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Rio Tinto Exploration Pty. Limited

A.C.N. 000 057 125

A member of the Rio Tinto Group



**EL 43/92 Melba Flats
Partial Relinquishment Report
Queenstown SK55-05
1:250,000
Tasmania Australia**

EL43/92
For covering letter
see EL43/92 p2
folio 33

MICROFILMED
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Rio Tinto Report No. 23730

98-4130

ANNUAL/FINAL REPORT-EL 43/92
MELBA FLATS - RIO TINTO
SAJ RUSSELL

Abstract

Rio Tinto Exploration Pty Limited was granted EL 43/92 on the 16 April 1993 for an initial tenure of one year over an area of 16 km². The target was bulk tonnage disseminated Ni-Cu (PGE and Au) sulphide resources.

EL 43/92, Melba Flats is located on the Pieman (7914) 1:100,000 map sheet. The licence is centred approximately 9km north of Zeehan.

A number of high-grade massive Ni-Cu (-PGE-Au) sulphide lenses are known within the Melba Flats Licence area. Massive sulphide lenses identified to date are up to 75m long, 60m wide, 1m thick and commonly exceed 15% combined Ni+Cu. Mineralisation is generally hosted by dolerite sills within steeply E dipping uncorrelated Cuni stratigraphy - interbedded mudstone, siltstone, volcanoclastic lithicwacke and quartzwacke.

EL 43/92 was reduced in size by 50% during the last annual reporting period. This report details all work conducted on the area recently relinquished (November 1997).

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List of Plans

Plan No.	Title	Scale
Tv1285	EL 43/92 Melba Flats Partial Relinquishment	1:100,000

1. Conclusions and Recommendations

EL 43/92 was reduced in size by 50% during the last annual reporting period (Plan Tv1285).

This report details all exploration conducted on the area relinquished on 11th November 1997.

2. Introduction

Rio Tinto Exploration Pty Limited was granted EL 43/92 on the 16 April 1993 for an initial tenure of one year over an area of 16 km². The target was bulk tonnage disseminated Ni-Cu (PGE and Au) sulphide resources.

EL 43/92 is located on the Pieman (7914) 1:100,000 map sheet. Its geographic centre is approximately 9km north of Zeehan. An overview of regional geology and mineralisation is given in Aravanis (1994).

A number of high-grade massive Ni-Cu (-PGE-Au) sulphide lenses are known within the Melba Flats Licence area. Massive sulphide lenses identified to date are up to 75m long, 60m wide, 1m thick and commonly exceed 15% combined Ni+Cu. Mineralisation is generally hosted by dolerite sills within steeply E dipping uncorrelated Cuni stratigraphy - interbedded mudstone, siltstone, volcanoclastic lithicwacke and quartzwacke.

EL 43/92 was reduced in size by 50% during the last annual reporting period (Plan Tv1285).

3. Review of Previous Work

3.1 Prior to Current Tenement

Cu and Ni mineralisation was discovered in the Melba Creek area in 1893. A detailed history of the exploration within the Melba Flats EL area is detailed in Taylor & Burger (1952) and Ellis (1987). A summary of mining lease activity up to 1961 is given in Brown (1992).

3.2 During Current Tenement

1993 - 1994

Fixed Wing Airborne TEM (QUESTEM) Survey

- A fixed wing airborne TEM (QUESTEM) Survey was flown. Data was of poor quality due to very high background resistivities and higher than normal flying altitude (due to topographic variations).
- 95% of the survey was flown over the area to be retained by Rio Tinto and Allegiance. Consequently the data is not included in this report.

Geochemical Sampling

- 11 rock chip samples were collected from the Serpentine Hill Ultramafic Complex. The highest Ni assay returned was 0.14%. This is consistent with values (42.4m @ 0.16%) returned by the Montana Silver Lead drillhole M23 drilled into the Serpentine Hill Ultramafic Complex in 1957 (Appendix I, Horvath, 1957). Similar assays were reported for rocks encountered in Tasmanian Mines Department drillholes SH1-6 (Brown, 1991) drilled into this ultramafic complex. Sample and assay ledgers for these samples are included in Appendix 1.

1994 - 1998

No field work was conducted on the area recently relinquished.

4. Environment and Rehabilitation

No surface disturbing activities have been conducted on the ground which was recently relinquished, hence no rehabilitation was necessary.

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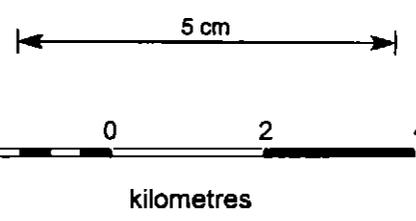
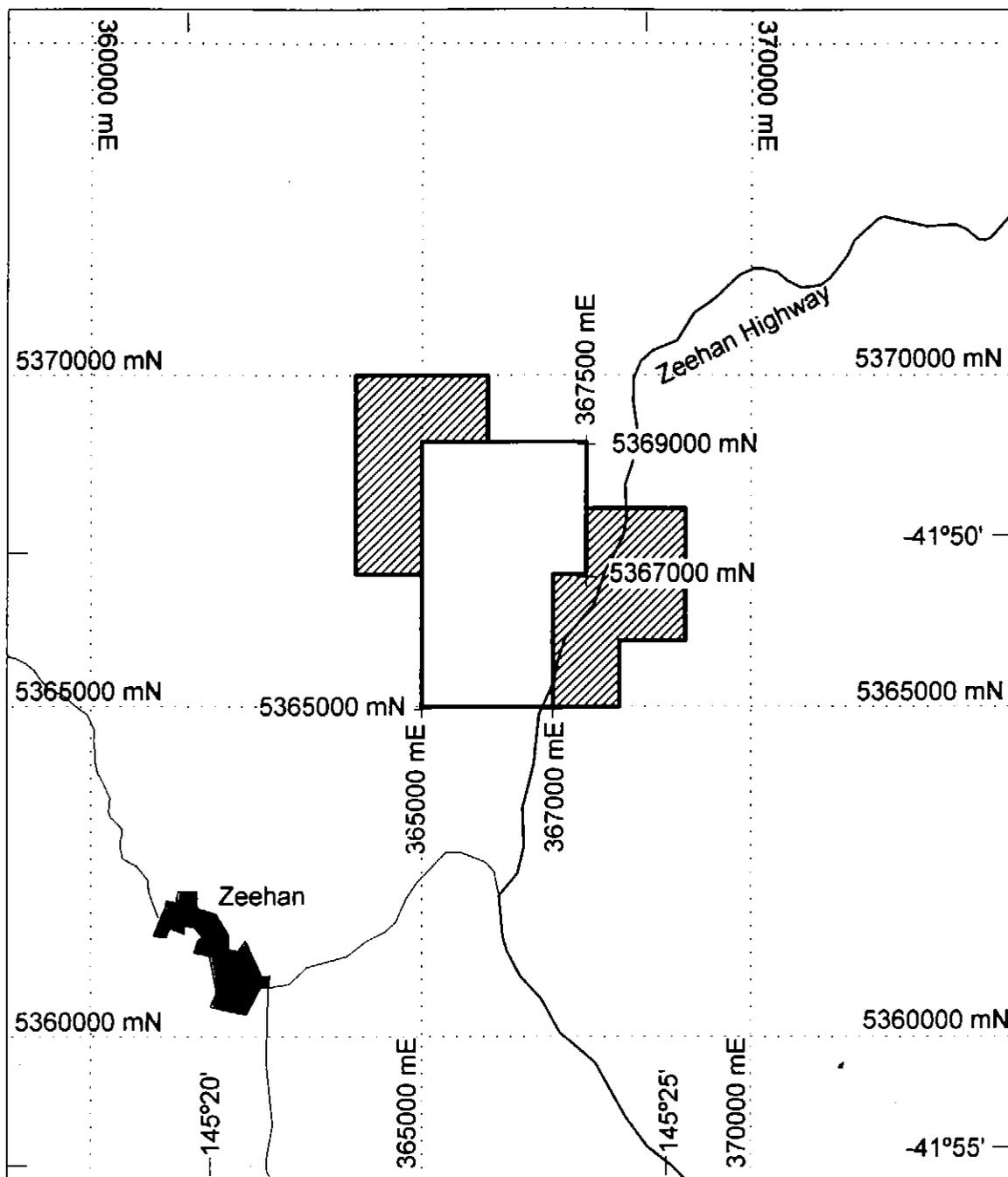
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6. Location

Queenstown	SK55-5	1:250,000
Pieman	7914	1:100,000
Dundas	3636	1:25,000

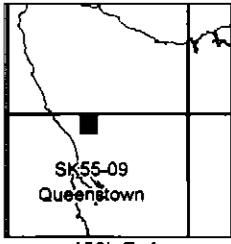
7. Keywords

Cambrian, Copper, Nickel, PGE, Gold, Disseminated, Massive, Dolerite



-  Recommended for Relinquishment
-  Area to be Retained

Location Diagram



CROWN COPYRIGHT
 Digital topography supplied by AUSLIG.
 Projection: AMG Zone 55
 Horizontal Datum: AGD 1966
 Vertical Datum: AHD 1971

100k Ref:
 Pieman 7914

RIO TINTO EXPLORATION PTY. LIMITED	
EL 43/92 Melba Flats Partial Relinquishment	
Author: T McConarchy	Ref: SK55-09 Queenstown
Drawn: N. Waterman	File Name: Tv1285.wor
Date: 18-9-1997	Report No:
Scale: 1:100000	Plan No: Tv1285

Appendix 1
Assay and Sample Ledgers

ROCKCHIP AND DRILLING CODES

17/2/93

LITH

Rock code as per published geological map
For time designation use:-

Q	Quaternary	M	Permian	P	Proterozoic
T	Tertiary	C	Carboniferous	A	Archaean
		S	Silurian		
K	Cretaceous	D	Devonian		
R	Triassic	O	Ordovician		
J	Jurassic	E	Carboniferous		

FIELD ID

Field term for rock type
Broad groupings are:-

S	Sedimentary	I	Intrusive	C	Surficial
M	Metamorphic	E	Extrusive	O	Others

SEDIMENTARY

Ssg	Conglomerate	Sls	Limestone	Sw	Wacke
Sss	Sandstone	Sch	Chert	Sag	Agglomerate/mixtite
Sst	Siltstone	SIf	BIF		
Ssh	Shale				
Sbs	Black shale	Sbx	Breccia		

METAMORPHIC

Msl	Slate	Mq	Quartzite	Mmg	Migmatite
Mph	Phyllite	Mm	Marble		
Mec	Schist	Ma	Amphibolite	Mak	Skarn
Mbs	Graphitic schist	Mcs	Calcisilicate		
Mgn	Gneiss	Mn	Hornfels		

INTRUSIVE IGNEOUS

Ii	Felsic undiff.	Ij	Intermed undiff.	Iu	Ultramafic
Iip	Felsic porphyry	Iip	Intermed porph	Ius	Serpentinite
Iap	Aplite	Iim	Mafic undiff.	Ipg	pegmatite
Igr	Granite	Iid	Dolerite		
Igd	Granodiorite	Igb	Gabbro		

EXTRUSIVE IGNEOUS

Ery	Rhyolite	Ean	Andesite	Et	Tuff undiff
Exc	Dacite	Es	Basalt	Elt	Felsic tuff
				Emt	Mafic tuff

SURFICIAL (COVER) MATERIAL

Cz	Alluvium	Clt	Laterite	Csg	Gossan
Cco	Colluvium	Csp	Pisalites	Ccy	Clay
Cs	Sand	Cst	Ironstone	Cv	Vegetation/peat
Cbs	Black soil	Cst	Silcrete		
Cg	Gravel	Ccl	Calcrete		

OTHERS

Ovq	Vein quartz	Omy	Mylonite	Oms	Massive sulphide
Ovc	Vein carbonate	Obr	Breccia	Ox	Unknown
Ovs	Vein sulphide	Of	Fault gouge		

TEXTURAL CODES

WEATHERING/SURFICIAL FEATURES

We	Weathered	Fe	Ferruginous
Bt	Bleached	Fo	Fe ox in fract
Le	Leached		

MINERALISATION/ALTERATION FEATURES

Gs	Gossanous	Vs	Vein sulphide	Al	Altered
Vn	Veined	Os	Dissam sulph	Sl	Silicified
Di	Disseminated	Fs	Fracture sulch		
		Bs	Banded sulch		

GEOLOGICAL FEATURES

Bd	Bedded	Fr	Fractured	Po	Porphyritic
Bn	Banded	Ib	Interbedded	Sc	Schistose
Bx	Brecciated	Lm	Laminated	Sh	Sheared
Fl	Fissile (statey)	Ma	Massive	Vu	Vuggy

DIAGNOSTIC MINERALOGY

PRIMARY MINERALISATION

Ga	Galena	Py	Pyrite	Ni	Ni sulphides
Sp	Sphalerite	Po	Pyrrhotite		
Cc	Chalcopyrite	Su	Unknown sulph		

SECONDARY MINERALISATION

Ls	Lead secondaries	Cs	Copper sec.	Ni	Ni secondaries
Zs	Zinc	Us	Uranium		

ALTERATION/DIAGNOSTIC MINERALS

Cy	Clay	He	Haematite	Gt	Garnet
Ep	Epidote	Mt	Magnetite	Ky	Kyanite
Cc	Carbonate	Js	Jarosite	To	Tourmaline
Sd	Siderite	Mn	Manganese mins		

COLOUR CODES

L	Light	A	Banded	M	Mottled
O	Dark				
N	Black	P	Purple	V	Green
G	Grey	R	Red	X	Pink
B	Brown	O	Orange	E	Blue
W	White	Y	Yellow	S	Silver

Sample and Assay Ledger for Rock Chip Samples Collected from Relinquished area of EL 43/92 Melba Flats

Sample Number	DPO	Easting	Northing	Prospect Area	BMR Lith	Field ID	Texture	Alt/Min	Colour	Ag ppm	Co ppm	Cr ppm	Cu ppm	Ni ppm	Pb ppm	V ppm	Zn ppm
3313768	71540	368250	5367900	Serpentine Hill						-1			4		-3		42
3313769	71540	368200	5367600	Serpentine Hill	Esu	Ius	Sh		V	-1	58	1112	6	776	3	25	46
3528470	71540	367900	5367010	Serpentine Hill	Eba	Siflu?	WeFe			-1	27	1764	48	271	-3	13	79
3528471	71540	367920	5367060	Serpentine Hill	Eba	Im		Py		-1	21	305	27	69	18	71	86
3528472	71540	367960	5367120	Serpentine Hill	Eba	Eb				-1	78	1471	12	1000	19	40	85
3528473	71540	368020	5367220	Serpentine Hill	Eba	Im	Vn			-1	27	274	98	231	5	43	69
3528474	71540	368080	5367320	Serpentine Hill	Eba	Ma				-1	12	84	8	53	-3	31	37
3528475	71540	368240	5367380	Serpentine Hill	Eba	ImMa	Lm			-1	69	886	3	772	4	24	64
3528476	71540	368340	5367580	Serpentine Hill	Eba	ImIus				-1	87	1497	13	1362	-3	24	68
3528477	71540	368400	5367640	Serpentine Hill	Eba	IgbIm	Al			-1	31	943	5	230	-3	10	35
3528478	71540	368540	5367880	Serpentine Hill						-1			-2		-3		80