

MICROFILMED

MT BISCHOFF TIN PROSPECT
EXPLORATION LICENCE 13/79
TASMANIA

MONTHLY REPORTS FOR AUGUST TO DECEMBER 1979

OPEN FILE

AMG REFERENCE POINTS ADDED

METALS EXPLORATION LTD.

20 LITTLE COLLINS STREET MELBOURNE, AUSTRALIA 3000. TELEPHONE 654 4200. TELEX AA32051. TELEGRAM ROCKDOC.

MT. BISCHOFF TIN PROSPECTEXPLORATION LICENCE 13/79TASMANIAREPORT FOR DECEMBER 1979

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A. Jannink

18.1.80

MT. BISCHOFF TIN PROSPECTTASMANIAREPORT FOR DECEMBER, 1979GENERAL:

The start of the diamond drilling programme was delayed until 15th December, 1979, due to the drilling rig taking longer to complete its previous contract than expected. Only a few days of drilling were achieved prior to the Christmas-New Year shut-down.

As a result a second drilling rig will be engaged in early January to make up for the lost time.

Application has been made for extension of the Exploration Licence 13/79 for a further 6 months from 1st January, 1980.

Inspections were made during the month to Mt. Bischoff by senior personnel of C.R.A.E. and by Board Members of Metals Exploration Ltd.

DIAMOND DRILLING:

Diamond drilling commenced on 15th December, 1979. Hole MBD 14 advanced from 0 to 46 metres and is in progress. The hole intersected the Stanhope porphyry dyke between 9.2 metres and 24.84 metres (thickness 15.64 metres).

Significant assay results are as follows:

From	To	Width (m)	% Sn	Rock Type
9.2	24.84	15.64	0.23	Quartz Porphyry
Incl.				
11.2	23.2	12.0	0.28	" "

"OLD CORE":

The core of two further "old" diamond drill holes has been re-logged. Re-boxing of old core was continued.

Hole B3 between 17.7 metres and 56.1 metres was re-sampled and assayed. A significant intersection was found in a zone where results were not previously recorded:

From	To	Width (m)	% Sn	Rock Type
45.7	56.1	10.4	0.44	Dolomite Sulphide Lode

GROUND MAGNETICS:

Gridding and line cutting has commenced to cover on the ground the airborne magnetic anomaly number 12 in the south west corner of the Exploration Licence. A base line 1200 metres long has been completed and cross lines 120 metres apart have been started.

Permission has been obtained from land-holders to do this work.

REGIONAL:

Four samples were taken from dumps outside the lower adit of Fook's Lode and one from black pyritic brecciated shale in the Waratah river some 200 metres north of the Calciner.

The highest results were as follows:

Sn	Cu	Pb	Zn	Co	Au	
1.05%	1050	670	2.6%	40	0.15	(ppm)

Two samples were also petrologically studied.

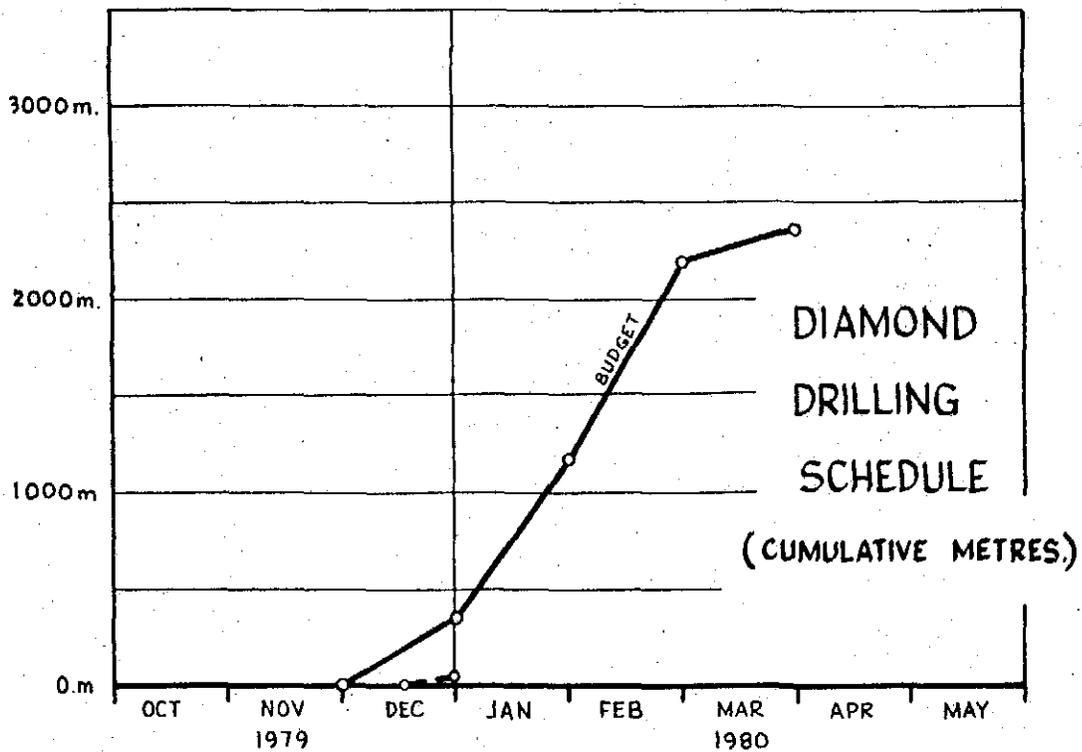
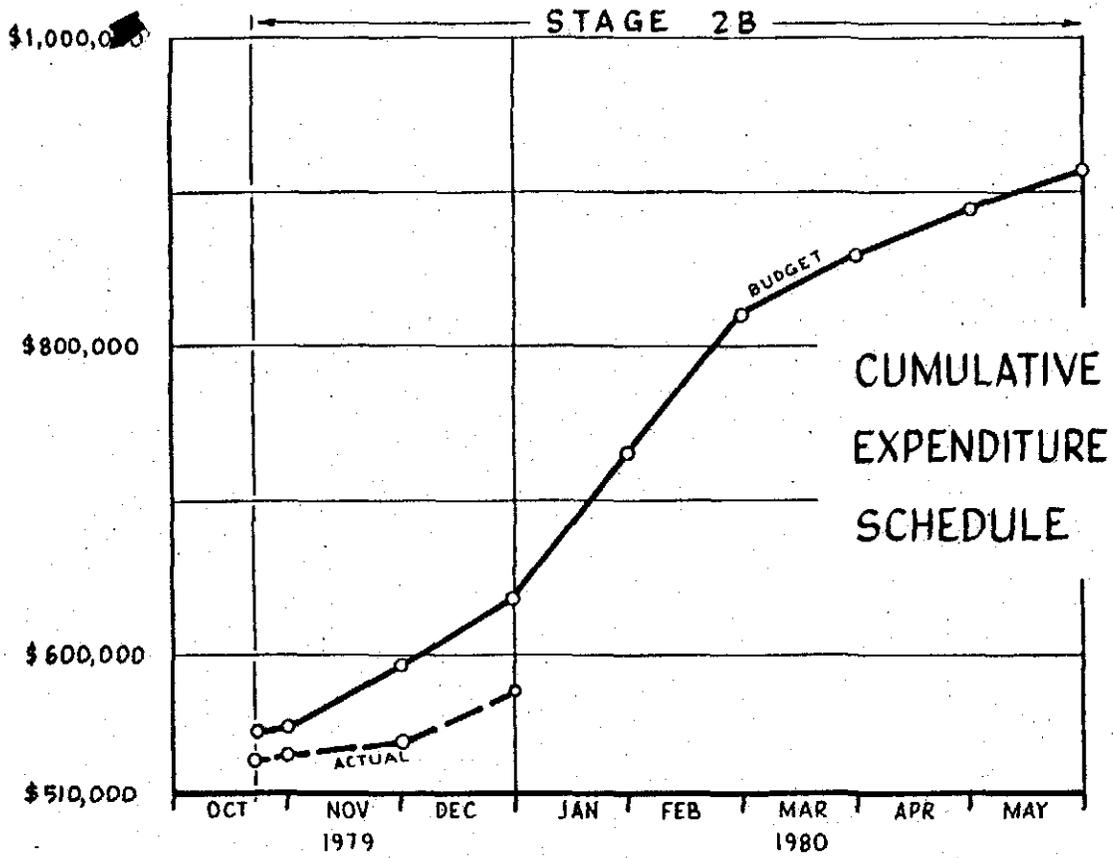
METALLURGY:

Mr. L. Bollen, Metallurgical Consultant and Mr. R. Kelly, Metallurgist with C.R.A.E. discussed the revised metallurgical programme with AMDEL staff. An amended proposal will be drafted by AMDEL for final approval by M.E.L.

A report from Cleveland was received. The report was encouraging and stated as a preliminary assessment the "Mt. Bischoff ores are amenable to conventional gravity treatment and that overall recoveries in the 65 - 75% range could be expected".

MT. BISCHOFF PROJECT CRA/MELDETAILED EXPENDITURE STATEMENT FOR DECEMBER, 1979STAGE 2B

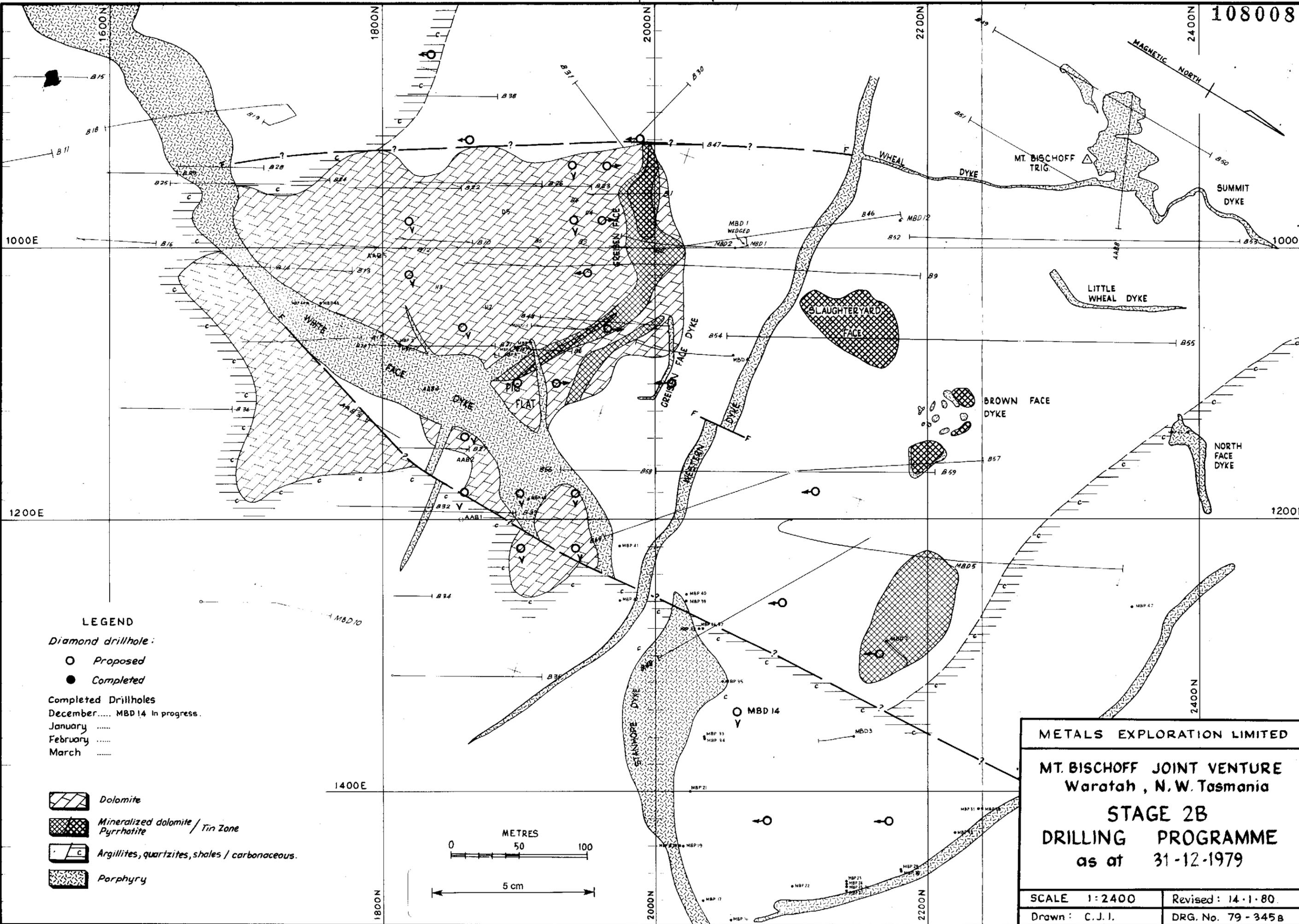
	<u>THIS MONTH</u>		<u>STAGE 2B TO DATE</u>	
	<u>BUDGET</u>	<u>ACTUAL</u>	<u>BUDGET</u>	<u>ACTUAL</u>
<u>Field Costs</u>				
Technical Services	10,500	10,921	26,200	16,181
Travel and Accommodation	350	438	1,400	1,072
Labour	1,800	1,666	3,600	2,702
Camp and Messing	650	1,215	2,850	1,433
Vehicles	1,000	894	2,000	1,733
Equipment Rental	250		300	
General Expenses and Consumables	1,450	12,826	13,550	12,713
Lease Expenses	500	148	500	148
Track Cutting				
Diamond Drilling	25,800		25,800	
Site preparation		3,870	4,500	3,870
Metallurgical	2,500		5,000	
Assays	1,080	42	1,080	42
<u>Capital Items</u>				
Core Shed	-		5,100	5,085
	<u>45,880</u>	<u>32,020</u>	<u>91,880</u>	<u>44,979</u>
<u>Over Runs</u>				
Metallurgical - C.R.A.E.				23,500
Stage 1 - M.E.L.				11,308
<u>STAGE 2A</u>				198,818
<u>STAGE 2A - EARLY START</u>				29,020
<u>STAGE 1</u>				270,000
<u>CUMULATIVE EXPENDITURE TO DATE</u>				<u>577,625</u>



MT. BISCHOFF

STAGE 2B SUMMARY

as at 31-12-79



LEGEND

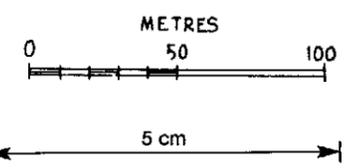
Diamond drillhole:

- Proposed
- Completed

Completed Drillholes

- December..... MBD 14 In progress.
- January
- February
- March

- Dolomite
- Mineralized dolomite / Tin Zone
Pyrrhotite
- Argillites, quartzites, shales / carbonaceous.
- Porphyry



METALS EXPLORATION LIMITED

MT. BISCHOFF JOINT VENTURE
Waratah, N.W. Tasmania

STAGE 2B
DRILLING PROGRAMME
as at 31-12-1979

SCALE 1:2400	Revised: 14.1.80.
Drawn: C.J.I.	DRG. No. 79-345B



METALS EXPLORATION LTD.

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MT. BISCHOFF TIN PROSPECT

EXPLORATION LICENCE 13/79

TASMANIA

REPORT FOR NOVEMBER 1979

Distribution:	Copy No.	1:	Department of Mines, Tasmania
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A. Jannink

21.12.79

MT. BISCHOFF TIN PROSPECTTASMANIAREPORT FOR NOVEMBER 1979GENERAL

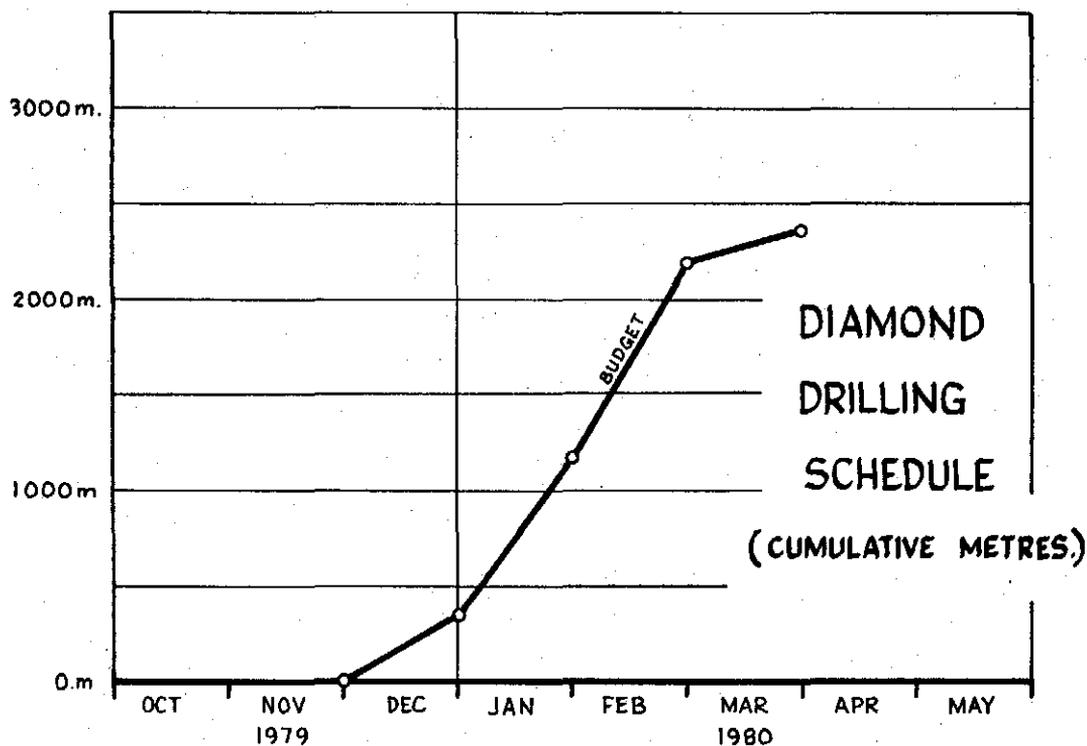
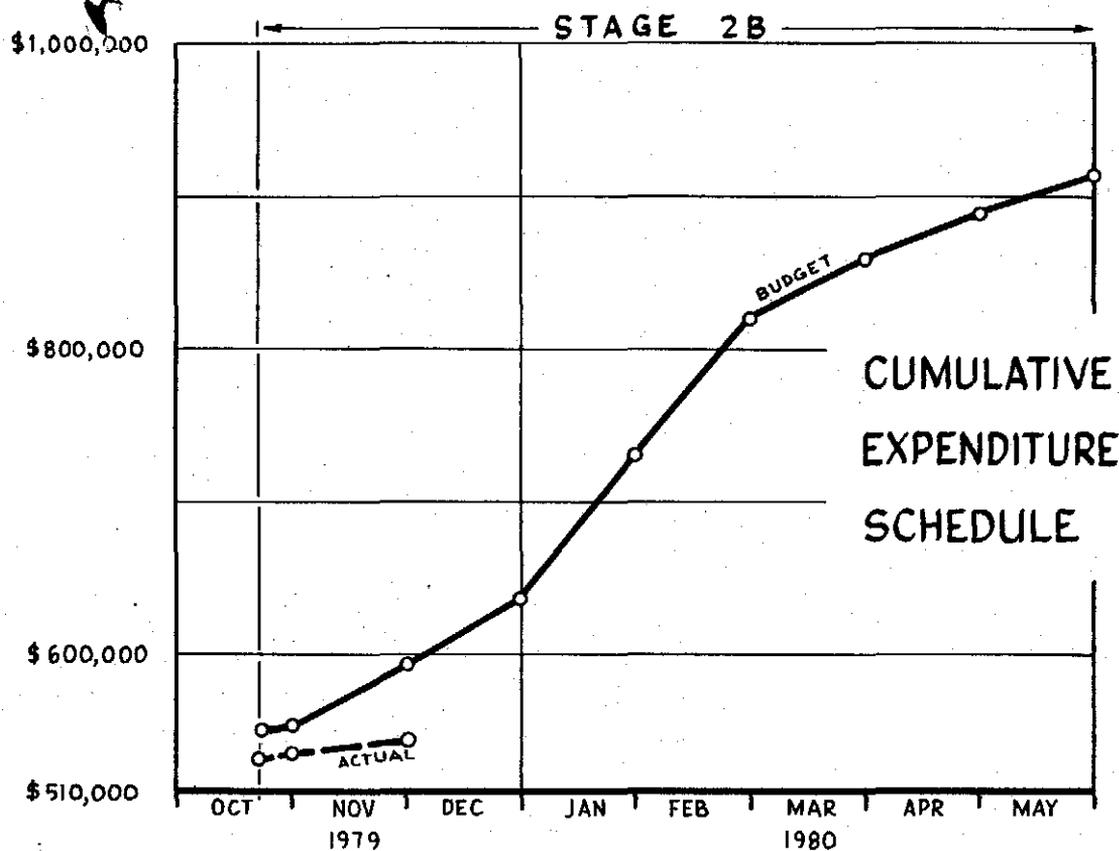
Drill sites for the forthcoming drilling programme have been prepared and surveyed. The diamond drilling programme will commence in December, 1979.

Reboxing of "old core" has commenced and two diamond drill holes (B1 and B2) have been logged.

A new shed has been erected for the storage of both "old" and "new" core.

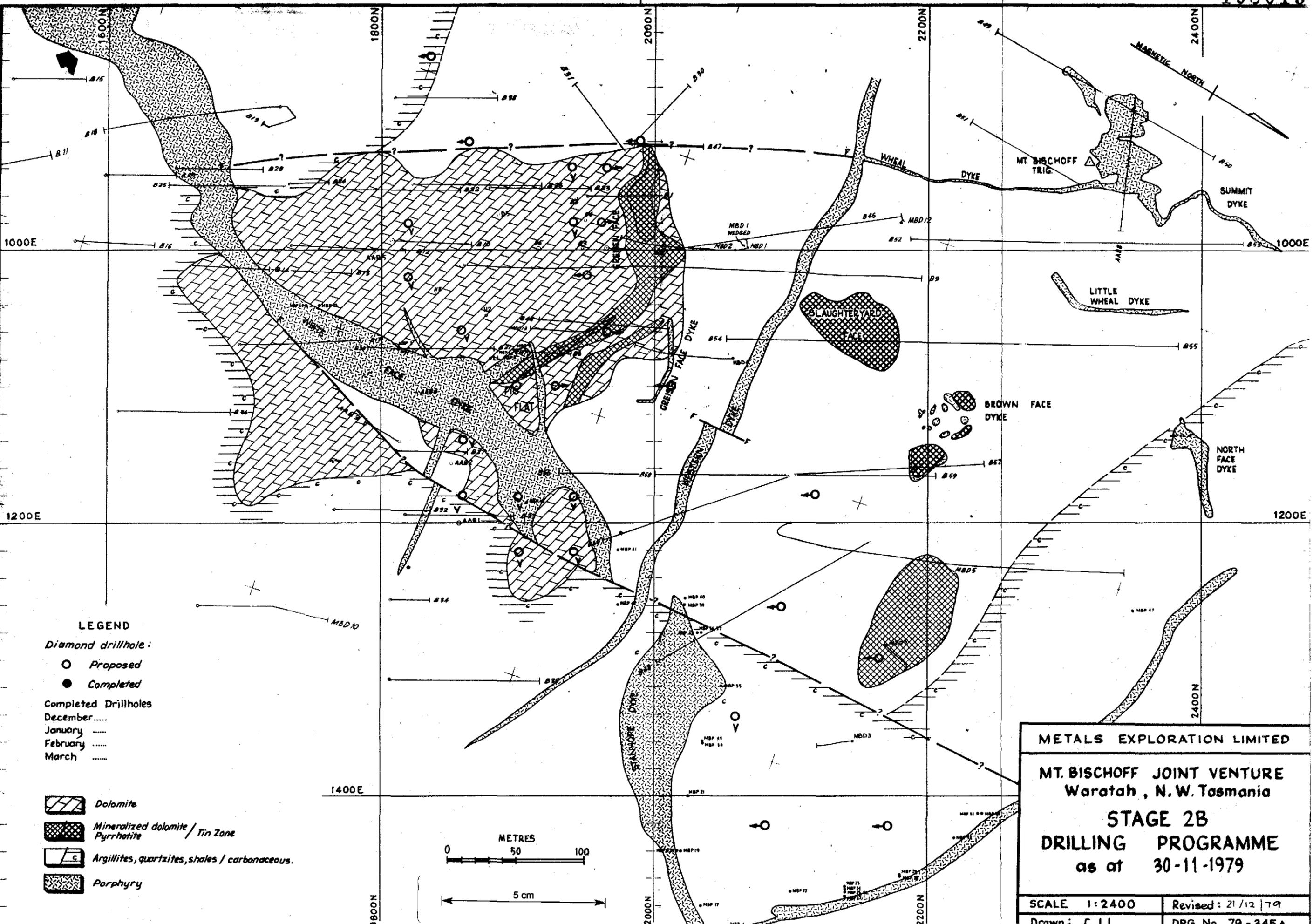
MT. BISCHOFF PROJECT CRA/MELDETAILED EXPENDITURE STATEMENT FOR NOVEMBER, 1979STAGE 2B

	<u>THIS MONTH</u>		<u>STAGE 2B TO DATE</u>	
	<u>BUDGET</u>	<u>ACTUAL</u>	<u>BUDGET</u>	<u>ACTUAL</u>
<u>Field Costs</u>				
Technical Services	11,000	4,398	15,700	5,260
Travel and Accommodation	700	451	1,050	635
Labour	1,800	566	1,800	1,035
Camp and Messing	1,900	140	2,200	218
Vehicles	1,000	839	1,000	839
Equipment Rental	50		50	-
General Expenses and Consumables	11,900	(125)	12,100	(113)
Lease Expenses				
Track Cutting				
Diamond Drilling				
Site preparation	4,500		4,500	
Metallurgical	2,500		2,500	
Assays				
	<u>35,350</u>	<u>6,269</u>	<u>40,900</u>	<u>7,874</u>
<u>Capital Items</u>				
Core Shed	5,100	5,085	5,100	5,085
	<u>40,450</u>	<u>11,354</u>	<u>46,000</u>	<u>12,959</u>
<u>Over Runs</u>				
Metallurgical - C.R.A.E.				23,500
Stage 1 - MEL				11,308
<u>STAGE 2A</u>				198,818
<u>STAGE 2A - EARLY START</u>				29,020
<u>STAGE 1</u>				270,000
<u>CUMULATIVE EXPENDITURE TO DATE</u>				<u>545,605</u>



MT. BISCHOFF

STAGE 2B SUMMARY
as at 30-11-79



LEGEND

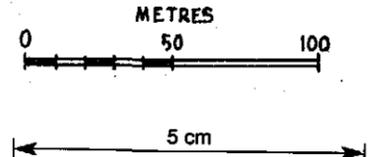
Diamond drillhole:

- Proposed
- Completed

Completed Drillholes

- December.....
- January.....
- February.....
- March.....

- Dolomite
- Mineralized dolomite / Tin Zone Pyrrhotite
- Argillites, quartzites, shales / carbonaceous.
- Porphyry



METALS EXPLORATION LIMITED

MT. BISCHOFF JOINT VENTURE
Waratah, N.W. Tasmania

STAGE 2B
DRILLING PROGRAMME
as at 30-11-1979

SCALE 1:2400	Revised: 21/12/79
Drawn: C.J.I.	DRG. No. 79-345A

**METALS EXPLORATION LTD.**

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MT. BISCHOFF TIN PROSPECTEXPLORATION LICENCE 13/79TASMANIAREPORT FOR OCTOBER 1979

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A. Jannink

19.11.79

MOUNT BISCHOFF TIN PROSPECTTASMANIAREPORT FOR OCTOBER 1979GENERAL

Compilation of the Report on Stage 2A Programme was completed, and the report distributed.

During the month CRAE elected to undertake the Stage 2B Programme and a Programme and Budget for Stage 2B was agreed upon. This report has also been distributed.

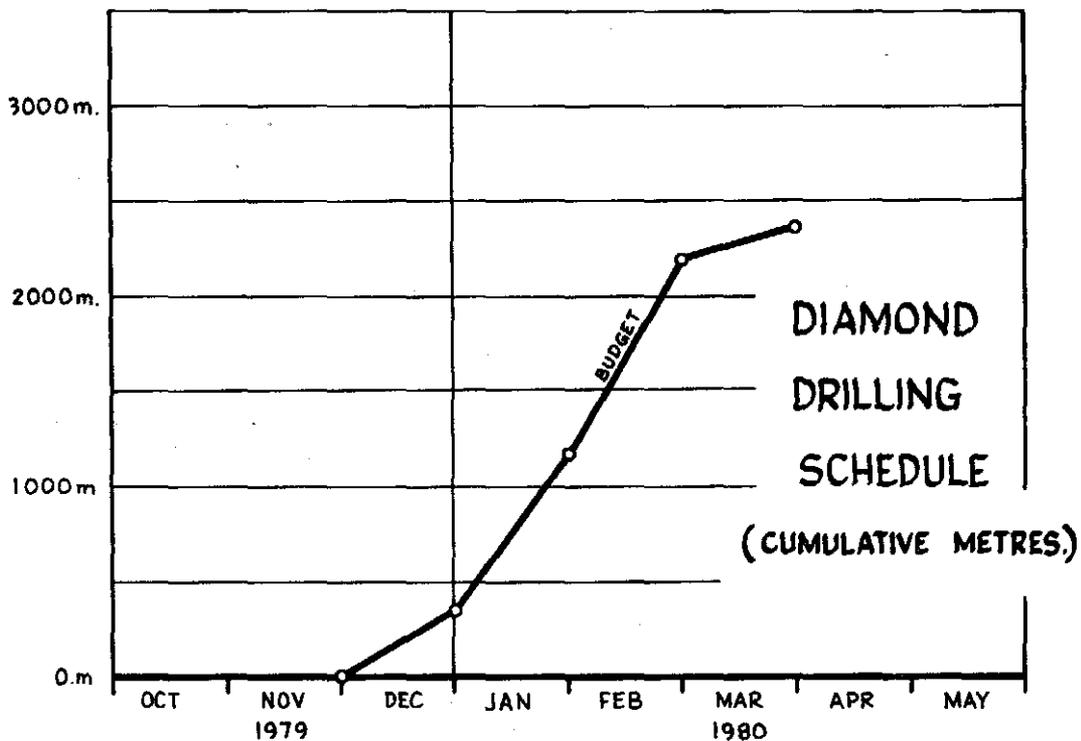
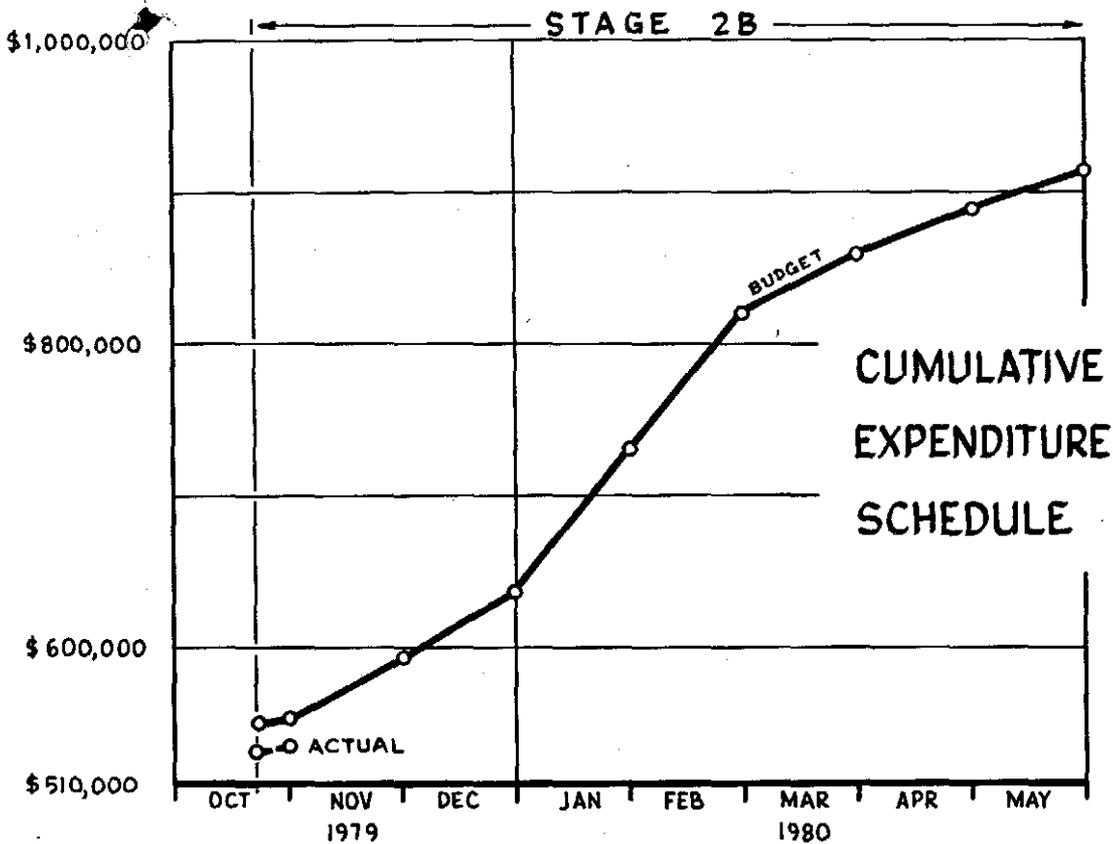
Field work for the Stage 2B Programme will commence at the beginning of November, 1979.

MT. BISCHOFF PROJECT CRA/MEL
DETAILED EXPENDITURE STATEMENT FOR OCTOBER, 1979

	<u>STAGE 2A</u>		<u>STAGE 2A TO DATE</u>	
	<u>THIS MONTH</u>		<u>BUDGET</u>	<u>ACTUAL</u>
	<u>BUDGET</u>	<u>ACTUAL</u>	<u>BUDGET</u>	<u>ACTUAL</u>
<u>Field Costs</u>				
Technical Services		7,687	57,500	56,294
Travel and Accommodation		406	3,800	2,083
Labour		518	4,500	4,896
Camp and Messing		443	4,700	3,221
Vehicles		14	4,900	4,727
Equipment rentals			1,950	704
General Expenses and Consumables		2,222	10,400	10,636
Track Cutting			1,750	1,750
Percussion Drilling			18,000	14,402
Diamond drilling		304	85,950	82,021
Met. llurgical		1,460	10,000	13,386
Lease Expenses		-	2,000	381
Assaying		828	7,250	4,317
<u>TOTAL FIELD COSTS</u>	<u>-</u>	<u>13,882</u>	<u>212,700</u>	<u>198,818</u>

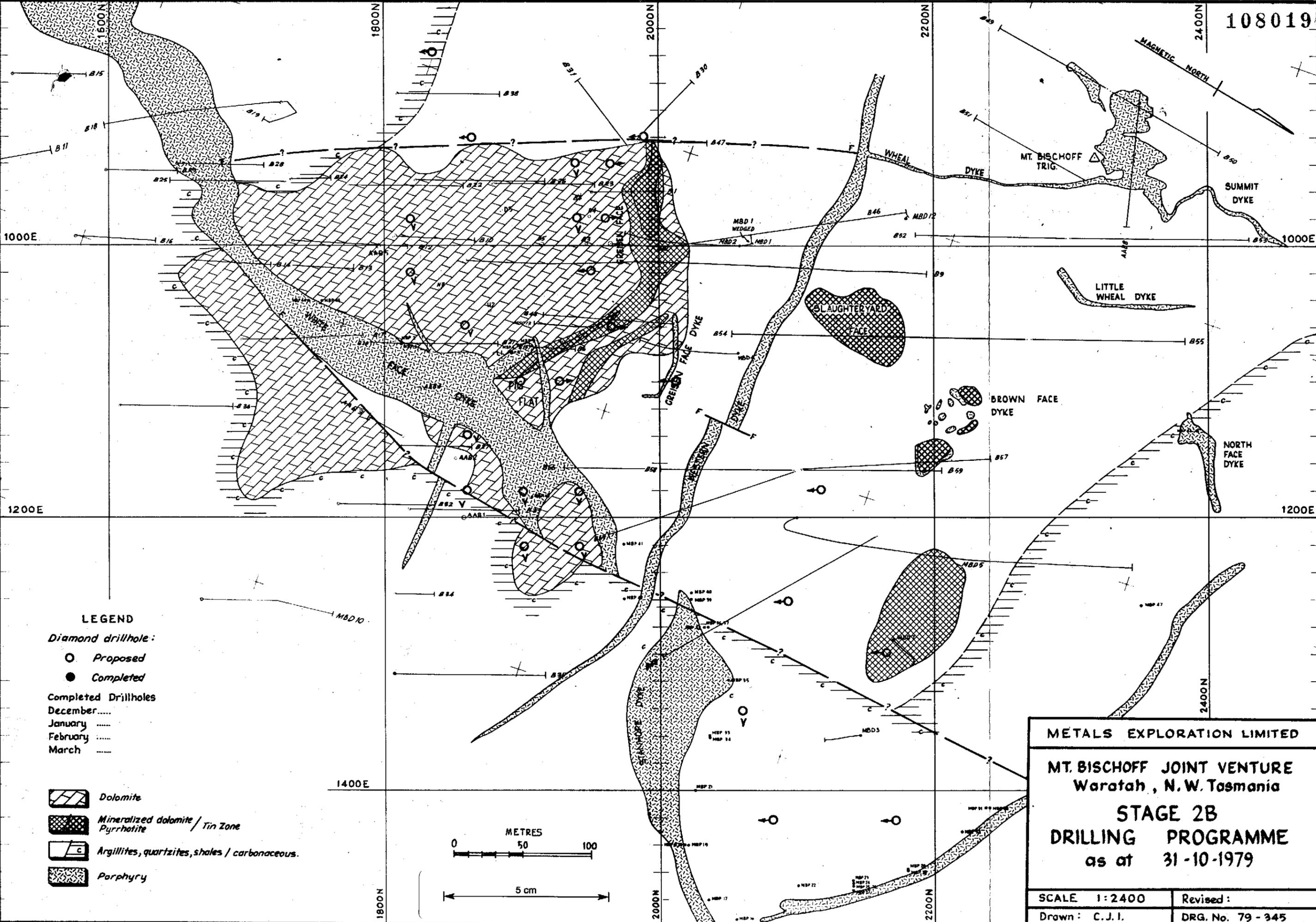
MT BISCHOFF PROJECT CRA/MEL
DETAILED EXPENDITURE STATEMENT FOR OCTOBER, 1979

	<u>STAGE 2B</u>		<u>STAGE 2B TO DATE</u>	
	<u>THIS MONTH</u>			
	<u>BUDGET</u>	<u>ACTUAL</u>	<u>BUDGET</u>	<u>ACTUAL</u>
<u>Field Costs</u>				
Technical Services	4,700	862	4,700	862
Travel and Accommodation	350	184	350	184
Labour		469		469
Camp and Messing	300	78	300	78
Vehicles				
Equipment Rental				
General Expenses and Consumables	200	12	200	12
Lease Expenses				
Track Cutting				
Diamond Drilling				
Site preparation				
Metallurgical				
Assays				
	<u>5,550</u>	<u>1,605</u>	<u>5,550</u>	<u>1,605</u>
<u>Capital Items</u>				
Core Shed				
	<u>5,550</u>	<u>1,605</u>	<u>5,550</u>	<u>1,605</u>
<u>Over Runs</u>				
Metallurgical - C.R.A.E.				23,500
Stage 1 - MEL				11,308
				<u>36,413</u>
Previous Expenditure (Stages 1, 2A Early Start, 2A)				497,839
Cumulative Expenditure				<u>534,252</u>



MT. BISCHOFF

STAGE 2B SUMMARY
as at 31-10-79



LEGEND

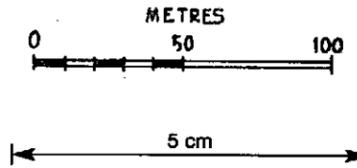
Diamond drillhole:

- Proposed
- Completed

Completed Drillholes

- December
- January
- February
- March

- Dolomite
- Mineralized dolomite / Tin Zone
Pyrrhotite
- Argillites, quartzites, shales / carbonaceous.
- Porphyry



METALS EXPLORATION LIMITED	
MT. BISCHOFF JOINT VENTURE Waratah, N.W. Tasmania	
STAGE 2B DRILLING PROGRAMME as at 31-10-1979	
SCALE 1:2400	Revised:
Drawn: C.J.I.	DRG. No. 79-345

MT. BISCHOFF TIN PROSPECTEXPLORATION LICENCE 13/79TASMANIAREPORT FOR SEPTEMBER 1979

Distribution:	Copy No.	1:	<u>Department of Mines,</u> <u>Tasmania</u>
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A. Jannink

18.10.79

MOUNT BISCHOFF TIN PROSPECTTASMANIAREPORT FOR SEPTEMBER 1979GENERAL

Core splitting was completed early in the month concluding the field activities for the Stage 2 A Programme.

The final assay results were received for holes MBD 12 and MBD 13:

<u>Hole No.</u>	<u>From(m)</u>	<u>To (m)</u>	<u>Width(m)</u>	<u>% Sn</u>	<u>Rock Type</u>
MBD 12	3	4	1	1.95	Sediments + vein
" "	58.3	58.45	0.15	2.00	Vein
MBD 13	42.0	69.3	27.3	1.58	Dolomite sulphide lode
" "	69.3	90.9	21.6	0.66	Quartz, porphyry
" "	90.9	99.0	8.1	1.68	Dolomite sulphide lode

Compilation of the Report on Stage 2 A Programme was started, and will be issued in October, 1979.

Summary drill logs for holes MBD 11 to MBD 13 which were omitted from the August 1979 report are now attached to this report.

MT. BISCHOFF PROJECT CRA/MELDETAILED EXPENDITURE STATEMENT FOR SEPTEMBER, 1979.STAGE 1

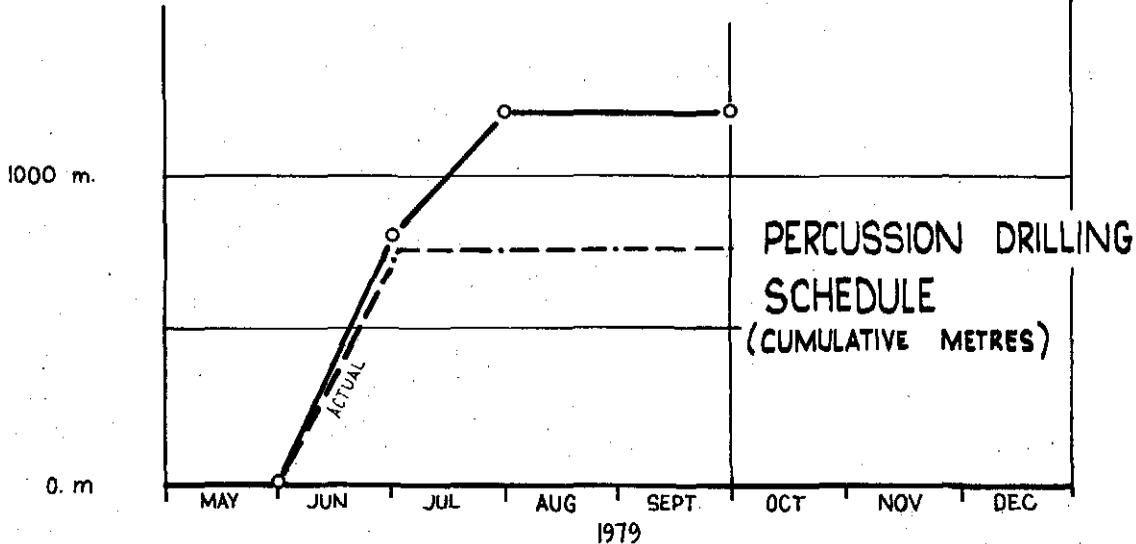
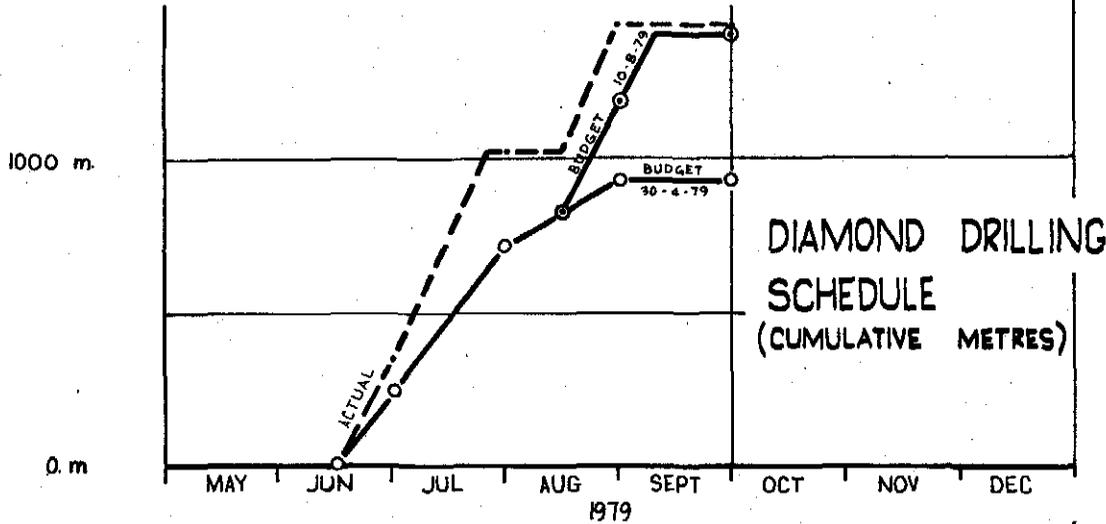
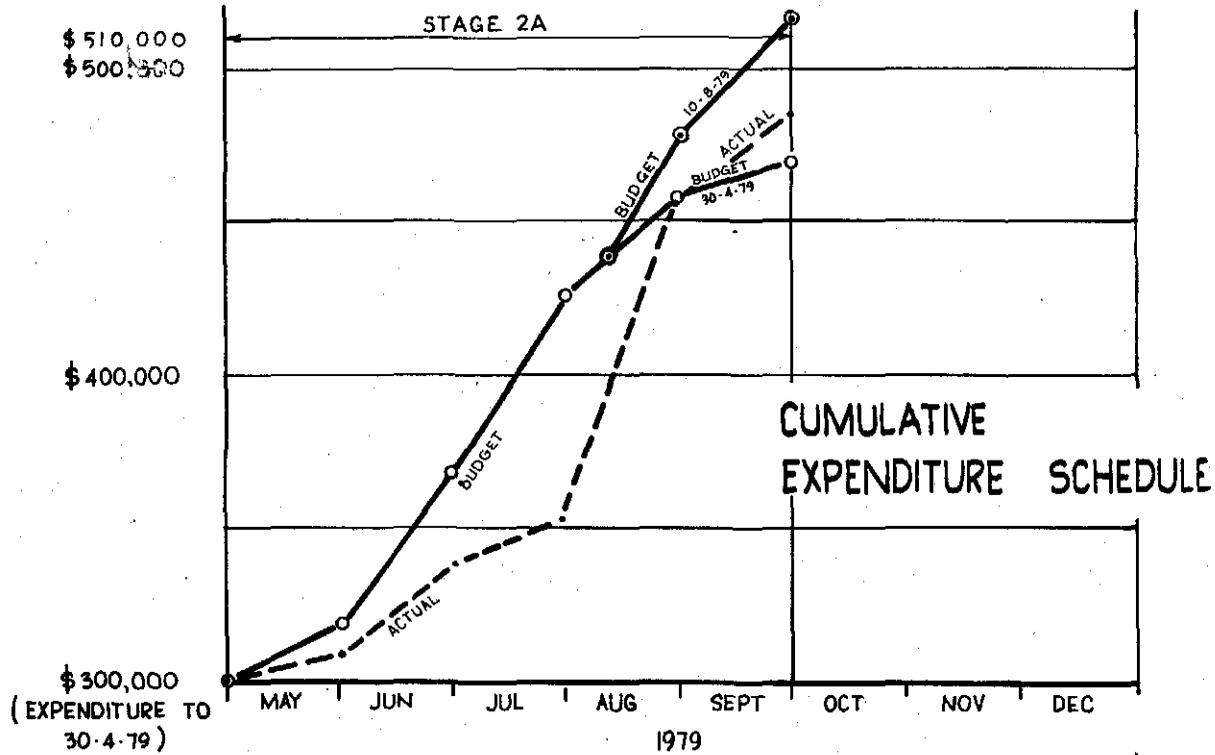
	<u>This Month</u>		<u>- Months</u>		<u>Financial</u>
	<u>Budget</u>	<u>Actual</u>	<u>to</u>	<u>-</u>	<u>Year to</u>
			<u>Budget</u>	<u>Actual</u>	<u>Date</u>
					<u>Actual</u>
<u>FIELD COSTS</u>					
Technical Services					77,669
Travel & Accommodation					4,020
Labour					4,920
Camp & Messing					3,180
Vehicles					6,387
Equipment Rental					260
General Expenses & Consumables					30,760
Geophysical Surveys					9,910
Geochemical Surveys					
Diamond Drilling					111,687
Metallurgical (Porphyry Ore)					
Assaying					9,535
Total Field Costs					258,328
<u>CAPITAL COSTS</u>					
Mining Leases & Rights					
Plant & Equipment					10,210
Total Capital					10,210
<u>TOTAL EXPENDITURE</u>					268,538
June 1978 expenditure					12,770
Total Budget					281,308
Over-run expenditure deferred to Stage 2B					270,000
					11,308

MT. BISCHOFF PROJECT CRA/MELDETAILED EXPENDITURE STATEMENT FOR SEPTEMBER 1979.STAGE 2A EARLY START

	<u>This Month</u>		<u>- Months</u>		<u>Stage 2A</u>
	<u>Budget</u>	<u>Actual</u>	<u>Budget</u>	<u>Actual</u>	<u>Early Start To Date Actual</u>
<u>FIELD COSTS</u>					
Technical Services					10,529
Travel & Accommodation					334
Labour					2,987
Camp & Messing					1,283
Vehicles					2,549
Equipment Rental					
General Expenses & Consumables					2,185
Geophysical Surveys					2,536
Geochemical Surveys					
Diamond Drilling					
Metallurgical (Porphyry Ore)					5,778
Assaying					839
Total Field Costs					29,020
<u>CAPITAL COSTS</u>					
Mining Leases & Rights					
Plant & Equipment					
Total Capital					-
<u>TOTAL EXPENDITURE</u>					29,020

MT. BISCHOFF PROJECT CRA/MELDETAILED EXPENDITURE STATEMENT FOR SEPTEMBER, 1979STAGE 2A

	<u>THIS MONTH</u>		<u>STAGE 2A TODATE</u>	
	<u>BUDGET</u>	<u>ACTUAL</u>	<u>BUDGET</u>	<u>ACTUAL</u>
<u>FIELD COSTS</u>				
Technical Services	11,115	13,194	57,500	48,607
Travel and Accommodation	700	412	3,800	1,677
Labour	1,100	1,209	4,500	4,378
Camp and Messing	700	499	4,700	2,778
Vehicles	900	1,065	4,900	4,714
Equipment Rentals	150	(72)	1,950	704
General Expenses and Consumables	1,800	1,285	10,400	8,414
Track Cutting	-	-	1,750	1,750
Percussion Drilling	-	-	18,000	14,402
Diamond Drilling	9,560	402	85,950	81,717
Metallurgical (Porphyry Ore)	-	11,855	10,000	11,926
Lease Expenses	-	138	2,000	381
Assaying	625	525	7,250	3,489
Total Field Costs	<u>26,650</u>	<u>30,512</u>	<u>212,700</u>	<u>184,937</u>



MT. BISCHOFF

STAGE 2A SUMMARY
as at 30-9-79

MT. BISCHOFF JOINT VENTUREDIAMOND DRILL LOG

Hole Number : MBD 11
Location : 2496.91 N 919.69 E grid
Elevation : 720.02 m
Dip : Vertical
Azimuth : -
Total Depth : 200 m
Surveys : Tropari every 30 m
Commenced : 14.8.1979 Completed: 21.8.1979
Logged by : A. Jannink
Drilling Contractor : Longyear Australia Pty. Ltd.
Electrode placed at : 152 m

% RECOVERY	FIELD ROCK NAME and general description over interval marked.	ADOPTED INTERVAL (m. cm) & ADOPT LENGTH FROM COLLAR m. cm	GRAPHIC LOG	OBSERVATIONS		% MINERALIZATION (visual estimate)
				Commence with length from collar, either point (relates to marker) or 'from' to (relates to brackets).	MINERALIZATION	

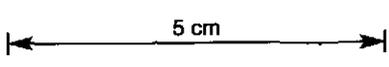
108028

SUMMARY DRILL LOG MBD 11

Veins etc
all veins over 50mm

Mineralization
excluding veins over 50mm

Interval (m. cm)	Rock Description	Graphic Log	Observations	Mineralization	% Mineralization
0-3.0	Tricone Drilled - no core				
3.0-16.9 (13.9)	SILTSTONE, QUARTZITE minor SILTY SHALE. Interbedded	20	50mm vein, 40° qtz, limonite, calcite	py disseminated, in veins	<1%
16.9-27.0	SILTSTONE and SILTY SHALE	20	Bedding 80° contact ~ 30°	No sulphides	0
27.0-29.3	QUARTZ PORPHYRY			No sulphides	0
29.3-39.1	QUARTZITE / SILICIFIED SILTSTONE		contact 90°	py in veinlets, minor disseminated	<1%
39.1-49.0	SILTY SHALE and SILTSTONE	40	Bedding 83° contact 45°	py in stringers, minor veins	3-5%
49.0-49.8	QUARTZ PORPHYRY			py, marcasite, minor calcite	<2%
49.8-65.0	SILTSTONE, SILTY SHALE	60	contact 60° Bedding 55°	py in stringers, dendritic, veins	<1%
65.0-67.7	MINOR QUARTZITE QUARTZITE			py disseminated, calcite veins	2%
67.7-89.6 (21.9)	SILTSTONE and SILTY SHALE Interbedded, pale grey	80	Bedding 60° contact 25°	py >> po, py in stringers, veins po disseminated	1%
89.6-120.0	QUARTZ PORPHYRY		contact 25°	po >> py in stringers, disseminated po > py disseminated	15%
92.0-112.3 (20.3)	SILTSTONE and SILTY SHALE MINOR QUARTZITE	100	60mm vein, along cont, py, arsenopyrite, qtz trace cp 60mm vein 35°, qtz, fluorite, Mn, Fe, calcite, cp, sp, carbonate	po > py stringers, disseminated minor veins	1-2%
112.3-125.7 (13.4)	QUARTZITE minor SILTSTONE and SILTY SHALE	120	Bedding 70°	po > py disseminated, stringers veins	1-2%
125.7-136.2	SILTSTONE and SILTY SHALE		Bedding 70°	po > py disseminated, stringers veins	2%
136.2-141.7	QUARTZITE	140	contact 60°	py, po veinlets, stringers	1%
141.7-147.55	QUARTZ PORPHYRY			py disseminated	20%
147.55-200.0 (52.45)	SILTY SHALE and SILTSTONE Interbedded, pale to medium grey, some disruption	160	contact ~ 80° Bedding 90°	po >> py po in stringers, along bedding, minor blebs, veins py in veins and stringers	5%
163.9-165.0 } slightly 185.4-185.5 } carbonaceous 187.0-187.4 } shale bands		180	Bedding 10°	Locally up to 10%	
		200	Bedding 80°	py > po disseminated, veins	1%
END OF HOLE 200m					



MT. BISCHOFF JOINT VENTUREDIAMOND DRILL LOG

Hole Number : MBD 12
Location : 2179.91 N 979.79 E grid
Elevation : 739.50 m
Dip : Vertical
Azimuth : -
Total Depth : 80 m
Surveys : Tropari every 40 m
Commenced : 23.8.1979 Completed: 24.8.1979
Logged by : A. Jannink
Drilling Contractor : Longyear Australia Pty. Ltd.
Electrode placed at : 80 m

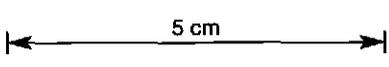
% RECOVERY	LOST CORE ZONE	FIELD ROCK NAME and general description over interval marked.	ADOPTED INTERVAL (m. cm) ↳ ADOPT. LENGTH FROM COLLAR m. cm	GRAPHIC LOG	OBSERVATIONS		% MINERALIZATION (visual estimate)
					Commence with length from collar, either point (relates to marker) or 'from' to (relates to brackets).		
					Altitude of bedding or foliation; Altitude & spacing of joints, Altitude, width & description of sheared zones, [Altitude = angle of structure to long core axis]	MINERALIZATION	

108030

SUMMARY DRILL LOG MBD 12

Veins etc
all veins over 50mm
Mineralization
excluding veins over 50mm

Tricone drilled - no core	ADOPTED INTERVAL (m. cm)	GRAPHIC LOG	OBSERVATIONS	MINERALIZATION	% MINERALIZATION
SILTSTONE pale grey	0-3.0 3.0-13.8		50mm vein, gossan, qtz, ? cassiterite	py, po, veins, disseminated	<1%
QUARTZITE minor SILTSTONE	13.8-25.2	20	50mm vein, 40°, gossan, qtz, py, ? cassiterite	po >> py stringers, disseminated, veins	1-2%
SILTSTONE and SILTY SHALE minor F.G. SANDSTONE/ QUARTZITE	25.2-47.2 (22.0)	40	Bedding 20° Bedding 65°	po >> py stringers, disseminated blebs, veins	2%
QUARTZITE / F.G. SANDSTONE	47.2-53.2		Bedding 40°	po > py disseminated, stringers	1-2%
SILTSTONE and SILTY SHALE Pale to medium grey, minor folding, moderately disrupted	53.2-80.0 (26.8)	60	150mm vein, 45°, carbonate, fluorite, siderite, gl, calcite, ? wolfram Bedding 70°	py disseminated, blebs, stringers, veins Varying from 0-2%	1%
END OF HOLE 80m		80			



MT. BISCHOFF JOINT VENTUREDIAMOND DRILL LOG

Hole Number : MBD 13
Location : 1950.01 N 1059.90 E grid
Elevation : 642.05 m
Dip : 70°
Azimuth : 180° grid
Total Depth : 120 m
Surveys : Tropari every 60 m
Commenced : 25.8.1979 Completed: 27.8.1979
Logged by : A. Jannink
Drilling Contractor : Longyear Australia Pty. Ltd.
Electrode placed at : 100 m

FIELD ROCK NAME
and general description
over interval marked.

ADOPTED
INTERVAL
(m .cm)
ADOPT. LENGTH
FROM COLLAR
m .cm

GRAPHIC LOG

BRACKETS &
MARKERS (▼)

OBSERVATIONS

Commence with length from collar, either point (relates to marker)
or 'from' to (relates to brackets).

Attitude of bedding or foliation, Attitude
& spacing of joints, Attitude, width &
description of sheared zones, [Attitude =
angle of structure to long core axis]

MINERALIZATION

% MINERALIZATION
(visual estimate)

108032

SUMMARY DRILL LOG MBD 13

Veins etc
all veins over 50mm

Mineralization
excluding veins over 50mm

Tricone drilled - no core	0-3.0				
DOLOMITE minor SULPHIDE LOSE	3.0-11.0				po >> py in lodes. Toxic cassiterite 3-5%
DOLOMITE SULPHIDE LOSE	11.0-69.3 (58.3)	20	← Contact ~ 30°		po disseminated, blk. Toxic
11.0-18.3 Serpentinite, po, talc					po ~ massive 70%
18.3-26.6 Pyrrhotite, talc		40	← 26.0-26.2 Shear zone		po banded, disseminated 20-30%
26.6-33.1 Talc serpentinite, pyrrhotite minor dolomite					po > py banded, disseminated weak trace cassiterite 20%
33.1-44.7 Talc serpentinite, pyrrhotite, dolomite, qtz/calcite		60			po ~ massive 65.0-65.5 5% cassiterite 67.4-68.7 3-5% cassiterite 68.9-69.3 30-50% cassiterite 70%
44.7-69.3 Po, talc, qtz/calcite					
QUARTZ PORPHYRY white, pale grey, cream 25% quartz, feldspar phenocrysts	69.3-90.9 (21.6)	80			py > po disseminated 0.5% cassiterite 10-20%
DOLOMITE SULPHIDE LOSE Pyrrhotite, talc, quartz/calcite	90.9-106.4 (15.5)	100	← 95.5-95.75 Quartz Porphyry		po ~ massive Toxic cassiterite 70%
SILTSTONE minor SILTY SHALES	106.4-120.0 (13.6)	120	← Bedding 30°		po >> py stringers, blebs, disseminated, veeding 1%
END OF HOLE 120m					

5 cm



METALS EXPLORATION LTD.

28 LITTLE COLLINS STREET MELBOURNE, AUSTRALIA 3000 TELEPHONE 654 4200. TELEX AA32051. TELEGRAM ROCKDOC.

MT. BISCHOFF TIN PROSPECTEXPLORATION LICENCE 13/79TASMANIAREPORT FOR AUGUST 1979

Distribution:	Copy No.	
	1:	<u>Department of Mines,</u> <u>Tasmania</u>
	" "	2: CRAE
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A. Jannink

18.9.1979.

MOUNT BISCHOFF TIN PROSPECTTASMANIAREPORT FOR AUGUST 1979GENERAL

A technical meeting was held on 10th August 1979 between CRAE and MEL to discuss the results of a ground magnetic survey which had been carried out over the Summit area of Mt. Bischoff and to programme and budget the remaining \$40,000 of budget in the Stage 2 A Programme.

The ground magnetics indicated two anomalous zones, one a broad, weak anomaly ("Summit anomaly") and the other a smaller, stronger anomaly ("Slaughteryard anomaly") some 70 metres west of the Slaughteryard Face massive sulphide body. Both these targets were tested by diamond drilling, but neither contained dolomite or massive sulphides.

A third diamond drill hole was located on section 1060 E in Greisen Face to fill a gap in information on both the dolomite sulphide lode and the White Face porphyry dyke. Tin mineralisation was encountered in both the lode and the porphyry.

Metallurgical work was concluded by AMDEL and a report will be issued in September.

An Exploration Licence, 13/79, was granted to Metals Exploration Ltd., as manager of the Joint Venture, retrospective to 1st July, 1979. The area covered is 20 square kilometers and the Licence replaces the Exploration Area (being part of

EL. 5/63) that is the subject of the Joint Venture.

FIELD PROGRAMME

1. Ground Magnetics

Thirteen lines were cut and gridded, each 40 metres apart, to cover the area of the airborne magnetic anomaly in the Summit area of Mt. Bischoff. A ground magnetic survey was carried out over this grid using a Geometrics Model G-816 Portable Proton Magnetometer. Readings were taken every 20 metres on the lines. The grid was an extension of the mine grid between 2100 N - 2680 N and 660 E - 1140 E.

Two anomalies were delineated, confirming the airborne survey. The "Summit anomaly" had a weak, broad configuration (amplitude approximately 100 gammas) centred near 2500 N on lines 900 E and 940 E. Computer modelling of the readings suggested a weakly magnetic source to lie between 100 m and 150 m below surface.

The "Slaughteryard anomaly" occurred some 70 m grid west of outcropping massive sulphides in Slaughteryard Face. The anomaly had two peaks (amplitude 400-500 gammas) and covered an area of about 100 m by 40 m. The source was interpreted to lie 30 m to 50 m below the surface.

2. Diamond Drilling

Three holes were drilled for a total of 400 metres between 14th September, 1979 and 27th September, 1979, bringing

the total for the Stage 2 A Programme to 1415.9 metres in 8 holes.

MBD 11 reached a depth of 200 metres and was drilled to test the "Summit" magnetic anomaly. A zone of 45 metres between 147.5 m and 192.5 m contained an estimated 5% pyrrhotite and was interpreted as being the source of the magnetic anomaly. No dolomitic rocks were intersected. Four narrow quartz porphyrys (maximum width 6 metres) were struck. Significant assay results were as follows :

<u>Intersection(m)</u>	<u>Width(m)</u>	<u>% Sn</u>	<u>Rock type</u>
49.0 - 49.8	0.8	0.30	Quartz Porphyry
66.0 - 67.5	1.5	0.20	Quartzite, veins
81.9 - 83.0	1.1	0.30	15mm vein along core
95.7 - 99.7	4.0	0.16	Sediments and veins
106.0 - 106.7	0.7	2.52 (W:0.34%)	Vein
127.6 - 129.7	2.1	0.25	Sediments and veins

MBD 12 was sited over the "Slaughteryard" magnetic anomaly. A zone of 22 metres between 25.2 m and 47.2 m with an estimated pyrrhotite content of 2% was intersected. This intersection is thought to be part of the source of the magnetic anomaly. Rock types were siltstones, shales and quartzites. Assay results are still to be confirmed, but the only significant ones were :

<u>Intersection(m)</u>	<u>Width(m)</u>	<u>% Sn</u>	<u>Rock type</u>
3 - 4	1	~ 2.0	Sediments + veins
14 - 16	2	0.23	" "
32 - 34	2	0.21	" "
52 - 54	2	0.22	" "
58.3 - 58.45	0.15	~ 2.0	Vein

MBD 12 was drilled to 80 metres and, as for MBD 11, magnetic susceptibility readings were taken down the length of the core.

MBD 13 was drilled on line 1060 E within the area of known mineralisation in both dolomite sulphide lode and quartz porphyry. The hole, which was completed at 120 metres, was designed to fill in grade and tonnage information in a spatial gap in the reserve estimates. Mineralisation was intersected in both the dolomite sulphide lode zones and the quartz porphyry. Only preliminary assay results are available, and are as follows :

<u>Intersection(m)</u>	<u>Width(m)</u>	<u>% Sn</u>	<u>Rock type</u>
11.0 - 18.3	7.3	0.66	Dolomite sulphide lode
42.0 - 69.3	27.3	~ 1.96	" " "
69.3 - 90.9	21.6	~ 0.66	Quartz porphyry
90.9 - 99.0	8.1	~ 1.76	Dolomite sulphide lode

Summary drill logs are attached.

Results of sampling hole MBD 9 have been completed. One significant assay of 3.16 % Sn in a 0.35 metre quartz vein between 52.6 and 52.95 was recorded.

3. Metallurgical

Metallurgical work on the middlings and tailings of the test porphyry sample was completed by AMDEL. Test work was also tried on front-end tin flotation of the porphyry sample with some favourable results. A report on all the metallurgical work will be available in September, 1979.

MT. BISCHOFF PROJECT CRA/MELDETAILED EXPENDITURE STATEMENT FOR AUGUST, 1979.STAGE 1

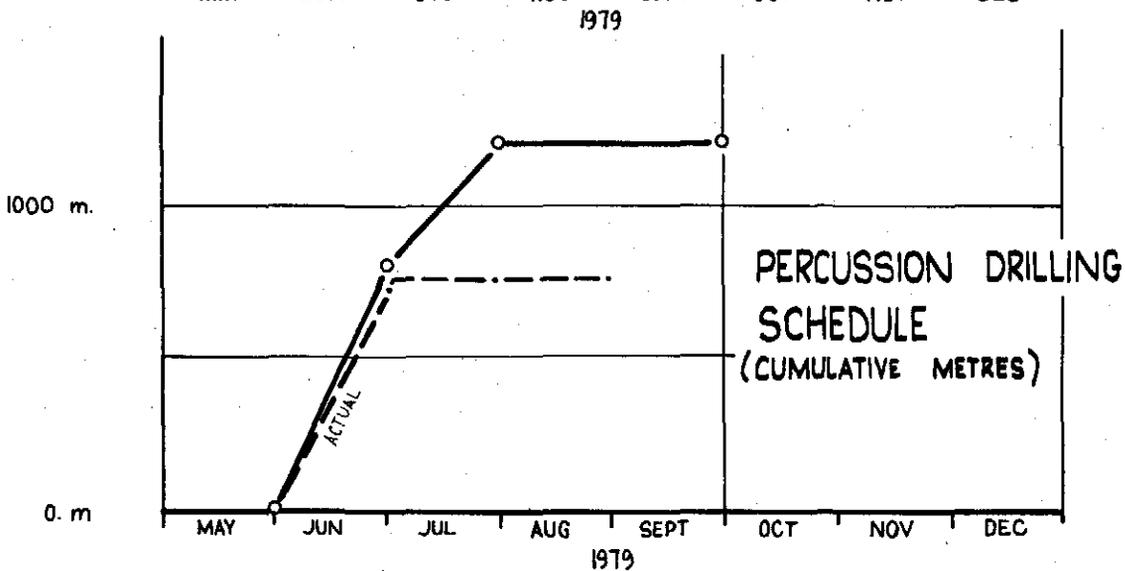
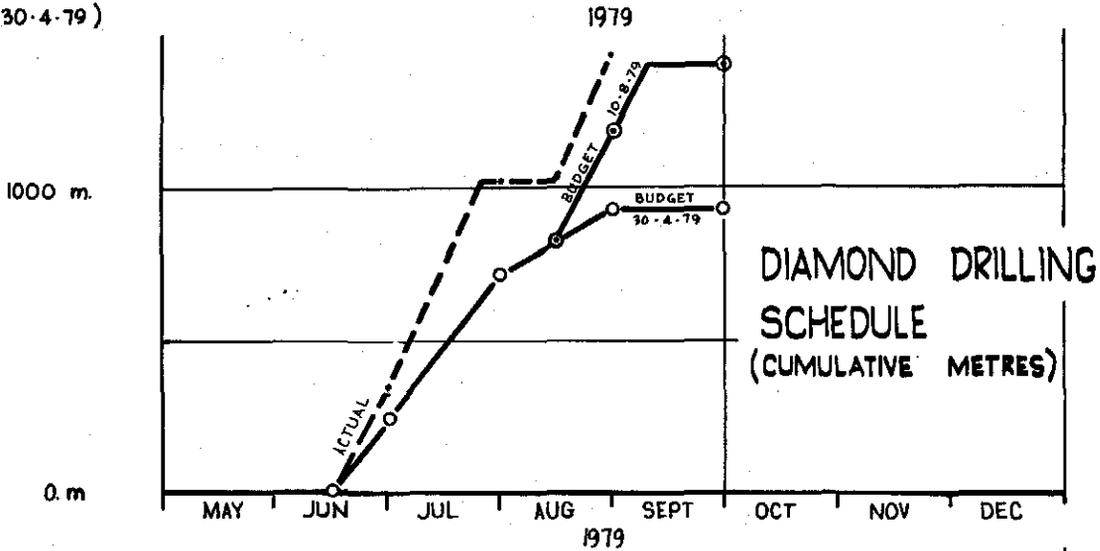
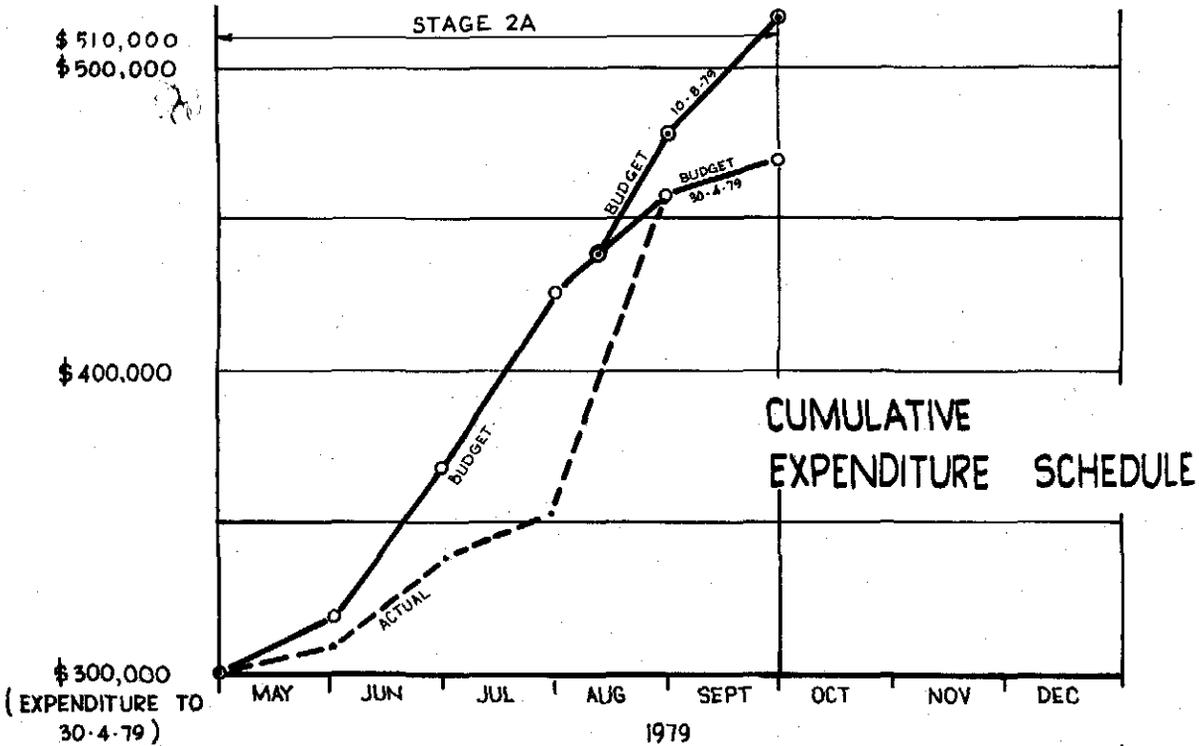
	<u>This Month</u>		<u>- Months</u>		<u>Stage 1</u>
	<u>Budget</u>	<u>Actual</u>	<u>to</u>	<u>-</u>	<u>to Date</u>
	<u>Budget</u>	<u>Actual</u>	<u>Budget</u>	<u>Actual</u>	<u>Actual</u>
<u>FIELD COSTS</u>					
Technical Services					77,669
Travel & Accommodation					4,020
Labour					4,920
Camp & Messing					3,180
Vehicles					6,387
Equipment Rental					260
General Expenses & Consumables					30,760
Geophysical Surveys					9,910
Geochemical Surveys					
Diamond Drilling					111,687
Metallurgical (Porphyry Ore)					
Assaying					9,535
Total Field Costs					258,328
<u>CAPITAL COSTS</u>					
Mining Leases & Rights					
Plant & Equipment					10,210
Total Capital					10,210
<u>TOTAL EXPENDITURE</u>					268,538
June, 1979 expenditure					12,770
<u>TOTAL EXPENDITURE STAGE 1</u>					281,308
Total Budget					270,000
Over-run expenditure deferred to stage 2B					11,308

MT. BISCHOFF PROJECT CRA/MELDETAILED EXPENDITURE STATEMENT FOR AUGUST, 1979.STAGE 2A EARLY START

	<u>This Month</u>		<u>to</u> <u>Months</u>		<u>Stage 2A</u>
	<u>Budget</u>	<u>Actual</u>	<u>Budget</u>	<u>Actual</u>	<u>Early Start</u> <u>to Date</u> <u>Actual</u>
<u>FIELD COSTS</u>					
Technical Services					10,529
Travel & Accommodation					334
Labour					2,987
Camp & Messing					1,283
Vehicles					2,549
Equipment Rental					
General Expenses & Consumables					2,185
Geophysical Surveys					2,536
Geochemical Surveys					
Diamond Drilling					
Metallurgical (Porphyry Ore)					5,778
Assaying					839
Total Field Costs					29,020
<u>CAPITAL COSTS</u>					
Mining Leases & Rights					
Plant & Equipment					
Total Capital					-
<u>TOTAL EXPENDITURE</u>					29,020

MT. BISHCOFF PROJECT CRA/MELDETAILED EXPENDITURE STATEMENT FOR AUGUST, 1979STAGE 2A

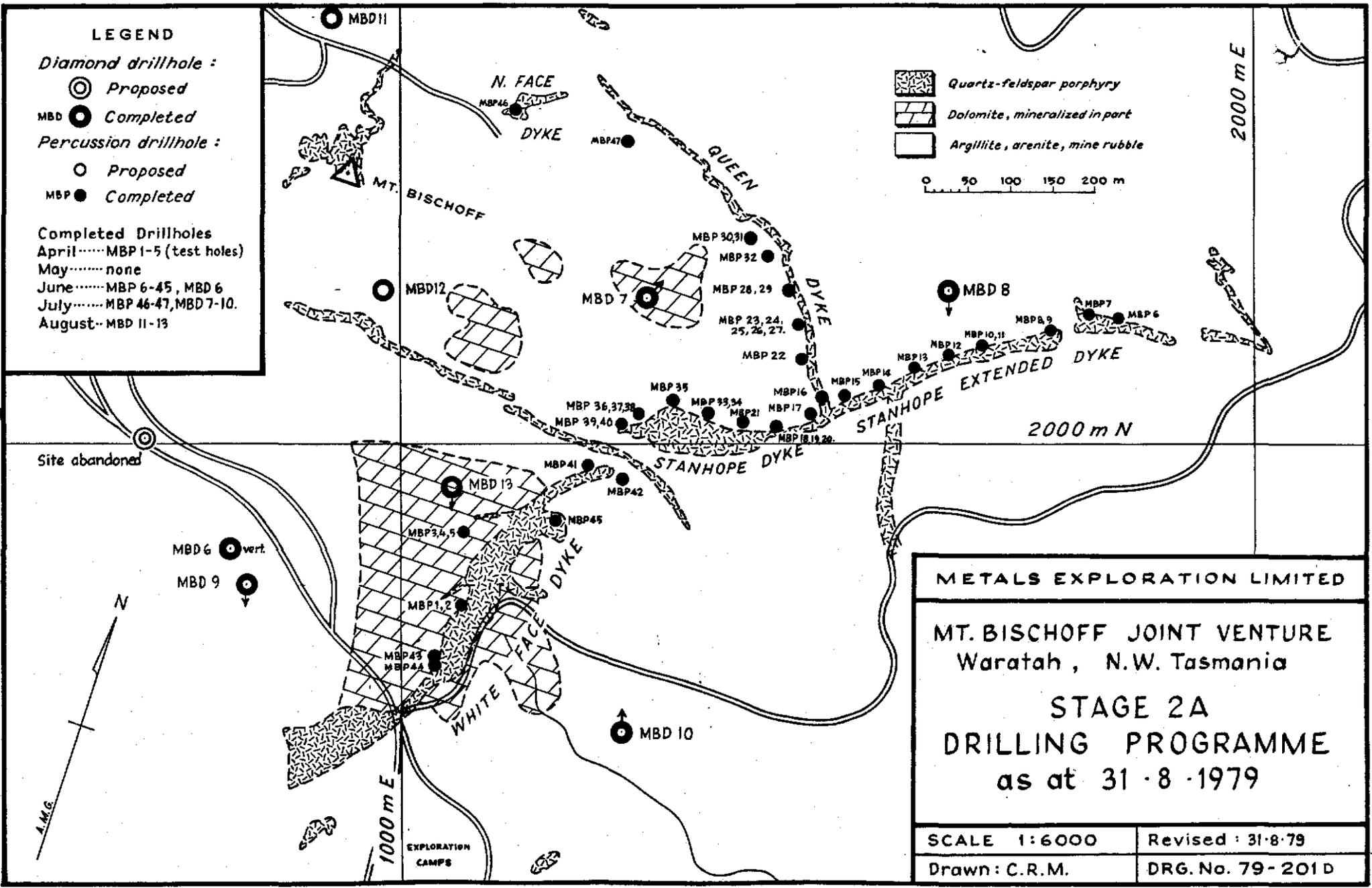
	<u>THIS MONTH</u>		<u>STAGE 2A TODATE</u>	
	<u>BUDGET</u>	<u>ACTUAL</u>	<u>BUDGET</u>	<u>ACTUAL</u>
<u>FIELD COSTS</u>				
Technical Services	14,035	17,703	46,385	35,413
Travel and Accommodation	700	661	3,100	1,265
Labour	1,000	680	3,400	3,169
Camp and Messing	1,000	714	4,000	2,279
Vehicles	1,000	855	4,000	3,649
Equipment rentals	700	659	1,800	776
General Expenses and consumables	2,600	2,811	8,600	7,129
Track Cutting	1,750	1,750	1,750	1,750
Percussion Drilling	-	14,402	18,000	14,402
Diamond Drilling	31,890	59,231	76,390	81,315
Metallurgical (Porphyry Ore)	2,500	-	10,000	70
Lease Expenses	-	-	2,000	243
Assaying	2,625	2,674	6,625	2,963
Total Field Costs	<u>59,800</u>	<u>102,140</u>	<u>186,050</u>	<u>154,423</u>



MT. BISCHOFF

STAGE 2A SUMMARY
as at 31-8-79

5 cm



LEGEND

Diamond drillhole :

⊙ Proposed

MBD ● Completed

Percussion drillhole :

○ Proposed

MBP ● Completed

Completed Drillholes

April.....MBP 1-5 (test holes)

May.....none

June.....MBP 6-45, MBD 6

July.....MBP 46-47, MBD 7-10.

August.....MBD 11-13

-  Quartz-feldspar porphyry
-  Dolomite, mineralized in part
-  Argillite, arenite, mine rubble

0 50 100 150 200 m

METALS EXPLORATION LIMITED

MT. BISCHOFF JOINT VENTURE
Waratah, N.W. Tasmania

STAGE 2A
DRILLING PROGRAMME
as at 31.8.1979

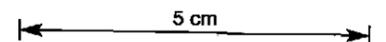
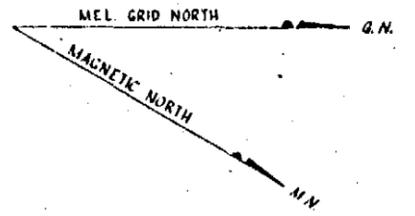
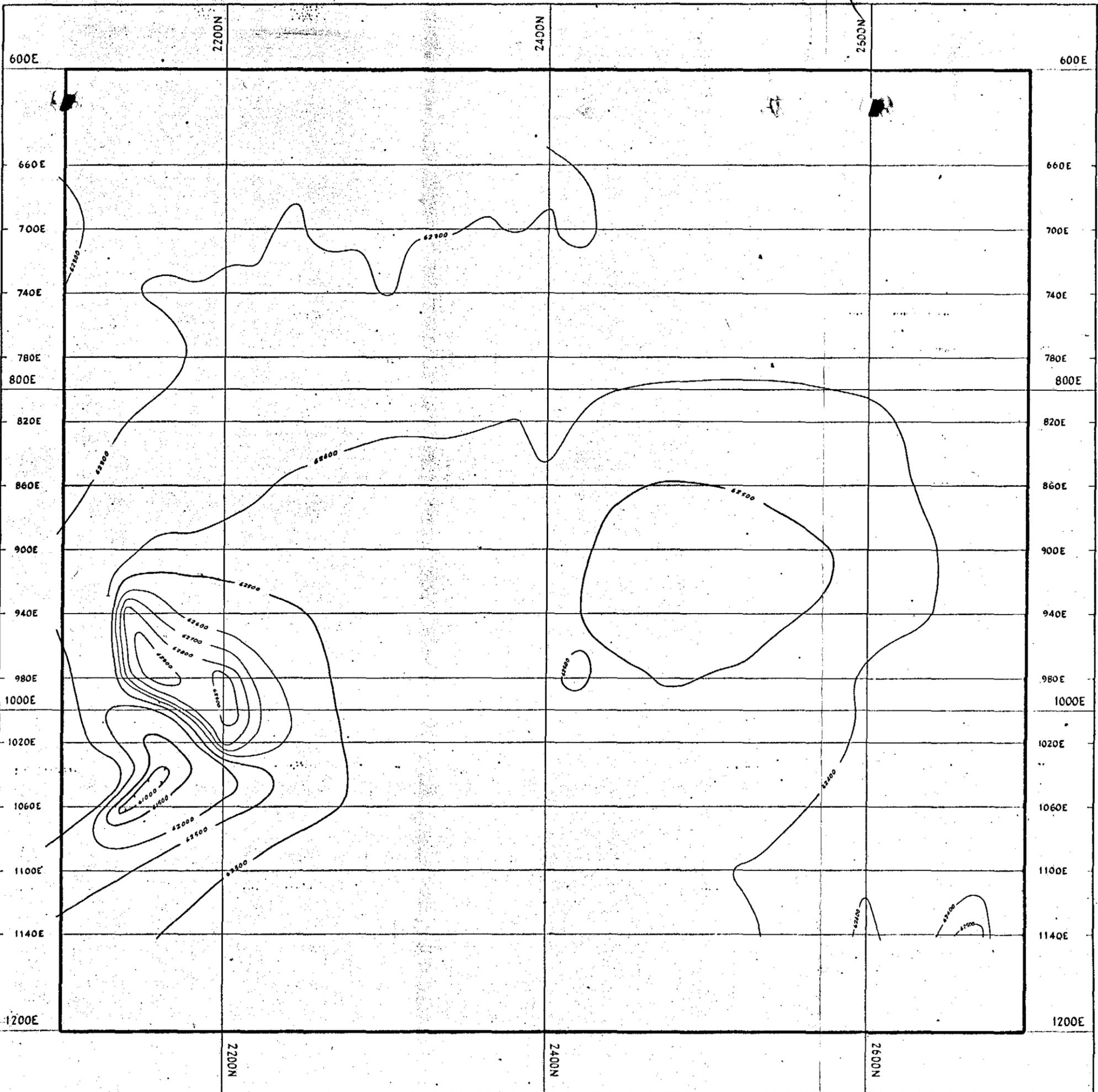
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Revised : 31.8.79

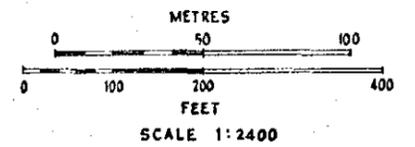
Drawn : C.R.M.

DRG. No. 79-201D

108043



Contour interval : 100 γ (with 500γ index)
 Add 60 000 γ to all contour values to get total magnetic intensity.
 Survey by B. Borrell using G-816 Magnetometer
 Readings every 20 m on 40m spaced lines
 See Drg No 79-266 for readings and notes on possible sources of magnetic interference.



METALS EXPLORATION LIMITED
 MT. BISCHOFF TIN PROSPECT
 THE SUMMIT AREA
 GROUND MAGNETIC SURVEY
 TOTAL MAGNETIC INTENSITY CONTO

DRAWN BY: C. IRWIN DATE: 9-8-79
 DRG. NO. 79-294

2400

108046

AABB

10W

10E

700m.

1100

qv

7

1300

1000

1400

1000

7

2950

2050

2950

7

qv

1150

1450

qv

2.52%

1000

1500

2000ft.

600m.

1200

2500

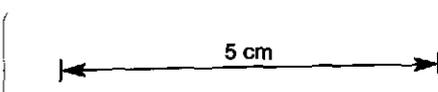
1800

7

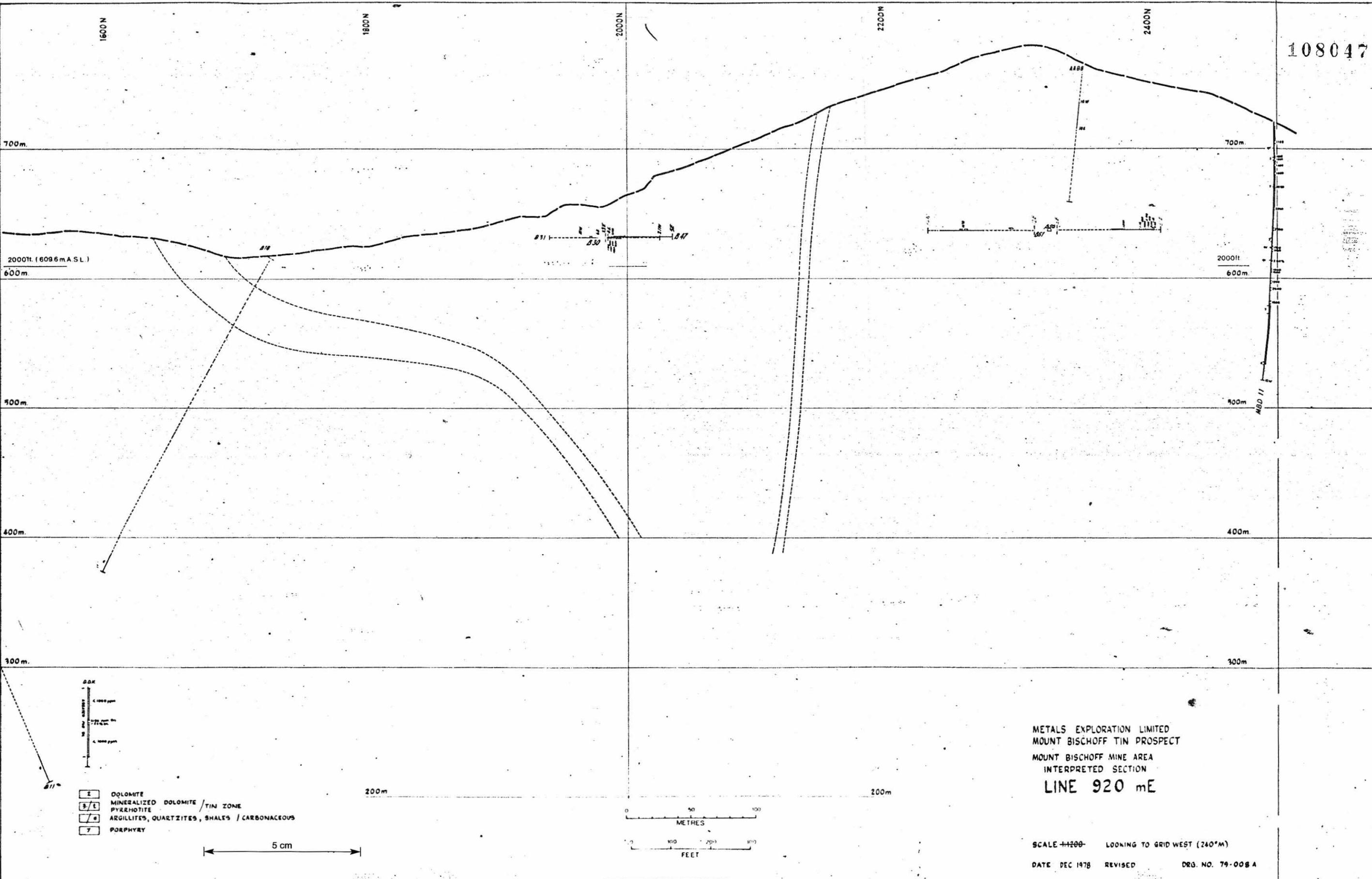
10W

500m

MBD 11



108047



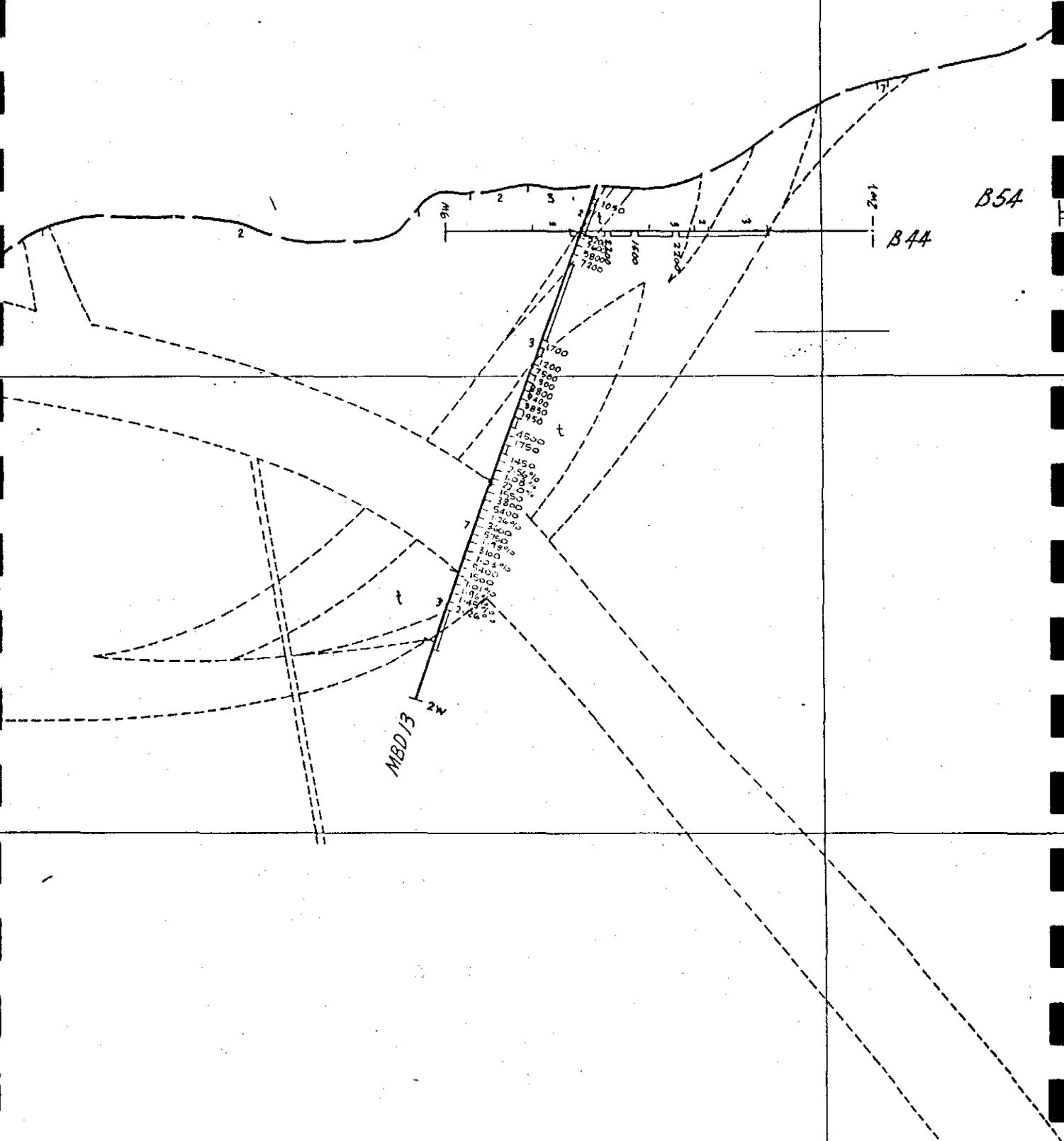
MASTER SECTION DRG. NO. 79-054A

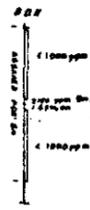
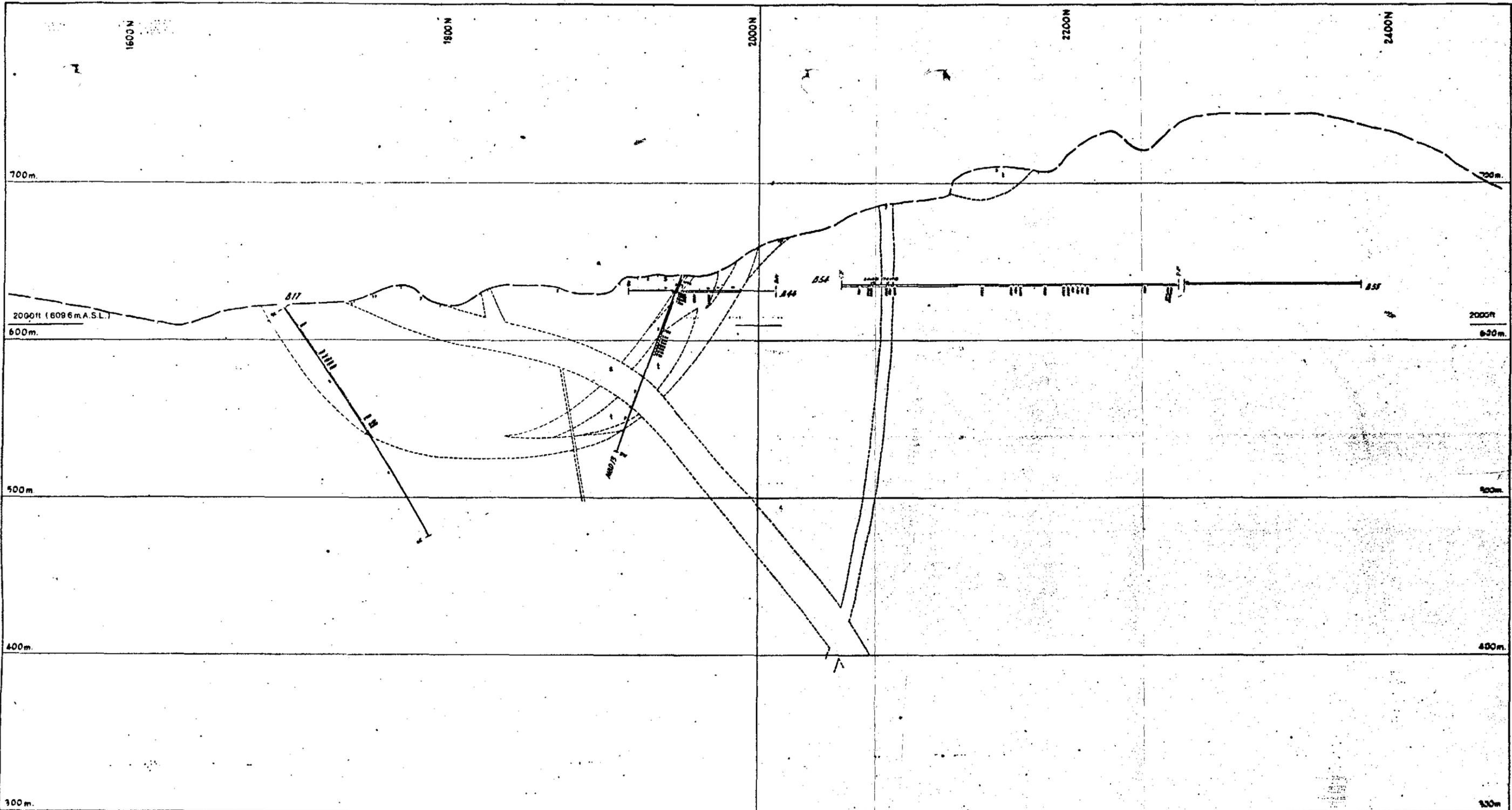
METALS EXPLORATION LIMITED
 MOUNT BISCHOFF TIN PROSPECT
 MOUNT BISCHOFF MINE AREA
 INTERPRETED SECTION
LINE 920 mE

SCALE 1:200 LOOKING TO GRID WEST (240°M)
 DATE DEC 1978 REVISED DRG. NO. 79-008 A

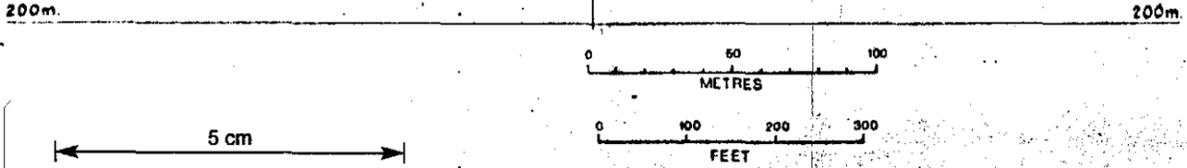
108050

5 cm





- 2 DOLOMITE
- 3/1 MINERALIZED DOLOMITE / TIN ZONE
- / PYRRHOTITE
- / ARGILLITES, QUARTZITES, SHALES / CARBONACEOUS
- / PORPHYRY



METALS EXPLORATION LIMITED
 MOUNT BISCHOFF TIN PROSPECT
 MOUNT BISCHOFF MINE AREA
 INTERPRETED SECTION
LINE 1060 mE

SCALE 1:1200 LOOKING TO GRID WEST (240°M)
 DATE: REVISED: JUL 79 DRG. NO. 79-079