

KUSP PROPERTY

DRILL PROGRAM

Kusp 1, 2, 4 Claims

Slocan Mining Division

for

Dome Exploration (Canada) Ltd.

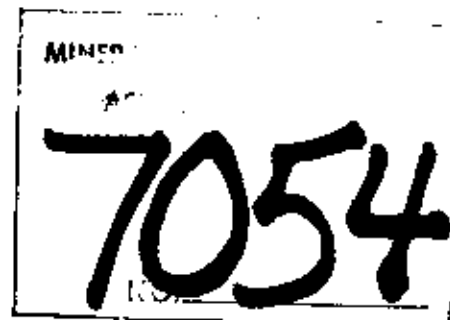
Ranworth Explorations Ltd.

by

J. R. Woodcock

J. R. Woodcock Consultants Ltd.,
1521 Pemberton Avenue
North Vancouver, B. C.

December, 1978



KUSP PROPERTY

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KUSP PROPERTY

INTRODUCTION

The discovery of the large anomalous gossan zone by the writer and the subsequent silt sampling, soil geochemistry, geological mapping, and geophysical work are described in a report dated August 30, 1978 which was submitted for assessment work. The present report deals with the diamond drill program carried out from September 8 to 25, 1978.

The 1978 Kusp drill program, using BQ wireline, totalled 1012 feet (304.5 m) in four holes as follows*:

<u>Hole #</u>	<u>Grid Locations</u>	<u>Elevation</u>	<u>Azimuth</u>	<u>Dip</u>	<u>Length</u>
1	0+70S, 1+10E	1660 m	350°	-50°	75.59 m (248')
2	0+21E, 0+90S	1736 m	10°	-50°	25.9 m (85')
3	0+21E, 0+90S	1736 m	10°	-75°	99.67 m (327')
4	0+7.5W, 0+56.5S	1736 m	280°	-70°	107.29 m (352')

Woodcock conducted the drill program, including core logging and compilation of the data and report writing. Mr. Paul Stanneck helped in the mobilization and demobilization, camp construction and the core splitting, etc. The diamond drill contractor was D. J. Drilling Co. Ltd. of Surrey, British Columbia.

The drill program was done for Dome Explorations (Canada) Ltd. and Ranworth Explorations Ltd.

LOCATION AND ACCESS

The Kusp Property is at latitude 50°0.85' N, longitude 117° 36.5' W, on Map 82K-4E. Summit Lake lies along Bonanza Creek, just north of the property.

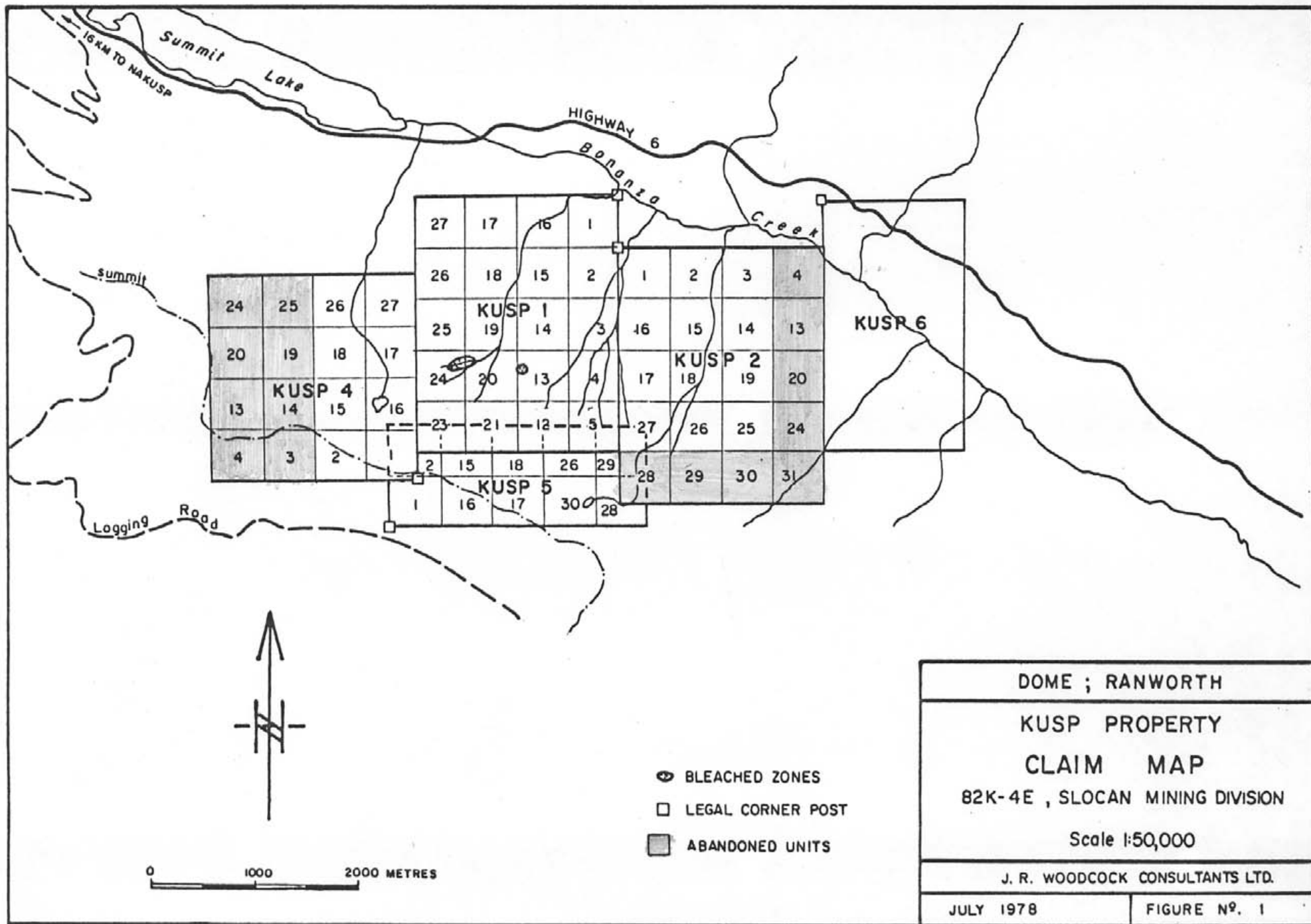
The claims extend from the bottom of the valley of Bonanza Creek southward up the steep slopes to the top of some very rugged mountains (Rugged Peak, Big Sister Mountain). Over a horizontal distance of 1 3/4 miles (2.8 km) elevations rise from 2500 feet (830 metres) to almost 8000 feet (2670 metres). The slopes on the south side of the rugged mountains are less steep and are drained by MacDonald Creek.

The very steep north-facing slopes have been subjected to a severe forest fire and an almost complete burn. Subsequently a dense growth of brush and young evergreen trees has returned, making access up the slopes extremely difficult. Tops of peaks are above timber line.

TABLE I

KUSP CLAIM DATA

<u>Name</u>	<u>No. of Units</u>	<u>Tag Number</u>	<u>Record Number</u>	<u>Date Staked</u>	<u>Date Recorded</u>
Kusp 1	20	12052	450	July 17/77	Aug. 9/77
Kusp 2	20	12053	451	July 18/77	Aug. 9/77
Kusp 4	16	12055	452	Aug. 2/77	Aug. 9/77
Kusp 5	10	12056	504	Sept. 22/77	Sept. 30/77
Kusp 6	18	07138	598	March 23/78	March 28/78



1(p)

Outcrops are abundant at the tops of the rugged peaks and in the head of the cirques which drain northward through various small streams into Bonanza Creek. On the forest-covered slopes, outcrops occur in the creek beds and also in places on the steep interfluvial areas.

Although roads exist quite close to the property, access at present must be by helicopter. The closest helicopters are at Revelstoke, 65 miles (100 km) to the northwest and Nelson, 50 miles (80 km) to the southeast. Also, planes and helicopters are based at Kelowna, 90 miles (140 km) to the west. An airstrip exists near Nakusp, 10 miles southwest of the property, and this is sometimes serviced in the summer months by scheduled flights from Revelstoke and Kelowna.

A paved highway (No. 6) passes along the valley of Bonanza Creek, less than one mile from the north edge of the property. Canadian Pacific Railway has an unused line also along the bottom of the valley. The closest access roads are logging roads in the upper parts of McDonald Creek. These roads have been built to within two miles (3 km) of the bleached zone.

CLAIMS AND OWNERSHIP

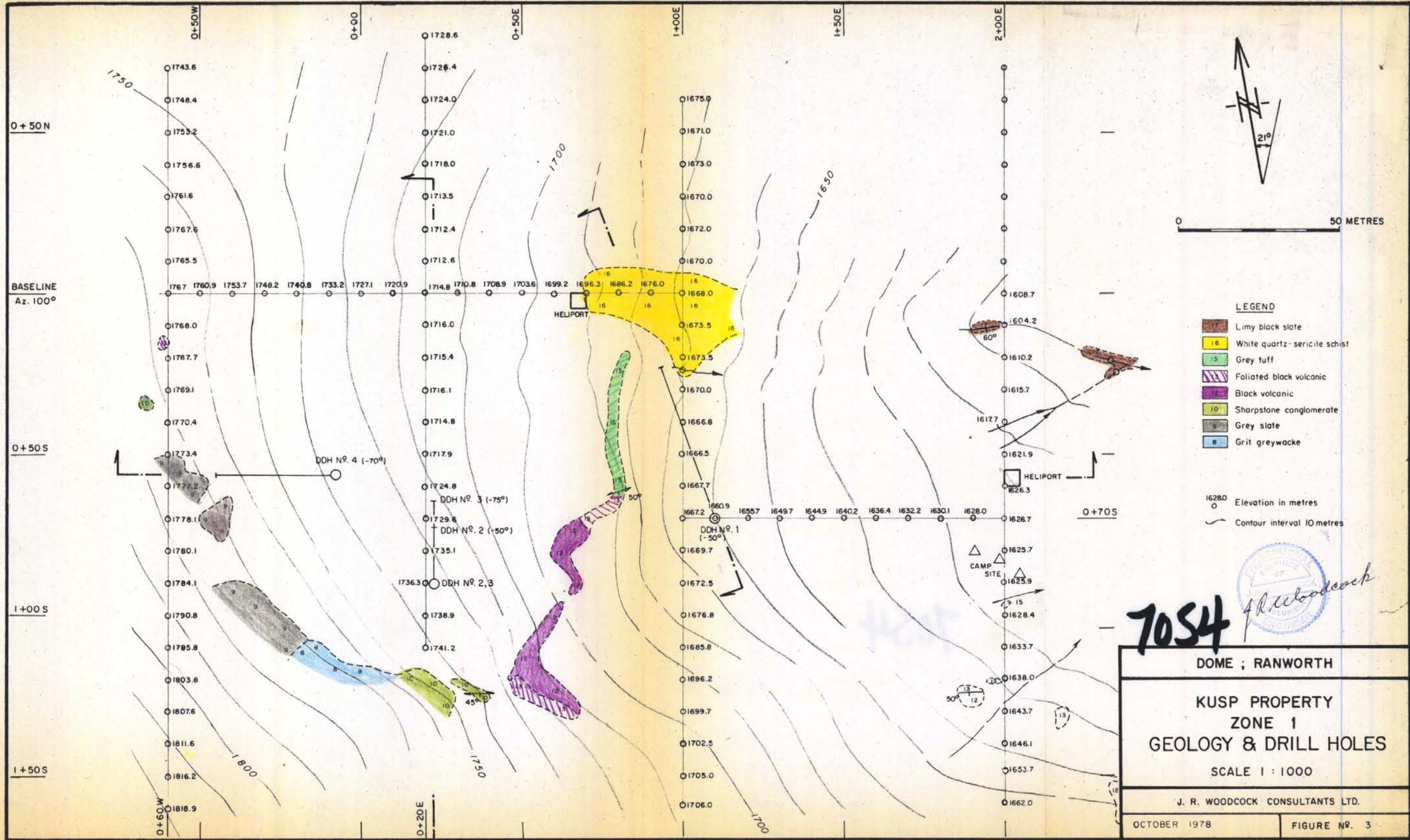
The Kusp 1, 2, 4, 5, and 6 were staked and recorded in the name of John R. Woodcock; however the initial project was paid for by Canbrika Developments Ltd. Early in 1978 the property was optioned from Canbrika by Dome Explorations (Canada) Ltd. and Ranworth Explorations Ltd., both of Toronto. All of the claims are still in the name of John R. Woodcock except for the Kusp 1 claim which had been transferred to Canbrika Developments Ltd.

The data for the claims is presented in Table 1.

On August 2, 1978 eight units of Kusp 2 claim and eight units of Kusp 4 claim were abandoned. The remaining units of these two claims plus the 20 units of Kusp 1 claim were included in the Kusp Group for assessment work purposes.

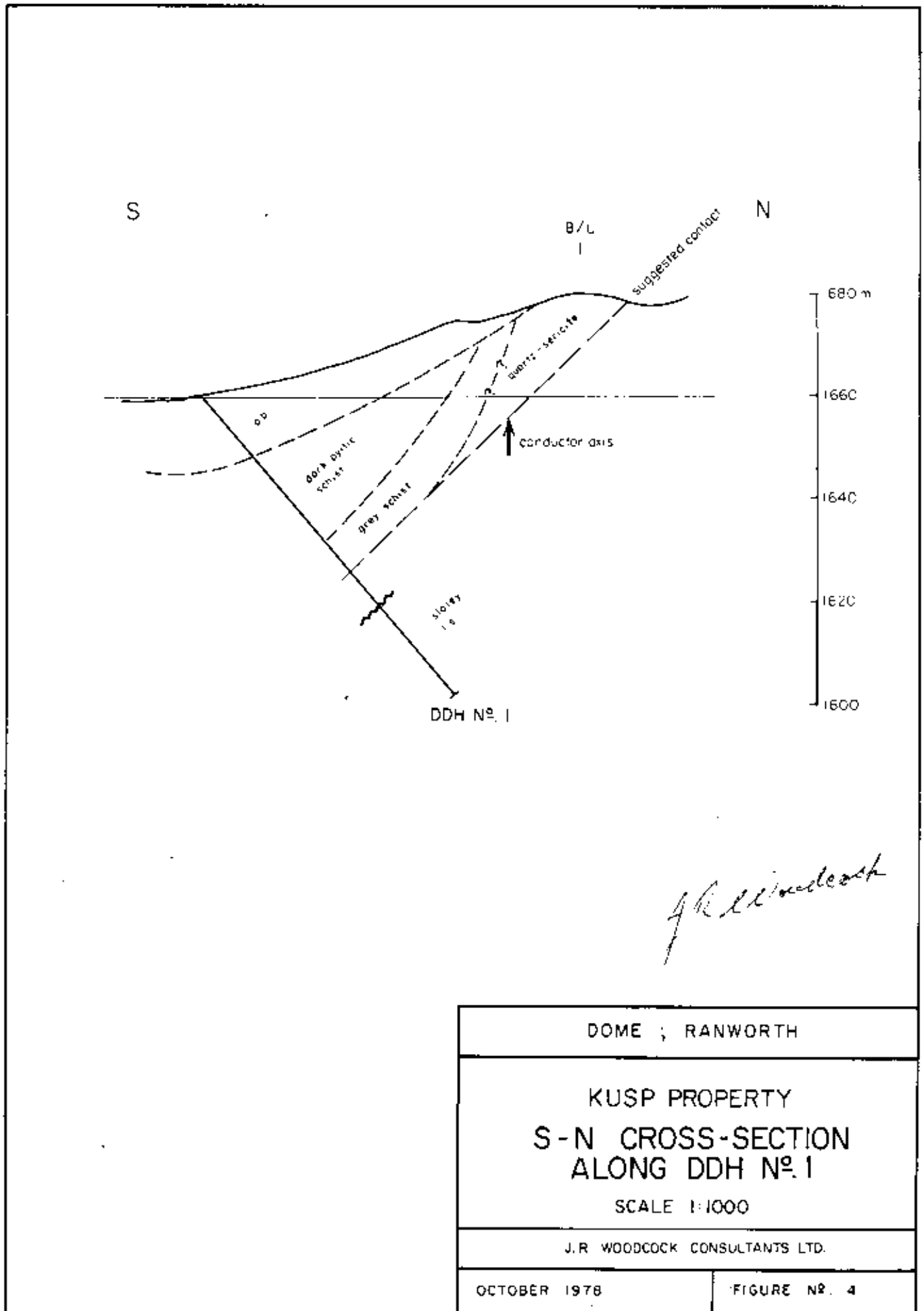
ANALYTICAL DATA

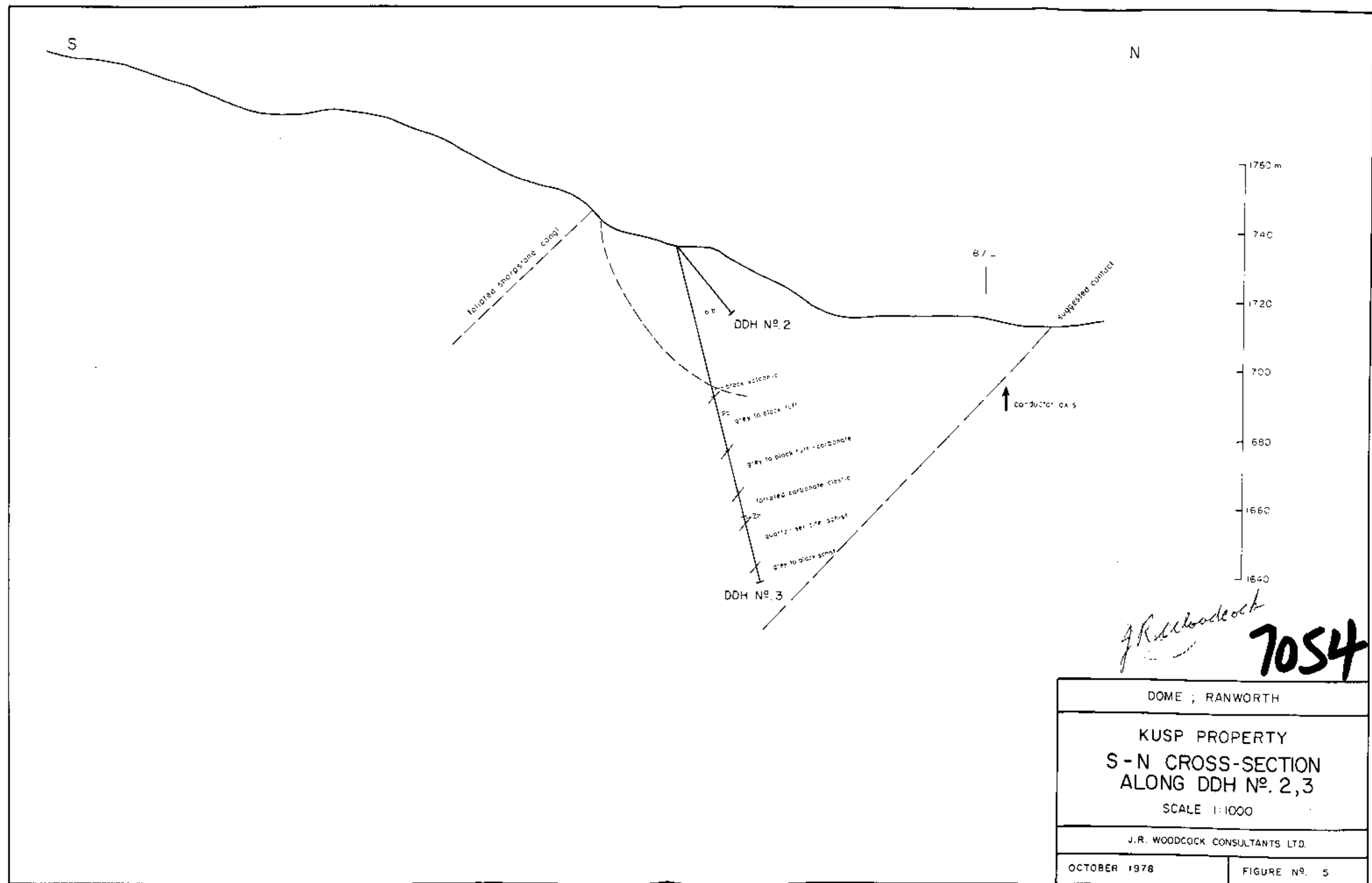
All of the core, excluding the non-pyritic zone at the bottom of Hole 1, was divided into ten-foot intervals and split for analyses. Initially all the analyses were done geochemically at Vangeochem Lab Ltd. Subsequently the higher values in copper, lead, zinc and silver were checked with assay techniques at Bondar-Clegg Ltd. Also, some of the samples with higher silver values were assayed for gold. The assay results and the corresponding geochemical values are shown in Table II. All values expressed in ppm are from geochemical analyses and all values expressed as % or oz/ton are from assays.



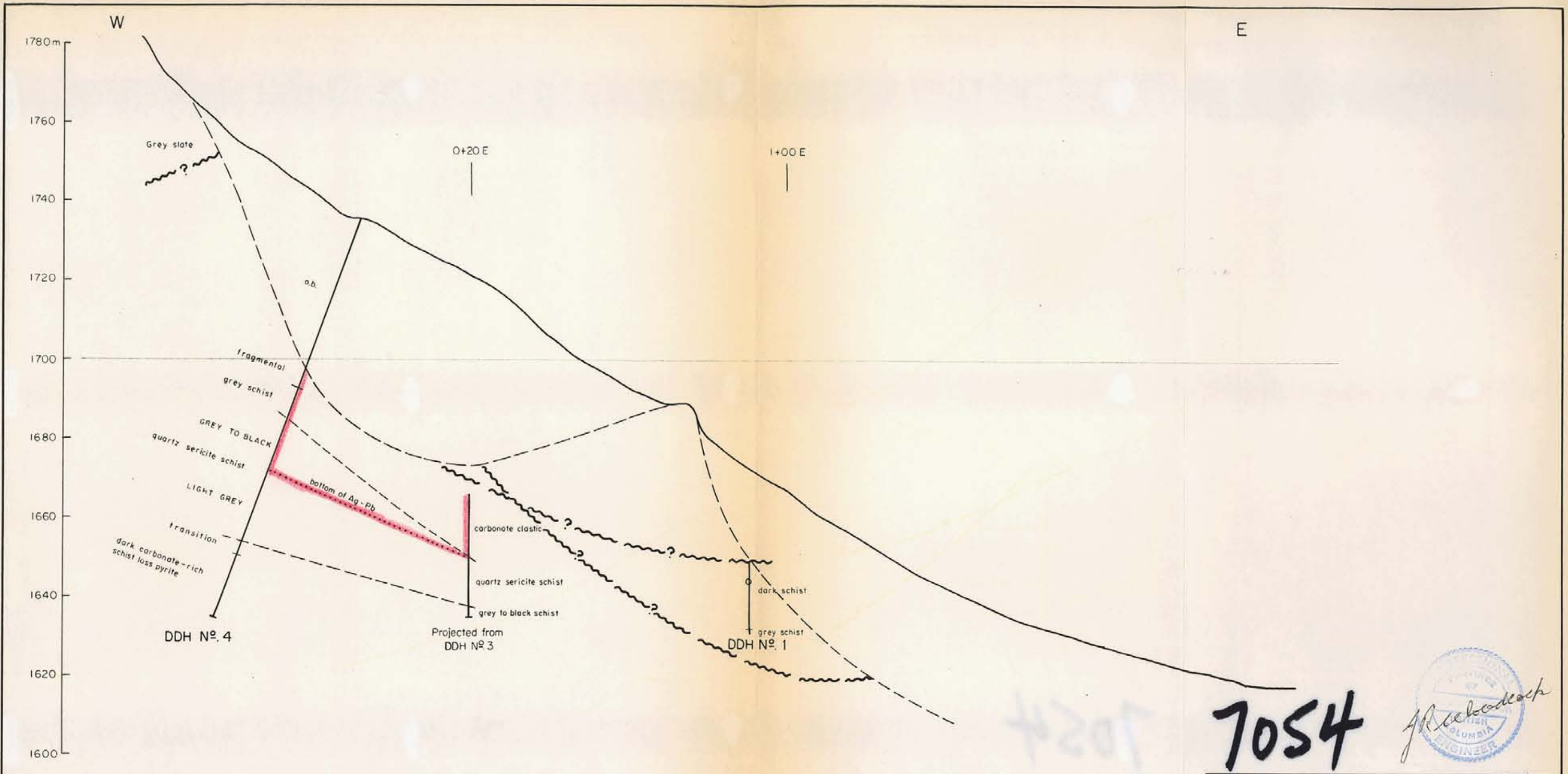
7054 *J.R. Woodcock*

DOME ; RANWORTH	
KUSP PROPERTY ZONE 1 GEOLOGY & DRILL HOLES	
SCALE 1 : 1000	
J. R. WOODCOCK CONSULTANTS LTD.	
OCTOBER 1978	FIGURE N° 3





DOME ; RANWORTH	
KUSP PROPERTY S-N CROSS-SECTION ALONG DDH No. 2,3 SCALE 1:1000	
J.R. WOODCOCK CONSULTANTS LTD.	
OCTOBER 1978	FIGURE No. 5



7054



DOME ; RANWORTH	
KUSP PROPERTY W-E CROSS-SECTION ALONG DDH No. 4 SCALE 1:1000	
J. R. WOODCOCK CONSULTANTS LTD.	
OCTOBER 1978	FIGURE No. 6

A detailed study in comparison of results has not been done; however, based on these results and on other experience, the writer suggests the following guidelines:

1. For zinc values up to 1000 ppm, geochemistry techniques are probably more reliable although, on the average, between 500 ppm and 1000 ppm assay values are slightly higher.

2. For copper, geochemistry is probably the best technique below 1000 ppm.

For lead, when in the form of galena especially in the presence of barium minerals, geochemistry is less reliable than for other metals. However, assay results are not very accurate below 0.1%. For this project, the writer suggests that assay results be used if the values are over 500 ppm.

4. The silver is probably contained within the galena so an assay is preferred where possible. Probably with values over 10 ppm, the assay results might be more reliable although not as relatively accurate. Certainly over 30 ppm, assay values should be used.

Analytical results are plotted as bar graphs on log-normal graph paper. For most of the graphs, the geochemical values have been used. However, for the higher values of lead and zinc, the assay results have been used. For the silver, the geochemical values are shown on the graph and the corresponding assay values (written number) are also shown for the higher grade samples.

DRILL RESULTS

In a previous report, the writer suggested the probability of a gravity slide to account for some of the rock rubble and the small enclosed basins uphill from DDH #1. The drill results appear to support this suggestion and to indicate that the schist outcrops uphill from DDH #1, and possibly even DDH #1, are in a block of rock which slipped downhill and rotated in some way to create a ridge of rock and a basin behind it (see cross-section of Figure 6). The basin filled with debris of barren conglomerate and slate from the cliffs above. Holes 2, 3 and 4 collared in this basin of debris. Hole 2 did not reach bedrock, but holes 3 and 4 cut 42.7 and 40.5 metres of overburden respectively.

As a general summary, the stratigraphic section indicated by the drilling includes grey to black carbonate-rich clastics (probably tuffs) at the top, then quartz-sericite schist, and finally some dark carbonate-rich clastic, before entering the footwall of unmineralized banded limy slates.

TABLE II
COMPARATIVE ANALYTICAL DATA
KUSP DRILL PROGRAM

Sample No:	Copper		Lead		Zinc		Silver		Gold
	(ppm)	(%)	(ppm)	(%)	(ppm)	(%)	(ppm)	(oz/ton)	(oz/ton)
W78-404R	490	.04							
405	620	.05							
406	373	.04							
407	500	.05							
408	309	.04							
409	750	.09							
413			94	0.02			5.0	0.27	
414			128	0.03			5.0	0.39	
415			1000	0.31	4800	0.31	15.1	1.85	0.02
416							6.3	0.12	0.005
417							4.0	0.13	0.007
418							3.6	0.23	0.004
419							5.7	0.14	0.003
420			136	0.04	282	0.06	9.4	0.24	0.005
421			630	0.11	1260	0.18	11.7	0.27	0.004
422			1030	0.15	2930	0.22	13.0	0.38	0.002
423							15.5	0.43	0.003
424							16.5	0.41	0.006
425							17.9	0.80	0.013
426		.06	470	1.04	35,000	4.10	69.6	3.13	0.005
427		.02	540	0.16	4,400	0.48	13.1	0.37	
428	198	.02					2.9	.05	
429	202	.02			302	0.07			
430	352	.04							
431	224	.02							
432	236	.03							
433	240	.03	183	0.04	1260	0.13	16.2	0.76	0.009
434	248	.03					8.8	0.24	0.004

Comparitive Analytical Data - Kusp Drill Project -- continued

<u>Sample No:</u>	<u>Copper</u>		<u>Lead</u>		<u>Zinc</u>		<u>Silver</u>		<u>Gold</u>
	<u>(ppm)</u>	<u>(%)</u>	<u>(ppm)</u>	<u>(%)</u>	<u>(ppm)</u>	<u>(%)</u>	<u>(ppm)</u>	<u>(oz/ton)</u>	<u>(oz/ton)</u>
435	198	.02	420	0.07	550	0.06	8.9	0.57	0.01
436A	281	.03	410	0.39	2890	0.34	16.2	0.87	0.005
436B	244	.03	500	0.08	650	0.07	12.6	0.57	0.004
437	262	.03		0.02	308	0.04	15.7	0.90	0.003
438	302	.03		0.03	510	0.06	14.8	1.32	0.004
439	341	.03		0.05	710	0.08	12.8	0.06	0.003
440	178	.18		0.15	2030	0.24	15.9	0.41	0.003
441							2.5	0.21	
442							3.0	0.10	
443							2.4	0.04	
444	630	.06		0.03			3.4	0.07	

46 6212

K&S SEMI-LOGARITHMIC 5 CYCLES X 70 DIVISIONS
HEUFFEL & ESSER CO. MADE IN USA

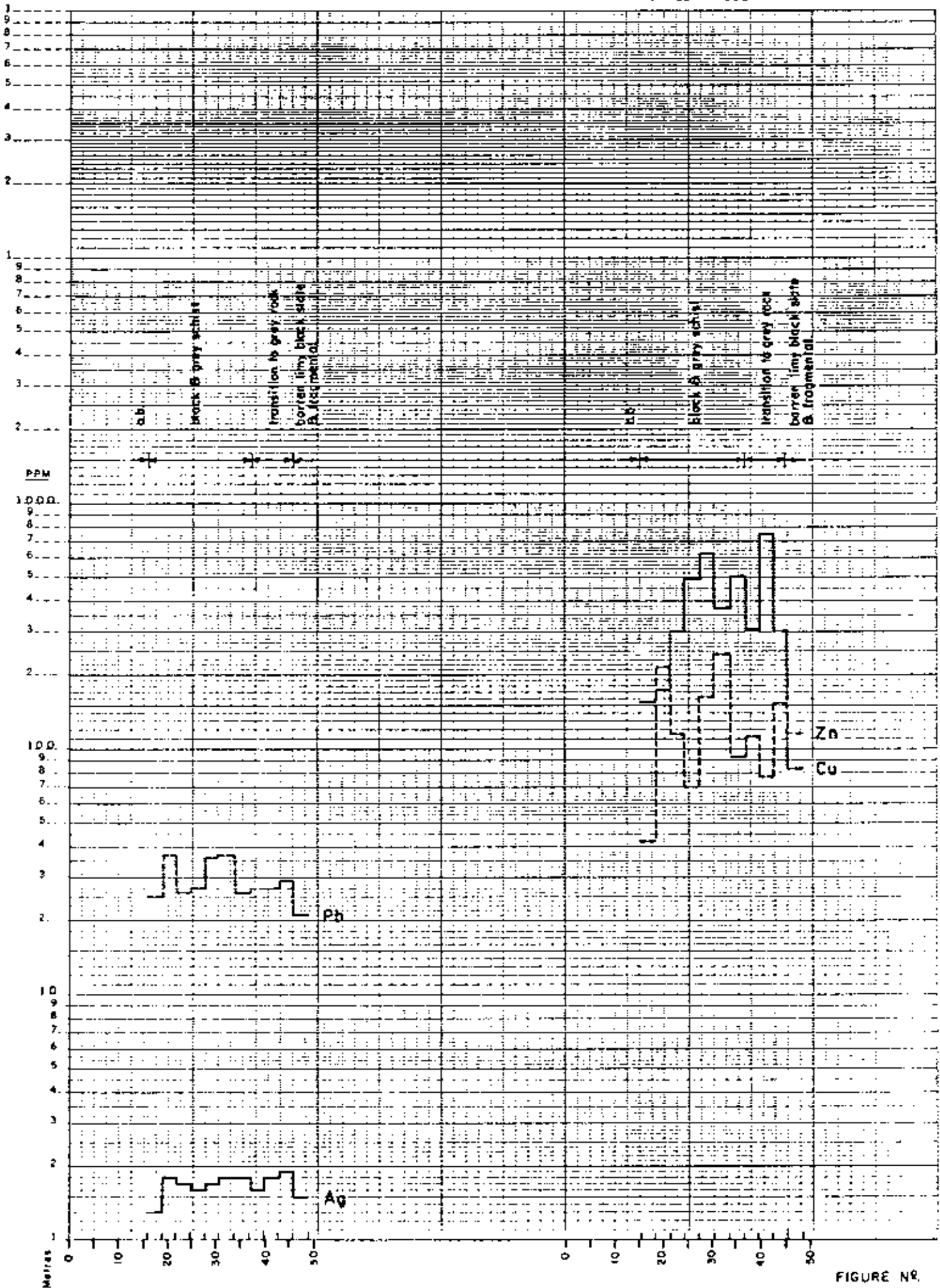


FIGURE No.

46 6212

K&E SEMI-LOGARITHMIC 3 CYCLES X 70 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.

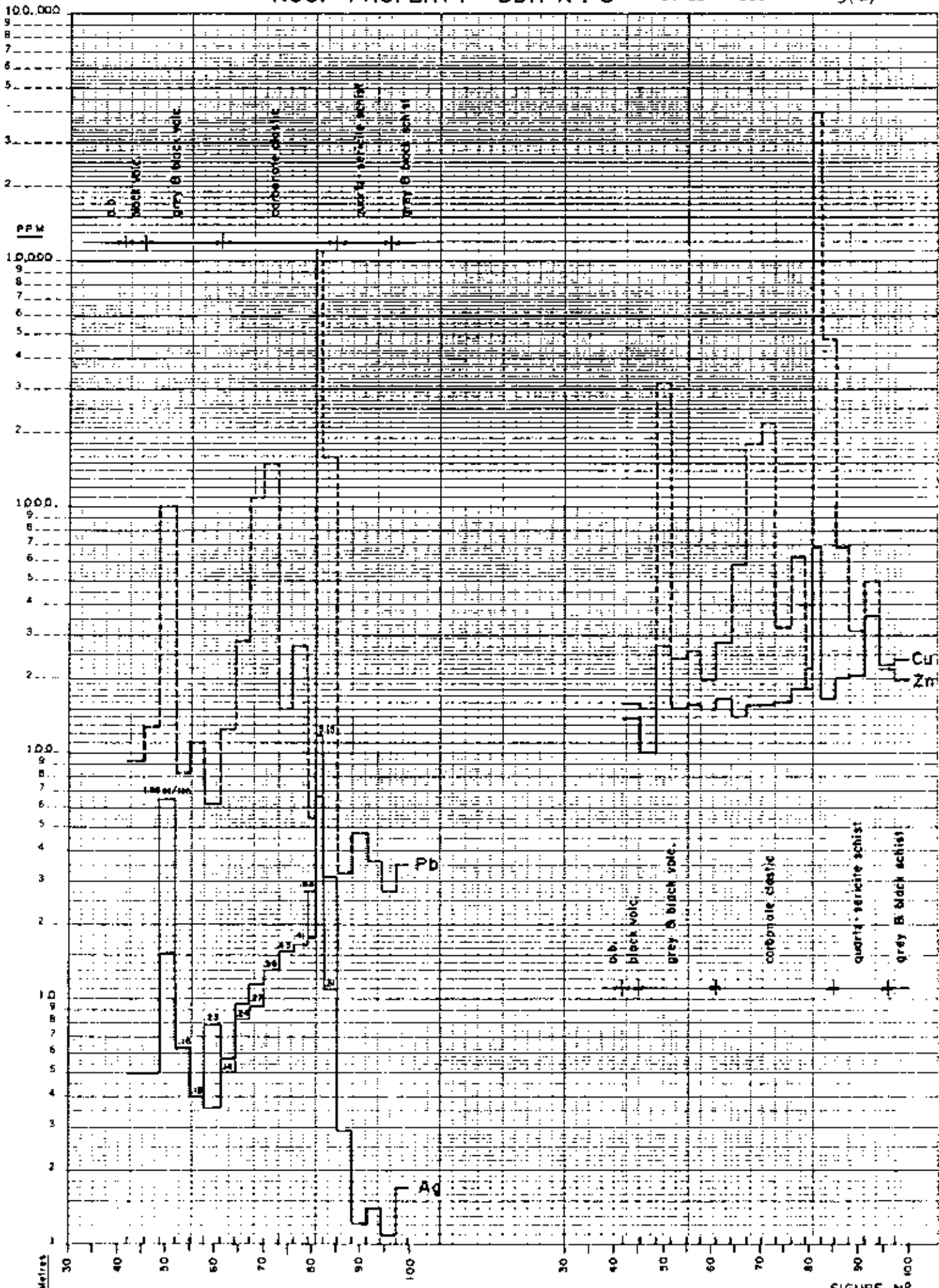


FIGURE N^o.

46 6212

K-E SEMI-LOGARITHMIC 5 CYCLES X 70 DIVISIONS
REUFFEL & ESSER CO. MAN. M.B. 1

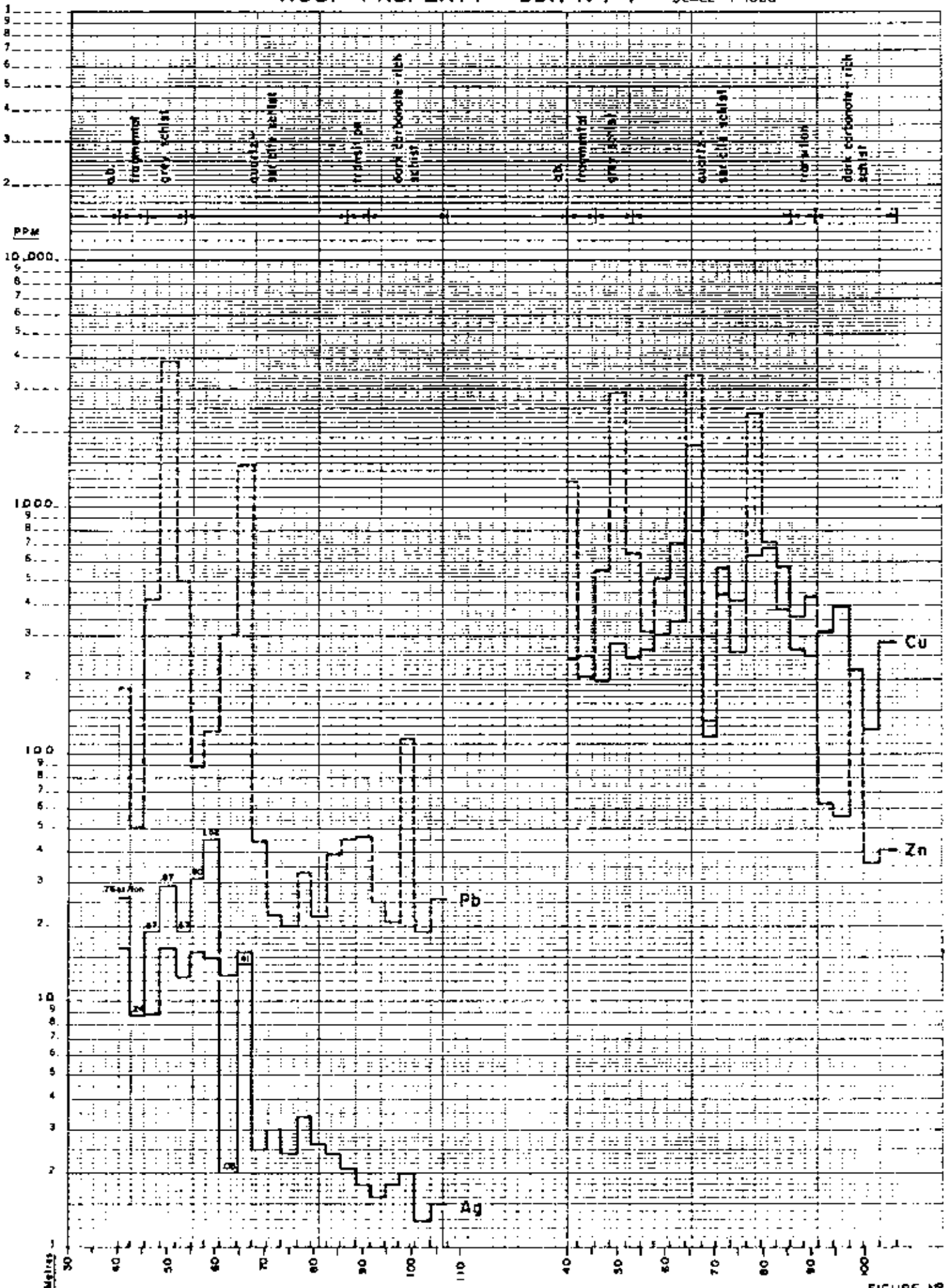


FIGURE No.

46 6212

SEMI-LOGARITHMIC 5 CYCLES X 70 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.

KE

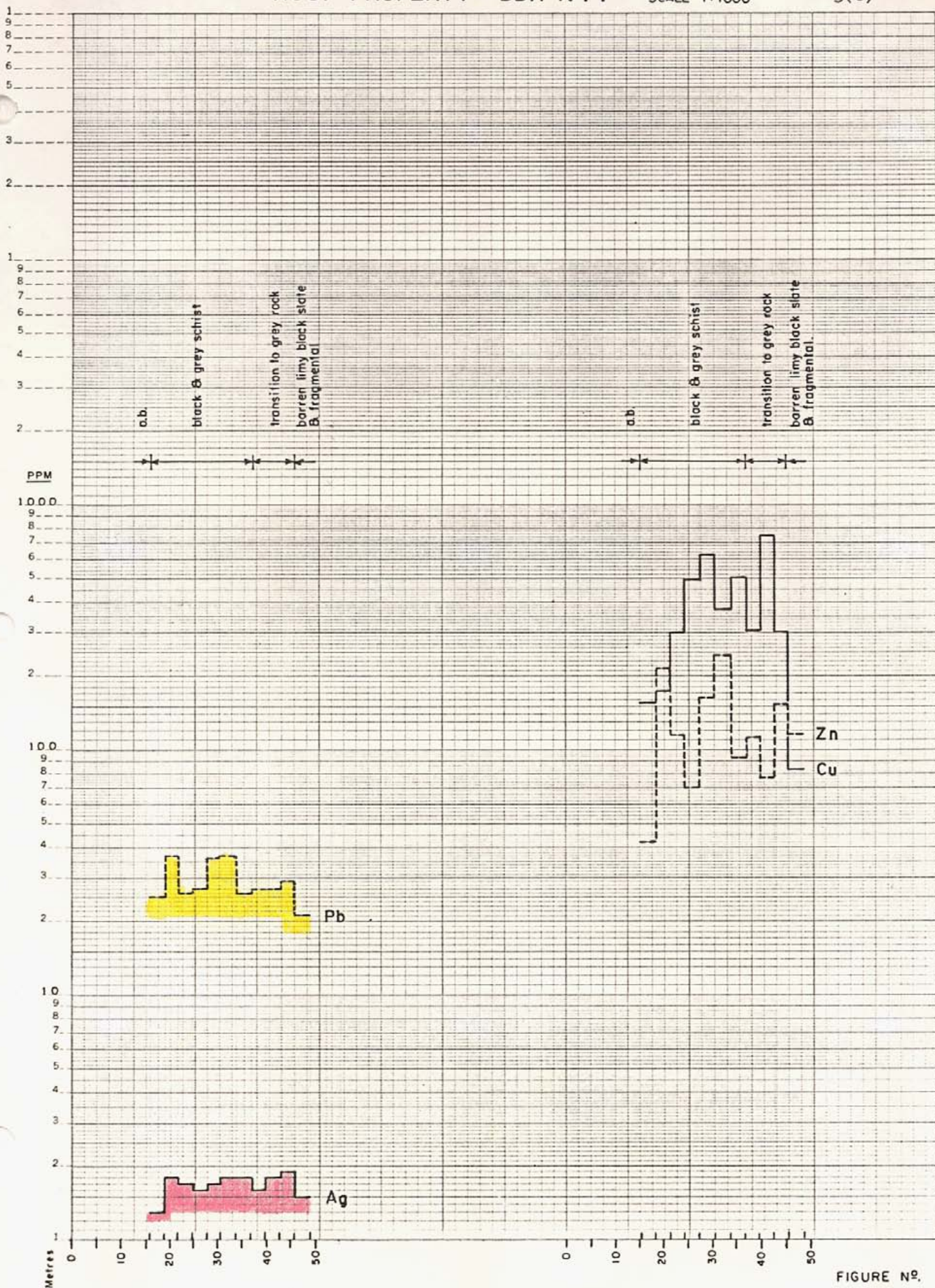


FIGURE No.

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K&E SEMI-LOGARITHMIC 5 CYCLES X 70 DIVISIONS
KEUFFEL & ESSER CO. MADE IN U.S.A.

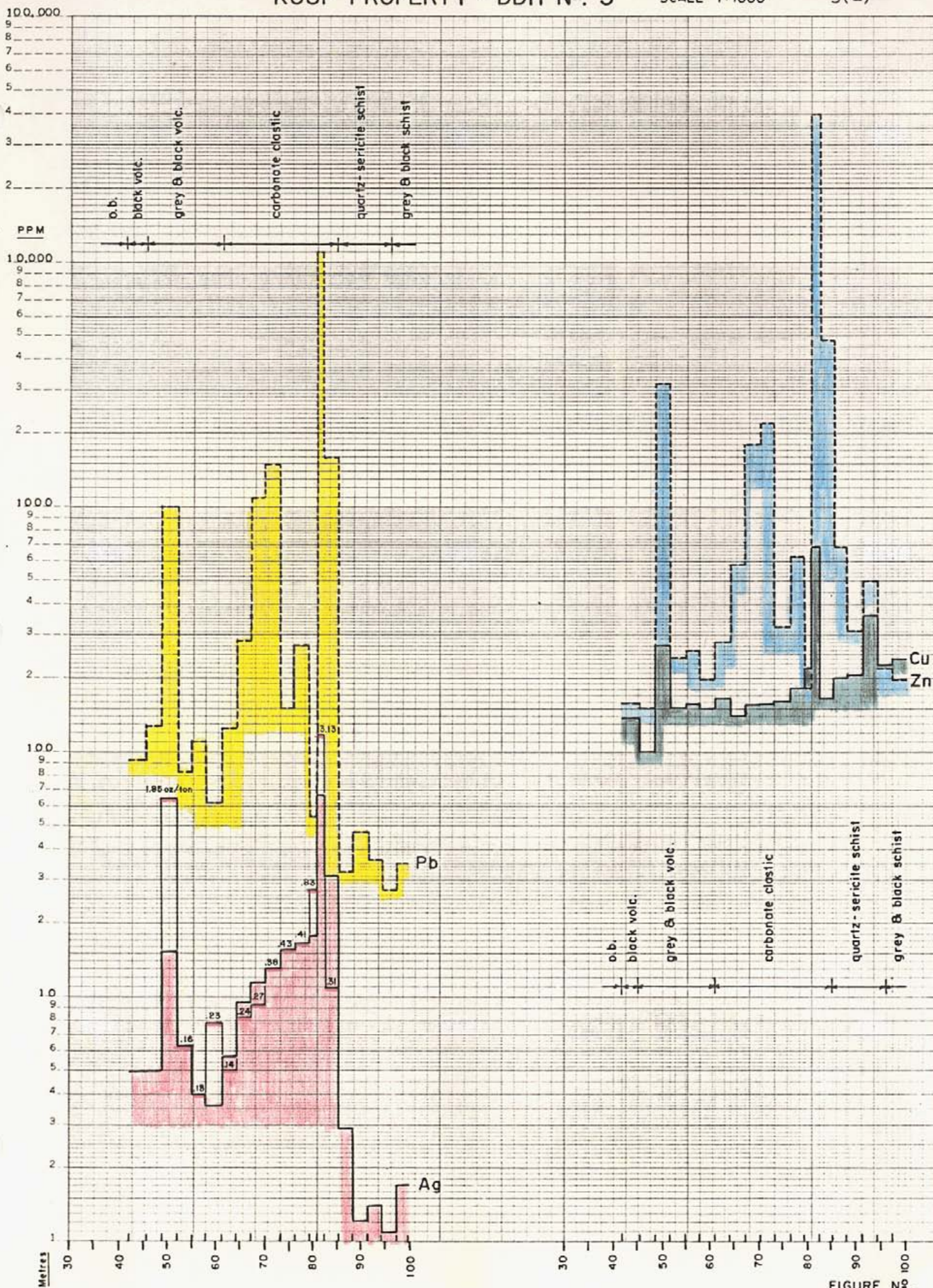


FIGURE Nº.

46 6212

K²E SEMI-LOGARITHMIC 5 CYCLES X 70 DIVISIONS KEUFFEL & ESSER CO. MADE IN U.S.A.

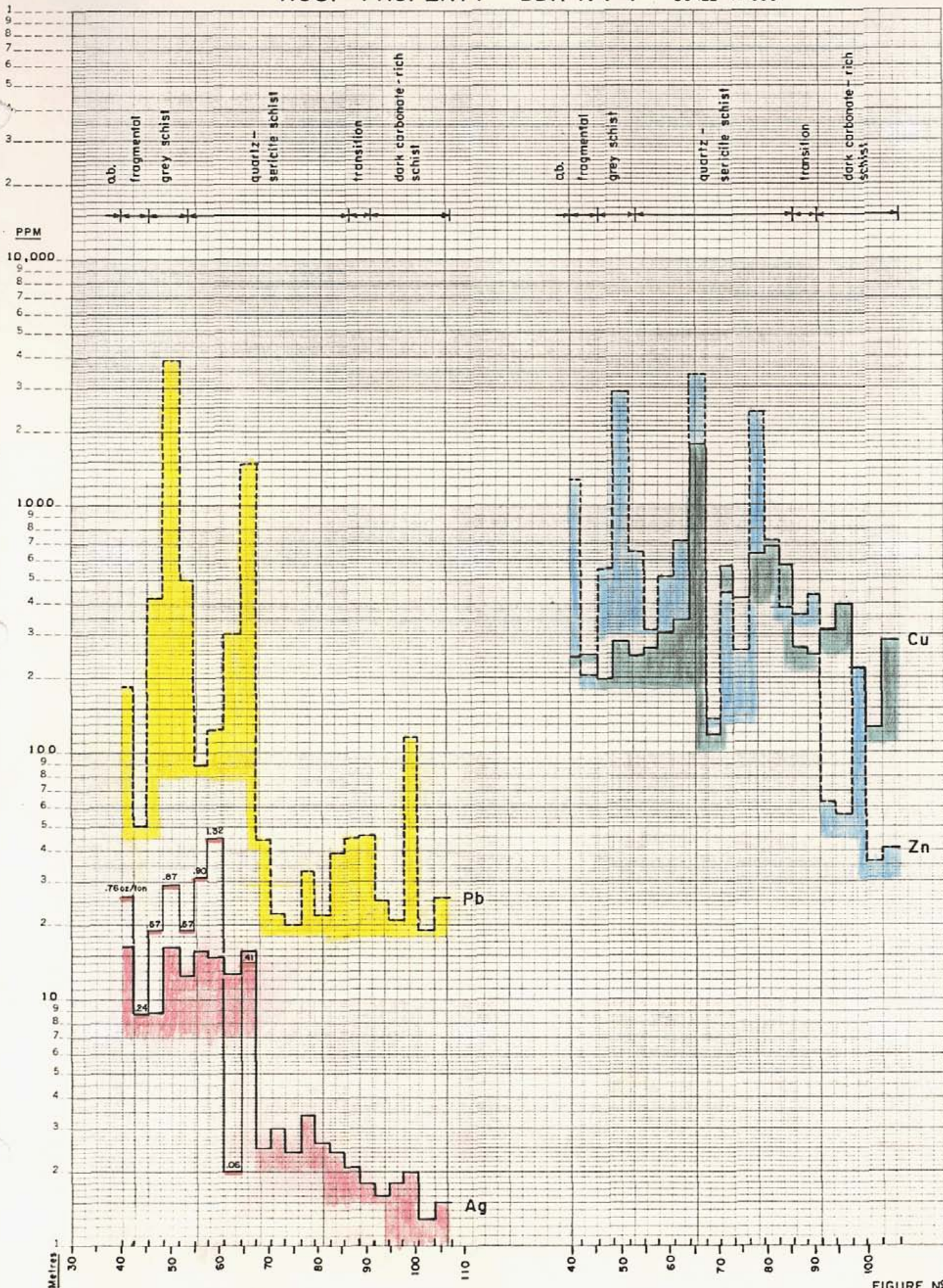


FIGURE No.

The schistosity and bedding dip 45° to 60° south and the probability of an overturned stratigraphic section has been discussed in a previous report. However, in the present descriptions, reference is made to the geometric relationships.

All rocks above the unmineralized slate footwall are clastic, are foliated to varying degrees and have abundant disseminated pyrite. In holes 3 and 4, the geometric upper contact of the light grey quartz-sericite zone is important. All rocks above have abundant calcite whereas the quartz-sericite schist has lower carbonate content. In contrast, the quartz-sericite schist has abundant pyrite concentrated into bands as well as the disseminated pyrite. The upper rock units of the two holes (geometrically above the quartz-sericite schist) are metalliferous (figures 6 and 7). In sections fine-grained galena occurs with pyrite and honey-coloured sphalerite occurs along some of the foliations.

Bar graphs of metal values (Pb, Zn, Ag) show distinct cut-offs at the upper contact of quartz-sericite schist. Silver shows the best contrast. In the upper part of hole No. 3, 36.6 m (120 feet) averages 0.55 oz. per ton and in the upper part of hole No. 4, 27.4 m (90 feet) averages 0.67 oz. per ton. Highest values were cut in hole No. 4 (1.0% Pb, 4.1% Zn, 3.1 oz. Ag) over 1.5 m.

Lead, zinc and silver have parallel trends. However, copper does not closely follow the same trend.

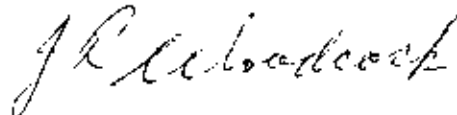
More specifically, hole No. 1 went through dark limy pyritic schists and entered the underlying unmineralized black slate. The contact could be a fault. This contact accounts for the main anomaly found in the EM-16 and the Turam EM surveys. The quartz-sericite schist horizon appears to be absent in hole No. 1. Lead, zinc, silver values are very low, but copper values are higher than normal.

Holes No. 2 and No. 3 cut metalliferous-pyritic dark to light-grey carbonate-rich schist and also the underlying quartz-sericite schist. Hole No. 3 did not get through the quartz-sericite schist, but hole No. 4 did intersect the underlying dark coloured clastic mentioned in the generalized stratigraphic section. These two holes did not reach the unmineralized footwall of black limy slate.

CONCLUSIONS AND RECOMMENDATIONS

1. Mineralization is disseminated, strataform, probably volcanogenic and was probably deposited in restricted basins.
2. The upper parts of holes 3 and 4 cut interesting values in silver, lead and zinc. The two intersections are only 50 metres (165 feet) apart, but represent a section about 30 metres (100 feet) thick. Note that these holes were collared in the geometrically upper part, but not necessarily at the top, of the metalliferous zone.
3. Whether or not economic silver values will be found down dip to the south or laterally to the west can only be determined with more drilling.

4. Because of the syngenetic nature of this mineralization and because of the apparent deposition in relatively restricted basins where lateral changes over a reasonable distance can be expected, the writer recommends additional diamond drilling.
5. The difficulties encountered in the 1978 drill program could be overcome by using more than one string of rods. The holes should be started with NQ size and completed with BQ size rods.
6. A rough access road should be built to the property from the existing logging roads. This will facilitate the mobilization and allow drill site construction with a bulldozer.



J. R. WOODCOCK, P.Eng.
December, 1978

COSTS FOR KUSP DRILL PROGRAM

Wages

Stanneck - Sept. 1 to Sept. 27		
27 days @ \$75/day		\$2,025.00
Woodcock - Sept. 6, 7, 8 - 3 days		
" 10 - 20 11 "		
" 22 - 25 5 "		
" 26 - 28 1 "		
Oct. 10 1 "		
" 23 - 31 4 "		
Nov. 9 1/2 "		
Dec. 1 1 "		
	26 1/2 days @ \$275/day	7,287.50
Drill Costs		34,377.55
Analyses Vangeochem; Bonder Clegg		785.50
Helicopter total costs (Okanagan & Bow) 50% allowed		4,513.70
Freight and vehicles 1710 20% allowed		<u>340.00</u>
		<u>\$49,329.25</u>

J R Woodcock

J. R. WOODCOCK CONSULTANTS LTD.

DRILL HOLE 1
 DATE DRILLED Sept 10-11
 DATE LOGGED Sept 11
 LOGGED BY J. Reed
 DRILL CO. D.J. Pulling
 DIP TESTS none

PROPERTY KUSP
 PROJECT KUSP
 COMPANY DOMIE, RANWORTH

LOCATION BL 0705, #410E
 ELEVATION 1660.5 m
 DIRECTION 350°
 INCLINATION -50°
 LENGTH 248' (75.59 m)

ABBREVIATIONS

Specimens 107' 237'
 161 74'

FROM	TO	ROCK UNIT	DESCRIPTION	SAMPLE No.	RECOVERY	B ₁	F ₁	B ₂	Q ₂
0'	50' (15.28)	overburden							
50' (15.28)	60' (18.29)	black-grey schist	Abundant pyrite especially in black bands	W78-401R	4/10	125	25	42	1.3
60' (18.29)	70' (21.34)	50-122'	Appears graphitic, but more likely limy	402R	8/10	173	37	214	1.8
70' (21.34)	80' (24.38)	(5.28-37.18 m)	ground pyrite; only slightly conductive in	403R	6/10	302	26	113	1.7
80' (24.38)	90' (27.43)		black bands; sparse quartz bands (up to 15cm)	404R	6/10	490	27	70	1.6
90' (27.43)	100' (30.48)		Banding at 65° to axis at 98' (m)	405R	9/10	620	36	162	1.7
100' (30.48)	110' (33.53)		70'-74.5' not banded - looks like breccia	406R	9/10	373	37	246	1.8
110' (33.53)	120' (36.58)		with black network between frags.	407R	8/10	500	26	94	1.8
120'	130'		Runs out at 51', 63', 70', 76', 81', 92', 91.5'						
130'	140'		Very limy in most of section						
			107', 113', 123'						
122' (37.18)	148' (45.11)	black-grey schist	140' to 140.6' (42.67 to 42.85m) ^{some pyrite chert} calcite-gls vein						
120' (36.58)	130' (39.62)	interbedded with	133-148' (40.54-45.1 m) quite schistose	W78-408R	7/10	309	27	112	1.6
130' (39.62)	140' (42.67)	less banded grey rk	148-152.5 (45.1 - 46.5m) few bits of core	W78-409R	8/10	750	27	76	1.8
140' (42.67)	150' (45.72)	122-140'	(recovery 0.43)	W78-410R	7/10	298	29	152	1.9
		(37.18-45.11 m)	116' (35.97m) banding at 80° to axis						
			136' (41.45m) " " 90°						
			146' (44.5 m) schistosity at 96°						

J. R. WOODCOCK CONSULTANTS LTD.

DRILL HOLE

1

PROJECT

KUSP

PAGE

2

FROM	TO	ROCK UNIT	DESCRIPTION	SAMPLE NO.	RECOVERY	%	%
148 (48.91)	248 (78.5)	Limy Fragmental No pyrite	Alternates from pebble fragmental to fine-grained slightly limy rock				
150 (45.72)	160 (48.77)		Pebbles compressed into lenses.	W78-411R	7.7/10	84	21 119 15
160 (48.77)	170 (51.82)		eg 161' (49.07 m) cut by small veinlets & irregular masses of calcite.		9.3/10		
170 (51.82)	180 (58.86)		Also calcite in matrix of same rock		6.7/10		
180 (54.86)	190 (57.91)		Stressed, but not schistose. Only traces of pyrite. Rusty broken zones at		8/10		
190 (57.91)	200 (60.96)		152.5', 155', 156', 170', 173-174.5'		9.1/10		
200 (60.96)	210 (64.0)		46.40, 47.24, 47.55, 51.8, 52.73-53.19 m		8.3/10		
210 (64.0)	220 (67.06)		Pebbles at 146', 157.5', 166, 174.5', 181'		6.8/10		
220 (67.06)	230 (70.1)		45.1, 48.0, 50.6, 53.19, 55-17 m	W78-412R	9.1/10	58	23 208 1.4
230 (70.1)	240 (73.15)		185' (?) 193.5, 203.5, 208, 210, 217, 56.39, 59, 62.03, 63.4, 64, 66.14 m		6.4/10		
			227, 232', 236', 239, 240, 246.5, 248				
			69.2, 70.71, 71.93, 72.85, 73.15, 75.13, 75.59 m				
			ground core at 175' (trouble spot) (52.5 m)				
			208' (63.4 m) 219'				
			Bandings				
			245' (74.68 m) 70°				
			225' (68.58 m) 65°				
			169' (51.51 m) 70°				
			From 208' (63.4 m) to 245' (75.59 m) rock has less clastic material and becomes darker, more bedded, more limy (limy slate) very little pyrite. The abundance of lime & the greenish tint in the debris might indicate a fall in the clastic parts				

J. R. WOODCOCK CONSULTANTS LTD.

DRILL HOLE 3
 DATE DRILLED Sept 14-
 DATE LOGGED Sept 17-
 LOGGED BY J. R. Woodcock
 DRILL CO. D. F. Drilling

LOCATION 0731 E, 0+90 S
 ELEVATION 1736 m
 DIRECTION 10° A Z
 INCLINATION -75°
 LENGTH 327' (99.67m)

PROPERTY KUSP
 PROJECT KUSP
 COMPANY DOME RANWORTH

DIP TESTS

ABBREVIATIONS frag - fragment rk - rock
 py - pyrite dissem - disseminated
 qtz - quartz conc - concentration

Specimens 154' 202
 159 207 (261.3)
 165 252

FROM	TO	ROCK UNIT	DESCRIPTION	SAMPLE No.	RECOVERY	Gt	Py	Rn	Qz
0	140' (42.67)	Black volcanic tuff	white speck, few grey blotches (frag)						
140' (42.67)	149' (45.41)	Black volcanic tuff	abundant disseminated py						
140' (42.67)	150' (45.72)		" calcite in rock - upper part	W78-414 R	6.9/10	137	44	156	5.0
			pieces (probably remnant of calcite)						
			Some limonite along fractures; few thin						
			qtz veinlets						
149' (45.41)	202' (60.57)	Grey to black tuff	Mainly grey grading to black. In						
			places black. Pathway black streaks &						
			networks occur within the grey rk						
150' (45.72)	160' (48.77)		Abundant dissem calcite ^{py} few thin	W78-414 R	9.3/10	99	128	148	5.0
160' (48.77)	170' (51.82)		white qtz veinlets, mainly 1/2 some black	W78-415 R	9.3/10	264	1000	4800	15.1
170' (51.82)	180' (54.86)		bands. At 154' (46.94m) 45° to west axis	W78-416 R	7.3/10	158	82	236	6.3
180' (54.86)	190' (57.91)		At 160' (51.82m) start getting conc's	W78-417 R	9.2/10	155	110	252	4.0
190' (57.91)	200' (60.96)		of fine py into bands and networks	418 R	6.1/10	148	62	195	3.6
			between frags. These frags are brown	414 R	8.3/10				
			breakdown of rk & red (buff) frags						
			Broken & grading at 168' (51.2m), 174' (53m)						
			192' (58.52m). End of conc at 167' (50.9m)						
			174' (53m) 181' (57m) 192' (58.5m) 196' (59.74m)						
187' (57.91)	185' (56.82)		Fine grained pyrite - qtz bands. up to 1cm have specks of limonite						

FROM	TO	ROCK UNIT	DESCRIPTION	SAMPLE No.	RECOVERY	Gr	Pb	Zn	Cu
			mud seam @ 118' (m), 207' (m)						
202 (61.57m)	242 (73.76)	Foliated grey-black luff-carbonate	Increasing foliation to banding of grey & black rock. Abundant calcite in rock, including the white streaks throughout - Abundant pyrite disseminated & concentrations along planes & in bands	418 R	83/10	163	122	273	5.7
202-242									
200 (60.96m)	210 (64.00)			420 R	9.8/10	136	122	273	5.7
214 (64.00)	220 (67.06)			421 R	9.8/10	154	280	260	9.7
220 (67.06)	230 (70.1)		This imparts much of the black color to the foliated rock	422 R	9.7/10	157	1030	2930	13.0
230 (70.1)	240 (73.15)								
R			Grinding at 221' (67.86m) 225' (68.58m) End of run at 203' (61.87m) 209' (63.7m) 217' (66.14m) 225' (68.58m) 235' (71.63m) Mud seam at 125' (38.1) Banding at 179' - 40° (54.56m) 204' - 55° (62.18m) 230' - 55° (70.1m)						
242 (73.76)	265 (80.77)	Foliated carbonate clastic	Very foliated, crumbly rock, abundant pyrite, white mineral effluences & is mainly black as matrix and in lenses (especially black)	423 R	7.7/10	156	152	316	15.5
240	250 (76.2)	242-265		424 R	6.8/10	176	270	610	16.5
250	260 (79.25)		Black bands have abundant pyrite as an elongated network; some bands are largely pyrite; some bands are mainly calcite	425 R	3.6/5	210	54	182	17.9
260	265 (80.77)		In addition to bands, get elongated lenses. Minor fine grained chert at 252' (76.8m); possibly some galena.	426 R	4.6/5	680	470	3500	27.6
265 (80.77)	270 (82.3)	Sphalerite bearing schist	Similar to previous foliated carbonate clastic, except that honey-colored sphalerite occurs in some bands. Might be some fine galena						

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DRILL HOLE

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PROJECT

KUSP

PAGE

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FROM	TO	ROCK UNIT	DESCRIPTION	SAMPLE No.	RECOVERY	Gr	76	42.1	Rey
			Bandings @ 167' (50.9m) = 55°						
270 (82.3)		sericite schist	The rock suddenly becomes lighter color						
		270-311	more sericite, & less calcite (except in						
270	275	(82.3m - 94.79m)	white lenses), May also have some honey						
270 (82.3)	280 (85.34)		spinelite up to 280' (85.34m)	428R	4.5/10	162	540	4400	13.1
280 (86.34)	290 (91.49)		Much more lvs 272'-274' (82.6-82.2m)	429R	0.8/10	196	32	676	2.9
290 (86.31)	300 (91.54)		280'-305' (84-91.5m) ^{2.9} / ₃₅	430R	1.5/10	202	46	302	1.2
300 (91.44)	310 (94.49)		Mainly mud at 288' (87.78m)	430R	4.4/10	352	36	490	1.4
310 (94.49)	320 (97.54)		Bandings or foliation @ 276' (84.1m) 50°	432R	4/10 ?	224	27	212	1.1
320 (97.54)	327 (99.67)		305' (92.96m) 65°	432R	5/7	236	35	192	1.7
			316' (96.31m) 40°						
			Possibly some decuss cleavage @ 312' (95.1m)						
311 (82.3m)	327 (99.67)	grey & black schist	grey schist with black foliae or						
			black schist; abundant py, decuss						
			& in foliae; No calcite						
			319-322' (97.23-98.14m) black with						
			irregular qtz lenses & veinlets; may						
			be chloritic, Also @ 326' (99.36m)						
			323-326' (98.45-99.36m) gray, less						
			foliated rk						
			Foliation at 327' = 50° (99.67m)						

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DRILL HOLE 4
 DATE DRILLED _____
 DATE LOGGED _____
 LOGGED BY J. R. Woodcock
 DRILL CO. D.T. DRILLING
 DIP TESTS _____

PROPERTY KUSP
 PROJECT KUSP
 COMPANY DOME, RANWORTH

LOCATION 0407.5W 0456.5S
 ELEVATION 1736 m
 DIRECTION 280°
 INCLINATION 70°
 LENGTH 352' (107.29 m)

ABBREVIATIONS

Specimens: 135 201 260 332
 152 223 265
 172 252 308
 183 253 315

FROM	TO	ROCK UNIT	DESCRIPTION	SAMPLE No.	RECOVERY	Cu	Pb	Zn	Ag
130 (40.54)	135 (40.54)	Fragmental	White to light grey frags up to 1cm						
133 (40.54)	140 (42.67)		dark grey foliated matrix. Foliation increases from minimal at 134' (m) to schistose at 150' (45.72m). Abundant py-dissem + in foliae. No calcite. A few frags are not elongated, but most are squeezed // foliation. Foliation at 137° = 50° Fractures @ 144-147 Pyrite in bands + foliate + more abundant than previous holes	435R	5.6/7	240	103	1260	16.2
140 (42.67)	150 (45.72)			436R	5.9/10	248	52	204	5.8
150	176 (53.64)	Banded pyritic grey schist	Very high pyrite, grey schist. Much pyrite in bands + foliae at 170-172' (51.82-52.42m) py is so abundant that core appears to be fine-grained py with rock frags @ 183' (55.78 m) lot of pyrite frags in rock. Foliation 160' (48.77m) = 30°; 172' (52.42m) = 25°	435R	7.2/10	198	420	550	8.9
150 (53.64)	160 (48.77)			436A	5.7/10	281	1410	2590	16.2
160 (48.77)	170 (51.82)			436B	7.3/10	244	500	650	12.6
170 (51.82)	180 (54.86)								
170 (53.64)	201 (61.06)	Sericite schist mixed with dark schist	Some calcite; abundant pyrite, especially in bands. Foliation changes drastically, 187' (57m) 10°; 201' (61.26m) reversal in core						

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DRILL HOLE 4

PROJECT KUSP

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FROM	TO	ROCK UNIT	DESCRIPTION	SAMPLE No.	RECOVERY	Cu	Pb	Zn	Ag
		sericite schist	213' (64.92m) - 75°, 223' (67.97m) 55°						
		(220-284)	228 (69.49m) change from 0° to 60°						
		less calcite	263' (80.16m) 40°, 264' (80.47m) 40°						
180 (54.86)	190 (57.91)		60° (two planes)	437R	8.9/10	262	89	308	15.7
190 (57.91)	200 (60.96)		Clay zones: 195-199.5 (59.44-60.8m)	438R	4/10	302	123	510	1.32 (5.1)
200 (60.9)	210 (64.00)		210-211' (64-64.31m) 216-222 (65.83-67.6m)	439R	7.5/10	341	303	710	9.28
210 (64.0)	220 (67.06)		230-235 (70.1-71.63m)	440R	4.7/10	1720	43	230	1.59
220 (67.06)	230 (70.1)		Dark pyritic sand 236-244' (71.93-74.37m)	W78-441R		818	44	137	2.5
230 (70.1)	240 (73.1)		Collected 3 samples at drill	-442R	4/10	560	22	440	3.0
240 (73.1)	250 (76.2)		344-349 (104.85-106.37m) - grab of sand	-443R	3.5/10	413	20	258	2.4
			344-344 (104.85-106.37m) - abundant pyrite	W78 ?	0				
			349 (106.37m) -	W78 ?					
			End of run @ 231', 236', 244', 258'						
250 (76.2)	260 (79.25)		255', 260', 262', 266' (70.4, 71.93, 74.37, 76.8m)	W78-444R	8.6/10	630	43	2120	3.4
260 (79.25)	270 (82.3)		77.72, 79.25, 79.85, 81.01 m)	445R	5.5/10	680	22	720	2.6
270 (82.3)	280 (85.34)		Less sericitic + darker calcite	446R	1.5/10	570	39	381	2.4
			199.5' (60.8 m) and 210' (64 m)						
			But no dark bands after 210' - 284'						
			only of 2- sericite-pyrite						
			Minor eff. of calcite throughout						
284 (85.34)	296 (90.83)	Transition zone	Start to get dark bands + patches						
			Less pyrite, more in bands. Fairly abundant						
284 (85.34)	290 (88.39)		calcite, especially in dark parts	448R	2/10	264	45	324	2.1
290 (88.39)	300 (91.44)		284 to 286 - banded dark rk like	448R	6/10	251	46	430	1.8
			Following section						
			End of run @ 277', 278', 283', 288.5', 291.5'						

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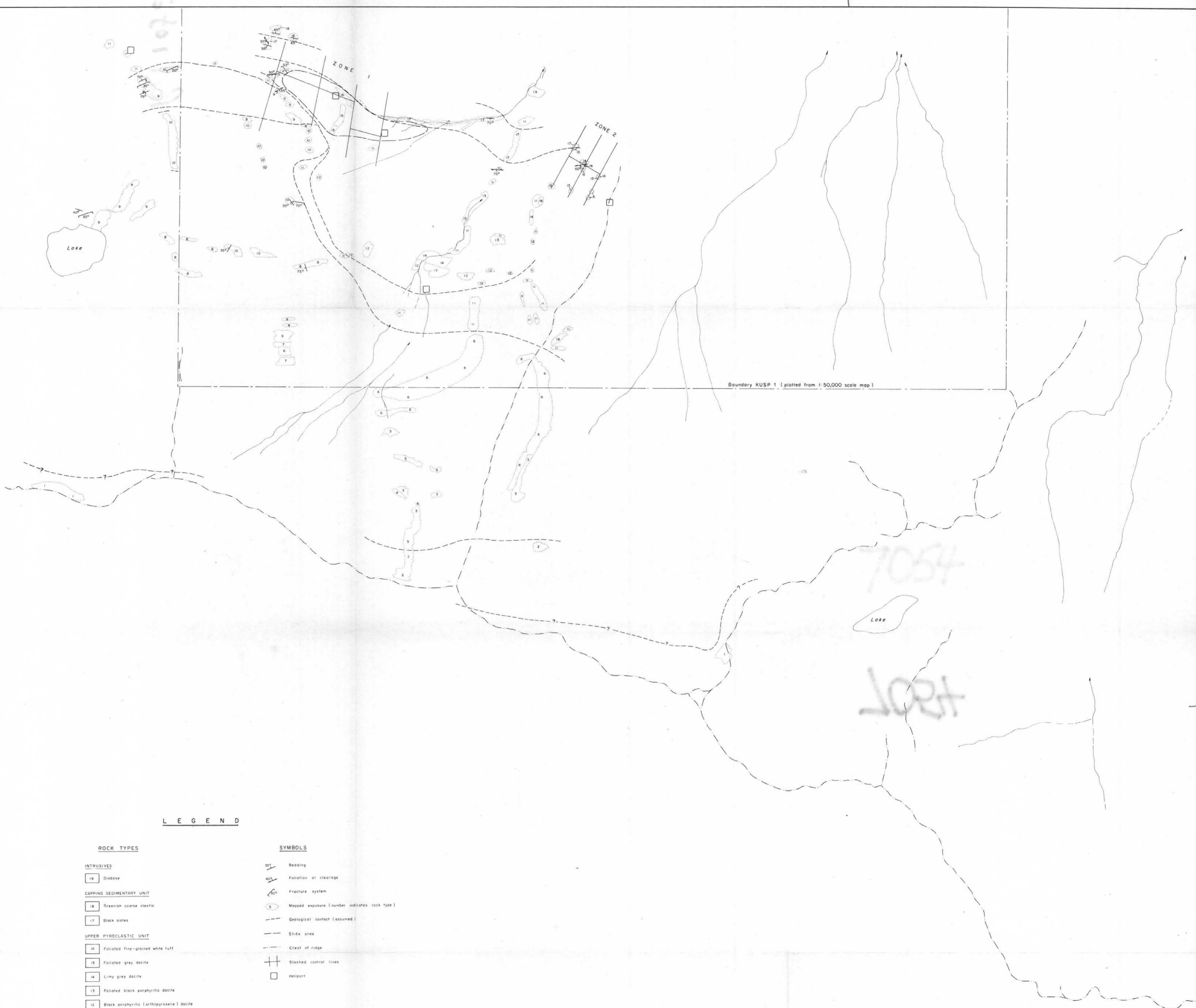
DRILL HOLE 4

PROJECT _____

PAGE _____

FROM	TO	ROCK UNIT	DESCRIPTION	SAMPLE No.	RECOVERY	Gr	Pb	Zn	Ag
			260-284 all broken, but some grinding in many places, esp 278						
			Bandings 284' (86.5m) 45°						
295 (90.83)	352 (107.29)	Carbonate schists dark rk	Carbonate-rich foliated, rock Grey with dark foliae; Calcite throughout, especially in white bands	449R	64/10	322	25	63	1.6
300 (91.44)	310 (94.49)		300-303 calcite lenses up to 6" (15cm)	450R	6/10	394	21	56	1.8
320 (97.54)	330 (100.58)		Pyrite mainly dissemin, only few bands	451R	7.3/10	239	114	239	2.0
330 (100.58)	340 (103.63)		The grey sections - without black foliae have very little carbonate	452R	7.4/10	129	19	36	1.3
340 (103.63)	352 (107.29)		Fed runs at 295, 298, 303, 307, 311, 321, 326.5, 329.5, 333, 335, 344.2, 347, 352	453R	64/10	286	36	41	1.5
			Mud seam 334-335 (101.8-102.1m)						
			Bandings 315 (96.2) 45°						
			332 (101.19) 245°						

7054

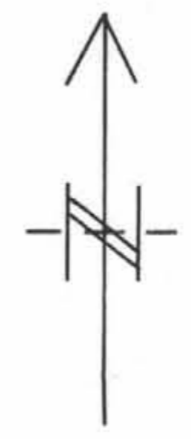


Boundary KUSP 1 (plotted from 1:50,000 scale map)

LEGEND

- ROCK TYPES**
- INTRUSIVES**
- 19 Diabase
- CAPPING SEDIMENTARY UNIT**
- 18 Greenish coarse clastic
 - 17 Black slates
- UPPER PYROCLASTIC UNIT**
- 16 Foliated fine-grained white tuff
 - 15 Foliated grey dacite
 - 14 Limy grey dacite
 - 13 Foliated black porphyritic dacite
 - 12 Black porphyritic (orthopyroxene) dacite
 - 11 Grey dacite; some black porphyritic dacite
- MIDDLE SEDIMENTARY UNIT**
- 10 Greenish shrapstone conglomerate
 - 9 Grey to black slates
 - 8 Mainly grits and greywacke
 - 7 Acidic tuffs
 - 6 Black slates
- LOWER PYROCLASTIC UNIT**
- 5 Foliated black porphyritic dacite
 - 4 Black porphyritic (orthopyroxene) dacite
 - 3 Grey dacite
- BASAL LAVA UNIT**
- 2 Grey dacite
 - 1 Dark porphyritic (plagioclase, hornblende) andesite

- SYMBOLS**
- 35 Bedding
 - 40 Foliation or cleavage
 - Fracture system
 - Mapped exposure (number indicates rock type)
 - Geological contact (assumed)
 - Slide area
 - Crest of ridge
 - Sloshed control lines
 - Helipart



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
7054
NO.

J.R. Woodcock

DOME ; RANWORTH

KUSP PROPERTY

GEOLOGY

Scale: approx. 1:5200
3x expansion of 20 chain photo B.C. 437-186

0 100 200 300 METRES

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JULY 1978 FIGURE No. 2