

DEPTH	INTERVAL	DEPTH from-to : <u>ROCK UNIT</u> <small>capital letters, underlined</small>	MINERALISATION	BULKED ASSAYS
		Depth: Description and notes inserted about 10mm		

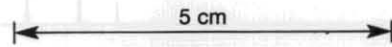
FOR ABBREVIATIONS SEE "FIELD GEOLOGIST'S MANUAL", D.A. BERKMAN & W.R. RYALL (ED), MONOGRAPH NO. 9 AUSTRALAS. INST. MIN. METALL. - 1976

028435

AFTER TYPING THIS SIZED FORM WILL BE PHOTO-REDUCED TO A4 SIZE

0-3.0 (2.0)	TRICONE TO 3.0m - NO CORE			
3.0-9.9 (6.9)	LOST CORE 3-7.4 ; 7.6-9.9. <u>7.4-7.6 DOLOMITE SULPHIDE LOOE</u> -Carbonates, qtz, with hard bluish green talc (serpentine, granular texture)			Po, Py, Fluorite 10% in recovered fragments 7.4-7.6.
9.9-19.0 (9.1)	9.9-19.0 GREY DOLOMITE WITH QUARTZ AND CALCITE. Brecciated and weakly recrystallised, some minor talcose alteration. qtz and carbonates occur as infillings around angular fragments in brecciated zones.			Po, Py as blebs along features with recryst. carbonates. 4.1%.
19.0-49.0 (30.0)	19.0-49.0 MIXED GREY DOLOMITE / DOLOMITE SULPHIDE LOOE. Dolomite > DSL. Intervals of mottled grey dolomite ^{to 3m} separated by talc qtz-carbonate or talc/serpentine DSL 0.3-3.0m. Overall DSL 30%, some finely banded, or coarsely crystalline granular/massive carbonate or serpentine			Dolomite: blebs Po, Py trace sp along features, and thin veinlets, stringers 1%. DSL: Po > Py, Fluorite, trace arsenic, sp. weak trace cp in varying proportions and amounts % mineralisation varies 5-25%, average 10-15%. Overall: total 5.7%
49.0-67.7 (18.7)	49.0-67.7 DOLOMITE SULPHIDE LOOE. Pale green and dark green talc with dark green and grey serpentine, with minor qtz and carbonates. Some banding with carbonates and sulphides, irregular, elsewhere almost massive talc & serpentine with some? phlogopite lining cavities and enveloping interstitial qtz and Fluorite.			Po, Fluorite, trace py, weak trace cp, varying amounts of fine grained dark? kassiteite (trace). Percent mineralisation fluctuates <1% to 50% on a scale of a few cm, and overall over a few metres: 49-54m 10% 54-56.7 50% 56.7-58.7 15% 58.7-63.7 40% 63.7-66.7 5-7% 66.7-67.7 30%
67.7-86.3 (18.6)	67.7-86.3 SERICITIC SILTSTONES, SILTY SHALES. Greenish grey siltstones with minor grey quartzose siltstones (massive) to 0.5m and thinly interbedded greenish shale beds. Brecciated and contorted - clasts of siltstone and shale in a poorly structured matrix. Some thin intercalations of talc and serpentine near upper contact. Hard, silicified.			Po > Py, thin veinlets and stringers } 7-10% Fluorite - carbonates - qtz - talc - Po - cp veins
86.3-104.8 (18.5)	86.3-104.8 QUARTZ FELSPAR PORPHYRY Matrix white. Fine new matrix. faintly greyish in central portion. Phenocrysts: qtz - rounded, turbid, to 6mm, 10% near margins, 15-20% in central portion. Felspar - creamy white ill defined patches, small well formed phenocrysts to 1.2mm, some minor alteration. 5-7% near margins, 2-3% in central portion			Py > Po, alternating intervals to 2m of Po > Py, Py > Po. Sulphides as distinct rounded grains to 4mm, and diffuse fine grained aggregates. Trace cassiteite, Fluorite, sp. weak trace arsenic. 20%.
104.8-120.3 (15.5)	104.8-120.3 SERICITIC SILTSTONES, SILTY SHALES AND QUARTZOSE SILTSTONES. As for 67.7-86.3, except that below 109 m, becomes less greenish, some almost black carbonaceous shale intervals appear. Increased siltstone, sandstone towards bottom of hole, decrease in shale beds.			104.8-109.4 Py > Po, thin veinlets and stringers, disseminated in siltstone beds. 5-7%. Some rare blebs Po to 2x3cm. 109.4-120.30 as above, but less sulphides and some sparse carbonate - qtz - Fluorite - py veinings. 3-5%

END OF HOLE 120.3m.



FIELD COPY - COPY TO BE SENT TO MELBOURNE FOR TYPING

METALS EXPLORATION LTD.
EXPLORATION DEPARTMENT

SUMMARY DRILL LOG
Scale 1:1000, 1:500, 1:250
(when reduced to A4)

Prepared by: G. BRODAGENT
Date: 5.3.50.

HOLE No. MBD 27
Sheet of

SAMPLE NO.	SAMPLE NO	FROM	TO	INTER-VAL	Sn	Sn	Cu	Pb	Zn	Ag	W	As	Check Sn	Bulked Assays
SPLIT CORE	GROUND CORE	m	m	m	SPLIT	GROUND								
97387		7.4	7.6	0.2	2650									
88		9.9	11.1	1.2	370									
89		11.1	13.1	2.0	100									
90		15.2	17.2	2.0	250									
91		17.2	19.0	1.8	60									
92		19.0	21.0	2.0	4700									
93		21.0	23.0	"	600									
94		23.0	25.0	"	1250									
95		25.0	27.0	"	1050									
96		27.0	29.0	"	900									
97		29.0	31.0	"	5600		38	50	45	<1	<10	<10		
98		31.0	33.0	"	6300		30	70	290	<1	15	X		
99		33.0	35.0	"	310									
97536		35.0	37.0	"	1000									
37		37.0	39.0	"	1350									
38		39.0	41.0	"	320									
39		41.0	43.0	"	3400									
40		43.0	45.0	"	1600								1550	Re check of check Assay
41		45.0	47.0	"	640									
42		47.0	49.0	"	50									
43		49.0	51.0	"	7000		320	55	2190	<1	50	620		
44		51.0	53.0	"	7900		140	65	110	<1	25	55		
45		53.0	55.0	"	1.19%		190	60	140	<1	10	15		
46		55.0	57.0	"	1200		420	X	50	<1	<10	35		
47		57.0	59.0	"	2000		180	X	14	<1	<10	15		
48		59.0	61.0	"	26		410	X	22	<1	10	25		
49		61.0	63.0	"	70		340	X	26	<1	<10	X		
50		63.0	65.0	"	7300		220	30	75	<1	25	1700		

028430

Notes: - Sn by XRF B. Method.

X means less the detection limit

METALS EXPLORATION LTD - MT BISCHOFF TIN PROSPECT
 ASSAY SUMMARY SHEET HOLE NO, MBD 27A
 SAMPLE TYPE : DRILL CORE FROM 7.4 TO 65.0

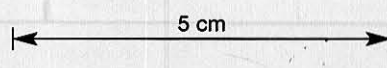
SAMPLE NO.	SAMPLE NO	FROM	TO	INTER-VAL	Sn	Sn	Cu	Pb	Zn	Ag	W	As	Check Sn	Bulked Assays
SPLIT CORE	GROUND CORE	m	m	m	SPLIT	GROUND								
97551		65.0	67.8	2.8	160									
52		67.8	69.8	2.0	50									
53		82.06	84.2	2.14	30									
54		84.2	86.2	2.0	130									
55		86.2	88.2	"	500		240	24	130	41	25	40		
56		88.2	90.2	"	1100		250	28	60	41	15	40		
57		90.2	92.2	"	450		440	9	130	41	10	520		
58		92.2	94.2	"	2200		760	125	920	4	85	4000		
59		94.2	96.2	"	780		530	5	75	41	20	340		
60		96.2	98.2	"	1200		240	11	140	41	25	270	1000	Re check of check Assay
61		98.2	100.2	"	3850		600	34	46	41	40	320		
62		100.2	102.2	"	1800		450	18	110	3	55	540		
63		102.2	104.2	"	800		430	36	50	41	20	2900		
64		104.2	104.8	0.6	500		330	11	30	41	15	270		
65		104.8	106.8	2.0	370									

028437

Notes:— Sn by XRF Bi Method

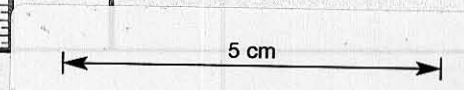
METALS EXPLORATION LTD - MT BISCHOFF TIN PROSPECT
 ASSAY SUMMARY SHEET HOLE NO. MBD 27B
 SAMPLE TYPE : DRILL CORE FROM 65 TO 106.8

0-7.4	TRICONE TO 3.0 m - NO CORE. 0-7.4 m LOST CORE - DSL?	?																								
7.4-7.6	7.4-7.6 recrystallised carbonates and qtz with hard mottled bluish green 'serpentine' (Auriferous rich), granular, crystalline texture, some green talc? material. 7.6-9.9 Lost core.	8/7			7.4-7.6 po, py, fluorite, as blebs and grains	10%																				
9.9-18.99	9.9-18.99 GREY DOLOMITE WITH QZ AND CALCITE Mottled greys - weakly recrystallised dolomite, extensively fractured and brecciated. Disrupted angular fragments of dolomite with grey corroded margins, cemented by a matrix of recrystallised creamy coloured dolomite, white calcite and minor qtz. Some sparse greenish patches due to incipient talcose alteration.	3			9.9-18.99 po, py as blebs along fractures and in recrystallised carbonates	< 1%																				
18.99-22.06	18.99-22.06 DOLOMITE SULPHIDE LODGE Mottled whites and greens - recrystallised carbonates and qtz with greenish talcose alteration, patches of grey serpentine and a hard bluish green 'serpentine' material. The alteration appears to have proceeded along brecciation fractures.	8		Contact 60°	18.99-22.06 po, py as blebs to 2mm. Fluorite disseminated throughout 3-5%. Trace arsenic as blebs to 10x8mm	15-20%																				
22.06-23.2	22.06-23.2 RECRYSTALLISED DOLOMITE. Weakly recrystallised grey dolomite, brecciated, with thin films black serpentine along fractures	3/2		Contact irregular, 50°	22.06-23.2 po as blebs along fractures and thin stringers	1-2%																				
23.2-41.10	23.2-41.10 MIXED DOLOMITE/DOLOMITE SULPHIDE LODGE. Dolomite > DSL. Intervals of weakly mottled recrystallised dolomite, fractured and brecciated, with recrystallised carbonates and thin films talc and serpentine along fractures. Dolomite Sulphide lodge - intervals of recrystallised carbonates and quartz partially replaced by greenish grey talc or dark grey serpentine, frequently showing delicate, contorted banding ('wrigglic' texture). Clasts of corroded grey dolomite to 10x8cm are commonly included. Distribution is as follows: <table border="0" style="width:100%; border:none;"> <tr> <td style="width:50%;">Dolomite</td> <td style="width:50%;">Dolomite Sulphide Lodge</td> </tr> <tr> <td>23.55-23.75 m</td> <td>23.2-23.55 m, 20°</td> </tr> <tr> <td>24.2-24.45</td> <td>23.75-24.2 m.</td> </tr> <tr> <td>25.4-26.5</td> <td>24.45-25.4</td> </tr> <tr> <td>27.05-28.0</td> <td>26.5-27.05 65°</td> </tr> <tr> <td>28.45-30.85</td> <td>28.0-28.45 45°</td> </tr> <tr> <td>31.20-33.8</td> <td>30.85-31.20</td> </tr> <tr> <td>34.1-36.8</td> <td>33.8-34.1 30°</td> </tr> <tr> <td>37.3-37.85</td> <td>36.8-37.3 70°</td> </tr> <tr> <td>38.15-41.10</td> <td>37.85-38.15 80°</td> </tr> </table>	Dolomite	Dolomite Sulphide Lodge	23.55-23.75 m	23.2-23.55 m, 20°	24.2-24.45	23.75-24.2 m.	25.4-26.5	24.45-25.4	27.05-28.0	26.5-27.05 65°	28.45-30.85	28.0-28.45 45°	31.20-33.8	30.85-31.20	34.1-36.8	33.8-34.1 30°	37.3-37.85	36.8-37.3 70°	38.15-41.10	37.85-38.15 80°	3 1/8 h		Contact 20°	23.2-41.10 Mineralisation in Dolomite intervals: po, trace py and sp as blebs along fracture planes, 1%, variable from trace to 2%. Mineralisation in DSL intervals: po, py, fluorite trace arsenic, sp, rare ep. po as blebs and grains along 'wrigglic' banding and as irregular masses to 8x5cm py intergrown with po, blebs to 2x3mm. Fluorite is patchily distributed - up to 5% in some intervals and trace amounts in others. The other sulphides occur sporadically as blebs and grains. Overall, mineralisation is variable 5-25%, averages 10-15%.	5%
Dolomite	Dolomite Sulphide Lodge																									
23.55-23.75 m	23.2-23.55 m, 20°																									
24.2-24.45	23.75-24.2 m.																									
25.4-26.5	24.45-25.4																									
27.05-28.0	26.5-27.05 65°																									
28.45-30.85	28.0-28.45 45°																									
31.20-33.8	30.85-31.20																									
34.1-36.8	33.8-34.1 30°																									
37.3-37.85	36.8-37.3 70°																									
38.15-41.10	37.85-38.15 80°																									
41.10-43.15	41.10-43.15 DOLOMITE SULPHIDE LODGE. Recrystallised carbonates and quartz as above with minor talcose alteration, weak serpentine etc.	3/6/7		Contact 80°	41.10-43.15 po, py, fluorite 1-2%, trace sp, rare grains arsenic.	10-15%																				
43.15-48.98	43.15-48.98 RECRYSTALLISED DOLOMITE As for 22.06-23.2 m, with some yellowish green talcose patches to 10 cm.	3/6		Contact 80°	43.15-48.98 trace po, sp as blebs along fracture planes	1-2%																				



DEPTH from-to : ROCK UNIT capital letters, underlined Depth: Detailed rock description and notes. indented about 15mm.	GRAPHIC LOG SEE LEGEND ON BACK	STRUCTURAL AND VEIN INFORMATION ATTITUDE = angle between feature and LONG CORE AXIS	MINERALISATION	NOTES
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CONTINUED FROM PAGE 2							
3.1	3.0	48-78-67-70 DOLOMITE SULPHIDE LOOSE	6/7	← Contact 90°	48-78-54.5 po, fluorite, weak trace cp, patchily intercalated with talc and serpentinite, variable 1%-50% on a scale of a few feet to centimetres. Fluorite is interstitial and commonly associated with a white micaceous mineral. Trace of fine black cassiterite?	10%	
3.0	3.1	54.5-56.78 Mottled bronze/white/green due to po, carbonates and qtz and talc/serpentinite. Coarsely granular texture.	4 1/8/67		54.5-56.78 po >> py, weak trace cp, and interstitial colorless fluorite 1-2%. Granular texture, intergrown with carbonates etc.	50%	
3.1	3.1	56.78-58.7 Granular carbonates and quartz with some talcose alteration surrounding corroded clasts of weakly altered/recrystallised pale grey f.g. dolomite	8/6/3		58.7-63.75 po >> py, trace malachite. Blebs and grains - py is as rims on po grains or lining small fractures.	15-20%	
3.1	3.1	58.7-63.75 Mottled greens, greys with bronze po. Mainly grey talc serpentinite with minor talcose carbonates and some interstitial grey quartz. Small patches of semi-green talc to 3x5cm occur throughout.	7/6/4		63.75-65.08 po, py disseminated as blebs and following banding where it occurs. Some blebs py to 5x1cm	40%	
3.1	3.1	63.75-65.08 Mottled dark grey-green talc serpentinite with some finely banded white magnesite and other carbonates in discrete zones 20-30cm.	7/6		65.08-66.73 py in patches to 4x3cm, minor po as blebs concentrated along fractures	10%	
3.1	3.0	65.08-66.73 Dolomite, brecciated and recrystallised. Faintly mottled grey/white and weakly altered to pale greenish talc material along fractures.	3	← 66.5 15cm crushed zone	66.73-67.70 po > py, patchily disseminated.	3-5%	
3.1	0.9	66.73-67.70 Grey serpentinite, intergrown with talcose carbonates and small patches of grey qtz. lower 50cm is massive black serpentinite	7/6/8	← Contact 45°	67.70-82.08 SILTSTONES, MINOR SILTY SHALES. Khaki-greenish grey clay rich thinly bedded siltstones and silty shales with medium grey (fine grained) siltstone intervals to 0.5m (also thinly bedded) and some sparse hard bluish grey fine grained quartzite beds to 5cm. Disrupted and contorted - soft sediment disruption? - followed by later fracturing and minor shearing. Some intervals have a slump breccia like fabric, with clasts of siltstone and shale in a poorly structured matrix.	30%	
0.9	1.0	67.70-82.08 SILTSTONES, MINOR SILTY SHALES. Khaki-greenish grey clay rich thinly bedded siltstones and silty shales with medium grey (fine grained) siltstone intervals to 0.5m (also thinly bedded) and some sparse hard bluish grey fine grained quartzite beds to 5cm. Disrupted and contorted - soft sediment disruption? - followed by later fracturing and minor shearing. Some intervals have a slump breccia like fabric, with clasts of siltstone and shale in a poorly structured matrix.	10/9	← 68.1 Bedding 30° ← 70.2 10mm qtz-carbonate-po-py fluorite vein, 20° ← 71.0 Bedding 60° ← 71.9 50mm breccia zone - fluorite-talc-carbonate-po-py-qtz veins, 25° ← 74.0 Bedding 45° ← 75.5 10mm py-fluorite-carbonate-qtz vein, 20° ← 76.3 Bedding 60° ← 77.5 20mm py-fluorite-carbonate-qtz-po vein, 25° ← 78.0 Bedding 40° ← 78.6 25mm vuggy py-po-fluorite-qtz vein, 25° ← 79.5 carbonate-qtz-fluorite-talc vein 5-15mm, 15° ← 81.4 20mm irregular serpentinite-po-carbonate-fluorite-qtz vein, 15° ← Contact irregular, 50°	5-7%		
1.0	1.0	82.08-84.2 DOLOMITE SULPHIDE LOOSE? or VEIN? Virtually massive sulphides - py, po, cp, arsenic, sp with inclusions of silicified sediments and some black, grey green serpentinite	9/1?		82.08-84.2 py >> po, vuggy, pitted with a trace cp, arsenic and sp, mainly intergrown with py and po	90%	
1.0	2.5	84.20-86.28 SILTSTONES, MINOR SILTY SHALES. As for 67.70-82.08, very brecciated and disrupted, hard conchoidal and silicified	5/4/7?	← Contact 60°	84.20-86.28 po, py as blebs to 6mm and finely disseminated in siltstone clasts.	2%	
2.5	0.5	86.28-104.83 QUARTZ FELSPAR PORPHYRY. 86.28-92.0 Matrix white and finely crystalline. Phenocrysts: qtz - rounded colorless grains to 6mm, some subhedral, 10%. Felspar - creamy white with yellowish-brown alteration of the larger grains, mostly 1-2mm, 5-7%. Upper 50cm is fine grained, with reduced proportions and size of phenocrysts.	10/9	← Contact 55°	86.28-92.0 py, minor po, trace sp, weak trace arsenic and dark fluorite with coarse grains cassiterite. The sulphides occur as rounded grains with distinct margins to 3x4mm, other minerals finely disseminated.	15-20%	
0.5	3.0	92.0-102.4 Matrix requires a faintly greyish coloration. Phenocrysts: Qtz increases to 15-20%, well formed clear phenocrysts to 2mm. Felspar decreases to 2-3%, patchy distribution.	1		92.0-102.4 py = po as fine grained clots and aggregates. Alternating intervals po >> py and py >> po. Trace arsenic, sp, trace grains pale green fluorite and black cassiterite to 15mm	20%	
3.0	3.0		92	← 93.7 20mm py-po-sp vein, 35°			
2.7	2.6		96				



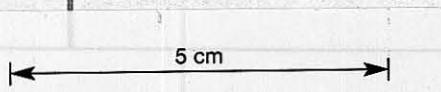
DEPTH from-to : ROCK UNIT capital letters, underlined Depth : Detailed rock description and notes indented about 15mm.	GRAPHIC LOG SEE LEGEND ON SHEET 7	STRUCTURAL AND VEIN INFORMATION ATTITUDE = angle between feature and LONG CORE AXIS	MINERALISATION	NOTES
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See previous page.

See previous page.

2.8	2.7	3.1	3.6	1.6	2.1	3.0	3.0	3.1	3.1	3.1	3.0	3.0	3.0
<p>102.4 - 104.83 White finely crystalline matrix with phosocysts etc as for 86.28 - 92.0 (page 3).</p> <p>104.83 - 109.4 SILTSTONES minor SILTY SHALES. See 67.70 - 82.08 for description (page 3). Upper 1-1.5 m silicified, brecciated and fractured.</p> <p>109.4 - 120.3 THINLY BEDDED SILTSTONES / SHALES with minor QUARTZITES. The clay rich siltstone beds (and the shale beds) gradually become less green, darker grey with some shaly carbonaceous intervals (thinly bedded, to 1.5m). Also, some pale grey quartzose siltstone beds to 2cm are apparent, together with some massive bluish grey quartzite beds to 0.5m particularly towards the bottom of the hole. Disrupted and weakly brecciated (esp quartzites).</p> <p>END OF HOLE 120.3m.</p>													
96	100	104	108	112	116	120	124	128	132	136	140	144	148
<p>10/4 ← Contact 70°</p> <p>← 105.4 Bedding 55°</p> <p>← 108.0 Bedding 50°</p> <p>Gradual change</p> <p>10/4 (ii) ← 111.7 Bedding 35°</p> <p>← 115.2 Bedding 35°</p> <p>← 117.3 30 mm qtz-carbonate vein, 45°</p>													
<p>102.4 - 104.83 py, trace po, weak trace sp, rare arsen and fluorite. Fe sulphides etc as distinct grains to 2-3mm. 15%</p> <p>104.83 - 109.4 py > po as thin veinlets and stringers and finely dissem. Some rare blebs po to 2x3 cm. 5%</p> <p>109.4 - 120.30 py > po in thin veinlets and stringers and finely dissem. Some sparse carbonate-qtz-fluorite-py-marcasite-po veinlets to 3-4 mm. 3-5%</p>													



DEPTH from-to : ROCK UNIT Depth : Detailed rock description and notes indented about 15 mm.	GRAPHIC LOG SEE LEGEND ON SHEET 1	STRUCTURAL AND VEIN INFORMATION ATTITUDE = Angle between feature and LONG CORE AXIS	MINERALISATION Visual estimate	NOTES
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