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MICROFILMED

PRELIMINARY INSPECTION
REPORT
ON THE
MT. MAURICE PROSPECT
NEAR RINGAROOMA
TASMANIA.

MAY - JUNE 1970

C. Glazebrook.
5 Boronia Grove,
EAST DONCASTER.

AMG REFERENCE POINTS ADDED

I N D E X .

SUMMARY

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2.00 APPRAISAL

3.00 CONCLUSIONS AND RECOMMENDATIONS

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4.30 Prospect Appraisal Sheets

5.00 LIST OF ILLUSTRATIONS ACCOMPANYING REPORT

LOCALITY PLAN - CM-1

GEOLOGICAL SKETCH MAP - CM-2

APPENDIX

Report on the Mt. Maurice Prospect - Tasmania
by H.C. Williamson BSc, AMAIMM., FGS.A.
Managing Director, Westcharter Management Pty. Ltd.

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SUMMARY.

The preliminary examination though brief, indicated that on first appraisal the area has some prospectiveness. Mineralisation was observed in two reefs which are variable in width but appear to run in one case for at least $\frac{1}{2}$ of a mile and carry copper and molybdenum mineralisation.

Assay values from samples of the mineral bearing reef are not very high (averaging 0.6% Cu.), but the reef has only been opened up in a few places.

It is recommended that further detailed mapping and sampling be done to determine the present reefs extent, presence of any other reefs and ore values present in the known reef areas at present under alluvial cover.

1.00 INTRODUCTION.1.10 LOCATION.

The Mt. Maurice prospect is located some 32 miles to the east of Launceston (Tasmania), and is some 8 to 10 miles from the small hamlet of Ringarooma (ref. to locality map CM-1 attached).

1.20 ACCESS AND TOPOGRAPHY.

The sealed highway No. 3 from Launceston to St. Marys runs past the prospect to the west. The prospect being reached by a good all weather earth surfaced road from Targa (turn right off the highway) to a junction some 16 miles along. At this point a forestry road goes to within 1 mile of the site. The area is very rugged and mountainous and very wet. The prospect is situated on a gentle sloping plateau to the South East of the Mount Maurice trig.

1.30 REGIONAL GEOLOGY.

There is no available department of mines geological map of this area, but the area forms part of a Devonian intrusive granite complex which covers most of the region around St. Marys. The underlying rocks are Cambrian porphyritic rocks. The bodies are usually multiple intrusions and range from biotite granites to quartz monzonite to aplite.

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2.00 APPRAISAL.

2.10 GEOLOGICAL SETTING.

Mt. Maurice is a granite outcrop, most probably of Devonian age. In the region of the prospect the dominant rock types are biotite granite, greisen and muscovite granite, the latter carrying abundant orthoclase.

The surface of the granite is well weathered and the joints appear to be in two directions 20° East of South and 20° South of West. Many quartz veins are apparent and these are mainly small and discontinuous. Pyrite occurs both disseminated within the granite and along quartz veins and joints.

The quartz reef viewed stands out due to erosion above the general rock level, the granite being very well weathered. The reef runs 50° East of North and dips from 85° to vertical were observed. The costeans were observed ranging in depth from 4 ft. to an estimated 100 ft. The reef itself varies in thickness from 4 ft. wide to 4 inches wide. In the vicinity of costeans 1, 2 and 3 the reef carries its best mineralisation of copper, pyrite and traces of molybdenite. From this point the reef thins considerably in both directions up and down slope and observable mineralisation is minor (refer to Map CM-2 attached). The reef is not exposed along its whole length but only just in one or two places were it undoubtedly stood out due to granite erosion. In all, the reef probably has a strike length of at least one mile.

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ASSAY RESULT SUMMATION.

Samples were taken selectively from the reef from within the old costeans. Samples of abundant mineralised quartz and bedrock were taken as well as two soil samples to ascertain whether or not soil sampling would give a good guide to further reef locations and be able to pick reef continuation where it is covered by alluvium.

The best results come from Costeans No. 1 and 2 (refer to rock sample chart) i.e. samples 2, 3, 4, 5 and 6. These costeans are also where the reef is at its thickest, 4 ft in costean 2 and 1 ft - 1½ ft in costean 1. Note also the results from the secondary reef (not visited) which carries 0.69% copper and 0.13% molybdenum. Further down the hill to the North East an assay of 0.44% was obtained for copper. No really high bismuth was recorded so no penalties associated with this metal should be incurred for molybdenite mining. However copper and molybdenite together may present a problem (refer to appendix).

On the whole the assay results are not too encouraging if the deposit is going to be small, but if extent and extra reefs can be found the prospect might become economic.

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CONCLUSIONS AND RECOMMENDATIONS

The visit to the Mt. Maurice prospect was brief involving only a few hours of one day. The one exposed reef was observed and sampled. Costeans have been dug in two locations separated by about $\frac{1}{2}$ mile but still on the same reef line 50° East of North. In between the reef is covered by alluvium.

The workings were done on areas where the reef was visible due to weathering of the granite, however the reef waxes and wanes and an estimation of its average width is difficult. The diggings go down to at least 100 ft and ⁱⁿ number 4 costean, a sample with an assay of 0.44% Cu. has been taken from a 4 inch quartz reef occurrence 20 ft-down the costean.

The assay samples were chipped from the reef exposed in the costeans and not from any Mullock heaps and are thus representative of what values are left in the reef at their locations.

It is the writers opinion that the results are sufficiently encouraging to warrant further work. This work however will have to prove further extent to the known reef area and also possibly extra unexposed reefs in the area.

The area should be gridded, mapped geologically and soil sampled as the soil samples taken (ref. to assay results for samples 11 and 12) indicate that the reef lines will most likely be indicated by good copper values in their vicinity.

The grid layout should be a standard North South running grid and sampling intervals should be at the

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survey intervals which should be 100 ft due to small area involved. A geological mapping program with the soil sampling should establish the presence of any at present uncovered reefs. These reefs should then be uncovered by bulldozer and tested for grade.

At first glance it would appear that unless greater extent in width and grade to the two reefs already exposed can be found, the average grade at present will be too small for an economic operation. If however, more reefs can be found in the area the prospects for a small economic operation brightens even on the present assays, providing the reefs found carry values at least as great as the reef just tested.

Further investigation is definitely recommended along the lines suggested above and in appendix 4.30.

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APPENDICES

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ASSAY RESULT SHEETS.

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MINEX ANALYTICAL LABORATORIES PTY. LTD.
ANALYSTS AND CONSULTANTS TO MINING, AGRICULTURE AND INDUSTRY

4-8 GWYNNE STREET, RICHMOND, VIC. 3121

PHONE: 42 4706, 42 4707

TELEGRAMS & CABLES: MINEXLABS, MELBOURNE

4th May, 1970.

70/282

H. Jarvis Esq.,
Mineral Exploration Pty. Ltd.,
306 Russell Street,
MELBOURNE. VIC. 3000

<u>Sample No.</u>	<u>Ag</u> oz/ton	<u>%Zn</u>	<u>%Pb</u>	<u>W ppm</u>	<u>%Mo</u>	<u>%Cu</u>	<u>%Bi</u>
2	0.3			206		1.50	
4						0.45	
5						0.83	
6						1.14	
7						0.06	
8					0.08	0.44	
9						0.02	
11		0.01	0.08		<0.01	0.03	0.02
12					0.01	0.31	
14						<0.01	0.18
15					0.13	0.60	0.04
16					0.03	0.02	0.14

Method : W - Colorimetric Dithiol

Ag, Zn, Pb, Mo, Bi and Cu : Atomic Absorption
± 7% relative accuracy.

J. Hopper
(Mrs.) I. Hopper
Manager.

A MEMBER OF THE MINEX GROUP

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SAMPLE LOCATION SHEETS.

DATE 4/4/70

SAMPLE NO.	TYPE	DESCRIPTION	SURVEY LOCATION or BEARING	991014
1	Out Crop	Greisenous Granite Carrying Pyrite. Jointing AT RT LS 160°/250°	Costean bearing 10°W of S	WideScan - 1/2 mile N.W of Main Reef Area
2	✓	Quartz Reef in Weathered Orthoclase Granite From base	Ref. Map 2 Costean No. 2	- To Assay for Cu,-----
3	✓	" " " " " "	"	- WideScan)
4	✓	" " " " " From middle	"	- Assay) Copper Mineralisation Abundant
5	✓	" " " " " Abundant ironstaining from top	"	- WideScan)
6	✓	Quartz Reef carrying As For Chalcopyrite, Pyrite samples 2,3,4,5 Bornite, Some Chalcocite	Ref. Map 2 Costean No. 1	- WideScan) - Assay) Minor Cu Mineralisation mainly Pyrite
7	✓	Quartz Reef A/A strike 50° E of N Dip vert. to 85°	Ref. Map 2 Costean 3	- Widescan Assay (Mo in Costean)
8	✓	Quartz (4") vein	Ref. Map 2 Costean 4	- Assay Cu,
9	✓	Quartz vein (1') showing copper/pyrite	Ref. Map 2 Costean 6	- Assay
10	✓	Quartz vein (3") Poor	Ref. Map 2 Costean 7	- WideScan
11	Soil Sample	Over unexposed Reef (following trend)	Ref. Map 2	- Assay Cu Pb, Zn, Ag, Mo, Bi, Sn
12	"	Off All Reef Area	" "	- Assay Cu, Pb, Zn, Ag, Mo, Bi, Sn
13	(Reef)	Quartz Vein	" "	- WideScan
14	✓	" "	Costeans	-
15	✓	" "	9, 10, 11	- Assay Cu, Mo, Bi.
16	✓	" "		* NB Line of Costeans and exposed reef is 50° E of N Thins to NE of 4" Costean 4 thickest in Costean 2 (4' Thinning to 1' to SW Costean 5

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PROSPECT APPRAISAL SHEETS.

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THE EXAMINATION OF PROSPECTS

CHECK LIST

THINGS TO OBTAIN FOR REPORT

- Locality (Area) Map
- Prospect Sketch Geological Map
- Samples Taken
- Wide Scan - Rocks
- Assay - Rocks
- Wide Scan - Soils
- Assay - Soils
- Petrographic Analysis

CHECK	
Attached ✓	
Attached ✓	
	NUMBER TAKEN
	7
	9
	2

RECOMMENDATIONS

Things to be included are:

RECOMMENDED	NOT RECOMMENDED
✓	

DETAILED EXAMINATION

(Refer Reference P2 for Details)

If a detailed examination is recommended state what work is to be done, how long it will take and what it will cost.

WORK TO BE DONE

- Search of old Records ①
- Surveying & Gridding (Brief) ①
- ② Surveying & Gridding (Detailed)
- Geological Mapping ①
- ② Soil Sampling ①
- Stream Sampling
- Rock Sampling ①
- Pan Concentrate Sampling
- ② I. P. Surveys
- Gravity Surveys
- Magnetic Surveys
- Percussion Drilling or Rotary
- Diamond Drilling
- Bulk Sampling
- ② Assaying ①

REC.	NOT REC.	TIME INVOLVED	COST
✓		3 Days	\$250
✓		10 Days	\$650
✓		10 Days	\$1150
✓		10 Days)	To run with other surveys
)	
✓		10 Days)	
✓			\$500

STAGE ①
STAGE ②

To proceed if stage I results are encouraging.

\$2550

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THE EXAMINATION OF PROSPECTS

CHECK LIST

A. PRELIMINARY INSPECTION

1. GEOGRAPHICAL

Closeness to Major Town

32 Miles

Access to Area

✓

Power Supply Nearness

✓

Water Supply Nearness

✓

Topography

Rugged

Climatic Conditions

Region

Transport

very wet

Labour Availability

Road to
within 1
mile

✓

2. LEGAL STATUS OF LAND & MINING RIGHTS

Documents for Surface Rights
(Availability, Completeness)

✓

Documents for Mineral Rights
(Availability, Completeness)

✓

3. POLITICAL/SOCIOLOGICAL FACTORS

Government Attitude to Mining

✓

Regional Attitude to Mining

✓

Local Attitude to Mining

✓

Extent of Difficulties Arising
from Conservation, Pollution,
Water Use, Taxes Royalties etc.

Forestry
Commission
Area

4. GEOLOGICAL

General Geological Setting

QTz Reef
in granite

Abundance of Mine Workings

12 Costeans

Gossans/Altered Zones

✓

Reef Exposures

Two

Contract Exposures

✓

Maps & Charts Available

✓

People Impression

✓

✓

	GOOD	FAIR	POOR
Closeness to Major Town	32 Miles		
Access to Area	✓		
Power Supply Nearness	✓		
Water Supply Nearness	✓		
Topography		Rugged	
Climatic Conditions		Region	
Transport	Road to within 1 mile	very wet	
Labour Availability			✓
2. LEGAL STATUS OF LAND & MINING RIGHTS			
Documents for Surface Rights (Availability, Completeness)	✓		
Documents for Mineral Rights (Availability, Completeness)	✓		
3. POLITICAL/SOCIOLOGICAL FACTORS			
Government Attitude to Mining	✓		
Regional Attitude to Mining	✓		
Local Attitude to Mining	✓		
Extent of Difficulties Arising from Conservation, Pollution, Water Use, Taxes Royalties etc.		Forestry Commission Area	
4. GEOLOGICAL			
General Geological Setting	QTz Reef in granite		
Abundance of Mine Workings		12 Costeans	
Gossans/Altered Zones			✓
Reef Exposures		Two	
Contract Exposures			✓
Maps & Charts Available			✓
People Impression	✓		

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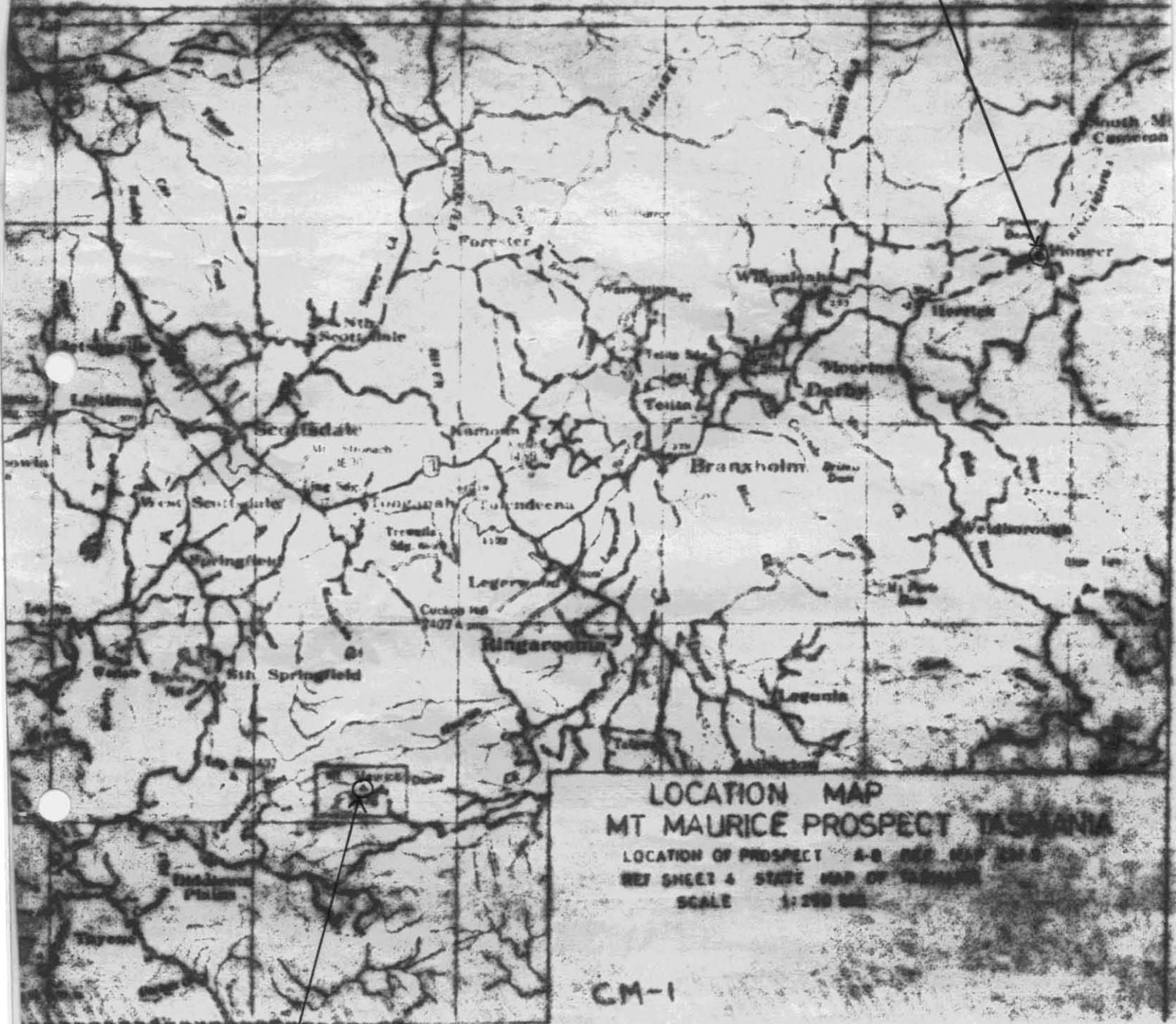
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ILLUSTRATIONS ACCOMPANYING REPORT.

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AMG57100E,
5451800N

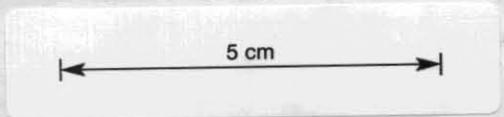


LOCATION MAP
MT MAURICE PROSPECT TASMANIA
 LOCATION OF PROSPECT A-B SEE MAP SHEET
 REF SHEET 4 STATE MAP OF TASMANIA
 SCALE 1:250 000

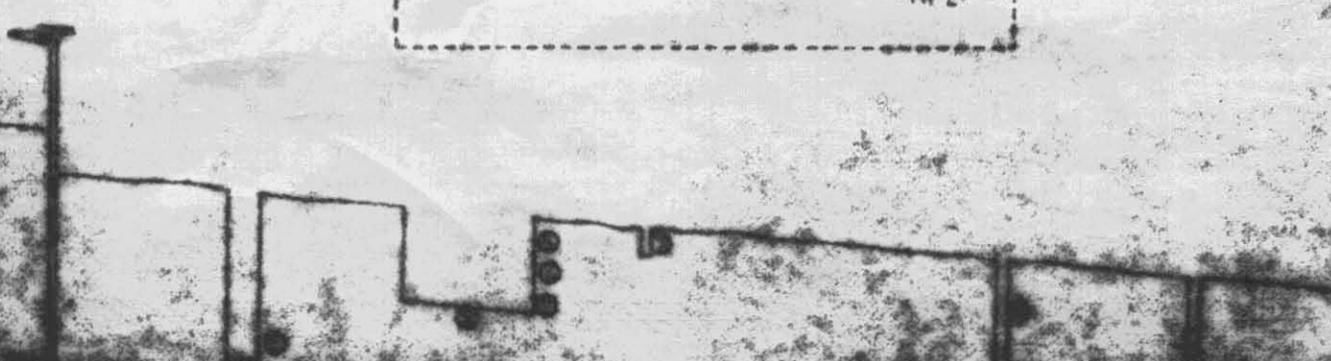
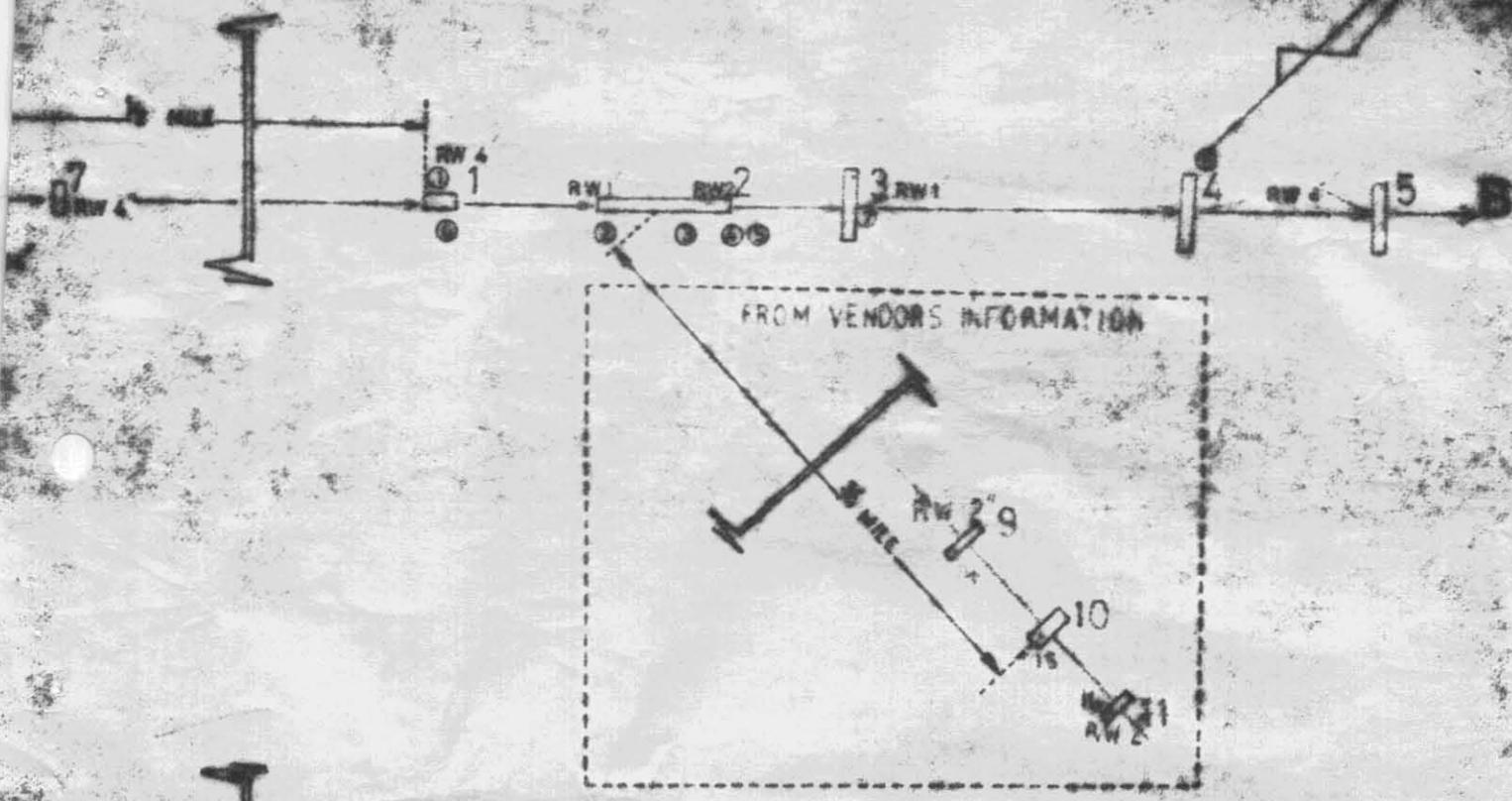
CM-1

AMG549050 E,
5427050 N

AMG REFERENCE POINTS ADDED



TOP MA PROSPECT



1. OBSERVED & REPORTED

2. SELECTED FROM VENDOR INFORMATION, SEE WIDTH 4

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by H. C. WILLIAMSON B.Sc., A.M.A.I.M.M., F.G.S.A.
Managing Director, Westcharter Management Pty.
Ltd., 16 St. George's Terrace, Perth, W.A.

1. INTRODUCTION

An option was obtained from J. S. Cox Syndicate (J. S. Cox, R. Stevenson, P. Dangerfield and F. Stevenson) of Ringarooma, Tasmania, on 30th June, 1970. On the same day, a short inspection was made of part of the prospect, and the inspection was completed on the following day. Mr. Jack Cox, his son and Mr. A. Morton of Westmex Limited formed the party for both visits. A report by consulting geologist, Mr. C. Glazebrook, was available before our visit. The option was signed on the information contained in the report.

2. ACCESS

Good access is available either through Ringarooma, Talawah and Trenah (the last stage on a gravel road), or from Launceston through Myrtle Bank and Diddleum Plains, the shorter route from Launceston.

3. LEASING

Mr. J. S. Cox holds the title for S.P.L. 82 of 4 square miles from the Tasmanian Government. The datum for the S.P.L. is the Mt. Maurice Trig point. From there, the S.P.L. runs 2 miles east, thence 2 miles north, thence 2 miles west, thence 2 miles south back to datum.

4. GEOLOGY

4. 1. REGIONAL GEOLOGY

No information is available on the regional geological setting of Mt. Maurice. Plans attached to Geological Survey Bulletin No. 50 show that a Devonian Granite batholith intrudes palaeozoic sediments. The granite batholith is roughly rectangular in shape and forms part of the numerous batholiths found in N.E. Tasmania. It is similar to the granites found adjacent and underlying the Aberfoyle and Story Creek mines.

4. 2. MINERALISATION

Shallow working of the early prospectors and tin miners have exposed several quartz veins in granite. The sulphides appear to have been leached out of the near surface quartz but samples collected and examined from the shaft dumps contained primary pyrite, chalcopyrite and molybdenite. All workings were filled with fresh water from heavy winter rains and a full underground inspection was impossible.

4. 2.1 COPPER MINERALISATION

The shaft reported by Glazebrook to show a width of 4 ft. was examined about 6 ft. below the collar. At this point the widest reef visible was 1.8 ft. (Sample 7). The walls of the shafts were examined by chipping channels through the covering of moss and distinguishing quartz from granite by picking at the face. No

evidence was found of a strong structural control for the localisation of the quartz reefs. The other shaft examined - C. Glazebrook's Stop 1 - showed a narrow reef striking 50° and a steep dip (85° plus) to the N.W. In this shaft a narrow reef 5" wide was exposed.

4. 3. MINERALISATION MOLYBDENUM PROSPECT

This prospect is situated 1.5 miles north of Mt. Maurice and is located on the banks of a creek. Three small pits have been sunk in line on a bearing of 85° E of North. Water filled all pits and hindered inspection. In the eastern pit 2" of quartz was exposed. No quartz was visible in the walls of the central pit, but mineralised quartz was seen in the dump. The western pit adjacent to the creek could not be inspected but was reported to show a reef 14" wide. The eastern pit was drained and the quartz reef was a narrow irregular vein in an unsheared, unaltered, massive granite.

4. 4. SAMPLE DESCRIPTION

The location, mineralogical description by Dr. J. Borner and assay results by Griffith-Inteco Australia Pty. Ltd. of samples collected from Mt. Maurice is attached.

5. REVIEW

The quartz reefs at Mt. Maurice show evidence of weak mineralisation and of being formed in weak tension fractures at a late stage in the consolidation of the Mt. Maurice granite.

6. CONCLUSIONS

The lack of evidence for the continuity of reefs, the narrowness and low grade metal content of the reefs are sufficient reasons why we should terminate the option agreement.

H. C. Williamson

H. C. WILLIAMSON

c.c. J. Borner
A. Morton

LOCATION OF SAMPLES

Sample 1 Sent to Chief Geologist,
Geological Survey of Tasmania.

Sample 2 5" wide quartz vein. Sampled at 1st
Stop on 1st day = to C. Glazebrook's
Stop 1.

Sample 3 As per Sample 1

Sample 4 As per Sample 2

Sample 5 Molybdenite prospect 1.5 miles North
Mt. Maurice

Sample 6 Ditto showing quartz in contact with granite

Sample 7 Sample from Shaft 1.8 ft. wide quartz vein.

Sample 4	%Cu	%Pb	%Ni	%Zn	%Mo	%As
	0.03	0.01	0.01	less than 0.01	less than 0.01	0.06
Sample 7	0.04	0.02	less than 0.01	less than 0.01	0.01	0.07

Method atomic absorption † 7% relative accuracy.

Reference: Geological Survey Bulletin No. 46 and 50

The contrast in granitic types associated
with tin and gold mineralisation in Tasmania
J. Klomensky and D. I. Grooves Pages 71-79

The Proceedings the Australasian Institute
of Mining and Metallurgy No. 234, June, 1970.

Report Mr. C. Glazebrook on S.P.L. 82 prepared
for the Cox Syndicate.

MINERALOGICAL DESCRIPTION OF FIVE SAMPLES FROM MT. MAURICE
PROSPECT IN NORTH-EASTERN TASMANIA

A low-power (x70) stereo-microscopical description of a suite of seven (7) Mt. Maurice, Tasmania, siliceous ore samples gave the following results:

<u>Sample No.</u>	<u>Description of Specimen Mineralogy</u>
No. 2	Irregularly distributed blebs (0.5-2mm) of chalcopyrite with minor pyrite in fractured limonitic stained vein quartz. Some cp. grains have secondary (supergene) sooty chalcocite and covellite coatings. The sulphides occur as fracture fillings. No secondary copper carbonates present. Tungsten (scheelite) mineralization absent. Radioactivity normal background. Some green chloritic alteration present in interstitial matrix.
No. 2a	Similar to above specimen, except cp (chalcopyrite) less in evidence. Some vugs present
No. 5	Vuggy crystalline grey to white vein quartz with some anhedral blebs of cp and py mineralization. Small scattered flakes of molybdenite occurred as fracture fillings. Minor supergene covellite and chalcocite coating cp in vugs also present.
No. 5a	Small fragment showing limonitic staining in quartz-feldspar gangue. Minor chlorite. No scheelite present.
No. 5b	Fragment containing quartz with chlorite alteration and randomly distributed molybdenite flakes as fracture coatings. No Cu mineralization present. Scheelite absent. Radioactivity normal background.
No. 6 or 11	Large specimen (7 x 5 in.) of fractured vein quartz within granitic host-rock (feldspathic phase). No megascopic sulphide mineralization present. Scheelite mineralization present as irregularly disseminated coarse (3mm) particles within fractures quartz gangue. Quartz vuggy with limonitic staining. Kaolinitic alteration of feldspar. Radioactivity normal background.
Copper Shaft No number	Yellow brown limonitic-stained vuggy quartz with minor molybdenite mineralization in fracture. No Cu sulphide or scheelite mineralization visible. Radioactivity normal background.

The examination for scheelite was made with a short-wave Mineralight of 2357A.U. Radioactivity was checked with a Geiger counter.

The copper mineralization in all samples is very erratic.

J. BORNER.