

PROJECT

PROPERTY: HARTLESS JOE

Easting	Northing	Elev.	Depth (m)
515127	6752234		

HOLE: HJ08-02

Contractor: BEUDIN DIAMOND DRILLING INC.
Drill: JKS SUPER-300

Core size: BTW
Casing depth: (m) out

Drilling dates:

Logged by: D. Eaton

SURVEY							
Depth (m)	Azimuth	Dip	Method	Depth (m)	Azimuth	Dip	Method
collar	290°	45°	Brunton				

Target: Grumpy shpwings and associated gold-rich soil sample plus tested across a a major fault.

[illegible]

SAMPLES	
Numbers:	
Total:	
Date sent:	

COMMENTS

The hole was stopped soon after crossing a strong fault. A 4 m wide zone of intensely sificified rock with 5 to 20% pyrite. This zone abuts to a dyke. It sounds like the description of the grumpy zone except it is wider and contains pyrite not arsenopyrite. Wispy pyrite laminae were also seen in narrow quartz-carbonate veins and veinlets.

Hartless Inc Property

Zone:

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Easting: 513206

Elevation:

Drilling Dates: JULY 1-5 / 08

Logged by: M.P. PHILLIPS

Length: 197.8 m

Core Size: BTW

Casing: 213 (m) in/out

Depth:	0.00
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Dip: -45°

Azim: 200°

Visual Log			From	To	Interval	Unit	Alteration and Mineralization														From	To	Interval	Sample		
V	S	(m)	(m)	(m)	(m)		QZ	CA	CB		SX	PY	MN	LI	BD	FR	ZN	(m)	(m)	(m)	Number					
			0.00	2.13	2.13	CASN																				
			Casing - no recovery.																							
			2.13	3.05	0.92	CONG SAND	30	0	<	1	<	?				0	<	T	0	0	-	M	T			
			SAND - sand to grit size; - black md & ls; Cong - blk carb md >> ls; sized - pebble small & med; cavt - white & pale orange (cb? or l ex py) on weathered fracture																							
			3.05	5.20	2.15	CONG SAND	30	0	<	1	<	?				0	<	?	0	0		M	T			
			as above; below 3.60 - 5.15 bleached pervasive orange color - influence of FELS; btm ent 45°																			3.05	5.20	2.15	G004355	
			5.20	6.10	0.90	FELS LIMS	X	>	1	<	1	<	W			<	T	<	?	<	L	<	L	S	<	L
			FELS - light gray, irreg pale orange color, chilled aphanitic; qz - 2-3 cmvt; cavt - white < 1mm; orange < 0.5mm = cb - no fr; LI - on fr. v wk; LIMS - xenolith in FELS																			5.20	6.10	0.90	356	
			6.10	9.14	3.04	FELS LIMS	X	0	<	W	<	W				<	T	<	?	<	W	<	L	S	<	L
			LIMS - xenolith FELS - pale orange; fr - most prominent 45° off strike coated weak - strong mn; cb - ? looks like fr with weathering & not cb vt; LI = mn = low; fr - wk but numerous																			6.10	9.14	3.04	357	
			9.14	12.19	3.05	PPQZ	X	2	<	1	<	W				<	W	?	<	T	<	L	S			
			PPQZ - wk (2%) aphan < 0.5mm, pale orange; qz - to 2mm, mainly < 1mm ± ca ± cb; cb - fr or is this orange weathering fr; fr = qz ± ca ± cb ± 45°																			9.14	12.19	3.05	358	
			12.19	15.24	3.05	PPQZ	X	V	2	<	3	<	L			<	W	<	W	<	T		S	<	T	
			PPQZ - pale orange dr d/s; qz - 2x Vn to 3cm irreg to bleb; py - fr & dr, near btm x-c core; qz ± ca vts; definite fr - orange cb; fr - cb ± ca ± qz; 14.62 - 15.24 - section best qz & py; Py = py + sx = black very fine grained fracture filling pyrite (sx) & fine grained brassy colored pyrite																			12.19	15.24	3.05	359	

DRILL HOLE LOG

Hartless Jcc Property

Hole: HJ-08-02 Zone: _____
 Northing: _____ Easting: _____ Elevation: _____
 Drilling Dates: _____ Logged by: _____
 Length: _____ Core Size: _____ Casing: _____ (m) in/out

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Visual Log			From	To	Interval	Unit	Alteration and Mineralization																From	To	Interval	Sample
V	S	(m)	(m)	(m)	(m)		QZ	CA	CB		SX	PY	MN	LI	BD	FR	ZN	(m)	(m)	(m)	Number					
			15.24	18.29	3.05	PPQZ X	>W	<2	<L			? <L	<L	<T			S <T	15.24	18.29	3.05	GOD4360					
			17.00	18.29	1.29	FELS X																				
			PPQZ - pale orange to ltgy at bot; qzvn-2cm-irreg-15° well wkpy; x-c by cart; cbvt(?) & qzvt; cb der?; fr-stk +40°-15° & +80°-30°; qz-pyvt on -30° fr; at 17.00 trn to FELS.																							
			18.29	19.72	1.43	FELS X	<W	<2	<L			? <L	<L	<T			A <T	18.29	19.81	1.52	361					
			FELS - ltgy; qzvt < 2mm; cb-fr-weak; cart on 1-2mm; li-cs py; py-vt (< 0.05) amine dis; fr - +35°-60°																							
			19.72	19.81	0.09	CONG X	0	<1	0			0	0	0	0		W S									
			SAND 40																							
			CONG - small to med pebbles cong; cong-blk carb shale, blk carb ls pebbles in a SAND med-coarse sand & grit of blk med ls																							
			19.81	21.34	1.53	CONG X	0	<1	0			0	0	0	0		W W S	19.81	21.34	2.53	362					
			SAND 40																							
			as above.																							
			21.34	22.50	1.16	CONG X	0	<1	0			0	0	0	0		W S	21.34	22.50	1.16	363					
			SAND 40																							
			as above, bot 50°-sharp.																							
			22.50	23.47	0.97	FELS X	<L	<0.5	<0.5			0	<L	<L	0		S <S	22.50	23.47	0.97	364					
			PPQZ 25																							
			PPQZ - bend at top, light gray overprint pale orange color;																							
			23.47	24.38	0.91	PPQZ X	<T	<S	<S			0	0	<L	0		S <S	23.47	24.38	0.91	365					
			PPQZ - phn to 2mm, orange colored; fr - cy+ca+cb(?)																							
			at 24.38 Blank Sample 366																							

DRILL HOLE LOG

Hartless Joe Property

Hole: HJ-08-02 Zone: _____
 Northing: _____ Easting: _____ Elevation: _____
 Drilling Dates: _____ Logged by: _____
 Length: _____ Core Size: _____ Casing: _____ (m) in/out

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Visual Log			From	To	Interval	Unit	Alteration and Mineralization																From	To	Interval	Sample
V	S	(m)	(m)	(m)	(m)		QZ	CA	CB			SK	PY	HN	LI	BD	FR	ZN			(m)	(m)	(m)	Number		
			24.38	25.05	0.67	PPQZ	X	<L	<L	<?			0	<L	0	0	-	S	<S		24.38	25.05	0.67	G004367		
			PPQZ - pale gray stream fr. pale orange; Py - frs near bottom; cb - on cy fr?; btm 5cm - br;																							
			25.05	27.43	1.96	MDLS	X	0	<1	<?			0	DL	0	0	-	M	S		25.05	27.43	2.38	368		
			27.05	27.43	0.38	VLO1	X		Q	S																
			MD - 25.07 - 25.30 - highly broken - fr, black carb interbd ls & md. VLO1 - pale green, alt, fine grained matrix, rare fr phn(?), acc co-S;																							
			27.43	28.90	1.47	MDLS	X	0	<2	0			0	0.5	0	0	30	M	S							
			28.90	29.90	1.00	VLO1	X	<L	<2	0			DL													
			MD - blk carb, silty - with bands (20 x 45cm) & partings ls, occ silt parting ls - 40%; VL - pale-med green, fine grnd, x5-alt px, towards btm frs fine grnd phn fr - 2-3% fine grained																							
			29.90	30.49	0.59	VLO1	X	0	<L	?			0	0	0	<T	-	S	P	0						
			FAUL 50 VH - bleached, pale orange, in part fth (50°) + br, strong cy - fault zone;																							
			30.49	33.25	2.76	VLO1	X	0	<2	<L			0	DL	0	0	-	W	<S		31.50	33.25	1.75	369		
			MUDS 10 PW																							
			VH - pale-med green, alt-occ ca, fine phn fr - waxy looking, cb-orange vt grades into cav; VH - 10' to 25cm MD - carb, slight silty; Lat ~ 30°																							
			33.25	33.53	0.28	FELS		<W	<1	<?			0	0.5	0	0	-	S	<S		33.25	33.53	0.28	370		
			FELS - lt orange, grades to ltgy; fr < 5mm clasts;																							
			33.53	34.26	0.67	FELS	X	<W	<1	<?			0	0.5	0	0		S	<S		33.53	34.26	0.73	371		
			FELS - light orange, btment ± 30°																							

DRILL HOLE LOG

Hartless Joe Property

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 Length: _____ Core Size: _____ Casing: _____ (m) in/out

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Visual Log			From	To	Interval	Unit	Alteration and Mineralization																From	To	Interval	Sample
V	S	(m)	(m)	(m)	(m)		QZ	CA	CB		SX	PY	HN	LI	BO	FR	ZN	(m)	(m)	(m)	Number					
			34.26	36.58	2.38	MDLS X	<W	<2	0		0	DW	0	0	AD	M	S	34.26	35.00	0.74	6004372					
			MD - greenish gray, soft oolite <1 cm chert bed; HS - beds carb 15-50 cm.																							
			36.58	37.08	0.50	MDLS X	<W	<2	0		0	DW	0	0	-	M	S									
			as above.																							
			37.08	39.63	2.55	VL02 X	0	K3	0		BT	0	0	-	0	S										
			VL - greenish gray, med grsd, fr - soft med green alt & px - dk green, to 38.65 - inclusions <3 cm blk ls & shale; ca - wkstks +10° ± 45°																							
			39.63	42.67	3.04	VL02 X	<W	<2	0		0	0	0	0	-	W	S									
			VL as above; dk sh? bands - 1 mm - 1 cm fair; ca - oolite wk pervasiv - alt fr?;																							
			42.67	45.72	3.05	VL02 X	Y	1	<2	VL		0	0	0	0	-	M	T								
			VL - as above; QZ vn - 43.74 - 3 cm on 55° fr + cb(W); below 45.15 - cy on fr. 10° to 15-25° vt & vn ca; 25° fit on btment;																							
			45.72	48.77	3.05	VL02 X	0	3	VW		0	0	0	0	-	S	0									
			blk sh? bands common; cor highly broken to 47.20; 47.20 - 48.15 - blk - lt pur. strong to wk cy alt (sup?); at 46.90 cb ± ca? white 2 cm vn; to 48.77 - fr - M with coating sup cy; cb - vt 1-2 ± to 10 mm vn;																							
			48.77	51.82	3.05	VL02 X	0	V	5	0		0	0	0	0	-	W	S								
			blk sh? - ± 45° often assoc with to 15 mm carb - vn; fr - W wk, cy (sup?);																							

DRILL HOLE LOG

Hartless Joe Property

Hole: HJ 08-02 Zone: _____
 Northing: _____ Easting: _____ Elevation: _____
 Drilling Dates: _____ Logged by: _____
 Length: _____ Core Size: _____ Casing: _____ (m) in/out

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Visual Log			From	To	Interval	Unit	Alteration and Mineralization																From	To	Interval	Sample
V	S	(m)	(m)	(m)	(m)		QZ	CA	CB		SX	PY	MN	LI	BD	FR	ZN		(m)	(m)	(m)	Number				
			51.82	54.86	3.04	VL02 X	0	2	0	0	0	0	0	0	0	0	W	S								
			VL - as previous; wk blk shi; ca - wk st k + 15° xc - 50° vt - up to 5mm;																							
			54.86	57.91	3.05	VL02 X	0	3	0		0	0	0	0	0	0	W	S	57.00	57.91		H23751				
			VL as prev - occ. blk shi bx < 10cm wide, poorly developed; below 57.0 - 1 cr. cb vt - vn (up to 1cm) - 5-10%;																							
			57.91	58.07	0.09	VL02 X	0	0	0		0	0	0	0	0	0	W	S	57.91	60.96		512				
			58.00	58.07	0.07	FAUL X											S	0								
			58.00 - 58.07 - blk, lt orange bwn - sup alt;																							
			58.07	58.14	0.07	FAUL X	0	0	0		0	0	0	0	0	0	X	0								
			FAUL - 7cm, 40°, crushed rock br; strong fault;																							
			58.14	59.10	0.96	PPFX X	0	0			0	0	0	0	0	W	0	S	0							
			1 - 5' 10" at vct ~ 15cm. fine bc-br - strong cy (sup), below. light bwn - hyp (?) ± sup (s) fr A-S; btm ent into fresh rock - looks chilled 1 cr. fx phn to lct;																							
			59.10	60.96	1.86	PPFH X	0	0	0		0	0	0	0	0	W	0	S	T							
			PPFX - fine fx phn ± hb (cl) phn < 0.5mm in a very fine grained matrix ZN - wk pervasive & fair fr cy.																							
			60.96	62.01	3.05	PPFH X	0	0	0		0	0	0	0	0	W	0	S	0	60.96	62.01	513				
			61.30	62.10	0.80	FAUL X		0							0		X	0								
			61.30 - 62.10 - fr-x 2 centre wk flt - 20°; lt bwn - strong sup alt;																							

Hartless Joe Property

Zone:

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Nothing:

Easting:

Elevation:

Drilling Dates:

Logged by:

Length:

Core Size:

Casing:

(m) in/out

Depth:

Dip:

Azim:

Visual Log			From	To	Interval	Unit	Alteration and Mineralization																From	To	Interval	Sample
V	S	(m)	(m)	(m)	(m)		QZ	CA	CB		SX	PY	MN	LI	BD	FR	ZN	(m)	(m)	(m)	Number					
			64.01	67.06	3.05	PPFH	X	0	< 2	0		0	0	< L		W	T	64.01	67.06		H237514					
			65.07	66.46	1.39	FAUL	45	0	P M	0		0	0	< L		S	0									
PPFH - ~15% < 1-occ 2mm fr, ~5% bb (cl) - no definite bi in a medgy v fine grnd. matrix; 65.07 - 66.46 - blc, polycyl orange strong sup cy; ca-vt a porous fr. slk, at 66.20 - 45° fit 4cm highly shra strong cas.																										
			67.06	70.10	3.09	PPFH	X	0	< 0.5	0		0	D T	0	< L		S	T	67.06	70.10		515				
PPFH - fr +20° (occ slk) ± 50° (w); Py - dis ± LI on fr; vwk cy on fr.																										
			70.10	73.15	3.05	PPFH	X	0	< 0.5	0		0	D T	0	< L		A	T	70.10	73.15		516				
fr - +20° dominant, vwk fr sup cy.																										
			73.15	76.20	3.05	PPFH	X	0	< 0.5	0		0	D T	< T	< L		W	S	73.15	76.20		517				
			74.30	74.85	0.55	FAUL	X										S	0								
74.30 - 74.85 +20° fr S & often cy lined - wk fit; py - locally icr to W																										
			76.20	79.25	3.05	PPFH	X	0	< 1	0		0	D T	< T	< L		M	S	76.20	79.25		518				
78.80 trn. matrix PPFH to aphanitic; at 79.17 - 25° 4mm white cb (?) + qz (L) vt;																										
			79.25	79.50	0.25	PPFH	X	0	< 7	0		0	D T	0	0	-	W	S	79.25	79.60		519				
			79.50	81.17	1.67	MUDS	X	0	< 0.5	0		0	0	< L		W	S	79.60	81.17		520					
6tm cnt - irreg displaced by fr - look ~25°; PPFH - chukel matrix - dk red bwn; icr car vt to 3mm shrt 40°; MUDS - dk grey ± silty; occ. oolites < 2mm - ; 6tm cont 6lc - bwn ± 10cm.																										
			81.17	82.30	1.13	PPFH	X	0	V 3	0		0	0	0	< L	-	M	S	81.17	82.30		521				
PPFH - upper ± 40cm highly fr & matrix bleached; 5mm - 3cm 45° carv; wk sup cy on fg.																										

Hartless Joe Property

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Visual Log			Alteration and Mineralization														Sample				
V	S	(m)	From (m)	To (m)	Interval (m)	Unit	QZ	CA	CB		SD	PY	MN	LI	BD	FE	ZN	From (m)	To (m)	Interval (m)	Sample Number
			82.30	83.35	1.05	PPFH X	0	1	0		0	DT	L	W	-	M	S	82.30	83.35		4297-522
			83.35	85.34	1.99	MUDS X	0	2	0		0	0	0	L	-	M	S	83.35	85.34		523
PPFH - 6m cent 30°; MUDS - dk gy, weak silty; 1cm Cavn - 40° with wk ble env; sca. <3mm oolites in 2cm bd in mudstone; PPFH - 64.01 to 87.75 - alt may be hypogene phyllic with overprint supergene ay?																					
			85.34	86.91	1.57	MUDS X	0	1	0		0	T	0	L	-	W	S	85.34	86.91		524
			86.91	87.75	0.84	PPFH X	0	5	0		0	DT	0	L	-	W	S	86.91	87.75		525
MD - 6m cent - 60°, scattered oolites, in places to 4cm; MD balls & rare to 6cm; spotted chert clasts; 6m wk ble & ble on 1cm. cany; PPFH ophanitic matrix; Lat - 50°(?)																					
			87.75	88.39	0.64	MUDS X	0	1	0		0	L	0	L	-	W	S	87.75	88.39		526
MD - as above																					
			88.39	91.44	3.05	MUDS X	0	1	0		0	L	0	L	-	W	S	88.39	91.44		527
MD - wk - fair silty, dk gy, oolites - <3mm, bds & chert, in places looks like MD - balls to 3cm; lt gy chert band; 89.30 - 89.65 - shrt vt - 1cm vn ca. - 20°																					
			91.44	93.10	1.66	MUDS X	0	10	0		0	L	0	T		W	S	91.44	93.10		528
			93.10	94.49	1.39	PPFH X	0	5	0		0	0	0	T		S	Q	93.10	94.49		529
92.80 - 93.10 - 1cr ble to lat - lt bwn; MD - 7±10cm bds oolites up to 5mm often silty; en wk ble to 10cm where strong cavt - vn present; PPFH - 5cm bc - br at pct - 60°(?), to 93.72 ble lt bwn strong fr, upon hypalt																					
			94.49	95.86	1.37	PPFH X	0	5	0		0	DT	0	T		S	S	94.49	95.86		530
			95.86	96.62	0.76	PPFH X											T	at 95.86	Blank		531
PPFH - typical, Supcy Llc on fr; 95.86 - 96.62 - ble, pale orange, pct tin, to lat fr phos appears, intense microfr, & fine grd. acc qz phn - chilled ent calcite																					
			96.62	96.93	0.31	FAUL X	0	2	0		0	0	0	T		S	S	96.62	97.30		533
			96.62	96.93		MUDS X															
FAULS - 35° clasts PPFH in a pale green md, shearing 30°																					

Hartless Joe Property.

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Visual Log			From	To	Interval	Unit	Alteration and Mineralization																From	To	Interval	Sample
V	S	(m)	(m)	(m)	(m)		QZ	CA	CB		SX	PY	MN	LI	BD	FR	ZN	(m)	(m)	(m)	Number					
			111.25	112.78	1.53	PPFH	X	<T	<1	0		0	2	L	<L	2	L	-	W	S	111.25	112.78	1.53	6004379		
						PPQZ	20																			
						PPFH - gy green & pale orange, fx-rare, hb-olt-very wk; Py mainly diss; qzvt <2mm ± ca (up to 50%)																				
			112.78	115.82	3.04	PPQZ	X	<T	<1	?		0	2	L	<L	<T	-	S	S	112.78	115.82	3.04	380			
						PPFH	50																			
						Pale orange - PPFH - occ fr phn, faint hb to clty; PPQZ - minor qz phn <2mm Py - fr diss, fr as seen in PPQZ - v fine grained; diss - cubic x py; 1 cr pale orange fr.																				
			115.82	118.73	2.91	FELS	X	<T	<1	?		0	D	L	<L	<L	0	S	S	115.82	118.73	2.91	381			
						PPQZ - lct - 15°, v wk qz phn; pale orange; btm 20cm - 3cm clasts of volc.																				
			118.73	119.18	0.45	VL01	X	0	<2	0		0	0	0	0	-	W	S								
									PM								20									
						VL - dk greenish gray, v fine grained, <1mm dk green occ ca filled amygdaloes; on lct 10cm band amygdaloes <2mm; - fair - strong pervasive cav																				
			119.18	121.01	1.83	VL01	X	0	<3	0		0	<T	0	<T		S	T								
						VL - dk green gray & light green, oolitic; fair oolitic bd to 6cm - weathered ul? & rare 3.5cm lt green chert bd; wk sup py on pr, minor cl ± ca filled amygdaloes volc - as above																				
			121.01	122.22	1.21	VL01	X	0	<4	0		0	<L	0	<T	-	M	S								
						VL as above; lt green, occ <5cm oolitic bd, rare <0.5mm cl filled amygdaloes																				
			122.22	123.75	1.53	VL01	X	0	<2	0		0	0	0	<L		W	T	122.22	123.75	1.53	382				
						VL - as above, v wk <1mm filled amygdaloes;																				

Hartless Joe Property

Hole: HT-08-02 Zone: _____
 Northing: _____ Easting: _____ Elevation: _____
 Drilling Dates: _____ Logged by: _____
 Length: _____ Core Size: _____ Casing: _____ (m) in/out

Depth:			
Dip:			
Azim:			

Visual Log			From	To	Interval	Unit	Alteration and Mineralization																From	To	Interval	Sample
V	S	(m)	(m)	(m)	(m)		Qz	CA	CB		SX	Py	MN	LI	BD	FR	ZN	(m)	(m)	(m)	Number					
			137.16	140.21	3.05	VL01	X	B.L	K7	0		0	LT	0	0	0	W									
<p>Vh - dark, mostly med green, wk-strong, ca-pervasive; 1cm. blk chert bd, amygdales wk-very fine, ca2 cl filled; v fine fx-ca - propylitic alt; br-3cm, 60° ca matrix, wk blkbs qz; Py-tr, cart. bc-20°, 4cm. ca matrix</p>																										
			140.21	143.26	3.05	VL01	X	0	K.5	0		0	0	0	0	0	W									
<p>P.S</p> <p>Vh - as above; ca - fair strong pervasive -</p>																										
			143.26	146.30	3.04	VL01	X	0	K.7	0		0	LT	LT	LT	0	W									
			145.90	146.30		FAUL	X	#	50								S									
<p>VL - as above.</p> <p>145.90 - 146.30 - fit - 10° up to 3cm - volclasts in calcitic matrix</p>																										
			146.30	149.35	3.05	VL01	X	0	K.12	0		0	LT	LT	0	0	W									
<p>CHER 15</p> <p>P.S</p> <p>CH - 2 irreg bds - 7cm ca dk gy; VL - as above, alt bands - wk - strong alt fx(?) rare matc - dk green; fx(?) phn in aphanitic - very fine grained matrix</p>																										
			149.35	152.40	3.05	VL01		0	K.10	0		0	LT	0	0	0	W									
<p>P.M</p> <p>Vh - as above - hi fx(?) = stronger ca; Ca-pervasive fair-strong; 151.70 - 152.04 - 25° Ca yn - 10% clasts 4cm volc.</p>																										
			152.40	155.45	3.05	VL01	X	0	K.5	0		0	0	0	0	0	W									
<p>P.M</p> <p>Vh - med green, mostly strong fine fx phn(?); Ca - pervasive - fair-strong.</p>																										
			155.45	158.50	3.05	VL01	X	K.2	K.5	0		0	0	0	0	0	W									
<p>Volc - amygdales <5% <2mm mainly ca filled, minor cl filled in a vt grained ca strong vl; Qz-stk 1-15mm av 3mm ± ca;</p>																										

Hartless Joe Property

Zone:

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Nothing:

Easting:

Elevation:

Drilling Dates:

Logged by:

Length:

Core Size:

Casing:

(m) in/out

Depth:

Dip:

Azim:

Visual Log			From	To	Interval	Unit	Alteration and Mineralization														From	To	Interval	Sample	
V	S	(m)	(m)	(m)	(m)		QZ	CA	CB			SX	PY	MN	LI	BD	FR	ZN	(m)	(m)	(m)	Number			
			158.50	160.93	2.43	VL01	X	5	W	K	3	0			0	<L	0	<T	0	W	S	158.50	160.93	2.43	G004391
VOLC. - <2% mainly <0.5mm dk green cl amygdaloes in a strong pervasive cal VL; minor cal amygdaloes; note 1 cr py-covts.																									
			160.93	161.54	0.61	PPFQ	X	0	<I	0			0	5	L	0	<L	0	W	S	160.93	161.54	0.61	392	
160.93-shr vol cnt 45°; PPFQ - greenish gray, somewhat similar to PPFx - only has qz phn; phn - weak < 1mm, fr > qz > hb(c) in anaphenitic - v fine grained matrix fr phn - strong cov; dar fr to lat.																									
			161.54	164.59	3.05	PPQH	X	V	4	<I	0		0	5	L	0	<L	0	M	S	161.54	164.59	3.05	393	
162.0 - 163.20 - strong fr - 1 cr 1 L; PPFQ - fr not well developed, qz phn to 2mm, matrix - v fine grnd, mainly qz - hb(c) ppy; 162.5 - br (f) 45° 2cm br; Qz - vt 2mm 1cm & 2x 45mm rare wk qz - 1cm qz + cat py + MU with 45mm qz - barren.																									
			164.59	166.05	1.46	PPQH	X	V	10	<I	0		0	5	L	0	<L	0	M	S	164.59	166.05	1.46	394	
PPQH - to lat lighter color, qz phn prominent, no fr phn; dar to wk hb(c) phn; Qzvn - 1cm, 25% or 75% silica flooding, occ fr - ble qz flooded 1cm wide; Lat - 40° occ. irreg fr - dk fine grained py																									
			166.05	167.64	1.59	VL01	X	V	10	K	3	0		0	0	0	<L	0	M	S	166.05	167.64	1.59	395	
VL - dk green, spotted appearance, Qzvn 1-4.5cm w/c 15° to 25°; VL - wk - fair pervasive ca;																									
			167.64	168.55	0.91	VL01	X	V	10	<5	0		0	D	T	0	<T	0	W	S	167.64	168.55	0.91	396	
VL - med-dk green, cov pervasive med; Qzvn - 1.5-3.5cm + cov, ±20°;																									
			168.55	171.60	3.05	VL01	X	>1	<5	0		0	0	0	0	<T	0	W	S	168.55	171.60	3.05	397		
VL - lighter color, 1 cr fine anhedral fr & dk green cl expr; sharp dar in qzvn (>1cm)																									

DRILL HOLE LOG

Hartless Joe Property

Hole: H.T-08-02

Zone: _____

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Northing: _____

Easting: _____

Elevation: _____

Drilling Dates: _____

Logged by: _____

Length: _____

Core Size: _____

Casing: _____ (m) in/out

Depth: _____

Dip: _____

Azim: _____

Visual Log			From	To	Interval	Unit	Alteration and Mineralization																From	To	Interval	Sample
V	S	(m)	(m)	(m)	(m)		QZ	CA	CB			SX	PY	MN	LI	BD	FR	ZN		(m)	(m)	(m)	Number			
			188.55	188.98	0.43	PPFX	X	<T	<I				0	DL	0	<L		M	S	188.55	189.83	1.28	G004398			
			PPFX - Oct 65°, 10% fine cubed phn in a light gray glossy aphanitic matrix tracc-att hb?-cy?; minor ds py																							
			188.98	189.83	0.85	PPFX	X	<I	<I	0			0	DL	0	<L		S	S							
			PPFX - as above, lat irreg +60° ± 10°																							
			189.83	190.19	0.36	VL01	X	0	<3	0		0	0	0	0			W	S							
			VL - as 186.84 - 188.85																							
			190.19	192.63	2.44	VL01	X	0	<0.5	0		0	0	0	0			M	S							
			VL - this type not seen before; dk green, very fine dk green phn - bx? - 10%, in places looks amygdaloid, phn in microxl matrix, ca-perlaswe strom 2 vt < 0.5mm; 6m 25cm blk - pale green & strom fr																							
			192.63	195.68	3.05	LSSH	X	0	<1	0		0	DL	0	0		40	W	S							
			195.12	195.21	0.09	VL01																				
			LSSH - 6m - thin bd. black carb shale & dark gray to black carbonaceous limestone; 195.21 - 195.68 - blk carb limestone with grits (< 2mm); near bottom 4cm band. ppy;																							
			195.68	197.36	1.68	PPFH	X	<L	<W	<L		0	DL	0	0			W	S	195.68	197.36	1.68	399			
			Oct 45° ll. bd; lat-50°(?); PPFH - light gray, microxl matrix with dk specks < 5% - att fx & hb(al)? Py-xls & v fine; cb? - white, no fizz HCl; py - most very fine as seen at top of hole.																							
			197.36	197.81	0.45	LSSH	X	0	<2	0		0	DL	0	0		35		S							
			LSSH 6m blk shale & limestone																							
			197.81 E.O.H																							

HOLE: HJ08-02

1 of 2

PROPERTY:

HOLE: HJ08-02

Struct.		LITHOLOGY						Notes:	ALT.		MINERALS		SAMPLES						Blocks			GEOTECHNICAL				JOINTS								
		From (m)	To (m)	Interval (m)	Type	Unit	Texture		Modifier					From (m)	To (m)	Interval (m)	Sample					From (m)	To (m)	Intvl. (m)	REC		RQD		Weathering	Hardness	Frequency	Attitude	Shape	Roughness
Type	Attitude																						(m)	Percent	(m)	Percent								
																						146.30	149.35	3.05	2.98	97.7%	1.60	52.5%						
																						149.35	152.40	3.05	3.04	99.7%	1.94	63.6%						
																						152.40	155.45	3.05	2.86	93.8%	2.01	65.9%						
																						155.45	158.50	3.05	2.96	97.0%	1.23	40.3%						
																						158.50	161.54	3.04	2.89	95.1%	1.92	63.2%						
																						161.54	164.59	3.05	2.97	97.4%	0.76	24.9%						
																						164.59	167.64	3.05	3.04	99.7%	0.90	29.5%						
																						167.64	168.25	0.61	0.56	91.8%	0.13	21.3%						
																						168.25	168.55	0.30	0.31	103.3%	0.10	33.3%						
																						168.55	171.60	3.05	2.78	91.1%	1.31	43.0%						
																						171.60	173.50	1.90	1.52	80.0%	0.11	5.8%						
																						173.50	174.35	0.85	1.27	149.4%	0.60	70.6%						
																						174.35	175.26	0.91	0.69	75.8%	0.00	0.0%						
																						175.26	176.17	0.91	0.88	96.7%	0.22	24.2%						
																						176.17	178.31	2.14	2.02	94.4%	0.73	34.1%						
																						178.31	178.92	0.61	0.62	101.6%	0.00	0.0%						
																						178.92	180.14	1.22	1.37	112.3%	0.40	32.8%						
																						180.14	180.75	0.61	0.65	106.6%	0.00	0.0%						
																						180.75	183.79	3.04	2.94	96.7%	1.43	47.0%						
																						183.79	186.84	3.05	2.91	95.4%	0.72	23.6%						
																						186.84	188.98	2.14	2.12	99.1%	0.65	30.4%						
																						188.98	190.19	1.21	1.00	82.6%	0.49	40.5%						
																						190.19	192.33	2.14	1.87	87.4%	0.00	0.0%						
																						192.33	194.16	1.83	1.68	91.8%	0.10	5.5%						
																						194.16	194.76	0.60	0.40	66.7%	0.00	0.0%						
																						194.76	197.81	3.05	3.02	99.0%	1.87	61.3%						
																										</								