

86-882-15444

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

15,444

FILMED

ASSESSMENT REPORT

BLACK COLT GROUP

SANDON, B. C.

SLOCAN ~~BASE~~ MINING DIVISION

NTS 82F - 14W

Latitude  $49^{\circ} 59.6'$

Longitude  $117^{\circ} 16'$

Owner(s): L. Olson  
Skylark Res. Ltd.

Operator: Skylark Res. Ltd.

By: R.G. KRAUSE

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### APPENDIX I

Diamond Drill Log SAND 86-I

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## INTRODUCTION

A diamond drill hole was initiated on the 10th of October and was abandoned on the 20th of October. It was located on the Silver Ridge Mineral Claim (Record #135) situated in the Slocan Mining Division.

Drilling was performed by Leber Mines Ltd. of Box 366, Kaslo, B.C. incorporating a Longyear Super 38 diamond drill, coring NQ core. Total depth was <sup>68.6 m</sup> 225 feet. Supervision and logging of drill core was performed by the author.

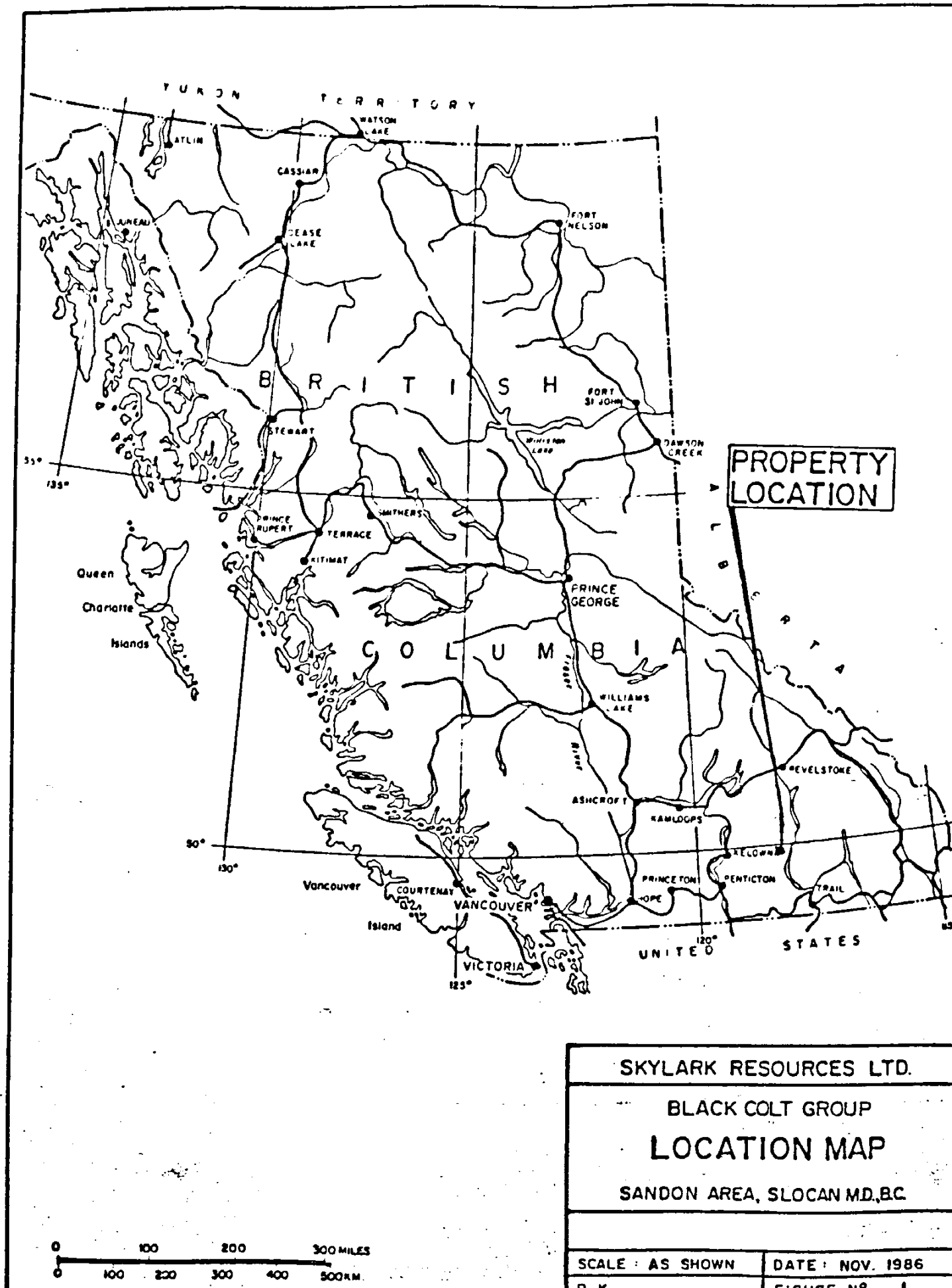
The intent was to intersect at depth a vein that had previously been drifted upon. No assays or records exist from the underground workings. The vein trends north easterly and dips steeply (80°) to the south east; therefore the drill hole was stepped out to the south of the vein drilling towards the vein having an orientation of 315° with a -60° dip.

### LOCATION AND ACCESS

The Sandon Property (Black Colt Group) is situated on the north east slope of Idaho Peak stretching down to Carpenter Creek. It lies between the 3200 foot and 5500 foot elevation, the centre of the property is situated 1.5 kilometers to the northwest of the old townsite of Sandon, 1.5 kilometers from the summit of Idaho Park and 3 kilometers due east from the town of New Denver.

Access to the property is by all season road (if plowed) that passes through Dickenson Mines' mill site. This road leaves from Carpenter Creek at an approximate elevation of 3400' just to the east of Sandon, where Carpenter Creek is crossed by bridge. The northerly trending road, which parallels Carpenter Creek, climbs at a consistant grade for 1.2 km to the property. The road as it passes through the mill site (Dickenson Mines) is gated and locked.

Keys for access are supplied by Dickenson Mines upon request.



PROPERTY

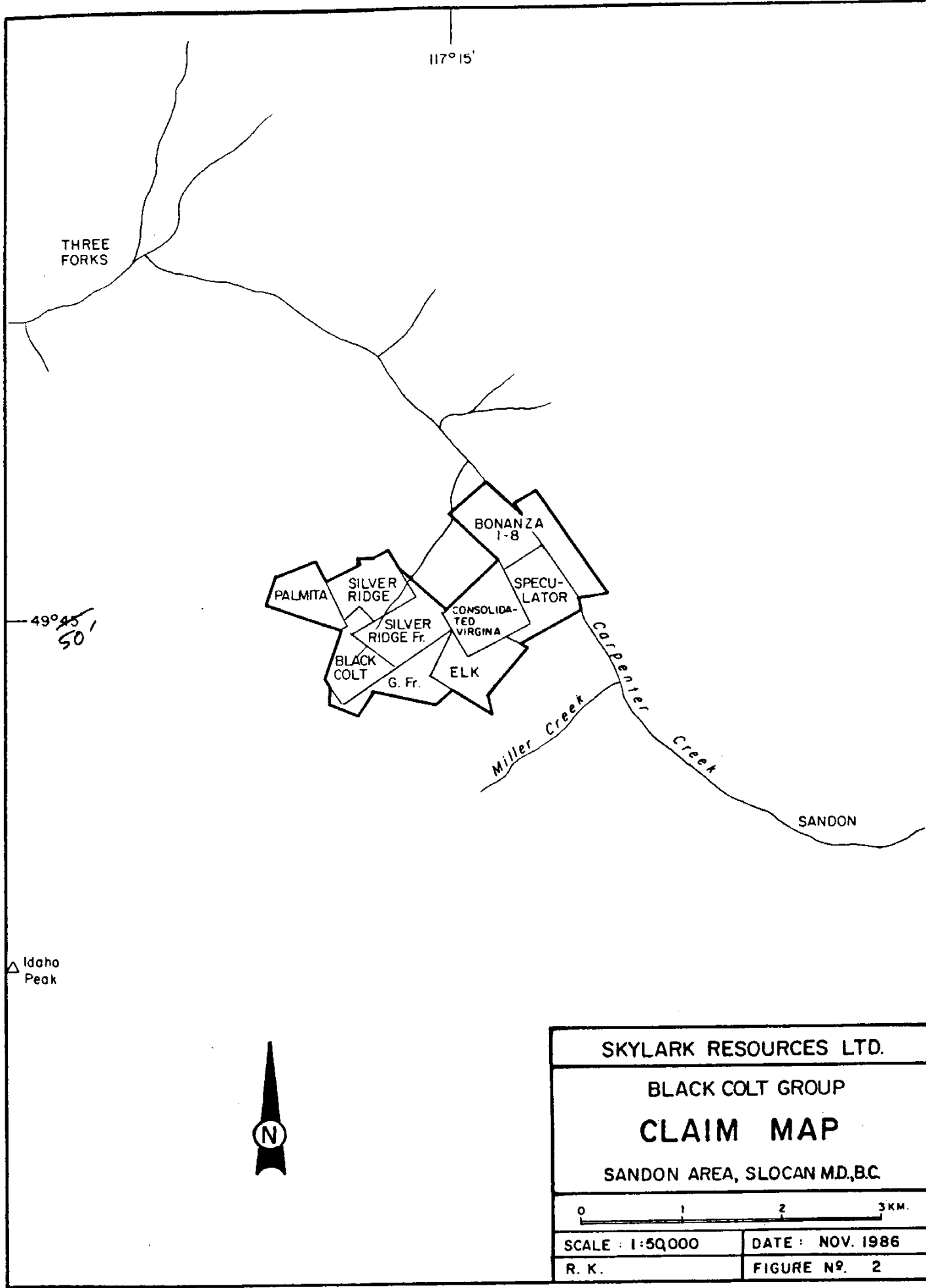
The Sandon Property grouped as the Black Colt Group (16 units) consists of eight reverted crown grants (all less than 40 acres per claim) and eight two post claims located in the Slocan Mining Division found on NTS Map Sheet 82 F/14 W, latitude 49 45' longitude 117 15'.

The claims are:

<u>Claim Name</u>	<u>Record #</u>		<u>Expiry Date</u>
Silver Ridge	135	Reverted Cr. Gr.	Jan. 30/87
Silver Ridge Fr.	136	" " "	Jan. 30/87
Black Colt	341 /	" " "	Feb. 22/87
Palmika	342 /	" " "	Feb. 22/87
Elk	1063 /	" " "	Jan. 4/87
Speculator	1064 /	" " "	Jan. 4/87
G. Fr.	1065	" " "	Jan. 4/87
Consolidated Virginia	1066 /	" " "	Jan. 4/87
Bonanza 1	2937	1 unit 2 post	July 30/87
2	2938	" " " "	July 30/87
3	2939	" " " "	July 30/87

4	2940	"	"	"	"	July 30/87
5	2941	"	"	"	"	July 30/87
6	2942	"	"	"	"	July 30/87
7	2943	"	"	"	"	July 30/87
8	2944	"	"	"	"	July 30/87

A title search was performed by the author and 100% ownership is registered in the name of L. Olson of Kaslo, B. C. An option has been granted to Skylark Resources Ltd. (the operator) to explore for economic mineral potential.





## PHYSIOGRAPHY

The property lies at the northern edge of the Slocan Mountain Ranges, a subdivision of the Selkirk Mountains which in turn is a sub-division of the Columbia Mountain Ranges.

The Slocan Range is dominated by high rugged mountains formed from prophyritic granite. Their rugged nature represents extensive glaciation and the numerous cirques, hanging valley, truncated spurs and great accumulations of glacial debris in the valleys are evidence of this.

The property lies on the eastern side of a ridge. It stretches from the valley bottom (3200') up to the ridge top at 5500' representing an average slope of 25 .

The creeks traversing the property are deeply incised creating steep walled creek bottoms. Vegetation consists primarily of spruce and hemlock with little to no undergrowth.

## HISTORY

The Sandon Pb-Zn-Ag camp has undergone exploration and production from the late 1800's up till present day. In a two mile radius of the property, there have been past producers, a present producer (Dickenson Mines) and continued exploration for economic deposits.

## Ruth-Hope

The Ruth-Hope, a producer from 1895 to 1962, produced 65,850 tons of silver, lead and zinc ore. Through its production history, the Ruth-Hope produced 247 oz's of Au, 2,463,194 oz's of Ag, 22,316,477 lbs of Pb and 3,540,018 lbs of zinc.

The underlying rocks were chiefly argillaceous and quartzitic strata of the Slocan Group. These rocks in many places are calcareous and are interbedded with minor belts of more thinly banded, fissile, argillaceous strata. These units have a general northwesterly strike and about Sandon on both sides of Carpenter Creek, the structure is anticlinal (?) and on the more easterly parts of the Ruth-Hope the dip of the units is to the southwest at moderate angles. Locally pronounced movements

have taken place along more slatey or otherwise less competent beds; strongly crushed and commonly carbonaceous ground has resulted from these movements.

The ore as mined was clean galena and zinc blend; grey copper, chalcopyrite and pyrite were present and a little crystalline anglesite was found. The gangue minerals were quartz, in part vuggy, calcite both massive and crystalline and siderite. The steel and fine cube galena ore carried from 155 to 170 oz's of silver to the ton and 60% lead.

(GSC Summary RPT 1916)  
(GSC Memoir 176-14; 184-116)

#### Victor Group

The Victor Claim group, which adjoins the northwestern boundary of the Black Colt group, saw production from 1923 to 1960, with the exception of 1930 and 1931.

This group of six claims which lies approximately 1 mile to the southeast of Three Forks was originally owned by Mr. D. Petty. In 1921 Mr. Petty discovered the first showing on the property and production commenced by 1923.

The ore occurs in several steeply dipping fractures which strike north-eastward. These are members of a set of strong joints. The rocks are argillaceous sediments which dip south-westward into the hill at angles of 35 and less.

The mine reached its peak in the mid 1950's with a production rate of 1800 tons per month.

#### Silver Ridge Claim

The Silver Ridge claim now incorporated into the Black Colt Group underwent sporadic production from 1895 to 1951. Total production was 510 tons which produced 12,414 oz Ag, 182,259 lbs Pb, 18,324 lbs Zn and minor Au.

The underlying rocks are Slocan Group sediments intersected by a few acid and basic dykes. Extensive joint system faulting and low angle slip faults along bedding planes is indicated.

#### Payne Group

The Payne vein, an old producer, was first discovered in September 1891. It was the first discovery made in the Sandon camp.

The property is underlain chiefly by Slocan Group sediments striking from north 40 to north 65 degrees west. The rocks commencing at the top of the ridge and extending down both flanks for several hundred feet are largely massive, argillaceous, quartzitic and calcareous beds possessing a general anticlinal (?) structure disrupted by faults. The sediments are deformed, faulted and intruded by quartz feldspar porphyry dykes and sills.

The mine was developed by seven adits and tunnels over a vertical range of 1450 feet below the outcrop of the vein. The various workings include over 10,000 feet of drifts.

Records of production are incomplete. Up to 1905, shipments amounted to over 50,000 tons of silver lead ore, averaging 120 oz's per ton silver and 68% lead and some 6,000 tons of zinc blend crude and concentrated were also shipped.

## REGIONAL GEOLOGY

Adapted from: G.S.C. Memoir 308; Nelson MAP AREA, WEST HALF;  
H.W. Little

The property lies within the Slocan mountain range. Porphyritic granite is the principal rock forming the high rugged mountains of this range. The intrusive rocks originating from the events of the Nelson (post Middle Jurassic) batholith and satellites underlies much of the map (82 F - 14 W). Roof pendants of paragneiss probably of the Slocan Group are present in the Nelson batholith for some distance south of its northern periphery.

The Slocan Group (Triassic) which directly underlies the property is found on the northern margin of the Nelson batholith and underlies the entire region between Slocan Lake and Kaslo river. It consists predominantly of argillaceous rocks but fine-grained quartzite and limestone are fairly abundant. Rocks high in the stratigraphic section lie between Mount Payne and Idaho Peak; they are more arenaceous, the dominant type being dark well bedded quartzitic argillite in which the alternating strata

display various degrees of purity and range in thickness from a fraction of an inch to two or three feet.

The tremendous thickness (Cairnes, 1934, p. 58, 6800'; Hedley 1952, p.23, several times 6800') and rock types of the Slocan Group indicate that there was a deep sinking basin (eugcosyncline) of sedimentation throughout much of Triassic time. The argillaceous material that predominates must have been derived from similar material or from volcanic rocks. A probable source for this material is from the west where thick assemblages of such rocks accumulated in Cache Creek time.

One interpretation of the structure of the Slocan Group from Silverton through Idaho Peak and extending beyond (through Black Colt Claim Group) has been worked out by Hedley 1945, 1952. He interprets this section as representing a large recumbant syncline facing southwest with horizontal cleavage and axial plane. In cross-section, Hedley described the axis of the fold as being horizontal but to the northwest of this line (Silverton-Idaho Peak) it plunges gently to the northwest.

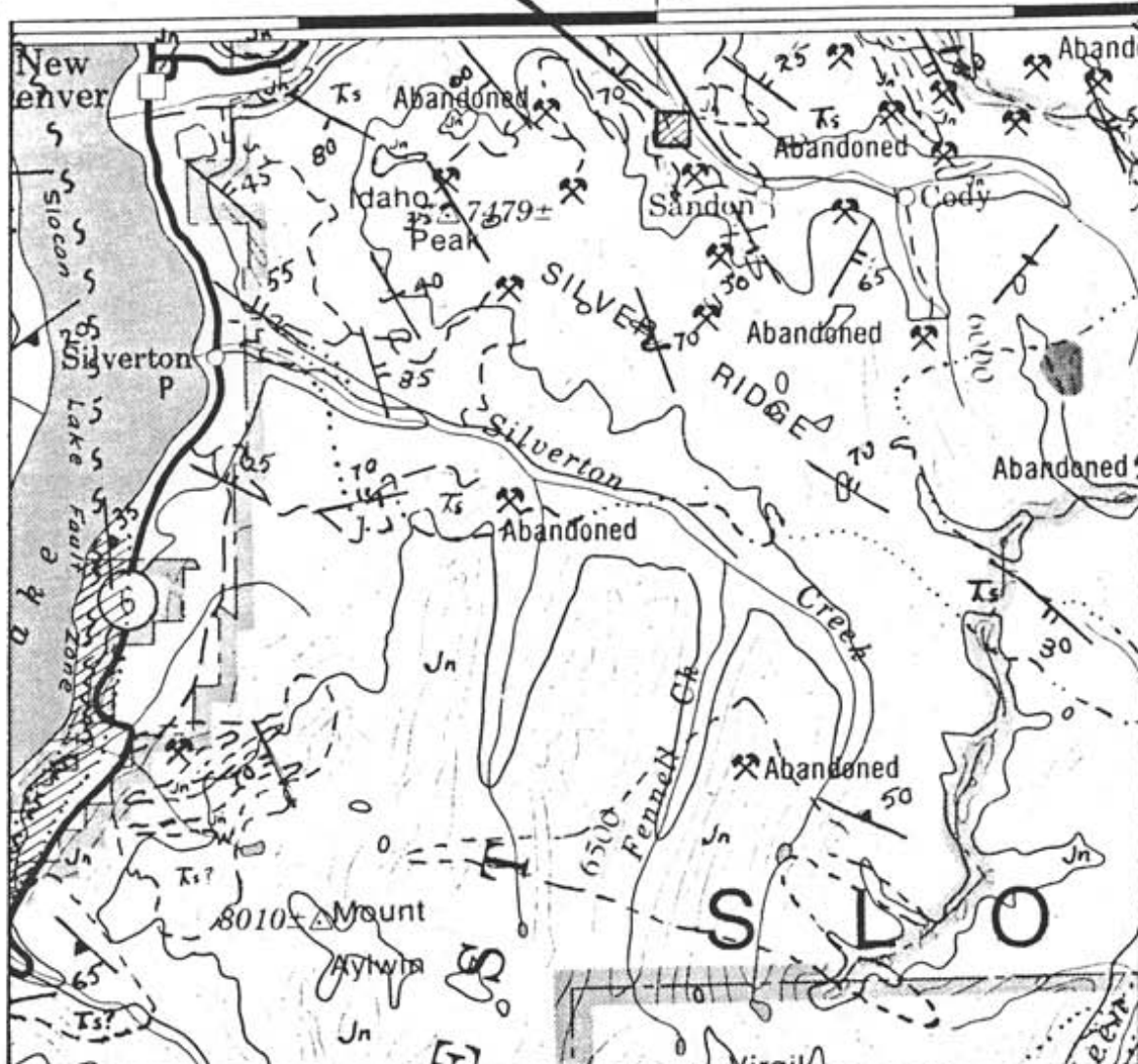
The region has undergone extensive high degree folding and faulting associated with this folding. The faulting associated with bedding plane slippage and axial plane faulting creating the numerous joint sets are evidence of this.



50° 00'

PROPERTY

117° 15'



**LEGEND**

- Jn Nelson Intrusion
- Ts Slocan Group

After G.S.C. O.F. 1195



SKYLARK RESOURCES LTD.	
BLACK COLT GROUP	
<b>REGIONAL GEOLOGY</b>	
SANDON AREA, SLOCAN M.D., B.C.	
SCALE 1:125,000	DATE: NOV. 1986
R. K.	FIGURE NO. 3

## PROPERTY GEOLOGY & MINERALIZATION

The Black Colt Group is underlain by sediments of the Slocan Group (L. Jurassic & Triassic) chiefly massive argillaceous and quartzitic strata. These rocks in many places are calcareous and are interbedded with minor belts of more thinly banded, fissile, argillaceous strata; also the massive argillites are locally pyritic (syngenetic cubes) and the interbedded argillites and quartzites are thinly banded.

Indicated on the property is extensive faulting both as sub-vertical joint sets and low angle slip faults along bedding planes. This locally creates crushed and brecciated argillites.

Structurally a low angle anticlinorium striking north-westerly is indicated on the property (?); the angle of dip of the argillites is extremely variable presenting evidence of complications created by the extensive faulting.

The sediments are intersected by numerous dykes, primarily light in color, felsic to intermediate in composition and prophyritic in texture. Related in age to the Nelson intrusives (Jurassic (M)), the Nelson batholith portrays typically

porphyritic texture with large phenocrysts of alkali feldspar and ranges in composition from granite to granodiorite.

Mineralization on the Black Colt Claim as explained in Annual Report, Minister of Mines, B. C. 1926, pg. 251; "Mineralization occurs along a fracture zone, probably 60 to 70 feet wide, striking about north 55 degrees east and is investigated by a branching adit driven southwesterly for about 450 feet. Within this zone vein deposits have formed in fractures striking in various directions and dipping at various angles. In part these mineralized fractures are parallel with bedding structures, but most of them have formed along joint planes.

The wider parts of the vein matter are commonly brecciated, fragments of ore minerals and wall rock lying in a matrix of quartz and siderite. The ore minerals include argentiferous galena, zinc blend and pyrite.

## DRILLING

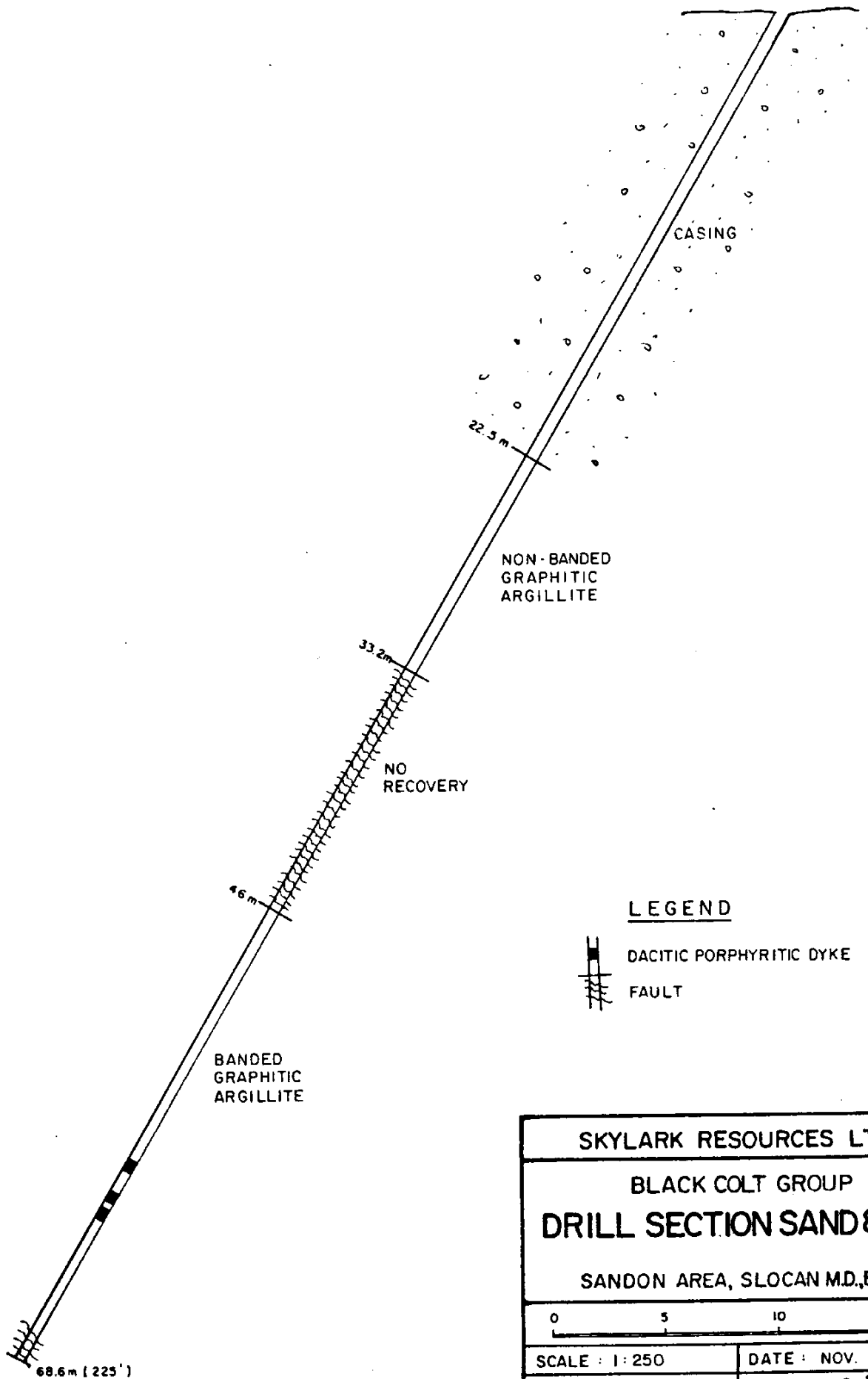
The diamond drill hole SAND 86 - I, located on the Silver Ridge mineral claim (refer to figure IV) cut 68.6 m (225 feet) of massive and banded argillites; in the lower portion of the hole the banded argillites were interbedded with fine grained quartzitic layers.

Two major fault zones were encountered; the uppermost fault zone required casing to be driven through the fault zone to the 46 m (151 feet) level. From there, drilling proceeded to the second major fault. Two attempts to cement this second fault zone failed and the hole was abandoned at 68.6 m (225 feet).

## DISCUSSION

The argillites of the Slocan Group sediments which underly the property have hosted many economic deposits in the Sandon Silver camp. The Black Colt property of which there has been past production from the Silver Ridge claim holds promise of economic silver mineralization.

The drill SAND 86-1 failed to reach target depth because of highly faulted and sheared rock. For this reason, it is unknown as to the nature of the vein and the mineralization it might contain.



COSTS

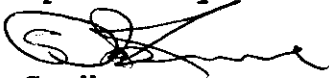
1) Cat work (Dickenson Mines Ltd.)	
Site preparation, placement & removal of drill	\$ 422.50
2) Diamond Drilling Coring NQ core	
225' @ 20.00 per foot	\$ 4,500.00
(Leber Mines Ltd.)	
Cementing and Reaming	
4 days @ 250.00 per day	1,000.00
3) Supervision	
Spotting drill, logging of core	
report and costs (transportation and living)	<u>\$ 500.00</u>
	\$ 6,422.50
Applied Assessment:	
2 yrs @ \$200 per unit x 16 units	\$ 6,400.00

CERTIFICATE

I, Robert G. Krause of suite 203 - 1176 West 11th avenue,  
Vancouver, B. C., hereby certify that:

- 1) I am a graduate of the University of British Columbia holding a B. Sc. degree in Geology.
- 2) I have practiced my profession as a geologist for two years.
- 3) I have worked in the geological exploration field for 10 years.
- 4) I personally supervised this drilling program and that all work was performed and completed as outlined and that all costs are accurate.

Respectfully Submitted

  
R.G. Krause  
Geologist B.Sc.  
Skylark Resources Ltd.

December, 1986

## REFERENCES

- 1) G.S.C. Memoir #184, pgs. 16-17, 98-100, 116-122, 153-155
- 2) Report, Minister of Mines, B. C., 1933
- 3) Report, Minister of Mines, B. C. 1946
- 4) Report, Minister of Mines, B. C. 1954
- 5) Report, Minister of Mines, B. C. 1955
- 6) G.S.C. Open File # 1195  
H. W. Little; "Geological Notes Nelson West Half"
- 7) G.S.C. Memoir #308 Pgs. 8-9  
H. W. Little, 1960



APPENDIX I

CLAIM NO. \_\_\_\_\_ **DIAMOND DRILL RECORD** PROPERTY Sandon HOLE NO. Sand 86-1  
 LATITUDE \_\_\_\_\_ ELEVATION \_\_\_\_\_ BEARING 315° DEPTH 225' STARTED \_\_\_\_\_ COMPLETED \_\_\_\_\_  
 DEPARTURE \_\_\_\_\_ SECTION \_\_\_\_\_ DIP -60 DRILLED BY D. Lesley LOGGED BY R. Krause

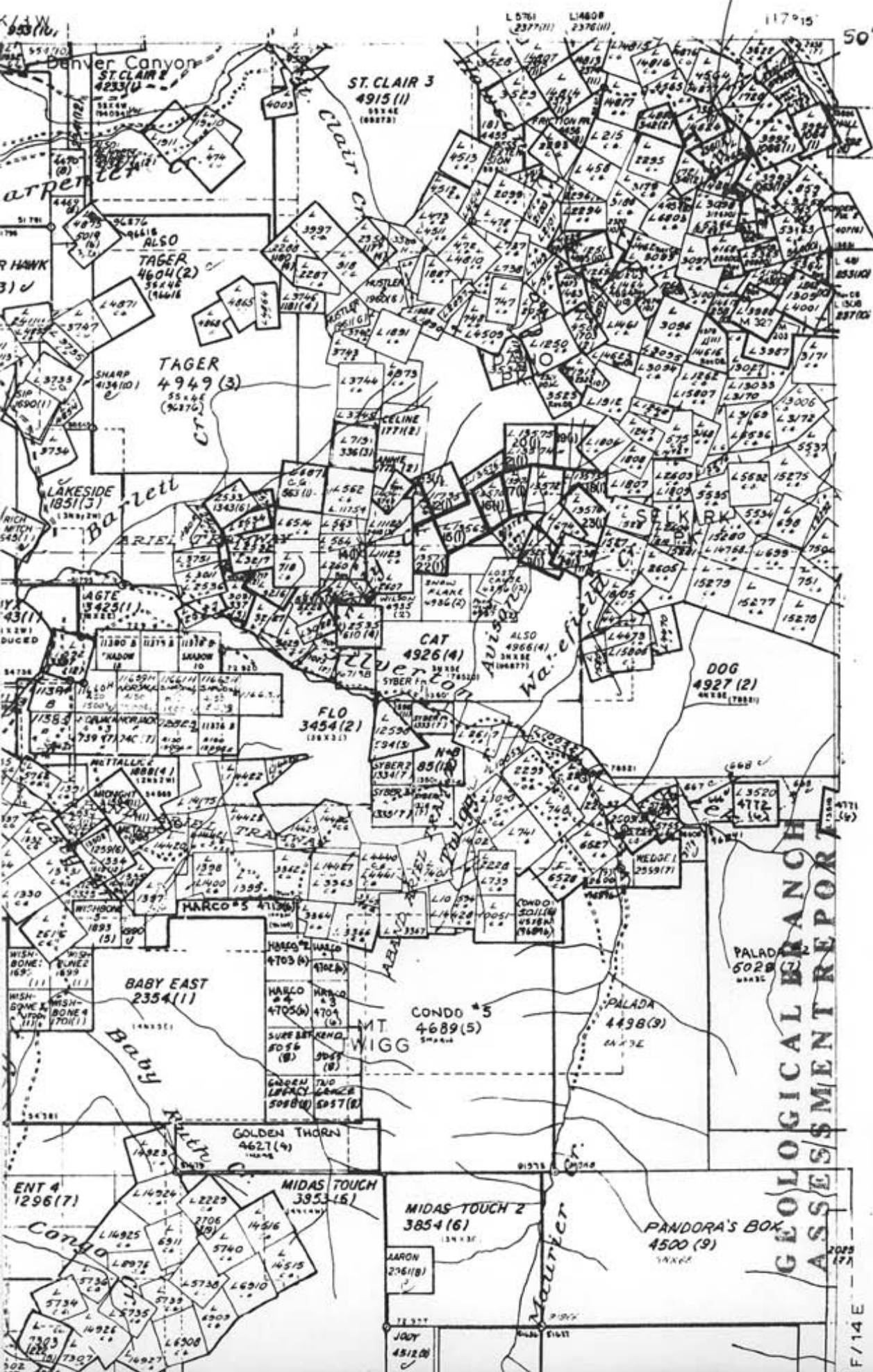
DEPTH FEET	FORMATION	SAMPLE NO.	FROM	TO	WIDTH	ASSAYS		
						Pg oz/T	Ru oz/T	
0-74'	Casing							
74'-109'	Graphitic Argillites - : indurated, massive & non banded in appearance : extremely broken : fr. Py well formed cubes							
109-151'	Casing driven further to 151' : 2' core recovered; same as above							
151-225'	Banded Light Grey Black Graphitic Argillites : Soft sed deformation : light gray v.f.g. dirty sandstone							
8 177 - 178.5'	Basaltic Porphyritic Feldspar Dyke : chilled margins, slightly chloritized light green tinge : Minor sericite on contact							
8 191' - 192.5'	same as 177 - 178.5							
8 196' - 198'	" " " "							
8 199' - 201'	" " " " also, Tr. Azurite & Malachite on frac plane and dark f.g. sulfide, chalcocite?							
EOH 225'								

WESTERN MINER PRESS LTD.  
STANDARD FORM NO. 302

The core is stored in Greenwood  
at P.O. Box 188

"x" feet x 0.3048 = "x" metres  
 (6) 225' x 0.3048 = 68.58 metres

DDH



24

82F/14W

1:50,000

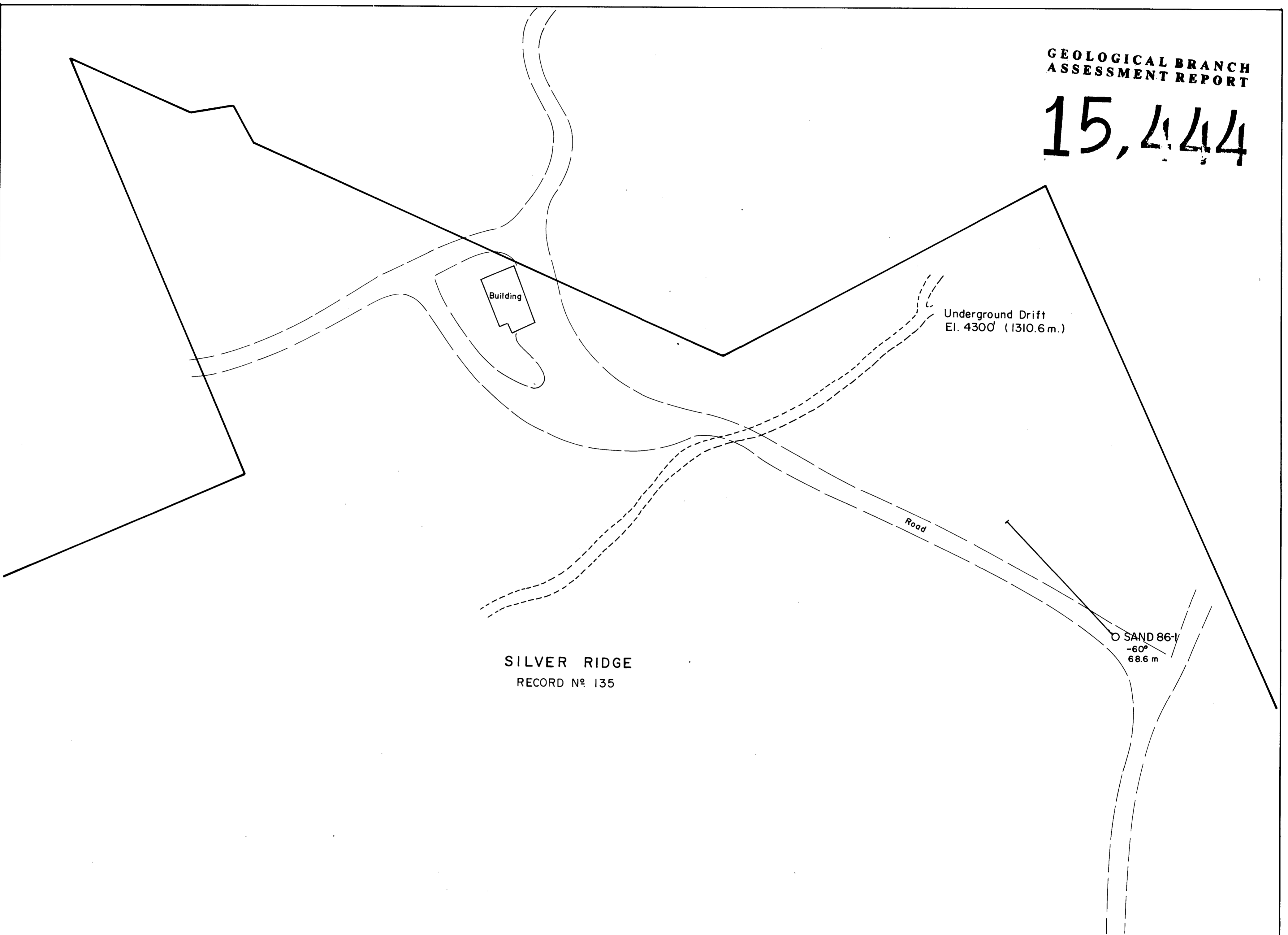
500 metres

151444  
777151

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

F/14 E

15,444



SILVER RIDGE  
RECORD Nº 135

Underground Drift  
El. 4300' (1310.6 m.)

Road

SAND 86-1  
-60°  
68.6 m



SKYLARK RESOURCES LTD.

BLACK COLT GROUP  
DRILL HOLE LOCATION  
SAND 86-1  
SANDON AREA, SLOCAN M.D., B.C.

0 10 30 METRES

SCALE 1:500

DATE DEC. 1986

R.K.

FIGURE Nº. IV