1963 had a reported tonnage of 3,595 which produced 32,181 pounds copper; 1,714 pounds lead, 43,320 ounces silver and 2,082 ounces of gold.

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MG WR 6/17/83: With Nyal Niemuth visited the Choctaw, Austerlitz, Idaho and Montana mines, Santa Cruz County. There was no activity at these properties.

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NJN WR 7/15/83: Richard Renn of Goldsil Resources Ltd., 5353 W. Dartmouth Ave., Suite 400, Denver, Colorado 80227, Phone (303) 989-0897, visited. He reported that Goldsil Resources is a new company formed of people who used to be with Energy Reserves mineral group. The company will go public in Vancouver soon. They have picked up the properties that Energy Reserves used to have such as the Reef Mine, Cochise County. Other properties they are active at in Arizona include the Austerlitz Mine and Margarita Group both in Santa Cruz County, a potential silver property near Tombstone, Cochise County, located in T20S R23E Sec. 27, 28, 33, 34 (combination state and private leases) on which drilling will commence next week. The company is currently looking for volcanogenic exhalite targets in Arizona but will welcome any type of precious metal submittals.

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DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine Austerlitz Mine Date January 7, 1964  
District Oro Blanco District, Santa Cruz Co. Engineer Axel L. Johnson  
Subject: Present Status. Information from D.M. Stranahan, et al

References: Reports of Sept. 7, 1960 and June 5, 1959.

Owners: Horton E. Noon & Muriel B. Noon, Patagonia Road, Nogales, Arizona

Lessees: Platoro Corporation  
431 S. Alvernon Way (Box 4507)  
Tucson, Arizona  
L.J. Lichty, President  
D.M. Stranahan, Treas.  
Victor H. Verity, Secy.

Number of Claims: 11 unpatented claims

Principal Minerals: High silica gold ore, with some silver, and a small amount of copper.

Present Mining Activity: None at present.

Review of Recent Operations:

- (1) The lease was signed Sept. 12, 1963. This is a ten year lease expiring in 1973.
- (2) 5 carloads of ore were shipped to the A.S. & R. smelter at Hayden in October and November, 1963. This ore was taken from 5 different places on the surface, and were regarded as test shipments. The ore was high silica gold-silver ore.
- (3) A number of access roads were also built.

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Visited the Austerlitz Mine - no new activity.

GWI WR 3/11/67

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# FROM GOLDSIL MINING AND MILLING PROSPECTUS 1983

## The Ruby Project

### *Ruby Project — Property Description and Geology.*

The Ruby Project is located in south central Arizona, in Santa Cruz County, about 70 miles southwest of Tucson. The Ruby Project is located in the central portion of the Oro Blanco District, which means "white gold" in Spanish. The project area includes approximately 400 acres that consist of 25 unpatented lode mining claims. Roads leading to the project area are county maintained and are passable throughout the year, except during periods of heavy rainfall.

Goldsil Resources holds these claims under an agreement and option to purchase which gives it the right to purchase any or all of the claims prior to December 15, 1991, for \$24,000.00 per claim.

Rocks exposed in the Oro Blanco District range from Jurassic to Quaternary in age. Potential host rocks for mineralization include the Jurassic Cobre Ridge tuff and the Cretaceous Oro Blanco formation. Structurally, the Oro Blanco District is complex and is characterized by large displacement, normal faults that cut both the sedimentary and volcanic units. Three types of mineralization have been recognized in the Oro Blanco District, the most important of which are the flat dipping silicified blanket deposits. These silicified deposits have produced primarily precious metals and are the object of Goldsil Resources' exploration effort in the Oro Blanco District. It is suggested that the precious metals in the flat dipping silicified blanket deposits occur in silicified, sericitized country rock with locally abundant limonite and hematite. It appears that the richest material contains thickly disseminated pseudomorphs of limonite after pyrite.

### *History of the Oro Blanco District.*

The deposits of the Oro Blanco District were first discovered and worked by early Spanish settlers. The first recorded American locations were made in the District in 1873. Sporadic mining was conducted in the Oro Blanco District from 1873 until 1938 when the Eagle-Pitcher Lead Company closed the largest mine in the District, the Montana Mine. Other mines in the District include the Margarita Gold Mine, the Old Glory Mine, and the Austerlitz property. Although production records are incomplete, the Oro Blanco District has reportedly produced in excess of 100,000 ounces of gold and 4,000,000 ounces of silver, with significant quantities of lead, zinc, and copper.

In the past, exploration and development efforts in the Oro Blanco District were hampered by a lack of water. The Company believes it can obtain adequate water to develop the Project.

Past efforts of exploration and development in the Margarita Mine area, the main target area, began in the 1890's when 1,200 feet of tunneling and open-pit mining produced an unknown quantity of gold. In the 1930's, the Margarita Gold Mines Company conducted limited development work in the Ruby Project area, built a 50 ton per day cyanide mill, and produced some bullion as a result of testing operations.

Goldsil Resources intends to commence exploration and development activities on the Project area by the end of 1983. The Company's primary sources of information concerning the history of the Oro Blanco District are: "Principal Gold Producing Districts of the United States", *U.S.G.S. Professional Paper 610*, p. 45; "Arizona Lode Gold Mines and Milling", *Arizona Bureau of Mines*, pp. 187-192 and "Structure and Mineralization of the Oro Blanco Mining District, Santa Cruz County, Arizona", by Louis Harold Knight, Jr., 1970, University of Arizona.

## The Tuxedo Project

### *Tuxedo Project — Property Description and Geology.*

The Tuxedo Project is located in southwest Montana, approximately 8 miles northwest of Butte. Two mines, the Tuxedo and Patriiti, with a history of silver production, are located on property held by Goldsil Resources.

Goldsil Resources holds a property position in the Tuxedo Project, totaling approximately 240 acres located in Silver Bow County, Montana. Subject to a 2% net smelter return royalty interest in favor of the Bear Creek Mining Company, Goldsil Resources holds the following interests in the Project: One patented mining claim under a mining lease with option to purchase which provides the lessor with a 5% net smelter return royalty for ores produced other than silver and a 5%-10% net smelter return royalty for silver ores, and which allows Goldsil Resources to purchase



DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine : Austerlitz Mine Date April 7, 1959  
District Oro Blanco District, Santa Cruz Co. Engineer Axel L. Johnson  
Subject: Field Engineer's Report. Information from W. S. Talcott. No visit.

Location: South of Arivaca, near the Arivaca-Ruby road.

Owner: Horton Noon, Patagonia Road, Nogales.

Lessee: W.S. Talcott, Arivaca, Arizona

Principal Minerals: High silica gold ore, with some silver. Mr. Talcott estimates the silica as approximately 85%.

Present Mining Activity: No operations at the present time. Mr. Talcott states that he plans to start operating in about 6 weeks.

Marketing Facilities: Ore will be hauled to Amado for shipment to the Phelps Dodge smelter at Douglas, as silica flux. Estimated production about 3 carloads per week.

Additional: Mr. Talcott will employ D. C. Gilbert, Geologist, 3573 E. Third St., Tucson, to make a geological examination and report of the property.

DEPARTMENT OF MINERAL RESOURCES

STATE OF ARIZONA

FIELD ENGINEERS REPORT

Mine Austerlitz Mine

Date Feb. 5, 1959

District Oro Blanco District, Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Field Engineers Report. Information from W. S. Talcott. No visit.

Location South of Arivaca, near the Arivaca -Ruby road.

Owner Horton Noon, Patagonia Road, Nogales.

Lessee W. S. Talcott, Box 194, Nogales, Ariz.

Principal Minerals Siliceous Gold ore. Mr. Talcott reports about 85% silica.  
also Silver

Present Mining Activity No mining operations, at present time. Mr. Talcott plans to start operating in about 30 days.

Milling and Marketing Facilities Ore will be hauled to Amado for shipment to the Phelps Dodge smelter at Douglas, as silica flux.

Proposed Plans Operator, Mr. Talcott plans to ship 3 carloads per week.

DEPARTMENT OF MINERAL RESOURCES  
STATE OF ARIZONA  
FIELD ENGINEERS REPORT

Mine Austerlitz Mine

Date June 5, 1959

District Oro Blanco District, Santa Cruz Co.

Engineer Axel L. Johnson

Subject: Field Engineers Report. Information from John Bielecki and personal visit.

Location About 1 3/4 miles west of Ruby, and just south of the Arivaca-Ruby road.

Owner Horton Noon, Patagonia Road, Nogales.

Lessees W. S. Talcott, Arivaca, Ariz., with partners from California.

Principal Minerals High silica gold ore, with some silver, and a small amount of copper.

Present Mining Activity Stoping ore from adit. No ore shipments as yet. Expects to ship in about another week. 2 men working.

Geology & Mineralization Flat vein, striking SE-NW and pitching 30 degrees to the NE. Vein reported to be about 12 ft. thick.

Ore Values Ore reported to assay about \$ 17.00 per ton in gold and silver.

Marketing Facilities Ore will be trucked to Amado for shipment to the Phelps Dodge smelter at Douglas, as silica flux.

Old Mine Workings

One ~~main~~ main adit ----- 460 ft. long.  
One vertical shaft ---- 115 ft. deep

Present Mining Operations

Lessees have been operating the property for a little over one month. During this time, they have built roads on the property, cleaned out the old adit for a distance of 240 ft., laid pipe lines and track, made a grizzly, and constructed a 50 ton ore bin on the Arivaca-Ruby road. At the present time, they are stoping ore about 10 to 12 ft. above the adit and 240 ft. from the portal. The ore is trammed in ore cars for a distance of 240 ft., and then dumped in ore trucks through a grizzly. The ore trucks haul the ore a short distance (about 1/4 mile) and dump the ore into the 50 ton ore bin on the Arivaca-Ruby road. From this ore bin, it will be trucked to Amado for shipment to the smelter at Douglas.

REPORT ON GENERAL SAMPLING  
OF  
THE AUSTERLITZ-SWITZERLAND CLAIMS.  
June 12, 1938

PURPOSE:

The purpose of the sampling done on the Austerlitz and Switzerland Claims was to determine if possible the grade of ore that might be expected from the main blanket vein and its auxiliary feeders.

As the vein is out in numerous places by small and generally shallow shafts a very good opportunity presents itself for a fairly accurate determination of the general grade of the vein. Such a campaign of sampling will assist materially in computing the probable value of the deposit.

METHOD:

The samples were taken as far as possible in unbroken ground. In all cases the samples are marked so that samples from the dumps may be distinguished from those taken from ore in place.

The vein when exposed was channel-sampled vertically and horizontally where such was possible. The dump samples were taken by a system of channeling the dumps; every fifth shovelful being thrown to the sample pile which was cobbled then coned and quartered down to the proper size sample for transportation.

The samples when taken were numbered in consecutive order. The location was then recorded on a field map at the time of taking the sample. A copy of this map accompanies this report along with various diagrams and bearings to show the exact places from which the samples were collected.

SAMPLES.

		<u>Au</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>	<u>Cu</u>	<u>Fe</u>
No. 1	Dump (Channel)	0.01	2.7				
" 2	"	0.03	4.0				
" 3	"	0.09	0.5				
" 4	Broken "	0.14	1.7				
" 5	Dump	0.03	3.8				
" 6		No Sample					
" 7	Dump	Trace	0.3				
" 8	Broken "	0.10	1.1				
" 9	"	0.01	0.2				
" 10	"	0.06	2.2				

Sampling continued,

			<u>Au</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>	<u>Cu</u>	<u>Fe</u>
No. 11	Dump		0.10	1.3				
" 12	Broken	(Channel)	0.03	0.4				
" 13	"	"	0.02	0.7				
" 14	"	"	0.13	2.1				
" 15	"	"	0.12	3.1				
" 16	"	"	0.08	1.3				
" 17	"	"	0.03	0.8				
" 18	"	"	0.01	0.2				
" 19	"	"	0.07	2.2				
" 20	"	"	0.02	0.8				
" 21	"	"	0.02	1.2				
" 22	"	"	0.22	1.0				
" 23	"	"	0.25	0.3				
" 24	"	"	0.17	0.4				
" 25	"	"	0.64	1.9				
" 26	"	"	Trace	0.1				
" 27	"	"	Trace	0.1				
" 28	"	"	0.01	0.2				
" 29	"	"	0.20	1.1				
" 30	"	"	0.06	1.0				
" 31	"	"	0.04	0.7				
" 32	"	"	0.12	1.2				
" 33	"	"	0.05	0.8				
" 34	"	"	0.02	0.3				
" 35	"	"	0.03	0.7				
" 36	"	"	0.12	1.1				
" 37	"	"	No Sample					
" 38	"	"	0.05	2.1				
" 39	"	"	0.05	0.3				
" 40	"	"	0.01	0.3				
" 41	"	"	0.02	2.0				
" 42	"	"	0.03	2.1				
" 43	"	"	0.07	10.3				
" 44	"	"	0.12	2.4				
" 45	"	"	0.03	1.3				
" 46	"	"	0.05	2.2				
" 47	"	"	0.17	14.4				
" 48	"	"	0.05	10.0				
" 49	"	"	0.04	14.4				
" 50	"	"	0.10	4.0				
" 51	"	"	0.11	1.3				
" 52	"	"	0.03	4.7				
" 53	Dump	"	0.16	2.1				
" 54	"	"	0.41	4.2				
" 55	"	"	0.46	5.5				
" 56	"	"	1.20	5.40				
" 57	Broken	"	0.11	7.40	2.40	3.10	0.21	
" 58	"	"	0.19	0.7				
" 59	"	"	0.05	6.8				
" 60	"	"	0.04	4.5				
" 61	"	"	0.05	6.2				
" 62	"	"	0.01	8.2				
" 63	"	"	0.01	8.6				
" 64	"	"	0.02	10.5				
" 65	"	"	T	0.7				

Sampling continued,

No.	Broken	<u>Au</u>	<u>Ag</u>	<u>Pb</u>	<u>Zn</u>	<u>Cu</u>	<u>Fe</u>
" 66	Broken	0.05	8.4				
" 67		0.02	8.2				
" 68		0.01	4.8				
" 69		0.05	9.2				
" 70		0.28	12.0				
" 71		0.03	1.3				
" 72		0.11	2.0				
" 73		0.12	1.5				
" 74		0.08	2.3				
" 75		0.09	9.9				
" 76		0.08	1.3				
" 77		Trace	0.9				
" 78		0.10	1.9				
" 79		0.02	3.3				
" 80		0.03	12.2				
" 81		0.07	2.9				
" 82		0.03	4.2				
" 83		0.04	3.7				
" 84		0.04	3.5				
" 85		0.02	3.4				
" 86		3.42	7.4				
" 87		0.09	5.4				
" 88		0.06	1.5				
" 89		0.04	1.5				
" 90		0.04	1.3				
" 91		0.01	2.4				
" 92		0.04	16.4				
" 93		0.19	12.9				
" 94		0.09	23.5				
" 95		0.08	4.9				
" 96		0.30	31.3				
" 97		0.02	2.9				
" 98		0.03	0.4				
" 99		None	0.1				
" 100		0.02	1.7				
" 101		0.04	6.9				
" 102		Trace	0.10				

FLOTATION TESTS ON AUSTERLITZ AND SWITZERLAND ORES.

Samples were collected from the Crawford tunnel on the Austerlitz Claim and from several dumps on the Switzerland. The samples from the Crawford tunnel were taken in two lots. The sample designated as Tunnel No. 1 was from the east wall of the tunnel about 150 feet back from the portal. That marked "Stope No. 1" was cut from ore left in the high grade stope exploited some years back. Both samples were channel cuts taken from ore in place.

The samples from "South Dump", "Middle Dump", "Switzerland Location" (Oxide) and "Switzerland Dump", (sulphide) were taken from ore left on the dump of old shafts and glory holes on the Switzerland Claim. They were taken by cutting trenches thru the piles and throwing out every fifth shovelful for to be broken and cut down to sample size.

FLOTATION.

In the flotation tests made on the above ores conditions used in the Montana Mill bulk circuit was followed as closely as is possible with the one cell unit used as a laboratory machine. The chemicalization was followed exactly.

SWITZERLAND AND AUSTERLITZ

CORRECTED ASSAYS, JUNE 6, 1935.

Samples taken 5/14/35

	Au	Ag	Pb	Zn	Cu	Fe	Tons.
<u>Austerlitz</u>							
Crawford Tunnel Sample	0.08	7.60			0.40		
Austerlitz Stope "	0.15	6.40			0.60		
<u>Switzerland</u>							
South Dump "	0.16	8.10					150.0
Middle Dump "	0.30	4.70					50.0
Location (Oxide)	1.20	5.40					2.0
" (Sulphide)	0.20	0.70					20.0

FLOTATION TESTS AUSTERLITZ AND SWITZERLAND CLAIMS.Austerlitz Tunnel Sample.

<u>Product</u>	<u>Weight</u>	<u>Oz. Au</u>	<u>Oz. Ag</u>	<u>Metal Wt. Oz. Au</u>	<u>Metal Wt. Oz. Ag</u>
Heads	2240.0	0.08	7.60	179.2	17024.0
Concentrates	257.0	0.40	40.20	102.0	10331.4
Tailings	1980.0	0.03	0.60	60.0	1188.0

Austerlitz Stopes Sample.

Heads	1783.0	0.15	6.40	267.4	11291.0
Concentrates	300.0	0.30	35.20	80.0	10380.0
Tailings	1370.0	0.025	0.60	34.2	322.0

Switzerland South Dump (Oxide).

Heads	1710.0	0.16	2.10	273.6	3391.0
Concentrates	53.0	2.98	46.20	158.0	2448.3
Tailings	1850.0	0.05	0.60	92.5	960.0

Switzerland Middle Dump (Oxide).

Heads	1450.0	0.30	4.70	430.0	6815.0
Concentrates	50.0	5.00	60.40	250.0	3020.0
Tailings	1393.0	0.11	2.88	153.0	3300.0

Switzerland Location (Sulphide).

Heads	1598.0	0.30	0.70		1119.0
Concentrates	137.0	1.20	0.70		131.0
Tailings	1410.0	0.03	0.70		987.0

Mr. Stephen Monteleone  
806 Security Bldg.  
Los Angeles, California

C  
O  
P  
Y

Austerlitz Mine  
(file)

Dear Sir:

In compliance with your verbal request, I have made a careful investigation of the properties owned by the Oro Blanco Mining Company in Oro Blanco Mining District, Santa Cruz County, Arizona. The Company, I find, have claims located to cover a large vein which is traceable for several miles through this District, having a trend northwesterly and southeasterly. Development work on the property consists of shafts from ten to twenty feet in depth. In addition to this a tunnel has been started at the base of the mountain at the south end of this group of claims of which you have maps which also shows this work.

The tunnel has been driven with a view of intersecting the large vein referred to and which, at the surface, shows copper carbonates containing from one and one half to eight percent copper with occasional fragments of red oxide. General conditions indicate leaching of the oxidized copper-bearing sulphides and an enriched ore zone below. There are also numerous smaller veins on the property but the assay results from samples taken, which are hereto attached, show that the metal values are not sufficient to permit the ore to be mined and shipped to smelters at a profit. A number of the veins could however, be worked profitably with a modern well equipped mill operating in the district.

The property is wholly in a prospective state and from results obtained from adjoining properties, which you have under consideration, I would recommend the holding of this group of claims together as they will undoubtedly, later on, be of large value.

As you are aware, while I was engaged on the examination of the Oro Blanco Company's property, I was very much interested with the mineral indications on the properties immediately south and adjoining this group of claims and found that this area was owned and controlled by two parties, one property known as the Ragnoroc Group consisting of three patented claims owned by a party at Buffalo, New York, and the adjoining property south of Ragnoroc Group consisting of five claims known as the Austerlitz Group. This property is owned by Dr. Noon of Nogales, Arizona.

On the Austerlitz Group a large amount of surface work has been prosecuted as well as under ground work by means of a tunnel. This work being in the oxidized zone and for some reason, probably lack of mining experience, this tunnel was driven away from the ore vein, having cut the vein at a point not heavily mineralized, they drove on not realizing that the vein had been intersected.

In 1912, Woodworth and Layne opened up a large body of sulphide ore by running a cross cut from this tunnel at the point the vein showed, and from the ore they extracted, their report to the State Commissioner showed that they shipped in 1912, 1414.5 dry tons of ore and 18.4 dry tons of concentrates for which they received \$57,224.44. What they shipped in 1913 is not known as the shipments were reverted to Selby & Company, San Francisco, California, but it is

estimated that over \$96,000.00 was shipped from this property during their term of lease, but due to the method of mining with lack of timber, etc., a cave occurred, at which time they ceased operations, and it will now require a shaft north of their workings to intersect this ore body at a lower depth. Maps accompanying this report will show the proposed shaft.

The Austerlitz and adjoining claims show an oxidized surface ore zone. The ore of which will average well in gold and silver and often run to high grade. The sulphide ores opened up at greater depth are extensive, and as shown by smelter returns, of good commercial value.

I was fortunate enough to secure a report made by Mr. F. B. Schermerhorn which I hereby attach as it is very complete in detail, he having made a thorough and exhaustive examination, as careful reading of his report will show. His examination and also that of another Mining Engineer, Percy C. Sharp, made for another party, practically correspond, and it must be noted that both these reports were made before the sulphide zone and ore at greater depth were discovered or before the operation of Woodworth and Layne who extracted the \$96,000.00 from the property.

In addition shipments made later by Dr. Noon and his son who extracted from the gold bearing oxidized zone in the Barkley tunnel, 5,300 pounds ore, sampled gold \$13.60 and silver 14 ounces per ton and from a point on the Fisher vein 5,100 pounds which ran \$38.86 gold and 18 ounces silver and from other points on the property 20,900 pounds of ore sampling gold \$30.00, silver 17 ounces.

In conclusion I will say while the Austerlitz property has considerable merit, present development work is not sufficient to place ore in sight for economical extraction, but I am led to believe, from my superficial examination and from the facts herein, that further exploration would result in the discovery of important ore bodies such as would place the property in rank with many of the large paying mines of the southwest.

There are producing properties in the district which are operating night and day running their mills to full capacity. The Montana Mine, only a short distance from the Austerlitz, and on the same ore zone, is operating a mill of 200 tons per day capacity and I am reliably informed that these properties are now paying enormous dividends.

The Montana Mine, located on the same ore zone as the Austerlitz, is situated about eight thousand feet in a southwesterly direction from the Austerlitz property, and though a large daily production of commercial ore has been maintained for past years, the workings of the property have only been prosecuted to a depth of two hundred (200) feet, thus indicating that the vein has not only maintained a good average width, but also a uniform metal value. Operations are now under way to sink the present working shaft on this property, to a depth of five hundred (500) feet. Work will then be prosecuted to block out ore for economical extraction so that the present plant may be increased to handle one thousand tons or more of ore per day.

At the Yellow Jacket Mine which is also on the same ledge as the Austerlitz property, and which lies about 15000 feet in a northwesterly direction from the Austerlitz, operations are also under way for increased production. This mine, like the Montana, has been a large producer of gold and silver ore, and considering that its deepest workings are not more than one hundred and fifty feet, this property has made an unusual showing; and taking into consideration these developed mines on both ends of the Austerlitz property and which are located on the same ore zone as the Austerlitz, in connection with the unusual returns from the limited developments the Austerlitz has received, and the large quantity of ore showing on the surface, or in the oxidized zone, and what has been mined and worked in arastras by the Indians and Mexicans, (a primitive method which is sometimes employed to-day by the Indians and Mexicans in remote districts in the Republic of Mexico), as well as the large tonnage which was bought and treated by the different small Mills operating in the earlier days in this District as shown by records, the Austerlitz Mine may be considered a proven property and not an undeveloped prospect, and will under careful management by experienced mining men, be developed into a very large and profitable producer of gold, silver and copper ores, from which large returns may be expected for many years to come, and taking into consideration the price and terms upon which this property has been acquired, I most earnestly recommend the development work as herein set forth.

Conditions as to transportation in this district have been greatly improved upon within the last year. The Montana Mining Company having completed a good auto road from the district to Nogales, a distance of only twenty-three miles.

I enclose blue prints from maps made by engineers employed by the owners of the Austerlitz group, and while I have had no opportunity to make a survey of the property, I am of the opinion, from my personal observation of the workings on the property that these maps are correct. I have added, however, a proposed shaft which you will note to be sunk to a depth of 180 feet. This should intersect the ore vein which I called to your attention during our visit to the property.

Trusting that this report will give you a clear idea of conditions and awaiting your further instructions, I am,

Respectfully submitted.

/s/ J. W. Bible

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Mining Engineer.

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## REPORT ON

### THE AUSTERLITZ CONSOLIDATED MINING GROUP

By F. B. Schermerhorn, M. E.

#### HISTORICAL:

The Austerlitz group of mines is situated in the Oro Blanco Mining District, Santa Cruz County, Arizona. The early history of this district is lost in the mystic reaches of the past. It was probably placer mined by the Aztecs and later worked by the Spanish Friars. The Tumacacori Mission was established by the Spanish Friars about 1530 and is known to have been one of the wealthiest missions ever established in the present limits of the United States. They operated these mines until about 1830, when, because of differences with the Mexican Government, they dismantled and closed the mission and returned to Spain.

After the departure of the Spanish Fathers, the Mexicans began working in the district. There are still to be seen in a strip of territory about a mile wide and three miles long, the remains of seventy odd of the old arastras. In all this time that the district had been worked, from the time of the Aztecs down to the American occupation in 1849, nothing but the surface of the ores had been worked. No shafts had been sunk nor tunnels driven. The reason for this is that the surface ores were very rich on the divide and average about sixty feet in width. There are also two parallel ledges, one on either side, each about one hundred feet distant from the main ledge, each of these parallel ledges averaging about eight feet in width. At the time of the American occupation in 1849, the ores upon the surface still averaged about \$30.00 per ton gold and silver, but at this time the discovery of gold in California caused both the Americans and Mexicans to desert this district for the new eldorado.

About 1865 a man by the name of Clinton Thompson returned from California to the district. He located several claims, among them the Austerlitz, and began working the ores in arastras. Some two years later Thompson was killed by the Indians.

In 1869 Mr. Townsend of New York, having heard of the district from Thompson, sent a mining engineer from New York to re-locate the properties. The engineer sent out by Townsend located the Austerlitz Group and began development of the property.

Mr. Townsend for the purpose of better protecting his interests in the district, sent over from San Francisco a Doctor Noon, who is still residing in Santa Cruz County. Mr. Townsend got into financial difficulties and deeded all his right, title and interest in the Austerlitz Group to Dr. Noon, in whose possession the title has since remained. The Doctor has made several attempts to work the property, but has never made more than a trivial success of any of these attempts, because of lack of funds with which to properly equip the property as well as a lack of knowledge of mining operations. He has leased the property a number of times, as a matter of fact, all of the money that has ever been made out of the property has been made by the leasers. I succeeded in getting hold of the details of two lists of ores which were shipped to the Arivaca Mill.

1st.	au	3.50	ozs.	ag	12.00	value	\$76.00
2nd.	"	.925	"	"	10.00	"	23.00
3rd.	"	9	"	"	8.00	"	22.00
4th.	"	7	"	"	11.00	"	19.50
5th.	"	65	"	"	12.20	"	18.60
6th.	"	7	"	"	12.30	"	20.50
Average		<u>1.232</u>			<u>10.75</u>		<u>30.00</u>
Tails		<u>1.102</u>			<u>8.26</u>		<u>23.25</u>
Amt. saved or		92%			82%		98%

The next record of a mill run that I got hold of was 90 tons run at the same mill, July 19th to 25th.

BATTERY ASSAYS							
1st.	day	au	1.00	ag	13.00	value	26.50
2nd.	"	"	.70	"	11.00	"	19.50
4th.	"	"	1.00	"	11.00	"	25.50
5th.	"	"	.75	"	10.25	"	20.12
			<u>.55</u>	"	<u>8.00</u>	"	<u>15.00</u>
Average			<u>.80</u>		<u>10.65</u>		<u>21.37</u>
Tails			<u>12</u>		<u>2.60</u>		<u>3.70</u>
			68		8.05		17.67
Saved or			85%		80%		

The above is what the mill actually paid for the ores. In 1894 a mining man by the name of Charles J. Barkley, who was from Gibbonsville, Idaho, entered into an agreement to purchase the property for \$40,000.00. While returning from Idaho to the property, he took pneumonia, which developed into quick consumption, and Mr. Barkley died at Indio, California a few weeks later. Mr. Barkley planned and began all the real developments that had ever been made on the property.

In 1902 Percy G. Sharp, a mining engineer from Los Angeles, sampled the property and from the 36 samples that he took, he got an average of 835 au. and ag. 6.21 oz., being gold \$16.70 and silver \$3.10 per ton.

In April of the present year, T. B. Wilde, a mining engineer from Goldfield, Nevada, took 26 samples from the dumps of the Austerlitz Group, from which he obtained an average of 6.12 gold and silver per ton. (Mr. Wilde made many subsequent assays, his total average was \$9.00 silver at 54 cents).

#### GEOLOGY.

The Geological history of this section has never as yet, so far as I am informed, been inquired into by the United States GEOLOGICAL SURVEY but inasmuch as the Tumacacori-Oro Blanca ranges of mountains are composed of rhyolites, andesites, and dacyte, these mountains are one of the results of the revolution which occurred at or near the close of the cretaceous period. The general course of the gold and silver bearing veins also of the various dykes, is northwest and southeast trend, and the dip northeast. The mineral bearing zone or belt extends from the Austerlitz northwesterly into the desert and

southeasterly into Mexico. The width of this particular belt is about 200 feet. The length, although undeveloped to any particular extent except a short distance both northwest and southeast of the Austerlitz, ~~is probably~~ is probably 40 or 50 miles. Along this gold belt it is worked for the placer gold by both Mexicans and Indians.

#### WOOD, WATER, ETC.

This district is well watered. There are numerous springs in the various gulches of the range of mountains from which an abundant supply of water can be obtained. The rainfall in this section, I am informed, averages 18 inches a year. Timber consists wholly of live oak. A plentiful supply for fuel purposes can be obtained in the Austerlitz Group and purchases from the reserve, but all mining timbers and lumber for other purposes must be obtained elsewhere. There is an excellent wagon road from Tucson some 80 miles northeast, to the property. There is also a very good road from Nogales, some 45 miles to the eastward, but in its present condition, heavy loads of freight could not be brought over it.

#### DEVELOPMENT

Most of the development of this property consists of open cuts exposing large bodies of ore lying blanket form on the eastern side of the mountain. These ore bodies are for the most part simply large fragments or bodies of ore, which have broken off from the ledges and slid down the mountain side. There is a shaft near the western side line of the Austerlitz, which has been sunk to a depth of 130 feet. The shaft was evidently for the purpose of catching various ledges from the Austerlitz-Parallel columns, this group consisting of five claims. The shaft should strike the east parallel vein at a depth of 230 feet. There is also a tunnel known as the Barkley tunnel, 461 feet in length, cutting clear through the mountain. Of this tunnel I will speak more fully later.

The silver in these ores is in the form of a chloride, and from long exposure, the dumps have been considerable leached by the action of the elements, the fine gold also being carried down to the bottom of the piles. Therefore, it is fair to conclude that all samples taken from the dumps are below the average value of the ore, the samples having been taken, in every instance, from the top of the dumps. I would expect that in these dumps the actual value recovered would be equal, if not in excess of, the values shown by the assays taken. I commenced sampling near the extreme south end of the Austerlitz Claim very near the top of the mountain.

Sample No. 1. Open cut in the blanket. Blanket about 12 feet thick, much ore exposed. Sample of ore pile of 12 tons.

Sample No. 2. Open cut in blanket. Thickness of blanket never determined. Large amount of ore in sight. Sample ore dump of 20 tons.

Sample No. 3. Opening on small spur vein. Vein 20 inches wide. Hole 4 feet square sunk to a depth of about 5 feet. No. 6 shaft 35 feet deep, sunk on across vein or spur between the main ridge and the west parallel ridge, said shaft was sunk to depth of 35 feet. Sample of this dump and second class ore taken from shaft, all the first class ore having been removed. The first class ore in this vein, was worked in an arastra and the actual value of the ore

from this shaft is unknown to the owner.

No. 7. Over 50 feet open cut run in on the top of the ledge. Face cut 12 feet high. This cut was run so long ago that its history is not known even to the oldest inhabitant. Took grab samples of the waste piled up along the side of the cut.

No. 7A. Was taken from a small pile placed near the entrance of this cut.

No. 8. Sample across the face of this cross ledge, ledge 3 feet wide.

No. 10. Taken from same as No. 9. Over 400 tons second class ore. This ore has been carefully assorted, it is very high grade and was shipped to the smelters, some shipments running as high as \$158.00 per ton in gold and silver. Lower grade ores were shipped to Arivaca, one averaging \$26.75 gold and silver and another lot averaging \$17.67 gold and silver, received and paid for by the Arivaca Mill. This ore, I am informed, all came out of the 65 foot shaft before mentioned.

No. 11. Sample taken from an old pile of 10 tons. This place from which this ore was obtained, is unknown, but probably out of the cut before mentioned as Nos. 4 and 5.

No. 12. A sample from a dump of 20 tons, place from which it was taken is unknown. At this there place are a dozen small piles or lots of ore, which were taken at the bottom of the 65 foot shaft by the present owners, the ore being closely associated, the first class being put into these small piles and the second class being thrown over the dump.

No. 13. Open cut on blanket. Heavy body of sulphate showing underneath the ore. Sampled one pile of 35 tons of these heavy sulphates.

No. 14. Sample pile of 60 tons of unsorted ore taken out above the body of sulphates before mentioned.

No. 15. Open cut on claim known as the Addition. Goodly showing of ore. Sample 21 ton lot.

No. 16. Sampled open cut on blanket. Plenty of ore showing. Sampled pile of 10 tons.

No. 17. Open cut blanket of milky white quartz. Sampled lot of 25 tons. This work was done by Clinton Thompson. So far as the present owners know. This lot of ore has never been sampled.

No. 18. In an open cut down on the Addition claim, about 300 feet from the east side of the Austerlitz. Very large amount of ore showing. Sample lot of 100 tons of all second class ore. The ore from this cut was closely assorted, the first class ore being worked in an arastra.

No. 19. An open cut in an alluvial deposit in the bottom of a little draw. In running this cut 50 tons of ore was taken out and piled up on the dump. Considerable ore still shows on the face and sides of the cut.

No. 20. A lot of 60 tons of ore and waste was taken out at point 12 on map of the Barkley tunnel.

No. 21. Lot of 100 tons taken from point marked "Upraise" on map of Barkley tunnel.

No. 22. In the summer of 1898, Charles J. Barkley, before mentioned as having made an agreement to purchase the property, started to run a cross-cut tunnel through the mountain. This tunnel, either fortunately or unfortunately, as you may wish, as soon as he cut through the surface soil or drift, struck a northeast, southwest fault line. There was both a vertical and lateral movement along this fault line. The fault line is badly broken for a distance of 50 feet. The lateral movement along this line turned the ore from the northwest, southwest course to a southwest northeast course. The bodies along this fault line considerably mixed up, being irregular in occurrence, but as a rule, not badly shattered or leached. The throw so far as I have been able to judge from the surface, is 80 feet. The foot wall side of the fault line seemingly moved farther westward than the hanging wall side did eastward. The first ore struck in this tunnel was at a point 140 feet distant from the portal at the 249 foot station, an upraise was started.

No. 23. Just beyond the upraise a cross-cut was run, intersecting the 65 foot shaft at the bottom, 30 feet distant from the tunnel. Two drifts I understand, are run out on the ore from the bottom of this shaft. Drifts and shafts are caved in so that it was impossible to get into them to examine them. At a point on this cross-cut, 12 feet from the tunnel, another drift has been driven a distance of 135 feet. This drift is very irregular in its course, and was evidently run for the purpose of striking a 3 foot ledge, which shows on the surface spoken of under Nos. 6, 7 & 8. If it was the intention of this cross-cut, it was not run far enough by about 50 or 60 feet. The drift was run during the past winter by T. B. Wilde of Goldfield, Nevada. Coming back to the tunnel, a distance of 30 feet further along the tunnel, Charles J. Barkley ran a cross-cut in the hanging wall of the fault, cutting the top of a very large ore shute. The appearance of the ore is the same as that which appears in the upraise and is evidently a part of the same ore body and separated from it during faulting which took place along the false fissure. Sample 23 was taken 18 feet in length across the top of this ore shute.

No. 24. The tunnel had been driven 69 feet further at this time of Barkley's death. Later at this point a cross-cut had been run to the left into the footwall. The footwall of the fault is a dacite. Evidently the intrusion of this dacite dyke is the cause of the faulting. The width of the dacite dyke has as yet not been determined. Its presence is only indicated on the surface by boulders lying in the soil. Going back to the point at which the Barkley work on the tunnel was stopped, a turn was made at nearly right angles to the course of the drift and a point ten feet farther on the body is badly broken and mixed ore was encountered, which was continued for a distance of 11 feet. From this point, the drift is continued on as a cross-cut for 45 feet, usual signs of ore in the tunnel again appear along the cross-cut. Going back again to the station 21 feet to the right of the face of the tunnel where Barkley stopped work, the general course of the tunnel was changed somewhat and driven forward to the surface on the western side of the hill. At a point marked 12 on the map, ore was struck on the right hand side of the tunnel, a drift was run off at an acute angle to the right for a distance of 25 feet all the way through. The large sample was taken from the side and top of the ore near the middle of the drift.

No. 25. Commencing at the same point marked 12 on the plat another drift was run off at right angles from the tunnel for a distance of 15 feet, at which place

it cut completely through the ore. A large sample from sides, top and bottom was taken in this drift 6 feet back from the face.

No. 26. From point 12 on the plat the ore is exposed on the right side of the tunnel for a distance of 40 feet at a point midway between 12 on the plat and the end of the ore shute, a large sample was taken. The tunnel has been driven ahead from point 12 on a map a distance of 140 feet, to day light on the western side of the hill.

No. 27. Sampled 150 tons of ore lying on the hillside about 200 feet south of the north end land of the parallel plane.

No. 28. Sampled 50 tons of refuse or waste, lying below an open cut upon the parallel near the north end centre.

No. 29. Sampled second class ore and waste of 300 tons, taken from the open cut slightly east of the north end centre of the parallel claim.

No. 30. Sampled 400 tons of second class ore and waste taken from east of No. 29.

No. 31. Sampled 900 tons of second class ore and waste taken from an open cut about 50 feet northeast from No. 30.

No. 32. Sampled 300 tons of second class ore taken from the same open cut as No. 31.

No. 33. Sampled 8 tons of ore taken from the bed immediately under or down the side of the hill from No. 31.

No. 34. Sampled 50 tons of unassorted ore taken from the slide.

No. 35. Open cut. Large amount of ore showing, being evidently in place. One wall showing cut. Sampled 25 ton lot of ore.

No. 36. Large excavation. Thousand of tons of ore have been removed. Opened by the fathers for its rich gold and silver ores. The excavation has slid in so badly that the bottom of the work cannot be seen. There is still considerable ore left, showing above the debris which covers the bottom of this excavation. Sampled a 75 ton lot, evidently second class ore, which I found lying or piled near the outer edge of the dump.

No. 37. Sampled another 100 ton lot lying near No. 36. It is about the same character as No. 36.

No. 38. Sampled another pile of 150 tons of the same character as Nos. 36 and 37. This excavation shows the vein to be very wide, how wide, it is not possible to determine at present. Only the hanging walls is exposed, vein evidently in place.

A deep gulch separates the Austerlitz from the Ragnaroc Mining Claim, which adjoins the Austerlitz upon its northwest end.

The ore of the Ragnaroc comes down the side of the gulch nearly to the

Austerlitz and in fact the vein has been opened upon the line separating the two claims. Upon the Ragnaroc, the width and the dip of the vein can be easily taken. I found that upon the Ragnaroc the width of the vein or ledge taken at right angles to the foot wall is a little over 60 feet while the dip is about 55 degrees east.

No. 39. A cut 100 feet southeast of the large excavation before mentioned a ledge has been opened exposing a foot wall.

The ore here is apparently in place and evidently the foot wall of the ledge. Sampled lot of 25 tons.

No. 40. Sampled lot of 60 tons which was picked up out of the creek below No. 33. Nothing is known as to whom or by whom this ore was piled. It was evidently put aside for the purpose of working it through an arastra.

No. 41. Sampled 25 tons taken from an open cut below No. 40.

No. 42. Large excavation on the north bank of the gulch. Very large amount of ore shown in and around the opening. Sampled 400 ton lot second class ore.

No. 43. Ore taken from the bottom of the gulch. The recent rains have stripped the bottom of the gulch at this place immediately below No. 42, exposing the ore along the bottom of the gulch for a distance of 75 feet. How much farther down the gulch it extends cannot be determined accurately, but it is probably less than 20 feet further. Near the lower side of this exposed ore body, Charles J. Barkley sunk a hole in the ore to a depth of ten feet. This exposure at the bottom of the gulch is very important, as it is the lowest point upon the Austerlitz of the Ragnaroc that can be seen. Sampled a lot of 115 tons taken from the bottom of the gulch.

No. 45. Sampled a lot of 50 tons taken from an opening on the hillside immediately upon the line between the Austerlitz and Ragnaroc.

No. 46. Sampled lot of 500 tons taken from an opening made on the ledge upon the Austerlitz just below the line between the two claims. This was done very long time ago.

No. 47. Sampled a lot of 25 tons. This lot is a kind of land mark, it having been known to have been there at least 50 years ago. It was evidently taken out by the Spaniards who worked an arastra. The place from which it was taken is unknown but it was probably taken from an opening in No. 46.

OUNCES PER TONVALUE PER TON OF 2000 POUNDS

	AU.	AG.	AU.	AG.	TOTAL.
1.	0.76	6.1	\$15.30	\$3.97	\$19.17
2.	0.28	5.4	5.60	3.57	9.11
3.	0.16	2.4	3.20	1.56	4.76
4.	0.18	3.3	3.60	2.80	5.40
5.	0.06	0.4	1.20	-----	1.20
6.	0.08	trace	1.60	-----	1.60
7.	1.48	7.4	29.60	4.81	34.41
8.	0.16	2.3	3.20	1.50	4.70
9.	0.08	7.5	1.60	4.88	6.48
10.	0.68	3.6	13.60	2.34	15.94
11.	0.06	1.4	1.20	.91	2.11
12.	0.28	2.1	5.60	-----	6.97
13.	0.18	3.6	3.60	2.34	5.94
14.	0.10	trace	2.00	-----	2.00
15.	0.56	6.3	11.20	4.10	15.30
16.	0.12	1.5	2.40	.98	3.38
17.	0.24	1.7	4.80	.91	5.71
18.	0.18	0.7	3.60	-----	3.60
19.	0.18	0.7	3.60	-----	3.60
20.	1.76	6.3	35.20	4.10	39.30
21.	0.44	4.0	8.80	3.25	12.05
22.	0.16	1.2	3.20	.78	3.98
23.	0.07	0.8	1.41	-----	1.41
24.	0.08	2.1	1.60	1.37	2.97
25.	0.64	11.6	12.80	7.54	20.34
26.	0.16	7.8	3.20	5.07	8.27
27.	0.38	trace	7.60	-----	7.60
28.	0.24	trace	4.80	-----	4.80
29.	0.20	trace	4.00	-----	4.00
30.	0.14	trace	2.80	-----	2.80
31.	0.04	trace	.80	-----	.80
32.	0.16	trace	3.20	-----	3.20
33.	0.16	5.8	3.77	3.77	6.97
34.	0.14	17.22	2.80	11.18	13.98
35.	0.28	3.9	5.60	2.54	8.14
36.	0.40	6.0	8.00	3.80	11.80
37.	0.32	8.4	6.40	5.46	11.86
38.	0.10	6.1	2.00	3.97	5.97
39.	0.08	2.0	1.60	1.30	2.90
40.	0.18	1.2	3.60	.72	4.38
41.	0.16	0.6	.20	-----	3.20
42.	0.14	trace	2.80	trace	2.80
43.	0.17	1.5	3.40	.98	4.38
44.	0.22	4.0	4.40	2.80	7.00
45.	0.36	4.6	7.20	2.99	10.19
46.	0.16	3.2	3.20	2.08	5.28
47.	0.16	2.5	3.20	1.63	4.83

This table was compiled from lot of ores which according to assays are unmistakably ores.

<u>NO.</u>	<u>AMOUNT</u>	<u>VALUE PER TON</u>	<u>TOTAL VALUE</u>
1.	12	\$19.17	\$230.04
2.	20	9.11	182.20
4.	75	5.40	405.00
7.	50	34.41	1720.50
7A	150	4.70	705.00
9.	50	15.94	797.00
11.	10	6.97	69.70
12.	20	5.94	118.80
14.	40	15.30	612.00
15.	20	3.38	67.60
16.	50	5.71	285.16
17.	25	3.60	90.00
18.	100	3.60	360.00
19.	50	39.30	1965.00
20.	60	12.05	732.00
21.	100	3.98	398.00
27.	150	8.60	1140.00
28.	50	4.80	240.00
29.	300	4.00	1200.00
32.	300	3.20	960.00
33.	8	6.97	56.76
34.	150	13.98	2097.00
35.	25	8.14	203.50
37.	100	11.86	1186.00
38.	150	5.97	895.50
40.	60	4.38	262.80
41.	25	3.20	80.00
43.	115	4.38	503.70
44.	252	7.00	175.00
45.	50	10.19	509.50
46.	500	5.28	2640.00
47.	25	4.83	120.75

An average value per ton of ore on dumps ready for milling \$7.45.

Average of assays per ton, \$8.28 Lots Nos. 1, 7, 14, 19, 20, and 34, were unassorted ore. Average value per ton \$9.28 Lots of these unassorted ores \$20.32.

In case of lots Nos. 5 and 6, I was informed that the waste had been piled upon a lot of good ore. No. 31 is as shown by the assays, to be the only real waste dump of the property. Nos. 10, 13, 23, 30, 39 and 42, should be resampled, as I am of the opinion that they are real ores.

The showing made is really a remarkable one when we take into consideration the fact that with the exception of six lots, viz. Nos. 1, 7, 14, 19, 20 and 34 every lot sampled were thrown out for waste. Further you must remember that with the exception of the lots of unassorted ore, these dumps

have been exposed to the elements for many years, some of them for more than half a century. From the creek bottom ten thousand or more tons (how much more cannot be determined just at present) that will according to the assay average over \$5.00 per ton. At least seven thousand tons of ore of an average value of \$4.00 per ton can be taken out from the above tunnel. On the eastern side of the hill some ten thousand or more tons of ore can be gotten off the surface that should average above \$10.00 per ton. Exploration alone can determine the tonnage to be gotten off from this property. Exploration will also show the real value of these ores, which will probably average considerably higher than the average shown by the samples which I have taken. Mr. Barkley who had the best opportunity to determine the true value of the property, as he spent a great deal more time taking his measurements to make his estimate of the tonnage and spent several months in sampling and testing the ores from the various showings placed the surface tonnage approximately at one hundred thousand tons, with the average of \$7.50. I am inclined to accept his estimate as being more nearly accurate than my own.

In regard to the handling of this property, the deal for the property having been closed upon receipt of analysis and assays, depends a great deal upon the scale upon which it is desired to operate the property. It will take at least \$5000.00 to put the property in good working condition. It will take \$7500.00 more to put a 10 stamp mill upon the property. Would advise, as soon as convenient to do so, the erection of a small cyanide plant for the purpose of handling the large amount of ores exposed at the bottom of gulch. This will cost about \$5000.00 or more. At least \$7500.00 more should be set aside as a kind of emergency fund. This amount \$25,000.00, I believe to be amply sufficient with which to commence operation. The entire plant should be enlarged owing to the profits obtained from the property. A deep tunnel should be commenced at a low point as practicable which will be down near the forks of the creek. A tunnel started at this point will encounter the eastern ledge at about one hundred and fifty feet distant from the portal.

The tunnel should be continued not only on to the main ledge, but to the western parallel ledge. It should also turn and follow the main ledge into the hill. A tunnel such as I have outlined, fifteen hundred feet in length would give vertical depth from the ledge of some five hundred feet. It would also have the advantage of being driven for at least 1200 feet of its length upon the main ledge. Such a tunnel would make it possible to handle all ores cheaply and rapidly. It would also develop the character of the ores upon depth and would decide the kind of a plant necessary to operate the property on a large scale. Of course if it should be desired to work this property upon a larger scale, these estimates would have to be proportionately increased. The deepest working is upon Tres Amigos or OLD ORO BLANCO property. A depth of 265 feet has been attained upon that property and the ores at the bottom of the shaft are still free milling and higher values than were obtained anywhere else on the property.

The ledge is also quite as strong upon the Oro Blanco as upon the Austerlitz.

With careful and intelligent management, the Austerlitz will make one of the large gold mines in the United States.

Signed F. B. Schermerborn, M.E.

El Paso, Texas  
Sept. 10th 1907.



No.	Flu	Ag	No.	Flu	Ag	No.	Flu	Ag	No.	Flu	Ag	No.	Flu	Ag	No.	Flu	Ag
1	0.02	2.2	16	0.029	7.3	31	0.027	0.12	76	0.025	2.2	61	0.06	6.2	76	0.08	1.3
2	0.013	4.2	17	0.013	10.3	32	0.012	1.4	77	0.12	14.4	62	0.01	8.4	77	Trace	0.9
3	0.023	0.15	18	0.007	10.3	33	0.015	1.0	78	0.025	1.0	63	0.01	8.6	78	0.12	1.2
4	0.014	1.7	19	0.007	10.3	34	0.015	1.0	79	0.004	1.4	64	0.02	10.4	79	0.02	1.2
5	0.023	3.8	20	0.007	10.3	35	0.023	1.0	80	0.010	1.0	65	Trace	0.3	80	0.07	1.2
6	No Sample		21	0.007	10.3	36	0.012	1.1	81	0.011	1.1	66	0.025	8.5	81	0.07	2.2
7	0.03	0.3	22	0.007	10.3	37	No Sample		82	0.015	1.1	67	0.01	8.2	82	0.03	4.2
8	0.019	1.1	23	0.025	1.0	38	0.023	2.1	83	0.01	1.1	68	0.01	4.2	83	0.04	3.7
9	0.021	0.0	24	0.007	10.3	39	0.023	1.3	84	0.025	1.1	69	0.025	9.2	84	0.04	3.2
10	0.006	2.2	25	0.007	10.3	40	0.007	1.3	85	0.011	1.1	70	0.01	1.1	85	0.02	3.4
11	0.015	1.4	26	0.007	10.3	41	0.007	1.1	86	0.011	1.1	71	0.03	1.3	86	0.09	7.4
12	0.000	0.0	27	0.007	10.3	42	0.023	1.1	87	0.011	1.1	72	0.12	2.0	87	0.06	5.7
13	0.019	1.4	28	0.007	10.3	43	0.023	1.1	88	0.06	1.1	73	0.00	1.1	88	0.06	1.1
14	0.013	2.0	29	0.007	10.3	44	0.012	1.4	89	0.02	1.1	74	0.02	1.1	89	0.04	1.3
15	0.012	3.1	30	0.006	1.0	45	0.019	1.6	90	0.02	1.1	75	0.02	1.1	90	0.04	1.1

MAP OF SAMPLES  
SHOWING GRADE  
TAKEN FROM THE  
AUSTERLITZ-  
REPUBLIC GROUPS

JUNE 1935 SCALE 1 IN. = 200 FT.

F. E. GREGORY