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RAWHIDE DISTRICT

The Rawhide or Regent district is on an irregular range of hills at the south end of the Sand Springs Range in northeast Mineral County near the border of Churchill County. Fallon in Churchill County is 50 miles northwest, and Schurz, the nearest shipping point, 29 miles east.

Mining locations were first made in the area in 1906. With the finding of some high-grade gold ore and after considerable flamboyant advertising, a rush to the district took place in 1908 that raised the temporary population to 4,000 people. On September 4, 1908, a fire destroyed a large part of the business section of Rawhide, which caused a loss of several hundred thousand dollars. No large mines have ever been developed in this area and the principal production of the camp has been derived from leasing operations. In the early years of the camp as many as 50 sets of lessees or leasing companies were at work at one time. Nearly all the ore was shipped for treatment.

In 1909, two mills of unusual type were erected in the district. One was called a Tadmor and the other a Cannonball mill. The Tadmor mill employed a heavy muller actuated by an overhead eccentric bearing, which gave a crushing movement similar to that of a gyratory crusher. The muller weighed 8,000 pounds, and crushing was effected by the action of its weight upon a die. This mill is reported to have had a capacity of 20 tons per 24 hours. Concentrating was done with Wilfley tables.

The second mill is reported to have had a capacity of 30 tons per 24 hours, from 1 inch to 80-mesh, crushing either wet or dry. The crushing device consisted of a flat iron pan with three rings at increasing distances from the axis of rotation. Each ring carried a number of chilled iron balls,

uniform in size for each ring but diminishing in size from the inner to the outer ring. The balls were held in place under pressure by overhead rings so designed that the pressure on each ring could be changed independently of the other two. The ore was fed to the center of the machine and was discharged at the periphery. Concentrating was done by amalgamation.

Both these mills operated only a short time and are mentioned here more because of their metallurgical interest than because of their economic importance. Several other mills using stamps for crushing were erected in the district in the early days. All of the mills have been dismantled.

The largest holdings in the district are owned by the Scheeline estate, which controls 17 1/2 patented claims, and the Grutt brothers, who own 19 claims, most of which are patented.

Development work consists of a number of shafts and tunnels, the deepest shaft being 600 feet with a winze from the bottom level 120 feet deep. Judging from the mine dumps, total underground workings will comprise at least several miles.

The formations in the area are rhyolite, dacite, and andesite. The ore occurs in a network of veinlets that impregnate the country rock. The mineralization appears to follow incipient fissures, mainly in kaolinized rhyolite. In places the kaolinite material carries good values. The ore minerals are native gold alloyed with silver, argentite, and cerargyrite.

At the time of the writer's visit in June 1936, several lessees were active in the camp.

Production of the district from 1908 to 1934 is shown in table 6.

Leonard Lease

For the past 18 years W. H. Leonard of Rawhide has shipped 15 to 20 tons of ore annually, which had a value of from $50 to $1,200 per ton. In 1936 Leonard leased on the Truett property, owned by the Scheeline estate.

The royalty paid by Leonard on the net smelter returns is as follows:

Value of ore	Royalty, percent
$50 or less	10
$50 to $400	15
$400 or more	20

TABLE 6 - Gold, silver, copper, and lead production from Regent (Rawhide) district, Mineral County, Nev., 1908-35

(Compiled by Charles White Merrill, Mineral Production and Economics Division, U. S. Bureau of Mines)

Year	Placer						Lode			
	No. of mines	Gold		Silver		Total value	No. of mines	Ore, short tons	Gold	
		Fine oz.	Value	Fine oz.	Value				Fine oz.	Value
1908	1	4.40	$91	--	--	$91	9	1,826	6,069.86	$125,475
1909	--	--	--	--	--	--	10	6,197	7,546.59	156,002
1910	5	579.79	11,985	467	$252	12,237	22	12,582	6,538.27	135,158
1911	7	324.25	6,699	271	143	6,842	17	6,013	3,364.65	69,554
1912	2	81.90	1,693	82	50	1,743	19	1,579	1,563.50	32,320
1913	1	8.20	170	10	6	176	13	9,954	4,845.44	100,164
1914	5	201.78	4,171	148	82	4,253	24	18,279	7,523.45	155,524
1915	3	274.70	5,679	166	84	5,763	5	6,973	3,968.80	82,042
1916	1	12.62	261	7	5	266	7	4,371	2,268.56	46,895
1917	2	17.22	356	12	10	366	5	298	423.19	8,748
1918	4	47.55	983	48	48	1,031	8	285	620.14	12,820
1919	5	45.34	937	28	31	968	5	199	677.97	14,015
1920	--	--	--	--	--	--	7	284	807.65	16,696
1921	2	6.60	136	5	5	141	11	93	257.10	5,315
1922	--	--	--	--	--	--	11	237	368.02	7,607
1923	1	2.04	42	1	1	43	8	399	393.62	8,137
1924	1	8.38	173	2	1	174	9	221	178.09	3,681
1925	--	--	--	--	--	--	6	36	123.02	2;543
1926	--	--	--	--	--	--	12	120	93.92	1,941
1927	--	--	--	--	--	--	5	57	119.09	2,462
1928	--	--	--	--	--	--	4	186	272.67	5,636
1929	--	--	--	--	--	--	3	66	82.09	1,697
1930	--	--	--	--	--	--	5	40	52.90	1,094
1931	2	18.29	378	10	3	381	6	116	103.87	2,147
1932	2	32.30	668	24	6	674	9	118	288.01	5,954
1933	5	65.93	1,685	29	10	1,695	8	279	122.94	3,142
1934	2	31.77	1,110	89	57	1,167	8	139	111.88	3,910
1935	4	54.64	1,912	42	30	1,942	8	100	248.26	8,689
Totals		1,817.70	$39,129	1,441	$824	$39,953		71,047	49,033.55	$1,019,368

Continued --

TABLE 6. - Gold, silver, copper, and lead production from Regent (Rawhide) district, Mineral County, Nev., 1908-35 (Continued)

(Compiled by Charles White Merrill, Mineral Production and Economics Division, U. S. Bureau of Mines)

Year	Lode (Continued)								Total value, lode and placer
	Silver		Copper		Lead		Total value	Average recoverable value of ore per ton[1]	
	Fine oz.	Value	Pounds	Value	Pounds	Value			
1908	40,970	$21,714	—	—	—	—	$147,189	$80.61	$147,280
1909	89,833	46,713	—	—	—	—	202,715	32.71	202,715
1910	78,117	42,183	352	$45	216	$9	177,395	14.10	189,632
1911	44,740	23,712	—	—	—	—	93,266	15.51	100,108
1912	45,139	27,760	16,663	2,749	418	19	62,848	39.80	64,591
1913	109,817	66,329	38	6	—	—	166,499	16.73	166,675
1914	105,607	58,401	—	—	—	—	213,925	11.70	218,178
1915	78,512	39,806	—	—	—	—	121,848	17.47	127,611
1916	35,313	23,236	—	—	838	58	70,189	16.06	70,455
1917	10,397	8,567	—	—	—	—	17,315	58.10	17,681
1918	9,041	9,041	7,842	1,937	—	—	23,798	83.50	24,829
1919	12,972	14,529	—	—	—	—	28,544	143.44	29,512
1920	25,443	27,733	—	—	—	—	44,429	156.44	44,429
1921	9,528	9,528	—	—	—	—	14,843	159.60	14,984
1922	13,451	13,451	—	—	—	—	21,058	88.85	21,058
1923	9,924	8,138	—	—	—	—	16,275	40.79	16,318
1924	4,518	3,027	43	6	—	—	6,714	30.38	6,888
1925	4,324	3,001	20	3	38	4	5,551	154.19	5,551
1926	2,648	1,652	—	—	19,470	1,558	5,151	42.93	5,151
1927	686	389	689	90	1,546	97	3,038	53.30	3,038
1928	1,356	793	—	—	—	—	6,429	34.56	6,429
1929	1,168	623	—	—	—	—	2,320	35.15	2,320
1930	208	80	107	14	530	26	1,214	30.35	1,214
1931	507	147	—	—	—	—	2,294	19.78	2,675
1932	882	249	—	—	—	—	6,203	52.56	6,877
1933	472	165	—	—	—	—	3,307	11.85	5,002
1934	366	237	—	—	310	12	4,159	29.92	5,326
1935	1,425	1,024	37	3	—	—	9,716	97.16	11,658
Totals	737,364	$452,228	25,791	$4,853	23,366	$1,783	$1,478,232	$20.81	$1,518,185

1/ Not to be confused with average assay value of ore.

Mining is confined to working a large mass of low-grade ore that averages about $2.50 per ton in gold. According to Leonard, the gold occurs in a number of small fissures in dacite. On the surface the fissured area is 225 feet wide and 700 feet long. By screening the run of mine product through 1-inch screen, Leonard can obtain a product that averages about $100 per ton. Several men are employed, and mining is done by hand. Hoisting is done with a 25-horsepower Western gasoline hoist.

The smelter returns on a shipment of ore made by W. H. Leonard to the American Smelting & Refining Co. on October 18, 1935, gave the following returns:

Metal quotation:	Au	$34.9125			
	Ag	.77			
Settlement assay:	Au	2.425	oz.		
	Ag	7.7	oz.		
	Insol.	88	percent		
Metal payment:	Au at $31.81825			$77.16	
	Ag 95% less 0.5 oz. at .77			5.27	
				82.43	
Treatment charge:	base	3.75			
10% excess over $20.00		2.25	(max.)		
		6.00		6.00	
	Net value per ton			76.43	
	Pounds				
Wet weight	45,040				
Moisture, less 4.2%	1,892				
Dry weight	43,148	21.574 tons at $76.43			$1,648.90
Royalty before hauling, 15%		$214.57			
Freight at $9.30		209.44			
Emergency freight at $0.40 per ton		9.01			
Hauling at $3.50 per ton		78.82			511.84
Net proceeds					1,137.06

Placers

Placer gold has been found south and southwest of the town of Rawhide. The lack of water necessitated the use of dry-washing equipment, although hand rockers were employed to some extent in the early days. Water for recovering gold with rockers was hauled from wells several miles southeast of the camp.

The best placer diggings were on the southeast slope of Hooligan Hill. Numerous shafts averaging about 15 feet in depth attest the activity in this area in former days. The gravel is composed of angular rock fragments, sand, and soil, with few large boulders. The largest nugget found is reported to have had a value of $70.

Hooligan Hill slopes toward a canyon several miles in length, and at the mouth of this canyon the gravels spread out in the form of an alluvial fan, in which placer gold has been found. The gravels range in depth from 40 to 90 feet. About 30 shafts have been sunk on the fan, and a small amount of placer mining has been done at several of the shafts with small-scale placer mining equipment. The best values are found directly above the rhyolite bedrock. In 1930 the Idaho Dredging Co. of Boise, Idaho, obtained a bond and lease on 1,180 acres of placer ground and began sampling. After a short time the property and the sampling operations were taken over by the Hammond Engineering Co. This company relinquished the option on the ground. In 1935 Rene Engel and associates, of Pasadena, Calif., relocated 15 claims, called the Pilot placers, in this area.

In recent years there has been a small amount of dry washing of placer ground in the vicinity of Rawhide by itinerant placer miners. The returns of this work netted the operators less than wages.

Tungsten Claims

In 1930 W. H. Leonard discovered scheelite 5 1/2 miles east of Rawhide in the southern part of the Sand Springs Range. In 1936 the Leonard group of 10 unpatented claims was under bond and lease to the Mills Alloys, Ltd., of Los Angeles, Calif. In September 1936 this company erected a small concentrator at Dead Horse Wells 9 miles south of the deposit, where water is available. At the time of the writer's visit this company had produced 600 pounds of concentrates carrying about 40 percent scheelite. The concentrates had not been cleaned by magnetic separation and contained a considerable amount of garnet. This is the only production from the property.

Development work on the claims is all superficial in character and consists of approximately 300 feet of scattered open-cuts and short tunnels. The Mills Alloys, Ltd., employed four men, and mining was done by hand methods.

Scheelite occurs as a contact metamorphic deposit in limestone near granite. The tactite, which is the garnetized rock that carries the scheelite, shows a considerable width in places and is traceable for several thousand feet on the surface. The scheelite is in the form of small crystals from the size of a pinhead up to half an inch in diameter. In places the tactite is stained with copper. No systematic sampling has been done, and the property may be considered to be in the prospect stage.

The concentrator built by the Mills Alloys, Ltd., consists of a small jaw crusher, two sets of small rolls, one concentrating table, and a home-made electric magnetic separator for cleaning the table concentrates. Power is furnished by a gasoline engine. None of the equipment is of standard make, and the capacity of the plant is limited to a few tons of ore per day.

Several miles north of the Leonard property several tungsten claims are owned by Tom Kenyon of Sunnyside, Nev. This property was not visited, but specimens of the ore seen by the writer showed scheelite as crystals

ranging in diameter from 1/4 up to 1 inch in a matrix of amphibole and quartz. It is reported that very little work has been done on the property.