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# DIAMOND DRILLING

1019 0010C1 RHODES

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TOWNSHIP: Rholdes

WORK PERFORMED BY: Hudbay Mining Ltd.

CLAIM NO.	HOLE NO.	Footage	Date	Note
S 616182	81-1	38.71 m	Nov/81	(1)
S 616182	81-2	3C.48 m	Nov/81	(1)
S 616194	81-3	30.48 m	Nov/81	(1)
S 616193	81-4	52.70 m	Nov/81	(1)
	TOTAL: 4 DH	152.37 m		

NOTES: (1) #22-82

	DIAMOND DRILL RECORD & LOG									•	
LOCATION:	Shasta Zone <u>PROPERTY</u> : Rhodes Township	p, Ontari	lo				HOLE NO: 81-1				
Inclin: Azimuth: Started: Completed:	0+80N DEPARTURE: 0+28W LENGTH: 38.71 m -45° CORE SIZE: AQ 040° DIP TESTS: 81-11-11 81-11-13 Test VHEM Conductor	ELEVATIO DRILLED DRILLED	BY: 1		d Sherwo lining Lt		SEC LOG DAT	IM NO. FION: GED BY: E LOGGE $\int da c$	: P.L ED:31-		
METRES	DESCRIPTION	SAMPLE	MET	RES	LENGTH	1		٥٩	SAYS		
From To		NO.	From	To	m	Au	Aq	<u> </u>		<b></b>	
1.2	Overburden (no recovery)					oz/T					
1.2 27.7	<pre>Intricately interlayered, flow banded, metamorphosed, fine grained, volcanic rock with irregular inflows (layers) varying in composi- tion from soft (h4), in part weakly chloritized, medium to dark grey rock of andesitic composition, to silicified medium grey, fine grained hard (h5-6) rock of intermediate composition. Some "pseudo selvages" of pillow lava evident. Numerous quartzitic to quartzofeldspathic whitish veinlets/seamlets and irregular inclusions (probably metamorphosed fragmentals). Thin (1-3 mm) fracture veins-seams of quartz and quartz-calcite prominant in the more siliceous sections, locally cross-cutting, and reaching a density approaching stockwork classification. Contacts between various compositional components are very irregular, and vary from sharp(distinct) to indistinctly gradational This section contains &lt; 1% to 1% disseminated sulfides (mainly po). A few narrow (&lt;2 cm) sections are distinctly magnetic due to po (2-5%). There is a gradual increase from basic to acidic downhole. Downhole from 23.0 m, the banding (layering) becomes more regular (unidirectional) and foliation becomes more distinct. Banding</pre>	158 (8 qtz veins) 1 159 160	11.40 12.55 12.95 14.70	4.19 4.34 5.83 6.73 7.35 8.07 8.64 9.66 10.01 11.50 12.59 12.98 14.77 20.32 22.17	0.01 0.02 0.04 0.03 0.02 0.07 0.04 0.04 0.04 0.04 0.03 0.07 0.40 0.12 0.50	nil tr nil nil	nil nil nil				

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HOLE NO: 81-1

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PROPERTY: Rhodes Township, Ontario

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MET	RES		SAMPLE	MET	RES	LENGTH			ASSA	YS		
From	To	DESCRIPTION	NO	From	То	m	Au	Ag			_	
27.7	28.50	<pre>Several small (1-10 cm) zones of quartz veins carry associated py, po (1-2%) and few (&lt;%%) blebs cpy. Those with po content are all weakly magnetic.</pre> Moderately well banded dacitic rock, possibly a metatuff. 1% to locally 20% po,mainly concentrated as banded disseminations (up to 30% over ½ cm) parallel to host rock; 27.97-28.07 po banding (stringers) sufficiently concentrated to be conductive. Section	161	27.85	28.50	0.65	oz/T nil	oz/T nil				•••
28.50	29.20	is weakly to strongly magnetic due to po. Banding at 75-80 <sup>0</sup> to core axis. Massive, faintly banded-foliated, fine grained, medium grey dacite. Sharp contact at 29.20.										
29.20	30.20	<u>Conductive Zone</u> : rhyo-dacite to rhyolite composition, distinctly banded at 75-80° to core axis. May be granitized (recrystallized) chert-tuff section. Some very fine grained orangey-pink tinged (K-feldspar?) bands. Strongly magnetic due to po (varies from 3-60% in section).	162	29.20	30.20	1.0	nil	nil				
		Po occurs as disseminations and irregular massive (up to 80% over l cm) concentrations lineated subparallel to the host rock banding. Very minor (<%) diss. cpy at 29.9-31.2. The massive po locally has purplish tinge and may contain minor sphal.										
30.20	31.50	Massive, uniform, fine grained, light grey dacite, locally faintly flowbanded.										
31.50	32.15	Dacite-Thyodacite weakly to moderately banded with 1-5% po, mainly as linear disseminations.	163		32.15	0.65		nil				
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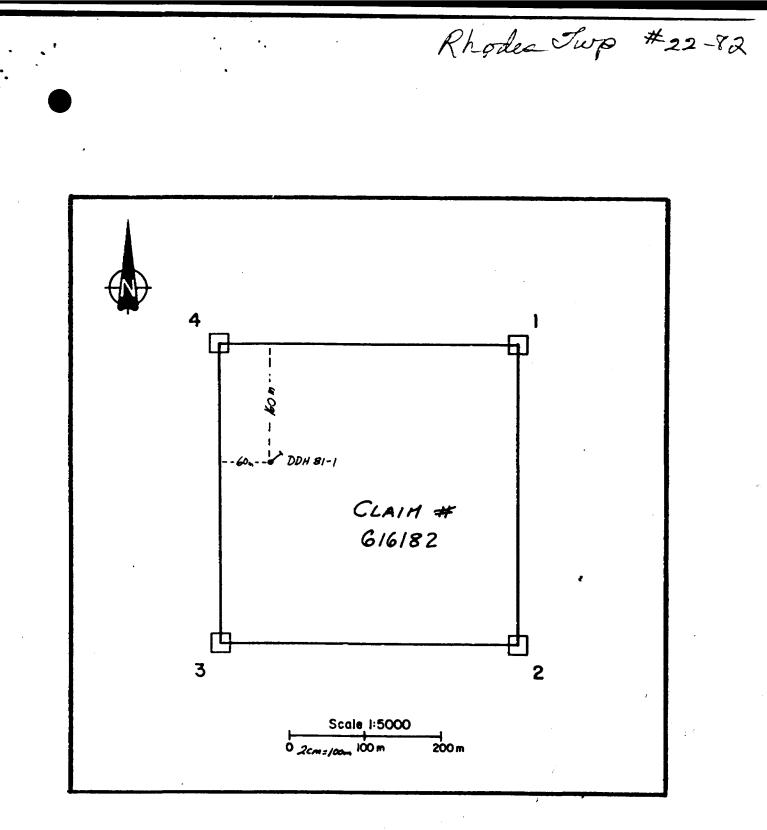
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PROPERTY: Rhodes Township, Ontario

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MET	RES		SAMPLE	MET	RES	LENGTH			ASSA	YS	 
Prom	To	DESCRIPTION	NO.	From	To		Au	Aq			Γ
							oz/T	∩z/T			
32.15	38.71	Dacite as at 30.32 and 31.70.	164	37.73	38.20	0.47	nil	nil			
37.73	38.20)	Calcite vein nearly parallel to core axis carries 1-2% py and 4% diss. cpy.			•						
8.71		End of hole.									
								¥-	- - -		
		Ultra Violet Light indicated predominantly drillrod grease and some small blue specs. Some slight pinkish tinges also observed at 3 or 4 locations (1-9 cm <sup>4</sup> in area).									
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	Hudbay Mining Limited A Subsidiary of Hudson's Bay Oli and Gas Company Limited	
ECEIVED	RHODES PROJECT	
ESEIVEL	LOCATION MAP FOR	
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	GAN.22/82	

• -	LOCAI	rion: Ki	ester Zone <u>PROPERTY</u> : Rhodes Town	mship, Ont	ario <sup>,</sup>				POL	SNO: 8	1-2
	LATITUDE: 0+255 DEPARTURE: 0- INCLIN: -50 AZIMUTH: 058 STARTED: 81-11-14 COMPLETED: 81-11-14 PURPOSE: Test VHEM Conductor		-50° 058° B1-11-14 B1-11-14 CORE SIZE: AQ DIP TESTS: CORE SIZE: AQ CORE SI	nd Sherwo Mining Lt		CLAIM NO. 616182 SECTION: LCGGED BY: P.Lassi DATE LOGGED: 81-11-1 Marche					
	MET	TRES	DESCRIPTION	SAMPLE	MET	RES	LENGTH	T		ASSA	<u>'S</u>
ł	From	To		NO.	From	TO	m	Au	Ag		
	0 1.52 2.54	1.52 2.54 2.70	<pre>Overburden Very fine grained andesitic to dacitic, weakly flow banded volcanic Probably 30% white felds. Narrower bands tend to be feldspar rich and lighter colour (whitish grey compared to medium grey host rock). In the thicker bands feldspars take a phenocryst appearance and are up to 2 mm in size in a matrix of &lt;1 mm size crystals. Medium grained felds. porph. Massive, very uniform in grain size a composition. Very distinctive felds.crystals (35% of rock) give coarse salt-pepper texture. Matrix appears to slightly darker feldspar and minor (5%?) qtz. Less than 5% mafics This unit appears to be a sill, but has no chill margins.</pre>	and					oz/T		
	2.70	4.42 5.40	Same as at 1.52-2.54 but banding is much more irregular. Felsic bands may well be pseudo selvages of pillow lava. Identical unit to 2.54-2.70 section.								
	4.42 5.40	5.40 6.58	Similar to 2.70-4.42 section, but very distinct irregular flow banding almost gneissic in texture. The felsic bands have slightly pinkish hue indicating probable K-felds content, crysta are about 1 mm in size and do not have porph texture.	als 165 (3 qtz, veins)		3.02 4.42 6.79	.02	nil	nil		

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MET	RES		SAMPLE	MET	RES	LENGTH ASSAYS					 
From	To	DESCRIPTION	NO	From	To		Au	λα			 Ţ
6.50	7.97	Flow banded dacite tending to andesitic locally. 7.20-7.30 andesitic section (grey green) mainly light to medium grey, fine grained medium hard (h5) rock. Appears to be slightly chloritized. Irregular bands grade into each other and appear to possibly have been fragments. Could be pseudo breccia.			-		oz/T	oz/T			
7.97	8.10	White quartz vein.									
8.10	8.70	Flow banded, medium grey-green, fine grained volc. of andesitic composition.									
8.70	8.85	Quartz vein with large pods of py.	1								
8.85	9.40	Quartz veining with chlorite fracture filling and incorporated chloritized volc, in part micro brecciated. Also py along fractures.	166 (2 qtz veins)	7.97 8.70	8.10 9.40	.13 .70	nil	nil			
9.40	9.75	Porous, punky, distinct sea green rock (glauconite?), disseminated with py blebs.	167	9.40	9.75	. 35	0.00	l nil			
9.75	11.00	Flow banded (possibly sedimentary origin), fine grain rock similar to 6.50-7.97 section, but more mafic material, minor chloritized bands near downhole contact (11.00).									
11.00	11.23	Weakly chloritized flow banded, greenish andesitic volcanic, possibly basalt. Few unusual orangy coloured porphyroblasts of variable shapes over 3 cm at 11.05.	168	11.00	11.23	. 23	nil	nil			
11.23	12.10	Flowbanded andesite-dacite similar to 0.75-11.05 section.									

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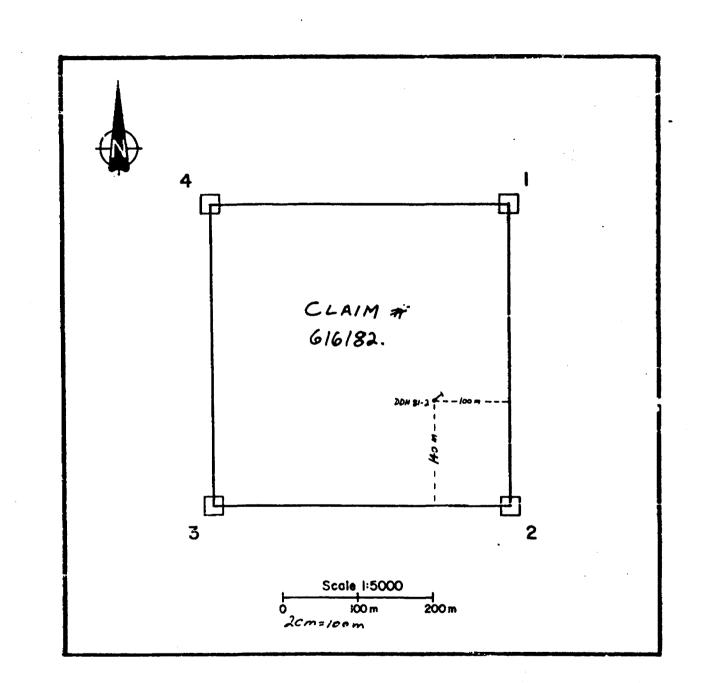
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HOLE NO: 81-2

MET	RES		SAMPLE	METH	ES ·	LENGTH			ASSA	YS		
From	To	DESCRIPTION	NO.	From	To		Au	Aq				
12.10	13.30	Extremely warped section with micro flow folding (micro crenulation) which includes felsic, intermediate, and mafic inclusions with chloritized boundaries. Includes a 6 cm section of silvery-grey soft (h3-4) micaceous, unknown mineral. Includes, at 12.65-12.85, a fine grained, sea green, flow folded mafic section, possibly amphibolite. Fairly soft (h4-5), weakly magnetic due to minor po blebs.	169	12.10	13.30	1.20	oz/T nil	or/T nil	E I V I III	$Q^{N_{n,n}}$		•
13.30	14.25	Uniform, fine grained diorite with lineated crystals which locally show flow folding and express a wispy, splayed texture.						)   	ับ 14	5	الاز <b>ھے</b> در	
14.25		Banded dacite rock (tuff-tuffite) similar to 9.75-11.00 section. Thin (mm) planar, very siliceous beds at mm to cm intervals. Several 2-10 cm sections with 5% po as irregular blebs and stringers. Most stringers preferentially aligned sub-parallel to bedding. Very conductive.		20.20 20.30	18.48 18.65 19.24 19.70 20.25 20.36	.05 .04 .05 .05 .06	nil	nil	<u> </u>			
20.30	21.47	Monzonite: medium grained, equigranular to finely porphyritic. Several mafic xenoliths.	(	20.40	20.50	.10				-		
21.47	/2.10	Andesite: medium green-grey, fine grained, wispy colour banding possibly tuffaceous sediment. 1-3% fine grained pyrrhotite as disseminations of fine stringers.										
22.10	23.50	Siliceous (cherty) tuff: light grey siliceous beds alternate with darker, more mafic beds. Some planar beds, but most are lenticular. Bedding at 80-90° to the core axis. 5% pyrrhotite as irregular blebs and stringers preferentially aligned, parallel to bedding. These po stringers are conductive.	171	21.47		1.03	nil nil	nil tr				
23.50		Diorite: fine grained, featureless, equigranular rock, probably on intrusive rock.										
30.48		End of hole.										



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AZIMU START COMPL PURPC	ED: 8	DIP TESTS: DIP TESTS: DIP TESTS: DIP TESTS: DIP TESTS:	•			d Sherwoo ining Ltd			ÐØ		$\hat{A}$
MET	RES	DESCRIPTION	SAMPLE	MET	RES	LENGTH			ASS	SAYS	
From	To		NO.	From	:20	]	Au	Âq	Cu	Pb	Zn
0 2.4	2.4 15.6	Overburden <u>Felsic porphyry</u> : light grey-green, medium grained, weakly foliated at 70 to the core axis, 20% fine (<1 mm) white, diffuse feldspar	•				Þz∕T	oz/T	8	8	<b>%</b>
		phenocrysts in a quartzo-feldspathic matrix. Thin (5-20 cm) interlayers of laminated, intermediate tuff at 5.8-6.2, 14.8-15.2. Non-intrusive contacts suggest porphyry is a crystal tuff but no bedding. Coarse grained, non-foliated granite at 14.3-14.8, 9.5-9.8.							•		
15.6	19.2	Felsic flow: grey-white, mainly massive with several thin, finely bedded interlayers (intraflow material), mottled, wispy, layered (flow banded) in places. Slightly recrystalized. <u>Conductor</u> : 15% pyrrhotite as irregular anastamosing stringers parallel to foliation. Trace to 1% chalcopyrite, sphalerite and galena as stringers.	173 174 7 175	15.6 16.8 18.0	16.8 18.0 19.2	1.2 1.2 1.2	nil nil nil	0.13 tr 0.10	0.09 0.09 0.04	0.19 tr 0.09	0.52 0.05 0.42
9.2	26.72	Intermediate tuff: fine grained, bedded at 60 <sup>0</sup> to the core axis, we foliation parallel to bedding. Foliation imparted by aligned biotite. No sulphides.	uk 176	19.2	20.7	1.5	nil	0.10			
20.7	21.5	Monzonite: massive, coarse grained, sharp intrusive contacts, porphyritic locally.			-						

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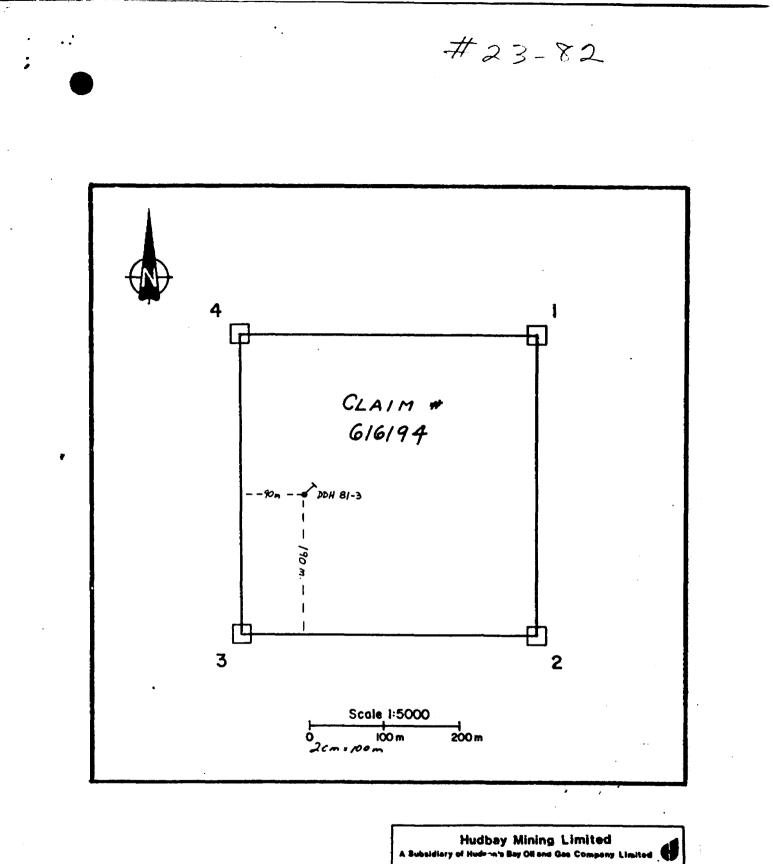
#### HOLS NO: 81-3

#### PROPERTY: Rhodes Township

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MET	RES		SAMPLE	MET	RES	LENGTH	· · · ·	 ASSA	YS	
rom	To	· DESCRIPTION	NO.	From	То	][				
1.5	26.3	Intermediate tuff: same as 19.2-20.7, foliated at 60 <sup>0</sup> to the core axis. Monzonite sills? at 22.5-22.9, 26.1-26.2.								
5.3	30.48	Mozonite: same as 20.7-21.5, intermediate tuff xenolith at 29.5-29.7.								
.48		End of hole.								
		Note: E.M. conductor interpreted to be caused by section at 15.6-19.2 which contains 15% pyrrhotite as semi-continuous stringers of conductive pyrrhotite.								
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i i			DIAMOND DRILL RECORD & LOG													
LOCATION:		В	Bonita Zone II PROPERTY: Rhodes Township, Ontario						HOLE NO: 81-4							
I A S C	LATITUDE: 0+185 DEPARTURE: 1+05W LENGTH: 52.7 m ELEVATION: INCLIN: -55° AZIMUTH: 020 CORE SIZE: A.Q. AZIMUTH: 020 DIP TESTS: DRILLED BY: Heath & Sherwood STARTED: 81-11-18 COMPLETED: 81-11-20 PURPOSE: Test VHEM Conductor							CLAIM NO. 616193 SECTION: LOGGED BY: D.G.DuPre DATE LOGGED: 81-11-26								
	METRES		DESCRIPTION	SAMPLE	MET	RES	LENGTH			AS	SAYS					
Fr	om To	2		NO.	From	То	m	Au	Ag	Cu	Pb	Zn				
0		.9 .1	Casing <u>Felsic flows</u> : light grey, hard, fine grained, wispy, discontinuous colour banding (flow) at 60° to the core axis. Several thin (<10 cm)laminated, intraflow siliceous seds. Locally flow brecciated. Minor amount of cloudy, milky-white quartz "veins". Trace pyrrhotite as stringers at 8.2, 2% po and 1% py, as stringers at 9.7-10.7 in bleached (altered) zone.	177	9.7	: 10.7	1.0	oz/T nil	nil	<b>9</b>		•				
17.	.1 17	.7	Cherty felsic tuff: light grey, finely laminated at 85° to the core axis. Fine chert (<1 mm) laminations alternate with more tuffaceous beds. Few specs of pyrrhotite.	178	17.1	17.7	0.6	nil	nil							
17. 20.			Felsic flows: light grey, medium grained, flow banded at 80-90° to the core axis. Banding is commonly crenulated. 5% pyrrhotite as irregular stringers in altered (apple green-buff-sericite?) zone at 17.7-18.1. Several thin (<10 cm) intraflow, bedded cherty layers. Cherty felsic tuff: same as 17.7-17.7. Bedding at 90° to core axis.	179	17.7	18.1	0.4	nil	tr							
			No sulphides.													

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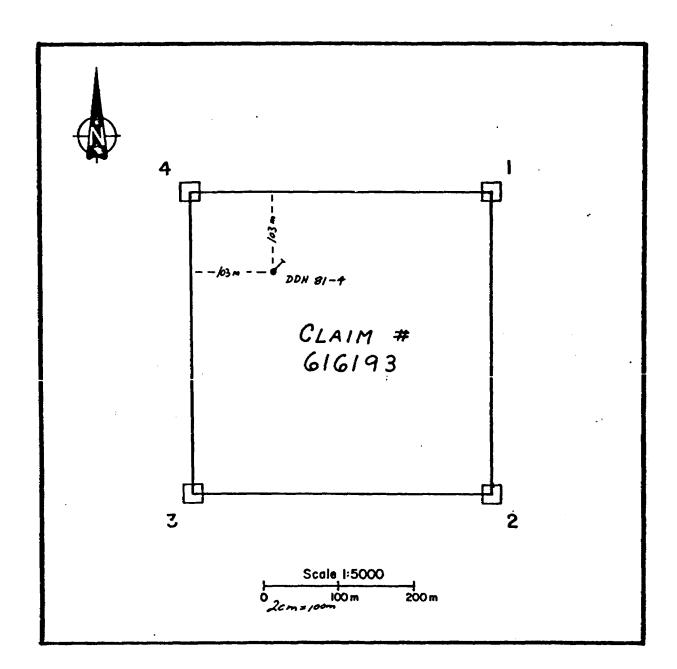
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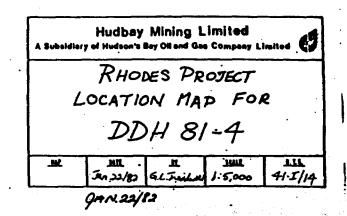
PROPERTY: Rhodes Township, Ontario

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METRES			SAMPLE	METRES		LENGTH	ASSAYS				
rom	To	DESCRIPTION	NO.	From	То		Au	λq			
							oz/T	oz/T			
_											
.5	33.0	Felsic flows: sucrosic, weakly flow banded at 90° to core axis,					1				
		warped in places.		]			ļ				
.0	36.8	Cherty felsic tuff: same as 17.1-17.7. Bedding warped and, in places									
••		brecciated. Appears to be soft sediment deformation. 10% medium			•			ļ			
		grained pyrrhotite as irregular blebs, and anastamosing stringers									
		up to 5 cm thick. 1% pyrite as large (max. 5 mm) subhedral							1		
•		crystals at 34.5-36.8. Sulphides accompanied by fine grained									
		yellow-green mineral (epidote?). Also 5% calcite.									
			180	34.5	36.0	1.5	1				
6.8	52.7	Felsic flows: similar to 7.9-17.1. Banded commonly on cm scale.	181	36.0	37.5	1.5	nil	tr	Compos	ite	
		Banding contorted but mainly at 70° to the core axis. 10% of	182	37.5	39.0	1.5	1				
		interval composed of laminated tuffaceous chert interflows. 78			1			1			
		po and 1% py from 36.8-49.0. 1% of interval comprises	183	39.0	40.5	1.5)			ļ	1	
		milky, grey, cloudy quartz masses (veins?) 5% carbonate throughout.	184	40.5	42.0	1.5	tr	0.10	Compos	ite	
		Banding at 90° to core axis at 51 m.	185	42.0	43.5	1.5	1				
2.7		End of hole	186	43.5	45.0	1.5		l f		·	
2.1		End of hore	187	45.0	46.5	1.5					
			188	46.5	48.0	1.5	nil	0.10	Compos	ite	
			189	48.0	49.0	1.0					
			į	į	i	İ	i		1	1	
		NOTE: The E.M. conductor is interpreted to be caused by the section		1			ţ				
		at 34.5-49.0 which contains 8% pyrrhotite and pyrite as									
		semi-continuous, conductive stringers.	1								1
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