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## REPORT ON BUREAU OF MINES TRIP TO

REGION ABOUT GERLACH

July 13-19, 1942 Vincent P. Gianella

I visited the Mountain View mine and Charles Nash's adjoining tungsten claims. About 20 miles northwest of Gerlach on the west slope of the Granite Range on Nash's claims there has been little development work so that nothing conclusive could be learned as to their tungsten possibilities. There is some scheelite present in a series of contact-metamorphosed sediments. In the region of the prospect pits, the metamorphism is not very extensively developed or continuous although all of the rocks show the effects of metamorphic action due to the nearby intrusion of granitic rocks. The Nash claims are about a mile south of the Mountain View and not far south of the Silver Bell mine.

Charles Cassity was lame and could not go to the property with me.

Here the rocks are mostly limestone and shales containing the usual metamorphic minerals such as quartz, epidote, garnet, pyroxene, tremolite, and zoisite, and occasional limonite psuedomorphs after pyrite. There a few small cuts and prospect pits but not sufficient development to show the extent and degree of metamorphism. The mountain front trends about north while the large area of metamorphosed limestone strikes N 700 E and dips 800 south. This appears to be the general trend which is about perpendicular to the trend of the range. It is probable that more thorough prospecting might reveal sufficient ore to be of commercial value but the exposures I saw were not encouraging. The vein at the Silver Bell mine trends north-easterly, cutting through metamorphosed calcareous rocks which are not largely converted into garnet, epidote, trampolite, zoisite, etc.

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43 Hunc The Stormy Day mine of John Thrasher is 19 miles south of Gerlach. t lies in T 30 N; R. 24 E. M.D.B. & M. Here biotite schists trend N 150 E and dip 630 westerly. In places however, the attitude changes but in general it is near that just stated. The schistosity is parallel to the bedding. There is about 400 feet of development work. The main tunnel trends due east but gradually turns to the right until it encountered the contact and follows it to the south for about 100 feet. The total length is about 200 feet, probably somewhat longer. The contact consists of granite on the east and metamorphosed limestone or schist on the west. The face is in fair ore as indicated by the fluorescent light. The better ore is reported to be on the side of the garnet zone away from the granite. This is commonly the case with metamorphic ores; even copper. The contact, while irregular, appears to average about vertical. A few hundred feet to the south the contact curves to the west. The area is being actively prospected. The ore in the tunnel appears to be about the northern edge of the ore exposed on the surface by cuts farther up the hill, provided that the ore zone is continuous between the two exposures. A sample was taken in the face of the tunnel (known as the Thrasher tunnel) and one also of the considerable amount of ore piled on the dump. The sample from the face ran 0.9 per cent WOz. The metamorphism is rather intense with the development of large areas of garnet, pyroxene, actinolite, tremolite, zoisite, epidote, vesuvianite, and minor amounts of pyrite, chalcopyrite, and molybdenite. There is considerable marble and it is in this that most of the vesuvianite was observed. It is also stated that the best ore occurs near the marble at the edge of the garnet zone. The contact zone pinches and swells and the ore is not continuous all along the contact but the ore does appear to be continuous for about 150 feet in the area most intensely prospected by tunnels and shallow cuts. It is reported that one of the surface cuts shows 14% WOz across 18 feet. Samples were taken , the No. 2 (Abraham) tunnel across 15 feet ran 0.6% WOz. A general sample of dump ore, taken from the Thrasher tunnel gave 0.8% WO3

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Thrasher property, and apparently on the same contact, and is reported to show some good values. None of the owners were in Gerlach to show me around. There are a few pits and other surface workings. The metamorphism is much like that at the Thrasher property. This area, especially at the Thrasher property appears to have possibilities and is worthy of further intensive prospecting. A good mine might easily result through thorough development of this area.

The Climax, Surprise, and Good Omen group of claims, owned by Durkin and Dalton, lie along the front of the range about 14 miles east of Gerlach. This property is on the steep, abrupt, front of the mountain facing the Black Rock Desert. The trail to the prospect pits leads up steeply to a height of about 500 feet above the valley. There was no one in the vicinity (nor at Gerlach) to show me over the ground but several prospect pits were visited. From what I could learn, from those familiar with the property, it is probable that I saw about half of the pits and surface cuts. The contact metamorphism is spotty and the ore is reported to be pockety. Some of the material shows scheelite and I should judge that some of it is good ore although the occurrence of scheelite appears to be very erratic. The prevailing rocks are a dark mica schist and limestone showing the development of much epidote, garnet, pyroxene, zoisite and occasional veinlets of thulite. The general strike of the formations appears to be N 400 E and the dip is about 450 SE. These rocks are intruded in a very irregular manner with a dark rock which appears to be granodiorite and all gradations through quartz monzonite to a medium-grained alaskite. The ore occurrences appear to be small. No smaples were taken as they would give but little information of an area with so little development work done to expose the contact.

Out to Garrett's mine which lies in the Lava Beds about 50 miles southeast of Gerlach over a very slow road. The last several miles were quite bad. The property lies to the east of a road that runs south, up the large wash

which debouches upon the Black Rock Desert in the vicinity of Cholona, a siding of the Western Pacific railroad. The surrounding rock is mostly a light colored granitis rock, either quartz monzonite or alaskite, (probably also some granite) including many xenoliths of country rock which consists of schists and limestone. The sediments are largely converted to garnet and other lime-silicate minerals. Although the overburden is not deep, much of the rocks are obscured by it. There are many aplite and some pegmatite dikes in both the intrusives and the sediments. The principal workings consist of a few open cuts, a shallow shaft (about 40 feet deep), and a quarry about 20 feet wide across the trend of the contact and probably 15 feet deep on the higher side. The formations strike N 450 W and dip 60° NE at the shaft and quarry and this attitude continues in the open cuts for about 300 feet downhill to the south. In the distance, across the gulch to the north, there appears a larger mass of sediments. The country apparently warrents further exploration although the grade of the ore in these workings is low as shown by the fluorescent lamp and also from returns on shipments made to Toulon. Mr. Garrett shipped somewhat over 24 tons and got returns of 0.5% WOz. The sediments are exposed for about 15 feet across the glory hole. The granitic rock is on the hangingwall side and the contact parallels, with some variation, the general attitude of the beds. A sample was chipped across about 12 feet starting from the hangingwall and stopping near the footwall where the ore appeared to be of poor grade. A little copper stain was seen in these workings. This sample checked the shipment quite closely giving 0.4% WO3.

Returned to the road and drove south to visit the Kofader and Copely property but the road was very poor and little headway was made. It was apparent that the property could not be found before nightfall, so I returned to Gerlach.

Went out to the Big Mountain mine 55 miles north of Gerlach. This mine is on the western slope of the Black Rock Range facing an arm of the desert.

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There was no one at the mine and after considerable looking about and climbing along the mountain front no outcrop was seen. The tunnel is in about 175 feet and is all driven in diorite. Up the mountain front, about 100 feet above the tunnel level there is a large barren quartz vein which trends along the mountain for about 700 feet it crosses the canyon immediately east of the camp. This canyon is called by some Quartz Canyon and by others, Copper Canyon, Of all the tungsten-bearing areas visited, there are two that appear to have considerable promise. These are the region about Thrasher's mine and the same contact to the north, and the other is the Lava Bed region. The latter has not been very intensely prospected and the returns so far are not encouraging. The Nash property, near the Mountain View mine, 20 miles northwest of Gerlach, has but little prospecting done on it and the metamorphism is not very strong in the vicinity of his claims. The Durkin and Dalton property contains spotty occurrences of ore on the mountain front about 14 miles east of Gerlach. The Kofader and Copely property to the northwest of Lovelock was not reached. This property can best be reached from Lovelock. Respectfully submitted, Vincent P. Gianella July 25, 1942

Gerlack - Tung shir Fig. Durkin produce 13 & Severt. property. 15 mm 5.7 Gerloch. 4mm 5 994 fisher or German creek. garnet-lune center of 'Yes, Il Thrasher. property in Jenny Creek poss. 15 mi s. a Gentach.
(Storang Way) 275 pt turnel encounter Woz ne. 200' deep 1?1 1/2142 & T. - on. 3. - 5' wide. 2% + 35 in gold - several oz. ag. Ungling a ors. brush road a comp. preparing shepment to Tudor Wallow. Durhes. developing a deposed 300' worde 12 mi east o Gentled Thorasher he Hermel Mane. 43 mi n. of Gerlack. Mital? 1/3/42 .. . Marigi 83 ft la south . 3 ft one 19.+ Tonsiderable surface " states & w Garrett. and parton. property 50 mi s. 1 Gentles Supel as Par Porlland on ashley Murdock

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