

Exploration Report
EL6/2005 – “Cuprona”
September 2020 to September 2021

by

Ben Whitney & Stuart Dawes

On behalf of

Blythe River Iron Pty Ltd

C/- Lottah Mining Pty Ltd

Datum: GDA94

7th of September 2021

ABSTRACT

The Cuprona exploration tenement EL6/2005 had the following works undertaken during the reporting period. Work completed for the reporting period consisted of a literature review of previous work, a diamond drilling program commenced at the 788 Quarries "Cuprona" hematite deposit, and samples from previously drilled core sent for metallurgical test work.

Current exploration focus is to infill and extend the known resource of the Cuprona 788 Quarries hematite deposit with further drilling as well as a feasibility study on the silica in the hematite ore. Other areas of exploration are the "Kiwi Farm" at Natone with drilling to be carried out on the magnetic high to determine if it is predominately magnetite and the percentage of pyrrhotite in the ore.

CONTENTS

Abstract.....	2
1 Introduction	4
1.1 Exploration Rationale	4
1.2 Licence Tenure	4
1.3 Location and Access	4
1.4 Land Status and Usage.....	6
2 Geology.....	7
3 Summary of Previous Work.....	7
3.1 Prior to Current Licence	7
3.2 Under the Current Licence	7
4 Work Completed During Reporting Period.....	7
4.1 Introduction	7
4.2 Work on Cuprona.....	7
5 Discussion of results	8
6 Conclusions	10
7 Future Exploration.....	10
8 Environmental Management.....	11
9 Expenditure.....	12

List of Figures

Figure 1: EL 6/2005 “Cuprona” location map	5
Figure 2: EL 6/2005 “Cuprona” land usage map.....	6
Figure 3: Proposed drill holes for Natone	10
Figure 4: Rehabilitation carried out on 15CUN004RC	11

List of Tables

Table 1: Planned collar co-ordinates for the 2021 drilling program	8
Table 2: Completed drill holes	9
Table 3: 21CUN001DD summary log	9
Table 4: 21CUN002DD summary log	9
Table 5: 21CUN003DD summary log	9
Table 6: 21CUN006DD summary log.....	10

1 INTRODUCTION

1.1 EXPLORATION RATIONALE

The primary objective of Lottah Mining Pty Ltd (as operator of Blythe River Iron Pty Ltd's tenements) is to add to their magnetite/hematite iron resource inventory.

Lottah Mining Pty Ltd has a JORC compliant magnetite iron resource at its Rogetta North project on ML 1996/M approximately 24km southwest of EL 6/2005, and a JORC compliant hematite iron resource deposit on EL 6/2005 Cuprona.

Lottah Mining Pty Ltd is also targeting any commodities of commercial interest including but not limited to WO₃, Sn, Bi, Mo, Pb, Zn, Au, Ag, Li, Ni, REE, Wollastonite and facing stone.

1.2 LICENCE TENURE

Exploration Licence EL 6/2005 "Cuprona" is under Blythe River Iron Pty Ltd, and managed by Lottah Mining Pty Ltd. The anniversary date for the Licence is the 7th of September.

1.3 LOCATION AND ACCESS

EL 6/2005 "Cuprona" covers an area of 23 km² in Tasmania's northwest with its center located approximately 10 km to the southeast of Burnie (see Figure 1.2.1 below).

Access to the license area is good, via Natone and Cuprona Roads and numerous sealed and unseal back roads.

Original planning was to use Copper King Road to access the location for the 2021 diamond drilling program which would have been extensive roadworks to get vehicle access onto the drill site. But after consultation with Mr Vandenburg, permission was granted to access the drill site through his property and to utilise the water from one of the dams located on Mr Vandenberg's property.

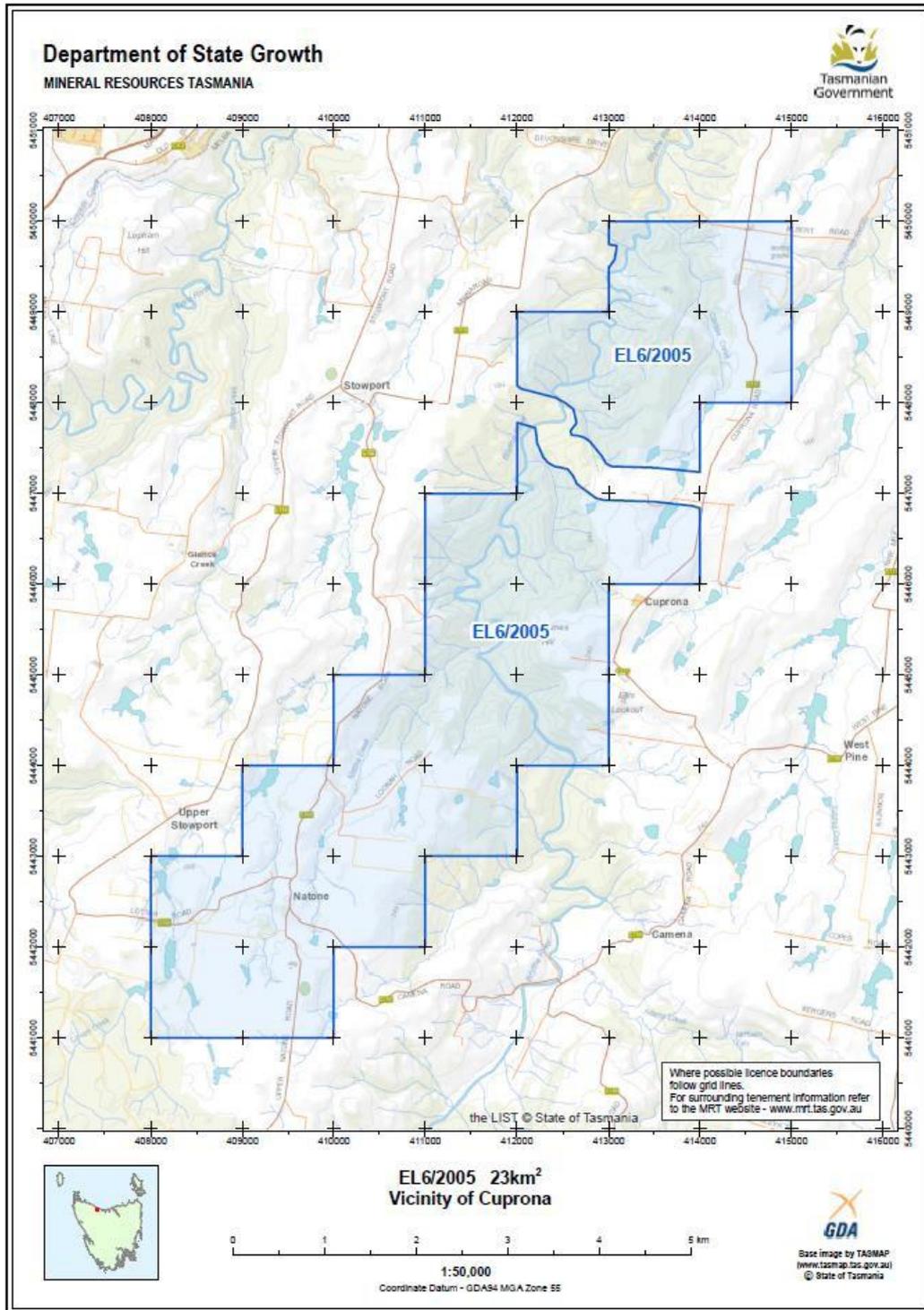


Figure 1: EL 6/2005 “Cuprona” location map.

1.4 LAND STATUS AND USAGE

Land status within all the tenement area is currently listed as Private Freehold and is used predominantly for agriculture and farming (see Figure 1.3.1 below).

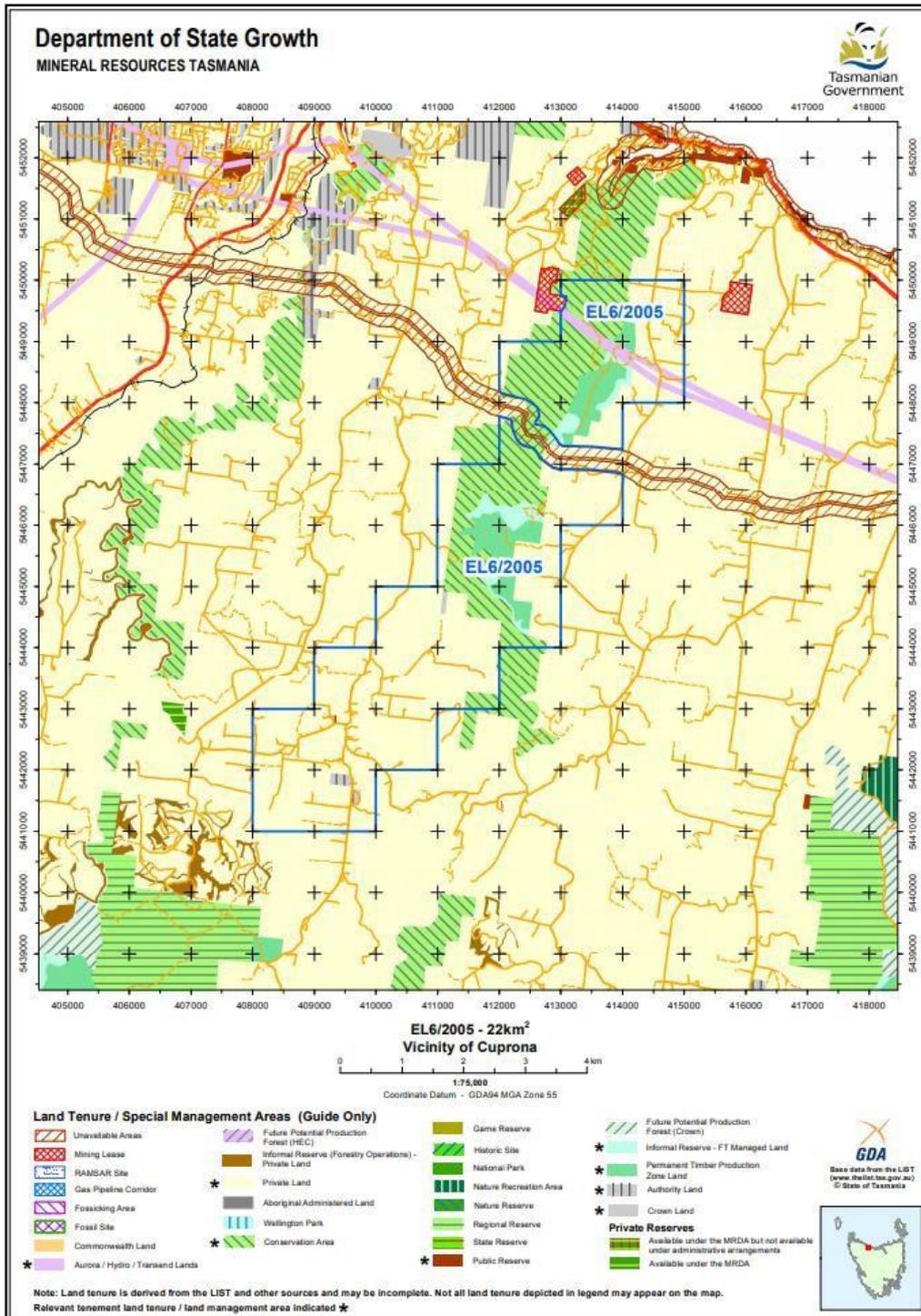


Figure 2: EL 6/2005 "Cuprona" land usage map.

2 GEOLOGY

A series of comprehensive summaries of the regional and deposit specific geology have been outlined in numerous previous reports (MacDonald, 2019).

3 SUMMARY OF PREVIOUS WORK

3.1 PRIOR TO CURRENT LICENCE

A complete examination and summary of historic work carried out on the tenement area have been outlined in previous reports (MacDonald, 2019).

3.2 UNDER THE CURRENT LICENCE

A summary of work carried out by Lottah Mining Pty Ltd has been outlined in the previous annual report for the tenement (Adams, 2020).

4 WORK COMPLETED DURING REPORTING PERIOD

4.1 INTRODUCTION

Corporate changes in 2020 saw a change of personnel working for Lottah Mining Pty Ltd midway through the reporting period, however not all commitments for the current reporting period for EL6/2005 were met and are summarised thus:

- A diamond drilling program commenced at the 788 Quarries “Cuprona” hematite deposit.
- Samples from previously drilled core sent for metallurgical test work.
- A literature review of previous work
- The Cuprona database was reviewed, and the digital model refined.

At the time of writing the drilling program is still being completed and metallurgical results are pending.

4.2 WORK ON CUPRONA

Most of the work done on EL 5/2005 during the reporting period focused on the 788 Quarries “Cuprona” hematite deposit. Preliminary work undertaken during the reporting period consisted of a literature review of previous work, compilation of previous data, refining of the Cuprona prospect database and 3D model for the deposit.

A work plan for a 13 hole diamond drilling program (for approximately 1180m) was submitted to MRT. These holes have been designed to infill current resource drilling in the northern central part of the deposit. At the time of writing, 4 of the 13 holes had been drilled. These holes are yet to be logged in detail and processed for assaying however, summary logs have been done. The remainder of the drilling is expected to be completed during the next reporting period, as well as complete logging and associated downhole data. The drilling has been slower than expected due to abnormally slow penetration rates.

Proposed Hole ID	mE	mN	Length	Azi true	Dip
21CUN001DD	412517	5445729	40	330	-65
21CUN002DD	412518	5445727	60	330	-80
21CUN003DD	412520	5445725	70	180	-90
21CUN004DD	412522	5445724	110	135	-80
21CUN005DD	412524	5445722	125	135	-65
21CUN006DD	412520	5445730	50	0	-65
21CUN007DD	412523	5445729	65	35	-65
21CUN008DD	412525	5445726	80	80	-75
21CUN009DD	412525	5445725	80	95	-65
21CUN010DD	412524	5445724	100	105	-65
21CUN011DD	412505	5445715	100	225	-65
21CUN012DD	412510	5445715	140	180	-65
21CUN013DD	412520	5445715	160	160	-65

Table 1: Planned collar co-ordinates for the 2021 drilling program

Preliminary metallurgical test work on previously drilled core for comparison of the samples from EL6/2005 have been submitted to ALS laboratories at Burnie. The study is to investigate the amenability with Rogetta ore for combined processing. 50kg of quarter and half HQ cores were selected from previous and current drilled holes from across the Cuprona deposit. The samples were selected across the ore zones with varying amounts of silica to give a broader spectrum of results.

The metallurgical work that is being carried out is:

- Crusher Work Index
- Bond abrasion (Ai)
- Ball and Rod work index (Bwi and Rwi)

Not all planned work has been carried out on the Cuprona exploration tenement EL6/2005 during the reporting period. 4 of the 13 diamond drill holes for the 2021 drill program have been completed with drilling to carry on into the 2021/2022 reporting period.

5 DISCUSSION OF RESULTS

4 diamond drill holes from a planned 13-hole program were drilled during the reporting period using an Atlas Copco F15 Mustang track mounted drill rig. Holes 21CUN001DD, 21CUN002DD, 21CUN003DD, 21CUN006DD were completed but are yet to be logged in detail. Summary logs for the four completed holes are below. Results of the drilling are encouraging with significant intersections of massive hematite in all holes drill so far. There is significant disseminated silica throughout all the hematite and the results will only be truly known when assays are received.

Cuprona Drilling	HGPS +/- 4m Accuracy GDA94				Depth (m)		Azi	Dip
	Planned		Actual		Planned	Actual		
Hole ID	mE	mN	mE	mN				
21CUN001DD	412517	5445729	412517	5445727	40	34	330	-65
21CUN002DD	412518	5445727	412517	5445727	60		330	-80
21CUN003DD	412520	5445725	412521	5445725	70	54.7	180	-90
21CUN006DD	412520	5445730	412521	5445732	50	51.6	346	-65

Table 2: Completed drill holes

Hole ID	21CUN001DD	Summary Log
From(m)	To(m)	Lithology
0	3	Massive hematite
3	21.5	Weathered hematite with clay
21.5	33.5	Massive hematite
33.5	34	Breccia in clay to EOH.

Table 3: 21CUN001DD summary log

Hole ID	21CUN002DD	Summary Log
From(m)	To(m)	Lithology
0	8.8	Weathered Hematite with clay
8.8	31	Massive hematite with patchy disseminated quartz
31	38	Interbedded hematite with mudstone
38	39.8	Grey mudstone to EOH

Table 4: 21CUN002DD summary log

Hole ID	21CUN003DD	Summary Log
From(m)	To(m)	Lithology
0	32	Weathered hematite with patchy disseminated quartz
32	44	Massive hematite
44	45.7	Interbedded hematite with mudstone
45.7	54.7	Grey mudstone to EOH

Table 5: 21CUN003DD summary log

Hole ID	21CUN006DD	Summary Log
From(m)	To(m)	Lithology
0	13.5	Weathered hematite with patchy disseminated quartz
13.5	31.3	Massive hematite with patchy disseminated quartz
31.3	32.3	Mudstone
32.3	38.1	Massive hematite
38.1	42.7	Interbedded hematite with mudstone
42.7	50	Massive hematite
50	51.6	Grey mudstone to EOH

Table 6: 21CUN006DD summary log

6 CONCLUSIONS

There is considerable drilling needed on the 788 Quarries deposit to bring it to an indicated resource and that the majority of the drilling is only possible through access to Mr Vandenberg's property. Lottah intend to negotiate with Mr Vandenberg regarding accessing his property for diamond drilling of the 788 Quarries resource in the future.

A better understanding of the silica in the ore need to be had so following the metallurgical testing and the assaying a study need to be carried out to determine the feasibility of the ore with the high silica content.

7 FUTURE EXPLORATION

Lottah Mining Pty Ltd plans to further infill and extend the known resource at Cuprona, however there are sections of the deposit requiring infill drilling that require drill sites located on private property. At the time of writing, land holder relations were on the improve but permission to access private property with a drill rig was not forthcoming. So as negotiations are ongoing about access to private property four diamond drill holes will be drilled to further define the orebody on forestry land. Modelling of the Cuprona deposit will be further refined following the completion of the 2021 drilling program and the four holes to be drilled in the next reporting program.

Further exploration for the next reporting period will also be carried out at the Natone 'Kiwi Farm' magnetite deposit

Proposed holes targeting magnetite (on RTP TMI magnetics image) – round 1

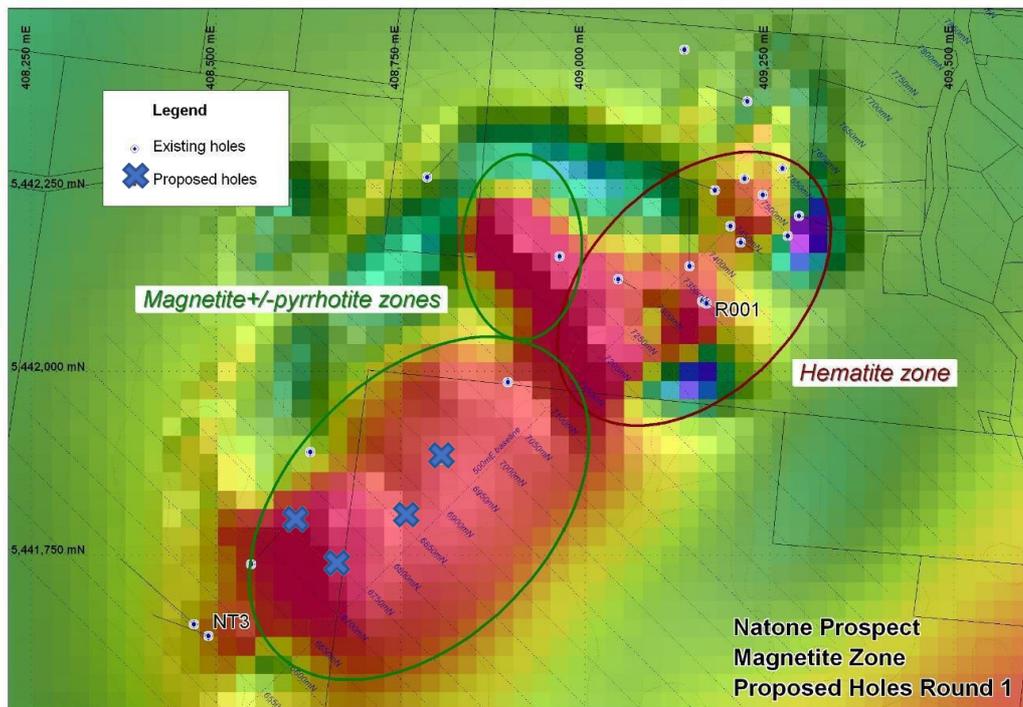


Figure 3: Proposed drill holes at Natone

Four holes are proposed to test the central parts of the main magnetics anomaly (see figure 3). These holes will need to be around **200-250m deep (800 - 1000m)** to extend through the skarned sequence. Should the magnetism be shown to be due to sufficient quantities of magnetite and not pyrrhotite, a second round of drilling will be required in the following reporting period.

8 ENVIRONMENTAL MANAGEMENT

The current drill site has had a small area cleared on forestry land with two sumps dug for cuttings catchment. The current drill site will be rehabilitated on completion of the drilling program. Drill collar 15CUN004RC and associated sump were rehabilitated prior to the start of the current drilling program.



Figure 4: Rehabilitation carried out on 15CUN004RC

9 EXPENDITURE

Expenditure Category	Cost (\$)
Geology	\$10,000
Metallurgy	\$0
Geophysics	\$0
Remote Sensing	\$0
Drilling	\$44,954
Gridding	\$0
Land Access	\$4,120
Rehabilitation	\$1,000
Feasibility Studies	\$0
Other	\$600
Administration	\$6,067
TOTAL	\$66,741

9.0 References

- Adams, K. Exploration Annual Report EL 6/2005 – Cuprona September 2019 to September 2020. Unpub. report for Lottah Mining Pty Ltd.
- Anon. (2008). Blythe Project, Northern Tasmania Annual Report for EL6/2005 ("Cuprona") unpub. company rpt. Iron Mountain Mining Limited **[TCR 08_5768]**
- Atkinson, W.J. (1958). *The Preliminary Investigation of Iron Deposits in the Burnie-Penguin Area* unpub. company rpt. King D, Rio Tinto Australian Exploration Pty Ltd **[TCR 58_0240]**
- Bainbridge, I., Clarke, D., 1903. Report - The Blythe River Iron Deposits. Mineral Resources Tasmania Open File Report **[TCR 03_4891]**.
- Banwell, L.D. (1982). *Exploration Licence 8/77 - Riana, Progress Report on Exploration During the Period 1/1/80 - 31/7/81* unpub. company rpt. Commonwealth Aluminium Corporation Ltd, The Shell Company of Australia Ltd **[TCR 82_1784]**
- Blake, F. (1957a). Blythe River and Cuprona Areas Min. Res. Tas. **[TR2_25_33]**
- Blake, F. (1957b). Blythe River and Cuprona Iron Areas. Mineral Resources Tasmania Report **[UR1957_096_99]**.
- Boyd, A.A, Young, W., Higgins, J.M., Gibson, C.G. (1919). *Report of Experts on the Blythe River Iron Deposit, Burnie, Tasmania* unpub. company rpt. O`Keefe C **[TCR 19_0022]**
- Byrne, D.J., 1969. Composite Plan, Natone Area. Minops Pty Ltd. Mineral Resources Tasmania Open File Report **[TCR 69_0574]**
- Butler, A.R. (1968). *Report on Copper King Mine, Cuprona* unpub. company rpt. Mr Symons **[TCR 70_0703]**
- Davis, C.W. (1990). *Relinquishment Report Exploration Licence 30/86 Cuprona District - N.W. Tasmania* unpub. company rpt. Davis C W **[TCR 90_3182]**
- Darby, J.H. (1900), *Report on Blythe River Iron Mine Ltd.*
- Erdmanis, J., 1969. Progress Report to 30th September 1969 on Exploration Licences 13/68 and 14/68 Tasmania, for Hinkley D W, McDonald E H, Minops Proprietary Limited.
- Fitzgerald, F.G. (1993). *EL 9/92 Dial Range Annual Report Jul 1992-June 1993* unpub. company rpt. Pasminco Australia Ltd (Exploration) **[TCR 93_3447]**
- Gee, R.D, (1977a). Geological Atlas 1 mile series, zone 7 sheet No. 28 (8015N) Burnie Tas. Geological Survey Explanatory Report. Grace, D.P., 1972. Natone Area - Phase I Report. Tasminex N.L. Mineral Resources Tasmania Open File Report **[TCR 72_0897]**.
- Gee, R.D. (1977b). *Geological Survey Explanatory Report, Geological Atlas 1 mile series, zone 7 sheet No. 28 (8015N) Burnie* Min. Res. Tas. **[ER8015N0]**
- Grace, D.P. (1972). *Natone Area - Phase I Report.* unpub. company rpt. Tasminex NL **[TCR 72_0897]**

Hall Ralph & Associates Pty Ltd, 1970. Natone Copper- Iron Prospect. Tasminex N.L. Mineral Resources Tasmania Open File Report **[TCR 70_0665]**

Hughes, T.D. (1969). *Natone Area - EL 14/68 and EL 13/68* unpub. company rpt. Hinkley D W, McDonald E H **[TCR 69_0553]**

Jack, R.H. (1965). *Natone manganese deposit* Min. Res. Tas. **[TR9_20_21]**

James, P.L., Liddy, J., Manson, W.St.C, 1962. Blythe River Iron Ore Beneficiation. Mineral Resources Tasmania Report **[TR6_214_222 - R386]**

Karajas, J. (2006). Blythe Project, Northern Tasmania Annual Report for EL6/2005, Cuprona unpub. company rpt. Red River Resources Limited **[TCR 06_5341] 29**

Karajas, J. (2007). Blythe Project, Northern Tasmania, Annual Report for EL 6/2005 (Cuprona) unpub. company rpt. Red River Resources Limited **[TCR 07_5508]**

Kusnandar, K.K., Zlatkov, G. and Mayer, A. (2009). Blythe Project, Northern Tasmania Annual Report for EL6/2005 ("Cuprona") unpub. company rpt. Iron Mountain Mining Limited **[TCR 09_5921]**

Kusnandar, K.K., Zlatkov, G. and Mayer, A. (2010). Blythe Project, northern Tasmania. Combined annual report for tenements - EL6/2005, EL15/2006, EL35/2006, EL37/2006, EL18/2007, EL53/2007 unpub. company rpt. Iron Mountain Mining Limited **[TCR 10_6037]**

Kusnandar, K.K., Zlatkov, G. and Mayer, A. (2010). Blythe Project, northern Tasmania. Combined annual report for tenements EL6/2005, EL15/2006, EL35/2006, EL18/2007, EL53/2007, EL25/2009 for the period ending 19 November 2010 unpub. company rpt. **[TCR 10_6167]**

Macdonald, E.H. (1965). *Blythe River Iron Ore Deposits near Burnie, Tasmania* unpub. company rpt. Kathleen Investments (Australia) Ltd, Pickands Mather and Company International **[TCR 65_0410]**

MacDonald, G. (2017) EL 6/2005 "Cuprona" Annual Report on Exploration. unpub. report for Lottah Mining Pty Ltd.

MacDonald, G. (2018) EL 6/2005 "Cuprona" Annual Report on Exploration. unpub. report for Lottah Mining Pty Ltd.

MacDonald, G. (2019) EL 6/2005 "Cuprona" Annual Report on Exploration. unpub. report for Lottah Mining Pty Ltd.

Montgomery, A. (1894) *Report on a deposit of iron ore at the Blythe River* **[OS211]**

Mortimer, R. (2007). Blythe Project Natone/Camena Prospects, EL6/2005, EL16/2006, Gravity Surveying 9/2006 Summarised Interpretation unpub. company rpt. Red River Resources Limited **[TCR 07_5508A]**

Noldart, A.J. (1966). *Cuprona iron deposit* Min. Res. Tas. **[TR10_55_64]**

Nye, P.B. (1937). *Report on the Blythe River Iron Deposits* unpub. company rpt. Paterson J D, Ralph H, Rankin R A, Tasmania Department of Mines **[TCR 37_0068]**

Nye, P.B., (1941). Report on Woodstock Copper Mine, Natone. Mineral Resources Tasmania Report **[UR1941_017_20]**

Pearson, A. (1927). *The Housetop Area Laurel Creek and Blythe River Districts* unpub. company rpt. Gardner G D, Langham M, Niarana Prospecting Syndicate, Radford H **[TCR 27_0036]**

Ruxton, P.A. (1982). E.L. 8/77 - *Riana, Progress Report on Exploration During the Period 1/8/81 to 1/7/82*. unpub. company rpt. Commonwealth Aluminium Corporation Ltd, The Shell Company of Australia Ltd **[TCR 82_1820]**

Ruxton, P.A., 1983a. - E.L. 8/77 - Riana, Progress Report on Exploration During the Period 2/7/82 to 1/9/83. Shell Company of Australia Ltd. Mineral Resources Tasmania Open File Report **[83_2040]**

Ruxton, P.A. (1983). *The Natone Pyrrhotite - Magnetite Skarn N.W. Tasmania* unpub. company rpt. Comalco Ltd, The Shell Company of Australia Ltd **[TCR 83_2041]**

Ruxton, P.A., 1984. - E.L. 8/77 - Riana, Progress Report on Exploration During the Period 2/7/83 to 1/9/84. Shell Company of Australia Ltd. Mineral Resources Tasmania Open File Report **[TCR 84_2142]**

Ruxton, P.A., 1982 - E.L. 8/77 - Riana, Progress Report on Exploration During the Period 1/8/81 to 1/7/82. Shell Company of Australia Ltd. Mineral Resources Tasmania Open File Report **[TCR 82_1820]** 30

Ruxton, P.A., 1983b. *The Natone Pyrrhotite - Magnetite Skarn N.W. Tasmania*. Shell Company of Australia Ltd. Mineral Resources Tasmania Open File Report **[TCR 83_2041]**

Reid, A.M. and Twelvetrees, W.H., 1919. *The Iron Ore Deposits of Tasmania*. Geological Survey Tasmania Mineral Resources No. 6.

Schneider, M., 1983. Interpretation Report, Airborne electromagnetic Survey, Barringer `INPUT` System, Riana, Highclere, Loongana Areas. Geoterrex Pty Ltd. for The Shell Company of Australia Ltd.

Thomas, D.E. and Henderson, Q.J. (1943). *Some iron deposits in the vicinity of Burnie Min. Res. Tas.* **[UR1943_205_221]**

Twelvetrees, W.H. (1901). *Report on Blythe River Iron Ore Deposit* Min. Res. Tas. **[OS_166]**

Twelvetrees, W.H. (1903). *Report on the Dial Range and Some Other Mineral Districts on the North-West Coast of Tasmania* Min. Res. Tas. **[OS_211]**

Twelvetrees, W.H. (1905). *Report on North-West Coast mineral deposits* Min. Res. Tas. **[OS_231]**

Twelvetrees, W.H. (1909). *Gunns Plains, Alma, and other mining fields, north-west coast* Min. Res. Tas. **[GSB05]**

Twelvetrees, W.H. (1909). *Gunns Plains, Alma and other mining fields, north-west coast* Min. Res. Tas. **[OS_249]**

Twelvetrees, W.H., 1918. *Deposits of iron ore and other raw materials likely to be used in proposed electro-metallurgical industries*. Mineral Resources Tasmania Report **[URMISCA_088_11]**

Twelvetrees, W.H. (1919). *The Blythe River Iron Ore Deposits. (Extract from Mineral Resources No. 6) Min. Res. Tas. [UR1861_1920_187_199]*

Whitehead, C.H. (1988). *Cuprona Area - N.W. Tasmania, Annual Report - 1988/89 unpub. company rpt. Davis C W [TCR 88_2791]*

Whitehead, C.H. (1989). *Cuprona Area - N.W. Tasmania, Annual Report - 1988/89 unpub. company rpt. Davis C W [TCR 89_2945]*