CORANEX LIMITED

GEOCHEMISTRY OF CUB CREEK PROSPECT
YUKON TERRITORY

J. R. Woodcock
Vancouver, British Columbia

August, 1967

Canada

Department of Indian Affairs and Northern Development — Resource and Economic Development Group

Ministère des Affaires indiennes et du Nord canadien — Bureau des ressources et du développement économique

RESTRICTED

Box 1767,
Whitehorse, Y.T.,
October 4, 1967.

MR. G. A. McINTYRE
MINING RECORDER
WHITEHORSE MINING DISTRICT

our file/notre dossier M.I. M-252
your file/votre dossier
date

Report on Geochemistry of Cub Creek Prospect
Coranex Limited
by J. R. Woodcock - August, 1967

On the recommendation of the Resident Geologist and the Mining Inspector I hereby authorise you to accept this report as representation work under Section 53 (4) of the Yukon Quartz Mining Act to the value of Nine Hundred and Twenty Eight Dollars and Thirty Five Cents ($928.35).

James Smith,
Commissioner.

MGR/RAM

cc: Chief, Resource Management Division
Attention: Geological Evaluation Unit

Central Mining Records - Whitehorse

Resident Geologist

TABLE OF CONTENTS

FIGURES

GEOCHEMISTRY OF CUB CREEK COPPER-ZINC PROSPECT

LOCATION

Several large blocks of sulphide float occur in Cub Creek six miles southwest of Mile 1043 on the Alaska Highway, Yukon Territory. The closest settlement, Haines Junction, is at Mile 1015 on the Alaska Highway and 116 miles by road from the port of Haines in Alaska. The sulphide float lies along the southwest side of the Shakwak valley at an elevation of 4400 feet It is at latitude 60°55'N, longitude 138°13'W on Map Sheet 115B-16.

A bulldozer road about ten miles long connects the property with the pipeline road southwest of the highway. Both the bulldozer road and the pipeline road are in disrepair.

CLAIMS and OWNERSHIP

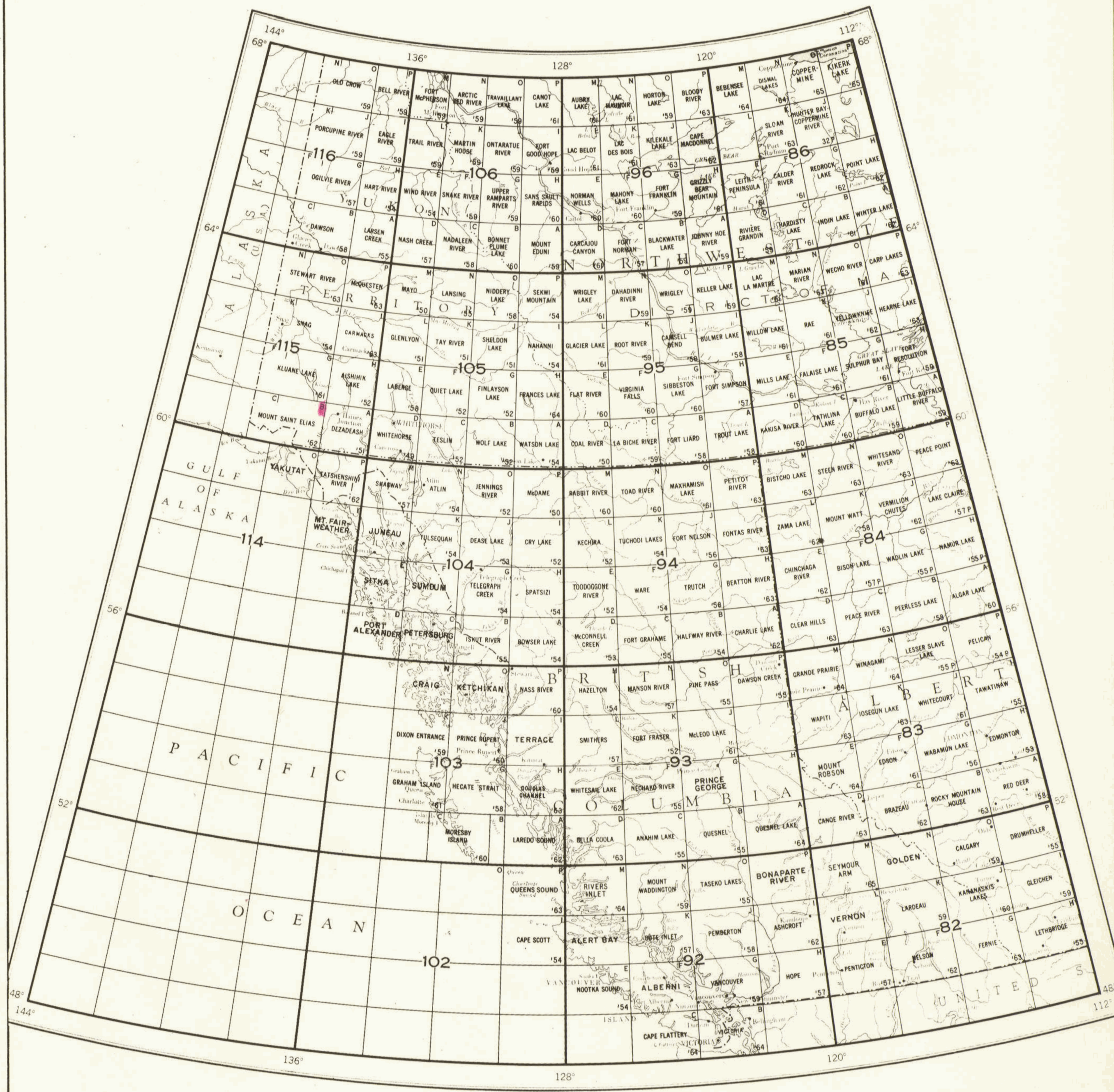
In 1965 and 1966 Coranex Limited acquired 58 claims (Cub No.'s 1 to 32 and Tel No.'s 1 to 26 inclusive). The claims covered the area of sulphide float and geophysical anomalies. The accompanying claim map shows the various claims and their tag numbers. The following list gives the date that the claims have lapsed or will lapse:

October 23, 1966	-	Cub No.'s 1 to 12 inclusive
March 31, 1967	-	Tel " 1 to 8 inclusive, Tel 14, Tel 16
June 17, 1967	-	Tel " 24 to 26 inclusive
September 17, 1967	-	Cub " 25, 27, 29, 31
October 23, 1967	-	Cub " 13, 14, 15, 17, 19, 21, 23, 24
March 31, 1968	-	Tel " 9 to 13 inclusive, Tel 15
June 17, 1968	-	Tel " 17 to 23 inclusive
September 17, 1968	-	Cub 30
September 17, 1969	-	Cub No.'s 26, 28, 32
October 23, 1969	-	Cub " 16, 18, 20, 22

This geochemical report should constitute one year of assessment work for nine claims and will be applied to the following claims: Cub 14, 17, 19, 21, 27, 29 and 30; and Tel 12, and Tel 13. If this assessment work is accepted then these nine claims will have their assessment due date extended by one year beyond that listed above.

EXPLORATION WORK

Prospectors working for the Gaymont Prospecting Syndicate discovered considerable sulphide float in what they called a terminal moraine in 1955. Prospecting up Cub Creek and around the glacier at the head of Cub Creek failed to locate additional float or the source of the known float.



WESTERN CANADA

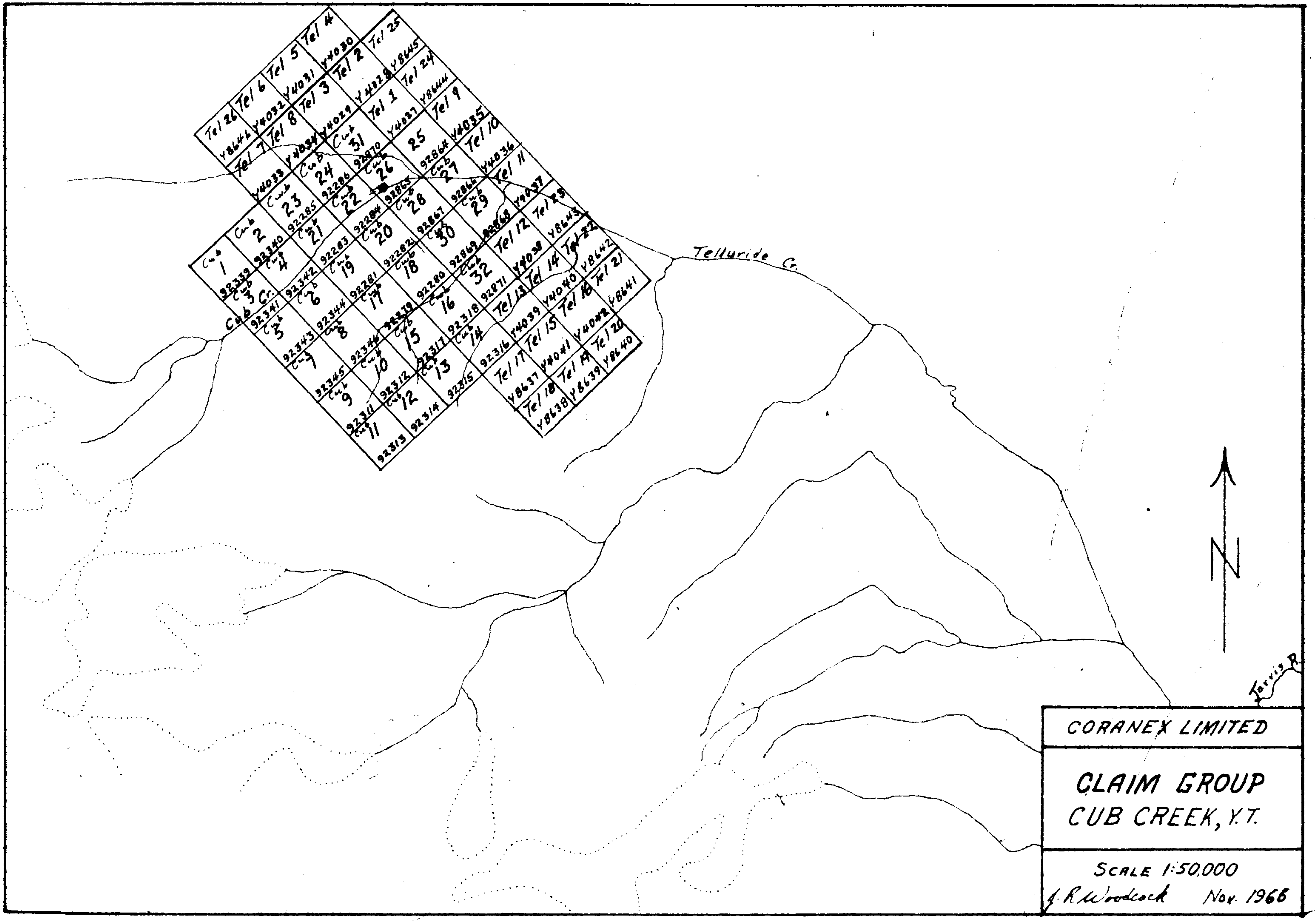

Telluride Cr.
Cub Cr.
Jarvis R.
N
CORANEX LIMITED
CLAIM GROUP
CUB CREEK, Y.T.
SCALE 1:50,000
J. R. Woodcock
Nov. 1966

Figure 2

In 1956, Dr. Clark, Geophysical Consultant, did a resistivity survey uphill from the sulphide float and extended this survey over the so-called moraine into the cirque at the head of Cub Creek. He discovered one zone of discontinuous conductors about 1500 feet uphill from the sulphide float. Three drill holes in the conductive area failed to reach bedrock. Hole #1, 124 feet long; hole #2, 110 feet long; and hole #3, 120 feet long all encountered sand, clay, and coarse gravel or moraine material.

In 1958 prospectors discovered some copper mineralization in a cliff two miles upstream from the "terminal moraine". Dr. Hans Froberg, director of the prospecting syndicate, concluded that this was the source of the sulphide float. Electromagnetic profiles run across the mineralized area failed to locate a conductor.

In 1962 (?) Canex Aerial Explorations Limited staked the ground. Hunting Survey Corp. Ltd. did a Turam survey to confirm the resistivity anomalies obtained by Dr. Clark. The survey showed a zone of discontinuous conductors co-extensive with Dr. Clark's conductor zone but apparently extending a little further southeasterly over an area of sheared altered and rusty basaltic rocks. Two vertical churn drill holes, approximately 190 feet deep, placed in this highly fractured rock did not encounter massive sulphides. Ray McKamy, scout for Canex, reported that the cuttings contained some disseminated native copper.

In 1964 Joe Montgomery, working for Meridian Syndicate, restaked the ground. The Syndicate did no work and the claims lapsed in July, 1965.

In 1965 and 1966 exploration crews staked 58 claims for Coranex Limited, covering the zone of conductors and the area of sulphide float. A geophysical survey done for Coranex Limited by Harold O. Seigel and Associates Limited and interpreted by Dr. Bosschart of that Company used the Turam electromagnetic system with a horizontal loop rather than a long wire. This survey eliminated the prior anomalies obtained by the resistivity survey of Dr. Clark and the Turam survey of Huntec Limited. However a short conductor of good conductivity was located 2000 feet southeast of the sulphide float.

This small conductor is on glacial strike along the Shakwak Valley and is practically in the location suggested by the writer as a source of the float. The geochemistry described in this report was done in an attempt to gain more positive information on the source of the float.

GEOLOGY

The Shakwak Valley, with a major regional fault lying along its southwest side separates the rugged St. Elias Mountains on the southwest from the relatively mature topography of the Yukon Plateau to the northeast. The Kluane Ranges, adjacent to the Shakwak Valley, form the frontal ranges of the St. Elias Mountains.

The sulphide float at Cub Creek, carrying economic values in copper and zinc, lies in a zone of volcanic rocks belonging to the Triassic and Jurassic ages. These have been mapped by Wheeler as "saussuritized andesite and basalt, flows, pillow lava and volcanic breccia". The same horizon has been called the Mush Lake Group by Kindle (1953) and described as "andesite, basalt, rhyolite, volcanic breccia, tuff, argillite, limestone". It is this horizon that contains the numerous copper showings in the vicinity of Mush Lake and Kathleen Lake.

The float on Cub Creek lies between the main fault of the Shakwak Valley and a southwesterly-dipping thrust fault which separates the Mesozoic volcanic rocks from Paleozoic sedimentary rocks. The intense shearing in the basaltic rocks along Telluride Creek is probably due to their close proximity to the Shakwak fault. The intense shearing in the basaltic rocks in the vicinity of the Canex diamond drill hole and in the anhydrite outcrops about one-half mile to the southeast of the sulphide float might be related to the southwesterly-dipping thrust fault.

Although some basalt, both unaltered and highly sheared, crops out in the creek about 1500 feet southwest of the electromagnetic conductor, there are no outcrops in the vicinity of the conductor or in the vicinity of the sulphide float. Geophysical work indicates about 200 feet of overburden covering the conductor.

GLACIAL HISTORY

During the glacial advances of the Pleistocene, large quantities of ice accumulated in the St. Elias Mountains. Most of this flowed southwesterly into the Pacific Ocean but a large part of it also flowed northeasterly through passes into the Shakwak Valley. Valley glaciers coalesced in the Shakwak Valley and flowed northwesterly along the valley to join large glaciers coming down the valleys of the Donjek River and the White River. This large compound glacier terminated in the Wellesley Basin near Snag, Yukon Territory. Vast quantities of glacial outwash and debris were dumped into this basin. The ice has receded considerably since the Pleistocene and although it now flows for many miles down some of the major valleys, it does not reach the Shakwak Valley.

In addition to the present day large valley glaciers, the high cirques within all the mountain ranges of the St. Elias Range have small cirque glaciers. Such a cirque glacier, now completely gone, occupied the basin at the very head of Telluride Creek and probably supplied debris to the area subsequent to the glaciation by the Shakwak Valley glacier. This debris would travel in an easterly direction to be dumped onto the northwestern part of our claim group. Such a cirque glacier also occupies the basin at the head of Cub Creek.

Very conspicuous rock glaciers are found along the various mountain ranges. Some of these are still active but many of them are stagnant. Each of the rock glaciers must have a source area for the angular blocks of rock. In most cases the source is the terminal moraine in the cirque glaciers, in some cases it is merely talus at the foot of cliffs. The so-called moraine occurring along Cub Creek and terminating in the vicinity of the sulphide float is possibly a rock glacier. It overlies debris supplied to the claim group by the Shakwak Valley glacier and also by the cirque glacier at the head of Telluride Creek.

The glacial history of the Cub Creek claim block is very important in determining the source of the sulphide float. If the float was brought to its position by the Shakwak Valley glacier its source would be to the southeast; if it came from the cirque at the head of Telluride Creek its source would be to the west; and if it came from the Cub Creek rock glacier its source would be to the southwest.

Most of the sulphide float lies in the bed of Cub Creek and could have been residually concentrated from debris supplied by either of the three sources. However, one boulder sticks out of the bank above the creek and the bank at this particular locality appears to be a continuation of the main valley fill along Telluride Creek rather than part of the rock glacier of Cub Creek. The writer suggested that the sulphide float possibly lies below the Cub Creek rock glacier and within debris supplied by the Shakwak Valley glacier. The geophysical survey for Coranex Limited was done mainly to test the source area to the southeast of the sulphide float.

GEOCHEMISTRY

Silts (Cu, Zn, THM)

Detailed silt sampling was done along the upper three branches of Telluride Creek; these include the uppermost part of Telluride Creek, Cub Creek, and the stream draining the sheared area near the Canex drill hole. In addition single samples were taken from three other tributaries of Telluride Creek to the southeast of the area of interest.

The frequency distribution curve for the total copper within silts reveals that the threshold value for anomalous conditions of copper is about 115 ppm. A perusal of the map with the copper values reveals that there were no anomalous silts.

The frequency distribution curve for total zinc in silts reveals the threshold value of about 200 ppm. A perusal of the map of zinc and silts reveals that the uppermost branch of Telluride Creek is slightly anomalous throughout most of its length and that the numerous small tributaries at its head are also slightly anomalous. The debris within the stream bed has a large portion of black slate which may be the source of the zinc. The talus and moraine material at the head of the creek where it splits into numerous little tributaries consists mainly of black slates. However there is also abundant buff-weathering carbonatized rock, possibly originally an andesite intrusive or extrusive. There is also some float of anhydrite. Grab samples from the talus and moraine material of these three rock types were taken and were analyzed for copper and zinc and the following results show that source rock was not found:

Rock Type:	Copper (ppm)	Zinc (ppm)
rusty carbonatized rock	36	64
limy black graphitic slate	16	38
banded anhydrite	4	14
black pyritic slate	73	92

In addition to the anomalous creek just mentioned one might note the small rivulet on top of the Cub Creek glacier. This small rivulet is also anomalous in zinc.

The map of cold extractable heavy metals in silts reveals no outstanding anomalies. However the stream forming the head of Telluride Creek has slightly higher average values than do any of the other streams.

Only a few of the silts were run for total lead. The map of the values indicates one anomalous creek. This is a creek about a mile and one-half east of Cub Creek. The anomaly was not investigated and no explanation is offered.

Soil Geochemistry (Zn, Cu, Hg)

The frequency distribution curves for total zinc and copper in soil indicate threshold values of 170 ppm for zinc and 100 ppm for copper. The map of the soil results indicates that there were no anomalous values for zinc and only one anomalous value for copper. This anomalous value for copper (125 ppm) is from a sample that was probably on the Cub Creek rock glacier. The mere fact that it was on glacial strike with the electromagnetic conductor is just coincidental and of no consequence.

Mercury in Soil

The published literature indicates that massive pyrite deposits carrying zinc and copper generally have associated anomalous mercury values and that the soil above these deposits will often yield a mercury anomaly. The literature also indicates that the mercury probably rises through the soil in the form of vapour. Whether or not the mercury vapour could rise through 200 feet of overburden was not known; whether or not this could have taken place before these deep glacial deposits became permanently frozen; or whether or not a rise in vapour could take place through the frozen overburden is not known. However the writer decided to test two soil profiles across the electromagnetic conductor for mercury with the idea that positive results would be useful but negative results would mean nothing.

The mercury results are shown on the accompanying map (figure 10). In order to smooth out the irregularities and get a better picture, the average values for sites halfway between sample sites were estimated and drawn on the map. Profiles for mercury values along lines 20S and 24S (figures 11 and 12) are based mainly on the estimated values between sample sites.

The profiles show a definite anomaly along the west side of the conductor, a slight anomaly along the east side of the conductor, and a narrow low over top of the conductor.

CONCLUSIONS

The silt sampling shows no anomaly for copper or zinc in Cub Creek. This confirms the results of detailed prospecting which revealed no additional sulphide float above the discovery site. It also supports the theory that the Cub Creek rock glacier or moraine is not the source of the sulphide float that has concentrated in the creek bed over a limited length of the creek (Cub Creek is superimposed on the rock glacier throughout most of its length).

The silt sampling also reveals slightly anomalous zinc values along the stream forming the head of Telluride Creek. There are no corresponding copper anomalies. More detailed sampling of the black slates would probably reveal an horizon anomalous in zinc.

The soil samples revealed no copper or zinc anomalies. This cannot be used as negative criteria because it is doubtful that an anomaly would be formed by the sulphide float scattered throughout the moraine and probably occurring largely near bedrock.

The mercury geochemistry yielded encouraging but somewhat puzzling results. There is a low over the conductor, but a good high along the west (or up dip) side of the conductor and a small anomaly along the east side of the conductor.

In a publication on mercury geochemistry over the West Shasta massive sulphide deposits, Friedrich and Hawkes* give mercury values for some core from a drill hole that passed through the rhyolite host rock, some massive sulphides and some adjacent zones with pyrite veinlets. These are as follows:

Drill Footage:	Rock Type	Mercury (ppb)	Copper (ppm)	Zinc (ppm)
24.5'	rhyolite tuff	85	50	< 200
100' - 120'	rhyolite	25	20	< 200
121'	rhyolite tuff	130	100	200
180'	pyrite veinlets	1300	50	< 200
200' - 220'	rhyolite tuff	55	70	< 200
252' - 254'	massive sulphide	620	>10,000	>10,000
400'	pyrite veinlets	1210	100	< 200

Thus the barren pyrite veinlets had more mercury than the massive copper-zinc ore.

Some similar explanation may be forthcoming for the puzzling mercury profile at Cub Creek. The important fact is that there is a mercury anomaly associated with the Cub Creek electromagnetic conductor.

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*Friedrich, G. H. and Hawkes, H. E. (1966) Mercury Dispersion Halos As Ore Guides for Massive Sulfide Deposits, West Shasta District, California; Mineralium Deposits 2, 77-88.

RECOMMENDATIONS

The geochemistry results support the writer's thesis that the sulphide float came from the southeast. The mercury geochemistry indicates that the electromagnetic conductor is a legitimate anomaly.

The conductor should be drilled.

J. R. Woodcock

August 1967

CUB CREEK GEOCHEMISTRY
(THRESHOLD VALUES)

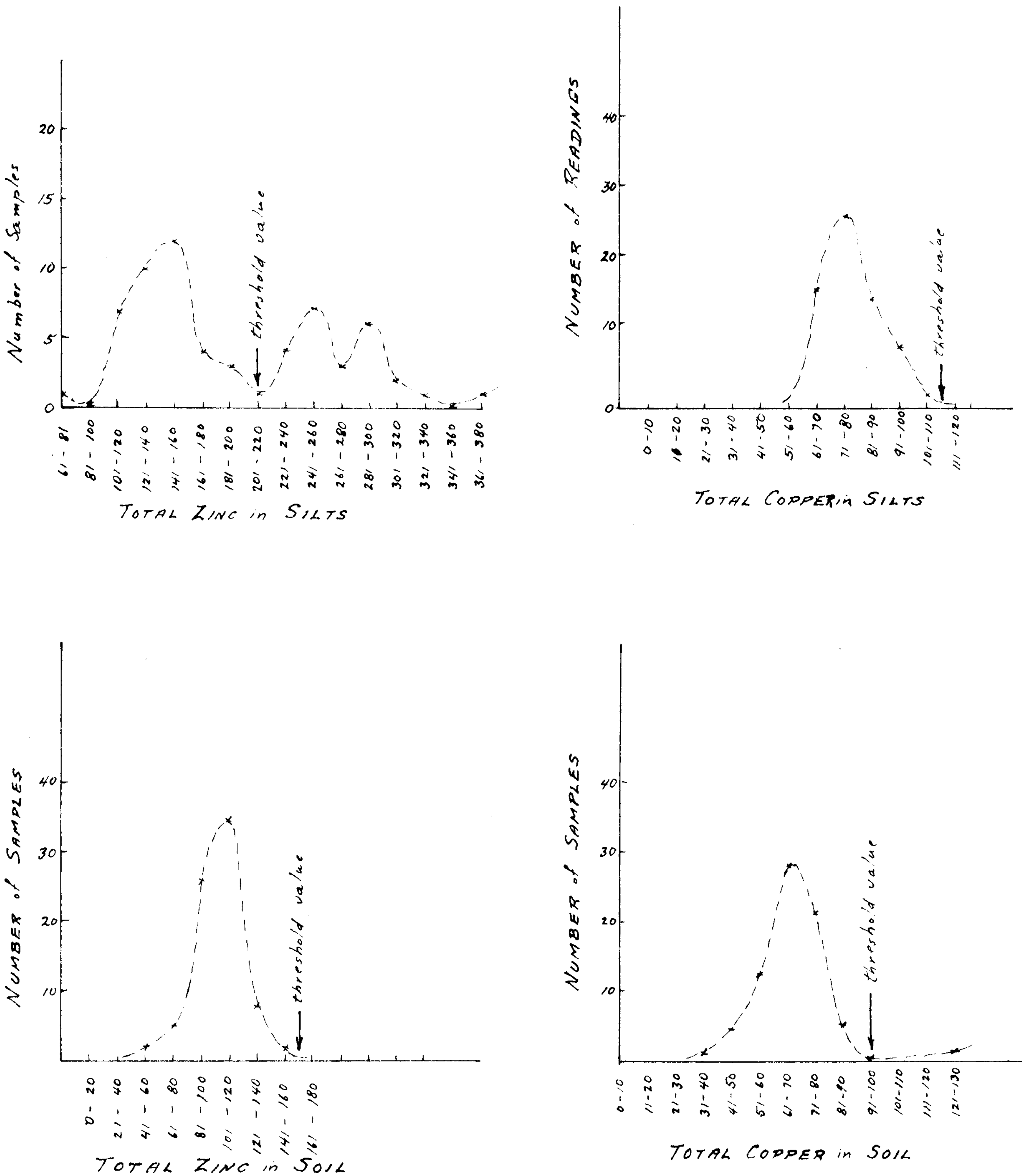


Figure 3

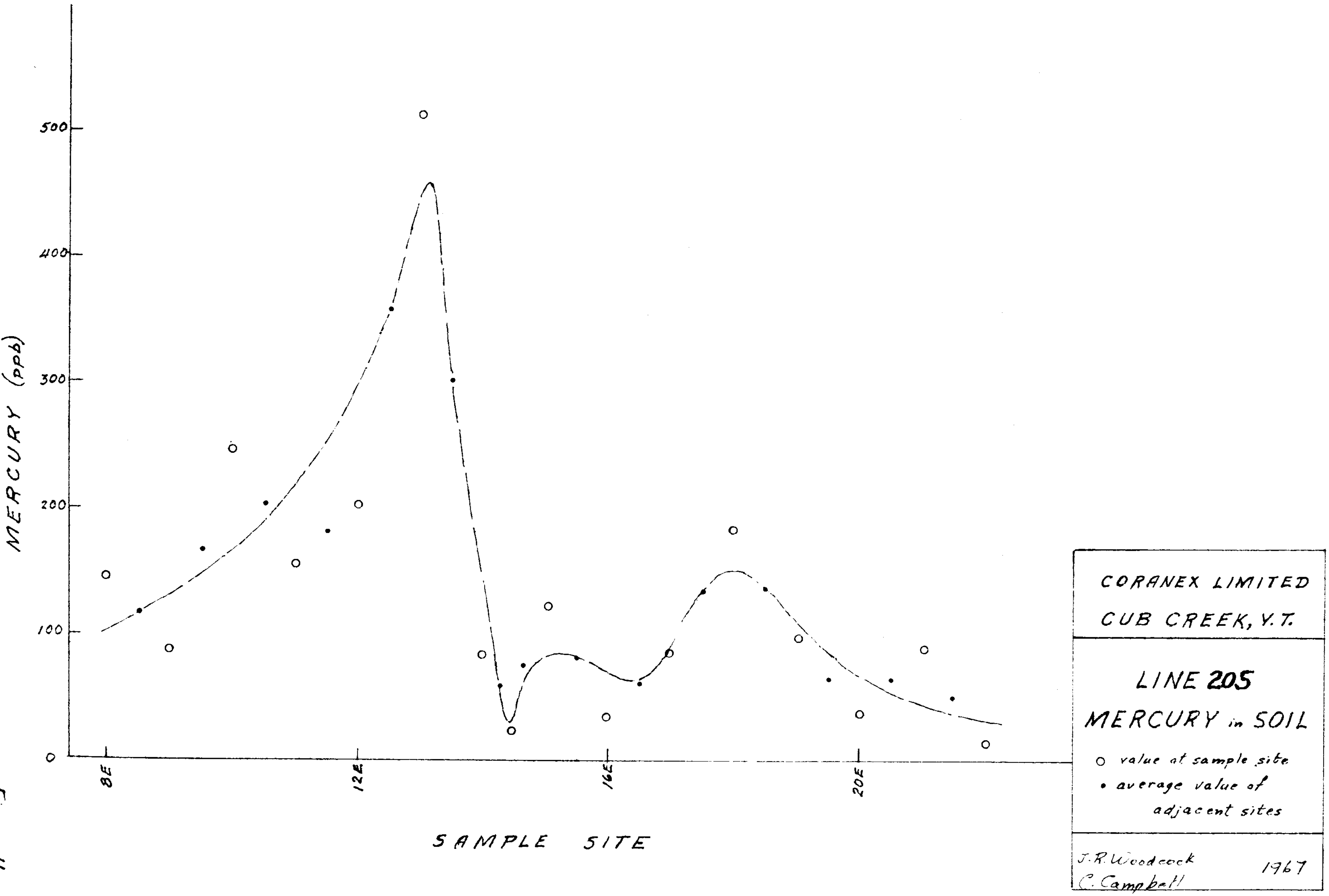
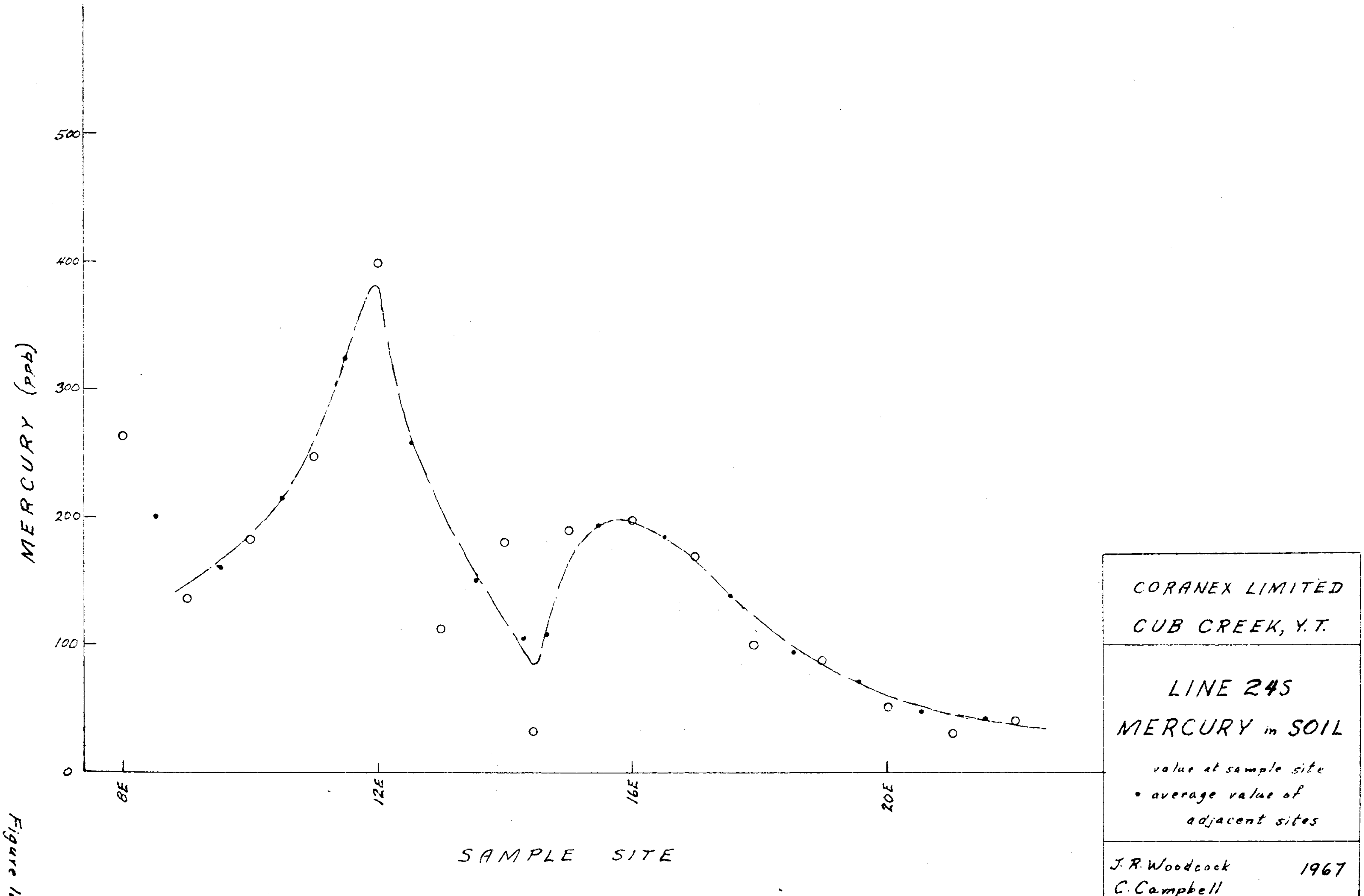

MERCURY (ppb)
500
400
300
200
100
0
8E
12E
16E
20E
SAMPLE SITE
CORANEX LIMITED
CUB CREEK, Y.T.
LINE 205
MERCURY in SOIL
○ value at sample site
• average value of adjacent sites
J.R. Woodcock
C. Campbell
1967

Figure 11



500
400
300
200
100
0
MERCURY (ppb)
8E
12E
16E
20E
SAMPLE SITE
CORANEX LIMITED
CUB CREEK, Y.T.
LINE 24S
MERCURY in SOIL
value at sample site
• average value of adjacent sites
J.R. Woodcock
C. Campbell
1967

Figure 12

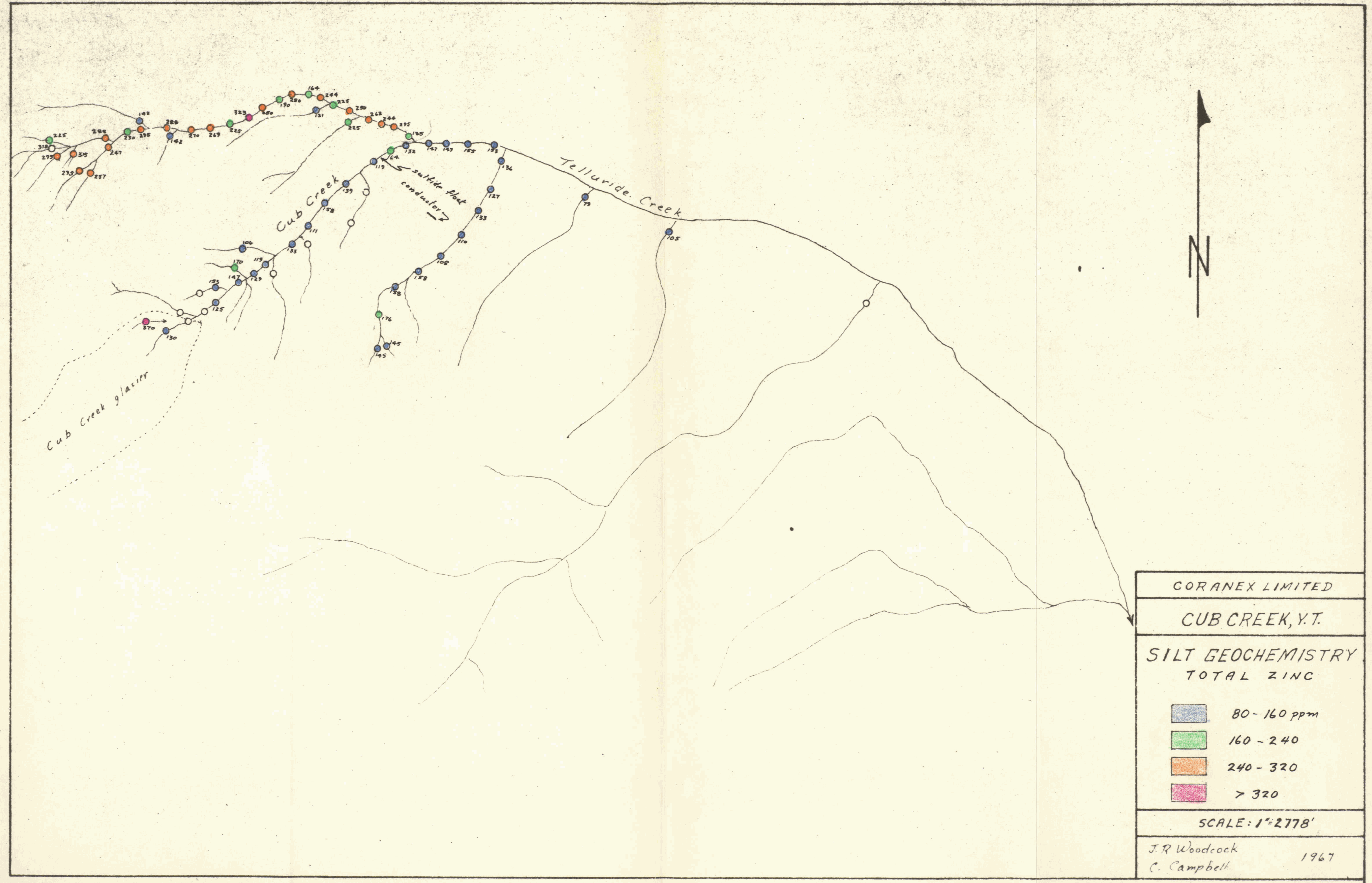

Telluride Creek
Cub Creek
sulfide float
conductor
Cub Creek glacier
N
CORANEX LIMITED
CUB CREEK, Y.T.
SILT GEOCHEMISTRY
TOTAL ZINC
80 - 160 ppm
160 - 240
240 - 320
> 320
SCALE: 1"=2778'
J.R. Woodcock
C. Campbell
1967

Figure 4

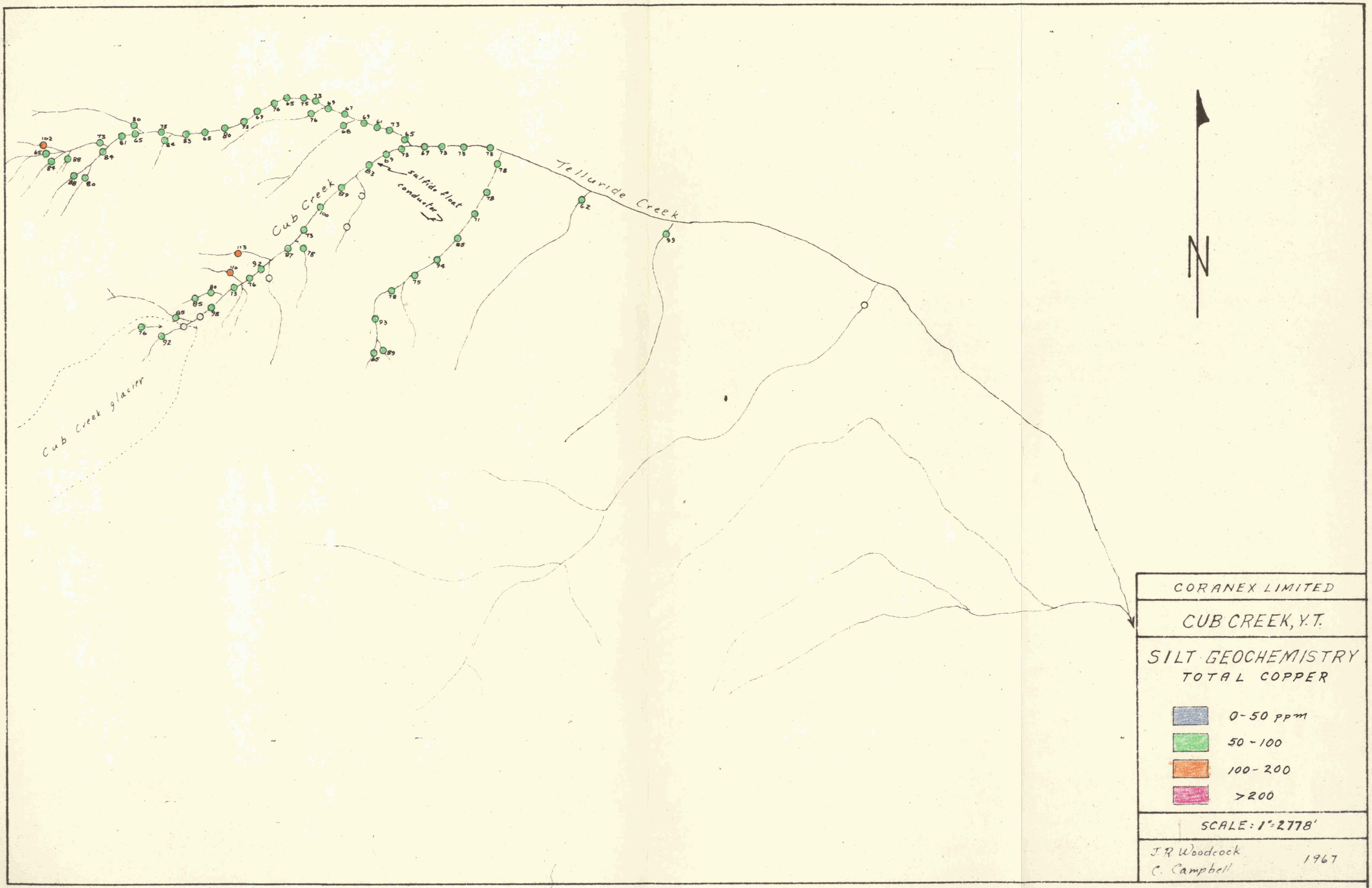

Telluride Creek
Cub Creek
sulfide float
conductor
Cub Creek glacier
N
CORANEX LIMITED
CUB CREEK, Y.T.
SILT GEOCHEMISTRY
TOTAL COPPER
0-50 ppm
50 - 100
100 - 200
>200
SCALE: 1"=2778'
J.R. Woodcock
C. Campbell
1967

Figure 5

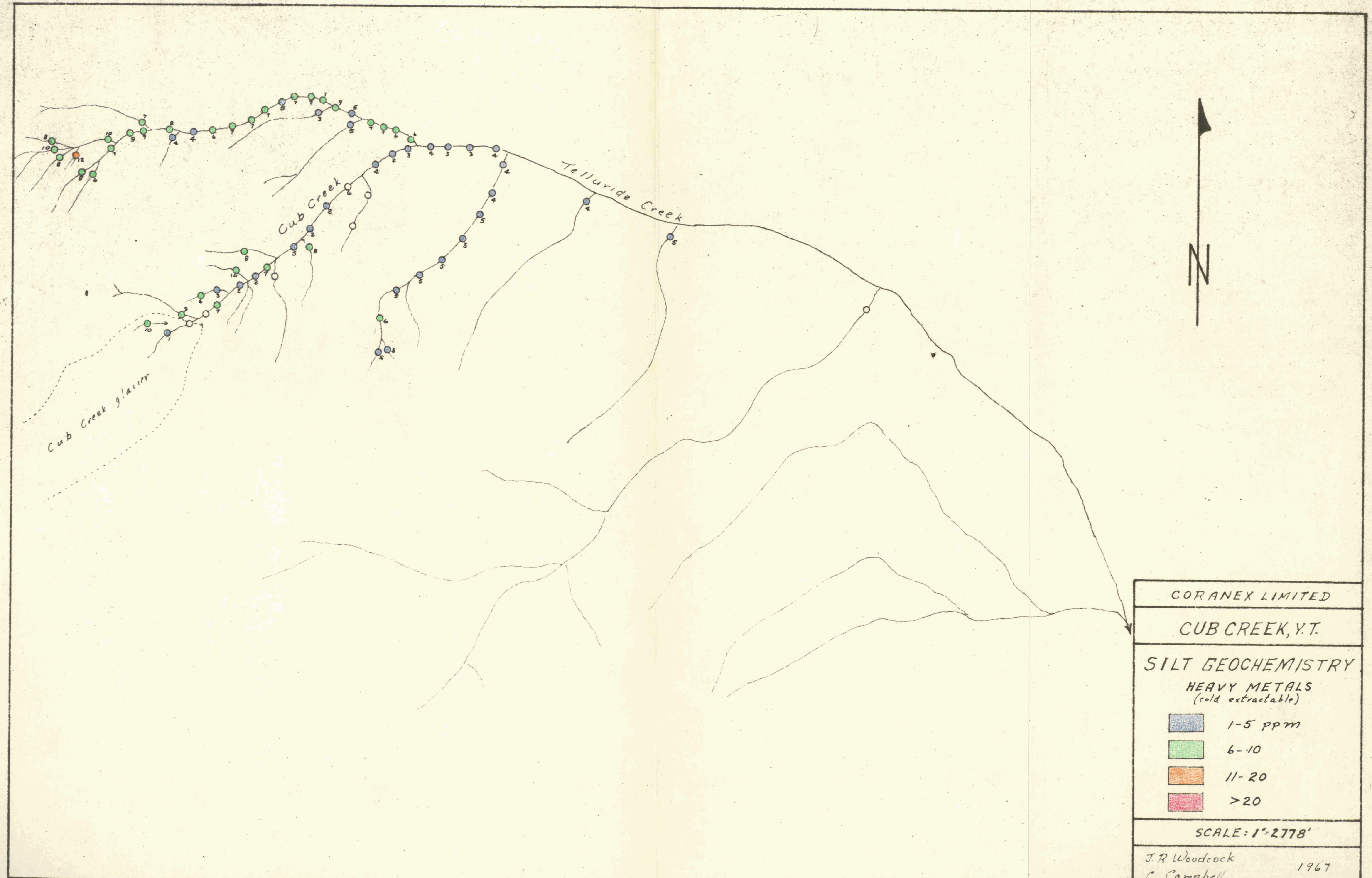

Telluride Creek
Cub Creek
Cub Creek glacier
N
CORANEX LIMITED
CUB CREEK, Y.T.
SILT GEOCHEMISTRY
HEAVY METALS
(cold extractable)
1-5 ppm
6-10
11-20
>20
SCALE: 1"=2778'
J.R. Woodcock
C. Campbell
1967

Figure 6

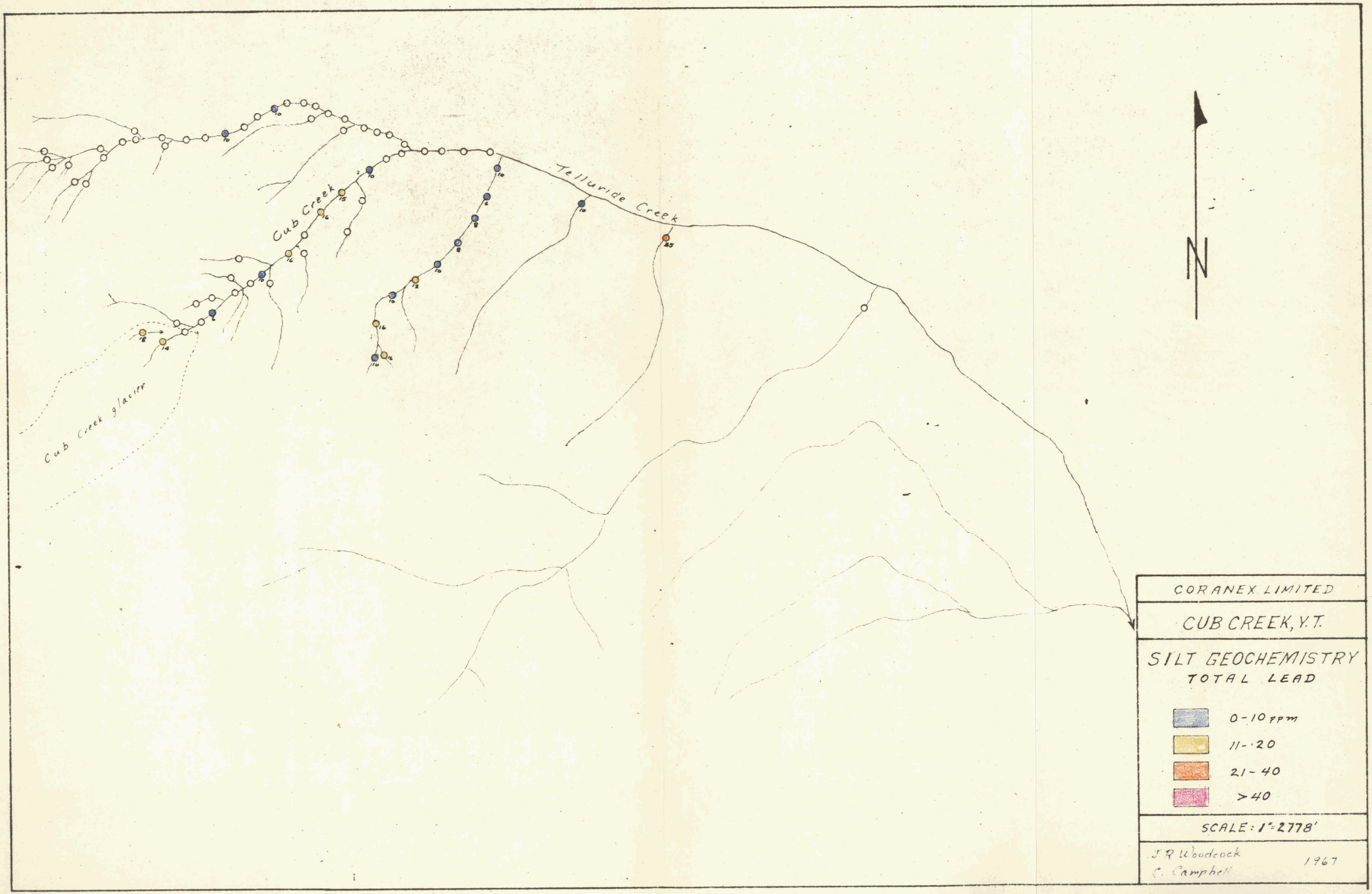
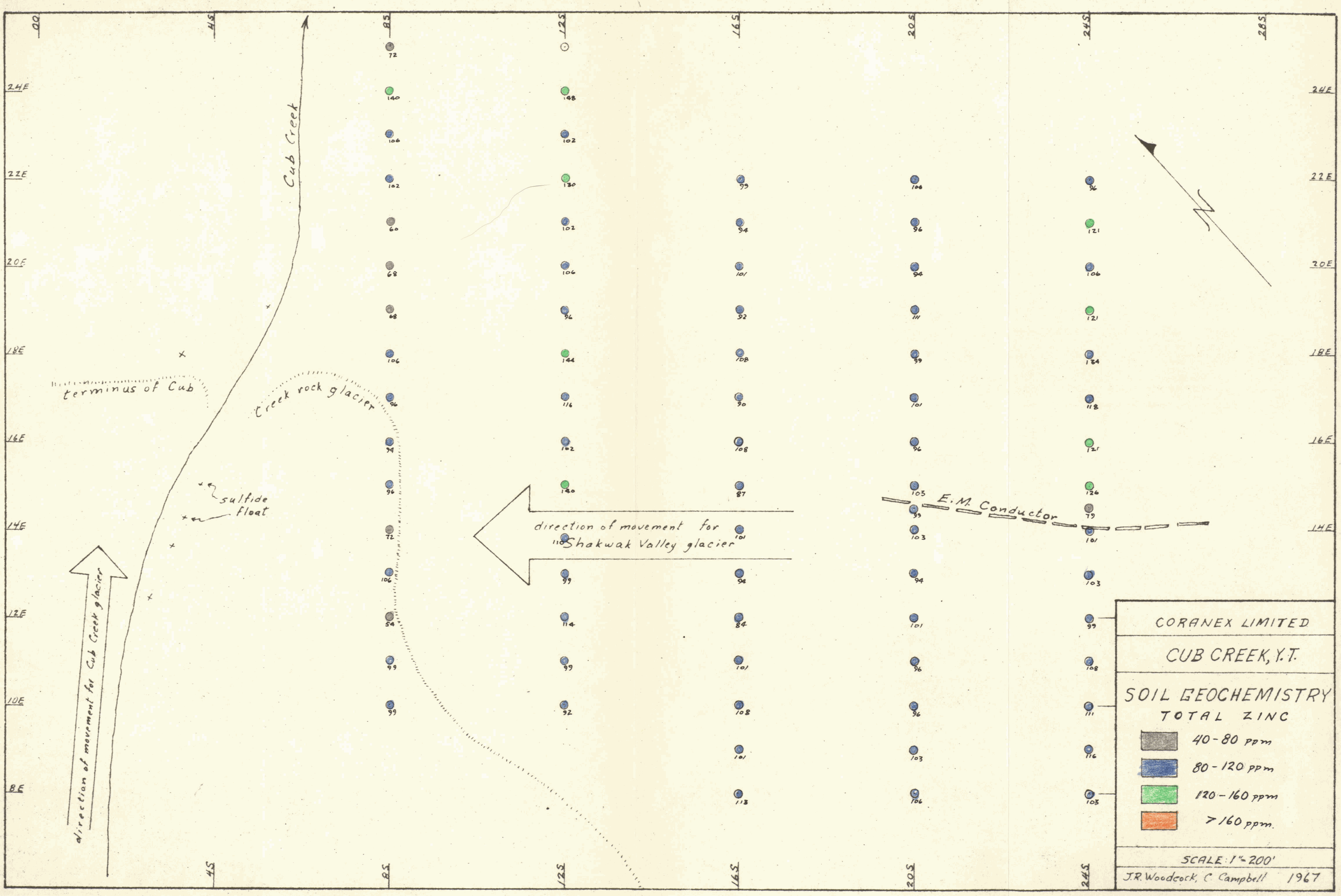

Telluride Creek
Cub Creek
Cub Creek glacier
N
CORANEX LIMITED
CUB CREEK, Y.T.
SILT GEOCHEMISTRY
TOTAL LEAD
0-10 ppm
11-20
21-40
>40
SCALE: 1"=2778'
J R Woodcock
C. Campbell
1967

Figure 7



0O
4S
8S
12S
16S
20S
24S
28S
24E
22E
20E
18E
16E
14E
12E
10E
8E
Cub Creek
terminus of Cub Creek rock glacier
sulfide float
direction of movement for "Shakwak Valley glacier"
E.M. Conductor
direction of movement for Cub Creek glacier
N
CORANEX LIMITED
CUB CREEK, Y.T.
SOIL GEOCHEMISTRY
TOTAL ZINC
40 - 80 ppm
80 - 120 ppm
120 - 160 ppm
> 160 ppm.
SCALE: 1" = 200'
J.R. Woodcock, C. Campbell 1967

Figure 8

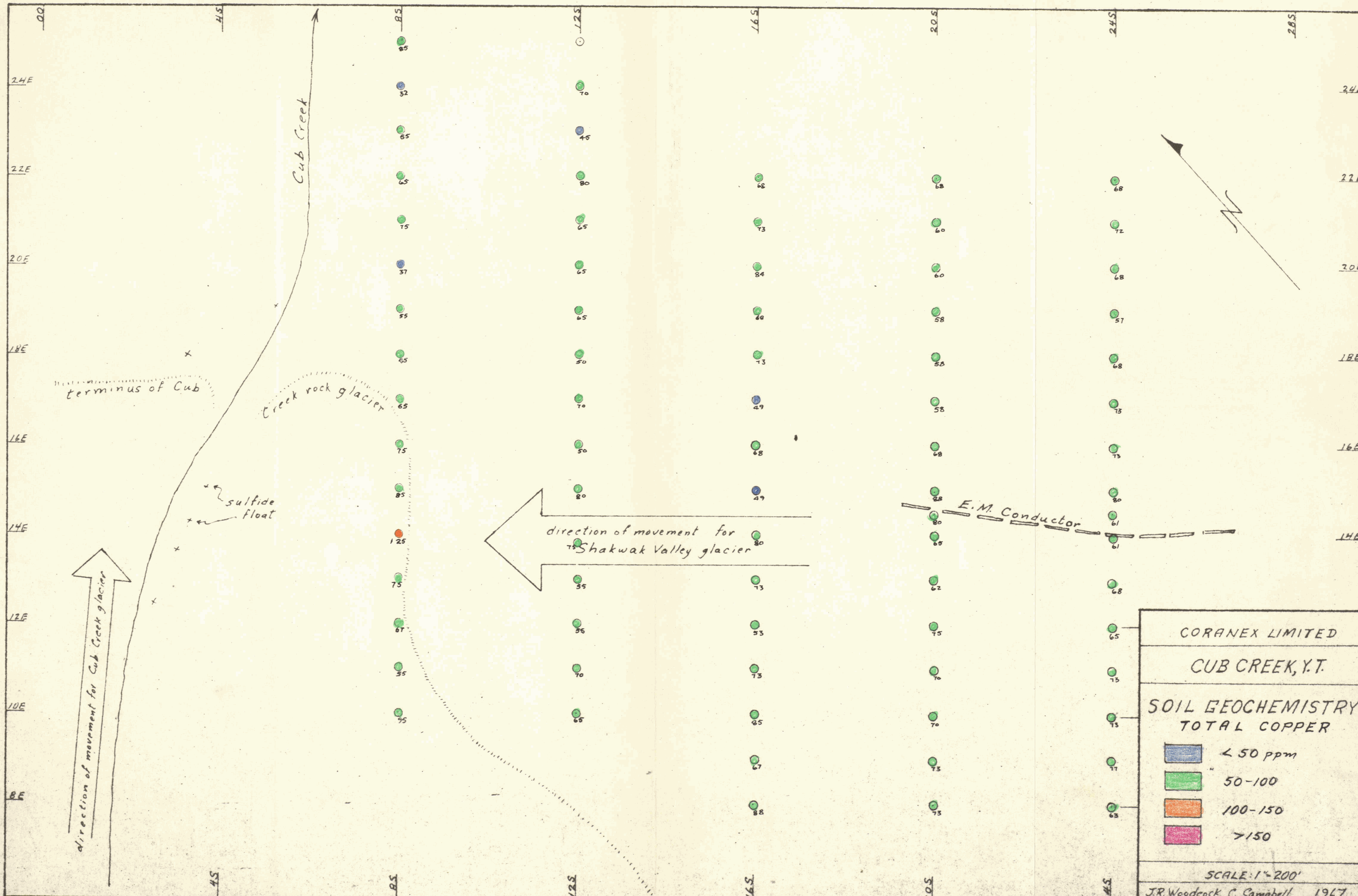

CORANEX LIMITED
CUB CREEK, Y.T.
SOIL GEOCHEMISTRY
TOTAL COPPER
< 50 ppm
50-100
100-150
>150
SCALE: 1" = 200'
J.R. Woodcock, C. Campbell 1967
Cub Creek
terminus of Cub Creek rock glacier
sulfide float
direction of movement for Cub Creek glacier
direction of movement for Shakwak Valley glacier
E.M. Conductor
N
0O
4S
8S
12S
16S
20S
24S
28S
24E
22E
20E
18E
16E
14E
12E
10E
8E

Figure 9

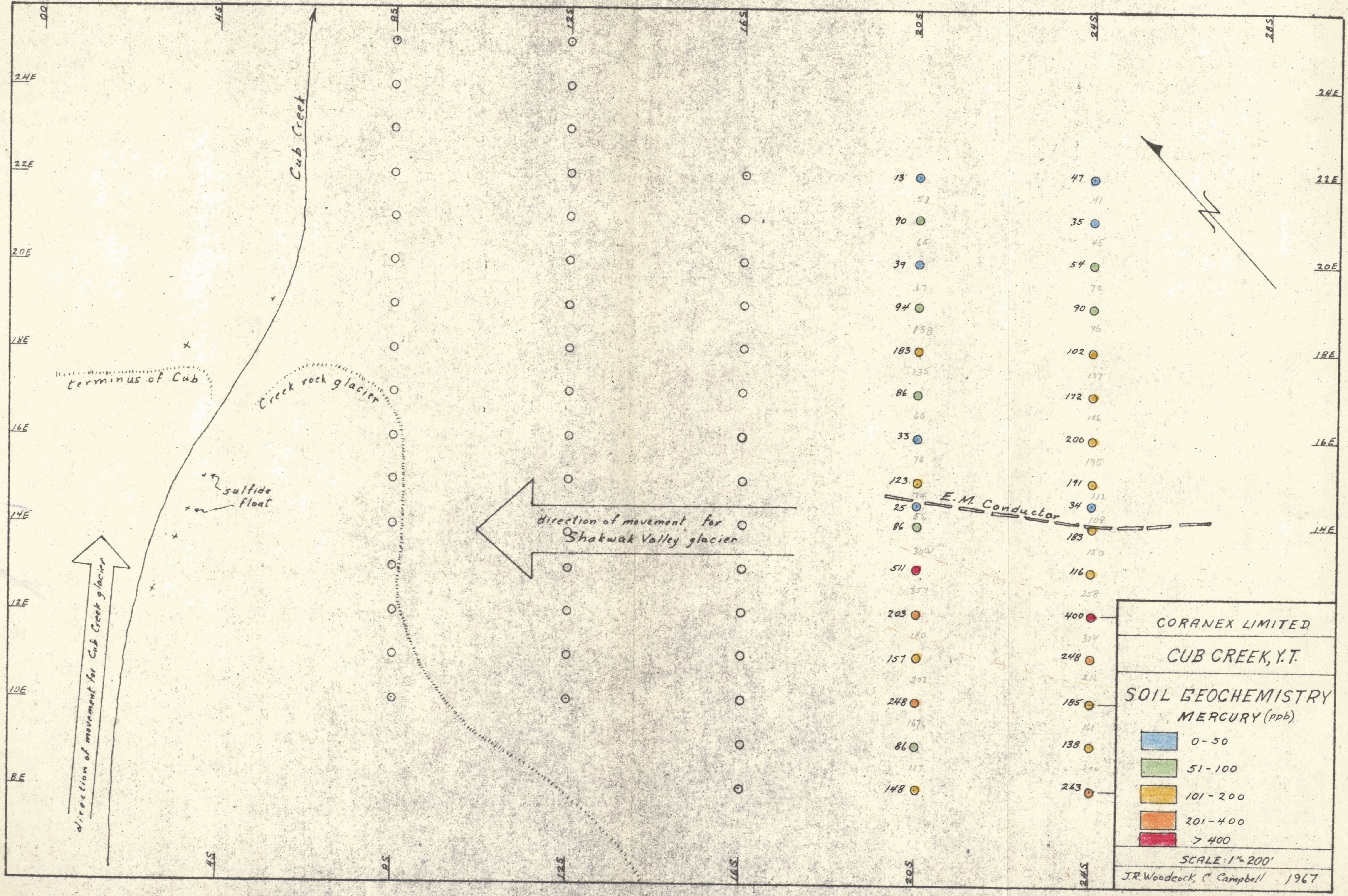

CORANEX LIMITED
CUB CREEK, Y.T.
SOIL GEOCHEMISTRY
MERCURY (ppb)
0 - 50
51 - 100
101 - 200
201 - 400
> 400
SCALE: 1" = 200'
J.R. Woodcock, C. Campbell 1967
Cub Creek
terminus of Cub
Creek rock glacier
sulfide
float
direction of movement for Cub Creek glacier
direction of movement for
Shakwak Valley glacier
E.M. Conductor
00
4S
8S
12S
16S
20S
24S
28S
24E
22E
20E
18E
16E
14E
12E
10E
8E

Figure 10

ANALYTICAL METHODS USED IN GEOCHEMICAL ANALYSIS FOR COLD EXTRACTABLE "Total Heavy Metals" IN SILT AND SOIL.

METHOD

(1) 0.50 gram dried -80 mesh sample

(2) Buffer solution at pH 8.5

Reagents: Ammonium citrate
Hydroxylamine hydrochloride
Ammonium hydroxide

(3) Dithizone-benzene solution at 0.001% W/V concentration

(4) The concentration of metals is estimated by using the following formula:

$$\frac{1}{\text{Wt. of sample}} \times \frac{\text{ml. of dithizone to reach the end point}}{\text{ml. of buffer}} = \text{Parts per million (ppm)}$$

REFERENCES

(1) A. Y. SMITH: Field and laboratory methods used by the Geological Survey of Canada in geochemical surveys
No. 5
Cold Extractable "Heavy Metal" in soil and alluvium
Paper 63-49

(2) Methods of geochemical determinations from Applied Geochemical Laboratory, Imperial College of Science & Technology, London, S. W. 7, England.

ANALYTICAL METHOD USED IN GEOCHEMICAL ANALYSIS FOR ACID SOLUBLE ZINC

METHOD:

(1) Digestion

(a) 0.25 grams of -80 mesh dried sample

(b) Nitric acid and perchloric acid digestion in heated sand bath

(2) Zinc Analysis:

(a) Buffer solution at pH 5.0

Reagents: Sodium thiosulphate
Sodium acetate
Acetic acid

(b) Dithizone - carbon tetrachloride solution at 0.001% W/V concentration.

(c) The zinc concentration is estimated by colourimetrically comparing a set of known zinc standards.

REFERENCES:

(1) M. A. Gilbert: Field and laboratory methods used by the Geological Survey of Canada in geochemical surveys No. 1. Laboratory methods for determining copper, zinc and lead. Paper 59-3.

(2) Sandell: Colourimetric metal analysis - 3rd. ed.

(3) Ward et al: Analytical methods used in geochemical exploration by U. S. Geological Survey, Bulletin #1152.

ANALYTICAL METHODS USED IN GEOCHEMICAL ANALYSIS FOR ACID SOLUBLE COPPER

METHOD

(1) DIGESTION

(a) 0.25 gram of -80 mesh sample

(b) Perchloric acid digestion in sand bath

(2) Copper Analysis

(a) Buffer solution at pH 6.5

Reagents: Sodium acetate
Sodium tartrate
Hydroxylamine hydrochloride

(b) 2, 2' - biquinoline in iso-amyl alcohol

(c) A Fisher Electrophotometer II for reading copper concentration.

REFERENCES

(1) SANDELL: Colourimetric Metal Analyses - 3rd. ed.

(2) FEIGL: Spot tests in inorganic analysis.

(3) WARD ET AL: Analytical methods used in geochemical exploration by the U. S. Geological Survey. Bulletin 1152.

ANALYTICAL METHODS USED IN GEOCHEMICAL ANALYSIS FOR ACID SOLUBLE LEAD

METHOD

(1) DIGESTION

(a) 0.25 grams of -80 mesh dried sample

(b) Nitric acid and perchloric acid digestion in heated sand bath

(2) Lead Analysis:

(a) Buffer solution at pH 8.5
Reagents: Ammonium citrate
Potassium cyanide
Hydroxylamine hydrochloride
Ammonium hydroxide
Thymol blue solution

(b) Dithizone-carbon tetrachloride solution at 0.001% W/V concentration

(c) The concentration of lead is estimated colourimetrically by comparing a set of known concentration of lead.

REFERENCES:

(1) M. A. Gilbert: Field and Laboratory Methods used by the Geological Survey of Canada in geochemical surveys. No. 1 Laboratory Methods for determining copper, zinc and lead. Paper 59-3

(2) Sandell: Colourimetric metal analysis - 3rd. ed.

(3) Ward et al: Analytical methods used in geochemical exploration by U. S. Geological Survey, Bulletin #1152.

BARRINGER RESEARCH Limited
304 Carlingview Drive
Rexdale, Toronto, Canada
Phone: 677-2491
Cable: Baresearch

Geochemical Laboratory Report

DATE
August 22, 1967

Coranex Limited
1521 Pemberton Avenue
North Vancouver
B.C.

Attention: Mr. C. Chun

REPORT NUMBER 271

A. Robert

SAMPLE NUMBER	Hg ppb		Sample Number	Hg ppb						
CC 2250	263		CC 2269	157						
1	138		70	203						
2	185		1	511						
3	248		2	86						
4	400		3	25						
5	116		4	123						
6	183		5	33						
7	191		6	86						
8	200		7	183						
9	172		8	94						
60	102		9	39						
1	90		80	90						
2	54		1	13						
3	35									
4	47									
5	34									
6	148									
7	86									
8	248									

AFFIDAVIT OF EXPENDITURE

I, J. R. Woodcock, do solemnly declare that the following expenditures were incurred for a geochemical survey of part of the Cub and the Tel claim groups situated twenty-five miles northwest of Haines Junction in the Whitehorse Mining District:

Geochemical work as follows:

Preparation & digestion of 65 silts and 78 soils @ 75¢ per sample	$ 107.25
Preparation & digestion of 4 rock samples @ $1.25 per sample	5.00
140 analyses for Cu, Zn. @ $1.00	140.00
65 " " THM @ 50¢	32.50
22 " " Pb @ 50¢	11.00
32 " " Hg @ $2.00	64.00
Rental of field vehicle	130.60
Wages - J. R. Woodcock - 5 days @ $50	250.00
Wages - C. Campbell - 4 days @ $27	108.00
Misc. expenses (food, accommodation, typing, etc.)	80.00
	$ 928.35

Sworn to and subscribed to
at Vancouver, British Columbia

This 12th day of September 1967

A Notary Public in and for the Province of British Columbia

J. R. Woodcock
Applicant

BARRINGER RESEARCH LIMITED

304 CARLINGVIEW DRIVE
REXDALE, ONTARIO, CANADA
PHONE: 416-677-2491
CABLE: BARESEARCH

ADVANCED TECHNIQUES AND INSTRUMENTATION FOR THE EARTH SCIENCES

DATE: August 22, 1967

PROJECT: 210.03

Coranex Limited
1521 Pemberton Avenue
North Vancouver, B. C.

PERIOD COVERED:

PROGRESS BILLING:
SHIPPING REPORT:
WORK REPORT: 271
FED. SALES TAX: N/A
ONT. SALES TAX: N/A

TERMS: NET

AUTHORITY: Mr. C. Chun

TO: Geochemical Analysis:

32 Samples analysed for Mercury @ $2.00 each		64.00

Report Number 271 issuedon August 21, 1967

Paid Aug 24/67
6

INVOICE № 2413

PAGE 2

RENTAL AGREEMENT C-239673

MOTORS LTD.

MAY WE RESERVE A CAR FOR YOU AT

CAR CHECKED IN AT (CITY)	
TIME IN	4PM
TIME OUT	10:30 AM July
AGE	
CAR LICENSE NO.	T 1519 Y.T.
CAR MAKE / BODY STYLE	GMC. 4X4
MILEAGE IN	34734
MILEAGE OUT	34411
MILES DRIVEN	323

MILEAGE DETERMINED BY READING FACTORY INSTALLED ODOMETER

OTHER Tilden

3 788

PROV. BC EXPIRES 4/79

STA. NO. VEHICLE NO.

AREA ALLOCATION NO.

DEPOSIT $

CAR WILL BE RETURNED BY DAY 4 MO. 7 YEAR 75

OWNING CITY Whitehorse

COLLISION DAMAGE WAIVER

BY MY INITIAL, Customer agrees to pay a fee and Hertz agrees to waive all claims against customer for the first $ ... of damage by collision to vehicle while it is used, operated or driven in accordance with the Rental Agreement, but notwithstanding payment of said fee, Customer shall be fully liable for all collision damage if vehicle is used, operated or driven in violation of any of the provisions of this Rental Agreement.

INITIAL HERE ... 1.50 per day or fraction thereof ... 7.50 per week

PHONE NO.

R/A PREPARED BY (LAST NAME) McKay

TIME @		
DAYS	4 @ 15	60.00
WKS. @		
MILES @	.20	
SUB TOTAL		
SUB TOTAL		
INTERCITY FEE		
TOT. RENTAL OR MINIMUM CHG.		
TAX		
COLLIS. DAMAGE WAIVER		
TOTAL CHARGES		
LESS: GAS-REPAIRS		
NET DUE		

CASH REFUND | GAS-OIL REPAIRS $ | DEPOSIT $

RENTAL AGREEMENT C-239673

ENTER ON DAILY REPORT

NET DUE, CANADIAN $

NET DUE ___ IN CURRENCY

PAID BY | CASH | CHECK | CHARGE

R/A COMPUTED BY (LAST NAME)

CUSTOMER IS LIABLE FOR ALL PARKING & TRAFFIC VIOLATIONS
SHOW RENTAL AGREEMENT NO. ON ALL CORRESPONDENCE

Get there and back — SAFELY!

OUTSTANDING RENTAL CONTROL

634-CAN. PAGE 2