

LOG NO: 0111 RD.
ACTION:
FILE NO:

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

FILMED

DIAMOND DRILLING REPORT
HALL PROPERTY
HALL CLAIM
NELSON MINING DIVISION, B.C.
N.T.S. 82F/8
- ASSESSMENT REPORT -

LAT: 49°18'

LONG: 116°30'

OWNER
COMINCO LTD.
KOOTENAY EXPLORATION
1051 INDUSTRIAL ROAD #2,
CRANBROOK, B.C.
VIC 4K7

Work performed during August and September, 1989

SUB-RECORDER
RECEIVED
JAN 8 1990
M.R.# \$
VANCOUVER, B.C.

Report by: D. Anderson
Submitted: December, 1989

GEOLOGICAL BRANCH
ASSESSMENT REPORT

19,533

TABLE OF CONTENTS

	Page
1.00 INTRODUCTION	
1.10 Location and Access	1
1.20 Property Definition, History, Current Status	1
1.30 Topography and Vegetation	1
1.40 Work Done - 1989	1
2.00 DRILL HOLE H-89-1	1
3.00 CONCLUSIONS	2
EXHIBIT "A" - Statement of Expenditures - H-89-1	4
AFFIDAVIT	5
AUTHOR'S QUALIFICATIONS	6
DRILL LOG	Attached
PLATE 1 Location Map and Hole Location on a Hall Claim Map	Attached

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

DIAMOND DRILLING REPORT

HALL CLAIM

NELSON M.D.

D. Anderson

December, 1989

1.00 INTRODUCTION

1.10 Location and Access

The Hall property is located in the upper headwaters of the Arrow Creek watershed, some 22 km north of Creston, B.C. Access is gained via the Goat River road then up the Hall creek forestry road onto a 4X4 road providing vehicle access to the ridgeline containing Mt. Bohan (see index map).

1.20 Property Definition, History, Current Status

The Hall property is 116 units contained in 8 claims. 86 units are currently covered by an option to purchase by Cominco Ltd. The remainder are held 100% by Cominco Ltd. The area was held by Amoco Canada in 1980 during which time they completed an extensive soil grid in response to anomalous silt geochemistry. The claims lapsed and were acquired under the current arrangement in 1987. In 1987 and 1988, additional soil geochem sampling and an induced polarization survey were conducted over parts of the claims. Economic potential is for base metals, principally lead and zinc.

1.30 Topography and Vegetation

The property occurs in rugged, forested terrain ranging from 1500 to 2200 m ASL. Most of the timber is mature Spruce, Balsam, and Douglas Fir.

1.40 Work Done - 1989

A single BQ diamond drill hole was drilled to a depth of 147.86 m on the central Hall claim.

2.00 DRILL HOLE H-89-1

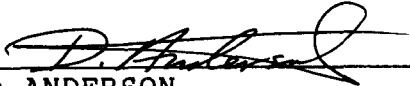
Diamond drill hole Hall-89-1 was designed to drill test coincident soil geochemistry and induced polarization responses. The hole drilled at -48.5° on an azimuth of 106° tested a Pb and Zn anomaly and a shallow I.P. chargeability anomaly (refer to 1988 Assessment Report - IP/Resistivity Survey by J. Klein).


Mapping correlated with the drill core identifies the sediments as divisions of the Dutch Creek Formation. The upper part of the hole intersected a section of predominantly carbonate lithologies to 86 m. These limestones are brecciated with a variety of clast types including limestone, dolomitic limestone, crystalline quartz, and variable argillites. Locally the limestone is argillaceous and shows a gradual transition into one interval of green and brown, thin-bedded to laminated argillaceous sediments. From about 63 m to 86 m there is less breccia and more injection of white calcite and grey to white quartz replacing the limestone. Some alteration is associated including tremolite-actinolite and talc. The bottom portion of the hole is interbedded argillite and quartzite which is quite foliated and metamorphosed. There are short intervals of limestone.

Mineralization is very limited in the core. Very weak pyrite, galena, and sphalerite can be seen in the breccia zone. Greater amounts of sulfide, as pyrite, is found in the underlying thin-bedded argillites and quartzites. The pyrite occurs as fine disseminations and coarse crystalline aggregates.

3.00 CONCLUSIONS

The very weak disseminated galena and sphalerite could result in the soil anomaly over this carbonate package. The I.P. response is due primarily to the overall pyrite content. No economic mineralization was intersected by this drilling.

Report by: 
D. ANDERSON
Senior Geologist

Approved by: 
W.J. WOLFE
Manager, Exploration
Western Canada

DA/lrs

Distribution: Mining Recorder (2 copies) ✓
Western District Exploration
Kootenay Exploration

EXHIBIT "A"

STATEMENT OF EXPENDITURES

DIAMOND DRILLING - HALL CLAIM
DIAMOND DRILLHOLE H-89-1
NELSON MINING DIVISION

INDIRECT

Salaries

D. Anderson Planning, supervision, core logging,
report writing - 10 days @ \$300/day \$ 3,000.00

Mobilization/Demobilization

Slashing/Clear Drill Site: Jon Moe, Kimberley, B.C. 475.00
Helicopter support: Alpine Helicopters Ltd.,
Kelowna, B.C.
4.6 hrs. @ \$1762/hour \$8105.20
Canadian Helicopters Ltd.,
13.4 hrs. @ \$ 665/hour 8911.00
3.3 hrs. @ \$1785/hour 5890.50 22,906.70

Consulting Fees

W.B. Griffith Consulting, Burnaby, B.C. 951.06

Transportation

One 4X4 truck 7 days @ \$40/day 280.00


Indirect Total = \$27,612.13

DIRECT

Coates Drilling Ltd.
7583 Vantage Place,
Delta, B.C. V4G 1A5

Direct Total = \$15,832.31

TOTAL DRILLING COSTS - H-89-1 = \$43,444.44



D. ANDERSON
Senior Geologist

IN THE MATTER OF THE
B.C. MINERAL ACT
AND
IN THE MATTER OF A DIAMOND DRILL PROGRAM
CARRIED OUT ON THE HALL CLAIM
KITCHENER AREA
in the Nelson Mining Division of
the Province of British Columbia
More Particularly N.T.S. 82F/8

A F F I D A V I T

I, D. Anderson, of the City of Cranbrook, in the Province of British Columbia, make Oath and say:

1. That I am employed as a Geologist by Cominco Ltd. and as such, have a personal knowledge of the facts to which I hereinafter depose:
2. That annexed hereto and marked as Exhibit "A" to this my Affidavit is a true copy of expenditures incurred on a Diamond Drill program, on the Hall Mineral Claim.
3. That the said expenditures were incurred between the 28th day of August, 1989 and the 3rd day of September, 1989 for the purpose of mineral exploration.


D. ANDERSON
Senior Geologist

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

AUTHOR'S QUALIFICATIONS

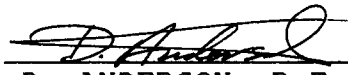
As author of this report I, D. Anderson certify that:

I am employed by Cominco Ltd. as a geologist active in mineral exploration.

I am a graduate of the University of British Columbia with a degree of Bachelor of Applied Science.

I have been continuously engaged in geology and mineral exploration for 20 years.

I am a member of the Association of Professional Engineers of British Columbia.


D. ANDERSON, P.Eng.
Senior Geologist

Drill Hole Record



Property	HALL	District	Western/Nelson	Hole No.	H-89-1
Commenced	August 30, 1989	Location	Hall Claim	Tests at	147 meters @ 48°
Completed	September 1, 1989	Core Size	BQ	Corr. Dip	
Co-ordinates	Lat. 49° 18'	Long.	116° 30'	True Brg.	104° azimuth
Objective	To test an I.P. response coincident with a soil geochem anomaly.			% Recov.	Date

Claim HALL

T Brg. 104° azimuth

Collar Dip -48.5°

Elev. 1775 meters

Length

147.8 m (485')

Hole No. H-89-1 Sheet 1

From	To	Description
0.0	4.57	Overburden
4.57	11.28	Rubble - no core recovered.
11.28	17.45	Overall a greenish colored breccia zone. Greenish color imparted by variably fine to coarse-grained matrix material resulting from material same as some of the clasts which are dark green and white laminated, very limy clasts. Green coloration due to some diopside, fine green sericite and some chlorite. Clasts are of several types: laminated, limy, argillaceous sediments; white quartz fragments; white to buff limestone; and green argillite clasts - all set in a matrix composed of the same lithologies.
17.45	20.90	Same limestone breccia but buff to white in color with fewer argillaceous clasts.
20.90	30.00	Dark interbedded section with green and brown argillaceous sediments, grey carbonate (calcite) layers (some may be sideritic); and fine, light grey quartz/chert layers. Package is skarn with the amount of calcite quite variable, sometimes forming 80% of core, over 10-15 cm lengths. Thin to laminated sequence now highly schistose at 50-65° to core axis, getting more irregular towards the base. Upper contact over 15 cm into the breccia. More carbonate towards the basal contact where 90%+ finely laminated limestone continues for about 60 cm.
30.00	42.17	Majority of interval is an off-white to buff colored limestone breccia. Primarily white to even orangey-buff (partly dolomitized) limestone clasts (to 5 cm in size) with lesser crystalline quartz clasts to 2 cm in size. A few remnant <10 cm intervals have faint laminations at 50° to core axis. Matrix is light grey to buff, fine-grained calcite. Some evidence of dissolution. Superimposed is a vugginess caused by late leaching of the carbonate. Towards the base of this interval the incipient brecciation is more buff colored with apparent grey quartz infilling over the last 0.5 meter.

Analysis

Drill Hole Record



Property HALL District Western/Nelson M.D. Hole No. H-89-1

Commenced Location Tests at Hor. Comp.

Completed Core Size Corr. Dip Vert. Comp.

Co-ordinates True Brg. Logged by

Objective % Recov. Date

Claim

T Brg.

Collar Dip

Elev.

Length

Hole No. 1-1-1-1 Sheet 4

X.XX meters

From

To

Description

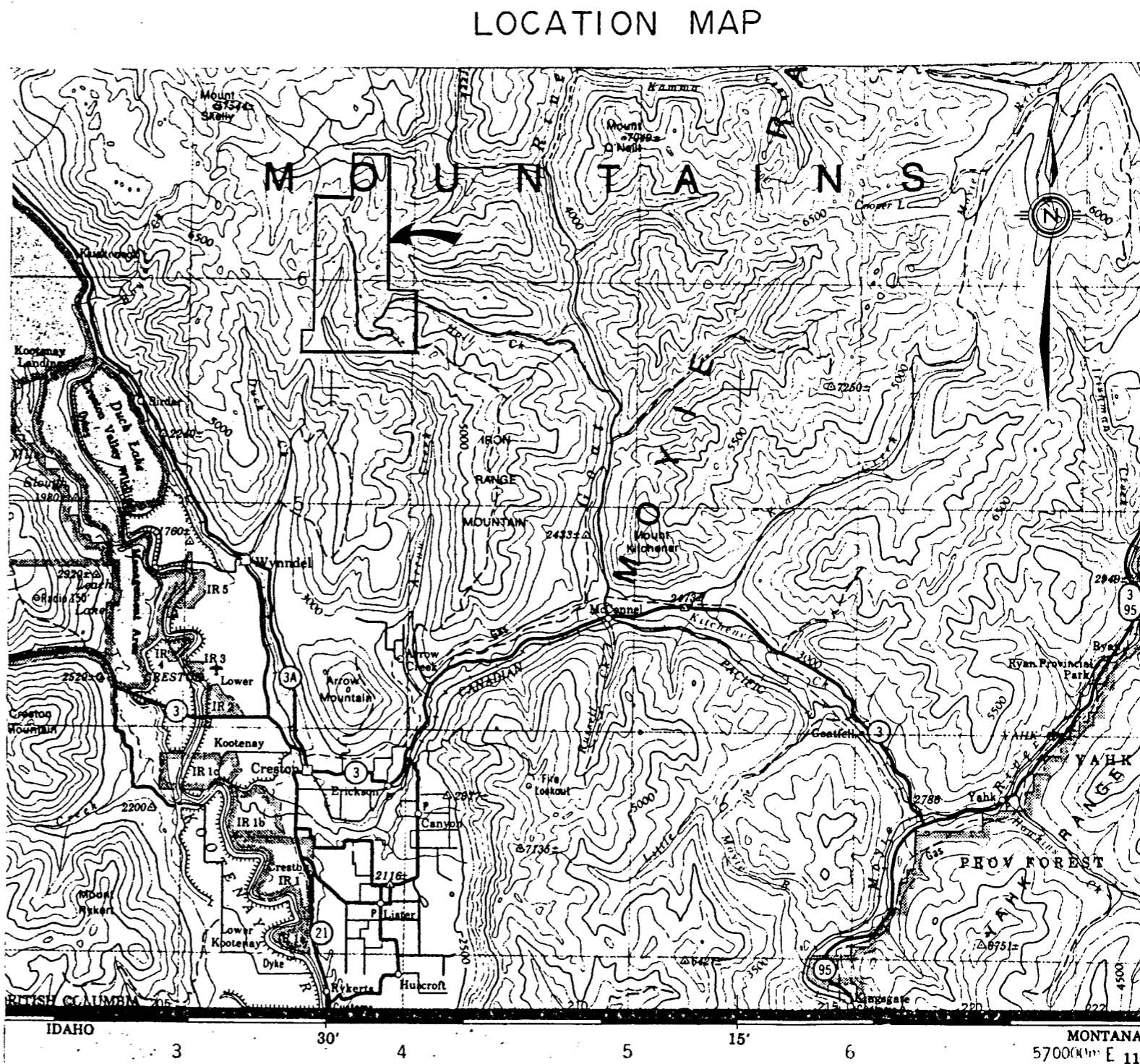
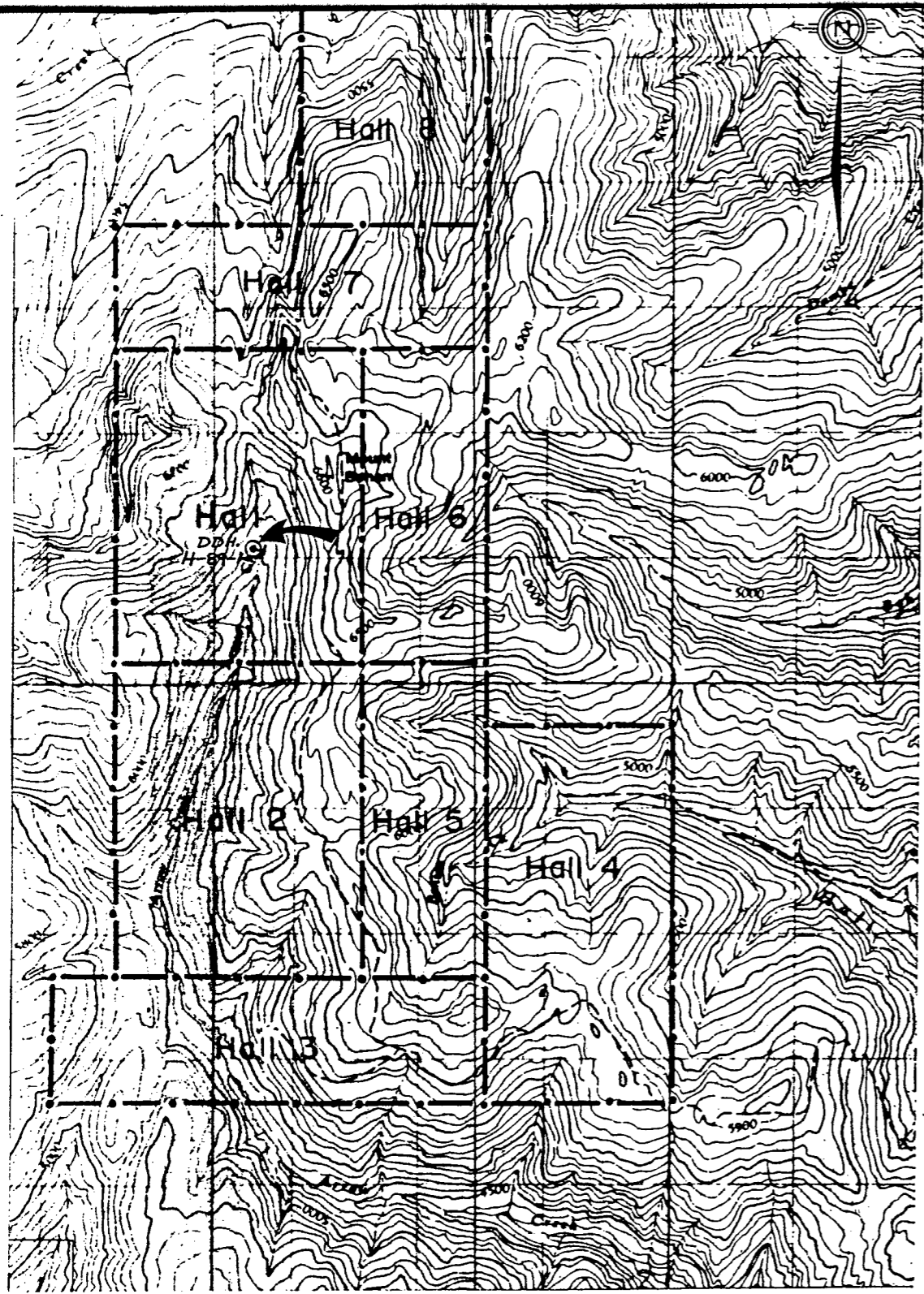
Analysis

Towards the base of the hole, the package is getting more argillaceous with grey and greenish grey argillites and quartzitic beds with brown biotite-rich laminations and biotite spotting. Small-scale, intra-bed folds still in evidence. Bedding at end of hole at 50° to core axis.

*** END OF HOLE AT 147.80 METERS ***

Core recovery overall is estimated at 87%
Acid dip test at bottom of hole was 48°
Core stored at Sullivan Mine, Kimberley, B.C.

Signed: _____
D. ANDERSON



GEOLOGICAL BRANCH
ASSESSMENT REPORT

19, 1983

HALL PROPERTY					
Drawn by: DA		Traced by:		DIAMOND DRILLING REPORT	
Revised by	Date	Revised by	Date		
Scale: As shown		Date: DEC/89		Plate:	