J.F. Fairley,
Dynasty Explorations Ltd.,
328-355 Burrard Street,
Vancouver 1, B.C.

April 25, 1965

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

Dear Mr. McCall:

The accompanying geological report is submitted to apply as assessment work on the claims owned by Dynasty Explorations Ltd., in the Vangorda Area, as listed on page 21 of the report.

The area covered is contained on Claim Maps numbered 105 K 2, 3, 6, & 7.

Yours truly,

John F. Fairley,
(Geologist)
Approved by,

A. E. Aho, P.Eng. PhD.
(Director of Exploration)

Dynasty Explorations Ltd.

GEOLOGY AND MINERAL DEPOSITS

OF THE VANGORDA DISTRICT, CENTRAL YUKON.

J.F. Fairley

1965

CONTENTS

GEOLOGY AND MINERAL DEPOSITS OF THE VANGORDA DISTRICT, CENTRAL YUKON.

SUMMARY

The present holdings of Dynasty Explorations Ltd. are all included in a belt of low grade schists and greenstones which flank the Anvil Range granitics and metasediments.

At least two non-parallel phases of folding, the first isoclinal and the second polymorphic,* have produced complex structures which are cut by steep east and northeast trending faults.

Mineralization apparently favours structurally controlled zones of quartz-sericite schist, which in the case of the known Vangorda Mines Ltd. deposit is linked with a flat-lying quartz-feldspar porphyry intrusive.

Conclusions on structure are statistically poor and different interpretations would not be surprising.

RECOMMENDATIONS

The Ace and Sea claim groups cover the most favourable ground for finding large replacement deposits.

Relationships between the Ace group area and areas to the south should be established by mapping the intervening country where possible.

Further mapping practice should:

1. entail better minor structure phase differentiation.
2. take into account that the cherty green phyllite may be a marker bed between the sericite schist and greenstone.
3. separate chloritized-altered intrusives, greenstone, and chlorite schist as units.

* simply implying, " many forms ".

INTRODUCTION

The Vangorda area lies between the southwest flank of the Anvil Mountains and the Pelly River, 130 miles northeast of Whitehorse. Present access is generally by float or ski-plane, or by riverboat from the Canol Road at Ross River. The Ross River - Carmacks road, soon to be constructed, will facilitate wheeled transport but will necessitate a crossing at Pelly River.

The topography is typical of the semi-mountainous Yukon Plateau which has been modified to a large degree by glaciation. Morainal debris, drumlins, and eskers probably cover approximately forty percent of the total surface area with depths ranging to 100 ft. or more. Sub-parallel structures trending W.N.W. indicate the flow direction. Subsequent weathering has contrived to leave less than one percent outcrop area. Latter stages of alpine - type glaciation have modified some of the scoured terraces and moraines of the earlier stage, thus the origin of float is uncertain unless it is found on a scoured area modified only by natural weathering and associated down-slope soil transportation. The gently undulating topography seldom slopes more than ten degrees.

Regional geology study was not restricted to the claims and covers a somewhat different area in an effort to ascertain regional trends and rock units potentially favourable to mineralization. Approximately forty square miles was thoroughly investigated . Owing to existing background information, a fairly concerted effort was made to determine the geology in the general vicinity of the Vangorda Mines deposit.

References:

1. Geology, Tay River (13-1961), Roddick and Green, 1961.
2. Geochemical Exploration of a Yukon Lead - Zinc Deposit, E.O. Chisholm, chief geologist, Prospectors Airways Co. Ltd., an article in Western Miner and Oil Review, Nov., 1959.
3. Various private reports and other sources of information on the area.

HISTORY

Except for sporadic prospecting over the years since the 1890's, the Vangorda area recieved no special attention until 1953, when Alan Kulan discovered and staked the Vangorda Mines deposit on Vangorda Creek.

Between 1953 and 1956 Prospectors Airways Ltd. drilled the main deposit and they and others active in the area did limited geophysical, geochemical, and other work in the general vicinity. Due to poor base metal prices and future outlook, all activity ceased in 1956.

In 1963, with improved metal prices, Kerr-Addison Mines Ltd. flew a local aeromagnetic survey at Swim Lakes and staked 40 claims and Dickson Yukon Syndicate staked 200 claims N.W. and S.E. of the main known deposit.

In March, 1964, Dynasty Explorations Ltd. staked the Dy and Sun groups totalling 168 mineral claims; Kerr Addison Ltd. staked 2 groups totalling 34 claims. This was followed by the staking of the Sea, Dea, Lea, Pea, Bea, and Nasty groups (223 claims) by Dynasty. Magnetometer and geochemical surveys commenced on the various claim groups along with geological mapping and conventional prospecting, and additional claims were acquired. Gravity surveys were carried out on portions of the Sea and Dy claims in Sept. and Oct., 1964. In Sept., an airborne magnetometer survey was flown for the company by Hunting Survey Corp., which was followed by preliminary geochemical and geological surveys. As a result of these surveys, additional mineral claims were acquired by the company. In Oct. Kerr Addison and Dickson Yukon Syndicate each drilled one diamond drill hole on geophysical anomalies and Dynasty drilled 5 holes in their Sea claims. Kerr Addison resumed drilling through ice at Swim Lake in Feb., 1965, and Dynasty started dry rotary drilling at their anomalies in Mar., 1965.

GENERAL GEOLOGY

The area being explored lies in a belt of highly deformed, generally slightly metamorphosed, sedimentary and volcanic rocks flanking the granitic core of the Anvil Range (Roddick and Green, 1961). Dyke and sill-like intrusives discontinuously intrude these rocks and vary in composition from quartz-feldspar porphyry to medium-grained quartz diorite.

With no particular attempt at age classification, the lithologic units are described in probable decreasing age according to Roddick and Green's report. Within the foliated rocks differences are gradational and classification is often difficult and arbitrary, although differences between the ends of the scale are marked.

Sericite Schist

Sericite schist is better classified as chloritic sericite phyllitic schist according to composition and texture. The colour on the foliation surfaces, which have a high sheen, varies from light to dark grey with variable green shade according to chlorite content. Light ochre colour is frequently acquired on weathering. This is most apparent near areas of hydrothermal alteration and is probably partly a result of this. Although the schist is very thinly foliated, soft, and fissile, the quartz content apparently exceeds 60% as seen in some thin-sections. Its micro-texture is highly sheared and phyllonitic. Bedding is rarely apparent except where intercalated with light green cherty phyllite or chlorite schist. Graphite schist occurs in a few places and may be a basinal facies or hydrothermal alteration of the sericite schist. Carbonate content (calcite, dolomite, and lesser amounts of siderite) also varies, and is apparently an emplacement partially latter to the axial plane shearing. Stratigraphic thickness probably exceeds a thousand feet as seen in Section C - C' but isoclinal folding obscures the true thickness. Much greater areas southeast of Blind Creek are underlain by these schists than in the regionbetween Vangorda and Blind Creeks.

Light Green, Cherty, Phyllite

This rock was only recently recognized as a separate unit. Although undivided as such, it is certain that areas in the S.E. Dy Group, Dea Group, and Lea Group contain these rocks. They are very-fine-grained, less highly foliated than the sericite or chlorite schist, and frequently limy. Composition is inhomo--geneous with respect to adjacent bands, and different concentrat--ions of quartz, carbonate, and chlorite, produce varying shades of green.

Chlorite Schist

Chlorite schist, similar to the sericite schist, is better classified as a sericitic chlorite phyllitic schist, the difference being arbitrary. Characteristics are similar, except for a deeper green colour, and a spatial gradation to greenstone. No graphite occurs, but the schist is frequently limy. Bedding may occasionally be seen where intercalation of quartz bands or light green cherty phyllite occur. It has been assumed in mapping that the chlorite schist is a foliated version of the greenstone.

Greenstone

Generally the greenstone is a fine-grained, dark-green, blocky rock, forming the boldest and least weathered outcrops other than those of granitic rocks. Locally, as at the west corner of the Sun Group it may be vesicular and amygda-loidal with calcite fillings. This location is notable also for the calcite, hypocrystalline siderite, alteration of the greenstone in proximity to the contact with the dark sericite schist, for a relatively high percentage of medium grain euhedral pyrite in the greenstone, and for schist inclusions (showing a rotated foliation) in the coarse foliated greenstone. Apparently the volcanics here were emplaced after the sediments were foliated, and have a partially intrusive origin. Medium and coarse-grained phenocrysts of altered amphibole and feldspar in other localities (N.W. Dy Group and Dea Group) give the appearance of an altered granitic rock. Up to 10% magnetite forms an important constituent of chloritized schist, graphite schist, and greenstone.

Shale and Quartzite

Black, medium laminated, shale and quartzite are confined to the area southwest of Swim Lake and appear to overlie the coarse-grained greenstones of the area. There is also a localized occurence on the east end of the Ace Group with an accompanying abrupt change in attitudes indicating a chronologic difference. These fine-grained, siliceous rocks appear even less metamorphosed than those of Swim Lake vicinity. No thin-sections have been made and there is a possibility of these being unaltered siliceous volcanics in part, or chert.

Metasediments

For a distance varying from one to three thousand feet around the Anvil Range granitic body, the sericite schist grades through the biotite - garnet - staurolite facies. Occasional bands of dark hornfels would have a volcanic origin. Adjacent to the Vangorda Mines Ltd. property, the biotite schist contains up to 5% pyrite.

Intrusives

Little altered, medium to coarse-grained micaceous granodiorite underlies the higher levels of the Anvil Range and generally contacts the metasediments sharply.

Thin members of quartz-feldspar porphyry and quartz-diorite which intrude the ~~volcanic and~~ sedimentary and volcanic sequences were closely inspected for a possible implication in mineralization. No metal content was observed in these intrusives but surrounding schists of the Vangorda Creek - Blind Creek porphyry frequently did carry pyrite and pyrrhotite. Contact rocks were always highly altered and rusty, brecciated, and quartz intruded. A peculiar looking breccia in direct proximity to the porphyry is often present. On surface, these are highly weathered to leave a pyrolusite stained quartz framework around open cavities. Beneath surface, as seen in some Vangorda Mines

Ltd. drill core, it is a coarse breccia of altered sericite schist with pyrolusite, quartz, limonite, and carbonate fillings. The implication is, these open fabric rocks could be mineraliz--ation channels. Intrusive outcrops between Blind Creek and Moose Creek exhibited no contacts, although shales in proximity to the quartz diorite southwest of Swim Lake were mineralized with minor chalcopyrite and pyrrhotite, with graphite again in evidence. Genetically, the porphyries may be related to a late stage of the larger granitic stocks[1], or to later stage flow rocks[2].

Miscellaneous Rock Units

Minor malachite stain in a group of interesting rocks including chert breccia, andesite breccia and ribbon chert, with calcite and aragonite fillings, were found on a cliff south of Moose Creek. They are assumed to be part of G.S.C. Unit 9b. Further investigations in this rock type have not been carried out.

1. Recent conversation with Roddick and Green, summer, 1964.
2. Roddick and Green, 1961.

STRUCTURAL GEOLOGY

The replacement structures of the Vangorda district are thought to be controlled by certain favourable horizons, therefore a knowledge of the complex structure is necessary for efficient exploration, to explain the complicated magnetic and gravity map configurations, and to guide the drilling. Following is a general description of the minor structures seen in the field and a description of the larger structures delineated by mapping.

Minor Structures

Overall interpretation on the basis of minor structures alone is nearly impossible due to the high variability of attit--udes. General trends may be detected but specific attitudes and periods of folding can not (see Appendix II). Better phase differentiation of minor structures would improve this situation.

Folding

Three types of folding may be recognized in the field, although configurations and attenuations tend to vary rather widely.

The most common type is isoclinal dragfolds (see Fig. 1a) easily seen where the bedding foliation crosses the axial plane cleavage (variously called schistosity or F 2) in crestal regions. Amplitudes vary from a fraction of an inch to approx--imately ten feet. Recognition is restricted to the schistose rocks.

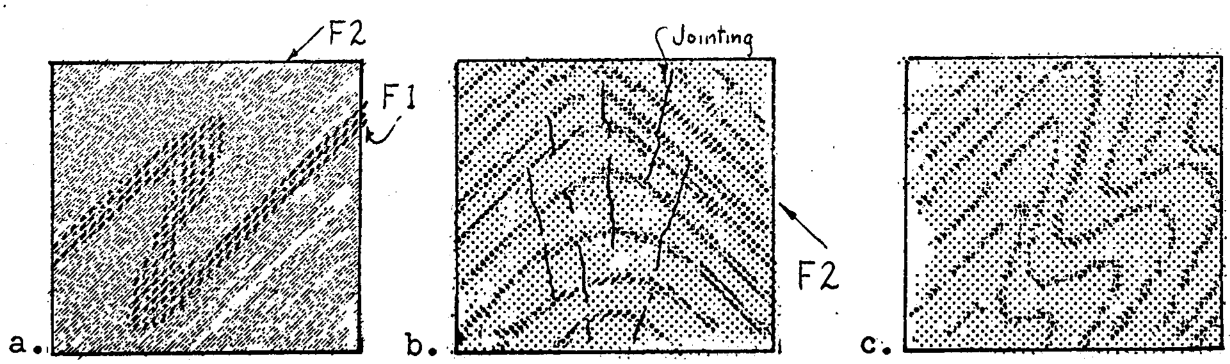


Fig. 1. Typical Minor Folds.

Concentric type folds, often appearing as irregular warps, bend the schistosity (see Fig. 1b). A crude cleavage or jointing is occasionally associated. Type designation becomes difficult where bedding foliation is bent around highly attenuated folds with no associated axial plane cleavage (see Fig. 1c). This is relatively common in cherty chloritic phyllites. Folding is rarely visible in the coarse-grained greenstone, but quartz bands occasionally delineate folds with a ptygmatic appearance, which are probably associated with this concentric type.

Foliation

The chief foliation seen throughout as delineated by mica sheeting and shear planes is generally assumed to be the F 2, or axial plane cleavage.

Bedding (F 1) is effectively masked in much of the sericite schist and greenstone due to uniform composition plus a certain degree of metamorphism, but where observable, and except on isoclinal fold crests, it parallels the F 2.

Very thin, intercalated, bands of lighter quartzose and darker chloritic material mapped as " green cherty phyllite " and " chloritic schist " are probably a result of both bedding and infolding.

Occasional crude cleavage associated with relatively tight concentic folds has been mentioned.

Lineations

Lineations are common in the schists, and as many as three attitudes may be observed on one specimen. Most are fine lines ; some are large crinkles with quarter inch amplitudes.

Surface striae and parallel crystallinity in the granite near the west end of the Beta Group was apparently caused by low angle shearing north over south.

Jointing

Jointing is generally steep, non-uniform (see Stereo--grams, Appendix II) and generally found in the granitic rocks, greenstones, or more silicious rocks. Erratic attitudes allow no singular strees - strain interpretation.

Faulting

North-east trending topographic linears parallel to Blind Creek and west trending linears parallel to the Pelly River exhibit little evidence of relative movement on ground observation. One set of steeply south dipping en-echelon normal faults para--lleling Blind Creek showed small bedding displacements. The high degree of brecciation associated with porphyry of the Vangorda area would indicate some relative movement at a low angle.

Regional Considerations

The survey is best divided into three sub-sections: northwest of the assumed Blind Creek fault, southeast of same, and the Ace Group.

Mention should be made of the methods of interpretation used in drawing sections and probable geologic contacts. In order of assumed importance, similar sequences in proximity and F 1 attitudes took priority, then F 2 (since this nearly always parallels F 1), and lastly, dragfold senses and attitudes, were considered. Dragfolds were placed in minor importance since they were usually isoclinal and often ambiguous. Obviously, the exact locations and attitudes of large structures as shown is open to question. However, general description, shape, and relationships are accurate.

Northwestern Area

The northwestern area which includes the Vangorda Mines Ltd. property is marked by multiple isoclinal infolds which mark a transition from overlying sericite schist to greenstone beneath, and cause the rapid variations in rock type, lensing, and lack of stratigraphic thicknesses. Surrounding the Mt. Mye stock on the south and west are a series of broad warps forming basin and dome-like buckles which appear to have wrapped the sedimentary rocks around the granitics. Thus, two phases of folding are suggested (paralleled in the Minor Structure discussion). This is possible, but if so, the latter stage had no unique attitude and may have been related to multidirect--ional strains associated with an irregularly shaped granitic intrusion. Associating this discussion with the simplified cross - sections it will be noted that the complexity of infolding is not shown. Details within a portion of Section B - B' would likely be similar to Fig. 2. Lenses of greenstone were also encountered in diamond drill holes just beneath the graphite schist at Vangorda Mines.

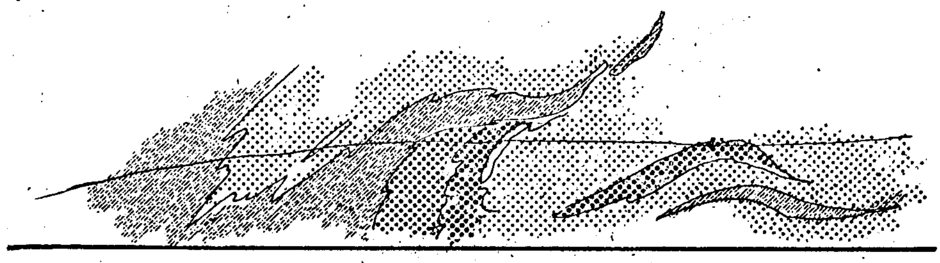


Fig. 2. Cross-section indicating complexity of infolding (from Section B - B', Appendix I).

A possible steep left lateral fault paralleling Blind Creek may be associated with the fold that is delineated in the small creek (Dixon Ck.) north of Shrimp Lake. This does not appear to be associated with the porphyry which apparently has a relatively flat attitude (approximately 180°/ 07°W. and thirty feet thick in this location).

Southeastern Area

The southeastern area contrasts with the northwestern in showing much less complexity of infolded sequences, general gentle northerly dips (F 2), and thicker sections of sericite schist underlying greenstone. With reference to Section C - C' it will be noted that none of the isoclinal stages of folding have been shown. Plotted foliations (see Appendix II) are rather inconclusive but verify the map interpretations of low attenuated folds with axes trending 300° to 310° with approximately 0° plunge. Lineations and fold axes concentrate more along an east - west axis and would represent the isoclinal phase.

West of Swim Lake on the Dy and Dea Groups a unique situation exists with black cherty quartzite and shale apparently occurring lower than normal in the greenstone section (Unit 8, Roddick and Green, 1961). This could be accounted for by southwest dipping normal faults for which there is some supporting field evidence on the south slope of Blind Creek, or, that much of the greenstone, which is coarse-grained and appears intrusive, was intruded at various levels in the shale - quartzite.

On strike of these faults lies an unaltered intrusive (doubtful attitude). The other intrusives in this sub-section (south end of Sea Group) also have unknown shapes and attitudes.

Two small areas southeast of Moose Creek were mapped. One, to the east of the Sea Group conforms with the Swim Lake area except for the presence of a main granitic mass. The other, to the south of the Sea Group, including chert and volcanic rocks, is quite foreign and probably much higher stratigraphically. There probably is a fault reflected in the Moose Creek linear, but not enough field evidence exists to warrant interpretation.

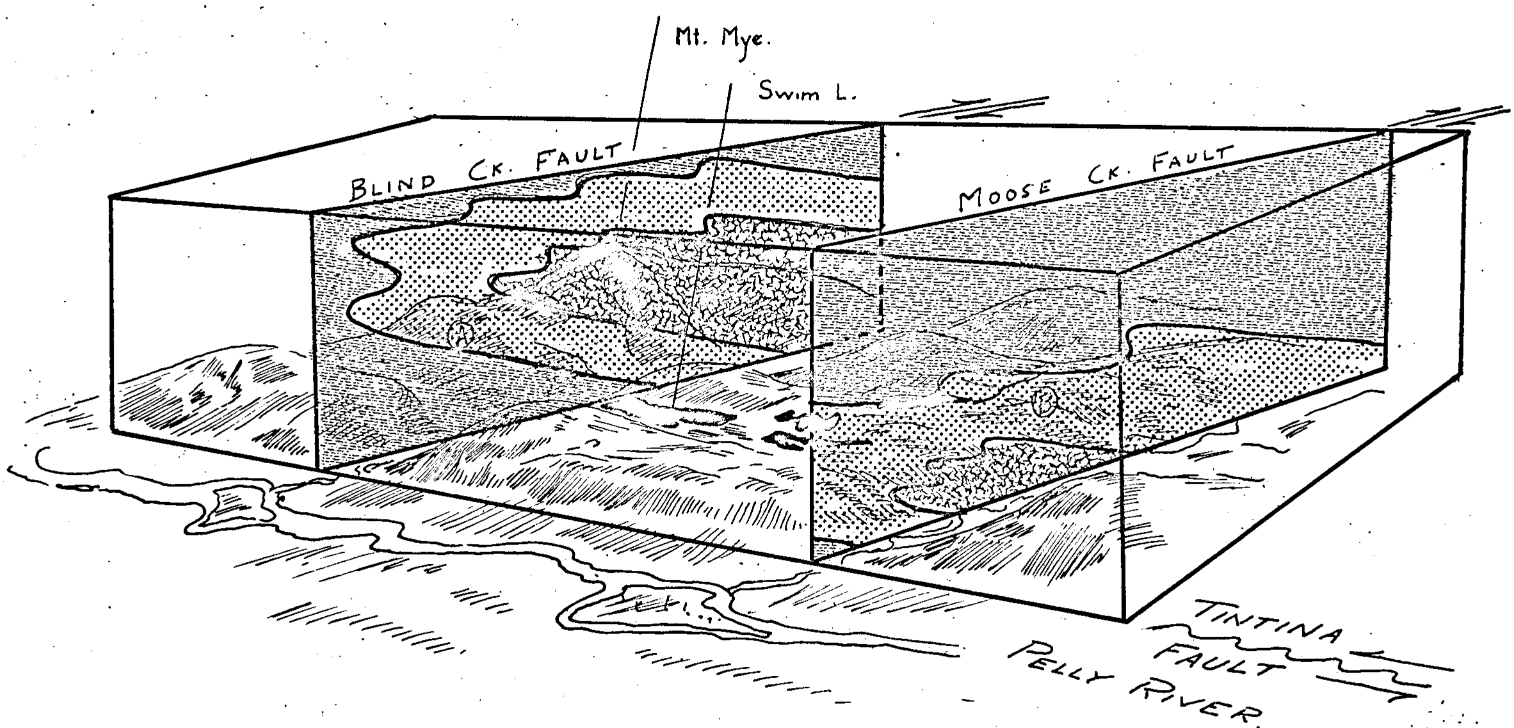
Ace Group Area

The Ace group sub-section, although a relatively confined area, shows even greater conformity. No greenstone was encountered and graphite schist overlies a thick succession of sericite schist. Foliations (F 2) average 90°/ 40° N. (see Appendix II) and again bedding is equivalent except on isoclinal fold crests. No major folds were mapped, but isoclinal drag folds maintain a uniform sense and relatively uniform gentle plunge E.N.E. indicating a phase one anticline to the north or syncline to the south. As many as three sets of lineations could be seen on one specimen, and certainly two distinct groups are indicated on the stereogram, therefore it is unlikely that the problem of tracing a single horizon would still be difficult.

A structural discontinuity on the eastern end marks an abrupt change in bedding attitude and rock type. Further discussion of the Ace Group will be found under " Mineral Occurrences and Specific Area Detail ".

Broader Interpretation

Considering the G.S.C. 4 mi. / in. geology (Roddick and Green, 1961) in the light of the preceeding discussions a rather loose interpretation suggests that the Anvil Range represents a large isoclinal ~~syn~~anticline, axis approximately east - west, axial plane dipping gently north, with an intruded granitic core and associated thin-membered intrusives. In this case, the sub-section northwest of Blind Creek would likely be found in the crestal regions, with the southeast sub-section deeper as shown in Figure 3. Thicker sections of sericite schist, more favourable to mineralization, would underly the southeast sub-section, therefore.



Anvil Range Granitics

Sericite Schist

Greenstone, Chlorite Schist

(A) Stratigraphic position of Vangorda Mines deposit.

(B) Stratigraphic position of the S.E. Sea Claim Group.

Fig. 3. Block diagram indicating possible regional structure.

MINERAL OCCURRENCES AND SPECIFIC AREA DETAIL

Northwestern Dy Group

No in-situ mineralization was found in this group, and only a little pyrrhotite float. A ground magnetometer anomaly (see Geophysical Investigations by Magnetic Methods - Dy Claim Group - J.S. Brock / 1965) warranted closer geologic study.

The anomaly is situated in the crestal area of a gentle northeast plunging synform where greenstone-chlorite schist and sericite schist contact surficially. Nearby northeast trending, steeply dipping faults are situated in Blind Creek and on the slopes of Mye Mt. Porphyry outcrop occurs 3/4 mile west.

Magnetite is not apparent in the rocks of this area, but magnetic anomalies center on greenstone outcrops (which elsewhere contain up to 5% magnetite). The light green cherty phyllite is limy in part and the sericite schist occasionally grades toward impure limestone, and may also be graphitic. Serpentine alteration is associated with greenstone along a possible fault.

The interpretation map and cross-sections (see Appendix III) indicate a high degree of complexity with torsional strains giving rise to anomalous structural trends. Magnetic highs correspond to the areas of greatest disturbance. The two phases of folding mentioned plus assumed torsional strains combine to give a 'scattered' stereogram indicating only general trends.

Conclusion: there are structural possibilities of replacement mineralization at shallow depth (less than 100 ft.). Rocks favourable for replacement as well as porphyry occur in the vicinity. On the pessimistic side, magnetite in greenstone is the most likely cause of the anomaly.

Vangorda Mines Ltd. Deposit

The immediate geological environment is well described in a paper by Chisholm (Chisholm, 1959) but some pertinent points bear restatement:

" 1. The deposit is comprised of an overlapping series of horizontal lenses of sulphides that appear to replace a favour--able sedimentary bed.

2. The mineralization consists of fine-grained aggregate of sulphides in a siliceous matrix.

3. Alteration is predominantly sericitic and chloritic and is intensified in an envelope, averaging perhaps 200 ft. wide, surrounding the mineralized deposit.

4. The graphite schist ... contains narrow (up to 1 mm.) quartz stringers .... In this section it consists of minutely folded bands of white mica and black carbonaceous matter intercalated with bands of anhedral, interlocking, quartz grains, and isolated siliceous lenses. Mineralization is confin--ed to the siliceous bands and pyrrhotite apparently replaces quartz.

5. Calcite is present in small amounts and may have been introduced with the sulphides. "

Regional data gives some clues to mineralization control:

1. The flat dimensions of the deposit and the attitude of the porphyry are coplanar. They are spatially adjacent, if not directly associated, since some porphyry was intersected in the drill holes. Other associated rocks and brecciation also occur in the drill core, suggesting a dependence of mineralizat--ion on the intrusive.

2. The long axis of the deposit conforms with the iso--clinal phase fold axis, which trends approximately 140° in this area.

3. The deposit is situated in silicified sericite schist apparently lying in an elongated, west plunging, concentric phase, basinal structure, sharply terminated by an antiform on the north side of Vangorda Creek.

A plausible interpretation is:

1. Isoclinal phase folding served to provide channel-ways in the fold crests, and also to thicken the favourable bedding.

2. Concentric phases of folding, perhaps contemporaneous with the main granitic stock, placed the aforementioned horizon in a fortuitous position.

3. Subsequent mineralization, or preparation (silicifi--cation) then sulphide replacement, associated with the porphyry proceeded.

Sun Group

Surface outcrop of the Sun Group is largely limy chlorite schist and greenstone. It is unknown to what extent or thickness sericite schist, graphite schist, and green cherty phyllite infolds (axis 340° - 360°, approximately horizontal) beneath. Quartz-feldspar porphyry, possibly linking with the other Vangorda area occurrences, outcrops on the east side of the claim group on the hanging wall side of the infold mentioned. There is no particular evidence suggesting this porphyry occurs at depth.

A synform (trending approximately 60°, plunging 20° S.W.) occurring in Vangorda Creek near the south end of the claim group is possibly the same structure as controls the long axis of the Vangorda Mines deposit.

There is an intervening antiform, then another synform (trending approximately 100°, with a moderate westerly plunge) which coincides with a slight aeromagnetic anomaly.

Copper and Zinc geochemical stream silt sampling is slightly encouraging but inconclusive with five values averaging approximately 20 and 300 ppm. respectively.

Ground magnetometer surveying would be in order before considering any drilling.

Southeastern Dy Group

Small amounts of pyrrhotite and pyrite mineralization in a coarse foliated, very-fine-grained, shale to quartzite occur three hundred feet north of a high-mafic quartz diorite. A prominent low, narrow, ridge continues northwest for approx--imately a mile and marks the intrusive which likely has an attitude of around 130° / 80° N. Dragfolded siliceous chlorite schist containing some pyrite and graphite underlies the shale. Two hundred feet further north, high-mafic, medium-grain, greenstone-gabbro is devoid of any mineralization. It is likely a south-dipping fault separates the shale and chlorite schist (see Structure, Southeastern Area).

Information has since been recieved that chalcopyrite mineralization had been found in calcite stringers within shale in an area corresponding to a small ground magnetic anomaly.

Lack of wall-rock alteration, and of accepted suitable host rocks, leaves little encouragement for further development here in spite of the sparse mineralization.

Pea Group

Quartzose blebs intercalated with a very limy, leached light grey, sericite schist ~~hosts~~ contain minor chalcopyrite in a highly folded area near a greenstone contact.

Structurally, the environment is apparently near the crestal region of a concentrically warped isoclinal infold of sericite schist in greenstone and chlorite schist. Elsewhere (Southeastern Dy Group) this infold contains graphite and rusty phyllite. The evidence for this infold is poor.

Further exploration along this structure might possibly produce mineralization, but thicknesses may be narrow.

Ace Group

Minor mineralization occurs near the south border of the claim group in a creek bottom and outcrops over an area approximately 60 ft. by 30 ft. Pyrrhotite, lesser quantities of pyrite, and chalcopyrite, and very little sphalerite appear to replace quartz within crestal regions of highly attenuated isoclinal folds. Remobilized quartz and quartz-sericite-gossan alteration strongly mark this axial plane region (approximately 20 ft. thickness). Limy graphitic schist overlying generally light-coloured sericite schist is situated four thousand feet stratigraphically from the showing. No intrusives have been noted in the vicinity.

The aeromagnetic total field anomaly (see Appendix IV) reflects the geologic structure markedly ; the long axis of the anomaly probably represents a main isoclinal fold crest carrying ferromagnetic material, and the cross-axes represents modification by later fold phases. Rough calculations and type-curve comparisons with respect to the total field anomaly indicate depths to an anomalous body of around 550 ft. and dips ranging from 45° to 90° N. (assuming thin-sheet configurations). Calculated susceptabil--ities indicate a minimum value corresponding to gabbroic rocks, or those containing approximately 40% ~~sulphides~~ pyrrhotite (assuming the causitive formation is on surface).

It is possible the mineralization seen could directly connect with such a body, but projection of the showing on a foliation plane beneath the anomaly places the depth at about 1500 ft. below surface. A more likely configuration might appear as given in Appendix IV.

Projecting the lithologies mapped to date allows little likelihood of greenstone or gabbro at the depths or positions mentioned.

Summarizing: There is a large extensive anomaly aligning with known structure. The geology is favourable, including mineralization which could easily conform to the anomaly. The Ace Group offers an excellent possibility for finding large sulphide replacement bodies.

Southeastern Sea Group

" Narrow bands of skarn mineralized irregularly and sparsely with chalcopyrite, galena, and sphalerite are exposed in three small outcrop areas at a maximum of about 700 to 800 ft. apart along strike. One select sample of copper mineralization assayed 7.3% copper, 2.84 oz./ton silver and a trace of gold showing a favourable silver content. Minor pyrite occurs in the skarn but no magnetite or pyrrhotite were identified. Similar mineralization occurs about 400 ft. to the south in a small gossan outcrop."[1] A spectrographic analysis of the skarn showed nothing unusual: 2% Al., 8% Ca., 0.25% Cu., Fe matrix, 0.05% Pb., 7.0% Mg., 2.0% Mn., Si. matrix, 0.003% Ag., 0.03% Ti., 0.06% Zn., with omissions of unimportant constituents.

Other outcrops of this area are uniformly sericite schist with exception of three quartz diorite occurrences indicating bodies of unknown shape or extent. Quartz intrusions often containing schist fragments are common. Attitudes are fairly consistent with the main foliation (F 2) averaging 45/10 NW. A group of lineations and folds occasionally associated with jointing trend northeast.

Further discussion of the Sea Group geology is found in Development Work, Sea Claim Group, J.F. Fairley, April, 1965.

1. from July 6 Progress Report, A.E. Aho.

COST SUMMARY

Personnel	salary/day
J.S. Brock, 3050 Proctor Ave., W.Vancouver, B.C.	18.50
R.E. Chaplin, 1255 Bidwell St., Vancouver, B.C.	20.00
R.E.G. Davis, 4754 W. 6th Ave., Vancouver, B.C.	21.50
J.F. Fairley, 3704 McKechnie Ave., W. Vancouver.	18.50
Jacob Hundere, 1133 Harwood St., Vancouver, B.C.	16.00
Alan Kulan, 609 Black St., Whitehorse, Yukon.	18.50
Ken Willison, General Delivery, Watson Lake, Yukon.	16.00
A.E. Aho, 3069 Spencer Ave., W. Vancouver, B.C.	30.00

Support Expenses , including food, board, transportation.
average 9.00/day/man

Report

50 days at 18.50/day			925.00

Field Work

Ace Claim Group	9 days	- Fairley	247.50
	9	- Chaplin	261.00
Bea Claim Group	1	- Fairley	27.50
Beta Claim Group	4	- Fairley	110.00
Nasty Claim Group	3	- Fairley	82.50
	3	- Davis	91.50
Sea Claim Group	22	- Fairley	605.00
	22	- Davis	671.00
	22	- Kulan	605.00
	4	- Chaplin	116.00
	4	- Aho	156.00
N.W. Dy Claim Group, Sun Group, Vangorda Area	5	- Hundere	125.00
	5	- Willison	125.00
	24	- Chaplin	696.00
	31	- Fairley	852.50
S.E. Dy Claim Group, Lea Claim Group, Pea Claim Group, Dea Claim Group	5	- Brock	137.50
	5	- Chaplin	145.00
	15	- Fairley	412.50
		Total	5466.50
		+	925.00
		Total	6391.50

Application to claims

Sun Claim Group	1700.00
S.E. Dy Claim Group and Dea Claim Group	1200.00
N.W. Dy Claim Group	600.00
Bea Claim Group	200.00
Pea Claim Group	2691.50
Total	6391.50

Approved

TELEPHONE MUTUAL 2-6191

DYNASTY EXPLORATIONS LIMITED
(N. P. L.)
328 MARINE BUILDING
355 BURRARD STREET
VANCOUVER 1, B. C.

AFFIDAVIT

Supporting Statement of Expenditure, geologic report, 'Geology and Mineral Deposits of the Vangorda District, Central Yukon'.

I, Dr. Aaro E. Aho, of West Vancouver, British Columbia, make oath and say that to the best of my knowledge and belief, the Summary of Costs as presented in this report, is true and an accurate representation of assessment work to be applied to the following mineral claims situated in the Whitehorse Mining District:

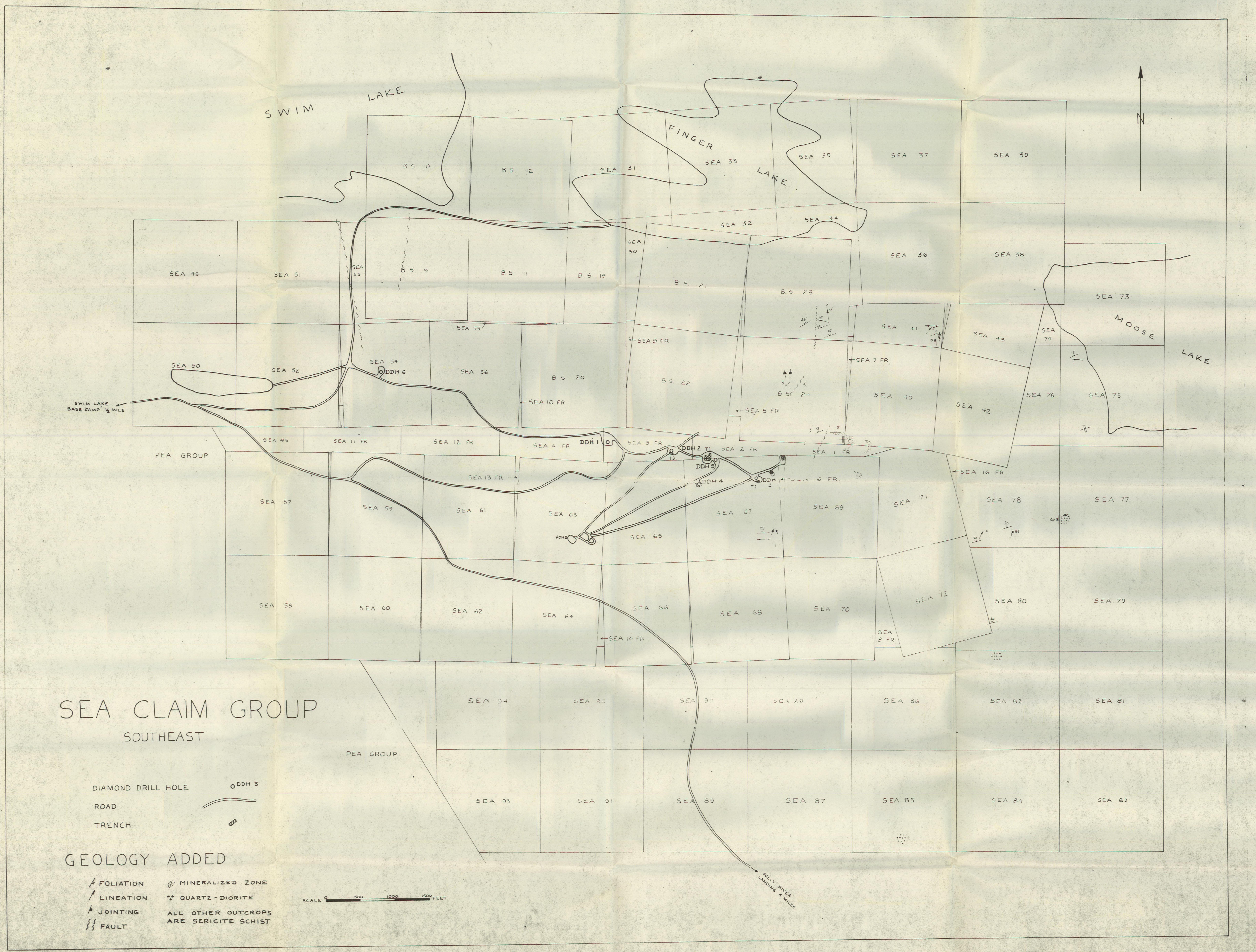
Sun Claim Group	$1700.00
SE Dy and Dea Claim Groups	1200.00
NW Dy Claim Group	600.00
Bea Claim Group	200.00
Pea Claim Group	2691.50
	6391.50

signed this day, May 14, 1965, at Cub Lake, Swim Lakes Area, Yukon Territory

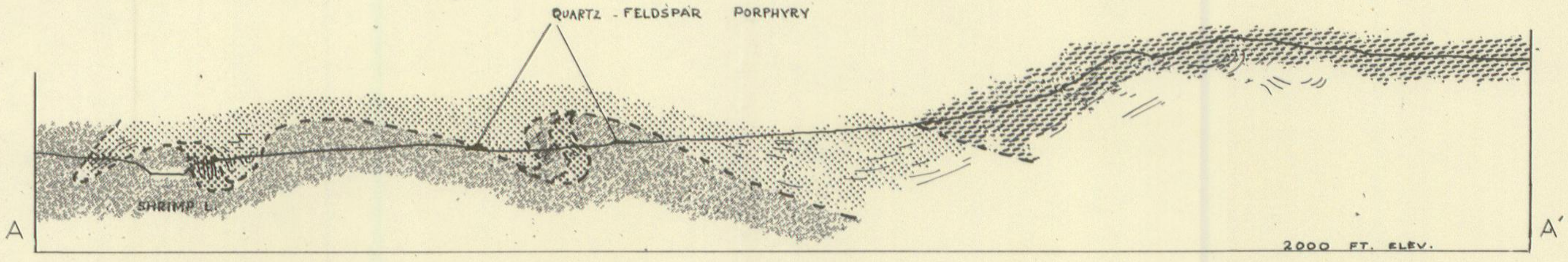
Dr. Aaro E. Aho P.Eng.

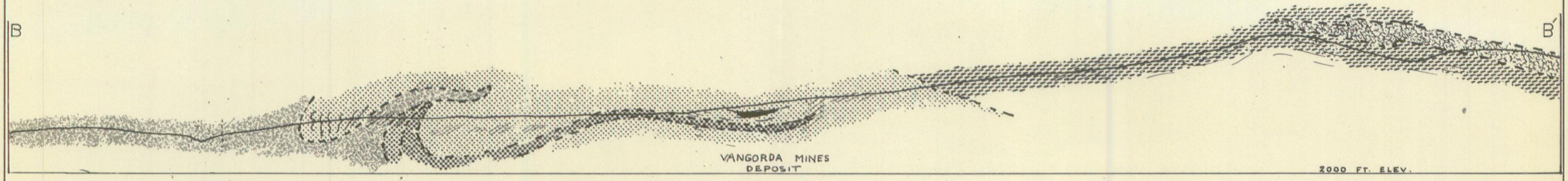
A commissioner for taking affidavits in and for the Yukon Territory

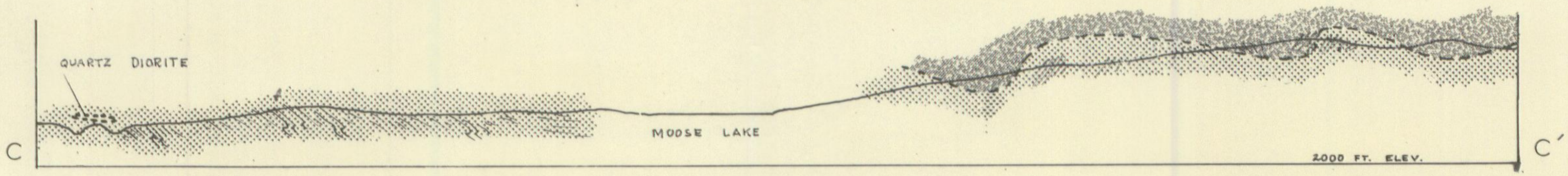
~~Witness (signed in presence~~ of commissioner for taking affidavits)


SEA CLAIM GROUP
SOUTHEAST
SWIM LAKE
FINGER LAKE
MOOSE LAKE
N
BS 10
BS 12
SEA 31
SEA 33
SEA 35
SEA 37
SEA 39
SEA 32
SEA 34
SEA 36
SEA 38
SEA 49
SEA 51
SEA 53
BS 9
BS 11
BS 19
SEA 30
BS 21
BS 23
SEA 73
SEA 55
SEA 9 FR
SEA 41
SEA 43
SEA 74
SEA 50
SEA 52
SEA 54
DDH 6
SEA 56
BS 20
BS 22
SEA 7 FR
BS 24
SEA 40
SEA 42
SEA 76
SEA 75
SWIM LAKE BASE CAMP ½ MILE
SEA 10 FR
SEA 5 FR
PEA GROUP
SEA 95
SEA 11 FR
SEA 12 FR
SEA 4 FR
DDH 1
SEA 3 FR
DDH 2
SEA 2 FR
SEA 1 FR
DDH 5
DDH 4
DDH
SEA 6 FR
SEA 16 FR
SEA 13 FR
SEA 57
SEA 59
SEA 61
SEA 63
SEA 67
SEA 69
SEA 71
SEA 78
SEA 77
POND
SEA 65
SEA 58
SEA 60
SEA 62
SEA 64
SEA 66
SEA 68
SEA 70
SEA 72
SEA 80
SEA 79
SEA 8 FR
SEA 14 FR
SEA 94
SEA 86
SEA 82
SEA 81
PEA GROUP
SEA 93
SEA 91
SEA 89
SEA 87
SEA 85
SEA 84
SEA 83
DIAMOND DRILL HOLE
DDH 3
ROAD
TRENCH
GEOLOGY ADDED
FOLIATION
LINEATION
JOINTING
FAULT
MINERALIZED ZONE
QUARTZ - DIORITE
ALL OTHER OUTCROPS ARE SERICITE SCHIST
SCALE 0 500 1000 1500 FEET
PELLY RIVER LANDING 4 MILES

ACE GP.
BETA GP.
CUB GP.
NASTY GP.
MT. MYE
6763
BLIND CREEK
BEA GP.
MOOSE LAKE
MOOSE CREEK
SWIM LAKE
SEA GP.
LEA GP.
PEA GP.
DY GP.
DEA GP.
Doal L.
Shrimp Lake
SUN GP.
VANGORDA CK.
PELLY RIVER
GEOLOGY; BLIND CK., YUKON
DYNASTY EXPLORATIONS LTD.
Granitic Rocks
Metasediments
Black, medium laminated Shale and Quartzite
Greenstone, Chlorite Schist
Light green, cherty Phyllite
Sericite Schist
Graphitic Schist
Limestone, Limey sediments.
Mineralization
Road
Camp
Diamond Drill Holes
Fault; defined, probable
Geologic contact
Probable geologic contact
Outcrop or Felsenmeer area
Bedding (incl., vert., horiz.)
Schistosity (" " ")
Lineation or Fold Axis
Dragfold (arrow on lower limb)
Anticline
SCALE
FEET
0 500 2000 4000 6000
2 inches = 1 mile
J.F. Fairley
Feb. /1965





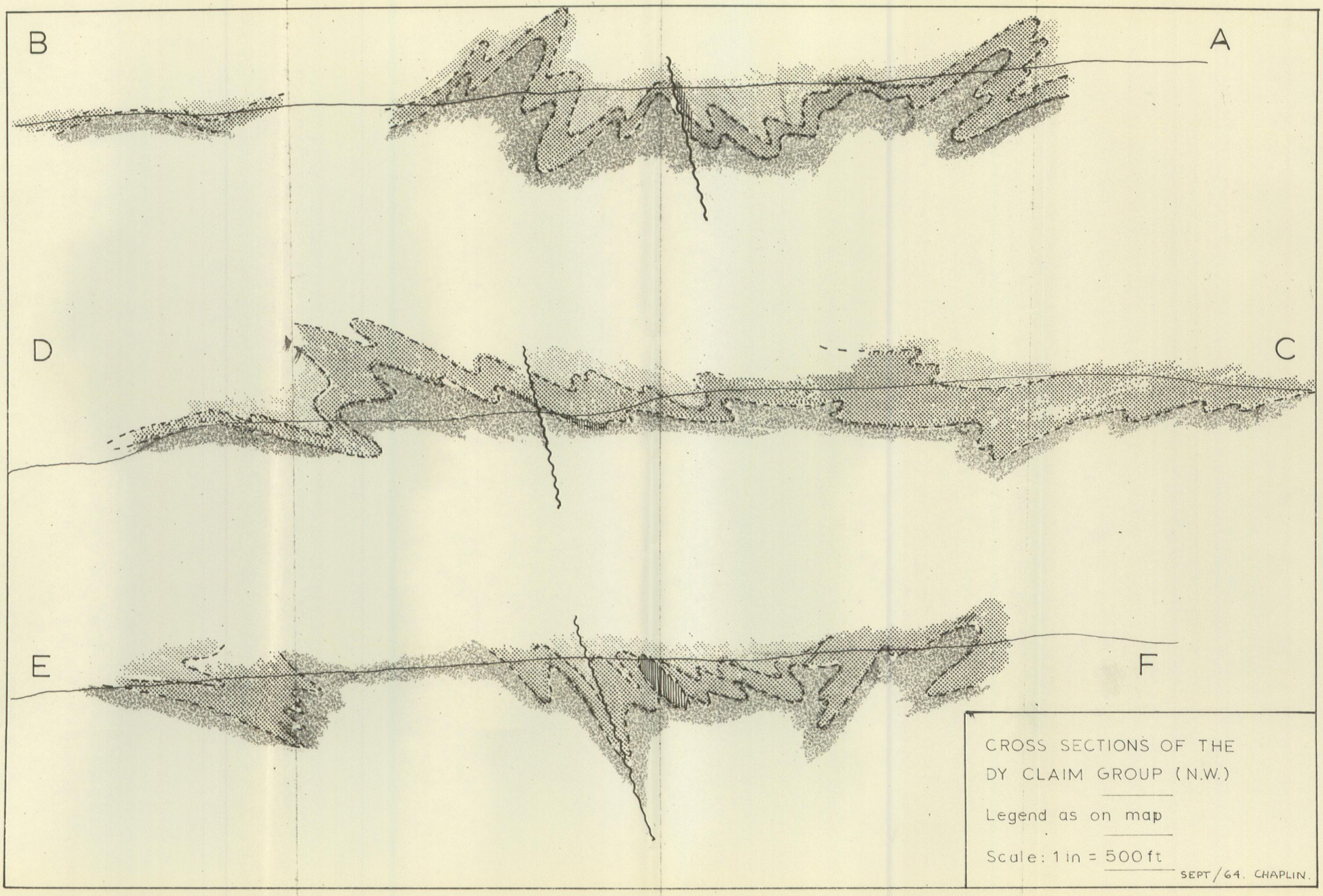


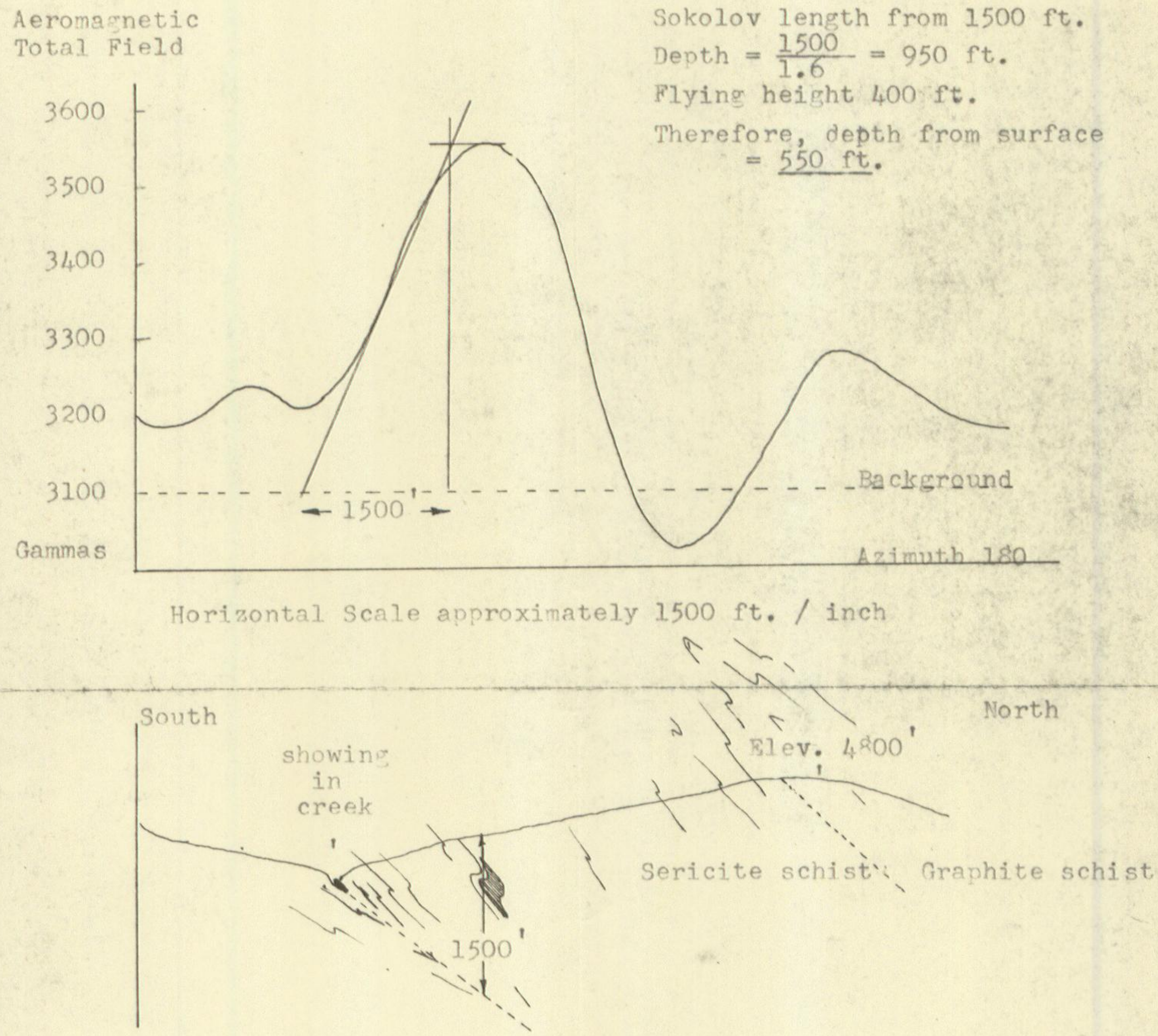
HIGHLY SIMPLIFIED CROSS-SECTIONS FROM THE BLIND CREEK SHEET.

Legend as on map but foliations shown by hatching

Scale: 2 in.= 1 mi.

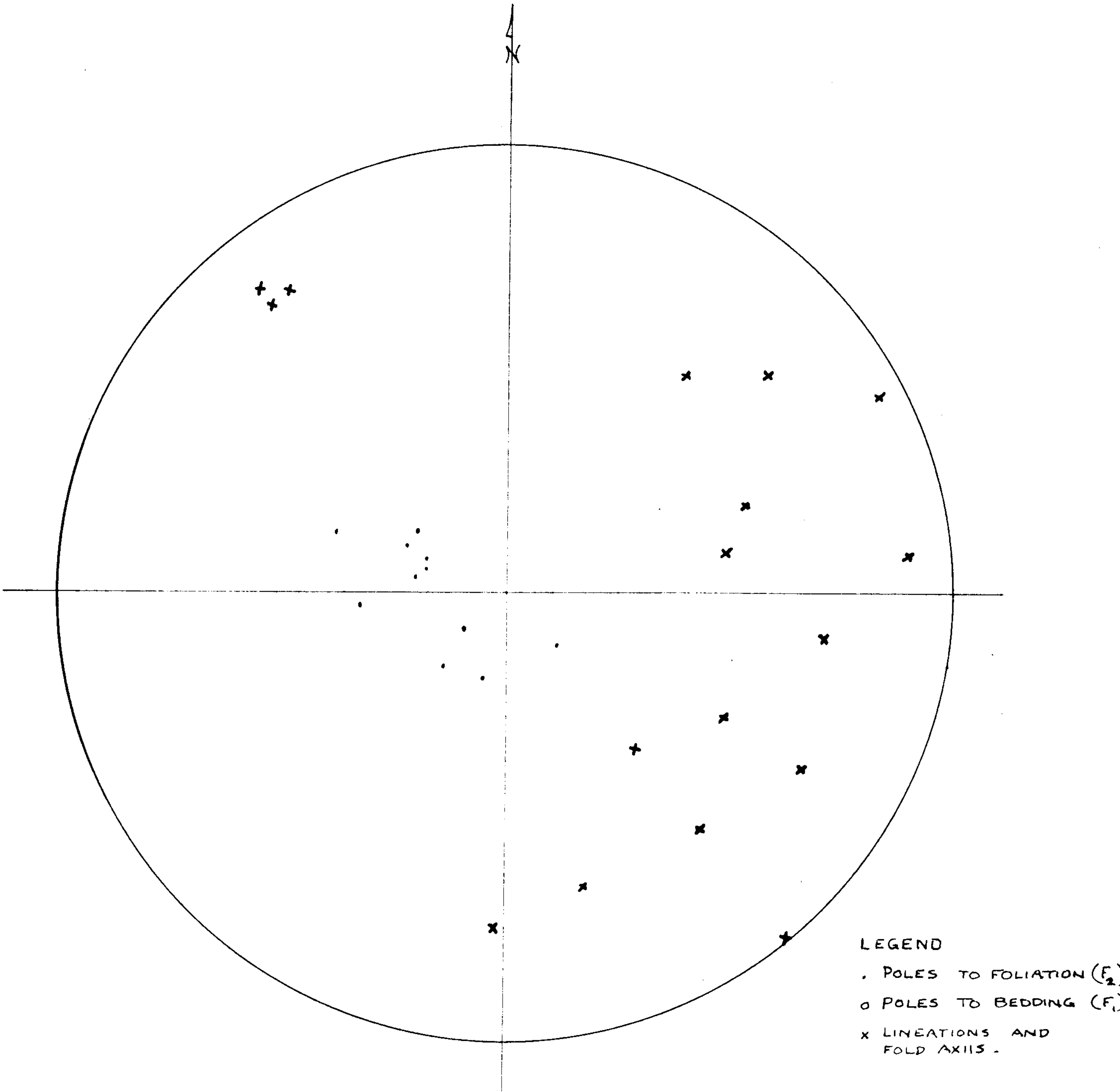
J.F. Fairley, Feb/65.


B
A
D
C
E
F
CROSS SECTIONS OF THE
DY CLAIM GROUP (N.W.)
Legend as on map
Scale: 1 in = 500 ft
SEPT/64. CHAPLIN.

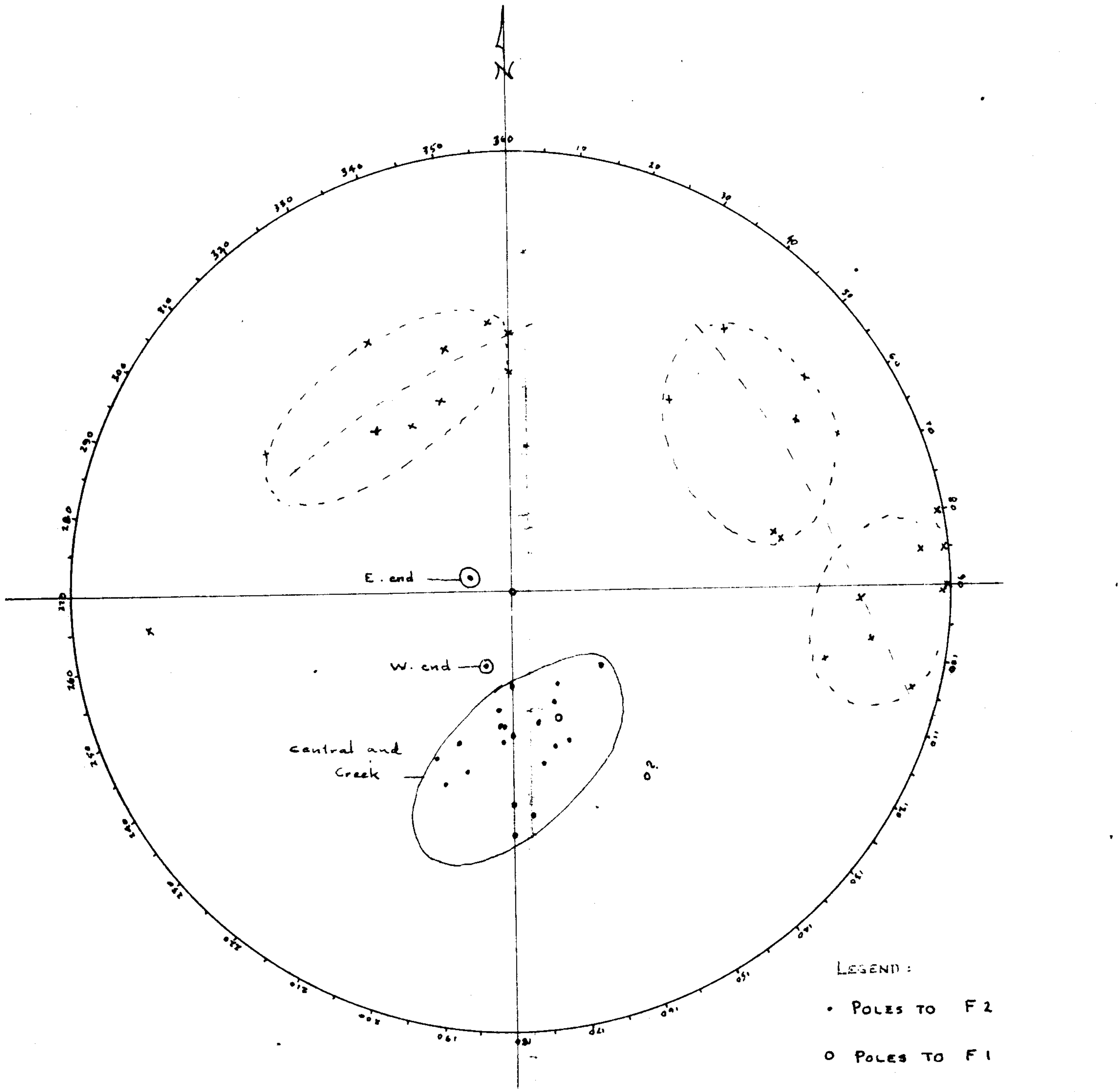


Interpretation and Rough Calculations , Ace Claim Group

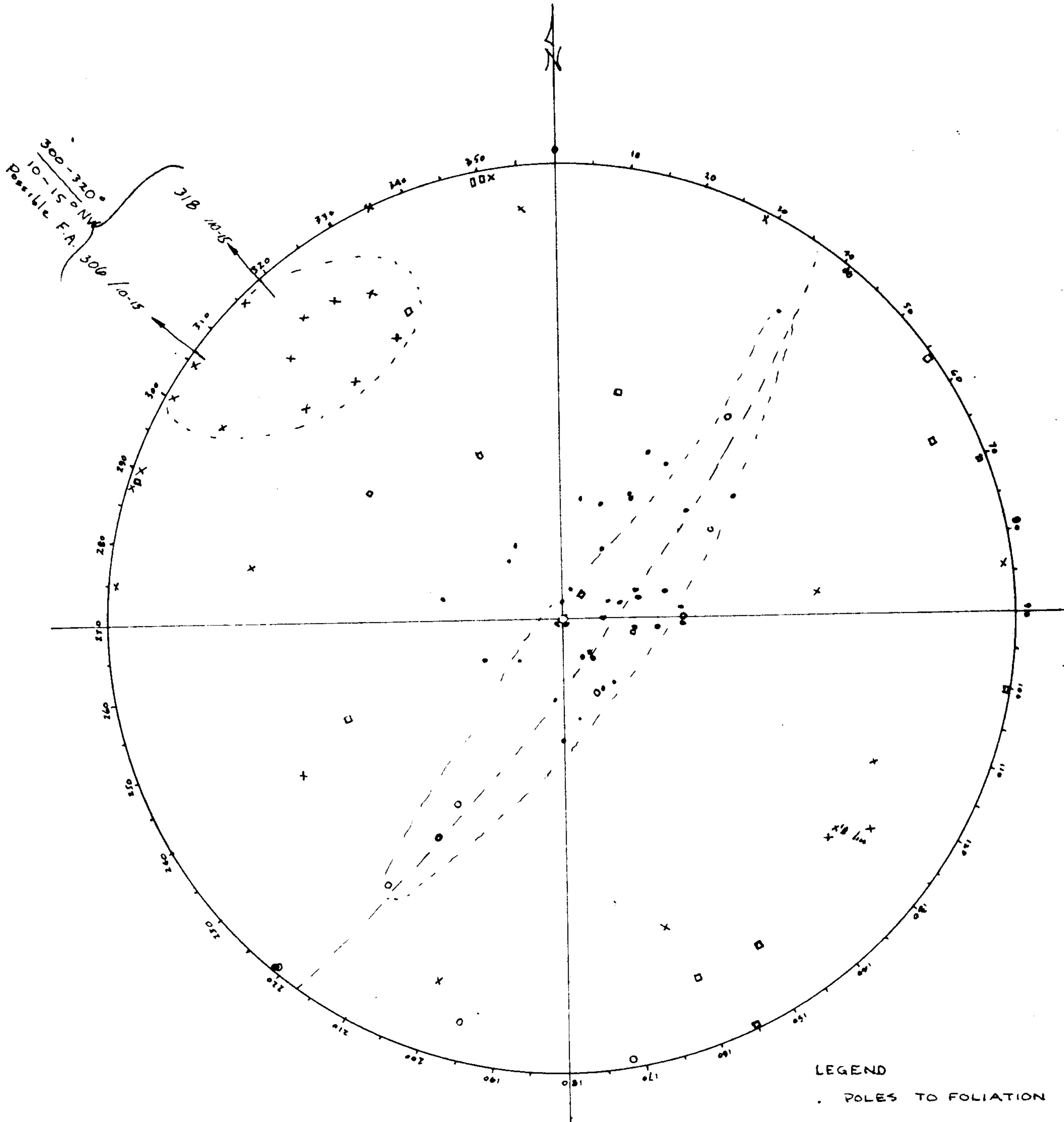
J.F. Fairley / 1965



STEREOGRAM OF A SMALL AREA N. OF THE VANGORDA SHOWING.

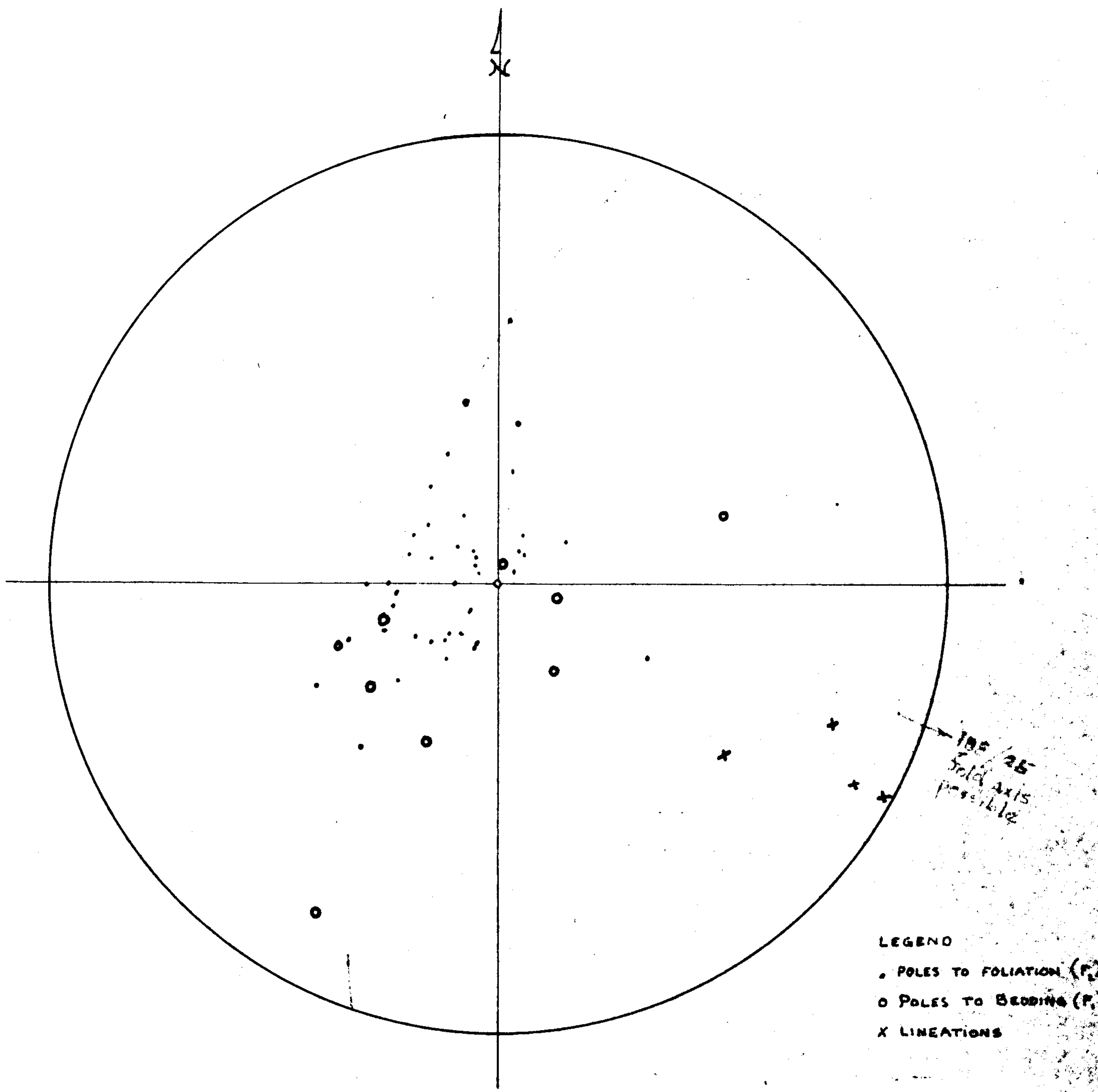


STEREOGRAM OF THE ACE GP.

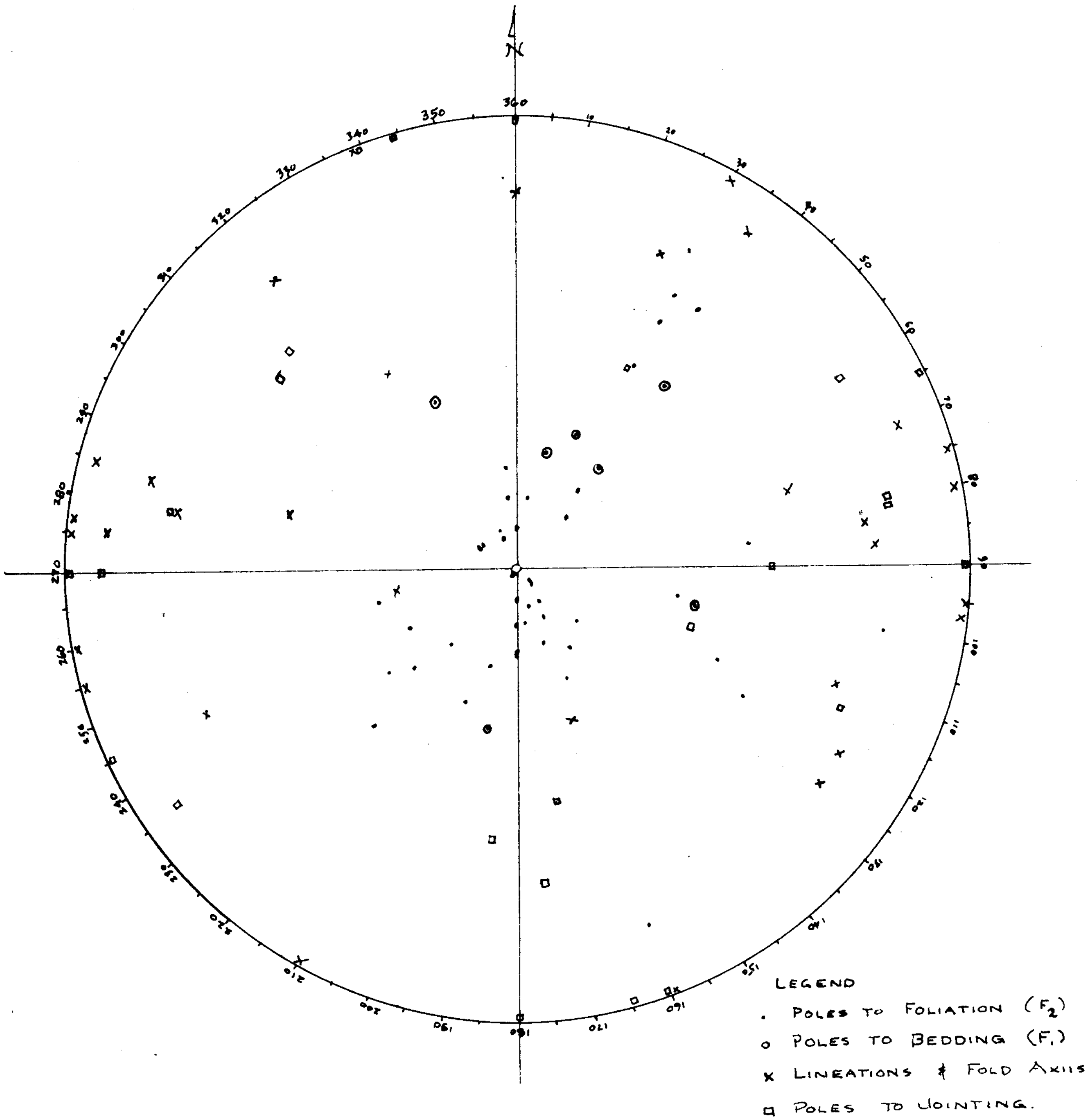


STEREOGRAM OF THE VANGORDA AREA.

LEGEND
. POLES TO FOLIATION (F_2)
o POLES TO BEDDING (F_1)
x LINEATIONS AND FOLD AXIIS
□ POLES TO JOINTING.



STEREOGRAM OF AREA AROUND THE N.W. "DY." MAGNETIC ANOMALY - SEE REPORT BY CHAPLIN



STEREOGRAM OF THE AREA BETWEEN MOOSE CK. AND BLIND CK.

SEA CLAIM GROUP SOUTHEAST

MAGNETOMETER SURVEY

GAMMA VALUES

ABSOLUTE BACKGROUND 50,000 GAMMAS

SURVEY BY: A. HARMAN
W. BARCLAY
S. CAMERON

JUNE, JULY, AUG. 1964

R.E.G. DAVIS, A. HARMAN
JAN. 1965

"ACE" AIRBORNE
MAGNETOMETER ANOMALY

A PORTION OF A MAP
DONE FOR DYNASTY
EXPLORATIONS LTD BY
HUNTING SURVEY CORP LTD.

GEOLOGIC STRUCTURE
IS REFLECTED BY THE
MAGNETIC TRENDS :
AXIS "A" PARALLELS THE
INITIAL, ISOCLINAL, FOLDS.
AXIIS "B", "C", "D", & "E" PARALLEL
LATER FOLD PHASES.

SCALE

0 500 2000 4000 FEET
(APPROXIMATE)

FAIRLEY /'65