REPORT No. 832096 088

METALS EXPLORATION LTD.
& SUBSIDIARY COMPANIES

MINERAL EXPLORATION
DIAMOND DRILL LOG

Prospect, area, project or mine. MOUNT BISCHOFF

HOLE No. MBD 57

COLLAR LOCATION

Grid name	Rectangular space co-ordinates PLANAR CO-ORDINATES		ELEVATION
(1) MBJV	1759.97 N	840.05 E	606.96
(2)	N	E	
(3) Aust. Map Grid PRECISE / APPROX.	mE	mN	m A.H.D.

1:250 000 Sheet No. | 1:100 000 Sheet No. | State

Mineral Tenement E.L. 13/79 Holder METALS EXPLORATION LTD.

Cadastral location and details
CROWN LAND / PRIVATE

W.C. Bearing from collar

150°	magnetic
180°	grid (1)
	grid (2)
	grid (3)
	true

Inclination at collar 60°

Total length 170.0

Commenced: 19 / 2 / 81
Completed: 25 / 2 / 81

Drilling contractor
LONGYEAR AUST. PTY. LTD.

Rig type
LONGYEAR HC 150.

Core size and non-coring (NC)

Tricone	0	TO	3.0
NQ	3.0	TO	72.4
BQ	72.4	TO	170.0
		TO	
		TO	
		TO	

Details of down hole location-survey methods.
EASTMAN
Single-shot photo

Purpose of drilling and anticipated lengths to targets.
To intersect white face porphyry at 110-130m
and Buried Dolomite at 130-150m.

Comments on drilling.

Results of down hole location-survey.

LENGTH FROM COLLAR	W.C. BEARING type.....	DIP
30m	150°	60°30'
60m	151°	61°
90m	151°	61°
110m	152°30'	61°30'
140m	153°	61°20'
169m	151°	61°40'

Legend for graphic log column (see drill log for Hole No. _____)

'DERWENT' PENCIL No. | FIELD ROCK NAME, ETC.

Symbols and abbreviations for drilling notes column.

LOGGED BY K. Camuti
FROM 0 TO 170.0
DATE 25/2/81

LOGGED BY _____
FROM _____ TO _____
DATE _____

LOGGED BY _____
FROM _____ TO _____
DATE _____

Company managing exploration programme.
METALS EXPLORATION LTD.

HOLE No. MBD 57
Log sheet 1 of 3

832097089

DEPTH (length from collar)	INTERVAL	DEPTH from - to : ROCK UNIT (CAPITAL LETTERS, UNDERLINED) Depth : Description and notes, veins over 50mm. INDENTED ABOUT 10mm	POINTER & CODE	GRAPHIC LOG	POINTER & CODE	MINERALISATION Excluding veins over 50mm. Visual estimate of % mineralisation in brackets.	ASSAYS AVAILABLE	BULKED ASSAYS Sn
	0-3.0 (3.0)	TRICONE - NO CORE		NC				
	3-69.9 (66.9)	SILTSTONE/lesser CARBONACEOUS SHALE/minor QUARTZITE Moderately to stongly disrupted and brecciated dark grey, fine to medium grained siltstone with lesser fine carbonaceous shale lamincitions and minor dark grey, fine grained sericitized quartzite thinly and moderately interbedded or as clasts in brecciated zones. Large quartz / carbonate sulphide veins. Occasional to numerous joints, dominant direction = 45-50°		10/9c/11		<1% Mainly py in veins, stingers, coarsely and finely disseminated. Marcasite and sp and py associated with quartz/carbonate veins. Trace of arsenopyrite. minor Flourite. 13.3 ? Fault zone 16.9 ? Fault zone Trace of cassiterite in vein at 27.2m. 64.2 ? Fault zone.		
	69.9-91.1 (21.2)	QUARTZ PORPHYRY Medium to coarse grained white quartz porphyry 5-10% quartz phenocysts, 3% feldspars. Moderately weathered and pitted in places. Occasional joints : 30-35° and 40-50°. 78.65-79.6 Matrix becomes glassy 85.8-87.8 Pale brown to green pitted porphyry. Increase in feldspars 7-10%. Decrease in quartz phenocrysts 1-2%.		1		10% Mainly pyrite and marcasite coarsely disseminated. Marcasite pyrite 74.75 ? Fault 84.1-85 Decrease in sulphides - 1% 85.8-87.8 Sulphides - 3-5%. After 85.8 Moderate to strong trace of coarsely disseminated sphalerite		
	91.1-114.6 (23.5)	SILTSTONE/lesser CARBONACEOUS SHALE/minor QUARTZITE Generally strongly disrupted and brecciated, occasionally well bedded, fine grained siltstone with lesser carbonaceous shale, and minor dark grey, fine grained sericitized quartzite. Similar to 0-69.9. Weakly dolomitic towards end of interval. 107.8-112.5 Brecciated and broken with small white dolomite clasts.		10/9 c/11		Trace pyrite and marcasite (py > marcasite) occurring associated with quartz/carbonate veins, in stringers, patches and finely disseminated. 99.5 Bedding = 50° 99.85 Bedding = 45°		
	114.6-114.9	SILTSTONE AND SHALE				40% Bedded Pyrite		
	114.9-140.5 (25.6)	DOLOMITE/minor CARBONACEOUS SHALE Massive pale to mid-grey, brecciated and disrupted dolomite with minor carbonaceous shale.		2/9c		1-3% Mainly pyrite, weak marcasite, in patches, coarsely and finely disseminated, thin veins and stringers		

NOTES: 1. FOR ABBREVIATIONS SEE "FIELD GEOLOGIST'S MANUAL", D.A. BERKMAN & W.R RYALL (ED.), MONOGRAPH NO. 9 AUSTRALAS. INST. MIN. METALL. - 1976
2. ATTITUDE OF BEDDING, VEIN, ETC. IS ANGLE BETWEEN PLANAR STRUCTURE AND LONG AXIS OF CORE 3 LENGTH IS GIVEN AS METRES OR MILLIMETRES

FOR LEGEND SEE DRAWING NO.

METALS EXPLORATION LIMITED

SUMMARY DRILL LOG Scale

Prospect or project: MT BISCHOFF TIN

HOLE No. MBD 57

LOG SHEET 1 OF 2

832098090

DEPTH	INTERVAL	DEPTH from-to : ROCK UNIT (capital letters, underlined) Depth : Description and notes (indented about 10mm)	POINTER	GRAPHIC LOG	POINTER	MINERALISATION	ASSAYS AVAILABLE	BULKED ASSAYS

NOTES: 1. FOR ABBREVIATIONS SEE "FIELD GEOLOGIST'S MANUAL", D.A. BERKMAN & W.R. RYALL (ED), MONOGRAPH No.9 AUSTRALAS. INST. MIN. METALL. - 1976
2. ATTITUDE OF BEDDING, VEIN, ETC. IS ANGLE BETWEEN PLANAR STRUCTURE AND LONG AXIS OF CORE 3. LENGTH IS GIVEN AS METRES OR MILLIMETRES.

		Continued from previous page		
130		Material becomes darker and more weakly dolomitic towards end of interval as carbonaceous shale content increases. Rare to occasional joints at 45-50° and at 60°.		130.0 ? Fault zone 130.5 ? Falut zone
140				← Gradational contact
	140.5 - 150.8	CARBONACEOUS SHALE/lesser SILTSTONE/very minor DOLOMITE Mainly black, carbonaceous shale with lesser dark grey siltstone and minor dolomite as clasts in brecciated zones. Strongly disrupted and brecciated.	9c/10/2	Trace. Mainly py, trace of cp and sp. Py in veins, stringers and small patches. Sp, cp, and py associated with quartz/ carbonate veins. Trace of galena and minor flourite in quartz/ carbonate veins.
150	150.8-153.6 (2.8)	DOLOMITE SULPHIDE LODE 50% talc, 30% pyrite, 20% quartz/carbonate	6/5/8	30% Mainly pyrite in patches, strong trace of disseminated sp + marcasite. ← Irregular contact
	153.6-162.25 (8.65)	DOLOMITE Generally disrupted and brecciated pale grey massive dolomite. 156.8-157.7 Cream coloured recrystallized dolomite with minor flourite	2	Trace Sp in thin veins and finely disseminated. Weak galena, pyrite 157.5 Fault zone Irregular contact
160	162.25-170.0 (7.75)	SILTSTONE/lesser CARBONACEOUS SHALE/minor QUARTZITE Strongly disrupted and brecciated. Weakly dolomitic.	10/9c/11	Trace. Pyrite and marcasite in patches, thin veins, and associated with quartz/carbonate veins.
170				

5 cm

240m (1:1000), 120m (1:500), 60m (1:250) AFTER TYPING THIS SIZED FORM WILL BE PHOTO-REDUCED TO A4 SIZE

FIELD COPY
METALS EXPLORATION LTD.
EXPLORATION DEPARTMENT

TO BE SENT TO MELBOURNE FOR TYPING

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

Prepared by:
Date:

HOLE No. MBD 57
Sheet 2 of 2