

HOLE NO. : DD80LB1
SECTION : 4700.00 EAST

PLUTONIC OPERATIONS LIMITED
GOWRIE PARK

Northing : 4920.00
Easting : 4700.00
Grid : LAKE BARRINGTON
Direction : GRID S
Inclination : -60.0
Elevation : 296.00
Azimuth : 180.0
Mag Azimuth : 210,209,208,208,208,208,208,208; OM=12.5T OR 330G

DIAMOND DRILL RECORD
Drill Type : LY38
Core Size : HQ 2.30 NQ 27.0 BQ
Contractor : Longyear

Property : LAKE BARRINGT
State : Tasmania
GMR : WILMOT
E.L. No. : GOWRIE PARK
Project No. : 706
Date Started : 22/12/92
Date Completed: 11/1/93
Logged by : G. MacDONALD
Relogged by :
Date Logged : 28/1/93
Interpreted : G. MacDONALD

Length (m) : 287.80
Precol. (m) : 2.30M
BOCO :
TFR :
Water Table : na

Dip Tests		Method:
Depth	Az	Dip
30.0	180.0	-60.0
60.0	179.0	-59.3
90.0	178.0	-59.3
120.0	178.0	-58.5
150.0	178.0	-56.7
180.0	178.0	-56.3
230.0	178.0	-56.0
285.0	178.0	-55.7

Initialed 

From (m)	To (m)	Description
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Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)
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.00 2.30 PRECOLLAR

2.30 17.40 FELSIC MASS FLOW

Very coarse grained conglomerate consisting of sub - rounded clasts to 80 mm of predominantly pale pink orange quartz feldspar phyric lava and fragments of quartz and feldspar phenocrysts in a matrix of the same composition. In patches the rock is matrix supported, other places it is more clast supported. The rock is very poorly sorted. The rock also contains clasts of fine grained siliceous felsic rock which are probably quenched lava fragments, occasional dark grey quartz feldspar phyric unaltered porphyritic rock and moderately sericitized quartz feldspar porphyritic rock with strongly sericitized feldspars in a moderately sericitized matrix. The rock is unaltered in the upper part becoming weakly silicified downhole. The rock has no obvious bedding. The rock contains limonitic quartz veins with approximately 2 veins per metre predominantly at 50 to 60 degrees to the core axis and 70 to 80 degrees to the core axis. The rock contains no obvious sulphides. The rock grades up somewhat downhole.

816101	8.40	8.70	.30	1770	18	28
795551	8.70	11.00	2.30	790	15	56
795552	11.00	13.60	2.60	440	13	50
816102	13.60	14.20	.60	320	6	13
795553	14.20	16.00	1.80	270	13	120
795554	16.00	18.00	2.00	350	14	56

Au assays in appendix K.

17.40 17.90 PSAMMITE / VOLCANICLASTIC

QUARTZ FELDSPAR LITHIC SANDSTONE / VOLCANICLASTIC.
The rock has the same composition as the overlying and underlying rocks. The rock contains limonitic quartz veins at approximately 10 per metre at 40 to 90 degrees to the core axis, variably oriented. The rock is massive with no bedding. The rock is gradational with both the underlying and overlying mass flows suggesting that the underlying and overlying rocks are from the same unit. Occasional lithics are up to 10 mm and are sub - rounded. The rock is still poorly sorted.

17.90 47.60 FELSIC MASS FLOW

Same rock as logged for 2.30 to 17.40. From the upper

816103	18.00	18.30	.30	18800	120	690
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From (m)	To (m)	Description	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)
		contact with the overlying sandstone the rock coarsens up somewhat downhole. Veins cross-cutting the rock are relatively fresh and pyritic with variable chalcopyrite and bornite as noted below. Clast composition is the same as for 2.30 to 17.40 though there also some more intermediate clasts and the clasts are generally only up to 40 mm. The rock is weakly silicified in patches with some weakly haematite altered parts. The rock contains a fine grained beige brown clast / raft of siliceous tuffaceous siltstone or quenched lava from 38.40 to 38.60. Contacts with this clast are indistinct though the upper contact may be at 70 degrees to the core axis. At 18.40 a clast / bed of siltstone at 55 degrees to the core axis. The contact with the underlying siltstone is probably at 40 degrees to the core axis with the mas flow adjacent to the contact still containing clasts to 15 mm. The rock is generally massive with some weak possible bedding at 60 degrees to the core axis at 41.30. Rocks towards the base of this unit are still of mixed provenance as above.	795555	18.30	21.70	3.40	490	18	46
			816104	21.70	22.30	.60	7700	21	17
			795556	22.30	25.00	2.70	730	11	64
			795557	25.00	27.90	2.90	870	9	91
			816105	27.90	28.20	.30	1160	10	17
			795558	28.20	28.40	.20	1670	6	14
			816106	28.40	28.60	.20	600	10	19
			816107	28.60	28.80	.20	380	4	9
			816108	28.80	29.10	.30	1930	12	24
			795559	29.10	31.50	2.40	320	10	110
			795560	31.50	33.80	2.30	2500	16	67
			816109	33.80	34.00	.20	15200	52	22
			795561	34.00	35.20	1.20	517	8	7
			816110	35.20	35.60	.40	27000	48	42
			795562	35.60	36.80	1.20	1904	8	15
			816111	36.80	37.10	.30	7200	16	30
			795563	37.10	39.50	2.40	2900	15	56
			816112	39.50	39.80	.30	2500	22	13
			795564	39.80	42.00	2.20	1560	12	73
18.50	18.55	20% pyrite in veins at 35 degrees to the core axis and as matrix to autobrecciated fragments.	816113	42.00	42.40	.40	3800	12	10
			795565	42.40	45.40	3.00	2800	11	59
21.70	22.00	5% limonitic pyrite and minor bornite.	816114	45.40	46.00	.60	4300	74	42
22.30	22.31	25% pyrite and 5% bornite and minor chalcopyrite in a cross-cutting, moderately limonitic vein at 70 degrees to the core axis.	816115	46.00	46.30	.30	13900	18	13
			816116	46.30	46.70	.40	11900	14	13
			816117	46.70	47.50	.80	540	8	15
28.02	28.12	Three limonitic quartz veins at 80 degrees to the core axis, 2, 5 and 10 mm thick.	816118	47.50	48.40	.90	1000	21	13
28.80	29.00	Two limonitic pyrite quartz veins, 10 to 20 mm thick, at 35 degrees to the core axis.							
32.00	32.50	Two limonitic pyrite quartz and minor chalcopyrite veins, 10 mm thick, at 70 degrees to the core axis.							
32.50	32.51	Limonitic pyrite and minor chalcopyrite vein at 20 degrees to the core axis.							
35.30	35.65	Three limonitic pyrite bornite and quartz veins ; 30 mm thick at 45 degrees to the core axis with 10% bornite, 20 mm thick at 40 degrees to the core axis with 20% bornite and 5 mm thick at 30 degrees to the core axis with 5% bornite.							
37.90	37.93	Two limonitic pyrite veins, 5 mm thick at 30 degrees to the core axis.							
38.55	38.56	Cuprite crystals in fine limonitic veins at 30 degrees to the core axis.							
39.50	39.60	Limonitic pyrite vein, 30% pyrite, 20 mm thick at 20 degrees to the core axis.							
41.20	41.40	Manganese staining in bands at 60 degrees to the core axis.							
42.30	42.40	Spotty manganese staining and minor malachite.							
44.00	46.00	As above but weakly limonitic throughout and weakly brecciated in patches.							
46.00	46.03	Limonitic pyrite vein at 30 degrees to the core axis.							
46.03	46.75	Disseminated clots of bornite, 1%, and manganese staining and trace malachite.							

47.60 48.80 PELITE

From (m)	To (m)	Description	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)
		BEIGE TUFFACEOUS SILTSTONES.	816119	48.40	49.00	.60	1600	10	30
		Beige brown / green siliceous fine grained tuffaceous siltstone. The upper contact is at 40 degrees to the core axis. The rock is moderately limonitic and brecciated from 47.60 to 48.20. Bedding is at 35 to 40 degrees to the core axis. The rock has relatively sharp upper and lower contacts and is not a graded top to the underlying and overlying mass flows.							
48.80	56.00	FELSIC MASS FLOW							
		The rock is essentially the same as for the previous intersections except that the rock is generally fine grained. The contact with the underlying felsic lava is indistinct with the last metre from 55.00 to 56.00 very similar to the lava in gross appearance though fragments in the rock overlying the last metre are still of mixed provenance. The rock from 55.00 to 56.00 is probably a hyaloclastite with quenching and brecciation of the lava. The rock is pinky orange brown throughout.	816126	49.00	51.00	2.00	870	20	57
			816127	51.00	52.50	1.50	280	17	28
			816128	52.50	53.80	1.30	2800	9	19
			816129	53.80	55.00	1.20	580	11	25
			816130	55.00	56.90	1.90	270	14	32
		49.50 49.60 Pyrite > chalcopyrite and minor bornite vein, 20 mm thick and at 20 degrees to the core axis.							
		53.00 53.10 Diffuse vein consisting of 10% pyrite and 10% chalcopyrite associated with sericite alteration.							
56.00	84.60	FELSIC LAVA							
		Pinky orange brown, quartz feldspar phyric, massive fine grained lava. The rock contains clastic textures to 62.00 m, probably hyaloclastites due to quenching of the lava or as a result of a shallow intrusion into the mass flows. The rock is grey in patches due to weak silicification but is not strongly altered with no obvious sericitisation but moderate carbonate (siderite) veinlets. The rock contains patchy pyrite and lesser chalcopyrite in attenuated veins generally at 40 to 60 degrees to the core axis. The rock contains occasional quartz carbonate veins at 70 to 80 degrees to the core axis. The rock contains fine irregularly oriented clay (after carbonate?) veinlets. The rock is variably fine grained and medium grained throughout below 74.50 with a sharp contact with a coarse grained clastic rock at 75.40 to 75.50 followed by more fine grained and medium grained rock to about 76.50 where the rock becomes more clastic until 77.40 where it becomes porphyritic again. It is probable that the hole has re-entered the hyaloclastic top of the flow from 74.50 to 77.40 with the juxtaposed fine grained and medium grained patches representing fragments of a coarse grained hyaloclastic breccia. The rock becomes moderately pyritic from 84.40 to 84.60 adjacent to the contact with the underlying porphyritic intermediate dyke with approximately 10% pyrite in spaces between brecciated fragments of quenched dyke rock and the lava.	816131	56.90	58.50	1.60	2400	14	41
			816132	58.50	59.60	1.10	1040	12	30
			816133	59.60	61.90	2.30	210	16	39
			816134	61.90	63.00	1.10	800	18	34
			816135	63.00	64.50	1.50	1170	16	27
			816136	64.50	66.50	2.00	940	18	40
			816137	66.50	67.50	1.00	1290	13	25
			816138	67.50	68.50	1.00	160	12	21
			816139	68.50	70.00	1.50	800	10	22
			816140	70.00	72.60	2.60	380	9	20
			816141	72.60	73.90	1.30	850	8	21
			816142	73.90	75.60	1.70	240	13	27
			816143	75.60	77.40	1.80	330	37	31
			816144	77.40	79.50	2.10	26	16	20
			816145	79.50	80.70	1.20	41	13	21
			816146	80.70	82.50	1.80	350	15	22
			816147	82.50	83.70	1.20	55	15	24
			816148	83.70	85.50	1.80	98	33	45
84.60	87.50	INTERMEDIATE INTRUSIVE							
		INTERMEDIATE INTRUSIVE.	816149	85.50	87.50	2.00	45	13	58
		Tan brown, clayey, sericitized feldspar phyric rock with rounded quartz carbonate filled amygdules up to 3 mm and							

From (m)	To (m)	Description	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)
		chilled margins. The rock has a sharp lower contact at 20 degrees to the core axis and a moderately brecciated upper contact, probably at 30 degrees to the core axis. Feldspars, up to 1 mm long are foliated at 30 degrees to the core axis. The rock is an intermediate intrusive. The rock contains very minor pyrite with some limonitic amygdules probably after pyrite.							
87.50	103.00	FELSIC LAVA							
		Same unit as logged for 56.00 to 84.60 but without clastic textures. The rock is massive, porphyritic, quartz and feldspar phyric throughout with occasional pyrite, minor chalcopyrite veins, occasionally parallel to the core axis with very minor associated chlorite below 95.50. The rock is still only weakly altered with weak carbonate alteration and weak silicification. The lower contact with the intrusive is sharp with no associated alteration. The lower contact is in broken core but is probably parallel to the foliation in the intrusive at 30 degrees to the core axis.	816150	87.50	89.00	1.50	31	12	38
			816151	89.00	91.30	2.30	27	7	19
			816152	91.30	93.00	1.70	120	10	22
			816153	93.00	95.00	2.00	63	12	15
			816154	95.00	97.00	2.00	85	16	18
			816155	97.00	99.00	2.00	28	27	17
			816156	99.00	101.30	2.30	42	15	23
			816157	101.30	103.00	1.70	10	5	17
103.00	104.60	INTERMEDIATE INTRUSIVE							
		INTERMEDIATE INTRUSIVE.	816158	103.00	104.70	1.70	21	8	57
		Similar rock to that logged for 84.60 to 87.50 except all amygdules are limonitic and feldspars are sericitized and more tabular and up to 3 mm. The rock is soft and clayey but is brittly fractured below 103.30. The rock is foliated at 30 degrees to the core axis. The rock contains very minor disseminated pyrite near the upper contact.							
104.60	108.40	FELSIC LAVA							
		As logged for 56.00 to 84.60 and 87.50 to 103.00. The rock contains fine limonitic fractures adjacent to the upper contact and contains occasional irregular pyrite veins generally at low angles to the core axis. The rock is more coherent, occasionally weakly fractured, weakly silicified and carbonate altered. The lower contact is sharp with the underlying fine grained siliceous siltstone with the contact marked by a 1 cm wide pyrite vein at 65 degrees to the core axis.	816159	104.70	106.00	1.30	130	16	44
			816160	106.00	108.30	2.30	190	20	32
			816161	108.30	109.70	1.40	126	15	113
108.40	109.45	PELITE							
		TUFFACEOUS SILTSTONE.							
		Fine grained, beige green, siliceous siltstone with distinct dark banding / bedding at 30 degrees to the core axis at 108.80, 60 degrees to the core axis at 109.20 and 35 degrees to the core axis at 109.45. The beds / bands are micro-fractured and micro-faulted sub-perpendicular to the banding. The rock has a sharp upper contact and a sharp but moderately brecciated lower contact at 35 degrees to the core axis. The rock is weak to moderately brecciated throughout with the fine fractures filled with later quartz carbonate or pyrite and trace chalcopyrite. The rock is weakly sericitized. The pyrite veins don't appear to be disrupted by the microfaulting.							
109.45	176.25	FELSIC LAVA							

From (m)	To (m)	Description	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)
		Very similar to that logged for 56.00 to 84.60, 87.50 to 103.00 and 104.60 to 108.40 except that the rock has a weak green tinge to its pinky orange brown colour. From 109.45 to 122.00 the rock is variably clastic with textures suggesting that the rock is hyaloclastic. Below 122.00 the rock is much more coherent and massive. The rock adjacent to the lower contact is relatively coherent also. Occasional cross-cutting quartz carbonate (haematite) veins are at 60 to 80 degrees to the core axis. Feldspars are generally sericitized and the matrix is weakly sericitized, silicified and siderite altered in patches but is relatively fresh and unaltered throughout. The rock contains only minor sulphides except for approximately 1 to 2% pyrite in attenuated veins with associated minor chalcopyrite and bornite from 109.50 to 113.00 and 1 to 2% pyrite from 163.00 to 166.00. Below 166.00 the rock contains variable but generally minor to very minor disseminated pyrite, chalcopyrite, sphalerite (?) and galena. The rock is brecciated in patches with haematite infilled autobrecciation from 118.00 to 118.50 and variable but generally minor carbonate brecciation from 127.00 to 133.00 and 162.50 to 164.00. Fine chlorite stringers noted in previous logging of this core are negligible where present. The lower contact is in broken core but may be at 70 degrees to the core axis. The rock adjacent to the lower contact is somewhat finer grained but is coherent.	816162	109.70	112.60	2.90	539	22	128
			816163	112.60	113.80	1.20	535	20	132
			816164	113.80	114.80	1.00	110	10	35
			816165	114.80	117.50	2.70	178	10	53
			816166	117.50	120.00	2.50	302	12	87
			816167	120.00	122.50	2.50	1141	15	111
			816168	122.50	124.90	2.40	257	8	81
			816179	124.90	128.50	3.60	153	12	81
			816180	128.50	136.20	7.70	257	13	152
			816181	136.20	138.60	2.40	154	12	115
			816182	138.60	141.40	2.80	161	15	78
			816169	173.75	175.30	1.55	70	100	210
			816170	175.30	177.60	2.30	390	100	200
176.25	187.50	PELITE							
		INTERMIXED SEQUENCE OF TUFFACEOUS SILTSTONES.	816171	177.60	179.40	1.80	1200	100	310
		Mixed sequence of sandy and silty tuffaceous siltstones with no obvious bedding and more gradational contacts except for 60 degrees to the core axis at 177.00. The sandy and silty tuffs contain sericitized feldspars and are weakly sericitized and carbonate altered and beige green in colour. Finer grained tuffaceous siltstones are beige green and siliceous and occasionally contain angular fragments of black tuffaceous siltstones, quartz and sericitized feldspars and are weak to moderately siderite altered and variably weakly to moderately silicified and weakly sericitized throughout. The rock contains minor disseminations and fine attenuated veinlets of pyrite, chalcopyrite, sphalerite and galena and / or bornite throughout with the major veins being the chalcopyrite pyrite sphalerite veins / banded massive sulphides with quartz gangue from 179.40 to 179.50 and a 10 mm thick chalcopyrite bornite sphalerite vein with quartz carbonate gangue at 181.50. Other than these the rock contains numerous carbonate veins cross-cutting at 40 to 80 degrees to the core axis but generally at 60 to 70 degrees to the core axis, approximately 10 to 20 per metre in patches. There has been considerable core loss and there is much broken core but roughly speaking the rock consists of predominantly very fine grained siltstones from 176.50 to 177.00, sandy and silty siltstones to 184.50 and very fine grained siltstones to 187.50. Of note is a coarse grained rock from 182.30 to 182.50 which consists of sub - rounded	816172	179.40	179.50	.10	14000	7500	5900
			816173	179.50	180.40	.90	4700	600	1100
			816174	180.40	181.80	1.40	2100	200	2800
			816175	181.80	184.00	2.20	350	100	1300
			816176	184.00	185.05	1.05	260	100	230
			816177	185.05	186.20	1.15	300	100	230
			816178	186.20	187.50	1.30	450	100	310

From (m)	To (m)	Description	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)
		to sub - angular grey cherty clasts and altered feldspars in a chloritic matrix.							
187.50	192.20	<p>PELITE / VOLCANICLASTIC</p> <p>BEIGE GREEN SILTSTONES AND VOLCANICLASTICS.</p> <p>Interbedded fine grained beige green siltstones and medium grained quartz and feldspar rich volcanoclastics. Bedding is parallel to the core axis in places, at low angles to the core axis in others. The rock is weak to moderately carbonate altered throughout with 0.5% disseminated pyrite. Feldspars and quartz in the volcanoclastics are tabular but in confused bedding.</p>							
192.20	205.00	<p>PELITE / PSAMMITE</p> <p>CHLORITIC SILTSTONES AND SANDSTONES.</p> <p>Very broadly interbedded fine grained chloritic siltstones and chloritic volcanoclastics with feldspars and lesser quartz as above. The rock does not show bedding but contacts between sandstones and siltstones are at low angles to the core axis. The rock contains up to 0.5% disseminated pyrite and very occasional cross-cutting pyrite carbonate galena veins below 204.50.</p>							
205.00	212.80	<p>PELITE</p> <p>BEIGE GREEN / GREY SILTSTONES, BRECCIATED.</p> <p>Pale beige green brecciated siltstone and medium grained volcanoclastic as above with strong carbonate alteration in fracture fillings and snowflake textures. The rock contains 0.2% chalcopyrite as fracture fillings. Occasional bedding is at 20 degrees to the core axis. The rock becomes more chloritic downhole below 211.5.</p>	S00871	206.40	207.40	1.00	825	510	470
212.80	214.30	<p>SHEAR ZONE / BRECCIA</p> <p>Moderately sheared, strongly brecciated, chloritic zone. The rock was previously a siltstone, chlorite altered. The rock contains minor pyrite and very minor chalcopyrite. The shearing is at 20 degrees to the core axis and the zone is clearly a significant structure.</p>	S00872	214.00	215.00	1.00	2200	245	690
214.30	218.70	<p>PELITE</p> <p>PINKY ORANGE SILTSTONES, SIDERITIC.</p> <p>Pinky orange siltstones and volcanoclastics with feldspars. The rock is moderately to strongly carbonate altered as above. The rock is strongly sulphidic with 5% to 10% pyrite in irregularly cross-cutting blebs associated with carbonate and silicification. The rock is a reworked tuff. The rock contains minor chalcopyrite and occasional minor galena.</p>	S00873	215.00	216.00	1.00	705	105	195
			S00874	216.00	216.40	.40	4300	70	145
			S00875	216.40	217.00	.60	3250	34	105
			S00876	217.00	218.15	1.15	2100	22	80
			S00877	218.15	219.00	.85	1650	25	100
218.70	222.50	<p>VOLCANICLASTIC / FELSIC MASS FLOW</p> <p>Lithic rich volcanoclastic / mass flow, very sulphidic. From 218.70 to 219.30 the rock contains coarse grained feldspar phyric volcanics. From 219.30 to 222.70 the rock is a medium grained volcanoclastic with 3% pyrite associated with carbonate alteration and minor chalcopyrite and galena. The rock is moderately sericite and strongly carbonate altered throughout with 2% pyrite</p>	S00878	219.00	220.00	1.00	1400	25	110
			S00879	220.00	222.00	2.00	4150	1600	9050
			S00880	222.00	223.30	1.30	13200	2100	10200

From (m)	To (m)	Description	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)
		overall. Lithics are up to 20mm in diameter.							
222.50	223.30	SEMI-MASSIVE SULPHIDES Approximately 40% massive pyrite, 2% chalcopyrite, 1% galena and 1% sphalerite associated with carbonate and silica alteration. The upper contact is gradational whilst the lower contact is sharp. Mineralization is in discrete bands at 15 degrees to the core axis but is quite clearly a vein. The matrix consists of quartz carbonate and sericite. The lower contact is at 30 degrees to the core axis.							
223.30	232.20	VOLCANICLASTIC / FELSIC MASS FLOW Strongly carbonate, moderately sericite altered, mass flow / volcanoclastic with minor pyrite disseminated and in fracture fill veins. From 233.30 to 233.33 and 233.50 to 233.53 the rock contains two 30mm thick massive chalcopyrite veins at 45 degrees to the core axis. Lithics include beige to grey siltstones and porphyritic volcanics. Lithics are up to 20mm in diameter.							
232.20	234.60	SEMI-MASSIVE SULPHIDES SELVEDGE TO VEIN. Irregular veining of very fine grained pyrite and minor chalcopyrite associated with strong carbonate alteration / matrix running sub - parallel to the core axis. The veins are hairlike with a carbonate matrix. The rock contains 0.5% chalcopyrite throughout associated with the pyrite. The rock appears as a number of veins running through carbonate with disseminated pyrite clots. It is very similar to the selvedges to the more massive vein from 239.00 to 240.00 and may indeed be one of the selvedges to this vein.	S00881	233.30	234.00	.70	17900	445	1400
			S00882	234.00	235.00	1.00	3100	1200	8750
234.60	239.00	PELITE Moderately carbonate altered, pinky orange massive siltstone with snowflake carbonate alteration. The rock contains 0.5% pyrite and 0.5% chalcopyrite in fine fractures at irregular angles to the core axis. The rock becomes strongly carbonate altered / brecciated below 238.00 as it approaches the underlying massive vein.	S00883	235.00	236.00	1.00	795	1200	665
			S00884	236.00	237.00	1.00	3650	2950	2850
			S00885	237.00	238.00	1.00	5900	1900	9600
			S00886	238.00	239.00	1.00	2500	2100	7750
239.00	240.00	SEMI-MASSIVE SULPHIDES Semi-massive pyrite > chalcopyrite vein with a carbonate matrix with approximately 50% pyrite, 1% chalcopyrite, 1% galena and 1% sphalerite. The vein is at 5 degrees to the core axis and appears to be 50mm thick. The upper contact and lower contact are very similar with both strongly carbonate altered. The vein is sub - parallel to the core axis and hence any assays overstate its true sulphide content.	S00887	239.00	240.00	1.00	3620	5700	8500
240.00	242.90	VOLCANICLASTIC / FELSIC MASS FLOW Lithic rich volcanoclastic / massflow in a strongly carbonate altered matrix. The contact with the overlying massive sulphide vein is gradational with the very strong carbonate alteration decreasing downhole. From 240.00 to	S00888	240.00	241.00	1.00	6500	1200	2300

From (m)	To (m)	Description	Sample No.	From (m)	To (m)	Width (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)
	241.00	the rock contains 2% pyrite with minor chalcopyrite whilst from 241.00 to 242.90 the rock contains 1% pyrite and minor chalcopyrite in a lithic rich rock as logged previously.							
242.90	245.70	SEMI-MASSIVE SULPHIDES SELVEDGE TO VEIN. Carbonate selvedge very sulphidic with 4% galena, 2% chalcopyrite and sphalerite and 5% pyrite in a very strongly carbonate altered / breccia matrix. Discrete veins are at 5 to 10 degrees to the core axis. The lower contact is brecciated with the underlying black siltstone. The rock is very probably a selvedge to the vein from 239.00 to 240.00.	S00889	242.90	244.00	1.10	15700	11800	7050
			S00890	244.00	245.00	1.00	9500	14900	10400
			S00891	245.00	246.10	1.10	10000	4350	3600
245.70	247.93	PELITE BRECCIATED SULPHIDIC BLACK SILTSTONE. Fine grained black siltstone, strongly brecciated post lithification with fractures filled with carbonate and 2% chalcopyrite and 2% pyrite. Bedding is unreliable. The lower contact with the underlying pinky orange siltstone is marked by a 30mm thick pyrite vein cross-cutting at 80 degrees to the core axis with a carbonate sericite and silica matrix. Fractures are irregularly oriented.	S00892	246.10	247.00	.90	17400	2400	5650
			S00893	247.00	247.90	.90	10700	78	440
247.93	254.50	PELITE Pinky orange siltstone with snowflake textured carbonate alteration throughout. The rock is massive throughout with irregularly cross-cutting pyrite and minor chalcopyrite fracture fill veins increasing below 252.50. The rock contains minor chalcopyrite.	S00894	249.00	250.00	1.00	9000	39	90
			S00895	250.00	251.00	1.00	14700	195	500
			S00896	252.50	253.50	1.00	3500	68	48
			S00897	253.50	254.50	1.00	5450	163	125
254.50	263.80	VOLCANICLASTIC / FELSIC MASS FLOW Lithic rich volcanoclastic / mass flow as logged further uphole. Lithics consist of fine grained cherty sediment and porphyritic volcanics in a moderately carbonate altered, moderately sericite, occasionally moderately chlorite altered matrix with 0.5% to 1% pyrite in disseminated clots.							
263.80	272.50	PELITE Pinky orange siltstone as logged for 247.93 to 254.50 with ghosted siliceous clasts in patches. The rock becomes chloritic below 267.90. The rock is massive throughout.							
272.50	272.60	SHEAR ZONE Chloritic shear zone at 25 degrees to the core axis.							
272.60	287.80	VOLCANICLASTIC Lithic rich volcanoclastic with clasts up to 15mm in a moderately carbonate, weak to moderately sericite altered matrix. Fragments include porphyritic volcanics, feldspars, quartz and cherty siltstones. The rock contains 0.5% pyrite and occasional minor chalcopyrite in cross-cutting veins. From 283.20 to 283.60 the rock contains 4% chalcopyrite in cross-cutting chalcopyrite pyrite veins associated with carbonate alteration and	S00898	283.20	283.60	.40	18300	5900	4200