

COCHITA MINING CLAIMS
In Sandoval Co., New Mexico

DESCRIPTION & LOCATION

The Property is situated in the Cochise Mining District, Sandoval Co., New Mexico. All the properties are within 1 1/2 miles of Bland P.O., 25 miles from Domingo Station, on the main line of the A.T. & S.F.R.R.

The terminus of a spur of the railroad is about 10 miles nearer and was built to the Rio Grande, near the Indian Pueblo of Cochita, for the purpose of hauling ties to the main line. The Santa Fe Railroad quotes the rate of ore shipments from Domingo to El Paso, Texas as follows:

Ore running	\$10. or less	\$ 2.25 Per Ton
" "	\$15. to \$20.	2.50 "
" "	\$25.	2.75 "
" "	\$35. to \$100.	3.55 "

There is a good road, passable all year, recently constructed by the U.S. Forest Reserve, from Cochita Bridge to the property.

The Group consists of the following: 18 patented lode claims and 36 unpatented claims.

18 - Patented Claims

Sunny South	Lone Star	No Name	Crown Point	Iron King
Denver Girl	Dry Monopole	North Star	Ontario	Pinto
Uncle Joe	Free Trade	Washington	Huron	
Avondale	Red Cloud	Albionville	Parlino	

36 - Unpatented Claims

Missing Link	Ruby	Black Crow	Colonel	Red Bird
Bull of the Woods	Black Fox	Blue Jay	General	Red Fox
Ellen L.	Aspen	Wonder	Giant	Silver Eagle
Mammoth	Judge	Pirate	Cub	Blue Eagle
Narrow Gauge	Emerald	Hawkeye	Pines	Senator
Lazy C	Silver Fox	Richard	President	Governor
Wild Cat	Blue Bird	New Deal	Homer	Laura S.
				Cochiti Chief

All of the above claims are contiguous and are well located on vein systems with side claims for protection. I understand the property has been in litigation for about thirty years. The titles were cleared by U.S. Supreme Court decisions.

IMPROVEMENTS

These are inventoried and attached hereto.

WATER

The Company owns a patented four acre water site at the head of an adjoining canyon on which there is a spring suitable for domestic use and of sufficient quantity to supply the existing 100 ton mill. This water has been made available in the canyon adjoining by the extension of Mill sites.

In addition there is a winze reported to be 300' in depth bottomed in ore and is now filling with water to within 2' of the top. A Cameron pump size C serial #21548 was used in this winze and was unable to hold the water and this source will furnish sufficient water for milling purposes. In addition there is a spring in the canyon opposite the Crown Point which would be available for domestic use if kept free from contamination.

POWER

Electric power can be obtained from the Albuquerque Light & Power Co., by an extension of their power line for a distance of 15 miles and I understand the rate will be 2¢ or less per K.W. The consumer is to build the power line at his own expense and the cost of same will be refunded monthly as power is used. The owner had an estimate cost of this line at \$20,000. The absence of this power will be a handicap in the operation of the mine.

TOPOGRAPHY

The elevation of the old Bland P.C. site is about 7400' above sea level, with the Lone Star and Crown Point at about the same altitude. The Laura S. is about 200' higher and the Washington about 800' above the Bland.

TIMBER

The entire district is covered with an abundant growth of timber consisting of pine, red fir and spruce, which is suitable for mining purposes. Arrangements can be made also with the U.S. Forest Service for stumpage.

VEINS

The entire district is traversed by numerous well defined fissure veins, running generally North and South, most of which, dip about 60 to 70° to the East, with the exception of the vein traversing the Washington, which dips about 70° to the West. These veins have probably joined before entering the Iron King. I noticed an occasional porphyry horse within the vein.

LONE STAR, IRON KING AND NORTH STAR

There are four tunnels driven from the surface cutting the vein. These are connected by raises. The lower tunnel cuts the vein at about a depth of 1000', also one at 400' and one at 250'. At the 250 level, some development work has been done by an open stop. This ore has been removed through winzes extending to 1000' level.

This tunnel is K 12 and is driven about 1100' to intersect the vein from where they drifted southerly to what they thought was the end line of the North Star. In this drift a winze was sunk to a depth of about 300' and bottomed in ore. This winze should furnish sufficient water for the operation of a mill. If the pump used in the winze was used to capacity it would develop 31 gallons per minute or 466 tons of water per 24 hours. The upper workings are not accessible.

Upon the intersection of the 1100' tunnel and the vein, a drift has been driven northerly on the Lone Star and Iron King. Assuming that the tunnel had been correctly plotted on the existing map, which we have, the face of this tunnel would be about 180' on the Iron King at a depth of approximately 1000'. The total length including the Lone Star would be about 550'. The width of the vein near the face is 65', all in ore. There is every reason to believe that the same condition would continue an additional 550'. On this assumption and averaging the width of the vein from the surface, there are 1,400,000 tons of ore blocked or partially blocked and there is every reason to expect several million tons additional ore on the undeveloped parts of the Iron King Vein.

There is evidence in the workings that the vein has pockets of very high grade ore. An average assay of 261 samples gives a value of \$21.15 per ton. These include smelter returns and rejected ore samples.

From old assay reports and those of our own samples, I believe that an average of \$10. per ton in value can be reasonably expected.

From this development work, ore is being hauled by wagon 25 miles to railroad for shipment to the smelter, about 30' from the face of the tunnel on the Iron King, a winze is being sunk and had a depth of about 30', all in ore, when I was on the property.

The assay returns on samples taken by me from this winze are as follows:

Name	Gold per ton value Oz. Troy	Silver Oz. Troy	Ton Value	Total Bullion Value
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Iron King Winze	.43	\$ 12.05	30.8	\$ 19.85	\$ 31.90
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Mr. F. Milton Johnson, in his report on the Lone Star, estimated 130,000 tons of ore on sight at \$10.01 per ton, old prices. This would be about \$20.40 per ton at new price.

Mr. Duncan McVichie estimated 74,000 tons of ore in sight with an average value of \$7.69 per ton, old price. This would be about \$13.20 per ton at the new price.

Mr. P. E. Barbour estimated 90,000 tons with an average value of \$10.82 per ton, old price. This would be about \$19.35 per ton at new price.

The ore on the dump was sampled by me and found to run as follows:

Name	Gold per ton Value Oz. Troy	Silver per ton Oz. Troy	Total Bullion Value
Lone Star			
Glory Hole	.44	\$15.40	7.45
North Star	.13	4.55	2.90
Iron King Rj.	.34	11.90	7.70
" Hg. I	.10	3.50	122.8
" Winze	.43	15.05	30.8
" Surf	.12	4.20	3.5
" N. Gul.	.03	1.05	None

WASHINGTON

The workings consist of five adits tunnels of from one to 300' in length, on the vein, one winze 50' in depth, one raise 30' in height and two shafts 30' in depth, each. The tunnels are in good shape but I was unable to inspect the other workings.

There is a large open stope from which ore to the value of \$20,000. was taken out and packed down the mountain on burro back to the road. There is probably 25,000 tons of ore on the Washington dumps.

Our samples give these values of \$29.92 per ton. This ore would be hardly practical to ship without some other method of transportation probably aerial tramway. A tunnel can be driven from the lower level of the Lone Star to handle the ore from the Washington Claim. Our samples show the following results:

Name	Gold Troy Oz.	Value	Silver Value	Total
		Per Ton	Troy Oz.	TonBul.Val.
Washington #3 Dump	.04	\$ 1.40	.8	\$.50
Washington #3 Lower Dump	.50	17.50	21.7	14.00
Washington #4 Dump	.46	16.10	24.9	13.35
" 5 Lower Dump	.15	5.25	8.5	5.35
" 6	.36	30.10	51.9	33.50
" Dump by Glory Hole	.12	4.20	3.7	5.60
" Winze	.23	7.10	23.3	15.05

ALBEMARLE GROUP

Previous reports by Mr. Jenks state that these workings are all inaccessible, but from previous observations, the workings consisted of an incline working shaft some 700 feet in depth, with levels at frequent intervals and sub-levels in between. He thought there were several thousand feet of drift all together. Surface explorations show well defined veins on the Sunny South, Free Trade, Ellen L., Red Fox, Laura S., and the Albemarle. Our samples show the following:

Name	Gold Tr.Oz.	Value P.Ton	Silver Tr.Oz.	Value P.Ton	Total Value
Free Trade	.08	\$ 2.30	10.8	\$ 6.95	\$ 9.25
Free Trade-surface	.07	2.45	4.9	5.10	5.55
Aventale Dump	.14	4.90	7.1	4.60	9.50
Albemarle #1	.18	6.30	16.3	10.70	17.00
" 2	.04	1.40	2.5	1.60	3.00
" 3	.05	2.10	4.5	2.90	5.00
Laura S.	.34	11.90	1.3	.85	12.75
Red Fox Lower Tun.	.08	2.80	1.6	1.05	3.85
" Upper "	.02	.70	None	----	.70
Sunny South	.22	7.70	2.3	21.05	28.75

The smelting returns from the American Smelting & Refining Co., and El Paso Smelting works show an average of \$22.63 per ton on 1149 tons of ore. 231 samples gave an average assay value of \$21.15. These samples include rejected ore and surface samples.

Name of Mine	Average Price Per Ton	Number of Assays
Iron King	\$ 85.50	76
Washington	40.00	76
Sunny South	37.00	4
Ellen L.	19.15	12
Free Trade	25.90	12
No Name	6.00	2
Narrow Gauge	73.00	22
Lone Star	24.01	25
Albemarle	8.65	58
Denver Girl	7.90	2
Red Cloud	5.94	3
Uncle Joe	2.89	3
Hawk-Eye	3.80	1
Blue Eagle	.68	1
Silver Eagle	.51	1
Blue Jay	4.55	2
Wild Cat	58.39	1

Due to the litigation and the fact that the property has not been in operation for a long period of time, there is little engineering data available relative to past operations.

Respectfully submitted,

Dated January 17, 1953.

Arthur B. Herrell, E.M.

NOTE -- Mr. Arthur B. Herrell is consulting engineer with over 50 years experience in various fields, including Drainage Engineer, State of Minn., Mine and Claim Survey in Wash., Idaho and Montana. Exploration Engineer for U.S. Steel Corporation. Railroad Construction Engineer and Assayer, Alaska and Nevada. Asst. City Engineer for City of Los Angeles. First Lt. Engineer, U.S.A. Deputy Mineral Surveyor of Alaska District, etc.

November 10, 1937

Data & Reports and Smelter Returns, copied
by the writer, from originals, held by owners,
for verification, on examination of property.

H. L. Lowenthal
640 So. Flower St.,
Los Angeles, Calif.

The Central property of the entire Mining District is the Lone
Star Mine, situated within 1500' from the mill site accessible through
main tunnel 10' by 10', driven 1094' with cross drift E. 700' and S drift 900'

H. G. Heffron, M.E., gives gross tonnage of 87,322 tons in sight
in Lone Star mine, with an average gross value per ton of \$9.00 -old price;
new price, approximately \$13.50 per ton. Estimated gross value, new price,
\$1,110,313.00

F. Philton Johnson, M.E., says: "The Lone Star Mine is an except-
tionally good mine and will be one of the best producers in the west". He
estimates 180,000 tons of ore in sight at \$12.01 per ton, old price; new
price approximately \$23.15 per ton. Estimated value, new price, \$5,472,500.

S. A. Rand, Geologist, makes the following statement regarding
the Cochita Mining District: "After an investigation of the various properties
in the Cochita Mining District, Bland, N.M., it is my opinion that this
area constitutes one of the most feasible and profitable mining districts
in the Southwest. The writers' survey has been general, but comprehensive
enough to consider these properties worthy of a judicious development pro-
gram."

T. E. Jenks, Consulting Engineer and Geologist, says: "It is my
opinion that another ore shoot will be found north of the Big Tunnel on
the Lone Star. The preliminary work necessary for the operation of the
North Star will be within \$25,000. The writer is favorably impressed with
the potential value of all of the property and considers it well worthy of
more development, economically and judiciously. The estimates of ore in
sight in the Crown Point, Lone Star and Washington, are very conservative
and would be increased very materially by cleaning out the different workings"

LIST OF SMELTER RETURNS FROM 52 CARS OF ORE SHIPPED TO AMERICAN
SMELTING & REFINING COMPANY, EL PASO, TEXAS. 1932-1933

Name	Gold Tr.Oz.	ValueP.Ton	Silver Tr.Oz.	ValueP.Ton	Total Value
Lone Star	.45	\$15.75	22.6	\$14.51	\$ 30.26
Crown Point	1.66	54.60	61.0	38.18	92.78
Laura S. Upper Level	.57	19.95	31.1	19.52	39.47
Lone Star	.30	10.85	23.2	14.85	25.69
Crown Point	.762	26.67	7.9	4.53	31.24
" "	.69	24.15	7.5	4.42	28.57
" "	.624	21.84	8.00	5.16	27.00
Laura S.	.78	27.30	23.6	16.77	44.07
Iron King	.30	10.50	13.8	11.61	22.11
" "	.23	8.75	15.1	9.67	18.42
Washington Dump	.21	7.56	15.3	8.39	15.74
Laura S.	.66	23.10	14.3	8.03	31.13
Crown Point	.44	15.40	17.9	11.28	26.68
Laura S. #2	.61	21.55	1.6	.96	22.51
Crown Point	1.37	47.95	30.3	19.35	67.30
" "	.42	14.70	22.4	14.19	28.89
Lone Star	.33	11.55	20.3	12.90	24.45
" "	.34	11.90	20.0	12.90	24.80
" "	.37	12.95	13.3	11.95	24.88
" "	.42	14.70	20.7	13.22	27.92

Crown Point	.74	23.20	15.1	9.67	31.37
Washington	.37	9.45	16.1	7.32	15.77
Lone Star	.37	12.95	17.9	10.28	23.23
Unknown	.24	8.40	20.6	12.57	20.97
Washington	.40	14.00	20.8	13.22	27.22
Lone Star	.57	13.95	20.3	11.20	24.05
Crown Point	.40	14.00	8.3	5.54	12.54
Laura S.	.44	15.40	10.7	11.63	27.53
Crown Point	.34	11.90	15.4	9.37	21.07
Laura S.	.73	13.30	22.1	14.20	31.80
Lone Star	.33	11.55	21.0	14.54	25.09
"	.41	14.36	11.3	7.41	21.73
"	.34	11.90	23.1	16.00	29.90
"	.29	9.80	22.0	14.19	25.99
"	.55	12.25	10.3	6.60	13.85
"	.28	9.80	13.4	9.39	19.19

42 Assays averaged .68 oz. Gold present price \$23.16; Silver \$23.24 Total \$49.40

Results of 14 assays samples selected by Louis G. Smith, M.E., and assayed by Critchett & Ferguson, El Paso, Texas: Average gold \$23.42, present price silver \$1.02 Total \$ 51.44 per ton.

Of the 63 assays made for owner of property in 1932-33 all showed pay ore, with lowest assay, gold and silver together, showed \$20.29 per ton.

The cost of mining and milling is conservatively estimated by mining engineers not exceeding \$4.00 per ton.

It is estimated that there are between 30,000 and 40,000 tons of good milling ore on the various dumps, estimated gold and silver, present price - \$400,000.

Results of six assays in high grade ore, as follows:

	Gold	Silver	Total
1. Crown Point	\$ 163.35	\$ 373.83	\$ 441.58
2. "	200.40	292.95	593.35
3. "	717.20	367.47	1284.77
4. "	227.52	307.26	534.78
5. Iron King	156.23	149.86	297.14
6. Washington	12903.97	1244.33	14148.20

The following Engineers' original reports are filed with the owner, and are available at the mine for inspection:

Arthur B. Herrell
F. Milton Johnson
Duncan McVichi
P. F. Barbour
Mr. Jenks
H. C. Heffron
S. R. Rand

This report was submitted by J. M. McCartney, 4535 Melrose Ave., Los Angeles, California. MO 12741