

# Thomas A. Wetzel, E. M., Report on the Idaho Group of Claims.

#### LOCATION AND AREA.

The Idaho Group consists of nine claims, namely, the Connector Extension, Cevita Extension, Idaho, Idaho Extension, Nogales Extension, Todd Extension, Abe Lincoln Extension, Robt. Jr., and the Oregon, each six hundred by fifteen hundred feet containing about twenty acres, in all, one hundred and eighty acres, located in the Mining District of Luning, State of Nevada, about five miles north of the Town of Luning adjoining the property of the Luning Gold Mines Syndicate, now being developed, and the famous old property of this section, known as the Hidden Treasure (which has been idle for years owing to a dispute of ownership). The property is cut by numerous well defined veins running parallel crossing a contact of two formations.

The accompanying plat shows the area of the claims and their location with regard to the property of the Luning Gold Mines Syndicate and the different vein croppings.

#### TITLE AND LAW.

The title of the Idaho Group is vested in the owners by the right of discovery and location. All the formalities required by the Government having been complied with, the titles are continuous as long as the annual assessment work is done before the first of each year. This having been finished for 1910 makes the property secure in every way to the owners.

#### ACCESSABILITY.

The property is reached by a well traveled wagon road from the Town of Luning, a station on the S. P. R. R., running from Reno to Tonopah, to which point all supplies can be shipped.

#### TOPOGRAPHY.

The elevation of the property is about 5,000 feet above sea level. The hills, while rugged, are traversed by good trails and slope gradually to the valley on the west. The ridges in many places are high above the canyons which have been carved deep by the elements and time, making tunneling (the most economical mode of development) possible in many places. In general terms, the relief of this territory is formed by a chain of rugged hills, reaching high above the valleys, which are as a rule of great area, forming a basin which catches and holds the moisture at shallow depths below the surface, making water easy to obtain.

#### LABOR.

Labor is abundant as the people of this district are largely dependent upon mining for a livelihood.

## CLIMATE.

The climate is temperate. In winter very little snow, the property being situated on the west slope, makes work outside possible all winter as the sun strikes it through the whole day. In the middle of the day through summer the heat, at times, is oppressive, but the nights are cool and comfortable.

#### TRANSPORTATION FACILITIES.

The railroad and good wagon roads make transportation facilities good. The railroad offer good inducements and rates to the leading smelters, making it possible to handle very low grade ore at a profit to the producers.

#### HISTORICAL.

Mining has, since the exciting times of the great Comstock, been carried on in this vicinity. Many old mines are seen that were worked to great depths at that time, but have been idle for years, but of late years are being reclaimed and equipped with modern machinery, making large profits for their owners who were unable in the past to handle the abundant supply of low grade ore with the then known methods.

## CHARACTER OF VEINS.

The course or strike of the veins is north 10° E. Magnetic, the dip is 60 to 85 to the east for a depth of some 100 to 200 feet, where a fault is encountered from which point the dip is west, proving that the surface has been moved since their origin. They average in width from one foot to twenty feet where exposed.

The outcroppings are well defined quartz veins, traceable for thousands of feet along their course. They are for the most part filled with a hard brittle quartz highly impregnated with iron oxids and hematite and cut the formation at nearly right angles. Several croppings are seen that run parallel with the formation. In nearly every instance where the croppings can be sampled, gold, silver, lead and some copper are found in more or less quantities. To the west the veins traverse the lime, to the east a complex of granite blended at their contacts, making it rather difficult to definitely determine the exact point where the formation changes. Great depth can be explored in this section without encountering water as the compact formations hold out the stores of the valleys and waters of the melting snows or rain quickly reach the valley through the many and steep canyons.

### PERMANENCY.

The lodes are true fissures, whose width, length and geological occurances and mineralogical conditions all indicate permanency to great depths with more or less unchanged character and undiminished values. The veins have been cut by numerous trenches and short tunnels, showing well defined walls of a talcish nature. The ore consists of quartz carrying free gold in fine particles with iron pyrities in many cases and lead in the form of galena; on some of the claims an enormous amount of copper in the form of copper pyrities, malachite and azurite is seen. In some instances the quartz shows cone and ribbon structure and often shows the shape of the replaced fragments of the country rock by variations in color.

#### GEOLOGY.

The veins occur in granite of the plutonic rocks and lime beds of the carboniferous age, proving that the veins had their origin after the formation of the lime as do a great many of the famous mines of this country.

The formation is similar in many ways to the formation found in Colorado and on down into Mexico. On the west the lime slopes gradually into the valley and shows upon the other side, to the east rocks of the granite family, and beyond which many of the different porphyrys are found.

#### DEVELOPMENT.

The development is not extensive, but is of a nature that one can form a fair conception of what the future work may be expected to materialize. The adjoining property of the Luning Gold Mines Syndicate is being developed extensively with very gratifying results. The two veins on which the Luning Gold Mines Syndicate are concentrating their efforts, beyond a doubt, are the same that crop on the west end of the Idaho, where exceptional values are found. The work on the Idaho consists of a short tunnel with a shaft from its face to the surface and is being pushed at present below the tunnel level with increasing values.

Idaho Extension. Several cuts, shafts and tunnels comprise the work on the claim all with a good showing of copper which bids fair to develop into an immense deposit of this metal, carrying a small per cent. of silver and gold. On the Idaho and its extension are found the best values and in consequence they are developed much more than the remainder of the group, which by no means are barren as each is traversed by two or more veins which are open at numerous places, exposing ores of good values. The Oregon is traversed by a strong iron cropping the full length of the claim, which has been opened for a distance of twenty feet by a tunnel carrying values in gold and silver. This same cropping continues the length of the Robt. Jr. to the west and into the property known as the Santa Fe on the east.

The Abe Lincoln Extension, Todd Extension and the Nogales Extension, all extensions of the claims with the same name belonging to the Luning Gold Mines Syndicate through which the same veins crop that are found on the adjoining company's property. Small openings expose the veins, and sampling has proven that they carry values of a very encouraging nature.

On the Cevita Extension and the Connector Extension veins are also exposed that continue to carry out the fact that all the veins of the section are mineral bearing and that they will develop into properties of a commercial value to their owners as development work progresses.

The following are values obtained from samples taken from the different openings in the different veins traversing these claims:

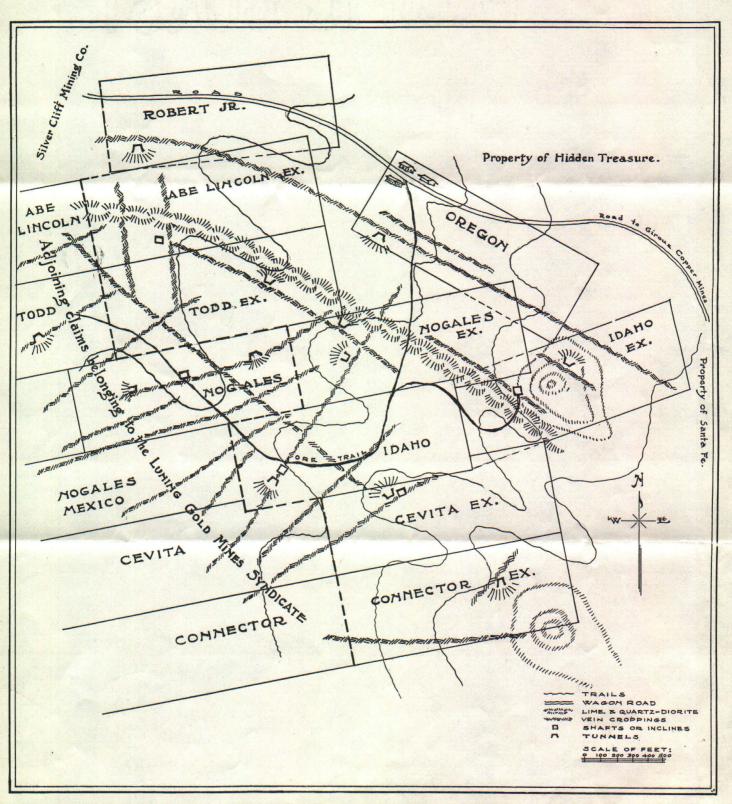
Idaho Extension—	Silver.	Gold.	Copper.	Value.
From bottom of 20-foot shaft	. 1 oz.	.2 oz.	6.260%	\$20.77
	11 oz.	.2 oz.	6.26%	25.50
Ore on dump			0.200%	
From bottom of 20-foot shaft	1 oz.	.3 oz.	6.5 %	18.90
Ore on dump	12 oz.	.2 oz.	6.5 %	29.90
Ore on dump	38 oz.	.3 oz.	6.5 %	39.14
	.50 oz.	.05 oz.	23.50%	64.45
Select, upper cut	.00 02.	.00 02.	20.00%	01.10
Idaho—				
Where tunnel cuts shaft	10 oz.	.2 oz.		9.00
		.98 oz.		118.50
Tunnel, select	Co. S. Change and Co.		41 % lead	The second secon
Tunnel, three-foot vein	28.6 oz.	1. oz.	17.4 % lead	49.76
Oregon—	0			0.00
Middle of cut	2 oz.	.1 oz.		3.00
Face	2 oz.	.3 oz.		7.00
Abe Lincoln—				
40-foot shaft				5.40
	4 oz.	.28 oz.		7.60
50-foot shaft	4 UZ.	.40 02.	******	7.00
Cevita Extension—				
				00 50
Gold, silver and copper		******	******	62.50
Gold, silver and copper—select				95.00

#### CONCLUSIONS.

It is seldom a property is situated more favorable for economical development. There are many natural advantages as well as an exceptional showing of values on the surface and in adjoining property where the same values are proven to exist in depth. While wood and water are not in immediate reach, the good transportation facilities obliterate this disadvantage, all go to prove the future of this property and the location, size and number of veins, insure an immense tonnage with reasonable amount of development work. With the showing on this property, there is nothing else left but to recommend it as a valuable asset to its owners. The property is so situated that it can be developed in several ways which can be determined later. I would recommend a concentration of work on the Idaho and its extension.

I regard this property a most promising prospect and believe the veins will continue to depth with increased values, and of practically the same, or little if any, change mineralogically. The only change likely is from the oxidized to a sulphide.

Respectfully sumbitted,



Sketch showing approximately the location of the claims adjoining the property of the Luning Gold Mines Syndicate. Course of veins where development is shown, belong to the Nevada-Idaho Mining Co.

Extract of Report of S. F. Parrish, M. E. The elevation of the town of Luning is 4600 feet above sea level and the Idaho Mining Company's camp 6100 ft. and the highest point on the group, 7000 ft. The elevation of the claims range from about 5700 to 7000 feet. The rocks are in the main dikes of silicious and basic intrusives, the limestone which partially covers the northwesterly portion of the group being probably the intruded rock. The dikes are generally parallel and strike a little north of west and dip south about 65 degrees. Copper ore appears in and near the contact of two of these dikes and for over a hundred feet from the contact. A little north of the center of the Idaho Extension claim there is a shaft 17 ft. deep sunk vertically to the footwall of a vein of copper ore and continued for a few feet in the ore. From this shaft a trench 2 ft. deep runs in a southerly direction across the strike of the vein for 63 ft. in almost the entire length of which carbonate of copper ore is found. A general sample of ore and stained rock from this trench (#2) gave .03 oz. gold, no silver and 1.62% copper. There is some limestone in this trench but I think it is an isolated body not in place. Further south 120 ft. near the southwest corner of the Idaho Extension claim, in line with the above trench and shaft is another shaft 30 ft. deep, called the Ross shaft, inclined about 80 degrees. This is sunk in porphyry weathered and soft for a few feet below the surface. It was located on an outcrop of azurite, which dipping at a lesser angle than the shaft, disappears into its hanging side about 15 ft. below the surface. A clean sample of this ore (#3) yielded a trace of gold, no silver and 18.43% copper. The ground intervening between the end of the above trench and the Ross shaft is covered with wash so that it is impossible to tell whether the mineralization is continuous or not. My impression is that it is and the hanging wall of the vein or dike in which the trench is dug, and in which the shafts are sunk, is still further south. Since writing the above. Mr. Todd has sent me a piece of granite which he found after I left, outcropping 100 ft. south of the Ross shaft. This may be the hanging wall or southerly side of the mineralized dike in which event it would be about 283 feet wide. To the east of the above work and higher up the mountain side is an open cut which shows excellent copper ore in which there is some cuprite. A sample from here (#4) gave no gold, no silver and 9.42% copper. There is also a good showing of ore about 400 ft. west in another open cut. In the northeasterly corner of the Idaho Extension claim, not in line with the above work, is an open cut and short tunnel in similar porphyry to that in which the Ross shaft is sunk, in which is some malachite. A sample from here (#1) yielded no gold, no silver and 3.24% copper. Other openings show oxidized copper ore in a marked degree in the line of the dike mentioned above and outside of it. I saw no sulphide ore. The footwall can be traced I think in a general way from the 17ft.shaft described above, easterly to the Sophie claim, and Westerly across the Nogales Extension claim, the easterly half of the Todd Extension claim, and the south half of the Abe Lincoln Extension claim. No work has been done on this line other than mentioned above and I saw no silicious rock, probably granite lacking or almost lacking mica and hornblende. Further down the mountain, however, the float indicates a much baser rock.

On the Abe Lincoln Extension claim is a fifty foot shaft in hematite and limonite, said to carry gold values. I could not get down the shaft and did not sample it. Here the lime mentioned above as probably being the intruded rock, appears and dips away to the west under the valley.

Running easterly and westerly, through the Oregon Claim, is a prominent porphyry intrusion, which Mr. Todd informs me carried an appreciable amount of gold. I did not sample it as anything but a careful and thorough sampling would be misleading, and this was impracticable under the circumstances. If it should prove to be of sufficient value, there is an enormous tonnage of it, which could be mined at a very low cost.

There is no water on the Company's property. I am told, however, that an ample supply of it can be developed at a mile and a half away and brought on to the ground by gravity. Neither is there any timber on or near the property.

Adjoining this property on the west is the ground of the Luning Gold Mines Company of which Mr. Todd is general manager. The veins of this group have a northerly strike and are most of them quartz ledges in limestone, carrying gold, silver and lead values, and some copper at depth. Considerable development has been done on this group.

(Copy) Report on the LUNING-IDAHO MINING COMPANY'S PROPERTY. Reno, Nevada, Sept. 27, 1913. Mr. R. B. Todd. Luning. Nevada. Dear Sir: I have just completed the examination of the LUNING-IDAHO MINING COMPANY'S PROPERTY, which you requested me to make. The following is what I found, also my opinion, as well as some suggustions. THE LUNING-IDAHO MINING COMPANY'S PROPERTY consists of 13 mining claims, situated in Mineral County, Nevada, about 6 miles from Luning a station on the branch of the Southern Pacific Railway running from Reno to Goldfield. You have one of the best wagon roads in the district running from the mine to Luning. The property is located on the main mineral belt of this district; the property joins the famous Copper Queen properties and Mr. Giroux, the most noted copper mine maker in the West, owns the property adjoining the Copper Queen mines on the other side. Your location could not be better, nor can any one over-look that you are on the same mineral belt or zone and join the very best properties in this part of the state. Mr. Giroux has tried to purchase the Copper Queen holdings and he has got practically all of the ground around this property except what belongs to the Luning-Idaho Mining Company. This alone is sufficient to satisfy the most sceptical that your holdings are valuable and should be made to produce large tonnage of valuable copper ore. Your group of 13 claims are all contiguous and well located, taking in the main ledges or dikes. Your main ledges are composed of silicious and basic intrusive rocks. This is covered in places by limestone which is intrusive and only lies on and near the surface. The dikes are practically parallel and run a little North of West and dip South at about 60 degrees. Copper of various values is found along the contact for over twelve hundred feet.

The country rock is granite with intrusive dikes. This forms a contact in which your ore bodies lie and with ore in such a contact I believe you have a property that will be practically inexhaustable as this contact goes down to the very bowels of the earth and as your copper values comes from below, one can readily see that to get to the bottom of your ore would be next to impossible.

On the Idaho Extension, I first went to a shaft 15 feet deep sunk on the footwall. There is an excellent showing of ore about 8 feet wide and in the bottom there is some copper sulphides running 10% copper. The rest of the ore is oxides of copper. I believe if you were to sink the shaft, you would be below the lime and undoubtedly would find that your ore would widen to a considerable width. This showing as worthy of extensive development work.

I went along the trail south and east to what is known as the Ross shaft, sunk 30 feet, starting on azurite copper which dipped out of the shaft at about 15 feet. The shaft did not follow the ore, being too straight. The azurite ore gave better than 18% copper. I do not think you have the hanging wall at this shaft, but believe it is probably about 60 to 100 feet further south.

I next went about 180 feet North of Ross shaft to a shaft that is sunk 17 feet on the foot wall. This shaft is all in ore of the value of from 4% to 12% copper. There is a trench of about 2 feet deep running south toward the Ross shaft for about 63 feet. This exposes copper ore the entire length of the trench but being so near the surface, there are spots of lime which have intruded into this ore body. A sample of everything for the entire 63 feet ran better than 3% copper. I believe if you were a few feet deeper, your values would run about 5% or 6% in copper, and would probably extend much further South toward the hanging wall.

From this point I went Easterly along the foot wall to a point about 200 feet from the Ross shaft to where there is an open cut, run in ore, showing about 15 feet of ore. There is some very fine copper showing here.

Now, taking this showing, also considering the fact that you are situated on the same mineral zone and joining the Copper Queen properties, you have every reason to expect to get a great producer. I would, if I were you, sink the first shaft mentioned down 50 feet. This would determine the true pitch of your ore body, then you could either continue the shaft down or go further East along the foot wall and put a working shaft down 300 feet, making it an incline shaft, following the ore all the way down. This work should open up great ore reserves, enough to keep you mining for a considerable length of

-3time, then you could continue your main shaft down, always keeping in ore. I consider that your property is one that can be put on a paying basis with a comparatively small amount of work. In fact, I am of the opinion that a shaft sunk on the ore body will take out ore enough to materially help in the development of the property. You are losing valuable time in not crowding this work, for with the showing you have, there is no question but what you will prove your property to be a great shipper, and copper at the present price, which I believe it will remain, you can commence shipping ore as soon as you start work, as you can deliver your ore at Luning with an auto truck for 50g per ton and to the smelter at Wabuska for 80g per ton, railway charges. With such conveniences for treating your ore, you should be at work shipping steadily. Respectfully submitted. Signed: M. H. JACOBS. Ex-Inspector of Mines for the State of Idaho. NOTE. The "Copper Queen Mines" referred to have been sold and a force of about 40 men are developing the property at present.

THE LUNING- IDAHO MINING CO. Organized under the laws of Nevada-Capital Stock 1,50000.000, Shares of \$1, Promotion Stock, 800.000 Treas. Stock 700.000 of which 642.000 shares remain in the Treasury. The property consists of 13 Claims located six miles from Luning, Mineral Co., Nevada. About \$25,000 has been spent for and on the property. There are several well defined out crops of Gold, Silver, and Lead on the Western end of the ground, evidently extension of vein on the property of the Luning Gold Mines Co., and sufficient work has been done to determine their course, and the probability of value. The recent work has been done on a large Copper Zone 300 feet wide or more, and extending about 5000 ft on the Company's ground. The vein matter is well defined with a hanging-wall of Granite, Foot-wall of Quartzite or porphyry, this would have to be determined by underground development; possibly the Quartzite is an intrusion, and in that case, the mineralized zone would be much wider and extendon to the porphyric Dyke mentioned in accompanying reports, While the deepest work is not more than 75 ft. many shafts opencuts, tunnel and trenches have been run along the length of this zone, all showing good Copper Ore. This work has been done to determine the extent of the ore, as well as the proper place for sinking a working shaft, and to do so on ore if possible. Sulphides have been encountered in two of the shafts, and also in the "Hahn tunnel". The Management desires to extend the Hahn tunnel to the Granit hanging, where good ore is expected at the contact, and would reach a depth of about 200 ft. and be in solid formation and below the lime intrusion, Then the working shaft could be sunk at this point, or on the ore already encountered in the tunnel. This tunnel has not yet reached a point under the surface when fully 15 ft. of ore is exposed by an open cut on the surface, and should be encountered before reaching the hanging.— With a shaft 300 to 500 ft deep, and crosscutting the mineralized zone at that point would determine the value of the mine, and place the property on a permanent shipping basis, and no doubt, sufficient ore would be taken out to go a long way towards paying for this work. The Geological conditions are right for a Copper Mine. Several of the largest Copper producers are now operating and acquiring property there, and everything looks as if this district was rapidly coming to the front, as a Copper Producer.

of development, will give some idea of the property.

The Company's Stock out, is closely held, and a liberal arrangement will be made with parties furnishing the necessary Capital to place on a producing basis, or the property can be purchased out-right, at a fair price, and on good terms.

I believe it will make one of the largest producers in that district, and of a higher grade of ore.

(Signed)

Robt. B. Todd,

226 O. T. Johnson Bldg.

Los Angeles, Cal.