

EXPLORATION REPORT - 1973
ON
CONSOLIDATED REXSPAR PROPERTY
BIRCH ISLAND, B. C.

John C. Lund 823827 October 17, 1973

KERR ADDISON MINES LIMITED

(FOR INTER-OFFICE USE ONLY)

NOV 30 1973

of
BC 4/1

To G. M. Hogg From W. M. Sirola
Subject CONSOLIDATED REXSPAR PROPERTY
EXPLORATION REPORT 1973 (BC-4) Date November 28, 1973

Herewith John Lund's summary of the work we did on the Rexspar property last summer.

The report was actually begun in September but was held up when we re-reviewed the whole picture in October. This review did not change anything except that it indicated that additional fluorite zones might occur at depth near the argillite contact. This possibility can best be seen by looking at Figure 5 in the report. Figure 5 consists of one longitudinal section looking northwest and one cross section looking northeast.

The six holes we drilled last summer did not add to the calculated reserves on the property and there does not appear to be much hope for any additional near surface reserves.

We examined rather critically the area northeast of Clay Creek where there were some fluorine and molybdenum anomalies in the soils and while admitting that these remain to some extent untested, the nature of the mineralization encountered in the Denison drilling in the vicinity of the geochem anomalies was of the pyrite-mica type containing only minor amounts of fluorine.

Chip samples taken from underground and grab samples taken from the dumps did not show any significant values in gold or silver. These results check quite well with the Denison records. The presence of rare earths was confirmed by spectrographic analysis with cerium oxide (Ce_2O_3) and lanthanum oxide (La_2O_3) being the most abundant. There did not appear to be any point in having these checked by actual chemical analysis which would be quite expensive and would be of no great value at this time.

All of the Denison material was returned to the Kerr Addison offices in Toronto by railway express.

✓ W.M.S.
P.M.K.
G.M.H. ✓
R.D.S.
B.C.B.
I.D.B.
✓ M.D.R. ✓
J.H.F.
E.C.J.

WMS/rb
Enclosure

*Report forwarded to Con Rexspar.
Another copy requested from
Vancouver office.*

Bill
W. M. Sirola
W.M.S. Jan 3/74.

KERR ADDISON MINES LIMITED

VANCOUVER, B. C.

EXPLORATION REPORT - 1973

ON

CONSOLIDATED REXSPAR PROPERTY

BIRCH ISLAND, B. C.

BY

JOHN C. LUND, P. ENG.

OCTOBER 17, 1973

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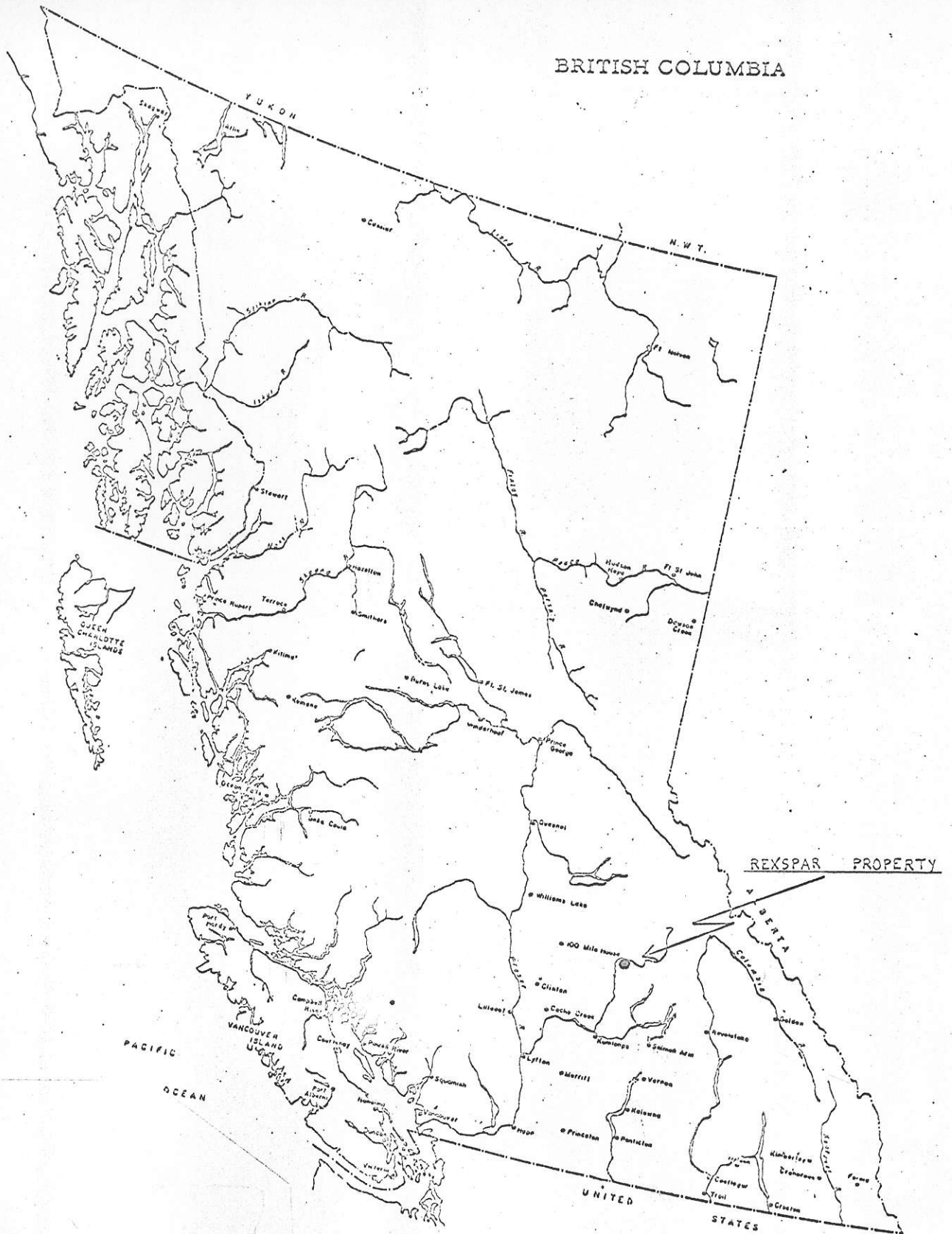


FIG. 1
LOCATION MAP

KERR ADDISON MINES LIMITED
 REXSPAR PROPERTY
 BIRCH ISLAND, B. C.

REXSPAR PROPERTY - BIRCH ISLAND, B. C.

FINAL REPORT ON DIAMOND DRILL PROGRAM

SEPTEMBER 20, 1973

INTRODUCTION

Six diamond drill holes were completed on the Rexspar property near Birch Island, B. C. in search of additional CaF_2 bearing zones. Three holes were designed to test high resistivity anomalies in quartz-sericite schist, two to test unexplored MoS_2 soil anomalies and the sixth hole was to test the F zone west of Foghorn Creek. Drill hole locations as designed by Toronto were modified slightly to take advantage of existing roads. Drill hole site 73-5 was relocated from L9+00N; 39+00E to L27+50S; 22+50W to test an MoS_2 soil anomaly. In addition to eliminating the need to build 1200 feet of road, the new site provided a possibility for U_3O_8 as well as CaF_2 . Drill hole 73-6 originally designed to drill easterly under the F zone at -45° was changed and drilled at -70° bearing 230° . Outcrop examination indicated that this bearing and inclination would intersect known faults, major fractures and schistosity at an angle that would aid in achieving a more reasonable core recovery. The steep topography also made it impractical to drill at a shallow angle in an easterly direction.

Drilling was done by D. W. Coates Enterprises of Vancouver using a Longyear Model 36 wireline machine drilling BQW size core. In holes 5 and 6 NQW was used initially because of the highly fractured nature of the rock reducing to BQW after the more fractured zones were passed. Besides improving the core recovery the use of NQ initially ensured that the projected depth could be reached.

Work started on August 26, 1973 on a two-shift twenty-four hour basis and the 2000 foot program was completed on September 15, 1973.

DISCUSSION OF RESULTS

Drill Hole Data

<u>Hole No.</u>	<u>Approx. Elev.</u>	<u>Location</u>	<u>Inclination</u>	<u>Bearing</u>	<u>Depth</u>
73-1	2920	L42N+8W	-90 ^o	-	250'
73-2	3220	L24+50N; 4+00E	-90 ^o	-	258'
73-3	3270	L23+00N; 13+00W	-90 ^o	-	300'
73-4	3550	L8+40N; 8+60E	-90 ^o	-	358'
73-5	3850	L27+50S; 22+50W	-70 ^o	234 ^o	328'
73-6	3925	L21+30S; 26+50W	-70 ^o	230 ^o	<u>526'</u> <u>2020'</u>

TABLE 1

Assay Data from Drill Core

<u>DDH No.</u>	<u>Sample No.</u>	<u>Interval</u>	<u>Sample Length</u>	<u>CaF₂%</u>	<u>MoS₂%</u>	<u>U₃O₈%</u>	<u>Cu %</u>
73-4	737	98-106	8'	2.20	0.008		
	736	106-111	5'	2.18	0.004		
	738	185-190	5'	2.20	0.006		
	739	190-198	8'	1.11	0.008		
	740	198-205	7'	5.26	0.009		0.14
	741	205-210	5'	4.58	0.005	0.02	
	742	210-218	8'	6.82	0.014	0.01	
	743	218-228	10'	3.04	0.013		
	744	305.5-312	8.5'	2.77	0.008		
73-5	745	179-185	6'	6.77	0.058	0.03	
	746	185-190	5'	15.27	0.078	0.01	
	747	195-200	5'	4.16	0.052		
	748	200-205	5'	2.52	0.050		
	749	205-210	5'	3.70	0.042		
	750	220-226	6'	9.08	0.093		
	751	233-238	5'	7.38	0.083		
	752	238-248	10'	7.62	0.076		

GENERAL TESTING LABORATORIES

DIVISION: SUPERINTENDENCE COMPANY (CANADA) LTD.

1001 EAST PENDER STREET, VANCOUVER 6, B.C., CANADA
PHONE (604) 254-1647 TELEX 04-507514 CABLE SUPERVISE

SEMI QUANTITATIVE SPECTROGRAPHIC ANALYSES CERTIFICATE

TO:

KERR ADDISON MINES LTD.
#405 - 1112 West Pender St.
Vancouver, B.C.

ATTN: Mr. W.M. Sirola

No.: 7309-0553 DATE: Sept. 10th/73

I hereby certify that the following are the results of spectrographic analyses made on: ORE

		1	2	3	4	5	SAMPLE No.	DESCRIPTION:
Aluminum	Al	8.	8.				1	#731
Antimony	Sb	ND	ND				2	#734
Arsenic	As	ND	ND				3	
Barium	Ba	*	0.2				4	
Beryllium	Be	0.001	trace				5	
Bismuth	Bi	0.007	ND					
Boron	B	ND	ND					
Cadmium	Cd	ND	ND					
Calcium	Ca	major	major					
Chromium	Cr	0.01	0.003					
Cobalt	Co	ND	ND					
Copper	Cu	0.05	0.03					
Gallium	Ga	ND	ND					
Gold	Au	trace	trace					
Iron	Fe	3.	5.					
Lead	Pb	0.1	0.01					
Magnesium	Mg	1.	5.					
Manganese	Mn	0.07	0.07					
Molybdenum	Mo	0.07	0.01					
Niobium	Nb	0.01	0.01					
Nickel	Ni	ND	ND					
Potassium	K	5.	5.					
Silicon	Si	major	major					
Silver	Ag	trace	trace					
Sodium	Na	2.	2.					
Strontium	Sr	**	*					
Tantalum	Ta	ND	ND					
Tin	Ti	ND	ND					
Titanium	Ti	0.5	0.5					
Tungsten	W	ND	ND					
Zinc	Zn	0.03	0.03					
Zinc	Zn	trace	trace					

SAMPLE No. DESCRIPTION:

1 #731

2 #734

3

4

5

All results expressed as percentages

MATRIX — Major constituent

MAJOR — Above normal spectrographic range

TRACE — Detected but minor amounts

N.D. — Not detected

★ — Suggest assay

#731 #734

Cassium — Ce₂O₃ ~

Lanthanum — La₂O₃ ~ too high for spectro. (0.2 & 0.5)

Ytterbium ~ ~ 0.001 0.001

Yttrium — Y₂O₃ 0.1 0.1

Praseodymium — Pr₂O₃

Neodymium — Nd₂O₃

Samarium — Sm₂O₃

Cerium — — 0.2 0.1

Zirconium — — 0.1 0.05

Strontium — — high

Rubidium — — 0.01 0.01

NOTES: Rejects retained one month.
Pulps retained three months.
On request pulps and rejects will be stored for a maximum of one year.

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Copy sent to Mr. Sirola Sept 20/73

RECEIVED

SEP 12 1973

KERR ADDISON MINES LTD.

Per: _____

H. Sharples

H. Sharples - Chief Assayer

SIGNATURE AND TITLE

HS/om

Other Samples

<u>Assay No.</u>	<u>Location</u>	<u>Type Sample</u>	<u>U₃O₈%</u>	<u>Au oz.</u>	<u>Ag oz.</u>
730	Fluorite zone N. end	Random chip		0.006	0.03
731	Fluorite zone S. end	" "		0.006	0.05
732	Fluorite zone H.W. side	" "		0.008	Tr.
733	A zone N.W. dump	Grab	0.05	0.005	Tr.
734	A zone S.E. dump	Grab	0.04	0.008	Tr.
735	B zone	Random chip		0.005	Tr.

For spectrographic analysis on Samples 731 and 734 see attached assay sheet. No uranium showed on the spectrographic analysis and it has been suggested that radioactive K-spar may have given the higher scintillometer reading. Sample 734 was re-run chemically and gave 0.04% U₃O₈.

SCINTILLOMETER LOGS

Drill core from holes 73-4 and 73-5 were logged with a scintillometer and profiles plotted on drill sections. DDH 73-6 was scanned, however, values did not deviate from the 0.015 to 0.025 MR/HR range and the profile was not plotted.

DDH 73-4 had an average reading of 0.03 MR/HR with occasional isolated highs over a 6 foot section within the tuffaceous rocks. This dropped to 0.02 in underlying quartz-sericite-schists.

In DDH 73-5 the average is 0.018 MR/HR with a distinctly higher section (0.024) coinciding with a coarse lithic tuff unit between 175 feet and 260 feet. Within this section two isolated peaks occur, one greater than 0.10 MR/HR and one 0.08 MR/HR. These peaks are coincident with massive pyrite bands and are over intersections of less than 6 inches. The higher sections have been sampled and assayed for U₃O₈.

GEOLOGY OF DRILL HOLES

The term "trachyte" as applied to these rocks on the Rexspar property by other workers is somewhat misleading in the field as the

usual trachytic texture is not apparent megascopically. It would appear that the composition has been determined microscopically and the trachyte tag attached. The rocks intersected in DDH 73-4, 5 and 6 are tuffaceous and I have designated them so on the drill logs and drill sections. They can be equated with tuffaceous trachyte or trachytic tuff of earlier Rexspar reports.

Drill hole 73-1 intersected mainly quartz-sericite-schist with interbedded chloritic and carbonaceous units. The carbonaceous units likely represent a metamorphic phase of a black argillite. Sulphide content is generally less than 3% with one short quartz-rich section which ran up to 7% pyrite plus 3% pyrrhotite and a trace of chalcopyrite. Pyrrhotite is more abundant than pyrite in the carbonaceous units. Chalcopyrite is sparsely distributed throughout the bottom half of the hole.

Drill hole 73-2 is in a sequence of quartz-sericite schists interbedded with phyllite and carbonaceous schist. The rock is very siliceous between 55 feet and 170 feet, apparently the result of quartz flooding. The average sulphide content is similar to hole 73-1 but with the addition of minor amounts of scattered galena. Chalcopyrite is most abundant in the last 50 feet of the hole in quartz veins and on schistose planes where it would average 0.1%.

Drill hole 73-3 is the least mineralized of all the drill holes. It is located on a high resistivity anomaly in the quartz-sericite-schist unit. Rocks intersected include quartz-sericite-schist, chlorite schist and carbonaceous schist. The last 150 feet is distinctly limey. Sulphide content (pyrite) is low, averaging less than 1% to 220 feet then rising sharply to 8-10% for the last 80 feet. Traces only of chalcopyrite were noted with no MoS_2 or CaF_2 .

Drill hole 73-4 located on an MoS_2 soil anomaly cut a sequence of tuffs to 220 feet then intersected a siliceous quartz-sericite-schist to

the end of the hole at 358 feet. The tuffaceous rocks are mainly lithic tuffs with interbedded fine tuffs and trachyte units. Silicification is prevalent in all units. The rock is well fractured and cut by a series of moderately dipping faults. Visible CaF_2 purple in colour occurs sparsely throughout much of the hole commonly with quartz in veins. The CaF_2 bearing quartz veins are cut by later barren quartz veinlets - these are seen cutting both the CaF_2 and quartz. The better mineralized sections tend to occur with the siliceous tuffs. (See Table 1, page 2 for assays). Pyrite content is about 8% with only small amounts of pyrrhotite.

Drill hole 73-5 was designed to test an MoS_2 anomaly outlined west of Foghorn Creek centered on Line 30 south. Rocks here are intensely faulted and fractured tuffs underlain by carbonaceous schist and quartz sericite schists. From 0 to 260 feet rock encountered in the drill hole was a sequence of lithic tuffs, crystal tuffs with minor trachytic flows. These are in fault contact with underlying carbonaceous schists. The angle of contact is about 60° to core axis. Fault intersections of 50° to 60° to core axis were most prevalent in this hole. Fluorite occurs mainly in the coarse lithic tuffs. Sections with greatest visible purple CaF_2 were sampled and assayed, the results of which are shown on Table 1, page 2. Sulphide content is similar to hole 73-4 averaging about 8% but with sparse visible MoS_2 . The MoS_2 content is distinctly greater here than in hole 73-4. Drill hole 73-5 ended in 45 feet of carbonaceous schist.

Drill hole 73-6 drilled at 230° and inclined at -70° was designed to test the in-hill extension of the F zone. Crystal and lithic tuffs with minor trachytic units were intersected to 162 feet. Below this the rocks are quartz-sericite schists with interbedded phyllites and carbonaceous schists. The tuffs and upper part of the schist sequence are in part siliceous.

Only scattered CaF_2 was seen and a visual estimate of grade did not justify sampling. The CaF_2 is confined to the tuffaceous units.

GENERAL GEOLOGY

For the most part the geology can be briefly described as consisting of a northeasterly trending belt of tuffs (trachyte) with interbedded trachytic flows overlying a series of Paleozoic or earlier quartz-sericite-schists with interbedded carbonaceous and phyllitic units. The tuffs consist of fine to coarse lithic tuffs with intercalated units of predominantly crystal tuffs. Silicification has affected mainly the tuffs but has also spilled, to a lesser extent, into the schistose units but all rocks have been cut by quartz veins or have had quartz injected along schistose planes.

Pyritization is widespread in all rock types but is most abundant in the tuffs. In hole 73-2 and 73-3 there is a distinct increase in pyrite in the bottom 80 to 100 feet of each. Fluorite is confined to the tuffaceous and trachytic rocks - none was seen in the schists. Chalcopyrite, galena and MoS_2 are minor constituents. Chalcopyrite is best developed in the schists, galena occurs in both schists and tuffs with quartz and visual MoS_2 confined to the tuffaceous or trachytic rocks.

Faulting is prevalent. Regional steeply dipping faults have been mapped striking northeasterly and northwesterly. The intersection of these features as mapped centers on the main mineralized area. It is possible that the concentration of silicification and mineralization is best developed here because fracturing has provided conduits for mineralizing solutions.

ECONOMIC CONSIDERATIONS

Results of the drilling have not increased the ore reserves or potential of the Rexspar property. Hole 73-5 is on a steep slope (greater than 36°) and would consequently not be amenable to open pit mining methods. In addition the grade is too low to consider underground. On the west side of Foghorn Creek the zone is cut off to the south by schists and on the east side of the creek the topography is extremely steep. In designing this hole it was hoped that some U_3O_8 might be encountered, however the U_3O_8

content proved to be exceptionally low (0.03%) Any extension northward is cut off by DDH 73-6, 69-22 and F2 which had only minor amounts of CaF_2 .

The zone tested by drill hole 73-4 contained a 43 foot intersection with an average of 3.82% CaF_2 and 0.009% MoS_2 . This is well below the minimum grade of 15% required to be of interest.

The Mo and F anomalous areas about 9000 feet east-northeast of the fluorite zone near Lute Creek provide the only geochem targets not adequately tested by drilling. These are a series of small coincident Mo and F soil anomalies occurring in an area of moderately northeast sloping topography. The largest of these is a low order Mo anomaly 500 to 600 feet long outlined by a 12 PPM Mo contour. This is coincident with an F feature 450 x 300 feet in size defined by the 2000 PPM F contour. Fluorine has a low mobility geochemically and would not be expected to have moved far from the source. Diamond drilling completed in 1969 and designed to test an I.P. anomaly here encountered only scattered CaF_2 . An examination of the location of the holes with respect to anomalies (Figs. 3 and 4) indicates that none would have penetrated the possible source area of the fluorite which should lie immediately up slope from the highs. The probable source area is indicated on Figs. 3 and 4. These are small low order anomalies which could be (a) related to isolated bed-rock occurrences of CaF_2 and MoS_2 or underlying each high, or (b) accumulation in the soils into pockets as a result of migration from a common source above the anomalies. Since F has a low mobility I would think that they reflect isolated subsurface occurrences which may or may not be related to a larger deposit at depth. The targets are relatively small with a low probability of reflecting mineralization in excess of 12% CaF_2 . A minimum of two drill holes 500 feet deep would be required to test this zone.

Maps 3 and 4 show the location of drill holes 69-9, 11, 13 and 14 with respect to the recontoured geochem values for both fluorite and molybdenum. These holes were drilled on I. P. anomalies and none have tested the geochem anomalies.

RARE EARTH METALS

The Rare Earth (RE) elements associated with the Rexspar deposit are tabulated below. Assays shown are in terms of Rare Earth Oxides (REO). Assays on the left are from Rexspar Report F, those on the right from samples taken by Kerr Addison Mines.

<u>REO</u>	<u>Rexspar</u>	<u>Kerr Addison Mines</u>
Cerium oxide Ce_2O_3	0.50%	0.20%
Lanthanum oxide La_2O_3	0.30%	0.4% \pm
Praseodymium oxide Pr_2O_3	0.05%	nd.
Neodymium oxide Nd_2O_3	0.10%	nd.
Yttrium oxide Y_2O_3	0.01%	0.10%
Samarium oxide Sm_2O_3	0.004%	nd.
Ytterbium oxide Yb_2O_3	0.005%	0.001%

Because of chemical similarities between the Rare Earth elements the extractive process for making pure metal is costly and complex and impractical at a small deposit such as Rexspar. No metallurgical work to my knowledge has been done on the Rare Earths at Rexspar, however, I would suggest that the cost to extract the pure metal might well exceed the value therein and any consideration given to these metals at Rexspar should be directed toward making a mixed RE oxide or fluorite concentrate or a Ce_2O_3 concentrate and a mixed oxide concentrate. The cerium apparently can be readily separated from the other Rare Earth Oxides. The Rare Earth elements are chemically similar and consequently difficult to separate individually, requiring costly reagents and complex processes to produce pure metal products.

The price for Rare Earths fluctuates widely with demand. Quoted prices for 1970 for pure metal, chlorides and oxides are listed below.

Mixed RE chlorides	\$ 0.25/lb.
Mixed RE oxides and fluorides	1.00/lb.
High purity Ce_2O_3	5.50/lb.
High purity La_2O_3	9.00/lb.
Polishing grade Ce_2O_3	1.85/lb.
Technical grade La	12.50/lb.
Pure Ce	20.00/lb.

99.9% pure Ce ingots	\$ 70.00/lb.
99.9% pure Nd ingots	115.00/lb.
99.9% pure Sm ingots	160.00/lb.

At present there is an oversupply of most of the Rare Earth metals and it would appear that the ability of producers to produce the metals exceeds the demand. The supplies and reserves in the U. S. are adequate to meet any increase in demand. The bastnaesite deposit of Molybdenum Corporation of America at Mountain Pass, San Bernardino County, California, the largest known single Rare Earth deposit in the world, produces most of the U. S. requirements. The remainder comes as a by-product from the Climax Mine and from titanium and zirconium mining in Florida and Georgia as well as from uranium mining.

Marketing could well be a problem. It would appear that income from the Rare Earths at Rexspar can only be regarded as "manna from heaven" if and when it can be sold and not calculated into ore values for the purposes of evaluation. Any evaluation of Rexspar must be made on its CaF_2 and U_3O_8 content.

SUMMARY AND CONCLUSIONS

Six diamond drill holes totalling 2026 feet were drilled on the Rexspar property. Three were drilled on resistivity highs in the schists, two were drilled to test MoS_2 soil anomalies and the sixth was drilled to test the "F" zone west of Foghorn Creek. None of the holes encountered economic grade CaF_2 mineralization.

In conclusion:

1. No new zones of economic grade were encountered in the drilling and consequently no increase in potential reserves has been established.
2. Resistivity highs are not good drill targets unless supported by Mo and F geochem anomalies.
3. Because of widespread pyrite present in both trachyte (tuffs) and schists, the I. P. is not diagnostic of CaF_2 or MoS_2 .

4. High Mo in the soils tested by drill holes 73-4 and 73-5 proved to have sub-commercial amounts of both CaF_2 and MoS_2 . Mo soil anomalies coincident with fluorine soil anomalies make the best targets.

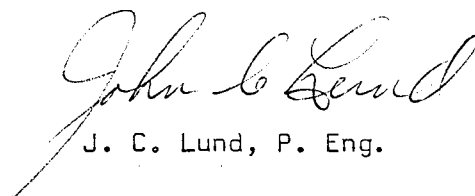
5. In the eastern zones near Lute Creek small geochem anomalies remain untested. These are small and regarded as low priority targets.

6. With the information available it would appear that the base of the trachyte below the fluorite zone remains untested. The fluorite encountered in DDH 73-5 and 73-4 as well as the B and BD zones all occur less than 100 feet from the schist-trachyte contact. If we are interested in possible underground mining of fluorite, this basal section of the trachyte may provide probable targets. A minimum of three holes 600 to 800 feet long would be required to penetrate the trachyte.

RECOMMENDATIONS

The drilling has not increased the ore reserves or provided potential targets. No further drilling is recommended unless some new factors as yet unexamined can establish a positive target.

Since Noranda's feasibility report dated December 10, 1971, the E.J.M. price for 90% effective CaF_2 has increased to \$77.00 from \$58.00. Noranda marketing should be contacted to: (a) determine the price presently offered, and (b) to check the possibility of a Japanese market. Freight costs would be considerably lower to Japan than Chicago.


J. C. Lund, P. Eng.

LESLIE ADDISON MINES LIMITED
SUITE 402 - 1112 WEST PENDER STREET
VANCOUVER 1, B.C.

APPENDIX A - Drill Logs and Sections

DIAMOND DRILL RECORD

LOGGED BY JOHN C. LUND

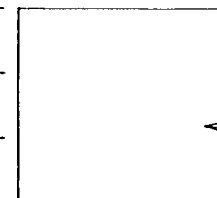
PROPERTY REXSPAR

D.D.H. No. 73-4 PAGE 1

LATITUDE L8+40N BEARING OF HOLE _____ STARTED Aug. 31, 1973

DEPARTURE 8+60E DIP OF HOLE -90° COMPLETED Sept. 2, 1973

ELEVATION _____ DIP TESTS _____ DEPTH 338'



CLAIM No. REX 18 M. C.

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

DRILL HOLE SIZE: BQW

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO		CaF ₂	MoS ₂	Ag	Au
0	20	Casing; overburden. Mostly fractured bedrock.								
	28	<u>Tuff</u> ; Distinctly fragmental, grey colour; very broken; "rusty" due to oxidation of pyrite; <u>Recovery 50%</u> .								
	50.5	<u>Tuff</u> ; Coarsely fragmental (fragments up to 1½"); "rusty" on fractures; pyrite 8-10%; distinct lineation 70° to core axis. No visible fluorite. <u>Recovery 60%</u> .								
	66	<u>Tuff</u> ; Very broken and rusty; micaceous 64-65', chalcopryrite at 63'; pyrite 8-10% as small irregular shaped masses and disseminated grains. <u>Recovery 40%</u> .								
	82.5	<u>Tuff</u> ; As above, fragments up to 1½" in size, CaF ₂ at 79', pyrite 3-5%, <u>Recovery 78%</u> .								
	92	<u>Tuff</u> ; As above, white angular and rounded fragments with scattered darker angular fragments. Pyrite 5-8% variable. <u>Recovery 70%</u> .								
	93	<u>Rubble</u> ; Fault at 93' - 55° to core axis.								
	98	Coarsely fragmental <u>Tuff</u> ; Very siliceous; dark purple and pale green CaF ₂ on occasional fracture (~1.2%). Pyrite in places massive up to 20%, ave. ~10%.								
					98	106	8'	2.20	0.008	
					106	111	5'	2.18	0.004	

DIAMOND DRILL RECORD

LOGGED BY _____

PROPERTY REXSPAR

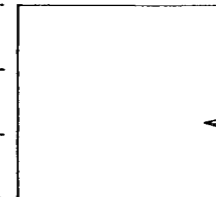
D.D.H. No. 73-5

PAGE 4

LATITUDE _____ BEARING OF HOLE _____ STARTED _____

DEPARTURE _____ DIP OF HOLE _____ COMPLETED _____

ELEVATION _____ DIP TESTS _____ DEPTH _____



CLAIM No. _____

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY		
FROM	TO			FROM	TO			CaF ₂	U ₃ O ₈
152	155	Tuff; broken first foot. Manganese on fractures; pyrite 15%; CaF ₂ - 2-3%; sparse galena. Recovery 66%.							
	158	Dark grey tuff; siliceous; minor quartz veining; 1 - 1.5% CaF ₂ on fractures and as veins; scattered galena; pyrite 12-15%. Recovery 2.5' (83%)							
	161	Tuff as above; increased lithic fragments; increased quartz last foot; pyrite 12-15%; galena 1-2%; sparse CaF ₂ . Recovery good.							
	162	Very hard fawn-grey siliceous rock, possibly acid flow. Sparse pyrite, CaF ₂ , recovery 100%.							
	164	Dark grey siliceous tuff; pyrite 15%, banding near 90° to core axis.							
	174	Fawn-grey siliceous rock for 1 ft. becoming increasingly schistose. 165.5-174' quartz-sericite-schist schistosity 75° to core axis. Pyrite in siliceous rock - 15% Traces galena in schist - 8% Recovery 70%.							
	176.5	Tuff rubble, dark grey; pyrite 3-5%; no visible CaF ₂ . Recovery 60%.	745	179	185	6'	6.77%	0.03%	
			746	185	190	5'	15.27%	0.01%	
	185	Coarse lithic tuff; texture distinct; dark grey with greenish tinge. Pyrite 5-8%; fault at 179.5'. Below fault is marked increase in CaF ₂ as veins and scattered grains of deep purple with some pale green CaF ₂ to 182' then decrease. CaF ₂ 176.5 - 179.5 - 0.5% 179.5 - 182 - 3-5% 182 - 185 - 1% or less.							

DIAMOND DRILL RECORD

LOGGED BY _____

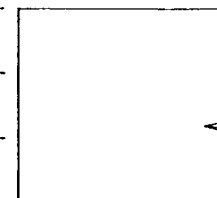
PROPERTY REXSPAR

D.D.H. No. 73-5 PAGE 5

LATITUDE _____ BEARING OF HOLE _____ STARTED _____

DEPARTURE _____ DIP OF HOLE _____ COMPLETED _____

ELEVATION _____ DIP TESTS _____ DEPTH _____

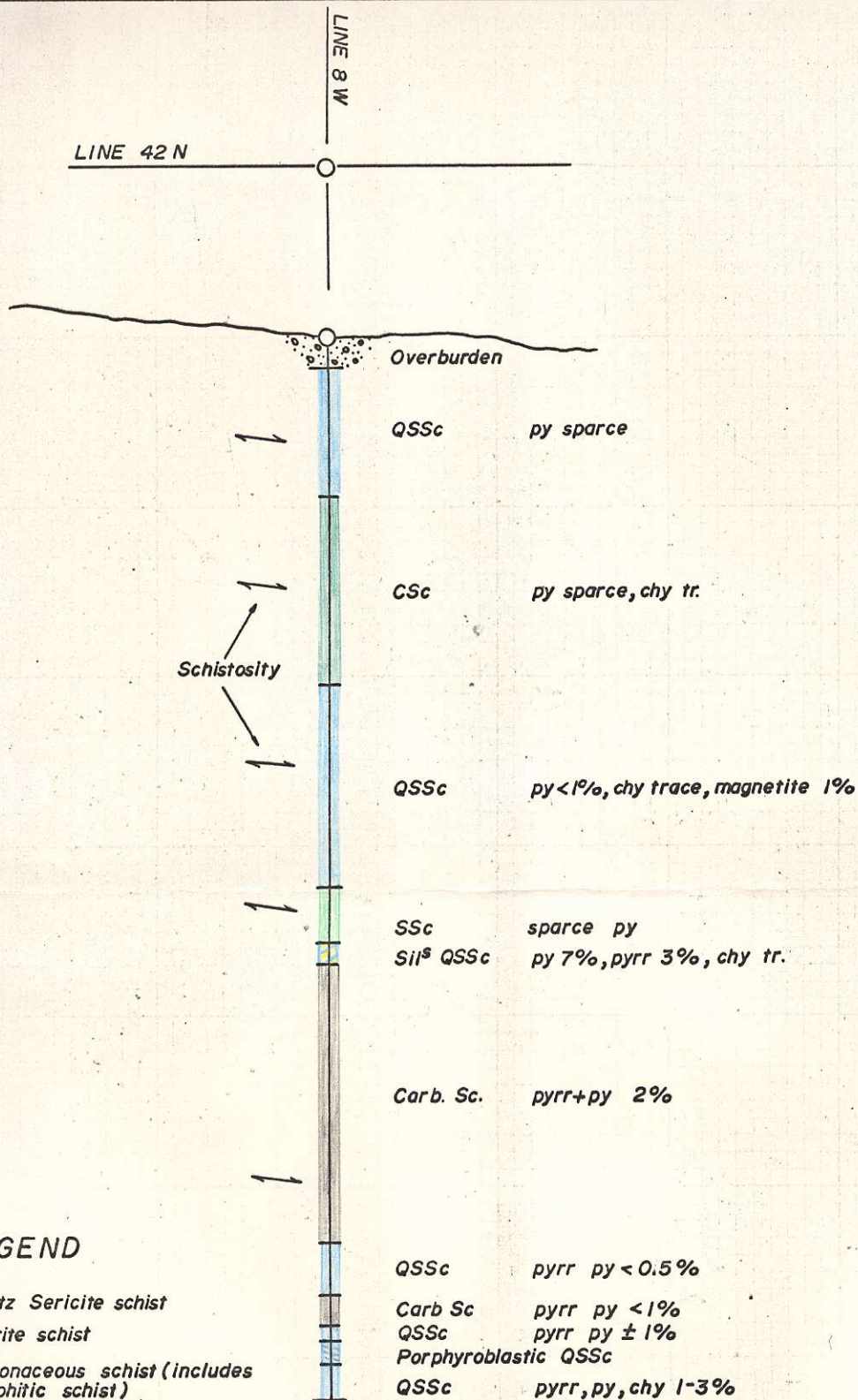


CLAIM No. _____

DIRECTION AND DISTANCE FROM

NE. CLAIM POST

FOOTAGE		DESCRIPTION	SAMPLE No.	FOOTAGE		SAMPLE LENGTH	ASSAY			
FROM	TO			FROM	TO		CaF ₂		U ₃₀₄	
176.5	185	Occasional quartz vein, massive pyrite (4") at 179.5' gives high scintillometer reading. Recovery 90%.								
	195	<u>Lithic tuff</u> ; siliceous; fragments aligned 60° to core axis at 193'; pyrite 12-15% as disseminated grains and massive blebs. CaF ₂ - 2-3% to 189 then decrease to 1% or less, 2" vein CaF ₂ at 186'; scattered galena. Fault at 188' cuts core axis at 10°; horizontal movement indicated. Recovery good.	747	195	200	5'	4.16			
			748	200	205	5'	2.52			
			749	205	210	5'	3.70			
	205.5	<u>Lithic tuff</u> ; increase silicification toward 205.5', 196-197 increase quartz vein accompanied by increase in CaF ₂ (3-5%); pyrite 8%. 197-205' CaF ₂ - 1% or less; 205-205.5' CaF ₂ - 3%. Recovery good.								
	211	<u>Lithic tuff</u> ; increase in fine quartz veins; larger quartz veins cut core at 70-75° to core axis. Pyrite 12-15%; CaF ₂ 1-2%.								
	214	<u>Lithic tuff</u> ; sparse CaF ₂ .								
	219.5	<u>Lithic tuff</u> ; laced by quartz veinlets; light to dark grey rock fragments in fine white matrix. Clean fault at 217.5'. Pink mineral on fault. Very little CaF ₂ ; pyrite 5-8%.	750	219.5	226	5.5'	9.03			
				226	231	5'				
	221.3	<u>Mylonitic tuff</u> ; distinctly mylonitic texture cutting core axis at 50°; pyrite 8-12% CaF ₂ increase.	751	231	238	7'	7.38			
			752	238	248	10'	7.62			
	231	<u>Coarse lithic tuff</u> ; dark grey colour; pyrite 3-8%; CaF ₂ 1.3% with quartz 221-226', sparse at 226-231'.								
START WITH BQ SIZE CORE.										



LEGEND

- QSSc 740^{1/2} Quartz Sericite schist
- CSc 739 Chlorite schist
- Carb Sc 742 Carbonaceous schist (includes graphitic schist)
- SSc 751 Sericite schist
- Ph 746 Phyllite
- Bcc Breccia
- Sil^s 735^{1/2} Siliceous
- pyrr pyrrhotite
- py pyrite
- chy chalcopyrite
- gal galena
- Xtal crystal
- M minor
- sp, tr sparse, trace

- QSSc pyrr py < 0.5%
- Carb Sc pyrr py < 1%
- QSSc pyrr py ± 1%
- Porphyroblastic QSSc
- QSSc pyrr, py, chy 1-3%

REXSPAR PROPERTY
BIRCH ISLAND, BC.

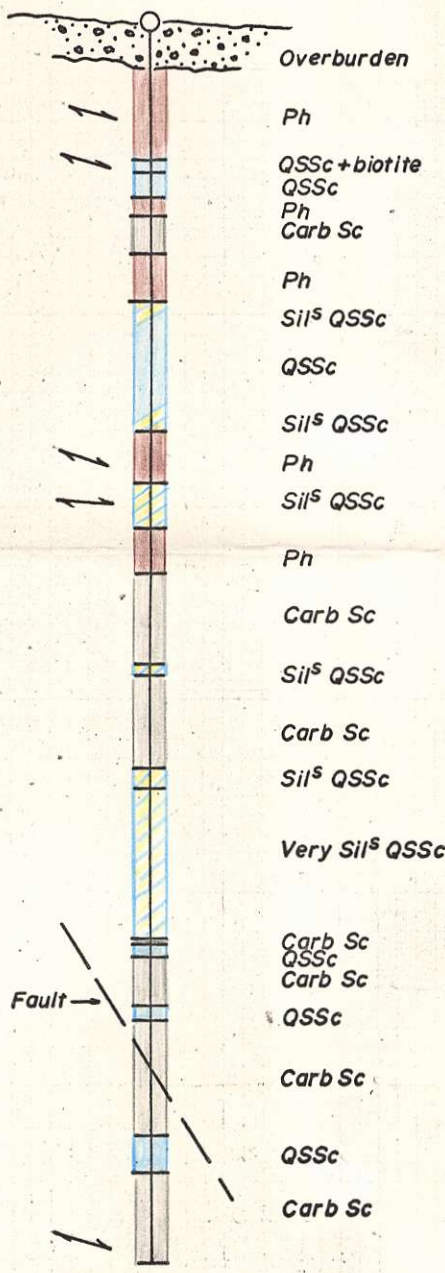
DDH 73-1

LOCATION 42N+8W
INCLINATION -90°
DEPTH 250'

SCALE 1"=40'

L 24+00N

4+00E



	%py	%pyrr	%chy	gal
sp	—	—	—	—
<0.5	<0.5	—	—	—
sp	—	—	—	—
<1	2-3	—	—	—
sp	—	—	—	—
<1	—	—	—	—
sp	<0.5	—	—	—
sp	sp	—	—	—
1-2	<1	—	—	—
sp	sp	—	—	—
3-5	<0.5	tr	—	—
<1	—	—	M	—
1	—	—	tr	—
1-3	0.2	—	tr	—
10	1	tr	—	—
6-8	—	—	M	—
8-12	<1	—	tr	—
3-8	3-5	<0.1	—	—
5-8	<0.5	—	—	—
8	7	0.1	—	—
5	4	—	—	—
5-6	5-6	0.2	—	—
3	1-2	<0.1	—	—

REXSPAR PROPERTY
BIRCH ISLAND, B.C.

DDH 73-2

LOCATION L 24+50N ; 4 00E

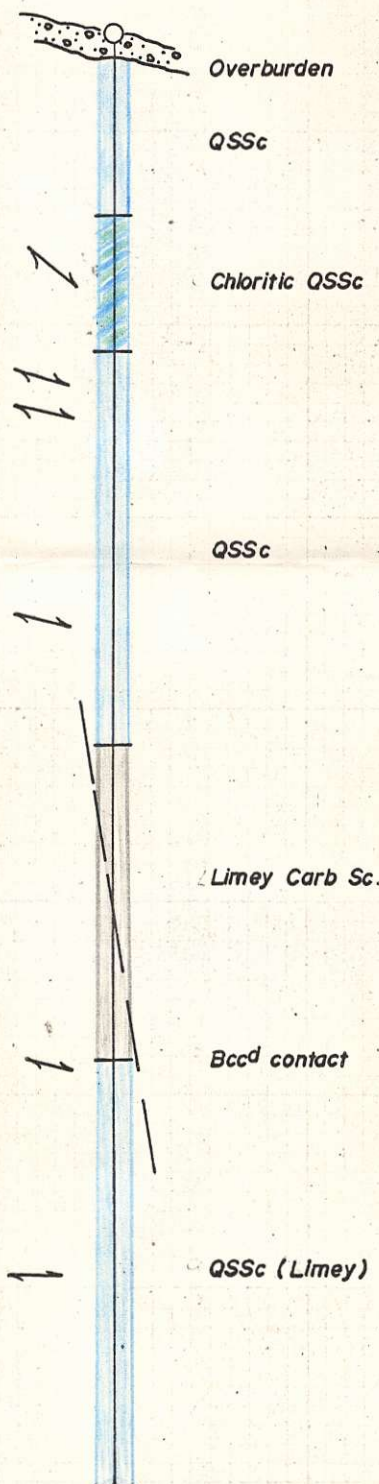
INCLINATION -90°

DEPTH 258'

SCALE 1" = 40'

L 23+00N

13+00W



%CaF ₂	%py	%pyrr	%chy	other
	1-3			
		nil	nil	
	<1%			
	1-2	<0.5		
	sp	sp		
	<0.5	1	tr	
	3-5	<1		
	8-10	tr		
	10-12	<1	sp	

REXSPAR PROPERTY
BIRCH ISLAND, B.C.

DDH 73-3

LOCATION L 23+00N ; 13+00W

INCLINATION -90

DEPTH 300'

SCALE 1"=40'

L8-40N

L8-60E



Overburden

Lithic tuff

Very sil^s lithic tuff

Cse lithic tuff

Cse lithic tuff

Sil^s

Cse lithic tuff

Fine sil^s tuff

Fine sil^s tuff

Trachytic tuff

Cse lithic tuff

Bcc at contact

Sil^s QSSc

fault

fault

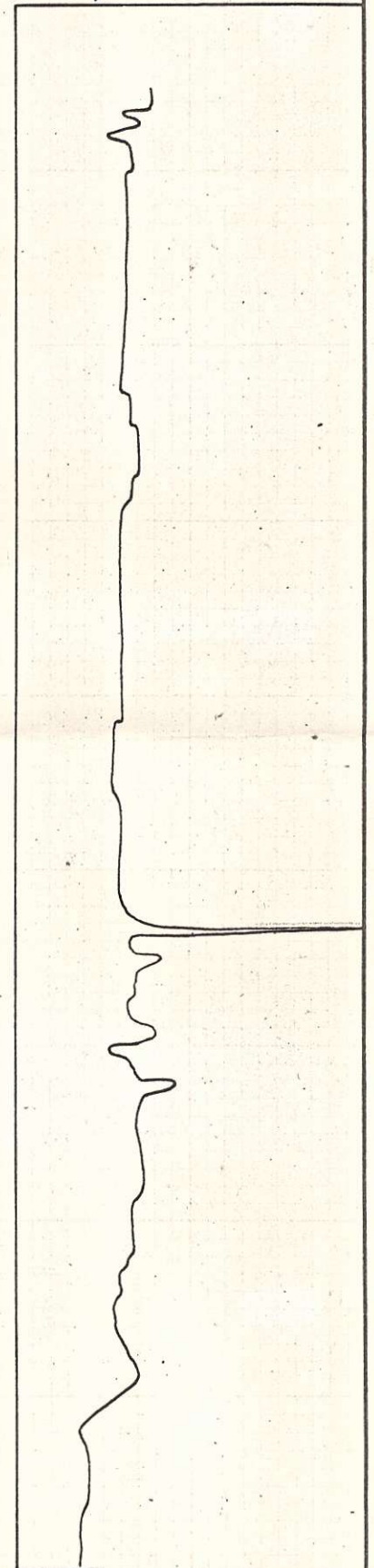
Percentage Metallic Minerals

CaF ₂	py	pyrr	chy	gal	MoS ₂
	8-10		tr		
	3-5				
	5-8				
1.2					
2.20					.008
2.18					.004
	8-10		tr		
	8-10		tr		
	10-12				
2.20					.006
1.11	12-15				.008
5.26					.009
4.55					.005
6.82	8-10				.014
5.04			tr		.012
M	10-12				tr.
tr	8-10		<0.1	tr	<0.1
	3-8				
M					
2.72	8-10				.008
M					
nil	15				

3.82% CaF₂/43'

Drill Core Scintillometer Profile

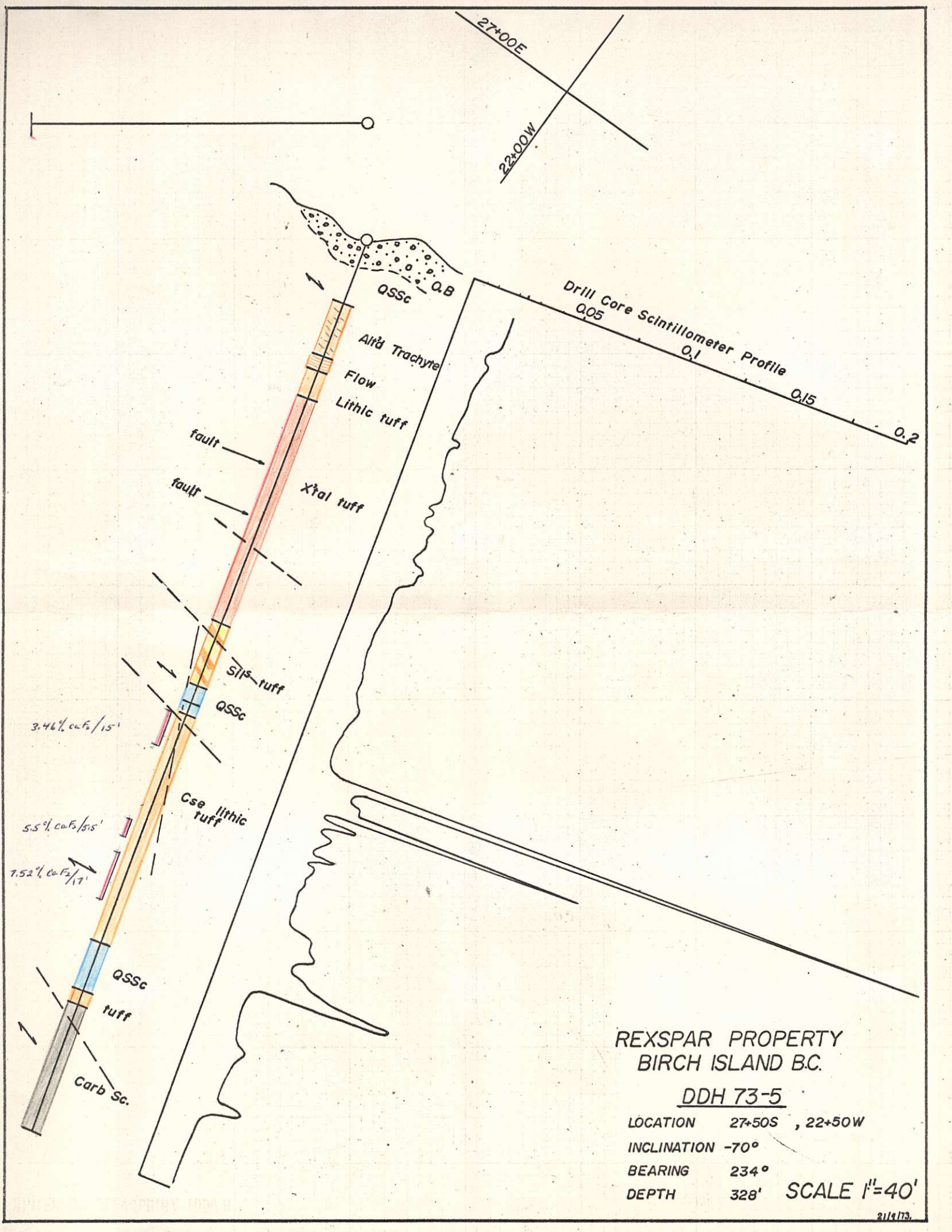
0 MR/HR 0.5 1.0



REXSPAR PROPERTY
BIRCH ISLAND B.C.
DDH 73-4

LOCATION L8-40N, 8-60E
INCLINATION -90
DEPTH 358'

SCALE 1" = 40'



REXSPAR PROPERTY
BIRCH ISLAND B.C.

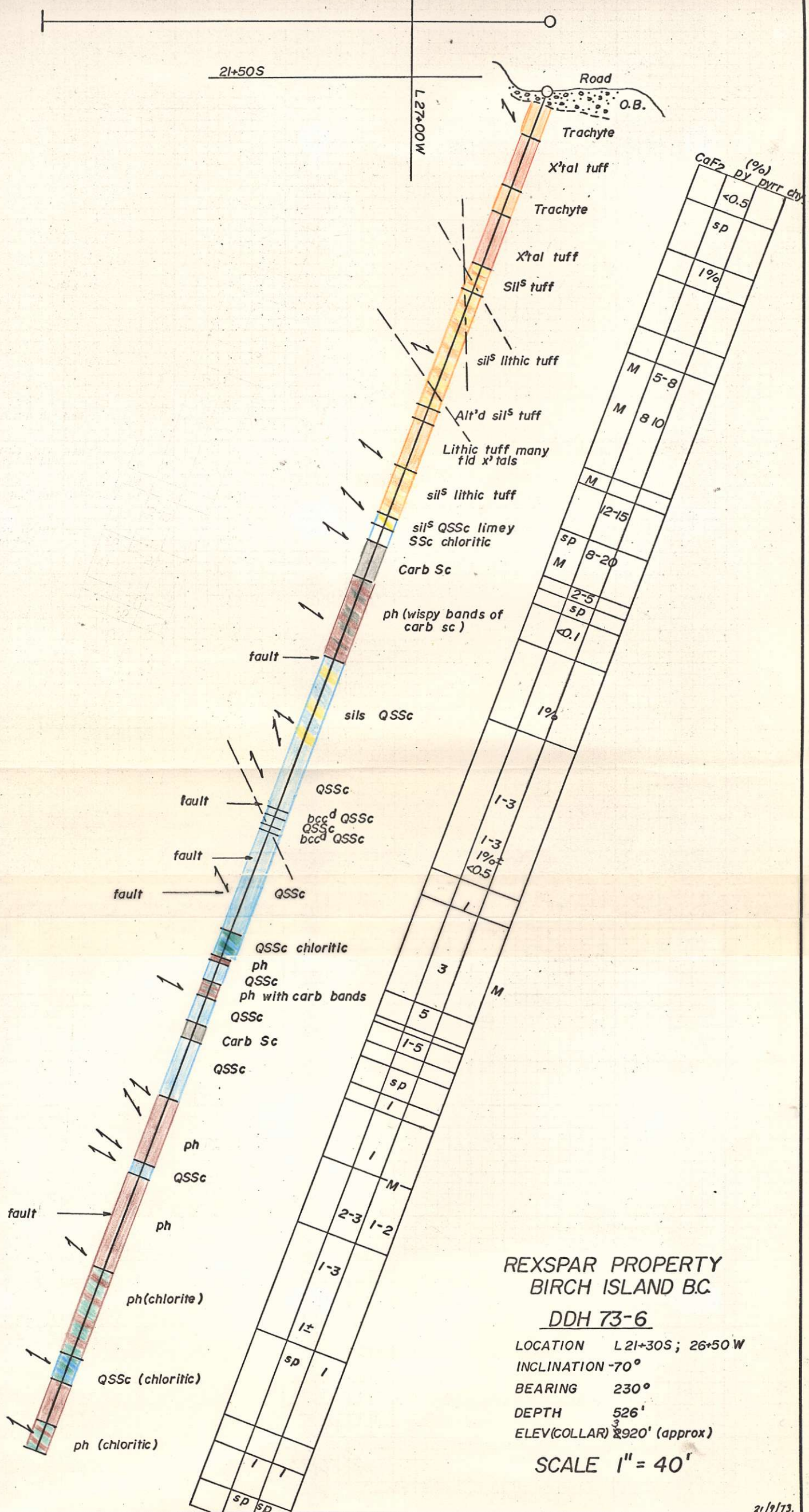
DDH 73-5

LOCATION 27+50S , 22+50W

INCLINATION -70°

BEARING 234°

DEPTH 328' SCALE 1"=40'



21+50S

L27+00W

Road
O.B.

CaF2 (%)
py
pyrr
chy

Trachyte

X'tal tuff

Trachyte

X'tal tuff

Sil^s tuff

sil^s lithic tuff

Alt'd sil^s tuff

Lithic tuff many fld x'tals

sil^s lithic tuff

sil^s QSSc limey
SSc chloritic

Carb Sc

ph (wispy bands of carb sc)

fault

sils QSSc

fault

QSSc

bcc^d QSSc
QSSc
bcc^d QSSc

fault

fault

QSSc

QSSc chloritic

ph
QSSc
ph with carb bands

QSSc

Carb Sc

QSSc

ph

QSSc

ph

ph(chlorite)

QSSc (chloritic)

ph (chloritic)

M 5-8

M 8-10

M

12-15

sp

M 8-20

2-5

sp

<0.1

1%

1-3

1-3

1%

<0.5

3

M

5

1-5

sp

1

1

M

2-3

1-2

1-3

1±

sp

1

REXSPAR PROPERTY
BIRCH ISLAND BC

DDH 73-6

LOCATION L21+30S; 26+50 W

INCLINATION -70°

BEARING 230°

DEPTH 526'

ELEV(COLLAR) 2920' (approx)

SCALE 1" = 40'

2/19/73

ADDISON MINES LIMITED
SUITE 402 - 1112 WEST PENDER STREET
VANCOUVER 1, B.C.

FIG. 2 - Drill Hole Locations

ADDISON MINES LIMITED
SUITE 402 - 1112 WEST PENDER STREET
VANCOUVER 1, B.C.

FIG. 3 - Recontoured F Soil Survey Map

FIG. 4 - Recontoured Mo Soil Survey Map

FIG. 5 - Cross Section through DDH #73-5
and Fluorite Zone

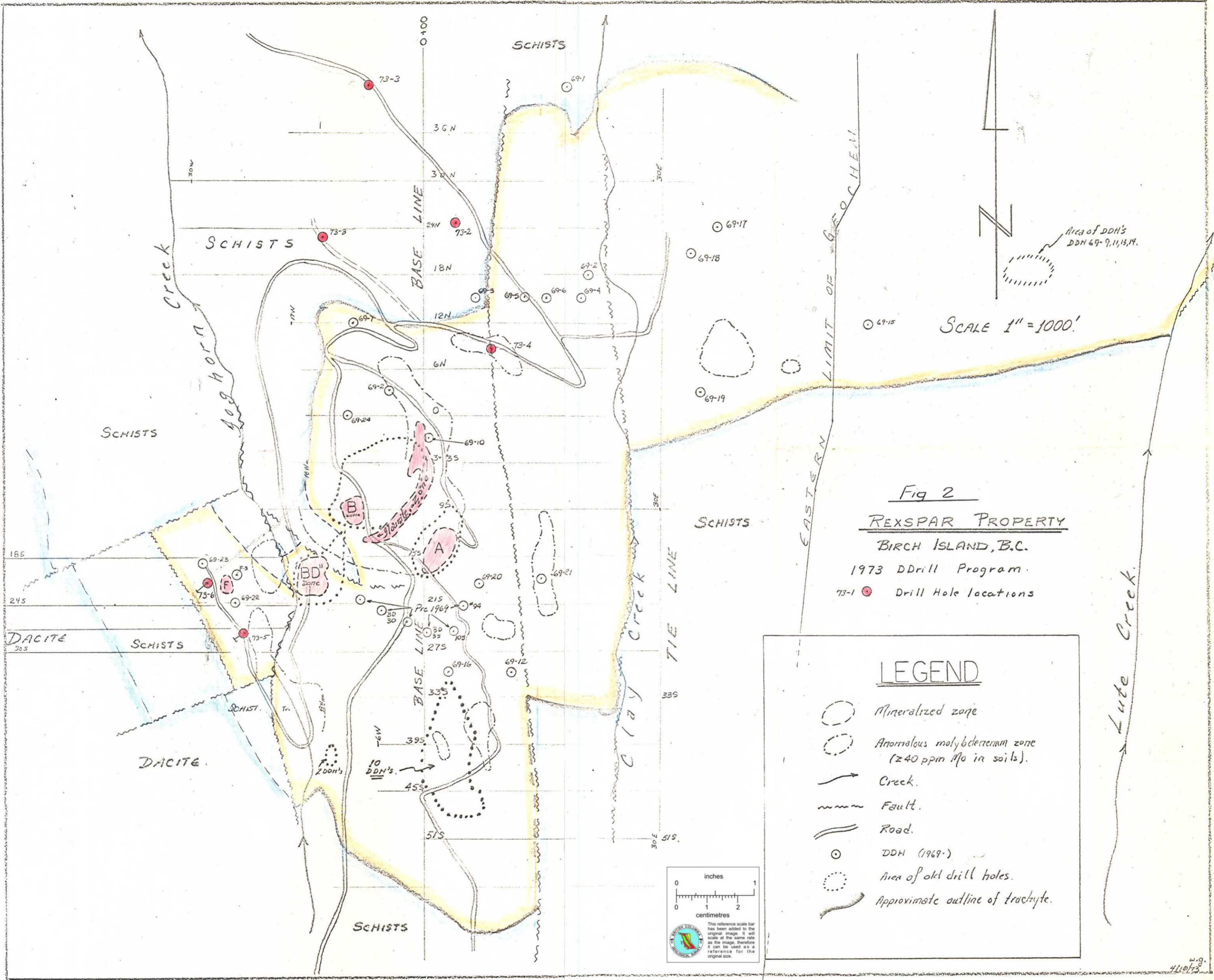
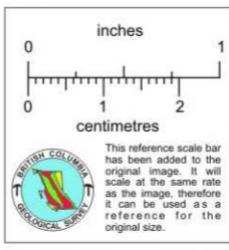
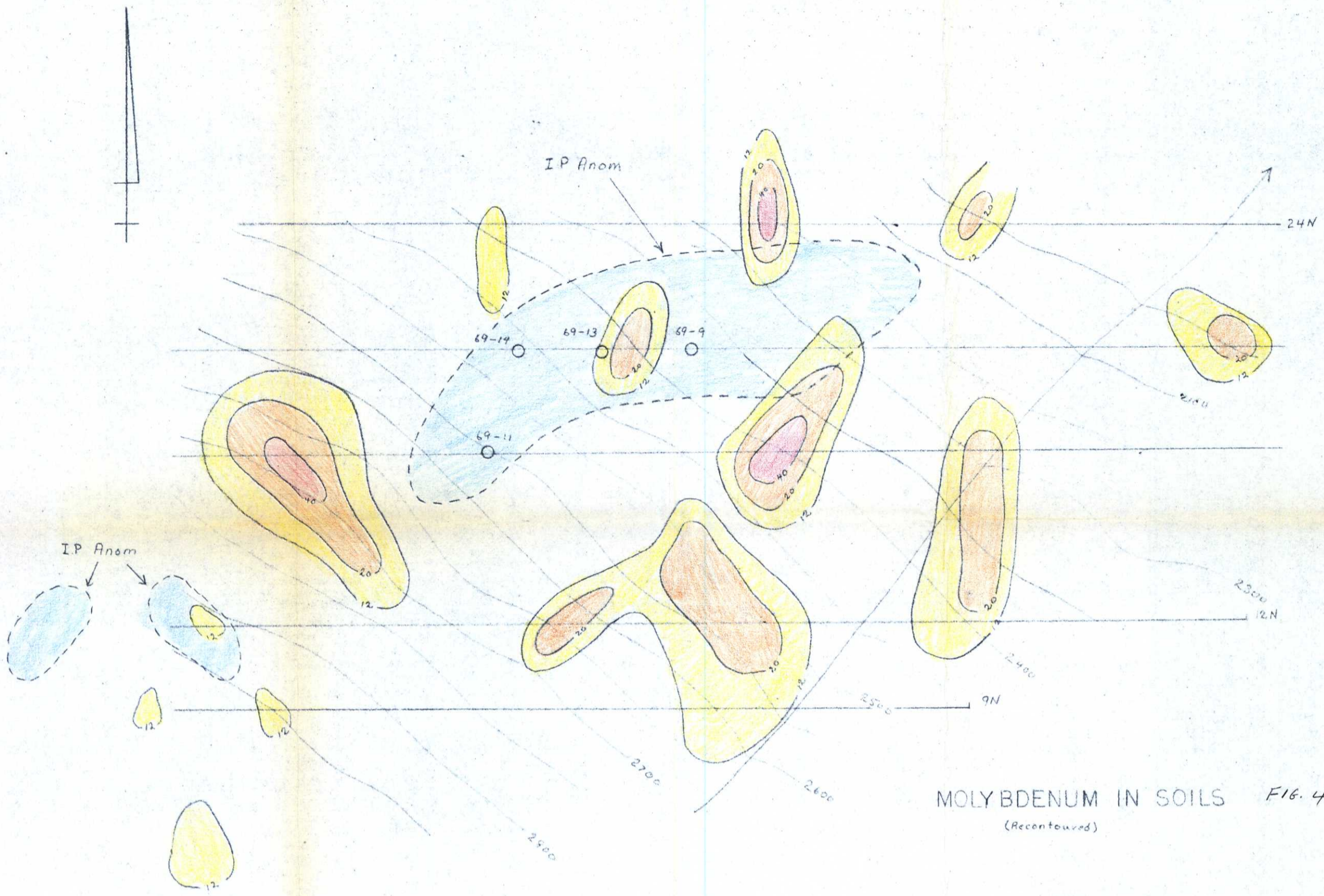


Fig 2
REXSPAR PROPERTY
 BIRCH ISLAND, B.C.
 1973 DD Drill Program.
 73-1 ● Drill Hole locations

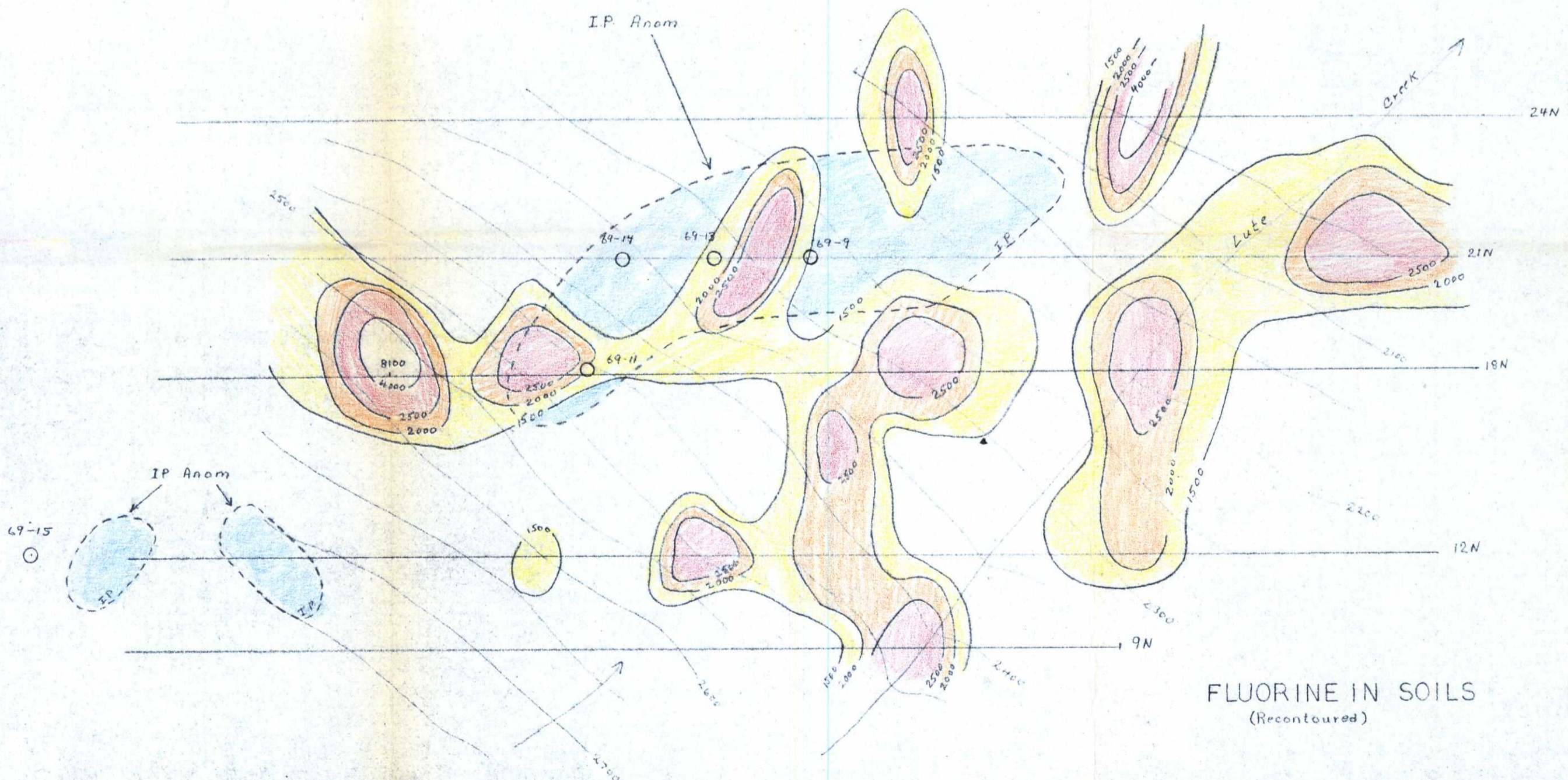
LEGEND

- Mineralized zone
- Anomalous molybdenum zone (≥40 ppm Mo in soils).
- Creek.
- ~ Fault.
- == Road.
- DDH (1969-)
- Area of old drill holes.
- ~ Approximate outline of trachyte.





MOLYBDENUM IN SOILS FIG. 4
(Recontoured)

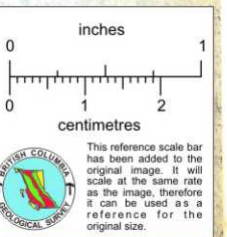


FLUORINE IN SOILS
(Recontoured)

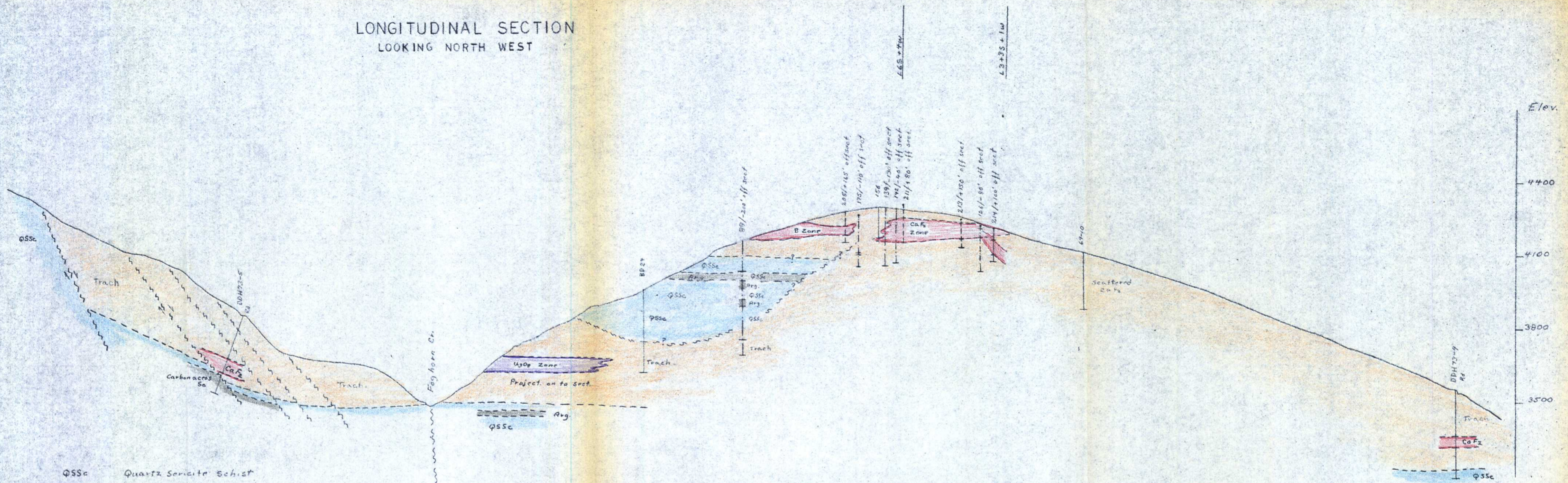
Fig 3
KERR ADDISON MINES LTD
REXSPAR PROPERTY
Birch Island, BC

Scale 1" = 300'

Oct 1973



LONGITUDINAL SECTION
LOOKING NORTH WEST



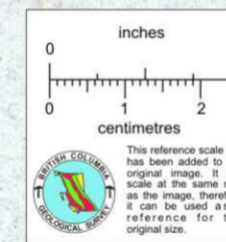
QSSc Quartz Sericite Schist
Trach Trachyte
Carbonaceous Schist (Argillite)

Drill holes
| on section
| out of section
| in to section

KERR ADDISON MINES LTD
REXSPAR PROPERTY
BIRCH ISLAND, BC

SCALE 1" = 300'

OCT 1973



CROSS SECTION
LOOKING NORTH EAST

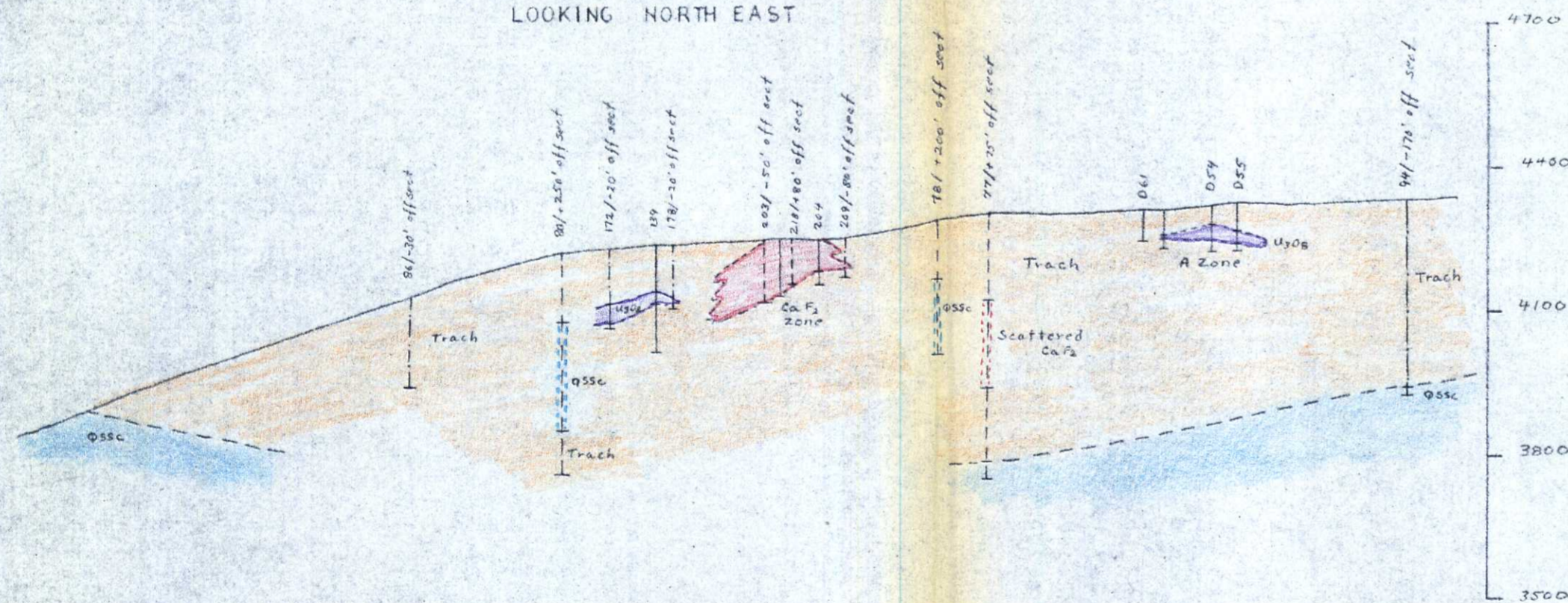


Fig 5