PASMINCO ROSEBERY

A.C.N. 004 074 962

Hole No: 004B **Location:** Brown's Tunnel 5310N

Objective: Test Lens 1 trends on Section 5310N.

Result: LENS 1- 53.8-64.2m, 10.4m at 3.4%Pb, 5.4%Zn, 0.23%Cu, 38g/t Ag, 1.7g/t Au,3.9% Fe $112TMU (includes 56.8-61.2m, 4.4m at $179 TMU).

Planned Direction: 90°
Planned Dip: -70°
Planned Depth: 100.0 m
Planned Northing: 5330 m N
Planned Easting: 4900 m E
Planned Collar R.L.: 487 m RL

Drilling Commenced: 10/06/98
Drilling Completed: 12/06/98
Actual Depth: 100.0 m
Surveyed Northing: 5330.20 m N
Surveyed Easting: 4901.80 m E
Surveyed Collar R.L.: 489.60 m RL

Date Logged: 09-Jul-1998
Logged By: Michael Whitbread
Hole Size: HQ/NQ
Hole Category: Other
Grouted:

Date Log Verified: 30-Sep-1998
Verified By: Michael Whitbread

Summary Log:

0-2.1 NC; -14.2 Fluvio Glacials; -43.8 Ho; -44.6 F; -47.4m Ho; -48.8m Hots;-49.3m Ho; -53.8m Hots; -55.6m HODS; -56.8m Hots; -58.7m HOSM; -59.3m HOTS; -61.2m HODS; -68.4m Hots; -72.7m Ho; 73.9 S; -87.6m HOTS; -88.8m HODS; -89.4m HOTS; -100m Ho

Depth	Direct	Dip
0.0	90.0	-70.0
31.0	90.0	-68.8
60.0	90.0	-67.5
90.0	89.0	-67.0
100.0	89.0	-67.0

Depth	Direct	Dip

Depth	Direct	Dip

Depth	Direct	Dip

From (m)	To (m)	Strat Code	Desc Code	Alt Code	Alt Int.	Description	@ Depth	Feature	LCA Deg°
0.0	**2.1**	**NC**				**NO CORE**			
0.0	2.1				a	No core.			
2.1	**14.2**	**FG**				**FLUVIO-GLACIALS**			
2.1	13.0		CY GL		a	Glacial material, oxidised, mainly silicified pebbles and cobbles in a clay matrix (where preserved). Yellow clay patch 7.8-7.9m. 9-10m of core loss.			
13.0	14.2		GL		a	Sands and gravels, with one silcified cobble entrained. 40cm core loss associated with this.			
14.2	**19.2**	**HO**				**HOST SEQUENCE**			
14.2	17.0		RK SA ST	cy	a	Weathered rock, most likely after siltstone and sandstones, perhaps volcanoclastic breccia. Unit is pallid, consists mainly of clays and is mottled by goethite. Possibly a vein present - small fragment at 14.6m. Competency very bad. Only occasional fragments over 10cm.	17.0	JT	30°
17.0	19.2		RK SA SS	si	a	As last unit, except silicified and has a darker yellow colour. Iron staining evident, and iron oxides after brittle veining present. Some fragments pitted - after feldspar? Rock possibly after dacite. Competency terrible. Pieces usually pebble sized.	18.9	VN	47°

From (m)	To (m)	RQD	RQD %	Sample No	From (m)	To (m)	Length (m)	Pb %	Zn %	Cu %	Ag g/t	Au g/t	Fe %	TMU $
2.1	NC	90398	14.2	15.7	1.5	0.1	0.1	0.01	1	0.1	2.8	3		
21.1	3	90399	15.7	17.0	1.3	0.1	0.1	0.01	1	0.1	1.3	3		
22.8	82	90400	17.0	18.5	1.5	0.1	0.1	0.01	1	0.1	0.9	3		
24.2	14	90401	18.5	19.2	0.7	0.1	0.1	0.01	1	0.1	1.7	3		
25.8	81	90402	19.2	20.7	1.5	0.1	0.1	0.01	1	0.1	4.0	3		
27.7	15	90403	20.7	22.2	1.5	0.1	0.1	0.01	1	0.1	0.6	3		
28.3	83	90404	22.2	23.7	1.5	0.1	0.1	0.01	1	0.1	1.1	3		
29.6	0	90405	23.7	25.2	1.5	0.1	0.1	0.01	1	0.1	0.7	3		
30.4	75	90406	25.2	26.7	1.5	0.1	0.1	0.01	1	0.1	0.5	3		
37.7	20	90407	26.7	28.2	1.5	0.1	0.1	0.01	1	0.1	0.7	3		
36.7	90	90408	28.2	28.5	0.3	0.1	0.1	0.01	1	0.1	0.5	3		
39.9	8	90409	28.5	29.5	1.0	0.1	0.1	0.01	1	0.1	0.9	3		
42.2	60	90410	29.5	30.2	0.7	0.1	0.1	0.01	1	0.1	0.5	3		
43.3	9	90411	30.2	31.7	1.5	0.1	0.1	0.01	1	0.1	0.5	3		
44.0	100	90412	31.7	32.7	1.0	0.1	0.1	0.01	1	0.1	0.3	3		
45.0	20	90413	32.7	33.7	1.0	0.1	0.1	0.01	1	0.1	0.6	3		
50.2	78	90414	33.7	34.7	1.0	0.1	0.1	0.01	1	0.1	0.4	3		
55.3	7	90415	34.7	35.7	1.0	0.1	0.1	0.01	1	0.1	0.7	3		
56.0	100	90416	35.7	36.7	1.0	0.1	0.1	0.01	1	0.1	0.4	3		
56.6	0	90417	36.7	37.7	1.0	0.1	0.1	0.01	1	0.1	0.4	3		
57.9	84	90418	37.7	38.7	1.0	0.1	0.1	0.01	1	0.1	0.9	3		
59.6	17	90419	38.7	39.7	1.0	0.1	0.1	0.01	6	0.1	0.5	4		

From (m)	To (m)	Strat Code	Desc Code	Alt Code	Alt Int.	Description	@ Depth	Feature	LCA Deg°
19.2	**43.8**	**HO**				**HOST SEQUENCE**			
19.2	28.5		BR PU RK VC	cy cl si	a	Oxidised saprolite after a silcified and patchily clay altered, clast bearing, volcanoclastic breccia/dacitic pumice breccia mass flow/rock. Unit, patchily mottled and streaked by clorite rich zones and reddish clayey zones. Clasts sporadic, usually white, variable in size (cm->10cm) but difficult to identify. Some appear to have evenly distributed altered ?feldspar phenocrysts (possibly dacite clasts?). The chlorite zones often contain the phenocrysts as well, with the form of smaller patches suggesting pumice. A fabric is strongly suggested in some pieces ~close to CA. Joints and weathered quartz veinlets often present (conjugates to), usually ~45 to CA. Competency is moderate, with most fragments above 10 or 5cm, no extensive zones or rubble.	26.1 26.6	VN CV	55° 10°
28.5	30.2		DA VC	si si	a	Yellow-white, oxidised, silica and clay altered, ?feldpsar phyric volcanoclastic sandstone or dacite. Sandstone in appearance, however evenly distributed clay spots and pits look to be after feldspar. Thus could be a dacite. Fairly massive. Competency very bad to 29.6m, after which it is moderate.			
30.2	31.7		BR DA VC	 si 	a	Oxidised to moderately oxidised, white and green, variably clast and matrix supported ?dacitic breccia. Fragments are poorly sorted, but less than 5cm in size, and sub-rounded. Matrix is chloritc (greenish), and carries hints of altered feldspar. Looks to be a dacitic breccia (where volcanoclastic or lava ?). Has fabric in places. Some clasts are cherty, or contain quartz phenocrysts. Unit contains common very thin veinlets, oxidised after ?. Unit of poor competence, most fragments under 5cm.	30.3 31.4	JT CV	16° 27°
31.7	33.7		DA RK	 ql qs	a	Oxidised, silica-sericite-?chlorite, banded rock/dacite. Seems to bear oxidised altered ?feldspars phenocrysts, in certain zones. Unit also carries numerous very thin quartz-chlorite veinlets. Banding is faint at best, and in places the unit is massive. Unit of poor to moderate competency, with most fragments over 10 and 5cm.			
33.7	40.2		DA	qs si	a	Moderately oxidised, pale yellow, to greenish grey, variably banded, variably silicified and sericitised+/- chlorite altered dacite. Reason for assigning unit as dacite as for those previous. Iron oxides still coat most fracture surfaces, and some appear to be after sulphide veins e.g. 37.9m (possibly sphalerite). Banding is occasionally visible, and often seems to be the result of variable silicification, although some are visible which are due to grain-size variations e.g. 39.6m. Competency moderate, except for 34.7-37.5m which is quite broken.	37.9 38.1 38.6 39.6	VN VN BD BD	23° 51° 51° 65°

RQD To (m)	RQD %
62.5	89
62.9	0
66.5	91
68.5	30
73.3	86
73.8	0
88.9	90
90.2	7
94.5	86
94.8	0
99.2	95
100.0	0

Sample No	From (m)	To (m)	Length (m)	Pb %	Zn %	Cu %	Ag g/t	Au g/t	Fe %	TMU $
90420	39.7	40.2	0.5	0.1	0.1	0.01	1	0.1	0.5	3
90421	40.2	41.2	1.0	0.1	0.1	0.01	1	0.1	0.9	3
90422	41.2	42.2	1.0	0.1	0.1	0.01	1	0.1	1.8	3
90423	42.2	43.2	1.0	0.1	0.1	0.01	1	0.1	0.9	3
90424	43.2	43.8	0.6	0.1	0.1	0.01	1	0.1	0.4	3
90425	43.8	44.6	0.8	0.1	0.1	0.01	1	0.1	1.2	3
90426	44.6	45.6	1.0	0.1	0.1	0.01	1	0.1	0.7	3
90427	45.6	46.6	1.0	0.1	0.1	0.01	1	0.1	0.6	3
90428	46.6	47.4	0.8	0.1	0.1	0.01	1	0.1	0.8	3
90429	47.4	48.3	0.9	0.2	0.3	0.01	4	0.1	1.3	7
90430	48.3	48.8	0.5	0.5	1.3	0.09	12	0.1	3.3	23
90431	48.8	49.3	0.5	0.1	0.1	0.01	1	0.1	1.3	3
90432	49.3	50.3	1.0	0.3	0.6	0.03	1	0.1	1.7	11
90433	50.3	51.3	1.0	0.2	1.0	0.05	1	0.1	2.3	16
90434	51.3	52.3	1.0	0.1	0.3	0.01	1	0.1	2.1	6
90435	52.3	53.4	1.1	0.1	0.1	0.01	1	0.1	1.1	3
90436	53.4	53.7	0.3	0.1	0.1	0.01	1	0.1	1.3	3
90437	53.7	53.8	0.1	0.5	0.8	0.01	1	0.1	3.4	14
90438	53.8	54.9	1.1	4.1	6.0	0.35	53	2.2	6.7	131
90439	54.9	55.6	0.7	2.5	3.4	0.25	36	1.7	5.9	81
90440	55.6	56.8	1.2	1.2	1.8	0.13	1	0.1	5.2	32
90441	56.8	57.8	1.0	5.5	10.3	0.07	126	1.2	2.1	195
90442	57.8	58.7	0.9	4.4	8.2	0.07	36	1.4	3.3	148
90443	58.7	59.3	0.6	1.9	4.3	0.18	36	10.6	4.8	167
90444	59.3	60.3	1.0	7.5	12.2	0.65	43	1.7	3.3	226
90445	60.3	61.2	0.9	5.9	6.8	0.42	49	1.8	4.6	148
90446	61.2	62.2	1.0	1.3	2.6	0.14	14	1.2	3.1	55
90447	62.2	63.2	1.0	1.3	1.4	0.09	10	0.9	1.7	35
90448	63.2	64.2	1.0	1.4	2.5	0.19	15	0.2	2.4	46
90449	64.2	65.2	1.0	0.5	0.5	0.04	6	0.1	0.9	11
90450	65.2	66.3	1.1	0.7	0.1	0.11	1	0.1	1.5	7
90451	66.3	67.3	1.0	0.8	1.7	0.14	1	0.1	2.4	29
90452	67.3	68.4	1.1	0.1	0.5	0.04	1	0.1	1.9	8
90453	68.4	69.4	1.0	0.1	0.1	0.01	1	0.1	0.5	3
90454	69.4	70.4	1.0	0.1	0.1	0.01	1	0.1	0.5	3
90455	70.4	71.4	1.0	0.1	0.1	0.01	1	0.1	0.8	3
90456	71.4	72.3	0.9	0.1	0.1	0.01	1	0.1	1.0	3
90457	72.3	72.7	0.4	0.1	0.1	0.01	1	0.1	1.2	3
90458	72.7	73.9	1.2	0.9	3.3	0.17	17	0.9	2.3	60
90459	73.9	74.5	0.6	0.5	1.7	0.28	44	0.2	4.8	37
90460	74.5	75.5	1.0	0.6	1.5	0.16	44	0.1	5.9	33
90461	75.5	76.5	1.0	0.3	0.7	0.43	32	0.1	4.6	22
90462	76.5	77.5	1.0	0.3	0.7	0.27	35	0.1	5.5	21
90463	77.5	78.5	1.0	0.4	1.2	0.76	52	0.1	7.3	36
90464	78.5	79.5	1.0	0.3	0.8	0.10	27	0.1	6.6	19
90465	79.5	80.5	1.0	0.3	0.6	0.24	27	0.1	5.8	18
90466	80.5	81.5	1.0	0.3	0.8	0.22	25	0.1	6.6	20

Hole No: 004B

From (m)	To (m)	Strat Code	Desc Code	Alt Code	Alt Int	Description	@ Depth	Feature	LCA Deg°	RQD To (m)	RQD %
40.2	43.8		BR DA	ql si	b	Dacite of previous unit, with a clast supported, breccia texture. Fragments thinly separated by grey fine grained silicified +/- chlorite material. In thicker patches the silica-chlorite zones have possible altered feldspar phenocrysts (is this an auto-brecciated lava?). Iron oxides still coating surface, also possibly after sulphides in occasional veins throughout. Possible ?shear at 41.6-42.1m, some iron oxide veins, and some finer brecciation seem to associated with it. Unit has many thin fractures/oxidised veinlets, but is often broken along joints ~25 to CA. Competency moderate, except 42.2-43m which is broken.	41.6 41.9 43.0	SR SR JT	10° 15° 25°		
43.8	**44.6**	**F**				**FAULT**					
43.8	44.6		BR DA	si cl	a	Possiby a fault. Breccia of cherty fragments (rounded and elongate) in what looks to be a finer grained and clorite altered verion of the dacit of previous units. Trace sulphide present as blebs of sulphide mix and pyrite associated with the chert. Clay zone at ~44.4m. Competency poor. Gradational contact with previous unit; broken zone contact with next unit.	44.0 44.0	JT CV	2° 17°		
44.6	**47.4**	**HO**				**HOST SEQUENCE**					
44.6	47.4		BR DA	ql si	a	Continuation of 40.2-43.8m. Little oxidation now. Still has abundant quartz veinlets, many of which are oxidised, some possibly after sulphides. Broken contact with next unit. Core orient at 46m. Orientated measurement at 46.4m, cleavage 72 degrees dip to the east with 340-160 strike.	45.3 46.9	VN VN	61° 30°		
47.4	**48.8**	**HOTS**				**HOST - TRACE SULPHIDES**					
47.4	48.8		BR CH	cl si	a	Green and medium grey, variably chloritic matrix or cherty clast supported, breccia. Matrix consists of green chlorite +/- sericite, with sporadic specks of white, altered ?feldspar (<1mm). Cherty clasts (5mm->5cm) may be rounded, angular or elongate, and usually sit within the strong fabric (15-20 degrees). Occasional pressure shadows evident on the more rounded clasts. Sulphide trace grade, with disseminated pyrite cubes (fine grained) in the matrix, while small blebs of sulphide-mix-pyrite-sphalerite may be found within clasts, matrix or in pressure shadows. Core moderately competent.	47.7 48.5	CV CV	30° 15°		
48.8	**49.3**	**HO**				**HOST SEQUENCE**					
48.8	49.3		BR DA SA	 qs 	a	Oxidised dacite, with incipient 'brecciation' as in earlier unit. Fe oxide fractures etc as before. Sharp contacts with previous unit, interfingered, but sharp contact (vaguely perpendicular to CA) on other side. Peperite? Core modeately competent.	48.8	CT	50°		
49.3	**53.8**	**HOTS**				**HOST - TRACE SULPHIDES**					
49.3	53.4		BR CH	cs 	a	Continuation of 47.4-48.8m, less silicified though. Unit becomes pale light green in colour (more sericite vs chlorite?) as unit progresses (last 1.5m). Competency bad between 50.2-52.5 (worst 52.7-51.1m), moderate elsewhere.	51.2 52.6	CV CV	30° 25°		

Sample No	From (m)	To (m)	Length (m)	Pb %	Zn %	Cu %	Ag g/t	Au g/t	Fe %	TMU $
90467	81.5	82.5	1.0	0.2	0.6	0.09	16	0.1	3.7	14
90468	82.5	83.1	0.6	0.2	2.2	0.23	16	0.1	6.5	36
90469	83.1	84.1	1.0	0.1	0.4	0.08	8	0.1	2.7	9
90470	84.1	85.1	1.0	0.1	0.4	0.11	9	0.1	3.4	9
90471	85.1	86.1	1.0	0.1	0.4	0.10	5	0.1	2.5	9
90472	86.1	87.1	1.0	0.1	0.6	0.12	10	0.2	2.9	13
90473	87.1	87.6	0.5	0.1	1.8	0.26	13	0.1	6.8	30
90474	87.6	88.4	0.8	0.1	1.7	0.14	1	0.1	6.3	25
90475	88.4	88.8	0.4	0.1	2.3	0.24	13	0.3	6.7	38
90476	88.8	89.4	0.6	0.1	0.3	0.05	1	0.1	2.2	6
90477	89.4	90.1	0.7	0.1	0.1	0.01	1	0.1	1.8	3
90478	90.1	91.1	1.0	0.1	0.1	0.01	1	0.1	2.0	3
	Total Length:		76.9							

Standards

Reference Values for:	HBM-02						17/07/98	
	3.4	12.5	0.46	150	1.3	22.7		
Variances Allowed:	20%	20%	30%	20%	20%	20%		
90479 Inserted @ 91.1m	3.7	13.8	0.48	154	1.4	22.3	Y	

Weighted Averages

53.8	61.2	7.4	4.2	6.7	0.27	48	2.1	4.5	139
53.8	64.2	10.4	3.4	5.4	0.23	38	1.7	3.9	112
56.8	61.2	4.4	5.3	8.8	0.29	61	2.8	3.5	179
72.7	73.9	1.2	0.9	3.3	0.17	17	0.9	2.3	60
72.7	83.1	10.4	0.4	1.3	0.27	30	0.2	5.3	29

Thin Sections

PTS0001	48.6 m	004B_48.6 sample number - sub economic.
PTS0002	57.1 m	004B_57.1sample number - ore, carbonate.
PTS0003	57.4 m	004B_57.4 sample number - ore, lesser carbonate.
PTS0005	58.7 m	004B_58.7 sample number - cherty host, gold kick.
PTS0006	58.9 m	004B_58.9 sample number - fault, good gold kick.
PTS0004	59.6 m	004B_59.6 sample number - ore.
PTS0007	61.9 m	004B_61.9 sample number - sub economic

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 $
53.4	53.7		BR CH	cy	a	Very clay altered version of previous. Competency poor.	53.6	CV	35°													
53.7	53.8		DA	cs	b	Dark green, chlorite altered dacitic looking chunk, not sure if a clast or not.																
53.8	**55.6**	**HODS**				**HOST - DISSEMINATED SULPHIDES**																
53.8	54.9		BR CH	si	a	HODS version of cherty breccia. Sulphides as matrix to the cherty clasts. Pyrite and 'sulphide mix' dominant. Sphalerite subordinate as uncommon blebs surrounded by the black sulphide mix. May go near HOSM, unfortunately there is .3m core loss associated with this. Competency bad.															
54.9	55.6		BR CH	sc	a	As before but more chlorite-sericite in matrix with the sulphides. Strong fabric close to CA in larger fragments. Competency bad, broken fragments.	55.0	CV	18°													
55.6	**56.8**	**HOTS**				**HOST - TRACE SULPHIDES**																
55.6	56.8		BR CH	sc	a	HOTS version of previous. Greater proportion of clontic and sericitic zones. Far fewer and smaller cherty clasts. Competency poor to moderate with 1/4 the fragments under 5cm.																
56.8	**58.7**	**HOSM**				**HOST - SEMI-MASSIVE SULPHIDES**																
56.8	58.7		BR RK	qs	a	HOSM of fine grained sulphides as: sulphide mix, pyrite and lesser sphalerite rimmed by the former as a matrix in a silica +/- ?carbonate breccia - re inspection has indicated that much of the non-sulphide material is carbonate (or barite?), especially in the first 1m of the unit. Competency poor to moderate. 20cm discrepency before 57.1m, perhpas core loss in friable sulphidic material. Strong fabric (as in previous units).	57.4	CV	13°												
58.7	**59.3**	**HOTS**				**HOST - TRACE SULPHIDES**																
58.7	59.3		BR CH RK	cs	a	Broken zone; possible 10-20cm core loss - shear or fault? Initial part of unit obviouly cherty breccia, but quickly becomes more chlorite-sericite altered and broken. Visible sulphide far less than previous units (medium to strong HOTS). Some of the sulphide assemblage in fractures in cherty clasts. Strong Au response in assays (10.6g/t), 4.3%Zn too. Fabric strong in chlorite-sericite rich patches.															
59.3	**61.2**	**HODS**				**HOST - DISSEMINATED 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 $
59.3	61.2		CH		b	Cased off at 60.50m to NQ. HODS-HOSM of sphalerite-sulphide mix/galena-pyrite-chalcopyrite as blebs, veinlets, bands and patches in a fairly 'undisturbed' banded/?bedded cherty/silcified sediment unit. Bands of sulphide sit close to cherty banding, while veinlets and blebs may have different orientations. Some of the patches look to be in zones running near parallel to CA, may have just been intersected by the drill-hole (this is debatable however). Cracks (<1mm usually) in the chert are also filled by sulphide. Appears to be graded bedding in sediment - appears to face downhole. Slumping and squishing of some of the sedimentary beds/bands looks to have taken place. Possibly cross-bedding or cross-laminations present aswell. Competency good. Voids present sporadically, usually rimmed by, or developed in sulphide masses.	59.3	BE	41°													
			SS	si			60.1	BE	34°													
			ST	si			60.3	BE	61°													
61.2	**66.3**	**HOTS**				**HOST - TRACE SULPHIDES**																
61.2	66.3		CH		b	Silicified sediments as previous, but with trace grade of the sulphide assemblage. Sulphides in quartz+/-carbonate veins or in greenish sericite+/-chlorite segregations and veins, which often run at a much closer angle to CA than bedding. Sericite etc perhaps following flame structures? Sediments are generally coarser with some coarse grained volcanoclastic sandstones present. Bedding has been disturbed in many cases, but this may be due to slumping. Facing appears to be downhole (by scouring of underlying units by sandstone beds). Bands are fining up. Cross bedding is possibly evident, due to the varying orientation of the beds. Core competent. Core orienation at 65.5m. Orientated measurements at 65m; bedding 64 degrees dip to west, 210-030 strike. Cross-lamination/bedding 30-38 degrees dip to north, with ~285-105 strike.	63.3	VN	29°													
			SS	si			64.8	BE	66°													
			ST	si			65.0	BE	55°													
66.3	**68.4**	**HOTS**				**HOST - TRACE SULPHIDES**																
66.3	68.4		BR	sc	a	Matrix supported cherty and silcified siltstone/sandstone breccia. Fairly weak Hots. Unit carries sulphide assemblage of previous units as segregations, veinlets and clast fracture fill. Sphalerite still cores galena-chalcopyrite-sulphide mix. Carries some yellowy ?carbonate or ?sphalerite around 67.5m. Strong fabric in unit. Possibly shear contact with previous unit. Diffuse boundary with next. Core of moderate competency.	66.3	CT	31°													
			CH				67.8	CV	28°													
			ST	si																		
68.4	**72.7**	**HO**				**HOST SEQUENCE**																
68.4	72.3		BR		a	Dark green, and yellow-green, quartz chlorite and sericite-chlorite altered, occasionally cherty clast bearing, mass flow ?pumice breccia/schist. No sulphides. Carries a very strong fabric (close to CA), and alternation between quartz chlorite and sericite-chlorite bands make it appear schistose. Core fairly competent. Core orientation at 68.5m.	71.0	CV	12°													
			CH				72.3	CT	65°													
			SH	ql																		
				sc																		
72.3	72.7		ST	cs	a	Pale green, sericite-chlorite altered siltstone/rock. Possibly carries very fine grained pyrite. Core competent.	72.7	CT	32°													

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 $
72.7	**73.9**	**S**				**SHEAR**																
72.7	73.9		BR	ql	a	Strongly sericite+/-chlorite altered, sheared out breccia. Unit very soft, but not broken into rubble. First part of unit to 73.5m is light greenish-white in colour, after which the unit darkens to a medium grey, is partially silicified and carries silicifed siltstone clasts. Strong fabric, generally about 40-50 degrees to CA, however some breaks and fabrics run very close to CA. Latter part of unit may carry trace sulphides, mainly pyrite + galena/sulphide-mix. Sharp contacts either side of unit. Unit looks to be sheared out examples of the units either side. Core poorly competent due to softness.	73.5	CV	45°													
				sc			73.9	CT	18°													
			RK																			
73.9	**87.6**	**HOTS**				**HOST - TRACE SULPHIDES**																
73.9	82.5		SS	si	b	Fairly uniform medium grey, faintly thinly laminated/bedded, silicified siltstones and lesser sandstones. Unit carries trace (and in small patches disseminated) sulphide, dominanty as pyrite bands and blebs concordant or discordant with bedding. Some pyrite bands, consisting of fine to medium grained pyrite cubes appears to be diagentic. However there are plenty of cross-cutting veinlets and bands (to 1-2cm thick), which are clearly later. Occasional bands consist of pyrite-chalcopyrite and lesser sphalerite (rimmed by sulphide mix). Unit cut by numerous faint, thin, discontinuous quartz veinlets, along which small offests of banding/bedding may be evident (incipient cleavage?). Unit quite competent. Orientation 74.5m.	75.5	BE	63°													
			ST	si			77.5	QV	14°													
							77.9	VN	15°													
							77.9	VN	5°													
							77.9	BD	61°													
							79.5	BE	49°													
82.5	83.1		SS	si	b	Small sandstone unit, with possibly disseminated grade suphide as disseminated pyrite and sphalerite (which may be rimmed by chalcopyrite). Unit competent.	83.1	CT	47°													
83.1	87.6		SS	si	b	Continuation of 73.9-82.5m, with slightly darker hue. Orientation at 86.5m. Orientated measurement at 86.3m; bedding/banding 54 degrees dip NW at ~220-040 strike. 87.3m, bedding 54 degrees NW at 220-040 strike; sphalerite veining 68-70 degree dip to east at ~180-000 strike.	86.5	BE	51°													
			ST	si																		
87.6	**88.8**	**HODS**				**HOST - DISSEMINATED SULPHIDES**																
87.6	88.4		PU	si	a	Dark grey and white, silcified and sulphidic, mass flow (pumice breccia). Possibly an altered siltstone or sandstone. Unit consists of pyrite and silicified siltstone/chert blobs/clasts entrained within thin streaks of white silicified rock. Fabric in clast orientation, similar orientaion to bedding in previous unit. Unit has veins etc of sphalerite etc that were in the last unit. Unit went 6%Fe, 1.7%Zn. Unit fines toward next unit (facing downhole?). Core competent.	88.0	BD	67°													
88.4	88.8		SS	si	b	Fining up (as go downhole) version of previous and then thinly laminated sediments, with pyrite banding and veining as previous. Possibly cross-lamination/bedding. Unit competent.	88.7	BE	65°													
			ST	si			88.7	BE	56°													
88.8	**89.4**	**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 $
88.8	89.4		BR VC	 si	a	Begins as thinly laminated sediments but quickly takes on a moderately silicified volcanoclastic breccia with small silcified siltstone clasts. Weak Hots - has sphalerite blebs and veinlets as previously. Contains a strong fabric. Difficult to say if a sedimentary breccia or tectonic. Unit is of poor competency in last 40cm, becoming quite broken.	89.2 89.2	JT BD	40° 45°													
89.4	**100.0**	**HO**				**HOST SEQUENCE**																
89.4	90.1		BR DA PU		a	FW? Broken zone of silcified, dacitic, slate and silicified rock clast bearing, mass flow pumice breccia. Assigned dacitic due to densely altered feldspar phyric matrx and fragments which predominate. Slatey rafts can be >10cm in size.																
90.1	97.9		BR PU	 si	a	FW? Competent material of previously described pumice breccia. Up to ~93m many silica clasts and altered ?feldspar phenocrysts have an orangey colour, iron in silica, or iron carbonate? Unit darker medium grey afterwards. 'Pumice' may be dark chlortic, light-green chlortic or siliceous, but usually contain abundant feldspar phenocrysts and occasional internal laminations. Occasionally, quartz-carbonate veinlets occur. No sulphides evident. Faint fabric possibly 20-30 degrees to CA, also faint alignment of clasts at ~40-50 degrees. Large blob of carbonate-quartz at 96.9m. Core competent.	95.0 95.0 95.9	JT CV BD	7° 22° 50°													
97.9	100.0		BR PU	 cs si	a	FW? EOH 100m. Following 20cm of a light green (sericite-chlorite?) densely 2-5mm white crystal (altered ?feldspar) phyric blob, have a very silicified verion of previous unit. Unit quite a light pinky-white colour, possibly a composition change to rhyolite?, however no quartz phenocrysts noted. Looks to be siliceous pumice fragments in a more sericite-chlorite rich matrix/squashed pumice. Possible faint orienation of clasts ~30-40 to CA. Core of poor to moderate competency due to joint running close to CA.	98.8 99.5	BD JT	35° 3°													