



PAMINCO ROSEBERY

A.C.N. 004 074 962

Hole No: 006B		Location: Brown's Tunnel 5330N		Depth	Direct	Dip	Depth	Direct	Dip	Depth	Direct	Dip	Depth	Direct	Dip
Objective: Test Lens 1 and Lens 2 extents				0.0	270.0	-63.0									
Result: Hit Lens 1 (near to 004B though). 46-58.8m (12.8m) 2.3%Pb, 3.6%Zn, 0.19%Cu, 20g/t Ag, 1.7g/t Au, 4.1%Fe - \$79TMU. Lens 2, patchy intercepts.				31.0	268.0	-64.0									
Planned Direction: 270°		Drilling Commenced: 22/06/98		60.0	266.0	-65.0									
Planned Dip: -63°		Drilling Completed: 25/06/98		90.0	265.5	-64.0									
Planned Depth: 180.0 m		Actual Depth: 178.8 m		120.0	267.0	-64.0									
Planned Northing: 5330 m N		Surveyed Northing: 5329.40 m N		150.0	268.0	-64.0									
Planned Easting: 4952 m E		Surveyed Easting: 4951.40 m E		178.0	268.0	-63.8									
Planned Collar R.L.: 486 m RL		Surveyed Collar R.L.: 486.50 m RL		178.8	268.0	-63.8									
Date Logged: 16-Jul-1998		Summary Log:													
Logged By: Michael Whitbread		0-2.5m NC; -29.5m Ho; -43m F;													
Hole Size: HQ/NQ		-48.2m HOTS; -49.3m HODS; -57.3m													
Hole Category: other		HOTS; -63.8m HOTS (58.2-58.8 ~HODS);													
Grouted:		-75.8m HW, -77.3m Ho; -87.5m HW; -													
		107.7m PR; -110.4m HW;													
		-110.9m HODS; -124.7m variable HOTS; -													
		146.8m Cherty Andesite- Hots;													
Date Log Verified: 30-Sep-1998		-178.4m Dacite-Andesite becoming more													
Verified By: Michael Whitbread		chlorite-sericite-pyrite altered - Hots													

From (m)	To (m)	Strat Code	Desc Code	Alt Code	Alt Int	Description	@ Depth	Feature	LCA Deg°	RQD To (m)	RQD %	Sample No	From (m)	To (m)	Length (m)	Pb %	Zn %	Cu %	Ag g/t	Au g/t	Fe %	TMU \$	
0.0	2.5	NC			a	NO CORE				2.5	NC	81605	4.8	5.8	1.0	0.1	0.1	0.01	1	0.1	0.6	3	
0.0	2.5	NC			a	No core.				12.3	5	81606	5.8	7.0	1.2	0.1	0.1	0.01	1	0.1	0.8	3	
2.5	10.0	HO			a	HOST SEQUENCE				13.2	88	81607	7.0	8.3	1.3	0.1	0.1	0.01	1	0.1	0.3	3	
2.5	4.8	BR			a	Weathered core. Broken fragments of cherty material, occasionally in yellow-white clay (probably after volcanoclastic cherty breccia). Partial recovery of core, 0.4m total loss.				19.4	14	81608	8.3	9.3	1.0	0.1	0.1	0.01	1	0.1	0.6	3	
2.5	4.8	CH			a	Weathered zone of white, yellow-white, mix of sandstone and silicified siltstone. Occasional clay patches. Some pieces of core near 10cm (in sandstones). Sandstone pitted, perhaps by weathering of feldspar fragments, and carries small clasts (volcanoclastic?). Possible fabric, marked by oxide (goethite and hematite) banding. End of unit begins to develop mottling. Again partial recovery at best, with at least 1.3m total core loss.				20.2	87	81609	10.0	11.5	1.5	0.1	0.1	0.01	1	0.1	0.6	3	
2.5	4.8	SA			a						27.9	7	81610	11.5	12.5	1.0	0.1	0.1	0.01	1	0.1	0.9	3
4.8	10.0	SA			a			7.9	BD	15°	29.4	80	81611	12.5	14.2	1.7	0.1	0.1	0.01	1	0.1	1.0	3
4.8	10.0	SS	cy		a						42.4	3	81612	14.2	14.5	0.3	0.1	0.1	0.01	1	0.1	0.8	3
4.8	10.0	ST	si		a					47.3	89	81613	14.5	16.0	1.5	0.1	0.1	0.01	1	0.1	0.6	3	
10.0	29.5	HO			a	HOST SEQUENCE				53.3	10	81614	16.0	16.2	0.2	0.1	0.1	0.01	1	0.1	0.4	3	
10.0	29.5	HO			a					55.4	95	81615	16.2	17.2	1.0	0.1	0.1	0.01	1	0.1	0.5	3	
10.0	29.5	HO			a					57.4	0	81616	17.2	18.2	1.0	0.1	0.1	0.01	1	0.1	0.3	3	
10.0	29.5	HO			a					64.3	91	81617	18.2	19.2	1.0	0.1	0.1	0.01	1	0.1	0.5	3	
10.0	29.5	HO			a					65.6	7	81618	19.2	20.2	1.0	0.1	0.1	0.01	1	0.1	0.5	3	
10.0	29.5	HO			a					89.1	92	81619	20.2	21.1	0.9	0.1	0.1	0.01	1	0.1	1.0	3	
10.0	29.5	HO			a					90.5	7	81620	21.1	22.0	0.9	0.1	0.1	0.01	1	0.1	1.1	3	
10.0	29.5	HO			a					101.8	86	81621	22.0	22.8	0.8	0.1	0.1	0.01	1	0.1	2.0	3	
10.0	29.5	HO			a					102.4	0	81622	22.8	23.8	1.0	0.1	0.1	0.01	1	0.1	0.8	3	
10.0	29.5	HO			a					177.9	93	81623	23.8	24.8	1.0	0.1	0.1	0.01	1	0.1	0.6	3	
10.0	29.5	HO			a					178.8	11	81624	24.8	25.8	1.0	0.1	0.1	0.01	1	0.1	0.6	3	
10.0	29.5	HO			a							81625	25.8	26.8	1.0	0.1	0.1	0.01	1	0.1	1.1	3	
10.0	29.5	HO			a							81626	26.8	27.8	1.0	0.1	0.1	0.01	1	0.1	0.6	3	

006B 10/12/98

From (m)	To (m)	Strat Code	Desc Code	Alt Code	Alt Int.	Description	@ Depth	Feature	LCA Deg°	RQD To (m)	RQD %	Sample No	From (m)	To (m)	Length (m)	Pb %	Zn %	Cu %	Ag g/t	Au g/t	Fe %	TMU \$	
10.0	16.0		CH		a	Weathered core. Silicified, iron mottled, patchily clay altered, brown, white or light white-grey, poorly sorted, clast bearing volcanoclastic sandstone. Some patches appear to lack clasts. Clasts are cherty, and usually carry black iron staining. Silicified, dark grey siltstone clasts occasionally present. Iron oxide coats on most fractures. Competency poor to bad for most part, with many pieces near 10cm. Some broken zones. 1.1m indicated core loss, ~1m unmarked core loss	14.2	BD	34°			81627	27.8	28.8	1.0	0.1	0.1	0.01	1	0.1	0.5	3	
			SA										81628	28.8	29.5	0.7	0.1	0.1	0.01	1	0.1	0.2	3
			VC	cy									81629	29.5	31.0	1.5	0.1	0.1	0.01	1	0.1	1.4	3
				si									81630	31.0	32.7	1.7	0.1	0.1	0.01	1	0.1	2.1	3
													81631	32.7	33.7	1.0	0.1	0.1	0.01	1	0.1	1.0	3
													81632	33.7	34.7	1.0	0.1	0.1	0.01	1	0.1	1.2	3
16.0	16.2		VC		a	Zone of weathered pebbles (mainly volcanoclastic sandstone). May be silicified or iron oxide replaced.						81633	34.7	35.9	1.2	0.1	0.1	0.01	1	0.1	0.7	3	
				ht								81634	35.9	36.3	0.4	0.1	0.1	0.02	1	0.1	1.6	3	
				si								81635	36.3	37.8	1.5	0.1	0.1	0.01	1	0.1	0.8	3	
16.2	21.1		SA		a	Weathered core. White, clay altered, siltstones and sandstones. No obvious clasts, but occasional suggestions of weathered out phenocrysts. Goethite stains most of the discontinuous fractures. Suggestion of a fabric (possibly bedding), preserved by composition change (clay rich band amongst less clay altered material), and by iron stained fractures (this might be cleavage). Uncommonly have spots (5-10mm) of pyrite, rimmed by oxide most likely after sulphide. Core of varying competence, most poor-moderate, interspersed with small broken patches.	20.2	BD	40°			81636	37.8	38.2	0.4	0.4	0.3	0.14	18	0.4	6.5	14	
			SS	cy				20.4	CV	30°			81637	38.2	39.2	1.0	0.1	0.1	0.01	1	0.1	1.0	3
			ST	cy									81638	39.2	40.2	1.0	0.1	0.1	0.01	1	0.1	0.2	3
													81639	40.2	41.2	1.0	0.1	0.1	0.01	1	0.1	0.2	3
													81640	41.2	43.0	1.8	0.1	0.1	0.01	1	0.1	0.1	3
													81641	43.0	44.0	1.0	2.5	4.8	0.39	15	0.3	4.2	85
													81642	44.0	45.0	1.0	1.3	1.6	0.08	6	0.1	2.0	30
													81643	45.0	46.0	1.0	1.5	2.0	0.12	10	0.1	2.7	38
													81644	46.0	47.2	1.2	2.4	5.2	0.27	13	2.8	1.8	110
21.1	22.0		SA		a	Weathered core. Broken zone of fragments of dominantly yellow slightly silicified sandstone. Most breaks coated by iron oxide.						81645	47.2	48.2	1.0	1.5	2.2	0.12	14	0.7	4.6	46	
			SS	cy									81646	48.2	49.3	1.1	7.6	9.6	0.45	48	1.7	8.7	192
				si									81647	49.3	50.9	1.6	0.6	0.7	0.03	11	0.6	5.2	20
22.0	22.8		SA		a	More competent version of sandstone in previous unit. Core of poor competence.						81648	50.9	52.4	1.5	2.3	3.0	0.20	19	1.7	2.1	71	
			SS	si									81649	52.4	53.3	0.9	2.0	2.9	0.13	23	1.8	3.7	69
22.8	29.5		DA		a	Weathered core. Yellowish-green coloured, variably silicified and clay altered, fairly massive looking, sandstone textured rock. Has fairly evenly distributed pits, most likely after feldspar phenocrysts. This unit is probably weathered dacite volcanoclastic or lava. Iron oxides coat most breaks, and fill the thin discontinuous fractures. Some breaks in core are clay filled. Occasional quartz veins present (close or orthogonal to CA). Core of mixed competency, generally broken to poor to 27.7m after which it is poor to moderate.	25.4	JT	14°			81650	53.3	54.4	1.1	3.9	6.7	0.60	21	1.9	2.0	134	
			SA					28.0	QV	12°			81651	54.4	55.1	0.7	0.5	0.5	0.03	28	0.8	11.6	21
			VC	si				29.0	QV	74°			81652	55.1	56.5	1.4	0.7	1.4	0.06	15	1.4	1.8	37
													81653	56.5	57.3	0.8	0.2	1.2	0.04	10	1.5	1.7	32
													81654	57.3	58.2	0.9	1.4	3.0	0.16	17	1.8	1.7	67
													81655	58.2	58.8	0.6	6.7	9.0	0.23	43	5.9	9.0	213
													81656	58.8	59.5	0.7	0.8	1.8	0.18	16	0.6	4.2	38
													81657	59.5	60.2	0.7	0.5	1.2	0.19	13	0.2	3.0	24
													81658	60.2	61.2	1.0	0.1	0.4	0.04	8	0.4	1.9	11
29.5	43.0	F				FAULT						81659	61.2	62.2	1.0	0.2	0.5	0.06	6	0.5	1.3	14	
						Broken fragments of previous unit. Partial recovery and possibly 15cm core loss.						81660	62.2	62.8	0.6	0.1	0.4	0.03	4	0.1	1.2	8	
			DA									81661	62.8	63.8	1.0	0.7	1.1	0.06	6	0.1	1.8	20	
			SA									81662	63.8	64.2	0.4	0.1	0.1	0.01	1	0.1	1.4	3	
			VC	si								81663	64.2	65.3	1.1	0.1	0.1	0.01	1	0.1	1.1	3	
31.0	32.7		BR		a	Weathered core. Broken fragments of a darker medium greenish-grey volcanoclastic, possibly clast bearing. Iron oxides present on most fragments. Partial recovery.						81664	65.3	66.0	0.7	0.1	0.1	0.01	1	0.1	1.7	3	
			VC	cy									81665	66.0	67.0	1.0	0.1	0.1	0.01	1	0.1	2.0	3
													81666	67.0	68.0	1.0	0.1	0.1	0.01	1	0.1	1.8	3
													81667	68.0	69.0	1.0	0.1	0.1	0.01	1	0.1	1.0	3
32.7	35.9		BR		a	Weathered core, light yellow white, variably clay altered and silicified, dendritically iron stained, sandstone. Consist predominantly of broken fragments. A lot of breaks seem to be close to CA. 1.7m core loss.						81668	75.8	76.8	1.0	0.1	0.4	0.01	1	0.1	1.8	7	
			SA										81670	76.8	77.3	0.5	0.1	0.3	0.01	1	0.1	2.3	6
			SS	cy									81671	77.3	78.3	1.0	0.1	0.1	0.01	1	0.1	2.7	3
				si									81672	109.4	110.4	1.0	0.1	0.2	0.02	1	0.1	0.6	4
													81673	110.4	110.9	0.5	1.3	4.2	0.34	31	2.9	7.9	96
													81674	110.9	111.9	1.0	0.2	1.2	0.04	7	0.4	2.9	22

From (m)	To (m)	Strat Code	Desc Code	Alt Code	Alt Int.	Description	@ Depth	Feature	LCA Deg°	RQD To (m)	RQD %	Sample No	From (m)	To (m)	Length (m)	Pb %	Zn %	Cu %	Ag g/t	Au g/t	Fe %	TMU \$	
35.9	36.3	CH		cy	a	Small zone of weathered, semi competent, cherty (and siltstone) clast bearing volcanoclastic sandstone. Poorly sorted, round and sub-angular fragments. Has discontinuous fractures running conjugate 15-20 degrees to CA.	36.1	JT	15°			81675	111.9	112.0	0.1	7.5	16.8	0.30	53	0.8	5.4	276	
		VC										81676	112.0	113.0	1.0	0.4	1.1	0.25	23	0.3	3.0	26	
												81677	113.0	114.0	1.0	0.2	0.4	0.07	10	0.1	3.4	10	
												81678	114.0	114.9	0.9	0.2	0.6	0.10	11	0.1	2.9	13	
36.3	37.8	BR			a	Return to broken silicified weathered sandstone. Begins to fine at end of unit to clay altered siltstone. 0.4m core loss.						81679	114.9	116.4	1.5	0.3	0.7	0.05	27	0.2	4.9	18	
		SA										81680	116.4	117.4	1.0	0.4	1.1	0.08	23	0.2	5.1	23	
		SS		si								81681	117.4	118.2	0.8	0.1	0.9	0.03	1	0.1	2.2	14	
		ST		cy								81682	118.2	118.5	0.3	0.1	0.5	0.01	1	0.1	1.4	8	
37.8	38.2	PY			b	Small unoxidised, dark grey, unit of pyrite wisps and blebbed, small-silicified-clast bearing, volcanoclastic sandstone. Possibly faint banding (bedding?) crossed by faint wispy ?cleavage fabric. Unit ends in 5cm of oxidised cherty material, with thin quartz-pyrite+/-galena veins. Core of poor competence.	38.0	BD	70°			81683	118.5	119.5	1.0	0.3	2.9	0.12	11	0.1	5.1	43	
		VC					38.0	CV	52°			81684	119.5	120.5	1.0	0.3	2.7	0.31	21	0.2	7.3	45	
												81685	120.5	121.2	0.7	0.1	0.3	0.05	1	0.1	1.3	6	
												81686	121.2	122.2	1.0	0.1	0.5	0.03	1	0.1	1.4	8	
												81687	122.2	123.2	1.0	0.1	0.7	0.02	1	0.1	1.8	11	
												81688	123.2	124.7	1.5	0.2	1.4	0.03	1	0.1	2.0	21	
38.2	43.0	BR			a	Yellow and yellow-white, weathered, broken fragments, variably silicified and clay altered, sandstone/rock. Some banding near beginning of unit. 2.7m core loss. Small clay patch at 39m. Most loss from 39-40m and from 41.5-43m..	39.0	BD	50°			81689	124.7	125.5	0.8	0.1	1.0	0.01	1	0.1	2.3	15	
		SA										81690	125.5	126.5	1.0	0.1	0.2	0.01	1	0.1	3.6	4	
		SS		cy								81691	126.5	127.5	1.0	0.1	0.1	0.96	18	0.1	9.9	17	
				si								81692	127.5	128.5	1.0	0.1	0.2	0.12	7	0.1	3.1	7	
												81693	128.5	129.5	1.0	0.1	0.1	0.02	1	0.1	3.2	3	
43.0	44.0	HODS				HOST - DISSEMINATED SULPHIDES																	
43.0	44.0	CH			a	HODS grade sulphide in cherty or silicified fine grained sediments. Pyrite dominant followed by sphalerite, galena and chalcopyrite. Sulphides occur as veins and wisps in the silicified sediments. Open fractures may be lined or partially filled by the sulphides. Sphalerite occurs mainly as blebs or spots within the others, often accompanied by chalcopyrite. Sulphides seem to have followed a fabric ~30 degrees to CA, may also sit in veins near orthogonal to CA. Core of poor to moderate competency.	43.2	CV	25°			81694	129.5	130.5	1.0	0.1	0.7	0.03	1	0.1	2.0	11	
		PY										81695	130.5	131.5	1.0	0.1	0.2	0.15	1	0.1	3.1	6	
		ST		si								81696	131.5	131.8	0.3	0.1	0.6	0.19	8	0.1	5.7	13	
												81697	131.8	132.5	0.7	0.1	0.4	0.30	7	0.2	2.6	12	
												81698	132.5	133.6	1.1	0.1	0.3	0.11	1	0.1	2.0	7	
												81699	133.6	134.5	0.9	0.1	0.1	0.08	1	0.1	1.7	4	
												81700	134.5	135.5	1.0	0.1	0.1	0.30	1	0.1	5.3	6	
												81701	135.5	136.5	1.0	0.1	0.1	0.04	7	0.1	3.2	4	
												81702	136.5	137.5	1.0	0.1	0.1	0.02	1	0.1	2.2	3	
												81703	137.5	138.5	1.0	0.1	0.4	0.59	23	0.3	4.0	19	
44.0	47.2	HOTS				HOST - TRACE SULPHIDES																	
44.0	47.2	CH			a	As before, but HOTS grade sulphide in massive, banded or brecciated cherty sediments. Sulphide vein orientations vary, but lie in two main orientations, near orthogonal to CA or as veinlets and bands ~30 degrees to CA. Occasional fractures run close to CA. Core of poor to moderate competency with many pieces at 5 or 10cm lengths.	45.3	VN	23°			81704	138.5	139.5	1.0	0.2	0.1	0.43	28	0.3	3.4	15	
		ST		si								81705	139.5	140.5	1.0	0.1	0.4	0.40	1	0.1	1.7	11	
												81706	140.5	141.5	1.0	0.1	0.2	0.29	10	0.1	1.9	9	
												81707	141.5	142.5	1.0	0.1	0.6	0.13	7	0.1	1.9	12	
												81708	142.5	143.5	1.0	0.1	0.9	0.62	22	0.1	4.6	24	
												81709	143.5	144.5	1.0	0.1	1.6	0.01	1	0.1	1.2	22	
												81710	144.5	145.5	1.0	0.1	0.5	0.01	1	0.1	0.5	8	
												81711	145.5	146.8	1.3	0.1	0.3	0.01	1	0.1	0.4	6	
47.2	48.2	BR			a	Broken zone. As before, with fewer sulphides, and more chlorite-sericite alteration, thus green and grey in colour. Some banding evident in sediments. 2m core loss.	47.3	BD	40°			81712	146.8	147.5	0.7	0.1	0.1	0.01	1	0.1	1.4	3	
		CH		sc								81713	147.5	148.5	1.0	0.1	0.1	0.01	1	0.1	1.3	3	
				si								81714	148.5	149.5	1.0	0.1	0.1	0.01	1	0.1	1.9	3	
		ST		sc								81715	149.5	150.5	1.0	0.1	0.1	0.01	1	0.1	2.2	3	
												81716	150.5	151.5	1.0	0.1	0.1	0.01	1	0.1	1.9	3	
												81717	151.5	152.5	1.0	0.1	0.4	0.01	1	0.1	3.2	7	
48.2	49.3	HODS				HOST - DISSEMINATED SULPHIDES																	
48.2	49.3	CH		sc	a	Mostly broken zone of HODS (HOSM in places) of sulphide assemblage in cherty sediments (similar to 43-44m - Sulphide-mix/galena increased proportion in this unit). Semi competent after 48.90m. Has some patches with chlorite-sericite alteration as well.	49.0	BD	50°			81718	152.5	153.5	1.0	0.1	0.1	0.01	1	0.1	1.5	3	
				si			49.1	VN	27°			81719	153.5	154.5	1.0	0.1	0.1	0.01	1	0.1	1.6	3	
		PY					49.1	VN	15°			81720	154.5	155.5	1.0	0.1	0.1	0.01	1	0.1	2.1	3	
												81721	155.5	156.5	1.0	0.1	0.1	0.01	1	0.1	2.2	3	

From (m)	To (m)	Strat Code	Desc Code	Alt Code	Alt Int.	Description	@ Depth	Feature	LCA Deg°	RQD To (m)	RQD %	Sample No	From (m)	To (m)	Length (m)	Pb %	Zn %	Cu %	Ag g/t	Au g/t	Fe %	TMU \$		
49.3	50.9	HOTS				HOST - TRACE SULPHIDES						81722	156.5	157.5	1.0	0.1	0.1	0.01	1	0.1	2.3	3		
49.3	50.9	BR			a	Mainly broken zone (esp after 49.8m). Return to greeny-grey silicified unit + HOTS sulphide assemblage. Seems to be hosted in cherty clast bearing sediments. Many breaks close to CA. At least .2m core loss.	49.6	CV	5°			81723	157.5	158.5	1.0	0.1	0.4	0.02	1	0.1	3.4	7		
		CH											81724	158.5	159.5	1.0	0.1	0.2	0.03	1	0.1	2.2	4	
		VC	ql										81725	159.5	160.5	1.0	0.1	0.1	0.03	1	0.1	2.4	3	
													81726	160.5	161.5	1.0	0.2	0.7	0.03	1	0.1	1.3	11	
													81727	161.5	162.5	1.0	0.1	0.6	0.02	1	0.1	1.8	10	
50.9	54.4	HODS				HOST - DISSEMINATED SULPHIDES						81728	162.5	163.8	1.3	0.1	0.1	0.01	1	0.1	2.4	3		
50.9	53.3	CH			a	HODS/Hots (revised post logging from HOTS): Return to grey cherty/silicified sediments + sulphides (as sporadic veins and bands, many may have been washed/weathered out). Broken zone. At least 30cm core loss.						81729	163.8	164.8	1.0	0.1	3.3	0.10	1	0.1	3.5	45		
		ST	si										81730	164.8	165.8	1.0	0.1	4.4	0.06	1	0.1	3.7	59	
													81731	165.8	166.8	1.0	0.1	4.7	0.15	1	0.1	3.6	64	
													81732	166.8	167.7	0.9	0.1	7.1	0.17	11	0.1	3.2	97	
													81733	167.7	168.7	1.0	0.1	2.7	0.12	1	0.1	1.8	38	
53.3	54.4	CH			a	More competent (moderate) zone of HODS sulphides; assemblage as in previous units ie pyrite-sphalerite-galena-chalcopryite) in cherty sediments (sandstone and siltstone). Bedding visible. Sulphides as veins and bands, which may run with or against (often conjugate to) bedding. Zone went 3.9%Pb, 6.7%Zn, 0.6%Cu, 1.9g/tAu, and 21g/t Ag - Not expected by logging - Should be HODS according to assays (changed post logging from HOTS)	53.5	BE	42°			81734	168.7	169.7	1.0	0.1	2.3	0.09	1	0.1	3.0	32		
		SS	si				53.7	VN	39°				81735	169.7	170.7	1.0	0.1	0.3	0.02	1	0.1	2.9	6	
		ST	si										81736	170.7	171.7	1.0	0.1	0.1	0.89	45	0.1	10.4	21	
													81737	171.7	172.7	1.0	0.1	0.7	0.14	1	0.1	4.9	12	
													81738	172.7	173.9	1.2	0.1	0.7	0.04	1	0.1	3.2	11	
												81739	173.9	174.9	1.0	0.1	2.8	0.57	1	0.1	9.1	44		
												81740	174.9	175.9	1.0	0.1	0.3	0.34	24	0.1	10.9	13		
												81741	175.9	176.9	1.0	0.3	0.9	0.06	1	0.1	13.7	15		
54.4	57.3	HOTS				HOST - TRACE SULPHIDES						81742	176.9	177.9	1.0	0.1	0.8	0.18	12	0.1	14.6	16		
54.4	57.3	SS	si		a	Broken zone of grey and the greenish silicified sediments, with weak HOTS sulphides (less than previous unit). Went ~1% Zn. ~1m of core loss.						81743	177.9	178.4	0.5	0.1	0.1	0.01	1	0.1	9.8	3		
		ST	si										81744	178.4	178.6	0.2	0.1	0.1	0.01	1	0.1	3.1	3	
													Total Length: 135.2											
57.3	58.2	HOTS				HOST - TRACE SULPHIDES						Standards												
57.3	58.2	SS	si		a	Bedded silicified sandstones and siltstone. Sandstones may be poorly sorted and carry clasts of silicified siltstone. Carries HOTS (sphalerite + sulphide mix-galena mainly) which assayed stronger than visually anticipated. Some fractures are open, and contain void filling quartz crystals, and may be partly filled by sphalerite + sulphide mix/galena. Weird folding of sandstone unit at 57.4m, other beds do not exhibit this folding. Core competent. Core orient at 57.4m. Orientated measurements at 57.5m: Two bedding measurements: one at 30 degrees N dip, strike 110-290, and 20 degrees N dip, strike 130-310; Vein (sulphide bearing) 74 degrees West with strike ~140-320 (to~150-330).	57.5	VN	13°			Reference Values for: HBM-02 17/07/98												
		ST	si				57.5	BE	65°			3.4 12.5 0.46 150 1.3 22.7												
												Variances Allowed: 20% 20% 30% 20% 20% 20%												
												81668 Inserted @ 69.0m 3.6 13.9 0.47 160 1.2 21.1 Y												
												Weighted Averages												
											43.0	54.4	11.4	2.5	3.8	0.23	18	1.2	3.7	78				
											46.0	54.4	8.4	2.8	4.1	0.25	21	1.6	4.0	88				
											46.0	58.8	12.8	2.3	3.6	0.19	20	1.7	4.1	79				
											54.4	58.8	4.4	1.5	2.6	0.10	20	2.0	4.3	64				
											57.3	58.8	1.5	3.5	5.4	0.19	27	3.4	4.6	125				
											164.8	167.7	2.9	0.1	5.3	0.13	4	0.1	3.5	73				
58.2	58.8	HODS				HOST - DISSEMINATED SULPHIDES						Thin Sections												
58.2	58.8	CH			a	HODS pyrite-galena/sulphide mix-sphalerite-chalcopryite as generally thin bands, veinlets and wisps (unit changed post logging from HOTS). Pyrite looks to have replaced an escape or flame sedimentary structure. Sphalerite mainly present as blebs surrounded by gun metal sulphide and may be accompanied by chalcopryite. Sulphide 'bands' seems closer to CA than bedding (which can be hard to make out). In one spot (58.3-58.4m), bedding seems to have bent around a core of sphalerite-chalcopryite-galena; this zone may be another fold hinge, as in 57.4m. Core competent.	58.3	VN	11°			PTS0001	43.4 m	006B_43.4 - sample number. Ore, oxidation?										
		PY					58.7	BD	33°				PTS0006	47.3 m	006B_47.3 - sample number. Marginal ore.									
		SS	si										PTS0002	48.7 m	006B_48.7 - sample number. Rubble, fault zone, possible ore?									
												PTS0003	49.1 m	006B_49.1 - sample number. Ore, cherty host.										
												PTS0004	53.8 m	006B_53.8 - sample number. Ore. Lower visual, than assayed.										
												PTS0005	58.5 m	006B_58.5 - sample number. Ss, St hosted ore.										

From (m)	To (m)	Strat Code	Desc Code	Alt Code	Alt Int.	Description	@ Depth	Feature	LCA Deg°	RQD To (m)	RQD %	Sample No	From (m)	To (m)	Length (m)	Pb %	Zn %	Cu %	Ag g/t	Au g/t	Fe %	TMU \$	
58.8 62.8 HOTS HOST - TRACE SULPHIDES																							
58.8	62.8	CH			a	Weak HOTS, in silicified sediments. Sulphides (pyrite-sphalerite-chalcopyrite-galena) as thin wisps veinlets and thin sphalerite cored blebs and thin pyrite bands. Bleached greeny look to unit between 59.4-60.2m. Carbonate as spots and blobs and lesser in fractures/veins. Some fractures are cavitous. One blob which is chlorite-sericite altered looks like a pseudo-fiamme. Bedding visible, but in some spots has a parasitic folded look to it. Banding/fabric at 60.8m runs ~20 degrees to CA, but sphalerite etc veinlets and fractures often run ~ conjugate to this. Trend of bedding at 62m is 30-40m (although an irregular boundary). This whole sequence may be quite folded. Core poor to moderate competency.	60.8	BD	18°														
		SS	si																				
62.8 63.8 HOTS HOST - TRACE SULPHIDES																							
62.8	63.8	CH			a	Poorly sorted, complex mix of silicified sediment and cloritic pseudo-fiamme and angular blebs and wisps. Pumice breccia? Chloritic patches contain disseminated pyrite cubes (possibly chalcopyrite too); small blebs of sphalerite and galena/sulphide-mix occur at the boundary between silica and chlorite dominant zones (63.4m). Fabric evident in cloritic zone orientations (bedding?40-50 degrees to CA), and in last part of unit where chloritic material dominates (cleavage? ~30 degrees to CA). Core moderate competency, last 30cm poor.	63.0	BD	40°														
		PU	cs					63.5	BD	30°													
63.8 75.8 HW HANGINGWALL																							
63.8	64.2	DA	si		a	Yellowy-orange tinged, large (often >15cm) brecciated blocks/alterd zones of silicified rock separated by thin dark cherty +/- chlorite-sericite and pyritic material. Yellowy zones may be rhyodacitic lava, as they have hints of altered feldspar phenocrysts +/- quartz phenocrysts. This unit may be a peperite. In later parts of the 'Strat' the thin, often folded cherty zones appear, and may merely represent flow-banding.. Core generally competent.	63.8	CT	60°														
		PE	ql																				
		RY	si																				
64.2	66.0	BR			a	Broken zone of previous unit, except blocks/zones are yellowy green in colour, after 65.1m is really broken. Material before that is of poor competence.																	
		DA																					
66.0	73.3	CH			a	Continuation of peppente/banded rhyolitic material. Unit occasionally banded. This may be by alternation between 'clasts' and the darker matrix, or by internal laminations in the clasts themselves (by darker green ?chlorite wisps). Some of the 'matrix' appears to be silicified sediment. Core often marked by hairlike, discontinuous fracture/joint - perhaps weak cleavage - which run against the banding? Core competent.	68.5	BD	45°														
		PE	ql					69.6	JT	30°													
		RY	si					69.8	BD	42°													
								71.2	JT	24°													
							72.2	BD	69°														

From (m)	To (m)	Strat Code	Desc Code	Alt Code	Alt Int	Description	@ Depth	Feature	LCA Deg°	RQD To (m)	RQD %	Sample No	From (m)	To (m)	Length (m)	Pb %	Zn %	Cu %	Ag g/t	Au g/t	Fe %	TMU \$	
73.3	75.8	CH			a	Odd looking rock, appears to be a mix of silicified clast and rhyolitic clast bearing, variably matrix and clast supported, volcanoclastic/mass flow material. Clasts are dominantly cherty quartz, although some silicified shale is present. Unit is much more 'matrix' rich than previous units, with the matrix being a dark grey colour. The 'pumice' are a yellowy brown colour, and may be internally banded by brown streaks. In general silicification is mild. There is a zone of banded rock from 74.4-74.8m which carries quartz clasts/phenocrysts (5mm). It may be a thinly bedded/banded volcanoclastic or a rhyolitic lava. Unit becomes darker and more of a silicic breccia in last 80-90cm of core, which appears to fine towards the end of unit. Sericite veinlets mark a fabric in last metre of core. One clast/blob is composed of pyrite-sphalerite-galena. Core competent.	74.1	BD	50°														
		PU	qs				74.5	BD	50°														
		RY					75.2	VN	24°														
		SL	si				75.6	VN	18°														
75.8	77.3	HO				HOST SEQUENCE																	
75.8	77.3	CH			b	NQ from 76.5m. Possibly HO? Sediment package. Begins with a 10cm interval of silicified siltstone/tuff, followed by thick sericite-chlorite altered fine grained material (up to 30cm), interbanded with slightly brecciated cherty intervals (5-10cm thick). Boundaries are complex, unit may actually be a very coarse breccia. Small vein of sphalerite+/-galena at 76m. A fabric is visible in the softer parts of the unit, however, it is difficult to measure. Core competent.																	
		ST	sc																				
77.3	87.5	HW				HANGINGWALL																	
77.3	81.9	DA			b	Pepperite of dark green dacite with medium to dark grey siltstone. Unit is moderately silicified. Dacite becomes rhyodacitic and lighter in colour, and also more sediment poor after 79.6. Some banding is present throughout, within both igneous and sedimentary zones, although not always coherent in orientation. Unit competent. Core orient at 80.5m	81.4	BD	62°														
		PE	si				81.5	BD	33°														
		RY																					
		ST																					
81.9	84.2	CH			b	Mix of feldspar phync (dacitic), sericite-chlorite altered material with cherty sediments. However, this unit has a volcanoclastic look to it. May be a pumiceous mass flow. Cherty bands are very long and thin in some instances, and small and rounded in others. Banding, both in small and large clast orientations runs 10-30 degrees to CA; sericite wispy veinlets also run in this orientation. Core competent.	82.4	BD	12°														
		PU	sc				83.3	VN	18°														
							83.3	BD	24°														
84.2	87.5	CH			a	This unit has a similar texture to the last (except for much smaller clast size), but it has an orangey hue, especially the altered feldspars, which are bright orange in colour (carbonate alteration?). Unit is banded by alternating yellow-green and dark green patches, both of which contain the altered-feldspar phenocrysts. Possibly a volcanoclastic again, due to the angular and sub rounded fragments of silicified sediment. Unit is competent, but becomes less so in the last metre. Orange hue decreases throughout unit as well.	86.4	BD	4°														
		PU					87.1	BD	22°														
87.5	107.7	PR				PINNACLES RHYOLITE																	

From (m)	To (m)	Strat Code	Desc Code	Alt Code	Alt Int.	Description	@ Depth	Feature	LCA Deg*	RQD To (m)	RQD %	Sample No	From (m)	To (m)	Length (m)	Pb %	Zn %	Cu %	Ag g/t	Au g/t	Fe %	TMU \$		
87.5	100.7	RY	si	b		Lightly weathered, bleached light grey to yellowy-cream coloured, silicified (or silica rich matrix), quartz phyrlic, occasionally altered-feldspar phyrlic, massive, occasionally banded, brecciated in places, rhyolite - Pinnacles Rhyolite. Unit blotched by occasional darker green blotches or matrix (in the case of slightly brecciated zones e.g. 101.7m). These darker zones are sericite-chlorite altered, and relatively soft. Unit crossed by common quartz+/-carbonate veins (1-3mm). These may be in varying orientations, but show signs of oxidation. Iron oxides on most breaks and fractures. Unit of poor to moderate competency, appears to have been quite brittle. First 3m of poor to bad competency, worst zone is broken 89.1-89.7 (40cm loss). Unit is strongly fractured by thin, sometimes curved cracks (possibly perlitic?). Core orient at 95.1m. Orientated measurement at 95.4m - fracture/vein dip 82 degrees N, strike 110-290 (to 115-295).	95.1	QV	64°															
							95.1	JT	58°															
							96.1	QV	12°															
							99.1	BD	45°															
							100.5	BD	49°															
100.7	102.8	PU RY	sc si	b		Possibly a pumiceous rhyolitic lava, seems to grade over 10cm from previous unit. Lithology as previous unit, but with numerous green, sericite-chlorite, altered feldspar and quartz phyrlic clots/patches/pseudo flamme. Veining almost absent. Unit of poor-moderate competency, with the last 80cm of unit poor due to common joint breaks (pieces 5cm length). Core orient at 101.5m. Orientated measurement at 101.5m: Banding/?cleavage of dacitic-andesitic 'pumice', 80-84 degrees dip East, strike ~190-010.	102.3	JT	62°															
							102.6	BD	53°															
102.8	107.0	RY	si	b		Banded rhyolitic lava - Pinnacles Rhyolite. Altered feldspar phenocrysts are orange in colour. Lava becomes brecciated towards end of unit. Orangey hue disappears after 105.9m. Unit takes on greeny colour thereafter. Core competent.	104.0	BD	60°															
							105.7	BD	50°															
107.0	107.7	BR RK RY	si	b		Jumbled mess of greeny rhyolitic-dacitic clasts, blobby and irregular fragments, intermixed with a silica rich, fine grained material. Possibly a blocky lava, with convoluted silica flow bands, or perhaps a volcanoclastic, now cemented by silica. Core competent. Boundary with next unit abrupt. Core orient at 107.5m.																		
107.7	110.4	HW				HANGINGWALL																		
107.7	109.4	HY VC	si si	b		Hyaloclastite - volcanoclastic? Moderately silicified, graded sequence of fining up (fining up hole), rhyolitic-dacitic pumice or lava, and cherty clast bearing, volcanoclastic mass flow. Matrix grades from sandstone at base to siltstone at the top. Clasts are green, and irregular in shape. Unit cut by thin sericitic veinlets. Bedding in the siltstone/sandstone parts seems to be much steeper to CA than the clast fabric in the coarser parts of units. Unit looks to be multiple flows, about 1m thick (picked by fine siltstone/mud units which would cap an individual flow). Possibly last unit should be in this strat unit as well. Core competent. Orientated measurement 107.7m, bedding dips at 42-44 degrees to the East with ~170-350 strike. Banding (108.1m) in pumice dips 74-80 degrees to the East, with a strike of ~135-315.	107.7	BE	55°															
							107.8	BE	64°															
							108.0	VN	37°															

From (m)	To (m)	Strat Code	Desc Code	Alt Code	Alt Int.	Description	@ Depth	Feature	LCA Deg°	RQD To (m)	RQD %	Sample No	From (m)	To (m)	Length (m)	Pb %	Zn %	Cu %	Ag g/t	Au g/t	Fe %	TMU \$
109.4	110.4		HY PE RY	si sc	b	Large blocks (bombs? 10-20cm common) of rhyolite (less green than previous unit) in a silicified fine grained matrix. Might be the basal part of a large hyaloclastite flow (i.e. previous unit), but could be a peppertite. Gradational contact with previous unit. Contact over 10cm with next unit. Some rhyolitic clasts have green altered-?feldspars and have suffered minor sericite-chlorite alteration. Trace blebs of sphalerite and galena may be found in the matrix. Core competent.	110.0	BD	51°													
110.4		110.9		HODS		HOST - DISSEMINATED SULPHIDES																
110.4	110.9		BR CH PY		b	Cherty sediments containing HODS grade veins of pyrite-sphalerite-sulphide-mix/galena-chalcocopyrite. Veining has a vague orientation ~ 30 degrees to CA. Pyrite also as fine grained replacement masses of the matrix and cherty fragments. Unit probably a cherty breccia, with the matrix favoured by incoming sulphides. Core competent.																
110.9		114.9		HOTS		HOST - TRACE SULPHIDES																
110.9	114.9		CH	cs si	b	Hots version of previous, with sulphides mainly present as blebs, occasionally as veins. Small HOSM patch (10cm) at 111.9-112m. Unit also carries isolated chlorite+/-pyrite blebs and clots. These appear to be alteration rather than clasts. They vary in size from mm to 5cm in width. They may have preferentially replaced matrix, as there is limited evidence of brecciation. Core competent.	112.0	BD	43°													
114.9		116.4		HOTS		HOST - TRACE SULPHIDES																
114.9	116.4		SS ST	si si	b	Banded/bedded silicified sediments (siltstone and sandstone). Lacks the clots of sericite-chlorite of previous unit. Sulphides really only as pyrite bands, paralleling the bedding, rare sphalerite etc blobs occur. Core competent.	115.5	BE	40°													
116.4		124.7		HOTS		HOST - TRACE SULPHIDES																
116.4	118.2		RK ST	cs si	a	Chlorite-sericite altered patches and bands (the latter dominate), with lesser intervals of silicified sediments. Altered bands have a fairly consistent orientation, and white flecks within these zones parallel the band edges. Alteration may have replaced an igneous rock which was peppertic with the sediment. Sulphide mainly as fine grained pyrite bands and replacements. Wisps and veinlets of sphalerite-sulphide-mix etc occur occasionally. Core competent. Orientated measurement of cleavage/banding at 116.5m, dip 82 degrees N, strike 120-300. Other measurements of cleavage/banding, dip 78-80 N, with strike 130-310.	116.5	BD	34°													
							117.5	BD	30°													

Hole No: 006B

From (m)	To (m)	Strat Code	Desc Code	Alt Code	Alt Int	Description	@ Depth	Feature	LCA Deg°	RQD To (m)	RQD %	Sample No	From (m)	To (m)	Length (m)	Pb %	Zn %	Cu %	Ag g/t	Au g/t	Fe %	TMU \$		
118.2	121.2		CH		a	Sediment poor version of previous, with strong HOTS (possibly HODS between 119.5-120.5m) mineralisation of pyrite-sulphide mix-sphalerite-chalcocopyrite as bands, blebs and wisps. Green altered zones contain abundant white flecks, apparently marking a cleavage. Core competent. Orientated measurement at 119.5m; Cherty banding/?cleavage, 78-80 degrees dip to the East, strike ~N/S (~185-005) - lineations on face strike 090. Measurement at 119.9m; sulphide banding /cleavage dipping 78-80 degrees East, striking ~N/S (170(-185)-350(-005) range). Pyrite band dipping 78 degrees N, 030-210 strike.	119.0	BD	40°															
			RK	sc				120.8	CV	45°														
121.2	124.7		CH		a	Complex mix of cherty material, green chlorite-sericite altered zones and brecciated fragments of a phenocryst poor felsic ?lava. Green zones carry what look to be altered-feldspar phenocrysts (altered dacitic pumice?). The brecciated 'lava' fragments are a lighter yellow-green in colour, and small dark green chlorite specks contained within may be after plagioclase or amphibole phenocrysts (andesitic lava?). Unit sporadically mineralised by sphalerite+/-black sulphide blebs. Quartz-carbonate veins common, run near orthogonal to CA, and may carry sphalerite spots. Core orient at 123.7m.	124.0	BD	40°															
			DA	se																				
			RK	sc																				
124.7	146.8	HOTS				HOST - TRACE SULPHIDES																		
124.7	146.8		AN		a	Vanably creamy white (relatively unaltered), medium green (chlorite-sericite altered), altered-amphibole phytic, possibly silicic flow-banded or chert bearing, andesite. Altered amphibole phenocrysts may be up to a few mm long. Andesite also carries occasional cm size rounded blobs - clasts or alteration patches?. Unit occasionally banded, and sporadically has convolutedly folded and/or brecciated cherty fragments. Green altered zones may be cm to metres in length. Altered zones are dark in colour, may carry white flecks (and a fabric) and are usually associated with the cherty bearing areas of the unit. The alteration is chlorite-sericite-pyrite (may have sericite wispy veinlets). Unit sporadically mineralised by common quartz-carbonate+/-sphalerite+sulphide mix+/-galena veins, quartz-pyrite-chalcocopyrite veins, and patchy blebs and lesser bands (which may accompany cherty bands) of pyrite-sulphide mix-sphalerite-chalcocopyrite. Pyrite may be coarse grained or fine grained, with the former occasionally overprinting the latter. Unit occasionally went ~1%Zn. Some quartz-carbonate veins are brittle. Unit competent.	127.5	BD	56°															
				cs				128.3	BD	60°														
			CH					128.6	VN	14°														
								144.8	CV	35°														
								146.4	CV	34°														
								146.4	QV	30°														
146.8	163.8	HOTS				HOST - TRACE SULPHIDES																		

From (m)	To (m)	Strat Code	Desc Code	Alt Code	Alt Int.	Description	@ Depth	Feature	LCA Deg°	RQD To (m)	RQD %	Sample No	From (m)	To (m)	Length (m)	Pb %	Zn %	Cu %	Ag g/t	Au g/t	Fe %	TMU \$	
146.8	163.8	AN	sc	a		Mildly sericite-chlorite altered Dacite-Andesite with similar textures to previous unit. Far more cherty fragments. Colour is an apple green, or light green throughout. Altered phenocrysts are white within a green matrix- feldspar vs amphiolite? (as against green against cream in last unit). Some phenocrysts are rounded, and are rimmed by white material. Small zones have dark green alteration of phenocrysts. Unit mildly sericite altered throughout. In some zones unit has a mm scale nodular/granular appearance e.g. 155.1m. Unit more weakly mineralised (similar style and mineralogy as previous unit) than last unit. Quartz +/- carbonate veins and veinlets common (occasionally brittle). Near end of unit, dark green chlorite alteration increases. Very thin sericite or quartz veinlets may mark a weak cleavage. Unit competent. Core orient at 161.5m.	154.4	CV	11°														
		CH					158.3	CV	30°														
		DA	sc				160.7	BD	39°														
163.8	167.7	HOTS				HOST - TRACE SULPHIDES																	
163.8	167.7	BR		a		Chlorite-sericite lesser pyrite altered Bright (fluro) green rock breccia/alteration, set in .5-1cm wide dark chlorite altered bands. In places unit appears to be a breccia, in others a psychedelic tie-dyed shirt. Light green patches are commonly present. Unit mineralised by common sphalerite-sulphide mix/galena +/- quartz +/- pyrite veinlets and irregular wisps. 166.8-167.7m went 7.1% Zn (Hods). Stringy sericite-cherty masses may accompany the mineralisation. Cleavage present, marked by thin sericite veinlets and by white flecks present within the matrix (best seen 165.5-166.5m) Core is competent, of moderate competency in last 1m of unit.	166.0	BD	36°														
		RK	cs				166.1	VN	30°														
							166.2	CV	29°														
167.7	170.7	HOTS				HOST - TRACE SULPHIDES																	
167.7	170.7	RK	cs	a		Light creamy-white, speckled black, silicified rock. Unit has a diseased look due to a white carbonate alteration, which rims any fragments/silica grains etc within the unit. Relatively unaltered parts suggest a rhyolite/dacite +/- cherty fragment protolith. Dark chlorite alteration becomes more prevalent as distinct bands in the last 1.5m of unit. Also have dark silica-chlorite? alteration selvages entering the protolith from fractures and sulphide bearing veins (assemblage as previous). Unit competent.	169.6	BD	40°														
			ql																				
			si																				
170.7	178.4	HODS				HOST - DISSEMINATED SULPHIDES																	
170.7	173.9	RK	cs	a		Rock becoming increasingly, but patchily, black chlorite-sericite-pyrite altered. Possibly a sandstone protolith, in first part, cherty bearing/material protolith after 172.6m. Darker chlorite zones well cleaved, and carries irregular quartz-carbonate-pyrite-chalcopyrite +/- sphalerite veinlets and wisps. 170.7-171.7m assayed at 0.89%Cu, 45g/tAg and 10.4% Fe. Overall strat changed from HOTS to HODS due to high pyrite content. Unit competent.	171.4	CV	40°														
			si																				

Hole No: 006B

From (m)	To (m)	Strat Code	Desc Code	Alt Code	Alt Int.	Description	@ Depth	Feature	LCA Deg°	RQD To (m)	RQD %	Sample No	From (m)	To (m)	Length (m)	Pb %	Zn %	Cu %	Ag g/t	Au g/t	Fe %	TMU \$	
173.9	178.4		BR	si	a	Heavily black chlorite-sericite-pyrite altered rock. Carries sporadic sphalente-sulphide mix-chalcopyrite blebs and wisps (sitting in cleavage mainly) rimmed by a white mineral. Quartz-chalcopyrite-pyrite veinlets occasionally present (up to 1cm in width). Pyrite as bands in cleavage too. Protolith may have been a breccia, due to selective replacement by dark chlorite or angular 'clasts' at 176.6m. Unit competent. Core orient at 176.5m.	175.9	CV	33°														
			RK	cs			176.6	BD															
178.4	178.6	F				FAULT																	
178.4	178.6		RK	qs	a	Small zone of broken material - fragments are silica and sericite+/-chlorite altered.																	
178.6	178.8	HO				HOST SEQUENCE																	
178.6	178.8		CH		b	Looks to be an angular cherty and silicified siltstone/sandstone clast bearing volcanoclastic. EOH 178.8m.	178.7	BD	49°														
			VC	si																			

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