REPORT OF GEOLOGICAL AND GEOCHEMICAL SURVEYS OF THE KID GROUP OF 37 CLAIMS, SITUATED BETWEEN FOUND AND PETERSEN CREEKS, TRIBUTARIES OF KID CREEK, NELSON MINING DIV.

49° 12' N 116° 15' W

WORK WAS DONE ON THE ABOVE CLAIMS IN THE PERIOD JUNE 3RD TO JULY 22ND 1967 FOR COMINCO LTD.

REPORT BY H. H. FREUND
UNDER THE SUPERVISION OF
J. RICHARDSON, P. ENG.

82F/1E

1069

COMINCO LTD. Kimberley, B. C.

REPORT OF GEOLOGICAL AND GEOCHEMICAL SURVEYS OF THE KID GROUP OF 37 CLAIMS, SITUATED BETWEEN FOUND AND PETERSON CREEKS, TRIBUTARIES OF KID CREEK, 5 MILES NORTH OF HIGHWAY 3, IN THE NELSON M.D., 49° 12' 116° 15'

Group	Number of Claims	Credit Requested
Kid	33	1 year each

The located claims on which assessment work credit is requested as a result of geological and geochemical work performed during the period June 3rd to July 22nd, 1967 are as follows:

Claim	Record No.	Credit Requested	Total
Kid Nos. 4-9 Incl.	9125 - 9130 Incl.	1 year each	6 years
Kid Nos.12-28 Incl.	9133 - 9149 Incl.	1 year each	17 years
Kid Nos.33 35 37	9154 9156 9158	1 year each	3 years
Kid Nos.39-45 Incl.	9160 - 9166 Incl.	1 year each	7 years
		Total	33 years

Work was done on the above claims in the period June 3rd to July 22nd 1967.

REPORT BY

H.H. FREUND UNDER THE SUPERVISION

OF J. RICHARDSON, P. ENG.

HHF:ml
July 27th 1967

C O M I N C O L T D. Kimberley, B. C.

REPORT OF GEOLOGICAL AND GEOCHEMICAL SURVEYS OF THE KID GROUP OF 37 CLAIMS, SITUATED BETWEEN FOUND AND PETERSON CREEKS, TRIBUTARIES OF KID CREEK, 5 MILES NORTH OF HIGHWAY 3, IN THE NELSON M.D., 49° 12' 116° 15'

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COMINCO LTD.

EXPLORATION WESTERN DISTRICT

REPORT OF GEOLOGICAL AND GEOCHEMICAL SURVEYS OF THE KID GROUP OF 37 CLAIMS, SITUATED BETWEEN FOUND AND PETERSON CREEKS, TRIBUTARIES OF KID CREEK, 5 MILES NORTH OF HIGHWAY 3, IN THE NELSON M.D., 49° 12' 116° 15'

SUMMARY

Sparse galena and trace sphalerite mineralization occur disseminated in sediments as well as in lenses in quartz veins cutting the sediments of the Pre-Cambrian Purcell System. Pyrrhotite mineralization is abundant in all sediments in the area. The map area is intruded by several small diorite dykes and sills. Fairly simple structure prevails except in areas of possible faulting and tight folding. Strikes are generally N.W. and dips to the N.E. Faulting seems evident, particularly, in a near E.W. fracture system.

Geologic mapping, an altimeter survey, a geochemical survey, and cat road building and stripping were done on the claims during the period June 3rd to July 22nd 1967. Mapping was done on three scales 1"=1/4 mile (regional), 1"=200', and 1"=50' (detailed). Air photos were used for regional control and chain and compass techniques were used as control for the detailed mapping. The crew consisted of a geologic assistant and an exploration technician under the supervision of a geologist and a professional engineer.

INTRODUCTION

The Kid claims are located in the Nelson Mining Division (NTS 82F-1) at latitude 49° 12' and longitude 116° 15'.

The prospect is situated between Peterson Creek and Found Creek tributaries of Kid Creek. The area is accessible by logging roads on the N.W. side of Kid Creek and S. side of Peterson Creek. Numerous cat trails and skid trails run through the claim group. These trails are probably the result of logging operations in the early 1950's.

The claims are held under an option to purchase 100% over a five year period from the owner, H.Fors, of Kimberley, B.C.

PRODUCTION AND DEVELOPMENT

This is a new find and no production has been carried on.

Development in 1967 by Cominco was restricted to 1500' of cat road and 6,000 cubic yards of stripping.

GEOLOGY

Stratigraphy

Table of Formations

Era	System	Formation	Lithology
?	?	Diorite Dykes	Coarse to medium grained altered diorite, laths of mafics altered to chlorite.
Pre-Cambrian	Proterozoic Lower Purcell	Creston	Basal Creston, green and grey argillaceous quartzite.

Table of Formations - Continued

Era	System	Formation	Lithology
Pre-Cambrian	Proterozoic Lower Purcell	Upper Aldridge (Not in Map Area)	
Pre-Cambrian	Proterozoic Lower Purcell	Middle Aldridge	Thin bedded fine grained impure quartzites interbedded with thin highly sheared argillites
Pre-Cambrian	Proterozoic Lower Purcell	Lower Aldridge (Not in Map Area)	

Lower Aldridge:

Although there is no evidence for the presence of any Lower Aldridge sediments in our map area, in other areas they consist principally of grey-green rusty weathered, thinly interbedded fine grained quartzite, siltstone, silty argillite and argillite.

Middle Aldridge:

The sediments of the Middle Aldridge Unit consist mainly of thin to medium thick quartzite beds; most of them impure, and rather silty. The average thickness of these beds varies between 1 and 10 feet. When these quartzite beds become excessively silty they grade into siltstones. The quartzites are interbedded with thin bedded, laminated argillites. These sediments are usually highly sheared and altered.

Although 750 stratigraphic feet were covered in detail mapping at 1" = 50' no significant markers were noticed. A high pyrrhotite bearing banded argillite bed about 15 feet thick was the only prominent or outstanding stratigraphic bed that could be used as a marker. Needless to say, there are many argillite beds of similar nature all through the Aldridge formation.

Some loadcast structures occur on interfaces between beds, primarily between two silty quartzite beds. No other sedimentary structural features were in evidence.

The Middle Aldridge unit is thought to be 9000 feet thick and about 4000 feet of it outcrops in patches in the map area.

Upper Aldridge:

This sequence of rocks although not outcropping anywhere in the immediate map area, consists mainly of thick beds of orthoquartzites in the lower two thirds and argillites, silty argillites and calcareous argillites in the upper one third.

Creston:

The Creston formation characterized by its grey and green weathering surface appears to be in fault contact with Aldridge for there is no obvious Upper Aldridge rocks outcropping in the contact area and severe fracturing and crumpling occurs near the contact. The Creston sediments consist mainly of grey and green argillaceous quartzites with minor interbedded argillite.

Diorite Dykes:

There are three known dykes in the map area and one occurs 250 feet from the mineralized showing area. The strike of this dyke appears to be 150° to 155° and tends to narrow to the south. The intruded sediments are striking at 140°. The diorite is medium grained with alteration to chlorite of most of the mafic minerals. A chill contact is developed adjacent to the sedimentary country rock and some silicification of the sediments has occured. The chill border appears to have albite and other plagioclases and is highly fractured with iron staining in the fractures.

Another smaller diorite sill is found where Found Creek crosses the Kid Creek road. It appears to be only 20 feet in width.

Another diorite dyke outcrops on Found Creek at the first tributary. It appears to be about 50 to 60 feet in width and strikes at about 70°. It appears to strike along a prominent photolinear which extends across the area between Found and Peterson Creek.

Structure:

Detailed work in the area of the showing indicated no significant structures except the possibility of a set of fracture slippages or faults in a direction 060°. These are noticed in outcrop by prominent shearing in this direction and changes in strike on either side of these prominent shears. Photolinears seem to occur in the general area and in the same general direction of these shears. The amount of movement if any, does not appear to be too great although slickensided surfaces are extensive in the shear areas.

Quartz veins are numerous in these fracture zones although they strike at 080° - 075°. The entire map area has a prominent fracture set at 080° - 075°. This set of fractures may be related to movement on the Moyie thrust fault which occurs to the S.E. of the map area.

The possibility exists of a N.W. striking fault running nearly parallel to Peterson Creek and roughly 800 feet south west of it. A prominent shear in a direction 150° may be the extension of a major fault which down faulted a block of the Cranbrook formation into Aldridge and Creston rack to the N.W. of our map area. Changes in strike seem to indicate the possibility of a fault but again one can not be sure about the amount of movement, if any, along this shear.

On a regional basis small faults and large open folds seem to be the major structures.

The north side of Peterson Creek has a gentle open fold developed in Middle Aldridge rocks. Strikes change from 175° at the west end to 150° at the eastern end of Peterson Creek.

In the showing area strikes are variable between possible faults and strikes change from 125° to 180° within a distance of 200 feet.

Photolinears continue in a S.W. direction into Found Creek and distinct changes in strike of the sediments are noticed on either side of a prominent photolinear at Found Creek. A diorite dyke outcrop in this area also may have influenced the folding of the sediments.

Severe fracturing with minor amount of right lateral movement occurs on the S.W. side of Found Creek. These fit into the regional fracture system striking at 060° to 080°.

Structure: (Continued)

Some tight folding occurs near contact with the Creston formation to the west. The Aldridge sediments here are severely fractured with strong drag crumpling and with axial planes striking at 135°/v. Strong bedding plane shearing with stretched quartz grains are the result of this fold, and a possible fault along the contact of Creston and Aldridge rocks may have been the influencing factor in the formation of the fold.

The presence of the Creston rock in this area has not been previously shown on any geologic maps and probably may be a downfaulted wedge.

Alterations and Metamorphism:

There does not seem to be any major alteration in any of the sediments outside of the albitization near the diorite contacts and oxidation of the pyrrhotite on weathered outcrop.

Metamorphism is relatively low grade. Some of the argillites have become highly sheared and seriticized and both argillite and silty quartzites contain porphyroblasts of biotite and chlorite. Traces of garnets are seen in some quartzite beds but these are usually poorly developed.

Mineralization:

Mineralization of sparse galena and trace amounts of sphalerite are found in an argillite bed and several quartzite beds. These beds are interspersed within a 450 foot stratigraphic section. The mineralized quartzite units lie between thin bedded, highly sheared, black, somewhat talcose argillites. The mineralized quartzite beds are fine to medium grained and are normally massive. Mineralization can be followed along strike in the argillite bed for at least 150 feet but the occurence is sparse.

Closely associated to this occurence are shears at 060° and 150°, these being common fracture systems on a regional basis. Quartz veins striking at 080°/v in the area of the showings are heavily mineralized with medium grained galena crystals. These quartz veins are normally only 2-4" in width and mineralization is in small lenses, 1' to 2' in length.

Mineralization is probably due to hydrothermal liquids travelling along fractures and replacing certain favorable sedimentary beds.

Overall grade is weak, the best section assayed .2 oz./T Ag, .4% Pb, .2% Zn across 8 feet.

Geochemical:

A soil geochemical survey was carried out covering an area 2000 feet by 5200 feet centralized around the showing area. A total of 240 samples were collected.

Samples were taken from the tan brown B horizon and a constant record of the slope was kept. Organic cover was not significant, never being greater than 3 or 4 inches.

Analysis were done on the 80 mesh fraction by atomic absorption techniques. The results in p.p.m. Pb and Zn were plotted on a map of scale 1" = 200'. An anomalous background in both Pb and Zn was indicated. Two anomalous areas arose, one over and below the showing and one to the north of the showing in an area covered by overburden.

Bibliography:

(1) Nelson Map-Area, East Half, by H.M.A. Rice.
1941 Memoir 228 (contains Map 603-A); reprinted 1956.

(2) Cranbrook Map-Area, by H.M.A. Rice.
1937 Memoir 207 (contains Map 396-A by H.M.A. Rice and C.E. Cairnes).

(3) Geology of the Cranbrook Map-Area, by S.J. Schofield - 1915.

(4) Geology by G.B. Leech, 1950 to 1952 (contains Map 15 - 1957 St. Mary's Lake 82F/9.

(5) Geology by J.E. Reesor.
Memoir 292 (contains Map 1053-A).

Attachments:

(1) Statement of Expenditures.

(2) Statutory Declaration of Expenditures.

(3) Map - Regional Geology 1" = 1/4 mile.

(4) Map - Kid Group Plan 1" = 1/4 mile.

(5) Map - Geology and Geochemical Grid 1" = 200 feet.

(6) Map - Geochemical Assays.

(7) Statement of Qualifications.

Report by: H.H. Freund
H.H. Freund, B. Sc.
Geological Assistant

Endorsed by: J. Richardson
J. Richardson, P. Eng.

H.H. Freund/ml
Kimberley Office
July 28th 1967

Distribution: Mining Recorder, (Cranbrook) (2);
~~Montreal Exploration;~~
Vancouver Exploration.

COMINCO LTD.

STATEMENT OF EXPENDITURES 1967
KID GROUP - NELSON M.D.

GEOLOGICAL SURVEY		
H.H. Freund, Geological Assistant, 32 man days at $25 per day during the period June 3rd to July 22nd 1967	$ 800.00	
D. Pighin, Exploration Technician, 25 man days at $20 per day during the period June 3rd to July 21st 1967	500.00	
Board and Room: 57 man days at $6.50 per day	370.50	
Transportation: Truck rental - 1 month at $200 per month	200.00	
Supervision:		
G.L. Webber, Geological Technician, 5 days at $30 per day	150.00	
R.G. Gifford, Geologist, 6 days at $40 per day	240.00	
J. Richardson, P.Eng., 4 days at $40 per day during the period June 3rd to July 21st 1967	160.00	$2,420.50
GEOCHEMICAL SURVEY		
H.H. Freund, Geological Assistant, 5 days at $25 per day	125.00	
D. Pighin, Exploration Technician, 5 days at $20 per day	100.00	225.00
Board and Room: 10 man days at $6.50 per day	65.00	
Assays: 240 at $1 each	240.00	
Cat Road and Stripping	400.00	705.00
T O T A L		$3,350.50

Endorsed by:

J.H. Winter, Accountant, Kimberley Operations

This is Exhibit "A" to the Statutory Declaration of H.H. Freund, declared before me the 17 day of August, A.D. 1967

A Commissioner for taking Affidavits for the Province of British Columbia.

CANADA PROVINCE OF BRITISH COLUMBIA TO WIT:	STATUTORY DECLARATION RELATING TO EXPENDITURES ON A GEOLOGICAL AND GEOCHEMICAL SURVEY OF CERTAIN MINERAL CLAIMS LOCATED IN THE NELSON MINING DIVISION

I, H.H. FREUND, Geological Assistant, of the City of Kimberley, in the Province of British Columbia, DO SOLEMNLY DECLARE:

1. That I am the person who prepared a geological and geochemical report as a result of surveys carried out on certain mineral claims by Cominco Ltd., as agents for the owners of the said claims.

2. That copies of the said report are being filed with the Mining Recorder at Cranbrook.

3. That attached hereto and marked with a letter "A" upon which I have signed my name at the time of declaring hereof, is a statement of expenditures incurred in connection with the geological and geochemical survey of the said claims.

AND I MAKE this solemn declaration conscientiously believing it to be true and knowing it is the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

DECLARED before me at the Kimberley, in the Province of British Columbia this 1st day of August, A.D. 1967

H.H. Freund

A Commissioner for taking Affidavits for British Columbia

COMINCO LTD. Kimberley, B. C.

STATEMENT OF QUALIFICATIONS

H.H. Freund was responsible for conducting the geological and geochemical surveys described herein. Freund is a Geological Assistant and has been employed in geological field work since During this time he has worked on various field projects as a Geological Assistant. I consider him a competent and experienced Geological Assistant.

J. Richardson

J. Richardson
Professional Engineer

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 2 MAP 1069

	KID No.28 9149	KID No. 8 9129	KID No. 9 9130	KID No.45 9165	KID No 44 9166
KID No.27 9148	KID No.26 9147	KID No. 6 9127	KID No.7 9128	KID No.43 9164	KID No. 42 9163
KID No.25 9146	KID No.24 9145	KID No. 4 9125	KID No.5 9126	KID No.41 9162	KID No.40 9161
KID No.23 9144	KID No.22 9143	KID No.1 8817	KID RECORD No. 8816	KID No.39 9160	
KID No.21 9142	KID No.20 9141	KID No.2 8818	KID No.3 8819	KID No.37 9158	
KID No.19 9140	KID No.18 9139	KID No.12 9133	KID No.13 9134	KID No.35 9156	
KID No.17 9138	KID No.16 9137	KID No.14 9135	KID No.15 9136	KID No.33 9154	

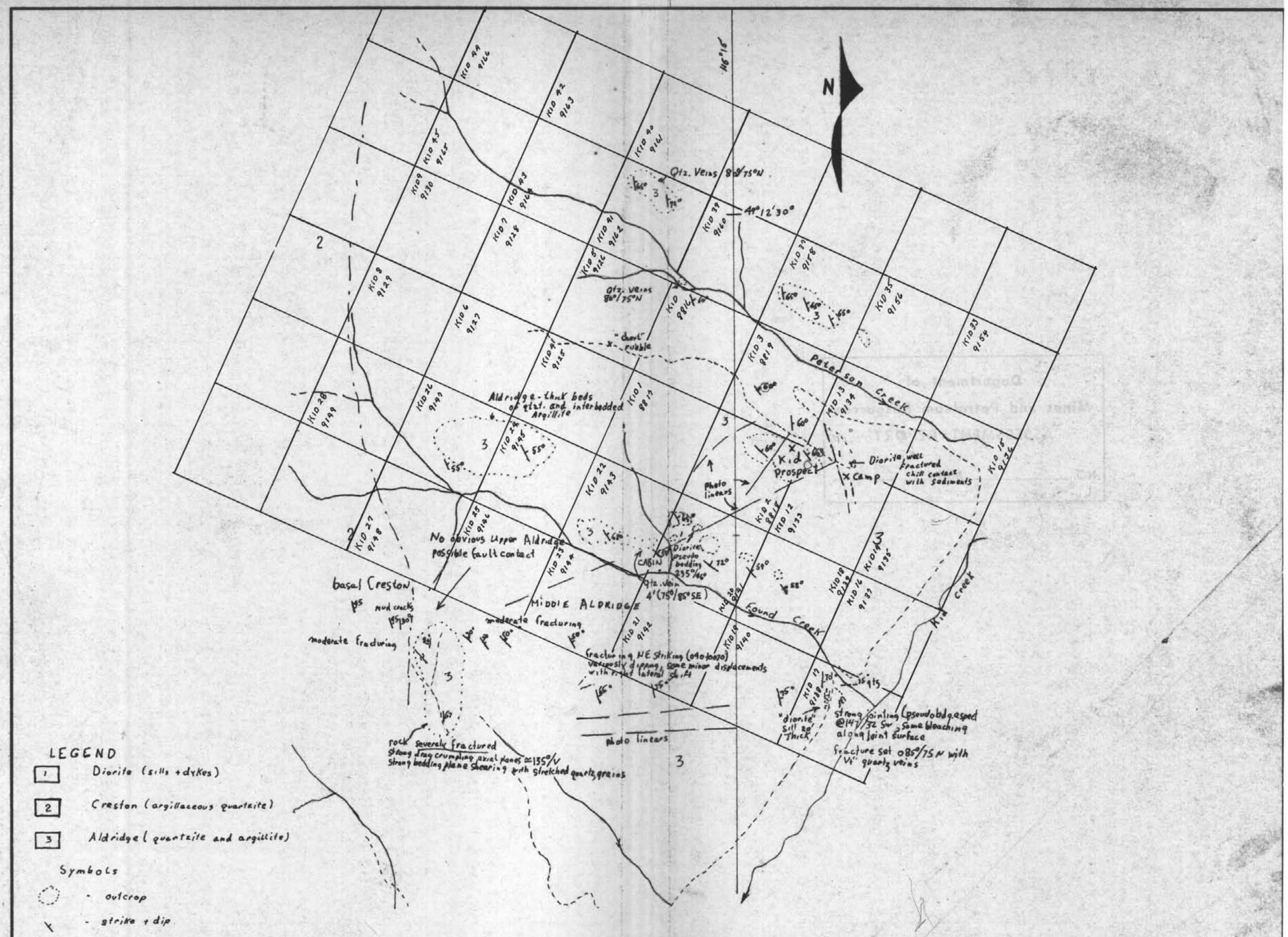
LOCATION: LAT: N. 49°12' LONG: W. 116°16'

The Consolidated Mining and Smelting Company of Canada Limited

DRAWN BY: G. L. Webber	TRACED BY:	THIS MAP TO ACCOMPANY COMINCO REPORT BY H.H. FRUEND
REVISED BY / DATE	REVISED BY / DATE	G. L. Webber for H. Fruend
		KID GROUP
		NELSON M.D.
		SCALE: 1" = 1/4 mile · DATE: July 31 – 1967 · PLATE:

HUGHES OWENS - 1931H - 3500 - 4-64

COMINCO 310-0610



Map to accompany Cominco report by H. H. FREUND

Hardol H. Freund

Cominco

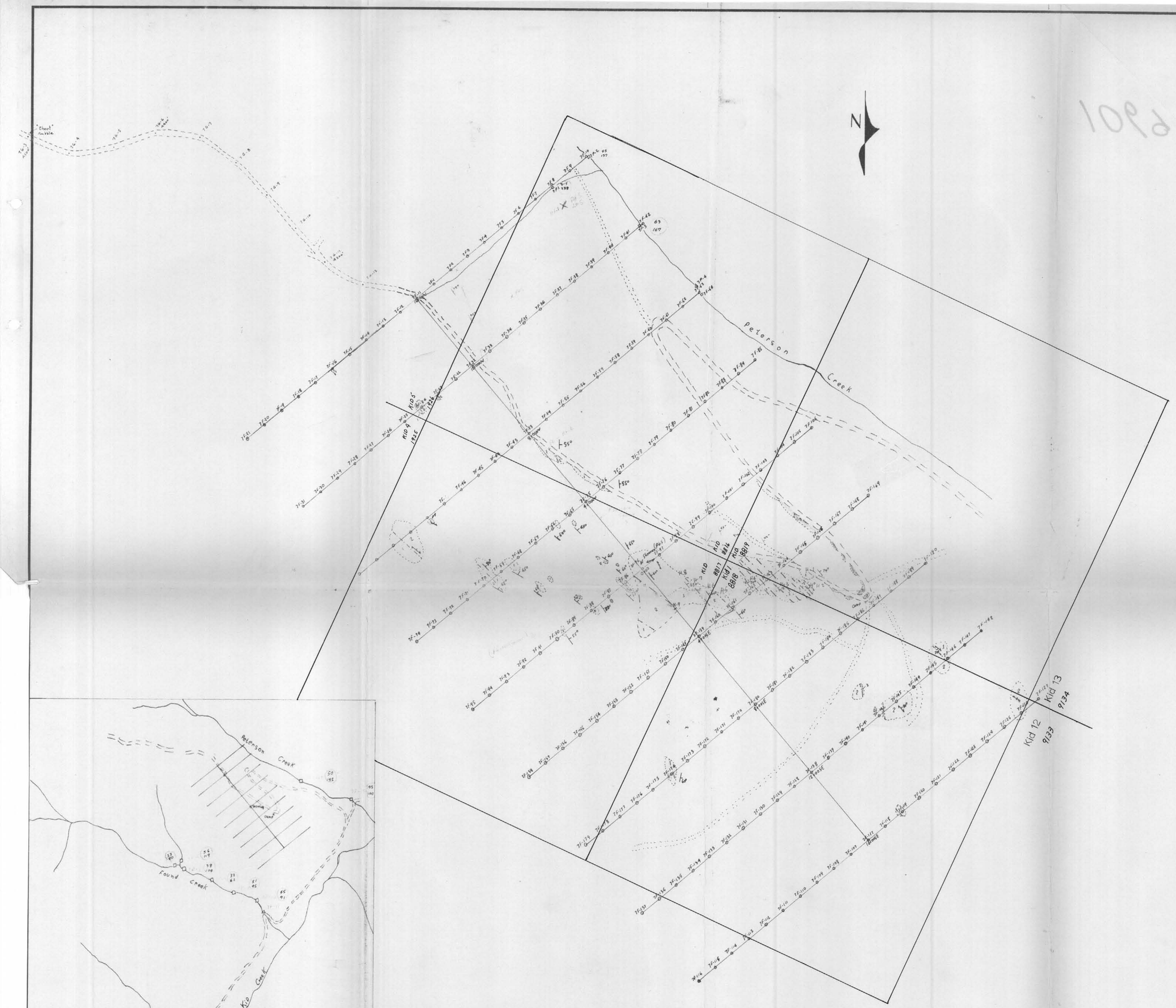
Drawn by: H.F		Traced by:	
Revised by	Date	Revised by	Date

Kid Creek Prospect
Regional Geology

Scale: 1" = ¼ mile | Date: July 18, 1969 | Plate:

210-0620

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3 MAP 1069



Kid Creek Area
Location and Geochem

Scale 1" = 1/4 mile 82F-1-9,F

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Legend

- 3 Diorite (dike)
- 1 Argillite (minor quartzite)
- 2 Quartzite (minor argillite)

Symbols

- O/c outline
- assumed contact
- Strike and dip (bedding)
- Strike and dip (shear)
- o Geochem. sample location
- Skid trail
- Road

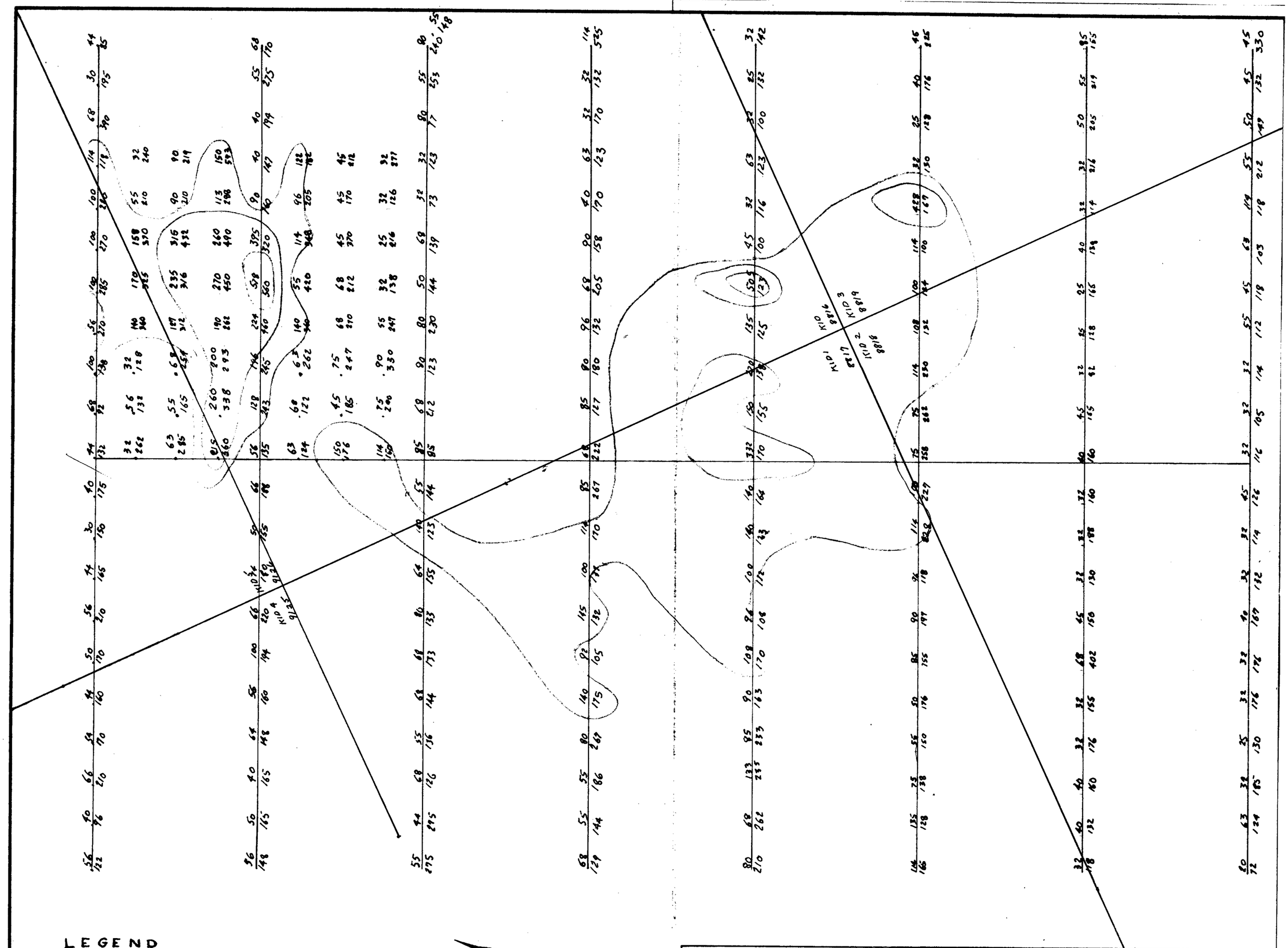
7F-1 Sample No. H-1 Detail Section Locations

Map to accompany Cominco report by H. H. Freund
Harold H. Freund
Cominco

Drawn by: H.F		Traced by:	
Revised by	Date	Revised by	Date

Kid Creek Geochem. Gri
with some reconnaissance
Geology
82F-1-9,F

Scale: 1" = 200' Date: June 10, 1967 Plate:



LEGEND

54 / 170 — PPM. Pb / PPM. Zn (results by Atomic Absorption)

N

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Map to accompany Cominco report by H.H. Freund

Harold H. Freund

Cominco

Drawn by: H.F		Traced by:	
Revised by	Date	Revised by	Date

Kid Creek Geochemistry

"Anomalies"

Scale: 1" = 200'

Date: July 18, 1967

Plate:

210-0620