

DYNASTY EXPLORATIONS LIMITED

(N. P. L.)

328 MARINE BUILDING
355 BURRARD STREET
VANCOUVER 1, B. C.

July 12, 1965

Mr. F.H. McCall,
Chief Mining Recorder,
Whitehorse, Yukon.

Dear Mr. McCall,

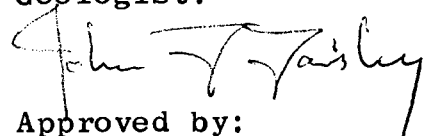
The accompanying report is submitted to apply as assessment work on Sea Claim Groupings as previously submitted, in compliance with Sections 52 (1 and 2) of the Yukon Quartz Mining Act. All claims are owned by Dynasty Explorations Limited in the Vangorda Creek area.

The area covered is contained on Claim Map number 105 K 2.

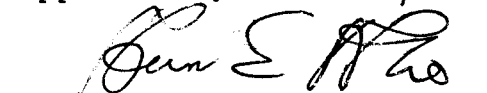
Yours truly,

DYNASTY EXPLORATIONS LIMITED

John F. Fairley,
Geologist.

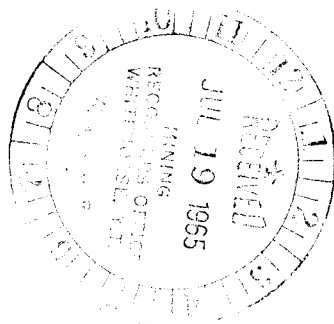


Approved by:



A.E. Aho (Director of
Exploration)

JFF/mjm



Dynasty Explorations Ltd.

DEVELOPMENT WORK

S.E. SEA CLAIM GROUP

Compiled by:

J.F. Fairley

April, 1965

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DEVELOPMENT WORK

S.E. SEA CLAIM GROUP

DIAMOND DRILLING

Summary and Conclusion

1. No widths or grades of sulphides intersected approached economic worth.
2. Mineralisation is chiefly pyrite, pyrrhotite, with minor amounts of chalcopyrite, galena, and sphalerite.
3. Three favourable horizons were intersected.
4. The controls on replacement are structural: favourable horizons coincide with the axial plane foliation, i.e. bedding for the most part.
5. The western extensions of the sulphide-bearing horizons were not explored and more drilling will be necessary and desirable.

Introduction

Six vertical diamond drill holes were placed on the basis of geophysical results as follows:

- No. 1 3590W-025N gravity high on east flank of magnetic high.
- No. 2 2600W-100S magnetic high
- No. 3 1400W-600S magnetic high
- No. 4 2200W-600S small magnetic high on south flank of anomaly.
- No. 5 1800W-300S magnetic low, gravity high.
- No. 6 6800W-100N western extension of magnetic high.

The first five were completed; hole no. 6 was stopped in overburden at 45 feet due to equipment breakdown. Total footage drilled was 1551 feet.

The core is stored at Dynasty's base camp on Swin Lake.

References:

Geology Report, Anvil Properties, Pelly River, Y.T.
 D.D. Campbell, Dec. 10, 1964.

Rock Types

The schist seen in the holes is a fairly uniform type of sericitic to chloritic schist with frequent chloritization and serpentization. Frequent very-fine-grain granular quartzose and sericitic bands occur and best illustrate the rock structure. Quartz "intrusions" from inches to feet in width are usually barren but chloritization is frequently present. Foliation surfaces have a high sheen and appear as various shades of gray to black. Melanterite and gypsum occur in fractures.

Consulting geologist, D.B. Campbell, contributes the following: Logging of D.B.H. 2 on the Sea anomaly, plus a study of six thin-sections of specimens from that hole, indicate the existence in this area of two general types of schistose rock:

1. A grey-white, medium to coarse crystalline, hard and soft, irregularly laminated phyllitic schist comprised principally of quartz, sericite, and/or talc, with variable amounts of calcite. The calcite equals the quartz in quantity in some bands.
2. A black-green, fine-grained, soft, finely and evenly laminated schist comprised principally of quartz, sericite-talc and chlorite with minor carbonates. An important constituent of this rock is extremely fine-grained magnetite disseminated throughout all the laminae. In the sections examined, the magnetite comprises up to 10% of the rock. This amount of magnetite in the chlorite schists probably contributes to the magnetic effect of the anomaly.

A further set of thin-sections, from specimens selected in each drill hole, and examined by Ebbe Mortenson* and briefly by Fairley indicated that the coarser crystalline quartz of the quartz-sericite bands has a metasomatic origin, with the replacement and fracture filling occurring after the schistosity was formed. Intensely sheared, fine-grained, original quartz has a phylloitic texture with the fine laminations separated by talc and sericite. Very little calcite was seen in this second suite of specimens.

* Ebbe Mortenson: graduating (B.Sc.) student, U.B.C., Feb., 1965.

Structure

An axial plane F 2 foliation is dominant throughout with a general dip around ten degrees north to northeast^{*}; with the F 1 bedding averaging a steeper dip but approximately the same strike. Isoclinal small scale dragfolds in the order of 1/4 inch amplitude are general throughout with their axes parallel to the F 2 strike. Shearing is consistently south over north. Larger two to three foot dragfolds can be detected. Other lineations and crenulations are probably related to steep (but inconsistent dip) shearing which often occurs and tends to brecciate the phyllite.

Respective bands of mineralisation, corresponding with quartzose sericite, are almost certain to be related as shown by the lettered horizons on the drill logs (see Appendix). Positions do not exactly coincide, or thicknesses, or positions of mineralisation within a single favourable horizon, but considering that at least two phases of folding, and faulting probably associated with the latter phases have occurred, this is to be expected.

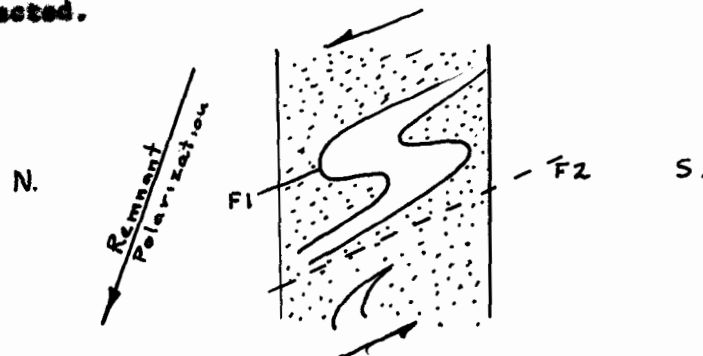


Fig. 1. Dragfolding and Foliations in the Drill Core

Mineralization

Mineralization occurs in two environments: disseminated and massive in the more quartzose bands, more massive (or none at all) in fractures filled with much the same material as the quartzose bands. Intense folding apparently aids the concentration. An area of quartz "intrusion" is generally more favourable but not necessarily.

The mineralization is generally very-fine-grained (0.0001 - 0.001 inches) with pyrrhotite or pyrite dominating. Pyrite in D.D.H. 3 is coarser, around 0.05 inches; and a rim of biotite or chlorite is evident around

^{*} By correlation of core remnant polarization and surface showing so azimuths are subject to question.

most grains. Chloritisation often occurs with mineralization. Minerals in less quantities, unfortunately, are sphalerite, chalcopyrite, and galena only forming around 5% of total sulphides. Magnetite concentration may be as much as 3% in the more chloritic phyllite, and probably increases in the massive sulphide sections.

Campbell: Thin-section study indicates that the sulphides replace the coarse-crystalline quartz and calcite preferentially. In the fine-grained, finely laminated quartz-sericite or chlorite schists sulphide replacement is negligible. The best host for sulphide replacement is the grey-white, quartz-calcite (minor sericite) schist. Generally the sulphides (pyrite and pyrrhotite) are more concentrated and more coarsely crystalline in the calcite-rich bands of the host rock. Because of the high quantity of quartz and calcite versus sericite, chlorite etc., in this type of host rock the rock has a granular texture, in contrast to the more laminated schists.

Campbell: A semi-quantitative spectrographic analysis of two specimens of the sulphide-rich schist from D.D.N. 2 (copy in Appendix), indicates a matrix of silica and iron along with six percent aluminum and one percent calcium. The principal metals ancillary to these major constituents are: copper (0.5%), lead (0.03 - 0.15%), and zinc (0.10 - 0.70%).

Summary

1. F 1 bedding.
2. F 2 axial plane cleavage with isoclinal folding.
- (3. Latter phases of folding and fracturing.
- ((4. Fracture filling and quartz replacement.
- (5. Mineralization of favourable horizons, particularly in highly folded regions.

Assays

Logs of the holes and assay results are found in the Appendix.

It was fairly apparent economic grades were not present but samples from mineralized zones in D.D.N. 2 were sent in as a check on estimated assays. No. 2, 38-44 is from a zone of massive pyrrhotite and pyrite; No. 2, 131.5 is a select sample with visible sphalerite.

TRENCHING

Five trenches were completed to bedrock; the two situated northeast of D.D.H. 3 yielded only gossan and fractured schist; drawings of the other three are found in the Appendix.

Approximately 960 yards total of overburden were removed by bulldozer. Unsuccessful trenches stopped due to permafrost lenses add another 500 yards removed.

Trenches, and test-pits for geochemistry (see Report on Soil Sampling Survey, Sea Claim Group, R.E.G. Davis,), indicated extensive gossan covering leached, light-yellow coloured, sericite schist. The gossan appears to be a product of pyrrhotite, pyrite leaching. Crinkling and anomalous attitudes frequently seen in the trenches are likely a result of weathering and soil transport. A trench at 20N-2S uncovered lenses several feet thick of massive sulphides, mostly pyrrhotite with minor amounts of pyrite, chalcopyrite, sphalerite, and galena. Melanterite and Bazanite* crusts fill some of the open jointing. One select specimen assayed 4.8% Pb., 6.9% Zn., 9.74oz/T. Ag., 0.005 oz/T. Au., and a trace of Cu.

SURVEYING - LINE CUTTING

The control survey was run by tape and compass, and consists of a single centrally located base line, with cross-lines (north-south) spaced at 800 foot intervals. Intermediate lines, to make 400 foot intervals, were not cut out.

Further description and statement of costs are contained in the report, Geophysical Investigations by Magnetic Methods on the S.E. Sea Claim Group, J.S. Brock, March, 1965.

PERSONNEL

Dynasty Explorations Crew:

| | |
|--------------------------------------------|----------------------|
| R.E.G. Davis, 4754 W.6th Ave., Van. | Exploration Mgr. |
| Alan Kulam, 609 Black St., Whitehorse. | Field Mgr. |
| J.S. Brock, 3050 Proctor Ave., Van. | Geophysicist |
| J.F. Fairley, 3704 McKechnie Ave., W.Van. | Geologist |
| Andy Harman, General Delivery, Salmo, B.C. | Geophysical Operator |
| Bill Carson, G.D., Teslin, Yukon | Cat Operator |
| Rag Wilson, 704 Black St., Whitehorse. | Cook |
| Flunkey | |
| Wood Cutter | |
| 4 Line Cutters | |
| 2 Pump Men | |

Northern Diamond Drilling Ltd., Box 1066, Whitehorse, Yukon.

4 Diamond Drillers.

SUMMARY OF COSTS

Diamond Drilling

| Direct Costs: | | | | | <u>Sub</u> | <u>Totals</u> |
|--------------------------------------------------------------------------|---------|--------------------|-------------|----------|------------|------------------|
| Hole | Footage | Set Up | Water Lines | Pump Man | | |
| 1. | 399 | 98 hr | 1 hr. | | | |
| 2. | 253 | 44 | 41 | 72 hr. | | |
| 3. | 400 | 50 | 35 | 108 | | |
| 4. | 270 | 53 | 148 | 144 | | |
| 5. | 184 | 67 | 15 | 48 | | |
| 6. | 45 | 82 | 16 | 49 | | |
| | | 92 hr. (take down) | | | | |
| Total | 1551 | 486 | 256 | 421 | | |
| Rate | 5.50/ | 3.00/ | 3.00/ | 1.00/ | | |
| Cost | 8530.50 | 1458.00 | 768.00 | 421.00 | | 11,177.50 |
| Camp Costs for Drill Crew: | | | | | | |
| Driller, Helper: 6.00-2.50 (deducted from salary) | | | | | | |
| = 3.50/day X 170 man-days | | | | | 595.00 | |
| Pump Man: 6.00/day X 35 man-days | | | | | 210.00 | 805.00 |
| Mobilization of Drill Crew: | | | | | | |
| 4 return flights Whitehorse - Swin L. Beaver @ 189.00/ | | | | | 756.00 | 756.00 |
| Mobilization of Drill Equipment: | | | | | | |
| 2 return flights Whitehorse - Swin L. | | | | | 378.00 | |
| 2 return trips Whitehorse - Ross R. by White-Pass trucks @ 75.00 | | | | | 150.00 | |
| 2 return trips of riverboat Ross R. - Blind Ch. : 3 man-days @ 24.00/day | | | | | 72.00 | 600.00 |
| Fuel: 45 days @ 8.00/day | | | | | 360.00 | 360.00 |
| Transportation on Site: 45 days @ 20.00/day | | | | | 900.00 | 900.00 |
| Supervision: 60 days @ 25.00/day | | | | | 1,500.00 | |
| + camp costs, 60 X 6.00 | | | | | 360.00 | 1,860.00 |
| Core logging: 45 days @ 25.00/day | | | | | 1,125.00 | |
| + camp costs, 45 X 6.00 | | | | | 270.00 | 1,395.00 |
| Services: stoves, lamps, cables, ropes, equipment welding and repairs | | | | | 200.00 | 200.00 |
| Total | | | | | | 18,053.50 |
| Cost/ft. | | | | | | 11.64 |

Bulldozer Operation to Nov. 30, 1964

| | | | |
|----------------------------------------|--|-----------|-----------------|
| Physical Work @ 15.00/hr. | | | |
| Access roads 289.5 hr. | | 4,342.50 | |
| Drill sites 35.5 hr. | | 532.50 | |
| Trenching 19.5 hr. | | 442.50 | |
| Camp 32.5 hr. | | 787.50 | 6,105.00 |
| Camp Costs, bulldozer operators | | | |
| 74 man-days @ 6.00/day | | 444.00 | 444.00 |
| Miscellaneous: | | | |
| Bridges | | 450.00 | |
| Road location | | 250.00 | |
| Supervision | | 500.00 | 1,200.00 |
| Minus: Total Road Allowance | | -2,000.00 | |
| <u>Total</u> | | | 5,749.00 |

ASSAYS

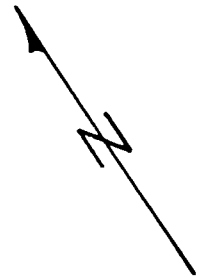
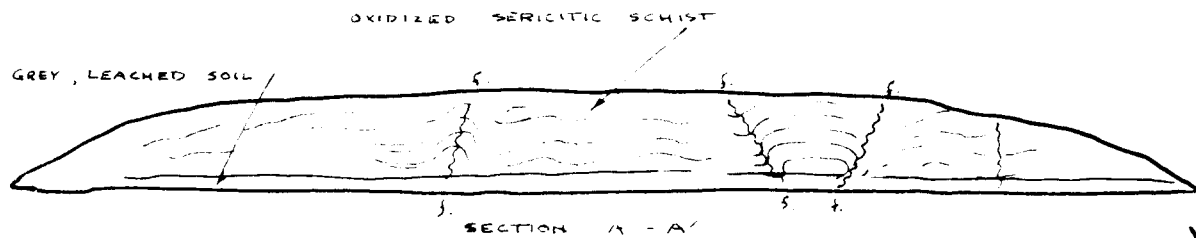
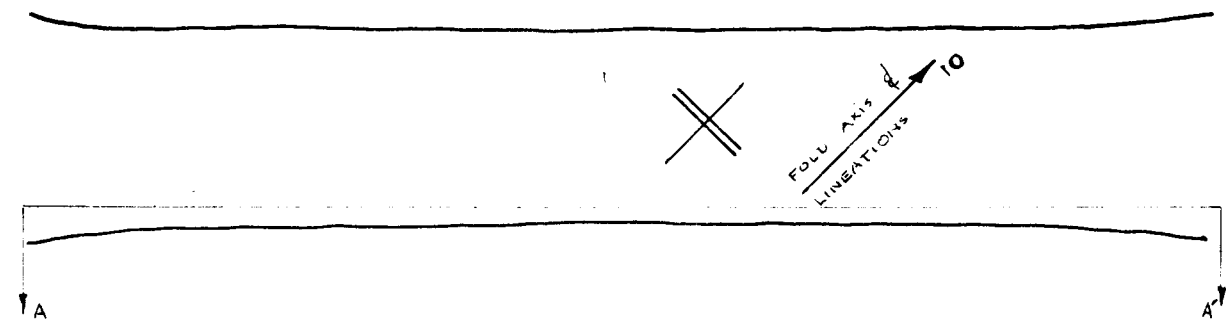
| <u>Location</u> | <u>Au. (oz/T)</u> | <u>Ag. (oz/T)</u> | <u>Lead</u> | <u>Zinc</u> | <u>Copper</u> |
|------------------|-------------------|-------------------|-------------|-------------|---------------|
| T1 (trench) | 0.005 | 0.74 | 4.8 | 6.9 | trace |
| Gossan in T1 | | 0.24 | | | |
| DDH 2 38-44 | 0.01 | 0.34 | 1.1 | 1.4 | 0.37 |
| 50-62 | | | 0.3 | 0.5 | nil |
| 62-68 | | | 0.4 | 0.3 | 0.15 |
| 72-73 | trace | 0.24 | 0.2 | 0.4 | 0.22 |
| 88-97 | trace | 0.10 | 0.2 | 0.3 | 0.33 |
| 190-195 | | | 0.1 | 0.2 | 0.03 |
| 215-220 | trace | 0.36 | 0.1 | 0.2 | 0.22 |
| 231.5 | trace | 0.44 | 3.1 | 9.3 | nil |
| DDH 3 317-318 | 0.005 | 0.10 | 0.2 | 0.7 | 0.03 |
| Outcrop Fraction | | | | | |
| Sea 1 | trace | 2.84 | | | 7.3 |

Semi quantitative spectrographic analysis of high sulphide schist from DDH 2.

| | | | | |
|------------|-----------|------------|------------|-----------|
| Al. 2.0 | B. 0.001 | Ga. ND | Mo. 0.002 | Ta. ND |
| Sb. ND | Cd. ND | Au. trace | Nb. ND | Sn. trace |
| As. ND | Ca. 8.0 | Fe. Matrix | Ni. 0.002 | Ti. 0.03 |
| Ba. 0.004 | Cr. 0.001 | Pb. 0.05 | Si. Matrix | W. ND |
| Be. 0.0001 | Co. trace | Mg. 7.0 | Ag. 0.003 | V. 0.005 |
| Bi. ND | Cu. 0.25 | Mn. 2.0 | Sr. trace | Zn. 0.06 |

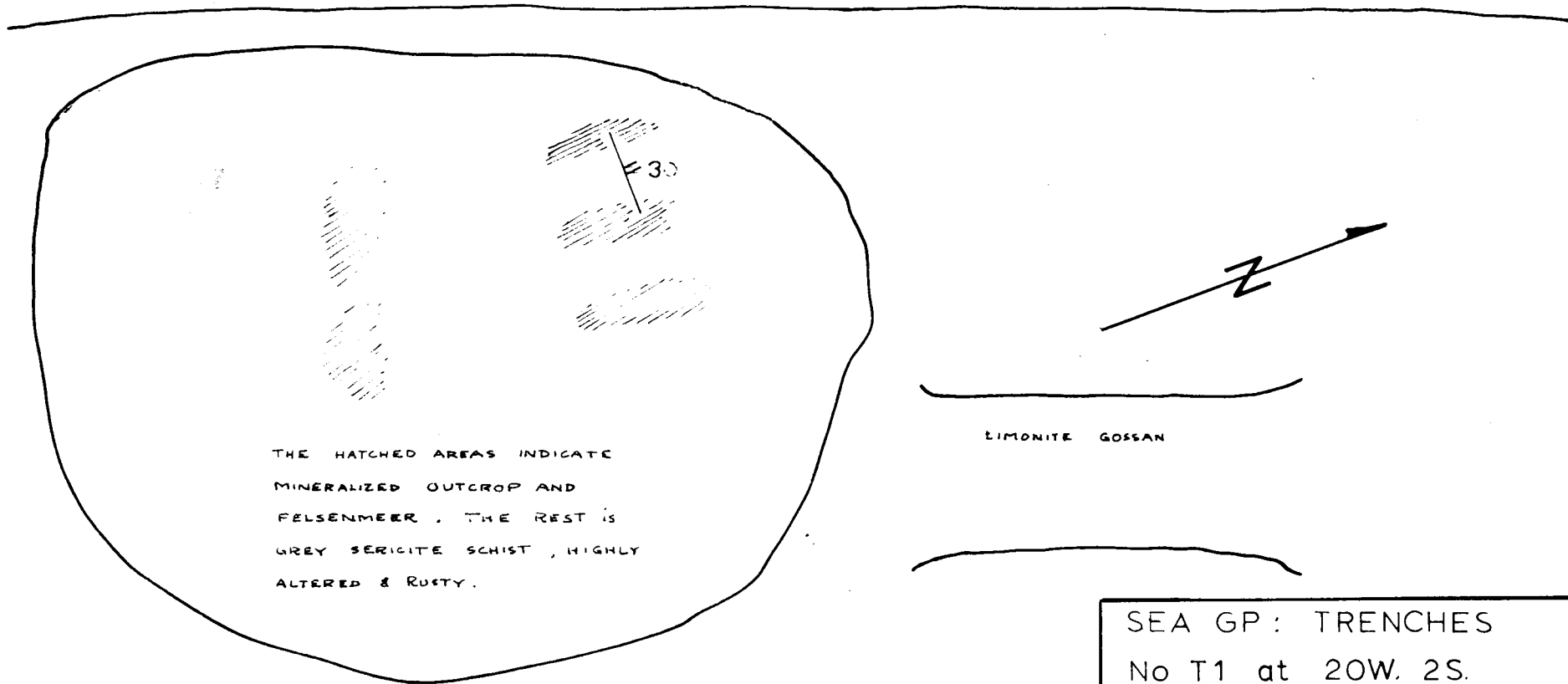
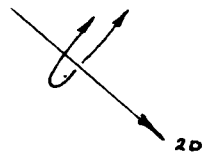
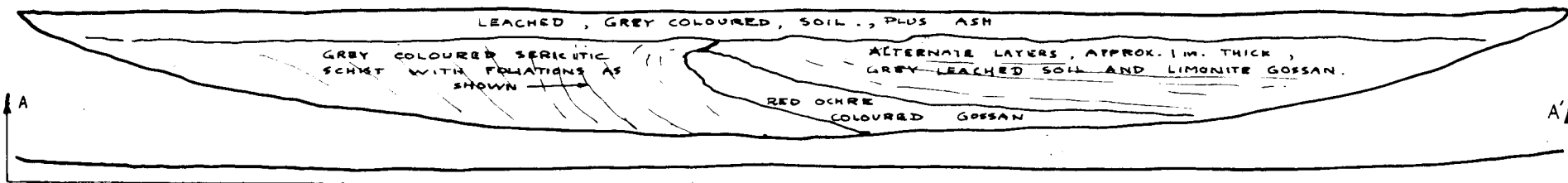
All standard assaying was done by the Whitehorse Assay Office, George Spalding.

The semi quantitative spectrographic analysis was done by Coast Eldridge Engineers and Chemists, Vancouver.



SEA GR : TRENCHES
 No. T3 at 24W. 2S.
 Scale: 1 in. = 10 ft.
 J. F. Fairley Nov. 7 64.

SECTION A-A'



THE HATCHED AREAS INDICATE
MINERALIZED OUTCROP AND
FELSENMEER, THE REST IS
GREY SERICITE SCHIST, HIGHLY
ALTERED & RUSTY.

LIMONITE GOSSAN

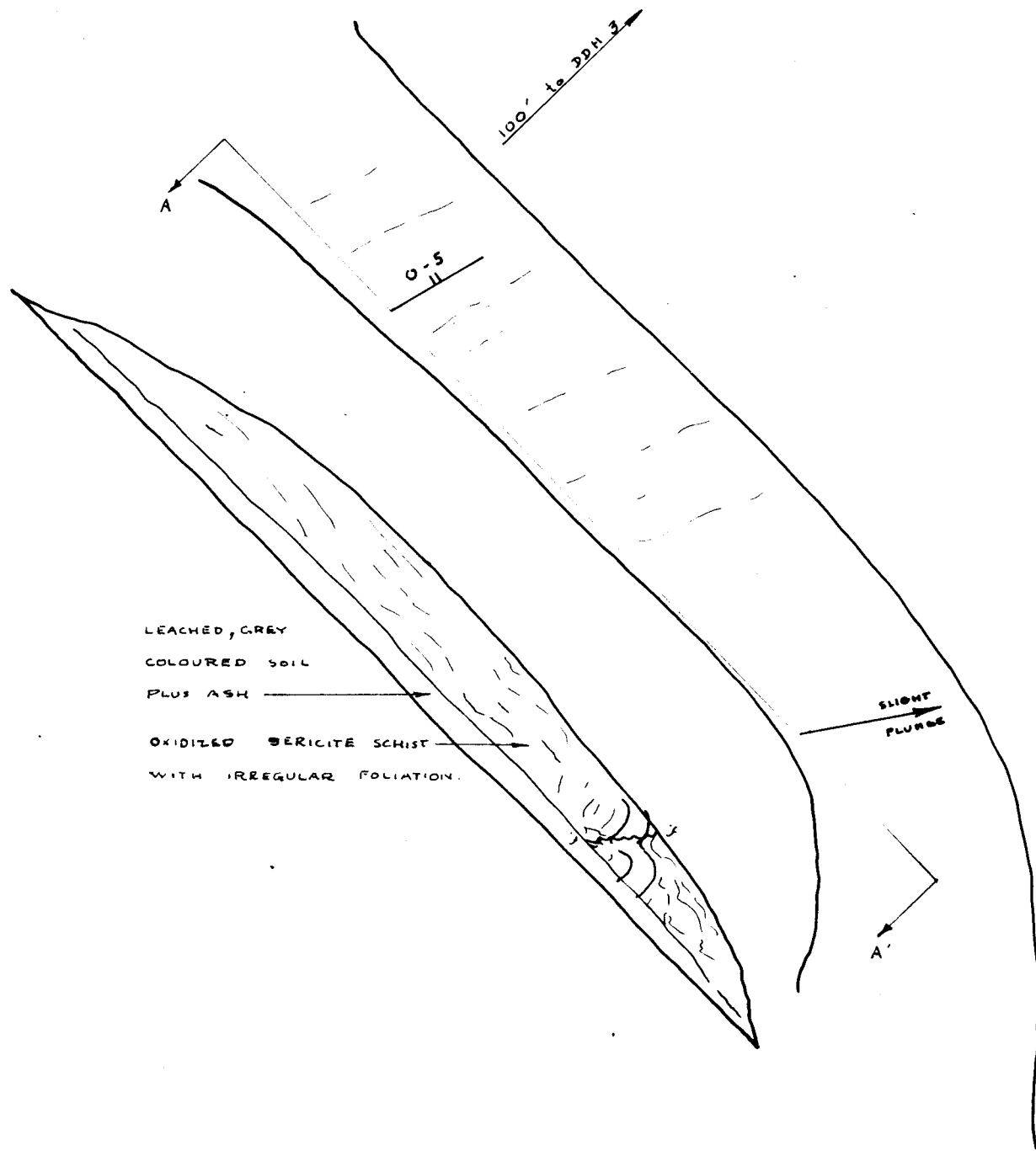
SEA GP: TRENCHES

No T1 at 20W, 2S.

Scale: 1 in. = 10 ft.

J. F. Fairley

Nov. / 64.



SEA GP.: TRENCHES

No T2 at 14W. 6S.

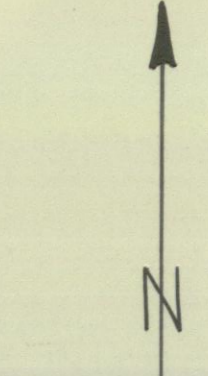
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J. F. Fairley

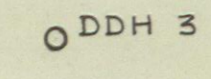

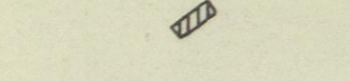
Nov. / 64.

SWIM LAKE

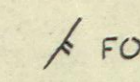
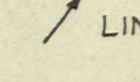
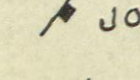
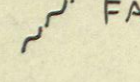
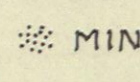
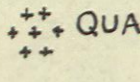
FINGER LAKE



SEA CLAIM GROUP SOUTHEAST

- DIAMOND DRILL HOLE 
- ROAD 
- TRENCH 

GEOLOGY ADDED

-  FOLIATION
-  LINEATION
-  JOINTING
-  FAULT
-  MINERALIZATION
-  QUARTZ-DIORITE
- ALL OTHER OUTCROPS
ARE SERICITE SCHIST

