

TITAN PROJECT

Report on Progress of Exploration
No. 4
by A.E. Aho

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Gentlemen:

I visited the Titan Project on September 13, 19, 20, and 21 and examined the Shanghai, Haldane and UR properties.

Silt sampling and testing of all stream silts has now been completed and detailed soil grids are being sampled on the Galena Hill and UR properties, and on an airphoto linear at the head of Gerlitak Creek west of the Argent claims.

GALENA HILL PROPERTY

The main anomalous part of area "A" has now been sampled on a more detailed grid consisting of 100-foot line spacing and 10-foot sample spacing, and at the time of my departure from Mayo, September 26, most of the samples had been run through the mercury detector but had not yet been completely plotted. The results show some irregularity due to the semi-qualitative nature of the method and the variations in organic content. However, these variations have been either eliminated or taken into consideration, and the results still show an anomalous northeast trend over the resistivity anomaly trend. Prospect holes can now be fairly closely chosen to test these mercury "high"s. However, it should be borne in mind that (a) several vein-faults and cross-faulting may complicate the anomaly pattern and (b) varying depths of overburden would probably affect anomaly strength and shape so that considerable interpretation or judgement will probably be necessary for choice of the best hole locations.

Since the geochemical methods are giving interesting results, area "B" has now also been sampled on a grid of 200 and 400-foot lines, a diverging series of low and high resistivity anomaly trends in probable quartzite next to a major indicated cross-fault is to be sampled on KFO No. 18 claim, the resistivity anomaly trend on KFO No. 28 claim is to be sampled if possible, and several lines are to be sampled over resistivity anomaly trends on KFO No. 1 claim. Most of this work was agreed upon in the presence of Sharpstone and Adie who visited the project on September 19, and 20, and after further consideration, I later diminished the sample area on KFO No. 28 claim and added the area on KFO No. 1 claim.

NORTH LIMB SECTORShanghai Adit (see enclosed plan)

The Shanghai adit and bulldozer cuts were examined on September 19 with L. Adie and Dave Seymour.

Work on the adit was suspended when it had reached an overall length of 50 feet. The last 10 feet encountered a slickensided wall which was being followed, with partly decomposed schist talus being encountered in the face. It would appear that bedrock should be encountered within a reasonably short distance, that it may be schist similar to that on strike near the portal, and that the bedrock profile will have to be followed to the right (SE) in order to cross-cut the vein zone itself.

Considerable mineralized float of low silver-lead ratio (see previous reports No's. 2 and 3) had been encountered for the first 35 feet of adit and in the superjacent bulldozer cut, but not in the last 15 feet of adit which was barren of float. On the other hand, showings along the N 60° E longitudinal break to the east show high values especially in the minor subsidiary breaks, therefore similar high grade mineralization probably occurs somewhere in this stronger NE vein zone in spite of the low grade float. This probability is supported by Foll's report that he found stringers of sparse galena mineralization in quartzite next to his shaft about 100' \approx W. of the adit portal, from which assays of 50 oz/ton silver indicated that the pure galena would have run 150 to 200 oz/ton.

I am therefore of the firm opinion that the adit is a well-justified exploration venture. It should be completed this fall for the following reasons:

1. The camp and some food is still available and does not need to be set up again.
2. Continued exploration could be planned and conducted most efficiently by hauling supplies in March if good results justify it this fall.
3. A delay until spring will result in complete icing up of the adit due to water seepage, possible freezing up of the present thawed face, and probable washing out of the portal by spring runoff. Consequently, most of the present useful work would be lost, and water might prevent work until later in the season.

I would estimate that 10 feet or less of drifting should encounter bedrock at the face and that 20 to 30 feet of cross-cutting to the right should intersect the main vein zone. At the last rate of progress, about ten days to two weeks work at a cost of \$500 to \$600 should therefore complete the job this fall. If left until spring, the cost will probably be double this amount due to the need to reorganize, pick out ice, retimber if the portal is washed out by runoff etc.

Shanghai Trenching

The bulldozer cuts, especially No's. 2 and 3, which would expose the main N 60° E longitudinal vein zone, have now thawed to their maximum depth and could be readily and quickly cleaned out. Cut No. 2 would probably now expose most of the vein zone while Cut. No. 3 will probably have to go deeper.

A check sample of various pieces of galena from the dump of the shaft at the end of Cut No. 3 assayed 135.5 oz/ton silver and 75.5% lead.

Two or three of the other eastern cuts might also reach bedrock at the present depth thaw. Three or four days of trenching with a D-6 bulldozer should be done soon before freeze up. If left until next season, the walls of a few cuts like No. 2 will slough in and the advantage of the present thawing and immediate value of much of the previous trenching will be lost until late July, 1964.

UR Property, Spring Area on UR No. 20 Claim (see enclosed plan)

Hampton and myself laid out an 1800-foot long soil-sample base line over the zone of the rusty spring on UR No. 20 claim, from which very high metal values are being introduced into the stream silt of Poli Creek. The spring itself flows from among the boulders of the creek bed as an almost milky water that tastes of iron or metal salts, stains the creek bed below it rusty, and leaves a deposit of grey silt at the spring. This spring contributes substantially to the flow of the creek at this point.

About 50 feet southeast of the spring the creek valley is constricted by a quartzite outcrop dipping about 10° east on the east bank, and a gentle nose or spur on the west bank. This topography suggests a northeast vein-fault zone or break approximately through the spring location. The spring itself probably comes from the east side of the creek valley. The proposed geochemical grid should test this spring vicinity. If further encouragement is obtained, prospect pits should be sunk on any well-defined anomaly and further geochemical sampling should be done along strike, especially about 3,000 feet to the northeast in an area of shallow overburden and quartzite outcrops on the top of the spur between Poli and Hex Creeks.

A mercury detector test of the silt being emitted by the spring gave no mercury response, mercury apparently not being carried in suspension or solution.

This inferred spring zone is new, it is not a continuation of any of the other known or suspected NE vein-fault zones on the UR property, unless stepped over about five hundred feet from the UR 1 - 8 zone by a right lateral cross fault.

UR Property, Trench 1 N and 2 N Zone on UR No. 38 and 40 Claims

Wildcat bulldozer stripping and subsequent soil samples across a suspected vein-fault zone between Poli and Hex Creeks on the UR No. 38 and 40 claims on the eastern part of the UR property showed the presence of vein-fault quartz breccia and altered wall rock in float 200 feet up from the base line on Trench 1 N, and a modest mercury anomaly about 100 to 200 feet above the base line on this trench and Trench 2 N to the northeast. Trenches 3 N and 4 N also showed some altered wall rock float. This zone lies in the vicinity of (a) a reported altered break seen by Poli and (b) mineralization of galena reported by Jack Gillis (doubtful). Although no mineralization was seen during my brief examination of superficial stripping and the present indications are not immediately exciting, the suspected vein-fault appears to be confirmed, so a more intensive soil sample grid should be run over the zone to test it for mineralized sections which could be trenched.

Gerlitzki Creek

At the head waters of Gerlitzki Creek, just on the west end of the Argent group of claims, a distinct air photo linear is suspected to be the source of several small silt anomalies at the heads of most of the streams draining this linear. Brief prospecting of the linear by John French revealed to float except some manganese oxide on its northeast end. Rocks in the area are reported to be relatively competent schistose quartzite or quartz - mica schist.

Other Areas of Possible Geochemical Interest

Anomalous silts were found in the western tributaries of Shanghai Creek and further silt sampling should be done to trace these anomalies up.

Prospecting in the vicinity of a slight anomaly and strong linear at Rodin Creek did not reveal any sign of mineralization.

It is proposed that results of the silt and soil samples & methods be given careful review by Dr. D.R. Claws, and that all samples be carefully stored and later sent to Vancouver for further study or re-testing if effectiveness of the methods being used can be improved.

MT. HALDANE - SEATTLE CREEK SECTION (West of Galena Hill)

Haldane Property (Ewing and Bleiler)

This property was first explored underground in 1918 - 19 but has since been inactive due to predominantly lower silver-lead ratios than Galena Hill, and due to lack of immediately apparent tonnage. John McAndrew and myself examined it in 1962 for Silver Titan Mines and a copy of McAndrew's report should accompany this report. Due to the apparent difficulties of exploring under talus on the north side of Bighorn Gulch, no decision was made on the property in 1962.

In August, 1963, Dirk Tempelman - Kluit and Dr. L.H. Green of the Geological Survey of Canada traversed the area and mapped a considerable offset on a N - S fault zone close to the veins and known prospects. This prompted a re-examination and soil sampling on a grid of 73 samples on the north side of Bighorn Gulch by Murray Hampton and myself on September 20. It appears that there may be more than one vein zone with varied silver-lead ratios (some high), strong associated faulting, and possibly cross-faulting down Bighorn Gulch.

It is not known how representative the soil sampling will be, since much of it was done on streaks of soil between talus slides. In any case the property appears more attractive structurally than it did before, and if the geochemical samples give any suggestions of exploration targets, the property should be optioned and explored further. Some of the talus close to Bighorn Gulch is not excessively deep so it may be possible to test a geochemical target reasonably.

Some decision should be made as soon as the geochemical results are available. McLeod White of United Keno Hill Mines had formerly recommended the property to United Keno.

Seattle Creek Area

Geologic mapping of the Seattle Creek vicinity by Dirk Tempelman - Kluit shows a strong northeast fault zone cut and offset by two strong northwest "cross - faults", which cut the massive competent quartzite of the central quartzite section here into three wedges, the easternmost part probably pitching under Ross Creek due to a fold axis termination, the westernmost part disappearing under McQueen Valley west of the Seattle Creek.

Poll and Smith have staked 34 claims (Alice 1 - 34) covering the chief quartzite sections between Ross and Seattle Creeks (see enclosed claim map). Prospecting of their ground to date has revealed only minor scattered galena, but the main N - S and N E fault zones which are presumed to be the most favourable, are concealed by overburden or quartzite rubble. A select sample from one minor showing of galena in 1 to 2 inches of quartz, on the Seattle Creek slope on Alice No. 32 claim, assayed .01 oz/ton gold, 14.8 oz/ton silver and 13.1 % lead (Ag/Pb ratio 1:1).

Silt samples from the vicinity of the faults on the western half of the Alice claims show some anomalous results but these streams were not thoroughly sampled so the significance of these anomalous results is not yet apparent.

These claims held by Poll and Smith should be more closely investigated since they have possibilities of silver-lead veins similar to Mt. Haidane.

John French's discovery, four miles up Seattle Creek on the south side of the creek, consists of an isolated talus slide on an overburden - covered slope, with about 20% of the talus reported by Tempelman - Kluit to consist of mineralized quartz vein material with galena. This discovery occurs in the upper schist section several hundred feet stratigraphically above the central quartzite; its attitude or extent is not known. Two character samples of the float assayed as follows:

	oz/ton Au	oz/ton Ag	%Pb	Ag/Pb
# 14758	trace	2.30	3.0	
# 14759	trace	45.4	40.3	1.1

Four claims, Jay - B 1 to 4 have been staked and recorded on this discovery. It should be examined more closely next season and probably trenched by bulldozer. More geochemical work should be done to delineate any important mineralized sections that may occur in this area.

ASSESSMENT WORK

Assessment work has been recorded on all key groups of claims, and a number of claims of lesser importance have been dropped. Details will be submitted on a separate schedule.

CONCLUSIONS

Recent exploration on the Titan Project has indicated the following areas of interest:

1. Area "A" on the Gaiena Hill property where geophysical and geochemical anomalies are ready for prospect pit sinking.
2. The Shanghai adit which should be completed to test the mineralized zone.
3. The spring area on the UR No. 20 claim on which soil sampling is to be done.
4. The Mt. Haldane property on which any geochemical indications should probably be followed up by an option and further work.
5. The Ross - Seattle Creek section where favourable quartzites, strong faulting, and mineralization similar to that on Mt. Haldane is indicated, and further geochemical work should be done.
6. An indicated vein - fault zone on UR No. 38 and 40 claims which should be sampled more thoroughly.
7. The Gerlitzki Creek vicinity where some geochemical anomalies, and air photo linear, and reported mineralization are being investigated.

RECOMMENDATIONS

1. Prospect pits should be sunk on the best defined and most strategically located mercury anomalies on area "A" on the Galena Hill Property.
2. Soil sampling should be completed on the four additional areas on Galena Hill and any anomalous areas should be detailed like area "A".
3. The Shanghai adit should be completed this year, and the bulldozer trenches should be completed if possible.
4. Any other strong geochemical soil anomalies should be trenched or tested with prospect pits depending on ground conditions.
5. The Mt. Haldane property should be reviewed when soil sample results are available.
6. The Ross Creek - Seattle Creek area should be reviewed when all details are available.
7. The indicated vein - fault zone on UR No. 38 and 40 claims should be soil sampled more thoroughly to indicate sections that should be trenched.
8. Consideration should be given to re-testing geochemical samples in laboratory if effectiveness of the present methods can be improved.

Respectfully Submitted,



Dr. A.E. Aho