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CANADIAN GOLD PROJECT - ELDORADO MOUNTAIN

Geological Mapping and Geochemical Survey

1976 Program

11 miles N.N.E. of Goldbridge

Lat. 51°01' Long. 122°53'

N.T.S. 92J and N.T.S. 920

(Lillooet Mining Division)

By

920/2W

M. Ng, B.Sc.

D. Arscott, P. Eng.

For

CHEVRON STANDARD LIMITED

MINERALS STAFF

Vancouver, B. C.

September 10, 1976

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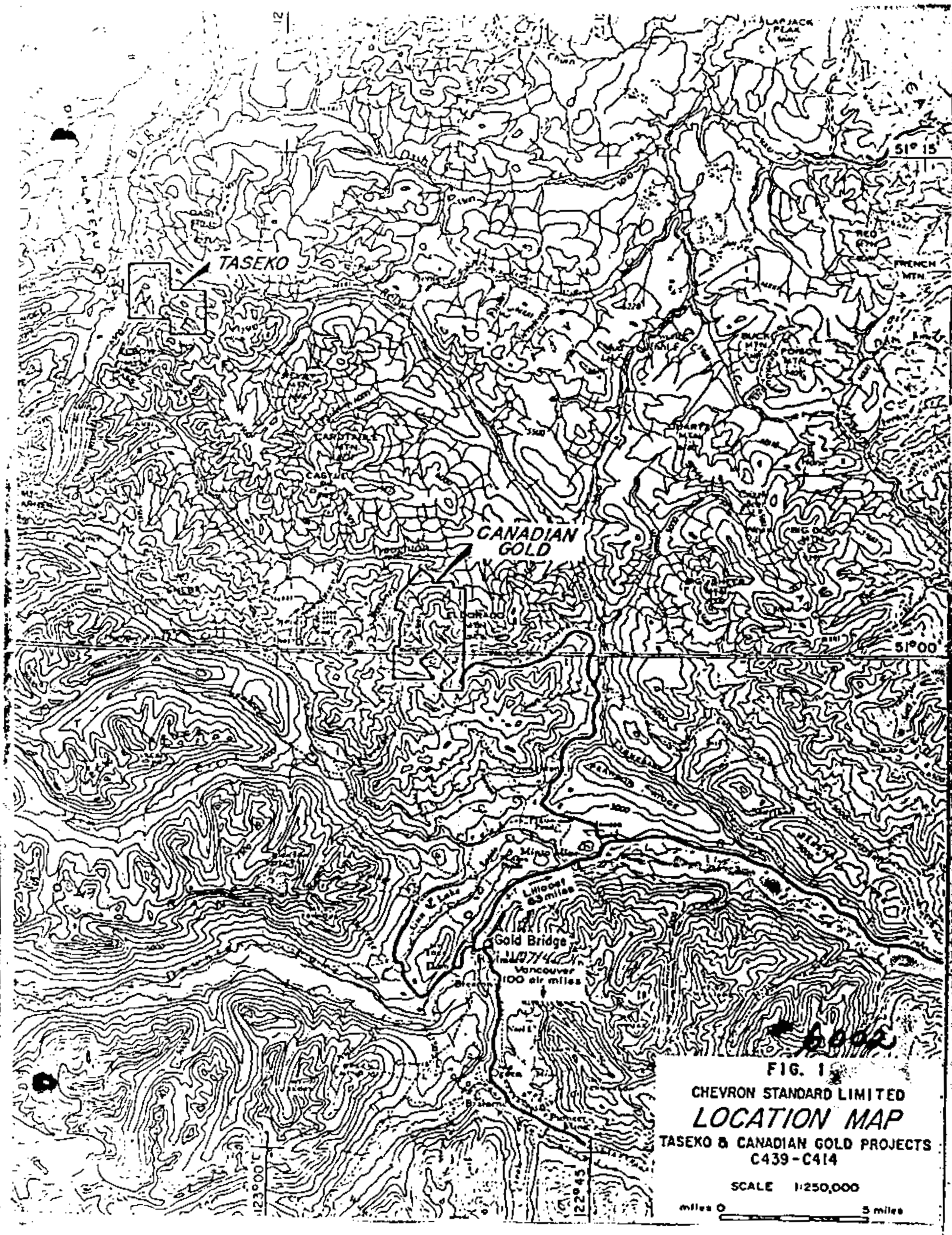

FIG. 1
CHEVRON STANDARD LIMITED
LOCATION MAP
TASEKO & CANADIAN GOLD PROJECTS
C439 - C414

Vancouver, B. C.
September 10, 1976

ASSESSMENT REPORT
NO. 6022 MAP

INTRODUCTION:

In view of the previous satisfactory geochemical results, more detail soil sampling (400 ft. x 100 ft.) was done on the anomalies at the Eldorado property; at the same time, some rock chips samples were collected and analysed. An attempt to delineate the boundary of the ultramafic dykes, by use of a magnetometer, proved to be unsuccessful. They appear to be depleted in magnetite.

Soil sampling (800 ft. x 200 ft. and 400 ft. x 200 ft.) and mapping (1 inch = 1000 ft.) was carried out to further assess the newly acquired ground bordering the old Eldorado claims. A total of 15 line miles (not including baseline) of soil sampling was conducted, producing 515 soil samples.

The entire program required a total of 106 man days in the field, between 29th June and 27th August, 1976.

LOCATION AND ACCESS:

The Eldorado property is located to the west of Eldorado Mountain proper. It is 11 miles N.N.E. of Goldbridge (the nearest townsite) and about 110 air miles almost due north of Vancouver (Fig.1).

Access to the property is either by helicopter or via a 4-wheel drive former mine-access road (Fig.1). The latter access is handicapped by late-melting snow, windfalls, truck-trapping mud, rock-slumping and washouts. Hence extreme care must be exercised.

The 8155 foot peak near Anomaly "A" can be reached by a strenuous 2 hour climb from the road.

CLAIMS AND OWNERSHIP:

The Eldorado Mountain property consists of the following claims and units in the following, shortly to be assigned, groupings. Troll 4 Fr. and Troll 5. Fr. are not part of the Gold Group as yet (see Fig. 2a). All are registered in the name of Chevron Canada Limited.

Claim Name	Record No.	Acreage	Date of Record
JG 5	54	28.19	Feb. 11, 1975
JG 6	55	51.64	"
JG 7	56	47.75	"
K 6	57	50.48	"
Troll 4 Fr.	130	?	Sept. 24, 1975
Troll 5 Fr.	131	?	"
2. LUCKY GROUP:			
Lucky Strike Fr.	21	11.18	Feb. 11, 1975
Lucky Strike	22	50.58	"
Homestake 4	23	35.63	"
3. BOB GROUP:			
Bob 3	58	51.65	"
Bob 4	59	51.65	"
Bob 5	60	48.37	"
Bob 6	61	51.65	"
4. GOLLUM GROUP:			
Gollum Claim	118	10 units	Aug. 22, 1975
Golden Ghosts	120	20 units	"
5. TROLL GROUP:			
Troll	123	8 units	Sept. 24, 1975
Troll #1 Fr.	127	?	"
Troll #2 Fr.	128	?	"
Troll #3 Fr.	129	?	"

Figure 2a shows the distribution of the 1975 and 1976 work on the property and includes all those claims on which work was actually performed. Except for minor geological reconnaissance and prospecting, this work was restricted to the superimposed grid.

GEOGRAPHY AND GEOMORPHOLOGY:

The claim area is mountainous with some peaks standing above 8,000 feet in elevation. The average slope is about 25° with talus at

The big northwest trending Yalakom Fault separates the area into two regions; the one to the northeast being relativey unaltered and non-faulted compared with the other to the southwest.

The highly faulted and deformed sediments between the Coast Complex

the higher regions and dense forest occupying gentler slopes extending down to the valleys. Relief across the property exceeds 2,000 feet.

The average annual rainfall is low creating a moderately arid environment and little or no water is available above the tree line, but snow accumulation can be considerable, creating a high run-off at lower reaches during the spring seasons. Cold fog and strong wind are common at higher altitudes. Almost permanent snow cover is found on some north-facing slopes.

There is virtually no soil development on the talus slopes and sometimes this creates a problem for soil sampling; better soil horizons are developed close to and below tree lines.

Most of the outcrops are restricted to the ridge tops and creek banks. At places these outcrops formed shear cliff faces which are quite inaccessible. Felsenmeer is widespread, however.

The strongly contrasting colouration in the area is due to the difference in rock types. The greyish is intrusive; the pinkish-brown is due to fracture-zone rocks; the greenish is ultramafic; and the dark brown is sedimentary.

The topography of this area appears to be structurally controlled with some modification by mountain glaciation. Many of the creeks seem to be following the linear structures.

HISTORY OF PREVIOUS WORK:

There are three sets of old workings within the property: the Lucky Strike, the Lucky Jem, and the Robson.

The Lucky Strike consists of two adits: an upper and a lower, dating back to 1937. Both adits are still accessible. They follow a quartz vein containing abundant mariposite, arsenopyrite and pyrite to where the vein is terminated at a fault. The maximum width of the vein is about seven feet wide and high gold values have been reported from it.

The Lucky Jem adits are caved-in but still accessible. The area was first staked in 1910 and two adits were later driven. Arsenopyrite and pyrite is present in vein material in dumps outside the adits. The width of vein is unknown but gold-content is high. The gold is believed to be associated with the arsenopyrite. No further development of these adits followed, probably as a result of the small quantity of vein material.

The Robson adits are caved in and inaccessible. Arsenopyrite, pyrite and sphalerite in quartz gangue are visible on the dumps outside the adits. It is reported that shipments of a few tons of high grade gold ore were made by horse in 1940.

On the ridge top within the claim block are a number of old hand-dug trenches. The trench debris shows evidence of narrow quartz-carbonate veins, some of which are mineralized with stibnite, arsenopyrite, pyrite, orpiment and realgar.

REGIONAL GEOLOGY:

The geology of the region is structurally complex. The rocks in this area are predominantly Triassic to Cretaceous sediments. An essential feature is the marginal Coast Crystalline Complex bordering the region on the southwest side. Related intrusives also outcrop at places within the sediments. It is believed that some of the faults and fractures in this area are induced by, or at least closely associated with, the intrusive activity.

The claim area is mountainous with some peaks standing above 8,000 feet in elevation. The average slope is about 25° with talus at

The big northwest trending Yalakom Fault separates the area into two regions; the one to the northeast being relativey unaltered and non-faulted compared with the other to the southwest.

The highly faulted and deformed sediments between the Coast Complex and the Yalakom Fault include argillites, conglomerates, greywackes, mudstones, shales, siltstones and minor limestone. These are interbedded with Tertiary andesitic to basaltic volcanics and in some areas are overlain by Tertiary olivine plateau basalts.

Metamorphic effects are not widespread away from the Coast Batholith. Some of the older (L. Jurassic?) intrusives show a distinct gneissosity, but otherwise only locally developed contact metamorphism is evident.

Alteration effects, expressed variably as silicification, chloritization, carbonate alteration, and/or pyritization, tend to occur in the vicinities of faults and of intermediate intrusive stocks, but silicification and pyritization is widespread in some sedimentary areas.

Linear, highly altered, ultramafic bodies occupy many of the larger fault zones.

To date, the main economic potential of the immediate region has resided in a large number of narrow but fairly rich gold bearing quartz-carbonate veins from which some small shipments of ore have been made in the past.

The veins occur mainly in the Bridge River Croup and Hurley Formations, south and west of Eldorado Mountain. Their distribution is, in a general sense, co-linear with a wide geochemically anomalous zone (Au, As, Hg), stretching northwesterly from Eldorado Mountain. The core of this zone is an alteration and faulting locus, associated with intermediate and ultramafic intrusion, and is partially covered by the property under discussion.

LOCAL GEOLOGY: (Refer to Figure 2b)

The mapped claims are underlain by a quartz diorite stock of U. Cretaceous or L. Tertiary age, which has intruded L. Triassic sediments best described as siltstones or mudstones (Hurley Formation). The intrusive-sediment contact is difficult to delineate exactly, but is usually represented by a zone of metasediment of indeterminate composition.

Faulting and accompanying hydrothermal alteration are widespread. Small quartz-carbonate veins, with sulphide and/or gold mineralization, are common.

Fracturing is of strong overall density and blocky in the relatively fresh looking diorite, except near ultramafics or extremely disturbed zones that it shows extensive shearing and fracturing. It is noted that the diorite can be differentiated into K-feldspar-rich and K-feldspar-lean types. The former is generally darker in colour and contains larger and more abundant grains of biotite. The sediments, at the same time, are very strongly fragmented, and carry widespread disseminated pyrite.

Several serpentinized peridotite outcrops can be found within the property. Some of these rocks are so altered that it can actually be classified as serpentinite.

The mineralization in this area is arsenopyrite, stibnite, sphalerite, chalcopyrite, pyrite, orpiment and realgar which mainly occur in quartz veins in fracture zone rocks and metasediments.

GEOCHEMISTRY:

Statistically derived thresholds were used in previous years to aid anomaly contouring. An attempt to select a new threshold to include this year's analyses was attended with considerable difficulty. The notorious

erraticness of gold-soil content (as evidenced by resampling at several old stations this year), and the complex mix of rock types, alteration types, structural effects, sampling elevations and slope orientations, are all possible factors contributing to differing population distributions. To all appearances the threshold for gold varies from 80 to 350 ppb, depending on the population chosen. We have therefore ignored the statistics, and contoured somewhat arbitrarily.

Contouring of the gold geochemistry resulted in elongated anomalous zones but this may well be due to the grid bias.

The arsenic anomalies shows much greater spread than the gold and have little obvious direct correlation with it. However, many gold highs do seem to be peripheral to high arsenic zones, and there was an overall correlation on a regional scale.

The individual anomalous zones are considered in order of significance, as follows:

Zone A and F

These two zones are so closely spaced that they can be grouped and considered as one. This zone is within well faulted and fractured diorite. Several of the highest gold values are co-linear with or near to a N.E. trending fault which has abundant related fracturing. The nearby high arsenic zone, together with moderately high gold values is generally peripheral to the ultramafic.

Rock geochemical analysis along the ridge shows correlation of high mercury and antimony but almost none for gold and arsenic. However arsenic and mercury highs are adjacent to the high gold, suggesting a halo effect. The anomalous mercury and antimony together both correlate with 2 gossans on the ridge.

Anomalous Zone B

In diorite, close to the sedimentary contact, the individual erratic gold highs are somewhat elongated in the N.W. direction. A couple of faults are present in the same vicinity.

Anomalous Zone C

In diorite, elongated in the N.W. direction, its position, amid heavy talus downhill from Anomaly A, is suspicious. Several faults are interpretted to lie nearby.

Anomalous Zone D

In sediment, co-linear with a possible fault. Very close to the Robson adit where gold mineralization is known to exist.

Anomalous Zone E

Mainly in sediments. May be partly contaminated by mineralized material from the old Lucky Jem vein.

Anomalous Zone G

In the vicinity of a fault zone. It is in ultramafic and quartz alteration zone rocks. Almost certainly a surface expression of the Lucky Strike vein.

SUMMARY & CONCLUSION:

1. The higher gold geochemical values are somewhat erratic but are definitely significant in terms of possible economic low-grade gold mineralization.
2. The extent of the ultramafic influence remains uncertain.
3. Faults and fracturing seem to play an important role in the gold distribution.
4. A NW trend is suspected for most vein mineralization.

5. The relationship between the gold and arsenic remains obscure except for a general tendency for local gold highs to be adjacent to arsenic zones of broader size.

6. Very little further surface work is required, and the present anomalies, in particular Anomaly "A", require sub-surface work to ascertain their exact significance.

RECOMMENDATIONS:

1. Minor additional geochemical fill-in sampling

Allow: $ 2,000.00

2. Trenching on the ridge at Anomaly "A", between stations 13N and 15 N

Allow: 4,000.00

3. Drilling, by Winkie drill with Ax accessories. Program might consist of the following:

Collar	Dip	Length
16N 3E	50° to SW	300'
8N 1W	60° to SW	250'
8N 1W	60° to NE	400'
One other anomaly		250'
TOTAL FOOTAGE		1200'

Allow: 27,000.00

TOTAL RECOMMENDED 1976 EXPENDITURE 33,000.00

M. Ng, B.Sc.

David Arscott

D. Arscott, P.Eng.

DESCRIPTION OF ROCK TYPES

Intermediate Intrusive

Mainly diorite to quartz diorite. Specimens usually contain 30 to 40% mafic minerals and 70 to 60% grey feldspar. Some specimens appear, from the weathered surface, to contain a high percentage of K-feldspar and could possibly be classified as granodiorite. It is not certain, however, whether the K-feldspar represents a phase change or just an alteration effect along the fractures. A pale greenish alteration mineral is also present in minor amounts with an apparently erratic distribution. No significant visible mineralization is observed in this rock type. Small criss-crossing quartz veinlets (< 1 mm) are not uncommon. The diorite is more weathered and fractured near its contact.

Sediment

(a) A greyish-coloured rock, probably mudstone (or siltstone), but not everywhere well-bedded. This rock type is extremely brittle, with enough iron-stained fracture surfaces to hinder close studies of fresh surfaces. Sometimes mineralized with disseminated pyrite.

(b) Chert pebble conglomerate - light greyish in fresh surfaces, covered with brownish iron stain on the weathered surface. The texture is fairly uniform, with pebbles up to 1 cm. in diameter. No mineralization was evident in the small exposures on the property.

Ultramafic

Serpentinized peridotite. This rock is pinkish-red on weathered surface and is often heavily serpentinized, especially along fractures. The fresh surface is greyish-green in colour. Some peridotite is so altered that it becomes a serpentinite. The peridotite is cut by quartz veins, some of which are mineralized with pyrite and arsenopyrite (?). Calcite veinlets are present, but rarer. Slickensides are common.

Dyke Rocks

Dark, fine-grained rocks, probably andesitic (or basaltic) in composition. Vesicular in texture with some vesicles filled by calcite and quartz. No significant mineralization is present.

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NORTH VANCOUVER, B.C.
TELEPHONE: 988-2172
AREA CODE: 604

Metasediment

Very much resembles the mudstone, except that this rock is silicified and has become lighter in colour - light greyish to whitish on fresh surfaces and iron stained on weathered surfaces. Criss-crossing quartz veinlets are common, sometimes filled with pyrite. Disseminated pyrite and arsenopyrite (?) can be found throughout. This rock is usually found in contact with the intrusives.

Fracture Zone Altered Rock

Pinkish brown on weathered surfaces and some specimens resemble the quartz diorite in texture. Probably a silicified hematitic diorite. The quartz-carbonate veins (both mineralized and non-mineralized) are mostly found in this rock type.

Veins

Quartz-carbonate veins with a most common trend in the NNW direction. Some are mineralized with stibnite, arsenopyrite, sphalerite, pyrite, orpiment, realgar and possibly chalcopyrite. Some of the mineralized veins are up to 5 inches in width and are found within both the sediment and intrusive.

?).

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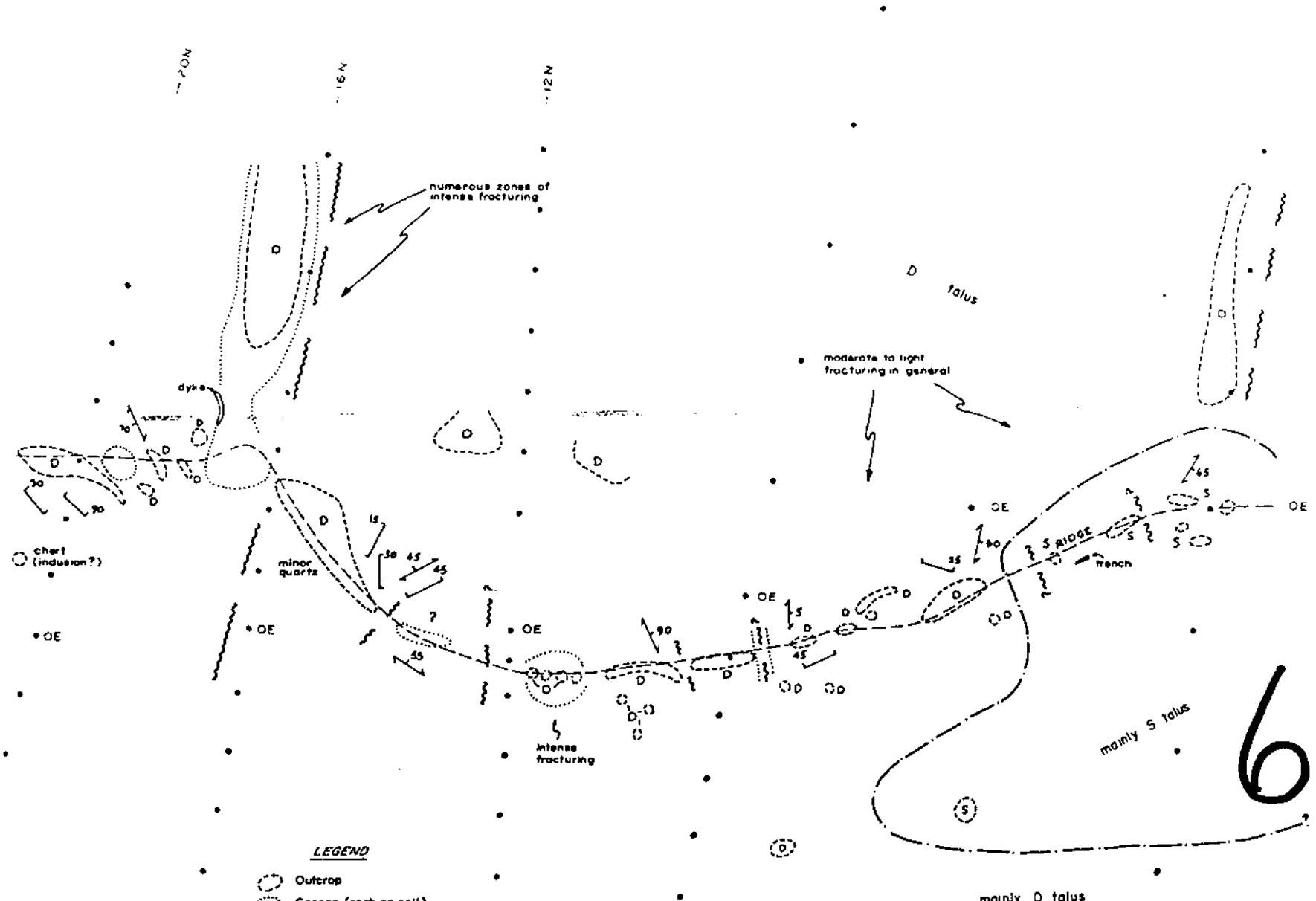

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FIG. 4a

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GEOLOGY

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ANOMALY 'A' AREA

SCALE IN FEET

200 0 200 400