

**ARN PROPERTY**

Grid East	Grid North	Easting	Northing	Elev. (m)	Depth (m)
		512172	6871996	1887	127.41

ZONE: \_\_\_\_\_

SECTION: \_\_\_\_\_

HOLE: ARN-10-02

**CLAIM:** YC25989

Contractor: Top Rank Drilling

Drill: JKS 300

Core size: BTW

Casing depth: 2.58 (m) in / out

Drilling dates: \_\_\_\_\_

Geology logged by: Oliver Fu

SURVEY							
Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
collar	50	-45	compass				

**TARGET:** Zone Q soil anomalies and strong VTEM responses

SUMMARY				
From (m)	To (m)	Interval	Unit	Comments
0.00	2.58	2.58	OVb	Overburden
2.58	5.45	2.87	BAS	Basalt
5.45	6.23	0.78	LST	Limestone
6.23	6.53	0.3	BAS	Basalt
6.53	9.13	2.6	LST	Limestone
9.13	13.27	4.14	BAS	Basalt
13.27	15.75	2.48	LST	Limestone
15.75	22.55	6.8	BAS	Basalt
22.55	22.81	0.26	SKN	Skarn zone with bornite, pyrrhotite, magnetite, pyrite and chalcocopyrite
22.81	23.33	0.52	LST	Limestone
23.33	27.05	3.72	BAS	Basalt
27.05	30.32	3.27	LST	Limestone
30.32	33.29	2.97	BAS	Basalt
33.27	33.49	0.22	SKN	Skarn zone with marble. Garnet-rich along fractures. Intense pyrite, sub-massive
33.49	35.00	1.51	BAS	Basalt
46.50	127.41	80.91	BAS	Altered basalt (with cross-cutting dykes)
64.62	65.80	1.18	DY	Chloritized dyke
74.42	74.92	0.5	DY	Chloritized dyke
81.09	81.40	0.31	DY	Chloritized dyke
90.15	91.00	0.85	DY	Chloritized dyke
96.48	96.92	0.44	DY	Chloritized dyke
97.32	97.90	0.58	DY	Diorite dyke
98.48	99.38	0.9	DY	Diorite dyke
106.83	107.04	0.21	DY	Chloritized dyke
113.50	115.40	1.9	DY	Dyke (? - andesitic?)
115.70	116.03	0.33	DY	Chloritized dyke
117.70	118.15	0.45	DY	Dyke?
118.90	119.20	0.3	DY	Andesitic dyke
121.40	122.80	1.4	DY	Chloritized dyke
127.41				
EOH				

SAMPLES	
Numbers:	G0558686 to G0558733
Total:	48
Batch:	2, 3
Date Sent:	
Certificate:	WH10095936, WH10100509

COMMENTS	

# GEOLOGY LOG

HOLE ARN-10-02

INTERVAL			SUB-INTERVAL			LITHOLOGY			STRUCTURE				ALTERATION						MINERALS						Photo	DETAILED DESCRIPTION	
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture	Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Chlorite	Epidote	Brown	Oxidation	Other		Pyrite	Chalcopyrite	Magnetite	Other		Other			
																	Type	Intensity				Type	Intensity	Type			Intensity
0.00	1.93	1.93				OVB																				No recovery.	
1.93	2.58	0.65				OVB																				Overburden.	
2.58	30.32	27.74				LST BAS																				Interbedded dirty limestone (LST) and amygdaloidal basalt (BAS) with few skarniferous zones.	
																										Basalt. Chlorite crystals are 1-4 mm and mafic are fibrous, rounded to subrounded and soft. Sparse micro-fractures have a quartz center with biotite along its outer edges. Six mm pyrite-rich vein at the end of the interval. Pyrite crystals are euhedral to subhedral and 1-2 mm wide. Sharp contacts.	
			2.58	5.45	2.87	BAS							w-m			m-s										Dirty limestone. Grey with dark specks and crystalline. Few areas have undergone minor bleaching. Nine cm pyrite-rich section occurs at the en of the interval and located in a highly oxidized patch.	
			5.45	6.23	0.78	LST								t-w		w-m	K-ic	w								Basalt. Sharp lower contact (CTC) at 35°. Hairline fractures are infilled with epidote or limonite.	
			6.23	6.53	0.30	BAS			CTC	35			m	m		m	car	m								Limestone. Sharp lower contact (CTC) at 40° with few hairline fractures.	
			6.53	9.13	2.60	LST			CTC	40						w										Basalt. Fractures have undergone minor bleaching and potassic flooding(?). Cross-cutting light grey-green porphyritic, andesitic dykes are common and between 5 to 40 cm wide.	
			9.13	13.27	4.14	BAS											K-ic	s								Limestone. Lower contact at 10°	
			13.27	15.75	2.48	LST			CTC	10																	
			15.75	22.55	6.80	BAS		AM					w-f	w-f		w-f			f-m							Amygdaloidal basalt. Amygdules are 1-3 mm wide, subrounded and filled with calcite or chlorite. Euhedral pyrite crystals concentrate along amygdule borders. These crystals are 1-2 mm in size. Minor bleaching occurs throughout the section.	
			22.55	22.81	0.26	SKN													s		s	Bo	f			Skarn. Sulphides (bornite, pyrrhotite, chalcopyrite and pyrite) are fine to medium grained and occur adjacent to each other and along fractured surfaces.	
			22.81	23.33	0.52	LST										t	K-ic	w-f								Limestone with dark specks.	

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INTERVAL			SUB-INTERVAL			LITHOLOGY			STRUCTURE				ALTERATION						MINERALS						Photo	DETAILED DESCRIPTION	
From (m)	To (m)	Interval (m)	From (m)	To (m)	Interval (m)	Unit	Modifier	Texture	Type	Attitude (tca)	Attitude (tfa)	Density (frequency/m)	Chlorite	Epidote	Brown	Oxidation	Other		Pyrite	Chalcopyrite	Magnetite	Other		Other			
																	Type	Intensity				Type	Intensity	Type			Intensity
			23.33	26.82	3.49	BAS							m													Altered basalt. Upper and lower contacts have undergone potassic flooding. Pyrite occurs at the upper contact. Bleached zones are lighter and resemble weak stockwork. Zones of intense bleaching also show an increase in chlorite alteration.	
			26.82	27.05	0.23	BAS													t							Pyrite vein at upper contact. Sharp lower contact.	
			27.05	30.32	3.27	LST			CTC	30						m										Limestone. Oxidized fractures. Lower contact at 30°	
30.32	33.29	2.97				BAS												K-ic	f	w			Po	t			Basalt. Minor potassic flooding at upper contact
			31.63	31.73	0.10	SKN								m			car	w								Skarn with pyrite, pyrrhotite and minor potassic, carbonate and epidote alteration. Sulphides are interstitial and concentrate is a very localized zone.	
			31.95	32.08	0.13	SKN								m			car	w								Skarn. Garnet-rich section with interstitial carbonate veinlets. Garnet crystals are 1-4 mm wide. Fractures have undergone epidote and minor carbonate alteration.	
33.29	33.49	0.20				SKN													i	t						Skarn with marble. Garnet crystals are euhedral, 1-2 mm, and concentrate along fractures. Pyrite is submassive with crystals ranging from 1 to 5 mm.	
33.49	35.00	1.51				BAS							s						m	m						Altered basalt with garnets. Pyrite and chalcopyrite occur interstitially.	
35.00	127.41	92.41				BAS							s	m	w-s	t			t-m		t-m	Po	t-w			Basalt with varying degrees of chlorite alteration and bleaching. Alteration intensity increases with depth. Mottled brown alteration appears blotchy and slightly brecciated. Amygdules have a chlorite halo surrounding them. Pyrite and pyrrhotite are mainly interstitial and increase in concentration in epidote altered zones. Moderate epidote alteration occurs along fractures.	
			35.96	36.67	0.71	BAS							m	w		t	K-ic	m								Potassic alteration occurring along fractures in weakly chloritized zones.	
			38.00	40.55	2.55	BAS							m		w	w						Po	f			Pyrrhotite occurs interstitially.	
			46.50	127.41	80.91	BAS							m-s	m	m-i	w	car	t-w	t	w		Po	w			Altered basalt with cross-cutting dykes. Strong mottle brown (biotite alteration?) and chlorite alteration. Mottled brown section is patchy and brecciated. Fractures are weakly oxidized and carbonate altered. Pyrrhotite occurs throughout interstitially or as disseminations. Pyrite and chalcopyrite occur as disseminations.	

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																	Type	Intensity				Type	Intensity	Type			Intensity
			64.62	65.80	1.18				DY				i			w										Chloritized dyke with covalite along fractured surfaces.	
			67.45	67.83	0.38				DY				i													Chloritized porphyritic dyke with 1-2 mm plagioclase phenocrysts.	
			74.12	74.92	0.80				DY				s													Chloritized dyke with quartz infilled amygdulcs(?) in an aphanitic matrix.	
			81.09	81.40	0.31				DY	70			f	f					f-w			Po	w				Green, fine grained, moderately chlorite altered dyke with potassic altered fractures. Pyrrhotite is patchy along fractures and also occurs as disseminations.
			90.15	91.00	0.85				DY	50			s	m								Po	w-f				Aphanitic chlorite and epidote altered dyke with rounded to subangular mafic (hornblende) phenocrysts (1-5 mm).
			96.48	96.92	0.44				DY				s			w			t								Aphanitic chloritized dyke with 1-2 mm quartz veins and minor sulfides.
			97.32	97.90	0.58				DY	80			s						t			Po	w				Diorite dyke with black rounded to subrounded mafics (1-15 mm). Pyrite occurs along fractures.
			98.49	99.38	0.89								s						t			Po	w				
			106.83	107.04	0.21				DY				s														Chloritized dyke with quartz infilled amygdulcs(?) in an aphanitic matrix.
			113.50	115.40	1.90				DY				m			w			w-f								Andesitic(?) dyke. Feldspar, mafic and quartz crystals are fine grained. Unit has undergone minor chlorite alteration. Pyrite is disseminated. Hornblende occurs as 3-4 mm splintery, elongated crystals. Quartz veins are 1-2 mm wide and show no preferred orientation.
			115.70	116.03	0.33				DY				w	w													Light green, chloritized dyke with oxidized hairline fractures.
			117.70	118.15	0.45				DY				s			t-w			t-w								Dyke(?) with large angular 'clasts' (?) (0.5-6 cm) that have undergone moderate chloritization. Matrix is fine grained and green. 'Clasts' show no preferred orientation. Pyrite is disseminated.
			118.90	119.20	0.30				DY	85			t-w			w											Light to dark grey, weakly chlorite altered andesitic dyke.
			121.40	122.80	1.40				DY				m														Chloritized dyke with few 1 mm quartz veins.
			123.95	124.36	0.41				SH	20						s	sil	m									Sheared zone. Moderately silicified and strongly oxidized.
EOH																											