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# REPORT ON DIAMOND DRILLING DRILL HOLE W-20-22 WESTERN KIDD RESOURCES INC. LOVELAND PROPERTY – LOVELAND TOWNSHIP PORCUPINE MINING DIVISION

Brian K. Polk Polk Geological Services Feb 21,2020

# REPORT ON DIAMOND DRILLING **DRILL HOLE W-20-22**

## WESTERN KIDD RESOURCES INC. LOVELAND PROPERTY – LOVELAND TOWNSHIP PORCUPINE MINING DIVISION

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# REPORT ON DIAMOND DRILLING DRILL HOLE W-20-22

## WESTERN KIDD RESOURCES INC. LOVELAND PROPERTY – LOVELAND TOWNSHIP PORCUPINE MINING DIVISION

#### INTRODUCTION/SUMMARY

Between the dates of Jan 30,2020 and Feb 21, 2020, 306 meters of NQ diamond drilling, in a single drill hole, W-20-22 was performed on claim units 243628 and 221072 in Loveland Twp. Porcupine Mining Division, for Western Kidd Resources Inc. The hole was designed to fill in established sectional drilling and as an exploration test for an existing down hole pulse EM anomaly detected in nearby Western Kidd DDH W-04-03. Base metals are the target. VMS mineralization is the model utilized. The hole parallels existing holes but, alone on section 104+25N. The hole is collared at 452706E, 5389640N, Zone 17, NAD 83. Azimuth at 258 degrees, dip set at -55 degrees. Norex Drilling (now under Major Drilling) was contracted to drill the hole. Polk Geological Services of Timmins, On. was contracted to direct the drillers, log the core and provide logging and core cutting facilities. Phil Burt of Burt Consulting Services of Toronto provided digital cartography for the figures, the plan and section. Art Beecham of Haileybury provided the overall geological and exploration plan as well as area geology and past work and is the qualified person for Western Kidd Resources Inc. No significant base metals occurrences were discovered in the drill hole. Numerous occurrences of trace amounts of chalcopyrite and 1 occurrence of trace to 1% sphalerite were noted. The off-hole Pulse EM geophysical anomaly detected in near-by drill hole W-04-03 is adequately explained by the graphitic and argillitic rocks (182.4-184.4m) found in the drill hole.

#### CLAIM EXPLANATION

The hole is collared on claim unit 243628 and drilled West on to unit 221072. 69% of the hole is on 243628 (0-211m) and 31% is on 221072 (211-306m). Attached Drill Hole W20-22 Location shows the situation. The work is authorized via Ministry of Northern Development and Mines Permit PR-19-000112

#### ACCESS

Access is direct from Timmins via the Kamiskotia Highway (Highway 576) to the Abitibi Road 500m North of the Kamiskotia Lake village. The drill site sits near kilometer 8, to the east of the road. An existing trail accessed the site directly. A nearby swampy area (452774E 5389640N, NAD 83) had yielded sufficient water to drill in the past but, failed to keep up in this case and a pumper truck supplied by E360 of Timmins, On. had to be utilized to haul water to the site. Access is shown on attached figures Location Map, Claim Configuration and Drill Hole W20-22 Location.

#### AREA GEOLOGY (Art Beecham)

As described by Hathway et al, the area is underlain mainly by the (2719 to 2710 Ma) Kidd-Munro assemblage of volcanics. This assemblage hosts the Kidd Creek deposit to the east. (The Kamiskotia deposits located a short distance south of the property are hosted by the younger, Blake River assemblage.) The geology is described in more detail by, Burt and Coad and Harvey, and Beecham. The volcanics strike about NS, dip steeply east and face eastward. What is referred to as the 'Eastern Contact' consists of the interface between inter-layered felsic and mafic tholeiitic volcanics to the west and mafic transitional to calc-alkaline volcanics to the east. Fine to medium grained mafic intrusives occur both in the footwall and in the hanging wall rocks (of this interface), but they are more abundant in the footwall rocks. The apparent stratigraphic top of the interlayered felsic/mafic unit is marked by concentrations of sulphides, (pyrite, pyrrhotite with minor sphalerite and chalcopyrite). A second mineralized horizon is interpreted to lie about 150m stratigraphically lower (to the west). These concentrations consist of disseminations and interstitial (within the matrix of felsic fragmentals) sulphides. As well, lean pyrrhotite with minor chalcopyrite and sphalerite 'stringer' zones are present. This volcanic interface, which appears favourable for VMS deposits, prior to this work, had been traced by diamond drilling over a north-south strike length of 1000m and to a vertical depth of about 400m

#### PAST WORK (Art Beecham)

<u>Previous Work</u>: Previous exploration work and significant government studies are tabled below. It is compiled from the report by Coad and Harvey and from the author's (Art Beecham) first - hand experience on the property. It includes only work on the Eastern Contact area and surveys that cover the whole property. The southwest, or Mespi area, is not included in the list below.

**Table I Previous Work, Western Kidd Property** 

1966	MacDonald Mines:	Geological mapping, Trenching and Geophysics, incl west side of 'Coad Hill';
		(Assessment file S. Porcupine T-785)
1975	Cominco Ltd:	Airborne EM survey over Loveland Twp and overburden drilling;
1980, 1981	Gulf Minerals	Extensive exploration programs incl airborne EM, ground magnetics; HLEM, IP Surveys, extensive overburden drilling; 7 diamond drill holes totaling 1971.8m;
1988	Ont. Geol. Survey	Geotem Survey (AEM) over Timmins area incl Loveland Twp;
1990	D. Meunier	Borehole UTEM survey on Gulf Minerals hole, R81-A-3
1990	D. Meunier	Gulf diamond drill hole R81-A-3 deepened 436.8 to 583.1m; drilled hole LDM 90-2 to 398.1m;
1991	D. Meunier	Geological mapping of part of property by R.P. Bowen
1992	D. Meunier	UTEM on 6 km. of grid over 'eastern contact' area; Lamontagne Geophysics Ltd
1994, 1996	D. Meunier	Various ground magnetic surveys, VLF-EM and some IP surveys on a WSW-ENE trending metric grid, work by Excaliber International Consultants; (T-4562);
1997	D. Meunier	Borehole TM survey on dh. LDM97-3, by Quantec Consulting Inc.
1998	Prospectors Alliance Inc.	Horizontal Loop EM on claims within centre of Meunier block (current claims 3019589 – 3019594);
1999	D. Meunier	2 diamond drill holes, LDM-99-01, and LDM-99-02, totaling 817m;
May 2000	Explorers Alliance	1 diamond drill hole ELS00-1; drilled to 252 m drilled on current claim 3019594;
2000	D. Meunier	Ground magnetics and VLF survey, on 'engineering grid' (eastern contact area); (Assess't file: T-4538)
2000	D. Meunier	Dighem (helicopter AEM) survey over central portion of property;
2001, 2002	D. Meunier	2 drill holes, eastern contact area total 311m
2003	Ont. Geol. Survey	MEGATEM II Survey of Kamiskotia Area covered claims;
Mar, 2004	Western Kidd Res	Horizontal Loop EM. Lines 9100N & 9300N, 'Eastern Contact' area;
2004	Western Kidd Res	Geological mapping, 'eastern contact' area by A.W. Beecham
2003, 2004	Western Kidd Res	Diamond drilling 8 holes for 2269m, eastern contact area;
July, 2004,	Western Kidd Res	Gradient IP Survey, 'Eastern Contact' area from line 10200N to 11000N;
2004, 2005	Western Kidd Res	MMI survey over part of 'Eastern Contact'; survey by L. Hobbs Dec. 2004 & follow-up work by A.W. Beecham Aug. 2005;
2005	Western Kidd Res	IP, magnetic surveys Area A, Area B (E. Contact), Maggie's Lake area;

2006	Western Kidd Res	Diamond drilling 5 new holes, deepening previous hole (W-10 to W-13, ext W-5);
		1055.5m; Tested IP anomalies in Area B(E. Contact area); W. of Abitibi Rd;
August 2006	Western Kidd Res	Diamond drilling 1 hole tested IP anomaly west of Maggie's Lk; 179.0m
2007	Western Kidd Res.	Titan 24 Survey, MT(magnetotelluric resistivity) & DCIP by Quantec tested
		0.9km strike length by 2.4km width block on the 'Eastern Contact';
2008	Western Kidd Res.	Diamond drilling, 4 holes, to east of and on E. Contact to test Titan 24 DCIP and
		MT anomalies; DH's W-16, 17, 18 & 19 for 2269.5m
2009	Western Kidd Res.	Diamond drilling: Part of winter program, deepening W-03 to test deep MT
		(magneto-telluric) anomaly west of Abitibi Road;

#### **WORK PROGRAM**

DDH W-20-22 was spotted on Jan 27, 2020 by Dave Meunier of South Porcupine On. On the 29<sup>th</sup> of January, Mr Meunier, B. Polk of Polk Geological Services, of Timmins, On. Along with the Norex day shift and foreman, travelled to the site and established access for the drill, checked and re-checked the collarlocation and searched for water. The drill was mobilized on Jan 31, 2020. Although drilling commenced on that date, water problems during the night shift caused lost time over 2 days (4 shifts). Once recommenced on Feb, 03, 2020, the drilling went smoothly to EOH at 306m. The hole was completed on Feb. 05, 2020 and the drill demobilized over the next 2-3 days. The temporary sump system, consisting of two backhoe dug holes of approximately 4000 gallons and 2000 gallons have been entirely filled in and rehabilitated. A Reflex EZ shot was used to survey the hole during drilling. 6 tests were taken at roughly 50 m intervals. The hole was immediately geo-teched for quality, measurement accuracy, and notable mineralization, and quick-logged for first pass information. The core was tagged then logged between Feb. 04, 2020 and Feb. 10, 2020. Data entry and reporting occurred between Feb. 12, 2020 and Feb. 21, 2020. The core is currently stored, cross-piled, at Polk Geological Services - 1660C Airport Rd., in Timmins,

#### DRILL HOLE COLLAR DATA-Table I

DH	UTM Coord, NAD27		Loc	Local Grid		Dip	Length	Target
#	East	North	North	East	t		m	
								Off hole anomaly in
W-20-22	452706	5389640	104+30N		258.0	-55°	306	W-040=-03

#### RESULTS - ANALYSIS/INTERPRETATION

The geology encountered in drill hole W-20-22 is reconcilable with that found in drill hole W-04-03. The hole is dominated by volcanic flows both massive and pillowed, with lesser amounts of felsic volcanic/pyroclastic units. Although significant alteration and numerous trace occurrences of chalcopyrite and some sphalerite were found in the core, no sizable base metal intersection was won. It was noted that most of the trace chalcopyrite occurrences observed were directly or strongly influenced by core axis parallel to low angle structural features. No sampling is recommended at this time.

#### RECOMMENDATIONS

The lithological, mineralization (occurrences) and structural data from the logging should be added to the existing database for further scrutiny. The sparse mineralization in the drill hole could be sampled and the core subjected to some geochemical analysis as part of property scale exploration efforts. Given the numerous traces of chalcopyrite associated with low-angle to core axis parallel structures and alteration, exploration for core axis parallel targets might be considered. To this end, a detailed magnetic survey is recommended perhaps utilizing available unmanned drone magnetic survey technology. A line of N-S bearing IP survey covering selected locales might pick up any sizable conductive bodies running at low angles to the dominant drill direction of 258 degrees.

RF	EFER	FN	CES
$\mathbf{I} \mathbf{L}$	<i>_</i> 11		$\sim$ L $^{\circ}$

Beecham, A.W. Report of Geological Mapping, Meunier Property, Loveland Township,

Feb. 2005 NW Timmins Area, June to September 2004; (

Report of May, June 2008, Diamond Drilling, Drill Holes W-16 to W-19

Mar. 2009 Meunier Property, Loveland Township, NW Timmins Area (Filed for

assessment MNDM)

Burt, P. Selection of Target Areas, Dave Meunier Project, Loveland Township,

July 2001 Timmins, Ontario; Burt Consulting Services;

Coad P.R. & Harvey P.G.

Nov. 2001 Qualifying Report, Loveland Property (Potential Volcanogenic Massive

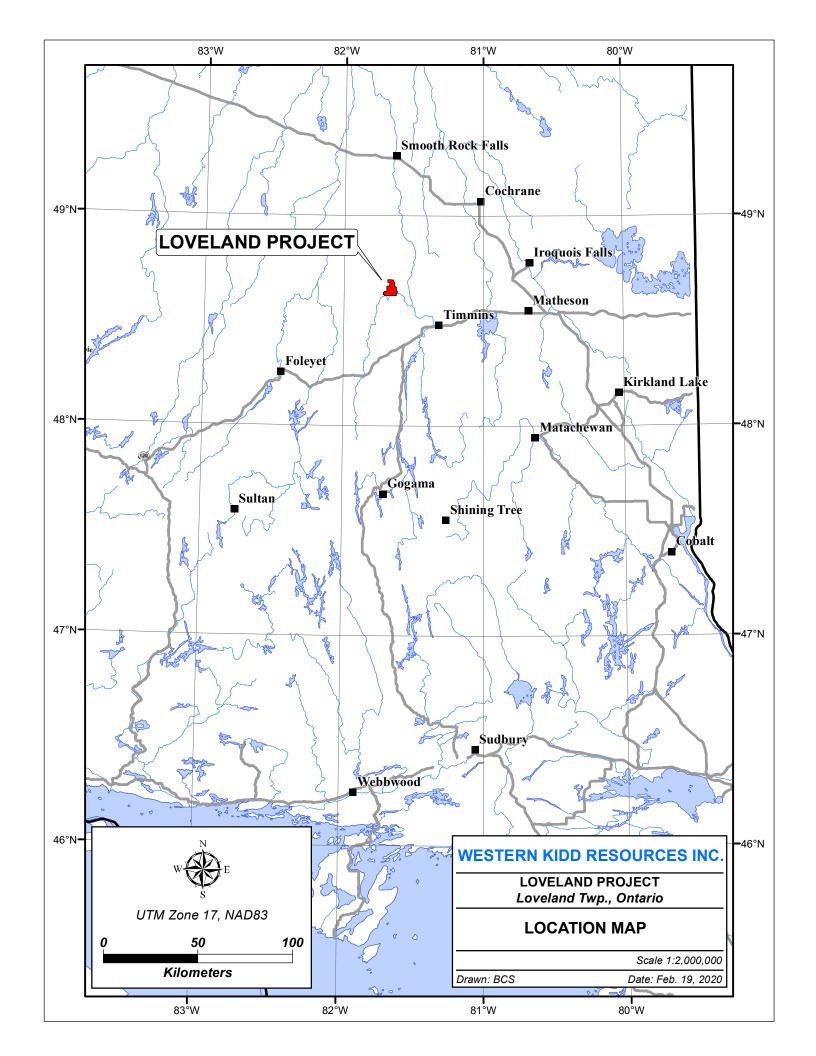
Sulphide Property), Porcupine Mining Division, District of Cochrane;

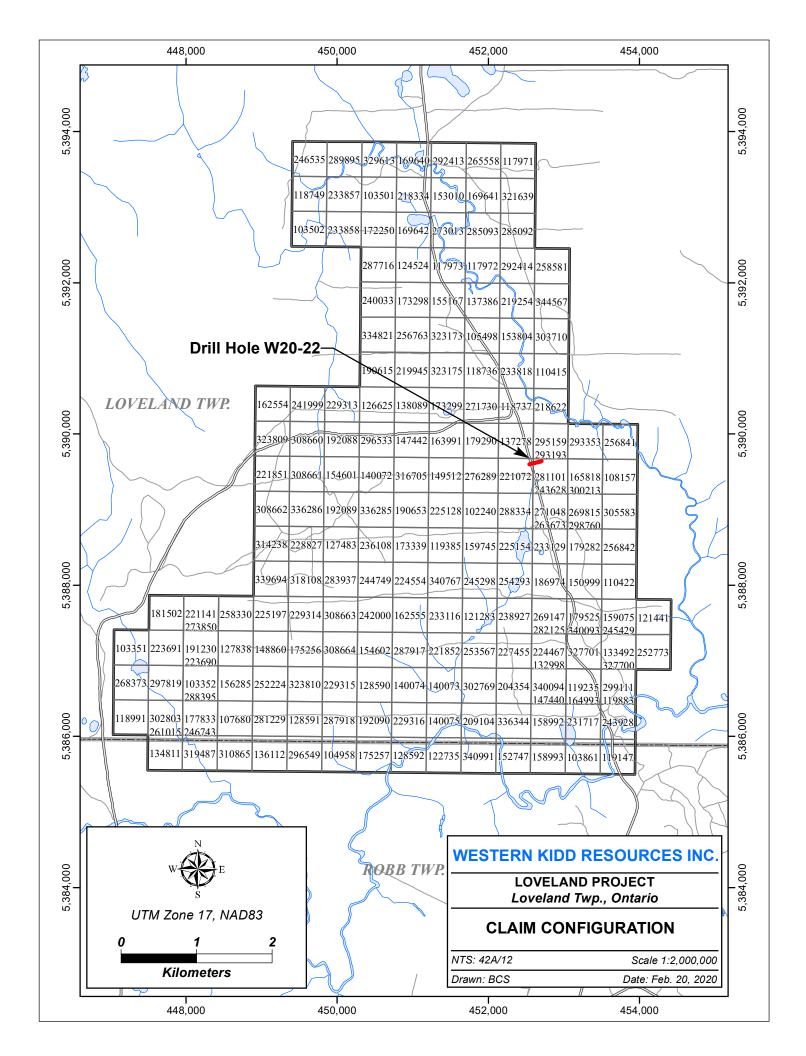
Hathway, B, et al

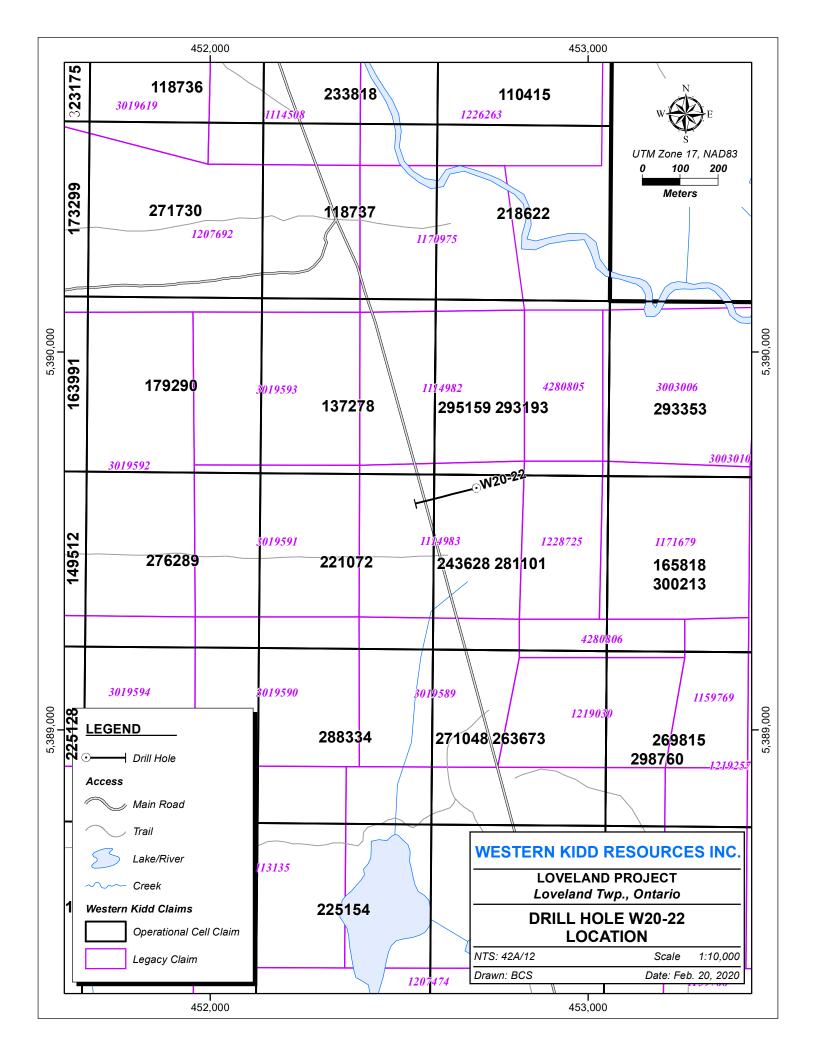
2006 Geological Setting of Volcanogenic Massive Sulphide Mineralization in

the Kamiskotia Area; Discover Abitibi Initiative; incl. map P.3556;

Ont. Geological Survey; Open File Report 6155







								IAMOND DRILL	LOG					
<b>EXPLORAT</b>	TION CC	.; OWNER; OPTIONEE	COLLAR ELEVATION	@	DIP	BEARING	@	DIP	BEARING	CLAIM NO.	LOCATION (UTM)	HOLE NO.		Page
Westerr	n Kidd	Resources Inc.		COLLAR	-55	258	276m	-56.4	255.5	243628, 221072	452706E. 5389640N	W-20-22		1
START DA	TE	COMPLETION DATE	DATE LOGGED	42m	-57.2	255.2	297	-56.1	255.3	MAP NO.			COMMENTS	
31-Ja	1-Jan-20 5-Feb-20 4-Feb-20 to 10-Feb-20 121m -57.2 255.7 306 EOH EOH section 10400+25, 104+25N NAD 83 Zone 17							NAD 83 Zone 17		e. Test section north o				
DRILLING (	LING COMPANY LOGGED BY 174m -56.8 255.9 TOTAL METERAGE PROPERTY NAME						PROPERTY NAME		ff hole Pulse EM anom ged. Anomaly adequat					
Nordex	Drillin	g, Dan Gagnon foreman	Brian K. Polk	225m	-56.7	256.2				306m	Loveland		hitic unit at 182.4-184.	
		LITHOLOGY						DESCRIPTION				SAMPLE FOOTA	\GE	SAMPLE LENGTH
METER 0			and de											SAMPLE LENGTH
-		1 ovb	sandy, dry	l C' l ' -	. Cl	harrada da la arraga								
11	1	2 2f	pale green, fine grained, altered											
			A-abundant quartz carbonate a	iteration as fine	e, irregular w	ispy and veinlets,	generally chior	itic, various a	ngies to core	axis				
			S-qca often at 45 dtca			1								
12	21.		coarse grained diabase dike, bro											
21.7	31.	5 10	coarse grained diabase dike, gra		grained diab	ase, minor low ar	ngle shearing							
			20 cm quartz vein/ breccia 28.3											
31.5	3	4 fracture zone	jostled and broken core. Contac						hearing?)					
			S-folding of chloritic crenulation				ow angle, shear	ng?						
34	41.	8 2f amyg	amygdular mafic flows (coarse i											
			A-patches of strong chloritization		- ' '				kpar sweats					
41.8	42.	8 2f quartz veinlets	altered and disupted amygdular			•								
			S-quartz carbonate veinlets are	spaced at 1-8c	m scale, gene	erally 80 dtca. Soi	me have "ladde	rs" between.	Also several	quartz carbonate				
			at less than 45 dtca											
42.8	51.	4 2f amyg	as above with chloritic interval											
			A-chloritic interval 46.1-46.3m,	•										
51.4	53.	3 2f chloritic	dark, pervasively altered locally											
			A-chloritic throughout, abun gre											
			S-lots of structure, numerous fi				ice 52.6-52.8, w	renching or r	otation?					
53.3	58.	1 2f amyg	dark green, fine grained, amygd			panded(?)								
			S-wk shear with minor breccia a	at 54.6m, 30 dto	ca									
58.1	60.	6 2f porphyry amyl	generally bland flows											
			S-mnor breccia at EOInterval											
60.6	60.	9 breccia	dark altered flow with breccia a	ınd quartz carbı	onate veinlet	alteration								
			S-generally 50 dtca											
			M-trace of seamy pyrite at 50 d											
60.9	62.	9 2p breccia	mottled green and grey green f			c flows with abur	ndant hyaloclast	ite (grey alte	red and blead	ched)				
			pillow selvages are sparsely dev	eloped and chl	oritic									
62.9	6	4 2f	fine grained, green flow											
			A-minor quartz carbonate as irr	egular veinlets										
64	78.	9 2p breccia	as above with variable brown al					and brecciate	ed .					
			A-grey brown to brown patchy											
78.9	82.	2 2f 2t	dark green, locally weakly porpl											
			A-a few quartz-feldspar veinlets											
			S-seam of grey alteration with p	oale halo,, core	axis parallel t	to 15 dtca, hosts	very finely disse	minated chal	lcopyrite alor	ng its 30 cm core length				
			M-chalcopyrite disseminations,	almost continu	ous, along ve	ery fine irregular	15dtca very fine	grey seam/	30cm					
82.2	90.	9 2p	as above, locally amygdular, mir	nor breccia at e	nd of interva	l, trace chalcopy	rite							
			A-a thin (<2mm) dark seam at 2	5 dtca, hosts al	oundant fine	chalcopyrite bleb	s/disseminatio	ns, 84.0-84.2r	n					
			M-numerous fine chalcopyrite b	olebs along fine	grey seam a	t 25dtca								

				HOLE NO		Page	
				W-20-22		2	
FOOTAGE		ROCK TYPE	DESCRIPTION	SAMPLE FOO	SAMPLE FOOTAGE		
FROM	TO			FROM	то	SAMPLE LENGTH	
90.9	96	2f	greyish green, fine grained flows, minor breccia, low angle shearing/fracturing				
			A-quartz carbonate veinlets in low angle, fractured interval 94.5-95.4m,				
96	105.9	2p	pillowed flows, as above, locally brecciated,				
		r	A-a few dark, low angle, seams host trace fine blebby pyrite, 15 to 20 dtca				
			S-101.8-102.1m breccia in weak shear zone, 2cm laminated vein, k spar				
105.9	146	2f	distinctive fine to medium grained flow volcanics, locally sub-diabasic texture (129-132m), weakly feldspar phyric, locally variolitic at top of				
			interval, grain size becomes very fine grained near quartz vein.				
			A- three thin intervals of dark grey alteration, centrede about greyish veinlets 109.8-110.1m, 110.7-110.8m, 112-112.3m, graphitic?				
			contacts are sharp but appear to be alteration, not litho. A few dark glassy veinlets at 118.8m				
			S-a few low angle fractures 124.5-127m				
			A-quartz chlorite k spar vein 133.7-133.8m, 70 dtca				
			M-3cm, core axis parallel to 20 dtca, locally brecciated, quartz vein hosts 1-2%coarse blebby chalcopyrite and kspar. Cpy is central within vein				
			M-at 145.2m, tr chalcopyrite in 2mm 20 dtca grey seam parallel to vein above				
146	162.6	2p	generally poorly developed, possibly large, pillows, locally variolitic				
140	102.0	2μ	A-locally bleached, chloritic. Selvage are chloritic, locally quartz - feldspar phric; grey net textured alteration 157-159m.				
			S-minor breach at 160, 161.9m				
			M-tr chalcopyrite in contorted glassy quartz-chlorite-k feldspar vein. 1mm bleb, minor sericite, chloritized				
			ivert chalcopyre in controlled glassy qualized industries reliaspar vent. Inim bled, minor sentite, choritized				
462.6	172.7	2f	green fine grained flows, minor high angle banding at EOInterval could be mafic dike (8), 55-85dtca, perhaps discrete flow?				
162.6	1/2./	21					
			A-very grey altered 167.6-167.7, trace chalcopyrite, minor bleaching  S-core axis parallel grey seam hosts numerous fine chalcopyrite blebs over 8 cm, weak silicification?				
			, , , ,				
			S-several 30 dtca crisp fine quartz carbonate veinlets at 168.6m, several low angle fractures/seams host trace pyrite at EOInterval				
172.7	178.8	2p	pillowed mafic volcanic flows, thin chloritic selvages, grey to grey-green and fine grained				
			S-some chloritic intervals at 177.8 meters indicative of some structure				
178.8	181.1	2f	fine grained, more massive, flows, weakly porphyritic, weakly amygdular. Irregular upper contact at 35 dtca is weakly brecciated				
181.1	181.7	breccia	bleached and blotchy, chloritic breccia				
			M-1-3% ragged coarse pyrrhotite				
181.7	182.4	2f altered	variably green, sericite altered flows, laminated at 60 dtca a EOInterval				
			M-1% disseminated pyrrhotite.				
182.4	184.4	5ag 2f	true graphitic argillite(?) from 182.4 to 183.1m, alteration and pyrrhotite mineralisation to EOInterval				
			A-minor sericite outside of argillite				
			M-4% Pyrrhotitie as laminations and seams and coarse disseminations within argillite @ 183m				
			S-lots going on, core axis parallel grey veinlets are truncated by high angle breccia intervals				
			M-4% Pyrrhotite over 10 cm @183.6, 4% Pyrrhotite over .5m 182.5-183m				
184.4	197.7	2f	grey, more massive, possibly intermediate composition, feldspar phyric, locally amygdular				
			A- grey alteration seems similar to typical pillow flow alteration, local bleaching, pinkish ciolour, sericitic alteration				
			a few brownish alteration patches.				
			S-195.2-196m, brecciated				
			M-1-2% pyrrhotite > Pyrite in patches throughout				
197.7	201.7	2f	fine grained, dark grey, weakly amygdular, generally massive				
201.7	209	2р	as above, perhaps large pillows				
209	215.4	2f	medium grained and pervasively weakly grey altered, trace sphalerite, chalcopyrite				
			A-chloritic breccia at EOInterval, low angle grey alteration about fracture 211.5-211.7m				
			M-trace to 1% fine blebby sphalerite + chalcopyrite, tr wispy Chalcopyrite+Pyrrhotite+Py traces locally, best Sphalerite 214.6m				

ROCK TYPE  16 41  .3 2f shear  .5 41  .1 2f shear  .5 41  .1 2f shear	lobe of felsic tuff into mafic flows, mixed lithology  M-2% pyrrhotite+pyrite locally bleached and washed out looking, coarsely mottled volcanic flows  S-weak shearing at 25 dtca hosts .6m white quartz carbonate chlorite+feldspar+locally semi massive pyrrhotite over 5-6cm.Low angle, graphitic?  M-local semi-massive Pyrrhotite>Pyrite, 5-6 cm irreg very coarse blebs associated with low angle shearing brown to grey, cm laminated ash tuff? Very fine grained  S-upper contact at 65 dtca, lower contact at 75 dtca generally massive greyish flows, possibly of intermediate composition, weakly porphyritic and amygdular  A-dark chloritic mm scale speckling around 221.5m  M-trace of very fine pyrite associated with low angle grey "micro" veinlets at 222.8m, 2% finely disseminate pyrrhotite @ lower contact dark brown to cream coloured, mottled lapilli tuff  M-1-3% very fine grained pyrrhotite>pyrite disseminated throughout, occasionally coarse and blebby + or - chloritic rims dark brown altered flows, generally with abundant small chloritic clots  A-brown alteration (proximity to felsics?), chloritic throughout	W-20-22 SAMPLE FOOTAG FROM	E SAMPLE LEN
.5 4t	lobe of felsic tuff into mafic flows, mixed lithology  M-2% pyrrhotite+pyrite locally bleached and washed out looking, coarsely mottled volcanic flows  S-weak shearing at 25 dtca hosts. 6m white quartz carbonate chlorite+feldspar+locally semi massive pyrrhotite over 5-6cm.Low angle, graphitic?  M-local semi-massive Pyrrhotite>Pyrite, 5-6 cm irreg very coarse blebs associated with low angle shearing brown to grey, cm laminated ash tuff? Very fine grained  S-upper contact at 65 dtca, lower contact at 75 dtca generally massive greyish flows, possibly of intermediate composition, weakly porphyritic and amygdular  A-dark chloritic mm scale speckling around 221.5m  M-trace of very fine pyrite associated with low angle grey "micro" veinlets at 222.8m, 2% finely disseminate pyrrhotite @ lower contact dark brown to cream coloured, mottled lapilli tuff  M-1-3% very fine grained pyrrhotite>pyrite disseminated throughout, occasionally coarse and blebby + or - chloritic rims dark brown altered flows, generally with abundant small chloritic clots  A-brown alteration (proximity to felsics?), chloritic throughout		SAMPLE LEN
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36 2f			
36 2f			
36 2f	S-num fine quartz-carbonate veinlets <1cm at 30 dtca, minor breccia		
	massive grey intermediate to mafic volcanic flows, fine grained, weakly porphyritic and feldspar phyric		
	A-chloritic and grey net textured alteration at upper contact		
	S-weak low angle breccia at 232-233m, 236.1m, minor spaced quartz carbonate veinlets at 50 dtca at 233m		
	S-numerous low angle, chloritic slips, minor shearing at 235.5-235.8m		
.2 2f altered	fine grained mafic volcanic flows with several thin felsic units within, contorted 4t.		
	A-quartz, white feldspar, chlorite clots, brown staining and trace fine pyrrhotite		
.8 2f shear	fine grained flows, intermediate to mafic composition, generally sheared at low angle		
	A-abundant (10% overall) grey quartz feldspar carbonate veinlets in irregular networks		
	S-minor breccia, 20-25 dtca shearing at top of interval , 35 dtca at lower contact		
.9 2f	distinctive green grey medium grained flows, weakly amygdular, composition unclear, minor breccia		
	A-pervasive weak seritization(?) and speckled brown alteration		
	S-numerous strucures at vaca		
.7 4t	mottled cream-brown felsic volcanics, lapilli and perhaps bombs? Portions could be severely altered flows		
	M-tr blebby pyrrhotite at 248.5m, trace chalcopyrite+pyrrhotite lower conact wisp of 1 cm breccia-quartz carb seam at 55dtca		
	S-several intersecting structures at vaca		
.7 2f 4t?			
	**		
38 2f			
2.			
	· · · · · · · · · · · · · · · · · · ·		
20	•		
99 21			
OV braccia			
, QV DICCOIA			
06 2f			
	- · · · · · · · · · · · · · · · · · · ·		
	S-broken @ low angle 302-303m, num structures at vaca evident near EOInterval, 50 dtca,		
.7 38 99	2f 4t?  2f  2f  QV breccia  2f  EOH	A-strongly chloritic as contorted patches S-presumably structurally active fine grained volcanic flow, grey green to grey and massive, A-15%patchy chlorite and grey, bleached alteration at top decreases to 5% EOIntervalnumerous en echelon veinlets minor breccia 260.9-262 S-veinlets at 50 dtca M-trace of pyrite about chloritic fracture 264.8m, trace of very fine chalcopyrite in discrete seam at 25 dtca at***m, 35 dtca crisp quartz carb stringer at 285.5m hosts several small cpy blebs fine medium grained mafic flows, slightly epidotic colour A-epidotic alteration weak and pathchy, a few crisp white quartz carb veinlets + minor chloritic breccia at 35 dtca 292.8-293.1m M-no mineralization noted  OV breccia Structural breccia, clast supported with spaced crisp quartz carb veinlets leads to rubbly zone (10cm) above a grey, 30 cm laminated quartz-carb-chlorite-kspar vein,35-40 dtca M-no mineralization evident medium grained, weakly epidotic mafic flows as above A-a few high angle quartz-kspar veinlet in patches S-broken @ low angle 302-303m, num structures at vaca evident near EOInterval, 50 dtca, 30 dtca,	severely altered flows? Very chloritic patches, distinctly felsic 253.5-253.7, 254-254.2, 254.4-254.6 pale grey to grey and white, cg  A-strongly chloritic as contorted patches S-presumably structurally active  fine grained volcanic flow, grey green to grey and massive,  A-15%patchy chlorite and grey, bleached alteration at top decreases to 5% EOIntervalnumerous en echelon veinlets minor breccia 260.9-262 S-veinlets at 50 dtca  M-trace of pyrite about chloritic fracture 264.8m, trace of very fine chalcopyrite in discrete seam at 25 dtca at***m, 35 dtca crisp quartz carb stringer at 285.5m hosts several small cpy blebs medium grained mafic flows, slightly epidotic colour A-epidotic alteration weak and pathchy, a few crisp white quartz carb veinlets + minor chloritic breccia at 35 dtca 292.8-293.1m  M-no mineralization noted  OV breccia structural breccia, clast supported with spaced crisp quartz carb veinlets leads to rubbly zone (10cm) above a grey, 30 cm laminated quartz-carb-chlorite-kspar vein,35-40 dtca M-no mineralization evident medium grained, weakly epidotic mafic flows as above A-a few high angle quartz-kspar veinlet in patches S-broken @ low angle 302-303m, num structures at vaca evident near EOInterval, 50 dtca, 30 dtca,

Meterage	azimuth (corrected) 10.5W dec	dip	magnetic
0	258	-55	
42	255.2	-57.2	5560
121	255.7	-57.2	5566
174	255.9	-56.8	5581
225	256.2	-56.7	5587
276	255.5	-56.4	5585
297	255.3	-56.1	5624

# Quicklog

From	То	Litho	notes
0	11	ovb	sand
11	12	2f	
12	21.7	1	O coarse grained, fractured
21.7	31.5		10 coarse grained, fractured
31.5	34	fraczone	
34	41.8	2f	amygdular
41.8	42.8	2f	quartz carbonate veinlets
42.8	51.4	2f	amygdular
51.4	53.3	2f	chloritic
53.3	58.1	2f	amygdular
58.1	60.6	2f	amygdular, porphyritic
60.6	60.9	bx	
60.9	62.9	2p	breccia
62.9	64	2f	fine grained
64	78.9	2p	breccia, amygdular
78.9	82.2	2f, 2t	weakly porphyritic
82.2	90.9	2p	amygdular
90.9	96	2f	finegrained
96	105.9	2p	
105.9	146	2f	
146	162.6	2p, 2f	
162.6	172.7	2f	
172.7	178.8	2p	
178.8	181.1	2f	
181.1	181.7	bx	
181.7	182.4	2f	sericitic
182.4	184.4	5ag, 2f	graphitic argillite

184.4	192.9	2f	intermediate composition?
192.9	197.7	2f	altered
197.7	201.7	2f	fine grained
201.7	209	2p	e Bramea
209	215.4	2f	
215.4	216	4t	
216	218.3	2f	altered
218.3	218.5	4t	
218.5	224.1	2f	
224.1	229.5	4t	
229.5	231	2f	altered
231	236	2f	massive flows weakly porphyritic
236	238.2	2f	altered
238.2	240.8	2f	shear zone
240.8	247.9	2f	
247.9	250.7	4t	
250.7	254.7	2f	severely altered?
254.7	288	2f	fine grained
288	299	2f	medium grained
299	300	qv,bx	
300	306	2f	EOH

# sampling record

no samples are reccommended at this time. Several occurrences of chalcopyrite and one sphalerite occurrence are mentioned in the formal log

# Mineralization log

depth	%	mineralization	
82	trace	сру	near continuous blebby py in ca parallel seam
84.3	trace	сру	25 dtca dark seam, near continuous fine grained to blebby
143.8	trace	сру	1-2% within 3 cm ca parallel q-kspar-chl
145.2	trace	сру	tr cpy within 20 dtca grey alteration
158.2	trace	сру	1mm bleb in contorted glassy q-chl-feld
167.7	trace	сру	numerous very fine blebs in ca parallel grey alteration
181.5	1-3%	ро	ragged blebs
182.4	1%	ро	disseminated and wispy
183.6	4%	ро	blebs and locally seamy to semi massive (10cm max)
192.9	1-2%	py, po	192.9-197.7m disseminations and wisps
214.6	1%	cpy, sphal	blebby to wispy sphalerite and cpy low angle
215.5	2%	ро	
224.1	2%	ро	
229.5	1-3%	po>py	224.1-229.5m disseminated and locally coarse blebby po
247.9	trace	сру	ca parallel very fine veinlets
248.5	trace	ро	blebby
285.3	trace	сру	Numerous spaced? Blebby cpy occurr. Within several horsetail style greyish q-carb-chl veinlets, 30 dtca

DDH#	Meunier W-20-22		
Box #	from	to	
1	11	16.3	core currently stored at 1660C Airport Rd., Timmins On. P4P 0A9
2	16.3	22.1	69 boxes - tagged, mineralized intervals marked on box end
3	22.1	26.4	
4	26.4	30.7	
5	30.7	35.6	
6	35.6	40	
7	40	44.2	
8	44.2	48.5	
9	48.5	52.5	
10	52.5	57	
11	57	61	
12	61	65.3	
13	65.3	69.7	
14	69.7	74	
15	74	78.4	
16	78.4	82.6	
17	82.6	87	
18	87	91.2	
19	91.2	95.6	
20	95.6	99.7	
21	99.7	103.9	
22	103.9	108.3	
23	108.3	112.5	
24	112.5	116.8	
25	116.8	121	
26	121	125.4	
27	125.4	129.6	
28	129.6	133.9	
29	133.9	138.3	
30	138.3	142.5	

31	142.5	147
32	147	151.3
33	151.3	155.6
34	155.6	159.9
35	159.9	164.2
36	164.2	168.5
37	168.5	172.5
38	172.5	176.8
39	176.8	181.1
40	181.1	185.3
41	185.3	189.6
42	189.6	195.5
43	195.5	197.9
44	197.9	202.1
45	202.1	206.5
46	206.5	210.8
47	210.8	215.2
48	215.2	219.5
49	219.5	224
50	224	228
51	228	232.1
52	232.1	234.4
53	234.4	240.8
54	240.8	245
55	245	249.3
56	249.3	253.7
57	253.7	257.9
58	257.9	262.1
59	262.1	266.6
60	266.6	270.8
61	270.8	275.2
62	275.2	279.4
63	279.4	283.8
64	283.8	288.2

65	288.2	292.5	
66	292.5	296.8	
67	296.8	300.8	
68	300.8	304.8	
69	304.8	306	EOH

