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EXPLORATION AND MINING
7360 DECOURCY CRES., RICHMOND, B.C. V7C 4E9 (604) 271-2588

R E P O R T

on

ASSESSMENT WORK (DIAMOND DRILLING)

on the

ARSENAULT #1, #2 and #3 CLAIMS

JENNINGS RIVER AREA, ATLIN MINING DIVISION,

BRITISH COLUMBIA

NTS MAP 104/0, 59° 48'N, 131° 42'W

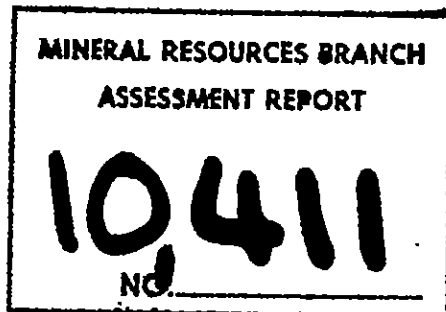
OWNER OF CLAIMS AND OPERATOR OF PROGRAM:

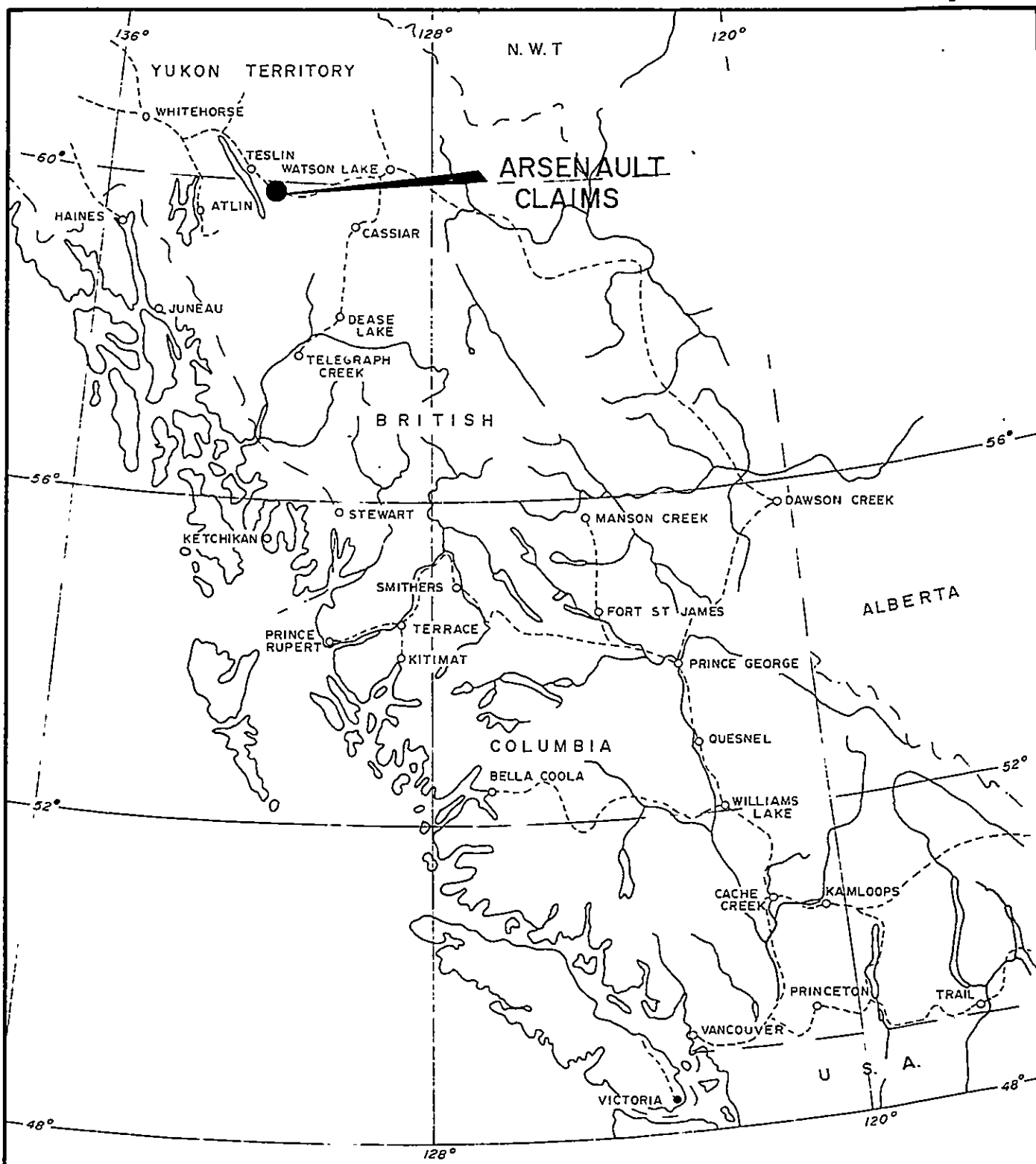
REBEL DEVELOPMENTS LTD.

CONSULTANT AND AUTHOR: R.W. PHENDLER, P. ENG.

Vancouver, B.C.

April 25, 1982





REBEL DEVELOPMENTS LTD.
ARSENAULT CLAIMS ATLIN M. D.
BRITISH COLUMBIA
GENERAL LOCATION SKETCH

SCALE. 1" = 125 MILES

Figure: 1

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ILLUSTRATIONS

- Fig. 1 - Location Map - Scale 1" = 25 miles
*Fig. 2 - Property Map - Scale 1" = 3,300'
* Showing drill hole location

INTRODUCTION

The Arsenault claims lie about 11 kilometers south of the Alaska Highway at mile 753 (km 1204) between Whitehorse (265 km northwest) and Watson Lake (190 km east) in northwest British Columbia. Between the property and the Alaska Highway lies the Swift River and although a bridge and road were constructed in 1971, the bridge was washed away and the road is in disrepair. Consequently, ground access is only available in the winter months when the river is frozen or in late summer when the river can be forded. During the present drilling program helicopters were used to provide access.

Elevation of the property is between 1300 and 1500 meters and a small tent camp exists near the drill site.

PROPERTY AND OWNERSHIP

The property consists of the following claims:

<u>Claim</u>	<u>Units</u>	<u>Record No.</u>	<u>Record Date</u>	<u>Expiry Date</u>
Arsenault #1	20	213	May 31, 1977	May 31, 1985
Arsenault #2	20	214	"	" 1982
Arsenault #3	20	215	"	" 1985

The claims were staked by the AGDL Syndicate and later were acquired by Rebel Developments Ltd.

HISTORY

Copper mineralization was first discovered on the claims under discussion by Hudson Bay Mining and Smelting Ltd. in the 1940's but no follow-up work was carried out. Mr. W. McKinnon, a member of Hudson Bay's prospecting team, left the company in the mid 1950's and carried out additional exploratory work and staked the property. In 1967 K.J. Springer optioned the ground and a program of geochemical work, geological mapping and trenching was carried out. Results were inconclusive and the option was terminated.

Between 1969 and 1972 Bolivar Mining Corporation (a subsidiary of Cyprus Mines Corp. Ltd.) carried out a program consisting of airborne EM, magnetometer, geochemical work, induced polarization geological mapping and diamond drilling (four holes totalling 1080 meters). All holes intersected sulphides with copper and zinc values but nothing approached commercial grade.

During 1979 one diamond drill hole (79-2) was drilled vertically for 442 meters under the direction of P. Sawyer, P. Eng. Two mineral zones were intersected as follows:

<u>Depth</u>	<u>Length</u>	<u>% Cu</u>	<u>oz Ag</u>
256m - 259m	3.0m	0.48	0.08
262.4m - 263.9m	1.6m	0.22	-
313m - 319.7m	6.7m	0.21	0.04

No further work was carried out until 1981 when the second hole (81-1) of the 1979 program was drilled under the supervision of the writer in July, 1981. Logging and sampling was carried out by the writer on July 24 and 25th, 1981. The property was visited on July 23, 1981.

GEOLOGY AND MINERALIZATION

The Arsenault claims are underlain by broadly folded metasediments and metavolcanics with mineralized horizons of chalcopyrite. These rocks have a general northwesterly strike dip about 30° to the southwest, and are intruded by a swarm of north-south striking quartz feldspar porphyry dykes.

It appears that sulphide mineralization was probably contemporaneous with the enclosing rocks, had been remobilized during subsequent deformation and is presently concentrated around small fold structures.

Mineralization consists of blebs and disseminations of pyrrhotite, chalcopyrite and pyrite confined to a mafic member consisting of actinolite - epidote schist.

Previous work (geochemical, Unduced polarization and geological mapping) indicates the presence of a plunging fold with possible sulphide concentrations close to the hinge line. The trend of this axis is $N30^{\circ}W$, width is about 150 meters and the length of the I.P. anomaly indicated by P. Walcott in 1971 is 1200 meters.

Drill hole 79-2 was positioned near the southeast end of the above mentioned anomaly and failed to intersect commercial quantities of copper mineralization.

WORK CARRIED OUT

Between July 2 and July 23, 1981 General Drilling Ltd. moved drilling equipment from Whitehorse to the Arsenault claims by truck and helicopter and drilled one vertical AQ drill hole to a depth of 777 feet (235.5 meters). This hole (81-1) encountered moderate to heavy sulphides between 106.6 and 134.2 meters with the first 15.15 meters averaging 0.20% Cu. The sulphides were composed of disseminated pyrite with blebs and disseminated chalcopyrite within a host rock of chlorite actinolite schist. At 119 meters the rocks were crenulated, suggesting the axis of a fold.

The remaining 12.4 meters of the sulphide-bearing zone averaged 0.05% Cu. All core is stored with General Drilling Ltd. at their Whitehorse shop.

CONCLUSIONS

The thickness of the sulphide zone (27.6 meters) is impressive and this zone appears to correlate with the mineralized zone intersected in D.H. 79.2 between 313 and 319.7 meters which averaged 0.22% Cu across 6.7 meters.

Additional drilling in the vicinity of D.H. 81-1 is warranted as the fold axis and the associated sulphides appear to have been located.

COSTS INCURRED

All drilling, site preparation, road work, mobilization and demobilization was carried out by General Drilling Limited using a diamond drill sold by General Drilling to Rebel Developments Ltd. Some additional costs were incurred by Rebel Developments Ltd. directly such as supervision, tent purchase, geological consulting, etc. The diamond drill (plus all accessory equipment, pumps, rods etc.) was purchased for \$78, 697 and depreciated over three years.

Total costs are as follows:

1) Depreciation of drill (\$78,697 over 3 years).....	\$26,232.00
2) General Drilling Ltd. (camp supplies, helicopter, fuel, truck rental, payroll, administration) -invoice attached	30,185.66
3) Other administrative expenses	1,568.75
4) Jones Tent and Awning Ltd. cheque No. 1026.....	2,432.26
5) Yukon Freight Lines Ltd. " " 1017	1,749.71
6) I.G.G. Canadian Propane Ltd. " " 1028	113.60
7) White Pass and Yukon Route " " 1039	61.36
8) R. Phendler, P. Eng. -core logging, supervision... cheque No. 1046	2,084.75
9) General drilling - helicopter, supplies, repairs, etc. <u>3,542.02</u>	
	Total = \$67,970.11

All invoices are presently at the offices of Chambers, Phillips and Co., Chartered Accountants, 950 - 409 Granville St., Vancouver, Company accountants.

General Drilling Limited

9183A - ALASKA HIGHWAY, WHITEHORSE, YUKON Y1A 3Y7

PHONE (403) 668-5755

STATEMENT OF ACCOUNT

July 30, 1981

Rebel Developments Ltd.
Box 1252
Delta, B.C.

Jennings River Project (Preliminary)

To: Sale of Drill(as per Bill of Sale)

\$ 78,697.00

CK#1054 1451.41
1055 59,000.00
1031 20,000.00
1029 30,000.00

Capitalize

Exploration and Assessment Work

Camp Supplies

VR 729	213.34
739	674.79
742	34.74
743	17.20
744	1,836.29
749	880.49
758	122.94
Less Credit	<u>(2,078.85)</u>

\$1,700.94

Helicopter Hire

VR 740	5,876.00	
757	<u>1,388.61</u>	7,214.61

Fuel & Lube

VR 759		3,056.59
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Equipment Rental

General Drilling	4,782.32	
Sheldon truck	<u>163.20</u>	4,945.52

continued

General Drilling Limited

9183A - ALASKA HIGHWAY, WHITEHORSE, YUKON Y1A 3Y7

PHONE (403) 668-5755

Page 2

Exploration and Assessment Work-continued

Travel, sundries

VR 741	\$ 883.24		
760	<u>218.71</u>	\$ 1,101.95	

Payroll-Jobsite

July 2-15, 1981	6,559.86		
16-24, 1981	<u>4,394.94</u>		
Yukon Workers Compens. (\$14,250 assessable @ 8.50)	<u>1,211.25</u>	<u>12,166.05</u>	\$ 30,185.66

Administrative Expense

Accounting fees

VR 728	150.00		
737	287.50		
762	<u>312.50</u>	\$ 750.00	

Other Administrative Expense

As per General Drilling statement	<u>818.75</u>	<u>1,568.75</u>	
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<u>TOTAL</u> -----	\$	<u>110,451.41</u>
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NOTE:*****

Charges and credits to follow include telephone and radio tolls additional helicopter hire, and diamond bit credits.

General Drilling Limited

9103A ALASKA HIGHWAY, WHITEHORSE, YUKON Y1A 3Y7

PHONE (403) 668-5755-

P.O. 5240

668-4320

September 15, 1981

STATEMENT OF ACCOUNT

Rebel Developments Ltd.
Box 1262
Delta, B.C.

Re: Jennings River Project (Statement No.2)

Exploration & Assessment Work

Helicopter Hire-

VR 767 2,280.25

Camp Supplies

See Gen. Drilling Stores Voucher 556.00

VR 764 30.16

Equipment Repairs, Maint

VR 765 302.56

Equipment Rental

VR 769 55.99 \$ 3,224.96

Administrative Expense

VR 761- Power 150.14

763- Phone 6992

766- Accounting 100.00

320.06

TOTAL \$ 3,545.02

"ORIGINAL VOUCHERS ATTACHED"

"Diamond Credits to follow"

August 24, 1981

Mr. A. Arsenault
Rebel Development Ltd.
763 Kingfisher Place
Tssawwassen, B.C.

I N V O I C E No. 208

Re: Professional services of R.W. Phendler, P. Eng. for logging
and sampling of diamond drill hole 81-1, for examination of
drill program at Jennings River site, for sampling of parts
of diamond drill hole 79-1 and preparation of letter report.

Field time: July 22 (½), July 23, 24, 25, 26 - 4½ days
at \$300/day \$1,350.00
Office time: Equivalent - 1 day at \$300/day = 300.00

Recoverable expenses:

July 22 - Airfare - Vanc.-Whitehorse-Vanc. -	\$369.50	
" " - Typing of drill log - 4 hours @ \$12/	48.00	
" " - Taxi to Vancouver airport	8.50	
" 26 - Taxi from Vanc. airport to Rich. -	8.75	
	<u>\$434.75</u>	<u>434.75</u>
		Total ... <u>\$2,084.75</u>

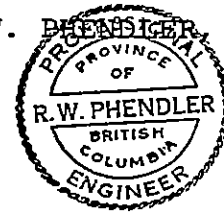
C E R T I F I C A T I O N

I, R.W. PHENDLER, of 7360 Decourcy Crescent, in the municipality of Richmond, in the Province of British Columbia, hereby certify as follows:

- 1) THAT I am a registered member of the Association of Professional Engineers of British Columbia - No. 4421.
- 2) THAT I am a graduate of McGill University, Montreal, with a Bachelor of Science degree in Geology.
- 3) THAT I have practiced my profession continually as mine (11 years), exploration (6 years) and consultant (11 years) geologist for the past 28 years in all parts of Canada, the U.S.A., Mexico, Peru, Colombia and Chile.
- 4) THAT I have no interest in the Arsenault property nor do I own, directly or indirectly, any shares of Rebel Developments Ltd. nor do I expect to.
- 5) THAT the information contained in this report was compiled as a result of my examination of the Arsenault property on July 23, 1981.

R. W. Phendler

R.W. PHENDLER, P. Eng.



Drill Hole Log

COMPANY REBEL DEVELOPMENT LTD.

PROPERTY Arsenault Claims

Section No.

HOLE No. 81-1

Started		Bearing		Lat.		Collar El. 4560'		Logged by R. Phendler		Date July 24-5/8			
Completed		Angle from Horizon		Dep.		Bottom. El. 3783'		Remarks		95% Recovery			
Driller		Length		Location		Level				AO Size			
feet		RECOVERY		DESCRIPTION		Mineralization		Sample No.		ASSAY			
From	To	Interval	%					From-To	Interval	% Cu	oz Au	% W	
0	10'			Casing									
10'	12'			Feldspar Porphyry Dyke, Grey, medium - grained									
12'	35'			Limey, Tuffaceous Sediment, Medium grey med. gr'd. Massive grey quartz 10.0 - 12.5' pyrite specks gneissic 28-29 and banded; pyritic 36-38' 50% grey quartz 16908				29.5- 35.5	6.0	<.005	0.005		
35	81.0			Epidote 50-51' Biotite Gneiss -banded at 75°, green- brown, qtz.-grey- white				16909	38.0- 40.0	2.0	<.005	<.005	
				cherty band - green-grey 51-52' local chloritic banding-minor pyrrhotite		30% qtz.- py specks		16910	42.0- 50.0	8.0	<.005	<.005	
81.0	100			Limestone- pale grey H-4.5 -locally Schistose at 80° to core.		90% Gy qtz		16911	58.0- 60.0	2.0	<.005	<.005	
100	113'			Micaceous schist - brownish-banded at 80%									
113.0	120'			Garnet - mica Gneiss		50% gy qtz		16912	67.0	9.0	<.005	<.005	
						scheelite?			76.0				

Drill Hole Log

COMPANY REBEL DEVELOPMENT LTD.

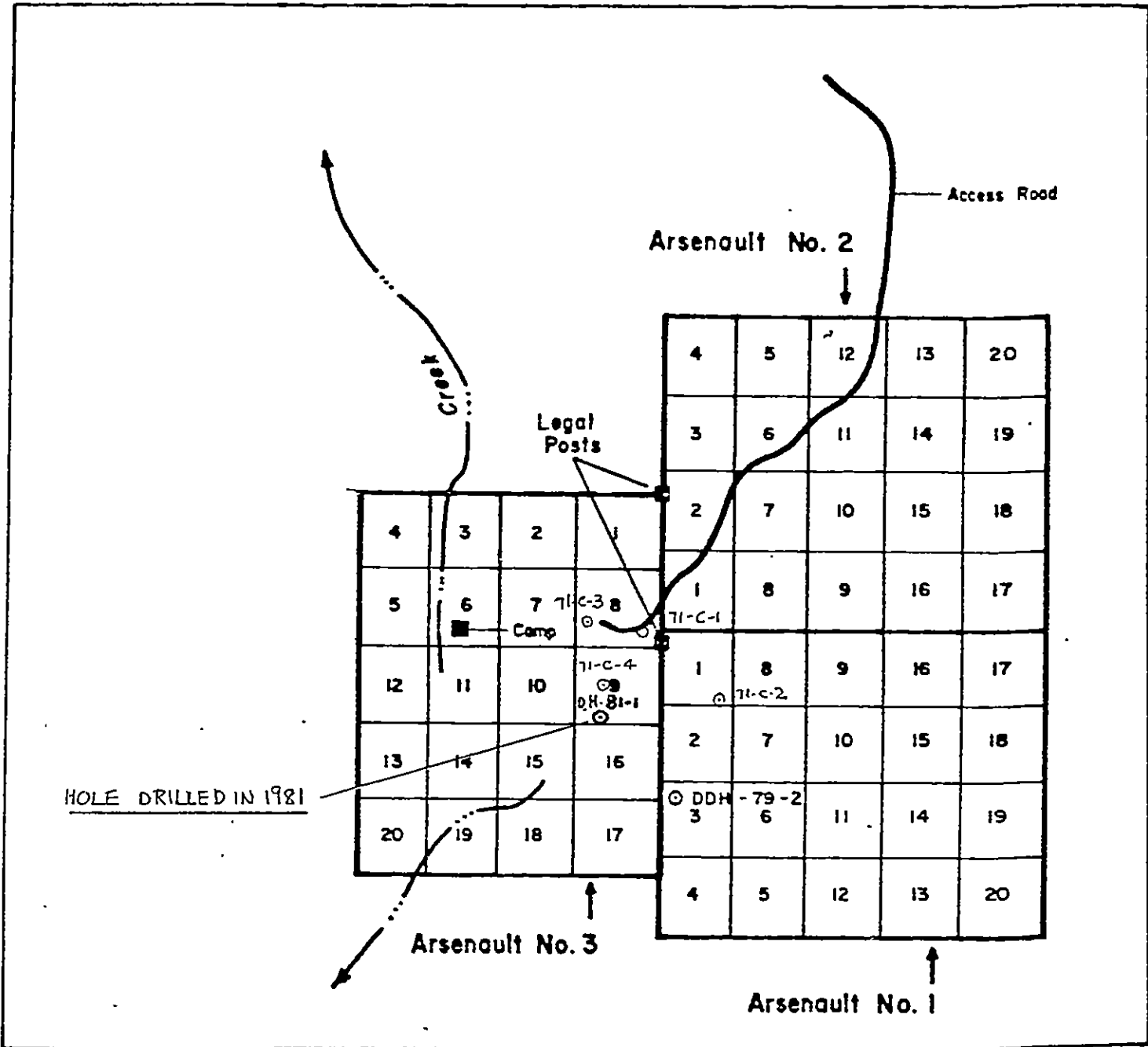
PROPERTY Arsenault Claims

Section No.

HOLE No. 81-1

Started	Bearing	Lat.	Collar El.	Logged by R. Phendler	Date Jul.24-5/81
Completed July 23, 1981	Angle from Horizon vertical	Dep.	Bottom. El.	Remarks 95% Recovery	
Driller	Length 777'	Location	Level		

From	To	Interval	RECOVERY		DESCRIPTION	Mineralization	Sample No.	From-To	Interval	ASSAY			
				%						% Cu	oz Au	% W	
120	130	'			Quartzite-Gneissic, pale grey, medium grained	40% white	16913	81.0-	10.0		<.005	<.005	
								91.0					
130	169	'			Biotite-garnet Gneiss-spotted, Porphyritic - med. grey. 139' -140' qtz vein Banded at 75°	40% white quartz	16914	91.0 -	4.0		<.005	<.005	
						qtz. vns. -	16915	101.0-	3.5		<.005	<.005	
						5% pyrite		104.5					
					Heavy qtz. - 149 - 154'	70% white	16916	121.0-	6.0		<.005	<.005	
						quartz		127.0					
169	220				Quartz Chlorite Sericite Schist, Greenish grey, 2" qtz at 179', banded weakly at 70°, weak pyrite throughout	60% qtz.	16917	149.0-	5.0		<.005	.005	
						80% qtz.	16918	197.0	12.0		<.005	10.005	
								209.0					
					at 225' a 1' chloritic zone with 2" quartz;								
					1' ground at 206'								
220	258				Biotite Gneiss - fine-medium grained; greenish, minor chlorite, 3" qtz. vein at 250', with banding	pyrite, mag	16919	266 -	1.0		<.005	.008	
					minor pyrite throughout								
258	329				Chlorite Schist Epidote throughout, few quartz stringers	weak qtz.	16920	290 -	3.0	<.01	<.005		
								293					
					266' - 267' - diabase dyke - pinkish, siliceous banding 273 - 274'	pyrite 5%	16921	333 -	4.0	.05	<.005		
								337					



REBEL DEVELOPMENTS LTD.
ARSENAULT CLAIMS SKETCH
SWIFT LAKE AREA
ATLIN MINING DIVISION, B. C.

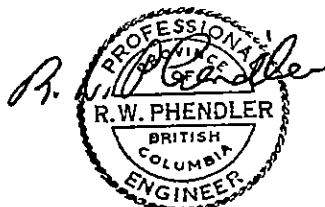


Fig. 2

SCALE 1" = 1000 Metres

1" = 3300 Feet