DIAMOND DRILL HOLE LEDGER

Hole No: NMM 1

Local Grid 5000E, 5017N. | Inclination: -55° | DRILLERS: Almac Drilling Pty.Ltd. | START DATE: 16/3/98

Azimuth: 173° mag. | AMG: 3710205411315 | E.L./PROSPECT: EL 19/93 Luina, Tasmania | DRILL RIG: LM 70 | LAB: Analabs | FINISH DATE: 30/3/98

Logged by: Graeme B. Weber | ELEMENT/DETECTION LIMIT (ppm unless stated)

From	To	Rec.	Mag.Susc(m)	Value	DESCRIPTION	Sample No	From	To (m)	Au(10 ppb)	Cu (2)	Pb (3)	Zn(2)	Ag(1)	As(1)	Fe%	Mn (3)	Sn (3)	W (10)	Sb (0.5	Bi(1)	Ni(3)	Co(2)
0.00	**7.30**				**Surficial Fill Material**																	
0.00	7.30	2.50			**Geological:**																	
					Broken & rounded mod. bn. & mod. gy. unOx. & Ox. sl. chl. volcs.																	
					& metaseds. 30 cm. of gravel and sand @ 5.70-6,00 ?old soil																	
					surface. occ. gossan frags. fe rich laterite gravel sand prob. old																	
					soil surface from 7.10-7.30 m.																	
7.30	**10.60**				**Weathered Metasediments**																	
7.30	10.60	2.95			**Geological:**																	
					Khaki metasediments, only occ. unOx. last 30 cm. much less																	
					weathered more competant.																	
					Structural:																	
					Very broken ground, poor cor recovery. MnOx st. of fracts.																	
10.60	**12.60**				**Mudstones & Sandstones**																	
10.60	12.60	2.00	10.6-11.0	0.60	**Geological:**																	
			11.0-12.0	0.54	Lt. gn. gy. f.g. SS containing lithic frags. (ie) sandy slst.frags.																	
			12.0-13.0	0.47	they may have a volcanic component. Siltstones lt. gn. gy. simil.																	
					to SS in colour also dker gy. & red bn. ?haematised units.																	
					The slst. units have v.f.g. py. assoc. (eg) 11.7 m.																	
					At 11.5 m. seams of bl. ?chert cont. sig. py. form marker beds.																	
					At 11.7 m. bedding shows intricate small scale disruptions.																	
					12.4 m. thin dk. gy. veinlets of chl. seen as struct. zone approch.																	
					Structural:																	
					Bedding shows constant disruptions small scale faults.10-15 mm.																	
					Very low int. L. 3° @ 10.8 m. :9° @ 11.7 m.																	
					Facings: up @ 11.7 m.																	
					At 11.2 m. fine qtz. veins, displacing core-breccia dev.																	
					Beds have a bouma seq. look.																	
12.60	**12.80**				**Fault Zone**																	
12.60	12.80	0.20			Strong X-cutting fault zone. bedding dragged into fault.																	
					Intersection angle for fault about 60° compared with low bedding																	
					angle. Contacts have lam. qtz. & chl. with a central silic. breccia.																	
12.80	**16.35**		13.0-14.0	0.86	**Lithic Sandstone**																	
12.80	16.35	3.55	14.0-15.0	0.79	**Geological:**																	
			15.0-16.0	0.76	Mod. gy. (sl. gn.) mod. grained lithic sandstone. sandy frags made																	
					up of slsts., cherts, mst. & ?volc. grains.																	
					Structural:																	
					Core quite fract. both X cutting and parallel to core axis.																	
					qtz. infill fract @ 14.7 & 15.8 m. here it maybe a low angle breccia.																	

210056

DIAMOND DRILL HOLE LEDGER

Hole No: NMM 1

Local Grid 5000E, 5017N. | Inclination: -55° | DRILLERS:Almac Drilling Pty.Ltd. | START DATE: 16/3/98

Azimuth: 173° mag. | AMG: 3710205411315 | E.L./PROSPECT: EL 19/93 Luina, Tasmania | DRILL RIG: LM 70 | LAB: Analabs | FINISH DATE: 30/3/98

Logged by: Graeme B. Weber | ELEMENT/DETECTION LIMIT (ppm unless stated)

From	To	Rec.	Mag.Susc(m)	Value	DESCRIPTION	Sample No	From	To (m)	Au(10 ppb)	Cu (2)	Pb (3)	Zn(2)	Ag(1)	As(1)	Fe%	Mn (3)	Sn (3)	W (10)	Sb (0.5	Bi(1)	Ni(3)	Co(2)
					fault zone. Unit massive no bedding or foliation just occ. v. thin																	
					qtz. carb. veining.																	
16.35	**26.80**		16.0-17.0	0.64	**Structural Zone**																	
16.35	19.50	3.15	17.0-18.0	0.56	**Geological:**																	
19.50	25.50	5.80	18.0-19.0	1.11	Fairly massive lithic SS unit, but deeper becomes more																	
Core loss 25.3-25.5 m.			19.0-20.0	0.71	fine grained mudstones.																	
25.50	26.80	1.30	20.0-21.0	0.82	21.8-22.1 f.g. dk. gy. chert																	
			21.0-22.0	0.51	**Structural:**																	
			22.0-23.0	0.78	Similar to first zone, but more structural dislocation of bedding.																	
			23.0-24.0	0.72	Numerous thin qtz. chl. breccia shears and faults.																	
			24.0-25.0	0.44	Major fault zone @ 16.45 to 16.80, py. squirts @ 16.55 m.																	
			25.0-26.0	0.54	18.5 - 18.7 core very fractured with qtz. chl breccia veins &																	
					yell. clay/carb. on fracts one speck of cp. noted here.																	
					The finer grained units more sheared (eg) 19.6-20.9 m. fault.																	
					In lithic SS units fine chl. filled fracts giving brecc. appearance.																	
					21.8-22.1 f.g. dk. gy. chert generally int. L's very low but very																	
					ghosted like pervasive silic. has occurred. Here chert contacts are																	
					40° which indicated this is a large clast of chert in lithic unit																	
					Qtz. chl. breccia veinlets approx. 1 mm. occ. though core																	
					21.2 - 22 m. almost at rt. L's to core axis.																	
					Zone 23.95 - 25.6 m. zones of qtz. & yell. clay/carb. infill of fracts.																	
					Major fault ?sec. silic. zone @ 25.5 - 25.6 m.																	
					Mineralisation:																	
					Thin zone of py. to 20% 22.8 - 23.0 m.																	
26.80	**28.10**		26.0-27.0	0.58	**Fault Zone**																	
26.80	28.10	1.20	27.0-28.0	0.71-0.15	**Geological:**	1001	26.0	28.0		149	228	428		8	10.20	1169					73	
					Mixture of haematitic chert, mudstone, & lithic SS.																	
					Structural:																	
					Major structural dislocation zone, tension gash veining, cont. occ.																	
					cp. & py. (v. low grade). Faults infilled with qtz. & dk. gn. & bl. chl.																	
					open pore filling, laminated., occ. blebs py. occ. pink qtz. ?haem.																	
					Photo (Plate 2) of core showing fault zone, and underlying																	
					haematitic mudstone/chert sequence.																	
28.10	**88.40**				**Metasediments & ?cherts.**																	
28.10	31.10	3.00	28.0-29.0	23.50	**Geological:**																	
31.10	34.00	2.80	29.0-30.0	20.50	A mixed unit of lithis SS, and haematitic silic. mudstones/cherts																	
34.00	37.30	3.20	30.0-31.0	10.2-27.2	At the start dk red bn. units have faint white specks like clasts.	1002	28.0	30.0		72	6	114		1	9.13	791					67	
loss in fault @ 37.1 m.			31.0-32.0	12.3-30.2	These units have 'ghost' like bedding. This ?bedding is however	1003	30.0	32.0		80	8	109		0.5	9.44	863					66	
37.30	40.30	2.90	32.0-33.0	25.1-38.1	when traced is cut off by other ?clasts indicating the zone is a	1004	32.0	34.0		116	10	139		0.5	9.89	900					76	
40.30	42.40	2.10	33.0-34.0	12.50	large breccia.	1005	34.0	36.0		50	11	122		2	9.01	1049					79	

DIAMOND DRILL HOLE LEDGER

Hole No: NMM 1

Local Grid 5000E, 5017N. | Inclination: -55° | DRILLERS: Almac Drilling Pty. Ltd. | START DATE: 16/3/98

Azimuth: 173° mag. | AMG: 3710205411315 | E.L./PROSPECT: EL 19/93 Luina, Tasmania | DRILL RIG: LM 70 | LAB: Analabs | FINISH DATE: 30/3/98

Logged by: Graeme B. Weber | ELEMENT/DETECTION LIMIT (ppm unless stated)

From	To	Rec.	Mag.Susc(m)	Value	DESCRIPTION	Sample No	From	To (m)	Au(10 ppb)	Cu (2)	Pb (3)	Zn(2)	Ag(1)	As(1)	Fe%	Mn (3)	Sn (3)	W (10)	Sb (0.5	Bi(1)	Ni(3)	Co(2)
42.40	43.60	1.40	34.0-35.0	12.20	From 31.1 m. lt. - mod. bl. - gy. thin units of mudstones with lithic	1006	36.0	38.0		105	15	105		2	8.27	834					79	
43.60	46.50	2.90	35.0-36.0	4.0-20.9	frags.	1007	38.0	40.0		55	11	119		2	8.89	791					80	
46.50	49.80	3.30	36.0-37.0	7.10	The mod. gy. esentially lithic SS units are either unaltered or	1008	40.0	42.0		60	1.5	111		2	9.48	1081					78	
49.80	52.50	2.70	37.0-38.0	13.4-22.6	product of alteration.	1009	42.0	44.0		63	1.5	101		3	8.67	1164					72	
52.50	58.50	5.90	38.0-39.0	24.50	'Brain Rock' @ 36.6 m. bl. & lt. bn. v. finely banded (<0.5 mm)	1010	44.0	46.0		41	6	75		2	9.20	687					74	
58.50	64.50	6.00	39.0-40.0	16.70	wavy chert sequence observed as gy. zones in Plate 3, 2nd	1011	46.0	48.0		50	1.5	94		4	8.96	993					75	
64.50	70.50	6.00	40.0-41.0	19.2-27.1	bottom row. They are only small zones and occur elsewhere also.	1012	48.0	50.0		61	3	96		2	8.54	849					74	
70.50	76.50	6.00	41.0-42.0	25.90	From 61.6 m. some lt. gn. gy. & bl. cherts	1013	50.0	52.0		61	3	97		5	9.14	1208					78	
76.50	79.50	3.00	42.0-43.0	2.90	Lithic SS @ 65 m.	1014	52.0	54.0		54	8	101		3	9.13	813					81	
79.50	85.50	6.00	43.0-44.0	2.5-26.9	At 77 m. & 86 m. zones of red bn. cherts which appear to contain	1015	54.0	56.0		57	9	97		3	9.02	920					85	
			44.0-45.0	6.3-68.3	large clasts of lithic haem. SS. of fist size.	1016	56.0	58.0		87	5	94		3	7.69	812					82	
			45.0-46.0	20.10	'Brain Rock' 85.5 m. just looks like a semi consolidated blob in ch.	1017	58.0	60.0		77	4	104		3	8.15	940					81	
			46.0-47.0	20.4-28.0	**Structural:**	1018	60.0	62.0		96	3	96		3	8.27	853					86	
			47.0-48.0	10.2-25.0	Core relatively fractured in part. (refer Plate 3)	1019	62.0	64.0		129	6	82		3	6.79	933					79	
			48.0-49.0	24.80	Int. L's 25° @ 29.7 m. : 40° @ 31.1 m. (?suspect)	1020	64.0	66.0		92	1.5	112		1	9.59	1014					87	
			49.0-50.0	10.0-22.4	At 30 m. lamin. qtz. chl. vein 15 cm. wide 80° int. L. contains	1021	66.0	68.0		81	1.5	98		1	9.33	1280					87	
			50.0-51.0	19.2-33.2	some pink haematised qtz.	1022	68.0	70.0		123	1.5	101		1	9.49	952					84	
			51.0-52.0	9.9-22.9	From 33.9-34.4 mod. gy. lithic SS. containing qtz. fault zone.	1023	70.0	72.0		72	1.5	102		0.5	9.83	1202					90	
			52.0-53.0	12.90	Major fract zone @ 37.1 m. 10 cm. wide, (Plate 3)	1024	72.0	74.0		98	1.5	103		1	8.51	1198					86	
			53.0-54.0	15.90	Major alt. zone 42.5 - 43.6 m.	1025	74.0	76.0		80	3	99		2	8.87	1132					87	
			54.0-55.0	13.8-21.2	Core around 50 m. very fract & contains thin <1 mm. wispy qtz. -	1026	76.0	78.0		85	1.5	101		9	9.48	985					90	
			55.0-56.0	16.5-25.9	carb. veins ?some magnetite, very minor py. & chpy. 1-5% qtz.	1027	78.0	80.0		97	1.5	98		4	9.86	908					85	
			56.0-57.0	9.15-19.2	Int. L's, 24° @ 36.8 m.; 10° @ 46.7 m.: 16° @ 49.1 m.	1028	80.0	82.0		65	1.5	104		3	9.77	932					87	
			57.0-58.0	8.60	From 51 m. very fine tension gash qtz. infill close to bedding	1029	82.0	84.0		80	1.5	120		5	9.67	988					90	
			58.0-59.0	8.90	looks as though some beds preferentially fractured.																	
			59.0-60.0	14.3-23.6	At 55.9 m. intense qtz. - carb. tension vein subparallel to bedding																	
			60.0-61.0	16.40	Fractured 66-67.2 m. with some py. developed.																	
			61.0-62.0	4.70	From 68 m. joints & fracts chpy. & chl. slickensided.occ.py to 71 m.																	
			62.0-63.0	0.2-21.2	70 m. on core has fine (thin) veining (<1 mm.) with dk. gy. selvedg.																	
			63.0-64.0	4.70	both // to bedding and cross cutting. with minor chpy, chl. & ?Sn.																	
			64.0-65.0	2.3-22.2	76.6 - 77.8 m. core more fract. thin qtz. veins to 6 mm. at top fracts																	
			65.0-66.0	0.8-22.4	at rt. L's to core axis at bottom 45° plunge west. core v. disrupted.																	
			66.0-67.0	1.90	Bedding ghosting after this but seen between beds of lithic SS																	
			67.0-68.0	0.05-10.3	and chert/slsts. one of which maybe clasts within the other.																	
			68.0-69.0	15.70	Int L's: 30° @ 53.5 m. : 25° @ 57.8 m. : 18° @ 61.6 m.																	
			69.0-70.0	3.80	10° @ 76.2 m. : 7 ° @ 80.5 m. : 10° @ 84.6 m. : 15° @ 85.2 m.																	
			70.0-71.0	1.42-17.4	83.2 m. units show flow charac. of frags of chert/mudst. in cherts																	
			71.0-72.0	6.10	Last 2m. bedding cannot be dist. appears to be a jumble of frags.																	
			72.0-73.0	4.50	**Mineralisation/Alteration:**																	
			73.0-74.0	6.1-15.5	From 28.4 m. zones become quite magnetic, esp. haematised																	
			74.0-75.0	3.20	units. prob. f.g. magnetite.																	
			75.0-76.0	8.3-21.4	49.7 - 49.9 m. two small 0.5 cm. qtz. veins with non mag. bl. Xstals																	
			76.0-77.0	10.5-19.0	At 53.9 m. thin qtz. vein with magn. & chpy. low grade.																	
			77.0-78.0	6.10	At 59.9 thin zones of lt. - mod. gy. zones which appear to																	

210058

DIAMOND DRILL HOLE LEDGER

Hole No: NMM 1

Local Grid 5000E, 5017N. | Inclination: -55° | DRILLERS: Almac Drilling Pty.Ltd. | START DATE: 16/3/98

Azimuth: 173° mag. | AMG: 3710205411315 | E.L./PROSPECT: EL 19/93 Luina, Tasmania | DRILL RIG: LM 70 | LAB: Analabs | FINISH DATE: 30/3/98

Logged by: Graeme B. Weber | ELEMENT/DETECTION LIMIT (ppm unless stated)

From	To	Rec.	Mag.Susc(m)	Value	DESCRIPTION	Sample No	From	To (m)	Au(10 ppb)	Cu (2)	Pb (3)	Zn(2)	Ag(1)	As(1)	Fe%	Mn (3)	Sn (3)	W (10)	Sb (0.5	Bi(1)	Ni(3)	Co(2)
			78.0-79.0	3.66-26.5	be altered ?reduced haematite units which are accomp. by py. & chl.																	
			79.0-80.0	1.10	63.0 m. thin zone of intense shearing with py. & ?Sn min.																	
			80.0-81.0	1.11-20.5	From 64 m. core much more silic. bn. cherts. still magnetic.																	
			81.0-82.0	17.50	At 75.5 m. core contains up to 10% f.g. py. over 1.5 m.																	
			82.0-83.0	18.50	Towards the bottom of this unit there maybe some Sn. min.																	
			83.0-84.0	15.60	Lam. qtz. vein 1 cm. @ 83.8 m. ?Sn in vein @ 84.9 m.																	
			84.0-85.0	30.50	Chpy. rich qtz. vein 1 cm. wide @ 86.9 m.																	
			85.0-86.0	9.50																		
88.40	**102.20**				**Alteration/Fracture Zone ?mega breccia zone**																	
88.50	91.50	6.00	88.0-89.0	0.39	**Geological:**	1030	88.0	90.0		46	1.5	120		5	9.04	1551					90	
91.50	97.40	5.90	89.0-90.0	0.50	Sheared gy. cherts & mod. gy. lithic SS ?red bn. silic. mudstones	1031	90.0	92.0		130	1.5	139		5	9.91	1412					93	
97.40	103.50	6.10	90.0-91.0	14.00	Fine chl. infill of thin fracts over 0.5 m. often min. throughout unit.	1032	92.0	94.0		61	1.5	123		3	9.82	1357					90	
			91.0-92.0	15.00	**Structural:**	1033	94.0	96.0		43	1.5	116		7	9.63	1188					97	
			92.0-93.0	24.80	At 88.5 m. oriented core, laminated vein 30 cm below has	1034	96.0	98.0		51	1.5	107		9	10.40	1188					88	
			93.0-94.0	9.50	115°/85°/25°. Not all vein sets have this orientation.	1035	98.0	100.0		69	9	117		3	9.71	1186					83	
			94.0-95.0	23.80	Unit very fractured, with bl. chl. infill, many qtz. veins.	1036	100.0	102.0		59	1.5	98		4	8.69	964					81	
			95.0-96.0	19.40	Close examination shows clasts of different metasediments																	
			96.0-97.0	24.00	form a jumble therefore a mega breccia zone.																	
			97.0-98.0	25.00	Vein set at 101.5 m. generally int L low approx. 15° but veins																	
			98.0-99.0	18.80	close to rt/ L's to bedding giving																	
			99.0-100.0	15.50	Int. L's: 10° @ 96.5 m. but could be suspect.																	
			100.0-101.0	21.50	**Mineralisation/Alteration:**																	
			101.0-102.0	29.10	Core appears altered, some py. & chpy. specks.& ankerite/siderite																	
					93.1-94.35 m. several intense fract s. infill with qtz. ?chl. ?Sn v.																	
					occ. py																	
					101.2 - 1.22 three lam. qtz. veins up to 20 mm. wide occ. vuggy																	
					with bl. min. interval finely fract. with qtz. & bl. chl. infill some py.																	
					& chpy., last vein has pink ?qtz.																	
102.20	**142.50**				**Metasediments & ?cherts,**																	
103.50	109.50	6.00	102.0-103.0	15.00	**Geological:**	1037	102.0	104.0		73	1.5	95		2	9.23	933					82	
109.50	115.50	6.00	103.0-104.0	17.60	Unit comprised of lithic SS, mudstones and cherts, which have	1038	104.0	106.0		83	1.5	96		5	9.06	916					83	
115.50	121.50	6.00	104.0-105.0	28.80	been variably silicified and haematised.	1039	106.0	108.0		67	1.5	87		5	7.98	646					85	
121.50	127.20	5.70	105.0-106.0	20.60	Thin 1 cm. wide lam. qtz. veins at 156m. ?chl. or Sn. pink qtz.	1040	118.0	120.0		73	1.5	95		6	9.50	1083					83	
127.20	133.40	6.20	106.0-107.0	11.50	Haematitised mudstone clast @ 108.5-110m. ?not bedded.	1041	120.0	122.0		69	1.5	86		4	9.24	912					86	
133.40	139.50	6.10	107.0-108.0	25.60	122.4-123 lithic SS with thin qtz. veins to 8 mm. bl. chl. or Sn.	1042	122.0	124.0		63	1.5	97		5	8.69	885					80	
139.50	145.50	6.00	108.0-109.0	15.50	From 130.2 m. massive lithic SS.	1043	124.0	126.0		57	1.5	111		6	9.68	981					86	
			109.0-110.0	0.48	After 138 m. more mudstone/chert units.	1044	126.0	128.0		37	1.5	95		1	9.46	707					80	
			110.0-111.0	25.80	**Structural:**	1045	128.0	130.0		73	1.5	103		3	10.30	997					85	
			111.0-112.0	24.70	V. few bedding planes observed due to ?pervasive silicification or	1046	130.0	132.0		61	1.5	119		1	10.20	884					85	
			112.0-113.0	11.10	unit also being large fragments of a megabreccia.																	
			113.0-114.0	35.10	Fairly massive unit.	1047	135.0	137.0		45	1.5	121		1	9.74	1107					86	
			114.0-115.0	32.20	When bedding observed it appears to dip steeply at 80° @ 170°	1048	137.0	139.0		48	1.5	100		2	8.80	892					80	
			115.0-116.0	28.30	therefore 80°/80°/170° but orient. still diff. to determine.	1049	139.0	141.0		40	1.5	101		2	7.92	835					82	

210059

DIAMOND DRILL HOLE LEDGER

Hole No: NMM 1

Local Grid 5000E, 5017N. | Inclination: -55° | DRILLERS: Almac Drilling Pty.Ltd. | START DATE: 16/3/98

Azimuth: 173° mag. | AMG: 3710205411315 | E.L./PROSPECT: EL 19/93 Luina, Tasmania | DRILL RIG: LM 70 | LAB: Analabs | FINISH DATE: 30/3/98

Logged by: Graeme B. Weber | ELEMENT/DETECTION LIMIT (ppm unless stated)

From	To	Rec.	Mag.Susc(m)	Value	DESCRIPTION	Sample No	From	To (m)	Au(10 ppb)	Cu (2)	Pb (3)	Zn(2)	Ag(1)	As(1)	Fe%	Mn (3)	Sn (3)	W (10)	Sb (0.5	Bi(1)	Ni(3)	Co(2)
			116.0-117.0	7.30	At 105.5-107 m. v. fine fractures in core	1050	141.0	143.0		66	1.5	115		2	8.56	1245					81	
			117.0-118.0	27.30	Sl. more fract. with wispy qtz. veinlets 114.2 - 115.3 m.																	
			118.0-119.0	29.20	Different frags appear to be faulted or rotated one to another.																	
			119.0-120.0	15.40	Bedding noted appears to lie close to a constant plane (ie)																	
			120.0-121.0	32.50	steeply south.																	
			121.0-122.0	6.70	Int. L's: 5° @ 112.4 m.: 10° @ 112.9 m. :10° @ 117.5 m.																	
			122.0-123.0	28.00	27° @ 125.2 m : 15° @ 129.7 m.. 45° @ 130.2 m.																	
			123.0-124.0	6.70	The high variability of int. L's indicates a megabreccia unit.																	
			124.0-125.0	32.80	Increasing thin veins from 118.7 m. veins up to 2 cm. wide.																	
			125.0-126.0	31.50	contain small angular clasts in qtz. occ. S.																	
			126.0-127.0	27.60	Mudstone/chert units more finely fract. infill bl. chl.																	
			127.0-128.0	6.20	Fract. zone 128.5 -130 m. qtz. chl. chpy. veins up to 2 cm. wide.																	
			128.0-129.0	31.40	Qtz.vein @ 128.7 m. well dev. chpy. as blebs & fract. fill over 10 cm.																	
			129.0-130.0	28.80	At 136.65 m. fault/fract. core qtz. zone breccia & py.																	
			130.0-131.0	31.90	On fract. surfaces bl. silic. Xstals ?chl. @ 140.3 & 140.7 m.																	
			131.0-132.0	26.50	**Mineralisation/Alteration:**																	
			132.0-133.0	16.60	Unit occ. fractured with occ. weak py. & chpy +/-?Sn																	
			133.0-134.0	27.20	Essentially at start haematised but less so with depth, but still mag																	
			134.0-135.0	14.50	Break with qtz. @ 120.85 m. with chl. or Sn																	
			135.0-136.0	25.60	At 139.8 several small zones of py. occur.																	
			136.0-137.0	28.60																		
			137.0-138.0	21.50	Plate 4 : 100.5-105.2 m. Showing competant core containing																	
			138.0-139.0	22.30	thin quartz veins at good int. L's.																	
			139.0-140.0	9.80																		
			140.0-141.0	36.40	Plate 5: Shows fault zone @ 136.85 m. with competant lithic SS																	
			141.0-142.0	36.20	at top to haematised silic. mustone which contains zones of pyrite																	
					blebs, see second last line of core outlined in white.																	
142.50	**162.20**		142.0-143.0	7.60	**Structural/Alteration Zone**	1051	143.0	145.0		86	1.5	106		3	9.71	1027					74	
145.50	151.50	5.60	143.0-144.0	31.80	**Geological:**	1052	145.0	147.0		84	1.5	124		2	10.00	1120					75	
151.50	157.50	6.00	144.0-145.0	19.80	Essentially similar to above but more fract., faulted & veined.	1053	147.0	149.0		95	1.5	123		3	9.33	1270					64	
157.50	163.50	6.00	145.0-146.0	16.90	Lithic SS becomes coarse grained (coarse sand - grit size)	1054	149.0	151.0		82	1.5	169		3	9.69	1575					71	
			146.0-147.0	17.80	from 162.2 m.>.	1055	151.0	153.0		95	1.5	133		4	8.85	1337					61	
			147.0-148.0	8.90	**Structural:**	1056	153.0	155.0		78	1.5	167		2	10.10	1503					69	
			148.0-149.0	0.67	V. difficult to obtain int. L's due to ?secondary silicification.	1057	155.0	157.0		58	5	207		4	9.98	1640					71	
			149.0-150.0	12.90	Commences as sl.more fract.than last unit containing thin qtz.veins	1058	157.0	159.0		86	3	178		2	10.40	1477					73	
			150.0-151.0	20.10	Often the veins are v. thin atomising cont. qtz. carb. ?chl. +/-py.	1059	159.0	161.0		79	5	231		1	9.94	1269					77	
			151.0-152.0	13.40	& occ. chpy.	1060	161.0	163.0		73	4	183		0.5	11.00	1118					77	
			152.0-153.0	0.70	144.5-145.2 gy. lithis SS with qtz. veins to 2 cm. infilled qtz.																	
			153.0-154.0	0.55	chl. ?carb. and minor py. also contains floating red bn chert frags.																	
			154.0-155.0	0.66	146.0-146.4 core v. fract. > rubble here frags of bn chert swim in																	
			155.0-156.0	0.40	lithic SS unit.																	
			156.0-157.0	37.90	In general thin qtz. veins cut core axis at 70-90° and indicate with																	
			157.0-158.0	38.40	suspect orient. that structures are near vertical or dip sl. N.																	

210060

					DIAMOND DRILL HOLE LEDGER				Hole No: NMM 1														
Local Grid 5000E, 5017N.			Inclination: -55°			DRILLERS: Almac Drilling Pty. Ltd.										START DATE: 16/3/98							
Azimuth: 173° mag.			AMG: 3710205411315		E.L./PROSPECT: EL 19/93 Luina, Tasmania	DRILL RIG: LM 70						LAB: Analabs				FINISH DATE: 30/3/98							
Logged by: Graeme B. Weber						ELEMENT/DETECTION LIMIT (ppm unless stated)																	
From	To	Rec.	Mag.Susc(m)	Value	DESCRIPTION	Sample No	From	To (m)	Au(10 ppb)	Cu (2)	Pb (3)	Zn(2)	Ag(1)	As(1)	Fe%	Mn (3)	Sn (3)	W (10)	Sb (0.5	Bi(1)	Ni(3)	Co(2)	
			158.0-159.0	34.70	Fract. more intense from 149.8 m. core contains extensive																		
			159.0-160.0	40.00	bl. ?chl. infill of microfractures in core.																		
			160.0-161.0	48.00	At 154.7 - 156.1m. intense brecciation, angular mod./ gy. bn. &																		
			161.0-162.0	52.00	mod. bn. cherts swimming in v. dk. bl.-purple ?chl. groundmass.																		
			162.0-163.0	50.00	Thin fault @ 163.7 m. fault pug each side of 15 cm. qtz. breccia																		
					zone int/ L 80°. After this fault core much less fractured,																		
					Mineralisation/Alteration:																		
					Around 149 m. several small zones of fine grained py. occ. ?primary																		
					148.2 - 148.5 core quite gn. chl. & fract.																		
					Occ. py. & ?Sn. min. from 151.0-152.45.																		
					Dk. red bl. infill of fract. @ 153.4 ?sphalerite.																		
					Occ. round zones of py specks to 10% py over small int. from 164 m.																		
					Plate 6. 149.95 - 153.5 m. Showing constant qtz. carbonate																		
					veining with fine atomising veinlets through core. Dk. gy.																		
					sections are due to ?chl. fract. fill..																		
					Plate 7: 154.5 - 159 m. showing the most intense qtz. chl. breccia																		
					development.																		
					Plate 8: Close up of intense brecciation.																		
					Metasediments & ?Certs																		
162.20	**199.50**				**Geological:**																		
163.50	169.50	6.00	163.0-164.0	50.00	Generally consists of gy. bn. non haematised coarse lithic SS beds	1061	163.0	165.0		72	1.5	210		1	11.20	1426					72		
169.50	175.30	5.80	164.0-165.0	48.00	up to grit size, with interbedded mod. red bn. ?silic	1062	165.0	167.0		65	1.5	184		1	9.97	1297					69		
175.30	181.50	6.20	165.0-166.0	30.00	mudstones or cherts.	1063	167.0	169.0		73	4	174		3	10.80	1217					74		
181.50	187.50	6.00	166.0-167.0	38.00	Generally this unit has the highest Magn. Susc. readings up to 70.	1064	169.0	171.0		55	1.5	177		2	9.90	1029					71		
187.50	193.50	6.00	167.0-168.0	48.00	From 171.8 m. large lithic SS unit some fract. @ 173.1 m.	1065	171.0	173.0		62	9	187		2	9.71	117					67		
193.50	199.50	6.00	168.0-169.0	45.00	188.75 - 188.9 m. thin zone of relict haematised ?chert with 5% py	1066	173.0	175.0		70	4	184		1	10.00	1471					72		
			169.0-170.0	50.00	in one vein with bl ?mag./chl.?Sn. ?F.	1067	175.0	177.0		65	4	164		3	9.90	1732					71		
			170.0-171.0	50.00		1068	177.0	179.0		48	1.5	126		2	10.50	868					67		
			171.0-172.0	30.00																			
			172.0-173.0	38.00	**Structural:**	1069	187.0	189.0		51	1.5	97		3	10.30	865					62		
			173.0-174.0	32.00	Unit much less fractured, but occ. zones (eg) 164 - 166 m.	1070	189.0	191.0		55	1.5	99		2	10.20	994					67		
			174.0-175.0	28.00	Less qtz. carb. veining.	1071	191.0	193.0		55	1.5	102		3	10.00	1170					65		
			175.0-176.0	0.5-46.0	First good orientation completed on bedding @ 160.5 m.; Int. L.	1072	193.0	195.0		66	1.5	111		2	9.13	1075					70		
			176.0-177.0	44.00	@ 161.9 m. ,15° gives 80°/68°/170°.	1073	195.0	197.0		65	1.5	103		1	10.50	978					68		
			177.0-178.0	14.00	At 168.6 vein at right L's to core axis therefor 80°/40°/350°	1074	197.0	199.5		72	1.5	102		2	10.50	1180					74		
			178.0-179.0	46.00	This indicates a variety of fracture/shear directions.																		
			179.0-180.0	31.10	From 165.7-166.1 m. (Plate 9) shows selective micro fracturing																		
			180.0-181.0	43.60	in one particular bed.																		
			181.0-182.0	44.00	Orient. @ 190.5 m. vein with chl. breccia & carb. is 80°/65°/170°																		
			182.0-183.0	36.00	therefor parallel to bedding.																		

210061

DIAMOND DRILL HOLE LEDGER

Hole No: NMM 1

Local Grid 5000E, 5017N. Inclination: -55°
Azimuth: 173° mag. AMG: 3710205411315
Logged by: Graeme B. Weber

E.L./PROSPECT: EL 19/93 Luina, Tasmania

DRILLERS: Almac Drilling Pty.Ltd.
DRILL RIG: LM 70
LAB: Analabs
START DATE: 16/3/98
FINISH DATE: 30/3/98

ELEMENT/DETECTION LIMIT (ppm unless stated)

From	To	Rec.	Mag.Susc(m)	Value	DESCRIPTION
			183.0-184.0	47.00	Bedding in this unit is again very hard to observe 'ghosting'
			184.0-185.0	24.00	probably due to secondary silicification.
			185.0-186.0	31.00	Veins at 191.9 - 193.0 m. all appear to strike N-S and dip west. at
			186.0-187.0	27.00	various angles. This is the same as a strong vein @ 164.8 m. which
			187.0-188.0	70.00	was orientated 360°/60°/270° which is quite unusual.
			188.0-189.0	32.00	**Mineralisation ?Alteration:**
			189.0-190.0	35.00	173.1 - 175.4 a series of laminated qtz. veins with bl min. ?Sn.
			190.0-191.0	38.00	also v. thin tension gash veins infilled with a little silica. & bl. Xstals
			191.0-192.0	36.00	non - magnetic.
			192.0-193.0	48.00	One 10 cm. bleb of small py. blebs @ 183.8 m.
			193.0-194.0	43.00	
			194.0-195.0	43.00	Drill hole terminated at 199.5 m. after having intersected
			195.0-196.0	37.00	the magnetic target zone.
			196.0-197.0	48.00	
			197.0-198.0	43.00	Plate 9: Top core tray upside down! Bottom tray shows typical
			198.0-199.0	44.00	lithic SS core, in 163.5 - 167.7 m. interval. Note selective tension
			199.0-199.5	47.00	gash veining in thin unit in middle of bottom tray where thin
					alomising veinlets are confined to one small ?bed.

Bore Hole Surveys

Depth	Direction (mag.)	Dip
0.0 m	173°	-55°
31 m	172°	-53°
62 m	171°	-52°
91 m	171°	-52°
121 m.	170.5°	-51.5°
163.5 m.	171°	-51.5°

Sample No	From	To (m)	Au(10 ppb)	Cu (2)	Pb (3)	Zn(2)	Ag(1)	As(1)	Fe%	Mn (3)	Sn (3)	W (10)	Sb (0.5	Bi(1)	Ni(3)	Co(2)

210062