

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,

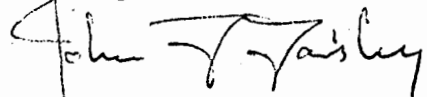
The accompanying report is submitted to apply as assessment work on Sea Claim Groupings as previously submitted, in compliance with Sections 52 (1 and 2) of the Yukon Quartz Mining Act. All claims are owned by Dynasty Explorations Limited in the Vangorda Creek area.

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

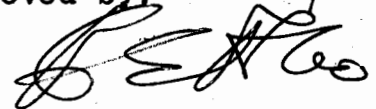
Yours truly,

DYNASTY EXPLORATIONS LIMITED

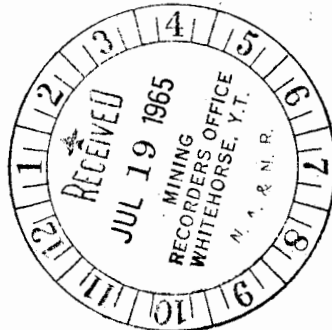
John F. Fairley,
Geologist.



Approved by:



A.E. Aho (Director of
Exploration)



JFF/mjm

ROTARY DRILLING

S.E. SEA CLAIM GROUP

BY: John F. Fairley

March, 1965

TABLE OF CONTENTS

Introduction	1
Summary and Conclusion	1
Drilling and Sampling Method	2
Rock Types	3
Mineralization	3
Structure	4
Assays	5

ROTARY DRILLING
S.E. SEA CLAIM GROUP
Introduction

Aeromagnetic survey results disclosed a large number of extensive anomalies in the Anvil Range district. Copious claims were staked, and this fact, coupled with encouraging diamond drill results on the S.E. Sea Claims, necessitated an inexpensive, rapid, and mobile method of drilling to ascertain with little delay if anomalous sulphide concentrations cause the magnetics. It was decided to further investigate the western extensions of the S.E. Sea gravity and ground magnetics anomaly.

The Mayhew 1,000 oil-well-type rig, mounted on a Nodwell (tracked vehicle), drills dry or wet according to conditions, and provided substantial decreases in footage costs and mobilization down time, with increased penetration rates, and only slightly less accrued information as compared to standard diamond drilling techniques.

Six rotary holes (totalling 3715 feet, were placed as follows:
(see Appendix for locations)

- No. 1. 20W- 3S magnetic low, gravity high, for correlation to diamond drilling results and assays.
- No. 2. 62W- 8N gravity high, magnetic high, W. end.
- No. 3. 72W-11N magnetic high, W. end.
- No. 4. 68W-15N flank of magnetic high, W. end.
- No. 5. 76W-15N flank of magnetic high, W. end.
- No. 6. 56W-11N magnetic high on cross-structure, W. end.

Summary and Conclusion

1. SRH 1 outlined three mineralized quartzose sericite zones of uneconomic grade, as in DDH 3.

2. Enough ferromagnetic material is present to account for respective magnetic anomalies, and density contrasts caused by the sulphides provided an explanation for the gravity anomaly. (see geophysical reports of the S.E. Sea Claim Group)

3. The sulphide mineralization (mostly pyrrhotite, pyrite) continues unbounded laterally or depthwise as yet, but no economic grades of zinc, lead, or silver have been encountered.

4. In the saturation program being considered further rotary drilling is warranted. No evidence of mineral zoning has been noted, but the presence of galena in the lower grade dark schists to the west suggest possibilities of sulphide replacement exist beyond the borders of the anomaly.

Drilling and Sampling Method

The following is a brief description, further discussion will be found in Rotary Drilling, General, a report to follow.

The present phase of exploration is centered about the rotary drilling thus all camp activities and mobilization are co-ordinated accordingly. Four trailers, consisting of a utility shed, cook house, bunk house, and office are moved to a central location and commuting to drill-sites is by Bombardier.

Operations are continuous with four drillers and a foreman working two twelve hour shifts. Two samplers, employed by Dynasty, collect samples, and pan these for heavy metal content at the drill site.

The Mayhew 1,000 drill has a standard kelly drive with power take off from the Nodwell engine. Depth limitation is approximately 1,000 feet. One compressor (580 c.f.m. @ 50 p.s.i.) plus a water pump and reservoir is mounted on a separate Nodwell. An auxiliary compressor, a Gardner-Denver (365 c.f.m. @ 100 p.s.i.) and used to drive the down-the-hole hammer is self-contained. Various bit types have been tried, but to date, the 4½ inch tricone has been most used. A 6 1/8 inch tricone is used in overburden, in theory allowing casing to be placed to bedrock. Penetration and bitlife is improved by attaching a down-the-hole hammer in dry drilling conditions. Overall penetration rate including bit-change time is approximately 6 ft/hr. Actual penetration may be up to 1 ft./min. in soft rock.

Samples are taken over 5 foot intervals, giving an average dry sample weight of 120 lb. Of this, a representative 15 lb. is retained. A portion of the cuttings and pannings are kept on tack boards for microscopic examination and a continuous record. Caving of the overburden may occasionally dilute samples as much as 40% but generally stays within acceptable limits of 0 to 5 %.

The boxed samples are stacked at the various base camps.

Rock Types

Light grey, sericite schist (phyllitic schist) forms the majority of rock type encountered, with lesser quantities of chloritic sericite schist. Quartzose sericite schist forms a band approximately 100 feet thick which coincides with the bedrock surface over the western end of the anomaly and carries mineralization. These rock types are fully described in the report on 1964 diamond drilling.

The only unique rock type encountered is a black chlorite-sericite schist which is fine-grained, homogeneous, soft, and highly fissile, producing angular and shard-like cuttings. Foliation surfaces have a high sheen. Metamorphic grade is very low and it should properly be called a phyllite. Varying quantities of this schist was encountered in rotary holes 3,4, and 6 with some associated mineralization.

Clean white quartz, probably the quartz "intrusions" seen in diamond drill core, may comprise up to 40% of a five foot sample but some of it is undoubtedly from surface salting (glacial detritus).

Little carbonate has been noted in any of the cuttings.

Mineralization

Mineralization associated with the magnetic anomalies is much the same as discussed in the 1964 diamond drilling report, that is, pyrrhotite and pyrite plus minor quantities of chalcopyrite, sphalerite, and galena.

The most common host rock is quartzose sericitic schist. Apparently the secondary quartz is replaced by the sulphides.

One exception to this pattern is with the previously mentioned black schist. Higher relative concentrations of galena vs other sulphides is present in extremely fine-grained disseminated form. Though total galena content is 1% or under it comprises up to 50% of the total sulphide content, pyrrhotite being the chief gangue. These percentages are based on the pannings, since it is nearly impossible to see any mineralization in washed cuttings of the host rock.

Less total sulphides were noted from these holes than from those directly on the main anomaly to the east (ie. in the diamond drill holes). Only in holes 3 and 5 was any percentage greater than 5%.

No magnetite was noted in magnetic separations but the extremely fine-grained character noted in thin-sections from diamond drill core would make recognition difficult.

Pyrite appears in a variety of forms, from splendant yellow to dull ochre, from medium to very-fine-grained. This would seem to indicate a variety of conditions existed throughout the period of metasomatism, with no inferences as to particular temperature or pressure conditions.

Black, resinous, extremely fine-grained particles in the cuttings can be taken for sphalerite but the hardness is more chert-like.

Arsenopyrite crystals were identified very occasionally.

Structure

All the cuttings are thin-foliated schist; increasing quartz content causes the cuttings to become finer and equidimensional. Little else may be said of minor structures.

The sketchy evidence of five drill holes indicates the western end of the S.E. Sea anomaly is underlain by a band of quartzose sericite schist approximately 100 feet thick which corresponds to bedrock surface. An even looser interpretation suggests there is a band of the black schist of variable thickness and at varying depths. Possible cross-sections are given in the Appendix.

Assays

Following is a list of assays done largely to check visual results. A misunderstanding led to samples from SRH 3a, 4, 5, and 6 being analyzed spectrographically, and thus are only semi-quantitative.

SRH NO.	Footage	Pb.%	Zn.%	Cu.%	Au. oz./T	Ag. oz./T	Notes from visual observation. (%S=% Total sulphides)
1	55-60	.10	.62	.03			0 - 2%S
	60-65	.20	.50	.03			0 - 2 %S
	145-150	tr	.03	.08			30%S
	150-155	tr	.03	.07			10%S
	155-160	tr	tr	.07			2 - 5%S
	160-165	tr	.13	.08			2 - 5%S
	165-170	tr	.13	.11			2 - 5%S
	170-175	tr	tr	.07			50%S
	175-180	tr	.50	.15	.01	tr	2 - 5%S
	180-185	tr	.13	.04			2 - 5%S
	255-260	tr	tr	.03			2 - 5%S
3	150-165	tr	tr	.12	tr	tr	+30%S
3a	150-175	.01	.01	.3	tr%	tr%	+30%S
	175-200	.013	.01	.3	tr%	.001%	avg. 10%S
4	180-185	.025	.01	.03	tr%	tr%	1%S - Galena
	195-200	.02	.01	.01	tr%	.00003%	2%S - 1% galena

	305-310	.06	.05	.03	tr%	.0004%	2%S - 1% galena
5	380-385	.025	.01	.05	tr%	tr%	10%S, minor sphalerite, galena
	390-395	.05	.15	.10	tr%	.0005%	10%S, minor sphalerite, galena
6	160-165	tr	.01	.008	tr%	tr%	2 - 5%S, minor galena
	255-260	.02	.01	.01	tr%	tr%	2 - 5%S, minor galena

Caving of the overburden may have diluted these values up to 10% , but reasonable estimates of this factor can be made when necessary.

The dry sampling method probably assures a 95% recovery of cuttings (except when the hole becomes damp); and a Jones splitter gives the best representative sample possible.

Wet sampling methods involving a settling trough and good judgement in sample selection incur considerably greater errors. Since the sulphides tend to grind finer than the quartzose schist, and much of the "fines" are washed over the end of the trough (depends largely on the concentration of bentonite drilling mud), an average of about 10% of all sulphides are probably lost. This is largely balanced by selecting more "fines" in the sample. Unfortunately, ninety percent of the drilling must be done with water, and although the standard error may be as much as 10%, it is still within reasonable limits for a strictly reconnaissance drilling survey.

It will be noted that in SRH4 the visually estimated low percentage of galena is overestimate. Thus, it is reasonably impossible for anything of economic interest to be overlooked.

SUMMARY OF COSTS

(Shortened Form)

<u>Hole No.</u> <u>1.</u>	<u>2.</u>	<u>3.</u>	<u>3a.</u>
<u>Date</u> Mar.6-14	Mar.14-23	Mar.23-24	Mar.24-28
Footage 690	850	165	635
Hours <u>105.5</u>	<u>145</u>	<u>25.5</u>	<u>91</u>
Contract 2110.00	3200.00	586.00	2094.00
Bit Cost 400.00	535.00	263.00	1039.00
Fuel 100.10	162.75	82.00	228.75
Misc.Equip.	16.10		18.00
Dynasty Per.312.00	410.90	92.00	263.00
Camp Cost <u>394.00</u>	<u>367.00</u>	<u>65.00</u>	<u>212.50</u>
Total 3316.10	4391.75	1088.00	3854.25

Hole No.	<u>4.</u>	<u>5.</u>	<u>6.</u>
Footage	560	540	430
Hours	<u>89.5</u>	<u>98</u>	<u>58</u>
Contract	2058.50	2254.00	1334.00
Bit Cost	839.00	530.00	360.00
Fuel	247.00	110.80	63.80
Misc. Equip.	21.00	11.60	2.60
Dynasty Pers.	233.30	198.00	116.25
Camp Costs	<u>185.20</u>	<u>195.50</u>	<u>116.00</u>
Total	3584.00	3299.90	1992.65

Total - All Holes

21526.65

Plus:

Supervision (35/day for 33 days) 1160.00

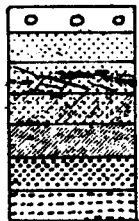
Transportation (20/day for 33 day) 660.00

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ROTARY DRILLING RESULTS

LEGEND

Rock Types:



Overburden
 Sericite Schist
 Quartzose Sericite Schist
 Chloritic Sericite Schist
 Greenstone, Chlorite Schist
 Graphitic Schist
 Limy Sediments

Notations Used:

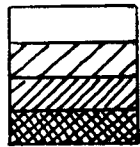
π	π	Pyrite
Pyr	pyr	Pyrrhotite
Cp	cp	Chalcopyrite
Sp	sp	Sphalerite
Ga	ga	Galena
M	m	Magnetite

Less) Relative
 Greater) Concentra-
 tions

qtz. Free Quartz

Estimated Sulphide Content:

(left side of hole logs)



0%
 2%
 5%
 30%
 Massive

SRH 1

SRH 2

SRH 3a

6 of each

50
100
150
200
250
300
350
400
450
500
550
600
650
700
750
800



Assay

Pyr > Tr

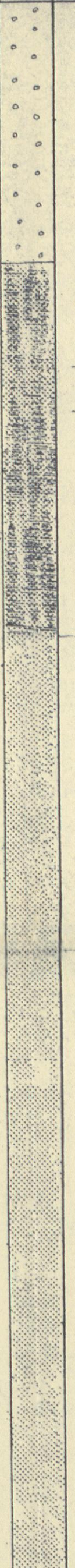
Assay Tr. Ga.

Assay

light sericite

calcite
siderite

end.



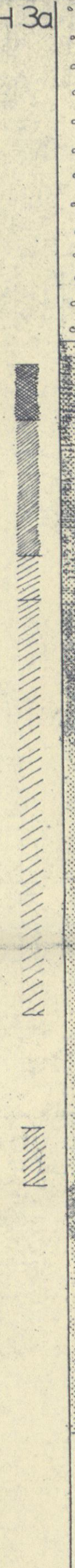
Tr > Pyr
calcite
qz sp

minor traces
Ga

Tr = Pyr
Tr. Sp

trace
arsenopyrite

to 860, no
change.



Assay
Tr < Pyr.
(dark Tr)
Assay

free quartz

dark
sericite,
brittle
fracture,
traces
ga.

end

SRH 4

SRH 5

SRH 6

50

100

150

200

250

300

350

400

450

500

550

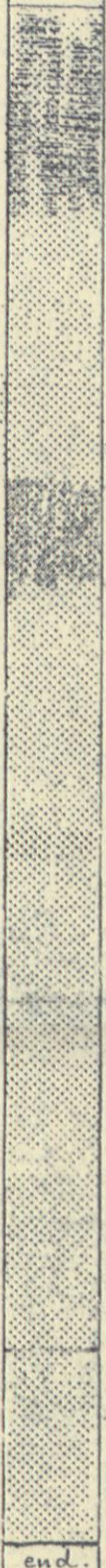
600

650

700

750

800



All dark
sericite
schist ;
brittle
fracture

Assay
Assay

0-2% S.
Ga.,
Pyr

1% Ga
Assay

<1% Ga.

quartz to end

quartz



Pyr > π

minor ga, sp.

+ quartz

Assay

Assay

+ quartz



Pyr > π
generally

chlorite
quartz } Assay
minor
Ga.

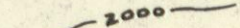
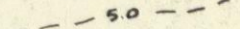






Tr. Ga.

Free quartz
occurrences

(π > Pyr) Assay

Tr. Ga.

SEA GROUP S.E.

- MAGNETIC CONTOUR 
- GRAVITY CONTOUR 
- MINERAL OCCURRENCE 
- ZINC ANOMALY >200 ppm 
- COPPER ANOMALY >40 ppm 
- DIAMOND DRILL HOLE 
- ROTARY DRILL HOLE 
- ACCESS ROAD 



SCALE 0 500 1000 1500 2000 FEET