

# Hartless Joe - Hartless Joe

Grid East	Grid North	Easting	Northing	Elevation	Depth (m)
		516567	6753488	1553	48.77

**ZONE:** Unknown

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

**HOLE: HAR-16-004**

**CLAIM:** \_\_\_\_\_

Contractor: Beaudoin

Drill: 1

Core Size: NTW

Casing Depth: \_\_\_\_\_

Drilling Dates: -

Geology Logged By: J. Morton

SURVEY			
Depth (m)	Azimuth	Dip	Method

**TARGET:** King

SUMMARY			
From (m)	To (m)	Interval (m)	Rock Type
0	1.3	1.3	BAS
1.3	11.94	10.64	BAS
11.94	12.15	0.21	AND
12.15	25.79	13.64	BAS
25.79	28.36	2.57	MST
28.36	34.63	6.27	BAS
34.63	35.69	1.06	MST
35.69	48.77	13.08	BAS

SAMPLES	
Numbers:	K293015 to K293036
Total:	22
Batch:	003, 004, 005
Certificates:	WH16154788, WH16156778, WH16156779

COMMENTS



Box Number	From (m)	To (m)
1	0	4.24
2	4.24	8.39
3	8.39	12.35
4	12.35	16.46
5	16.46	20.48
6	20.48	24.38
7	24.38	28.53
8	28.53	32.72
9	32.72	36.95
10	36.95	41.08
11	41.08	45.38
12	45.38	48.77

Box Number	From (m)	To (m)
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Box Number	From (m)	To (m)
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From (m)	To (m)	Interval (m)	Rock Type	Grain Size	Description	Shade	Colour	Texture	Alteration	Intensity	Mineral	Conc.
1.30	11.94	10.64	BAS	FG	Dark green pillow basalt/pillow basalt breccia, with ark black inter-pillow mud hosting abundant epidote-quartz-carbonate and rare round clots of v.f.g. pyrite, lesser pyrrhotite; Sparse diffuse patches of epidote; Black mud contains (trace?) fossil fragments; Angular to sub-rounded mm-scale clasts of basalt suspended in black mud matrix; Very rare sub-mm hairline stringers of carbonate; Vesicles in basalt filled with black mud and trace v.f.g. pyrite; Chlorite + limonite on fracture surfaces, lesser carbonate.							
						DK	GN	BX	CHL	2I	Py	0.02
									CAR	1I	Po	0.02
									EPI	2I		
									OXI	2I		
11.94	12.15	0.21	AND	FG	Dark grey, feldspar-(glomero)phyric andesite(?); Sharp contacts with surrounding basalt wallrock; Sparse sub-mm hairline stringers of carbonate; No sx.							
						DK	GY					
12.15	15.74	3.59	BAS	FG	Same lithology as 1.30 - 11.94m; Abundant quartz-carbonate-epidote in inter-pillow mud matrix and as diffuse patches in basalt; Rare sub-mm hairline stringers of carbonate; Chlorite, carbonate and minor limonite on fracture surfaces.							
						DK	GN	BX	CHL	1I		
									CAR	1I		
									EPI	2I		
									OXI	1I		
15.74	16.63	0.89	BAS	FG	Dark green un-brecciated basalt with rare mm- to sub-mm hairline stringers of carbonate with epidote and trace v.f.g. pyrite; Chlorite and carbonate on fracture surfaces.							
						DK	GN		CHL	1I		
									CAR	1I		

From (m)	To (m)	Interval (m)	Rock Type	Grain Size	Description	Shade	Colour	Texture	Alteration	Intensity	Mineral	Conc.
16.63	21.22	4.59	BAS	FG	Same lithology as 1.30 - 11.94m; Trace v.f.g. pyrrhotite (and sphalerite?) as disseminations and in sub-mm hairline stringers of carbonate; Abundant epidote-quartz-carbonate in interpillow matrix and as diffuse patches in basalt; Chlorite, carbonate and limonite on fracture surfaces.							
						DK	GN	BX	EPI	2I		
									CAR	1I		
									CHL	1I		
21.22	25.79	4.57	BAS	FG	Moderately carbonate (and epidote?) altered, medium green, feldspar-(glomero)phyric basalt, with feldspar altering to carbonate; Trace sub-mm hairline stringers of carbonate throughout; Trace limonite, black dendritic manganese and carbonate on fracture surfaces.							
						MD	GN		CAR	2I		
									EPI	1I		
25.79	28.36	2.57	MST	VF	Dark black, quartz-flooded, brecciated mudstone, with sub-angular mm- to cm-scale, (up to 2cm in diameter), mudstone clasts, suspended in a mud matrix, and abundant diffuse patches and ribbons of quartz hosting abundant clots of v.f.g. chalcopyrite and pyrite; Sharp top and bottom contacts with the surrounding basalt, with contacts oriented ~70 degrees TCA; Limonite on fracture surfaces; Rare sub-mm hairline stringers of limonite.							
						DK	BK	BX	SIL	1I	Cp	1
									OXI	1I	Py	1
28.36	34.63	6.27	BAS	FG	Same lithology as 21.22 - 25.79m; Trace sub-mm hairline stringers of carbonate; Minor limonite on fracture surfaces; Trace clots of v.f.g. pyrite.							
						MD	GN		CAR	2I		
									OXI	1I		
									EPI	1I		
34.63	35.69	1.06	MST	VF	Dark grey, limey, un-brecciated mudstone(?), hosting sparse mm-scale veinlets of quartz-carbonate and pink adularia(?); Trace v.f.g. pyrite disseminated throughout; Trace limonite on fracture surfaces.							
						DK	GY					

From (m)	To (m)	Interval (m)	Rock Type	Grain Size	Description	Shade	Colour	Texture	Alteration	Intensity	Mineral	Conc.
35.69	48.77	13.08	BAS	FG	Same lithology as 21.22 - 25.79m; Rare mm- to sub-mm scale carbonate veinlets and sub-mm hairline stringers of limonite and epidote; Epidote, carbonate and minor limonite on fracture surfaces; Trace disseminated v.f.g. pyrite throughout; Sharp contact with overlying mudstone, with an orientation of ~45 degrees TCA.	MD	GN					

From (m)	To (m)	Interval (m)	Rock Type	Grain Size	Description	Shade	Colour	Texture	Alteration	Intensity	Mineral	Conc.
0.00	1.30	1.30	BAS	FG	Overburden. Dark green basalt.							
								RB				
1.30	11.94	10.64	BAS	FG	Dark green pillow basalt/pillow basalt breccia, with ark black inter-pillow mud hosting abundant epidote-quartz-carbonate and rare round clots of v.f.g. pyrite, lesser pyrrhotite; Sparse diffuse patches of epidote; Black mud contains (trace?) fossil fragments; Angular to sub-rounded mm-scale clasts of basalt suspended in black mud matrix; Very rare sub-mm hairline stringers of carbonate; Vesicles in basalt filled with black mud and trace v.f.g. pyrite; Chlorite + limonite on fracture surfaces, lesser carbonate.							
									OXI	2I		
						DK	GN	BX	CHL	2I	Py	0.02
									CAR	1I	Po	0.02
									EPI	2I		
11.94	12.15	0.21	AND	FG	Dark grey, feldspar-(glomero)phyric andesite(?); Sharp contacts with surrounding basalt wallrock; Sparse sub-mm hairline stringers of carbonate; No sx.							
						DK	GY					
12.15	25.79	13.64	BAS	FG	Dark green un-brecciated basalt, pillow basalt/pillow basalt breccia, and medium green un-brecciated, carbonate-altered (glomero)phyric basalt; Sub-mm hairline stringers of carbonate+/-epidote; Carbonate, and minor limonite on fracture surfaces; Rare diffuse patches of epidote-quartz-carbonate; Trace v.f.g. pyrite.							
									CHL	1I		
						MD	GN		EPI	1I		
						DK	GN		CAR	2I		

From (m)	To (m)	Interval (m)	Rock Type	Grain Size	Description	Shade	Colour	Texture	Alteration	Intensity	Mineral	Conc.
25.79	28.36	2.57	MST	VF	Dark black, quartz-flooded, brecciated mudstone, with sub-angular mm- to cm-scale, (up to 2cm in diameter), mudstone clasts, suspended in a mud matrix, and abundant diffuse patches and ribbons of quartz hosting abundant clots of v.f.g. chalcopyrite and pyrite; Sharp top and bottom contacts with the surrounding basalt, with contacts oriented ~70 degrees TCA; Limonite on fracture surfaces; Rare sub-mm hairline stringers of limonite.							
									OXI	1I	Py	1
						DK	BK	BX	SIL	1I	Cp	1
28.36	34.63	6.27	BAS	FG	Same lithology as 21.22 - 25.79m; Trace sub-mm hairline stringers of carbonate; Minor limonite on fracture surfaces; Trace clots of v.f.g. pyrite.							
						MD	GN		CAR	2I		
									OXI	1I		
									EPI	1I		
34.63	35.69	1.06	MST	VF	Dark grey, limey, un-brecciated mudstone(?), hosting sparse mm-scale veinlets of quartz-carbonate and pink adularia(?); Trace v.f.g. pyrite disseminated throughout; Trace limonite on fracture surfaces.							
						DK	GY					
35.69	48.77	13.08	BAS	FG	Same lithology as 21.22 - 25.79m; Rare mm- to sub-mm scale carbonate veinlets and sub-mm hairline stringers of limonite and epidote; Epidote, carbonate and minor limonite on fracture surfaces; Trace disseminated v.f.g. pyrite throughout; Sharp contact with overlying mudstone, with an orientation of ~45 degrees TCA.							
									EPI	2I		
						MD	GN		CAR	2I		

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery %	RQD	RQD %	Reactivity	Hardness	Weathering	Comments
0.00	1.52	1.52	0.81	53	0.50	33	OR	3H	2W	0 - 1.30m is overburden.
1.52	3.05	1.53	1.52	99	1.44	94	OR	3H	2W	
3.05	3.96	0.91	0.91	100	0.91	100	OR	3H	2W	
3.96	4.57	0.61	0.51	84	0.37	61	1R	3H	1W	
4.57	6.10	1.53	1.48	97	1.30	85	1R	3H	1W	
6.10	7.62	1.52	1.52	100	1.33	88	2R	3H	1W	
7.62	9.14	1.52	1.42	93	0.66	43	1R	3H	1W	
9.14	10.67	1.53	1.43	93	1.09	71	1R	3H	1W	
10.67	12.19	1.52	1.52	100	1.04	68	1R	3H	1W	
12.19	13.72	1.53	1.53	100	1.49	97	1R	3H	1W	
13.72	15.24	1.52	1.52	100	0.44	29	1R	3H	1W	
15.24	16.76	1.52	1.5	99	0.92	61	1R	3H	1W	
16.76	18.29	1.53	1.53	100	1.04	68	1R	3H	1W	
18.29	19.81	1.52	1.39	91	0.63	41	1R	3H	1W	
19.81	21.34	1.53	1.37	90	0.56	37	1R	3H	1W	
21.34	22.86	1.52	1.52	100	1.14	75	1R	3H	1W	
22.86	24.38	1.52	1.52	100	0.11	7	1R	3H	1W	
24.38	25.91	1.53	1.53	100	0.78	51	1R	3H	1W	
25.91	27.43	1.52	1.52	100	1.07	70	1R	3H	1W	
27.43	28.96	1.53	1.47	96	1.10	72	1R	3H	1W	
28.96	30.48	1.52	1.47	97	1.10	72	1R	3H	1W	
30.48	32.00	1.52	1.52	100	1.02	67	1R	3H	1W	
32.00	33.53	1.53	1.44	94	0.91	59	1R	3H	1W	
33.53	35.05	1.52	1.47	97	1.31	86	1R	3H	1W	
35.05	36.58	1.53	1.42	93	1.01	66	1R	3H	1W	
36.58	38.10	1.52	1.5	99	1.36	89	1R	3H	1W	
38.10	39.62	1.52	1.44	95	1.36	89	1R	3H	1W	
39.62	41.15	1.53	1.49	97	1.22	80	1R	3H	1W	
41.15	42.67	1.52	1.5	99	1.40	92	1R	3H	1W	

From (m)	To (m)	Interval (m)	Recovery (m)	Recovery %	RQD	RQD %	Reactivity	Hardness	Weathering	Comments
42.67	44.20	1.53	1.47	96	1.47	96	1R	3H	1W	
44.20	45.72	1.52	1.51	99	1.41	93	1R	3H	1W	
45.72	47.24	1.52	1.52	100	0.82	54	1R	3H	1W	
47.24	48.77	1.53	1.53	100	1.03	67	1R	3H	1W	



Depth (m)	Magnetic Susceptibility	Rock Type	Comments
2	2.28	BAS	
3	1.68	BAS	
4	1.41	BAS	
5	0.8	BAS	
6	0.63	BAS	
7	1.89	BAS	
8	0.65	BAS	
9	0.5	BAS	
10	0.89	BAS	
11	0.58	BAS	
12	0.5	AND	
13	0.78	BAS	
14	0.65	BAS	
15	0.87	BAS	
16	0.65	BAS	
17	0.84	BAS	
18	3.17	BAS	
19	0.53	BAS	
20	0.26	BAS	
21	1.34	BAS	
22	0.85	BAS	
23	0.6	BAS	
24	0.67	BAS	
25	2.08	BAS	
26	1.98	MST	
27	0.89	MST	
28	0.6	MST	
29	0.4	BAS	
30	0.47	BAS	

Depth (m)	Magnetic Susceptibility	Unit	Comments
31	0.43	BAS	
32	1.1	BAS	
33	0.72	BAS	
34	0.25	BAS	
35	0.92	MST	
36	0.78	BAS	
37	2.72	BAS	
38	1.05	BAS	
39	1.12	BAS	
40	2.94	BAS	
41	0.48	BAS	
42	1.98	BAS	
43	0.11	BAS	
44	0.06	BAS	
45	1.34	BAS	
47	0.58	BAS	
48	0.67	BAS	

From (m)	To (m)	Interval (m)	Rock Type	Recovery (m)	Recovery %	Sample Number	Not Sampled	BatchName	Batch Class	Standard	Blank	1/4 Dup	Coarse Dup
0.00	1.30	1.30	-QC-	0.49	38	K293015	<input type="checkbox"/>	H00-003			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0.00	0.00	0.00	-QC-	0.00	0	K293031	<input type="checkbox"/>	H00-005			<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.30	3.96	2.66	BAS, BAS	2.66	100	K293016	<input type="checkbox"/>	H00-003			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.96	6.10	2.14	BAS	2.14	100	K293017	<input type="checkbox"/>	H00-003			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.10	9.14	3.04	BAS	2.94	97	K293018	<input type="checkbox"/>	H00-003			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.14	12.19	3.05	BAS	2.95	97	K293019	<input type="checkbox"/>	H00-003			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12.19	15.24	3.05	BAS	3.05	100	K293020	<input type="checkbox"/>	H00-003			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15.24	18.29	3.05	BAS	3.03	99	K293021	<input type="checkbox"/>	H00-003			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18.29	21.34	3.05	BAS	2.76	90	K293022	<input type="checkbox"/>	H00-003			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21.34	24.38	3.04	BAS	3.04	100	K293023	<input type="checkbox"/>	H00-004			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24.38	25.79	1.41	BAS	1.38	98	K293024	<input type="checkbox"/>	H00-004			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25.79	28.36	2.57	BAS, MST	2.56	100	K293025	<input type="checkbox"/>	H00-004			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28.36	30.48	2.12	MST, BAS	2.08	98	K293026	<input type="checkbox"/>	H00-004			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30.48	33.53	3.05	BAS	2.96	97	K293027	<input type="checkbox"/>	H00-005			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33.53	34.63	1.10	BAS	1.10	100	K293028	<input type="checkbox"/>	H00-005			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34.63	35.69	1.06	BAS, MST	0.99	93	K293029	<input type="checkbox"/>	H00-005			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35.69	38.10	2.41	MST, BAS	2.34	97	K293030	<input type="checkbox"/>	H00-005			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38.10	41.15	3.05	BAS	2.93	96	K293032	<input type="checkbox"/>	H00-005			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41.15	44.20	3.05	BAS	2.97	97	K293033	<input type="checkbox"/>	H00-005			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44.20	47.24	3.04	BAS	3.03	100	K293034	<input type="checkbox"/>	H00-005			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47.24	48.77	1.53	BAS	1.53	100	K293035	<input type="checkbox"/>	H00-005			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47.24	48.77	1.53	BAS	1.53	100	K293036	<input type="checkbox"/>	H00-005			<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>



HAR-16-004

Unknown

# Sample Results

##### Archer, Cathro & Associates (1981) Limited

Batch	Sample	From (m)	To (m)	Au g/t	As ppm	Hg ppm	Sb ppm	Tl ppm	¼ Dup	Crs. Dup	Blk	Standard	Comments
H00-003	K293015	0.00	1.30	0.03	3		0	0.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H00-005	K293031	0.00	0.00	0.03	0		0	0.0	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
H00-003	K293016	1.30	3.96	0.03	3		0	0.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H00-003	K293017	3.96	6.10	0.03	4		0	0.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H00-003	K293018	6.10	9.14	0.03	3		0	0.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H00-003	K293019	9.14	12.19	0.03	3		0	0.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H00-003	K293020	12.19	15.24	0.03	5		0	0.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H00-003	K293021	15.24	18.29	0.03	2		0	0.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H00-003	K293022	18.29	21.34	0.03	3		0	0.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H00-004	K293023	21.34	24.38	0.03	2		0	0.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H00-004	K293024	24.38	25.79	0.03	2		0	0.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H00-004	K293025	25.79	28.36	0.03	3		0	0.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H00-004	K293026	28.36	30.48	0.03	1		0	0.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H00-005	K293027	30.48	33.53	0.03	1		0	0.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Batch	Sample	From (m)	To (m)	Au g/t	As ppm	Hg ppm	Sb ppm	Tl ppm	¼ Dup	Crs. Dup	Blk	Standard	Comments
H00-005	K293028	33.53	34.63	0.03	2		0	0.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H00-005	K293029	34.63	35.69	0.03	2		0	0.1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H00-005	K293030	35.69	38.10	0.03	1		0	0.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H00-005	K293032	38.10	41.15	0.03	2		0	0.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H00-005	K293033	41.15	44.20	0.03	1		0	0.4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H00-005	K293034	44.20	47.24	0.03	1		0	0.5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H00-005	K293035	47.24	48.77	0.03	2		0	0.6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
H00-005	K293036	47.24	48.77	0.03	2		0	0.6	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	



From (m)	To (m)	Structure Type	MapInfo Code	Attitude TCA	Attitude TRFE	Structure Count	Description	Mineral	Conc.	Mineral Texture
48.24	48.77	VN	37	70	NUL	10	Mm-scale carbonate veinlets.			