

### Quarterly report for the Period ending 30 September 2015

### **OVERVIEW**

### **Exploration**

- ❖ The Company has continued staged exploration on its 100% owned Mt Ridley Project conducting diamond drilling to identify the nature of conductor targets in its highly prospective Albany-Fraser Range tenements.
- ❖ A bedrock EM conductor T19C01 has been identified by ground EM surveys (FLEM and MLEM) in the NE portion of Target 19, the main area of focus for diamond drilling in the reporting period.
- ❖ Four diamond holes (MRDD005-MRDD008) were drilled for 1685m, testing conductor T19C01.
- ❖ A massive sulphide fragment intersected within late stage pegmatite vein in MRDD008. A massive sulphide body is likely to have proximal source.
- ❖ The T19C01 bedrock conductor, potentially indicative of massive sulphides, is broadly coincident with significantly anomalous nickel and copper results in peridotite, internal to the intrusion identified in aircore drilling.
- Two additional conductive zones have been identified by ground EM surveying at Target 19.
- ❖ Aircore drilling concluded in the June quarter, continues to enhance the understanding of geology and mineralization particularly at Target 19, identifying significant nickel, copper and other multi-element anomalism.
- ❖ Aircore holes MRAC226 and MRAC181 located in the immediate vicinity of the up-dip projection of the bedrock conductor contain relatively high values of copper peaking at 1060ppm and 430ppm respectively.
- ❖ The nickel and copper supergene enrichment zone defined by aircore drilling is now over 1,600m in length.
- No graphitic sediments have been intersected to date in any aircore or diamond drill holes in and around the intrusion.
- ❖ Better nickel and copper intersections in the reporting period include 24m @ 0.10% Ni & 463ppm Cu from 35m including 1m @ 0.12% Ni & 3850ppm Cu from 37m in MRAC203 and 6m @ 0.11% Ni & 812ppm Cu from 42m in MRAC172.



### **EXPLORATION**

Field work in the reporting period has concentrated on resolving bedrock conductor T19C01 with diamond drilling.

### **Mt Ridley Project**

### **EM Surveying**

Fixed and moving loop EM surveys has identified a bedrock conductor T19C01 in the north eastern corner of Target 19. Ground EM surveys have also identified a further two conductive zones for further investigation (Figure 1).

The EM bedrock conductor T19C01 is located well inside the olivine bearing intrusion adjacent to the south-eastern contact (Figure 1). It has been modelled as a steep north-west 80 degree dipping body and appears to coincide with an internal coarse grained pyroxene-olivine mesocumulate layer recently identified in shallow surface aircore and diamond drilling.

T19C01 was initially detected as an off-line response from a slingram configuration moving loop survey. The high-powered EM survey was conducted as an orientation exercise along an existing cleared line to test the conductivity of the cover sequence and the effectiveness of ground EM surveying in the area (while simultaneously testing the basal contact of Target 19 for EM targets).

The EM profiles and decay curve, show an anomaly associated with a confined bedrock conductor beneath the strongly conductive overburden. Preliminary modelling suggested that the conductor was located to the west of the survey line, and additional surveying was completed using a small fixed-loop, EM survey which confirmed the presence of this target.

Maxwell plate modelling has been completed using both datasets; the location of the EM model are shown in Figure 1 with the model parameters described below. The existing EM coverage is not adequate to estimate the full strike extent of the conductor, and the depth extent is considered poorly constrained due to the steep dip of the target;

- Position of Conductor (centre –top of plate model) 430940mE, 6322560mN, 100m RL (90m below surface)
- *Orientation* dipping 80° towards 345°
- **Size and Extent** Strike length ~200m (not closed off) and depth extent ~400m (poorly constrained)
- Conductance (Conductivity Thickness) ~1400 to 1600 Siemen

The bedrock conductor sits in or adjacent to a structurally complex area within the intrusion. There appears to be a flexure or bend in the contact in the vicinity of the conductor plate. It is often common for nickel and copper sulphides to remobilize into areas of structural complexity. The flexure or bend is clearly visible in Figure 1.



### **Aircore Drilling**

Aircore drilling was concluded in the June quarter and results have been received in the reporting period. Aircore drilling has been focused on the north-eastern portion of Target 19 where the olivine bearing intrusion is interpreted to be at its thickest.

The main nickel and copper supergene enrichment zone is located near the central axis of Target 19 positioned roughly over two coarse grained mesocumulate layers defined by the recent aircore and diamond drilling. The identified bedrock EM conductor T19C01 lies near the southern edge of the enrichment zone adjacent to the SE contact of the intrusion. Some of the best copper results returned in this latest round of assays coincide with the up-dip projection of the EM conductor including MRAC226 which returned 2m @ 1060ppm copper at the bottom of hole. The highly elevated values of copper in MRAC226 suggest primary nickel and copper mineralisation is potentially nearby in the fresh rock beneath the hole

To date a total of 240 aircore holes for 10,994 metres has been completed encompassing only a third of the total interpreted strike length of Target 19. Of the two hundred and forty holes completed approximately a quarter of them, fifty seven in total, have returned anomalous nickel and copper values. These holes have defined a broad zone of supergene nickel and copper enrichment (>1,000ppm Ni, >100ppm Cu) approximately 1,600m long and up to 350m wide with peak nickel and copper assays of 5730ppm and 3850ppm respectively.

Furthermore, aircore drilling at Target 19 has defined at least two distinct peridotite units or layers within the intrusion together with other rock units including, troctolites, olivine norites, gabbronorites and pyroxene-olivine mesocumulates. The intrusion is relatively complex suggesting it may have formed from more than one pulse of magma. Peridotites and mesocumulates have far more olivine in them than the other major units within the intrusion and are the better host rocks for nickel and copper sulphide mineralisation.

As was seen from previously reported aircore holes the better nickel and copper results are definitely focused at or near the transition, the boundary between partly oxidized and fresh rock. It is important to note that most results returned to date are end of hole intersections with some of the better nickel and copper results coming from the bottom few metres, ie MRAC173 1m @ 0.26% Ni and 560ppm Cu from 44m.

### **Diamond Drilling**

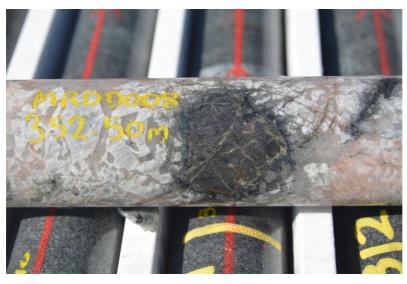
Four diamond drill holes were completed in the reporting period for 1685m (MRDD005-MRDD008).

MRDD005 intersected approximately 45m of lightly disseminated and globular to blebby sulphides from 126-171m downhole, hosted in a very coarse grained pyroxene-olivine mesocumulate.

Diamond holes MRDD006 and MRDD007 were drilled to intersect the bedrock conductor T19C01 based on detailed moving loop ground EM surveying conducted in the vicinity of T19C01. Both holes intersected 4-6 metre thick zones of disseminated and globular sulphides in coarse grained pyroxene-olivine mesocumulates at 325 metres and 210 metres respectively downhole. These two zones were identical in nature to the 45 metre thick zone of disseminated and globular sulphides intersected previously in diamond hole MRDD005. These zones however do not represent the conductive zone identified by the EM surveys. Furthermore no sediments were intersected in MRDD006, MRDD007 or MRDD008 thereby eliminating the presence of graphitic sediments as the source of the bedrock conductor.



**FIGURE 2**: Globular sulphides within coarse grained mesocumulates at around 206 metres downhole in MRDD008.



**FIGURE 3**: Massive sulphide fragment within late-stage pegmatite vein from 352.5m downhole in MRDD008.



MRDD008 was then drilled MRDD005 beneath and intersected several zones οf globular disseminated and sulphides over 3-5 metres thick from 208 metres downhole hosted in coarse grained pyroxene-olivine mesocumulate (Figure 2).

Significantly, a fragment of massive sulphides was observed in a narrow late stage pegmatite vein at 352.50 metres downhole (Figure 3) suggesting that this vein had passed through a nearby massive sulphide body. The fragment is made up primarily of pyrrhotite, magnetite, pentlandite and chalcopyrite.

The presence of this massive sulphide fragment from an exploration perspective is very significant and lends support to the presence of bedrock conductor T19C01.

Interpretation of aeromagnetics and recent diamond drilling suggests the conductor T19C01 is situated on a fold with the fold axis passing close by MRDD005. This may help explain the unusually thick nature of the coarse grained pyroxene-olivine mesocumulate around MRDD005.

During the folding process sulphides tend to remobilize into the fold axis position and are artificially thickened.

The presence of a fold axis together with the presence of thick mesocumulates makes the fold axis a good place to look for an accumulation of massive sulphides. Further drilling is required to resolve the orientation of these structures and the coarse grained mesocumulate unit which is interpreted to strike for in excess of 200 metres.

There also appears to be a second coarse grained pyroxene-olivine mesocumulate right on the main intrusive contact (See Figure 1.). This unit also contains minor disseminated and globular sulphides. Although no bedrock conductors have been identified within this unit at this stage in the vicinity of T19C01 it remains an attractive exploration target along strike.



### **Follow Up Exploration**

### **Conductor T19C01**

Several new diamond holes have been planned to further test conductor T19C01 at various depths down dip and along strike from MRDD005 and MRDD008. This program is expected to get underway soon.

### **Downhole EM Surveying**

Conductor T19C01 was identified from surface moving-loop EM surveys. The conductor was targeted with drill holes MRDD005 and 006, which intersected the mineralised mesocumulate layer but failed to intersect any conductive mineralisation which may explain the surface anomaly. Downhole EM surveys in these holes failed to detect any near-hole anomalies. Forward modelling completed by the Company's geophysical consultants indicates that any narrow, steeply dipping and deep conductors would be difficult to detect (due to the orientation of the targets and conductivity of the overburden). Further testing of T19C01 is warranted to resolve the cause of the response.

Downhole EM surveying will also be carried out in holes MRDD007 and MRDD008 to locate any nearby off-hole conductors which will aid in the design of future diamond holes.

### **Infill Aircore Drilling**

Infill aircore drilling is also planned for early November at Target 19 to further enhance the existing supergene enrichment zone in particular around the two new conductive zones. The drilling is designed to locate geochemical hotspots within the 1,600m long supergene zone. These nickel and copper hotspots will be the focus for future diamond drilling programs.

### **Ground EM Surveying**

Further ground EM surveying is planned for early November over the remaining areas at Target 19. Further follow-up drilling will be undertaken if additional conductive zones are identified within the supergene enrichment. Further drilling will also be undertaken testing the newly identified conductive zones.

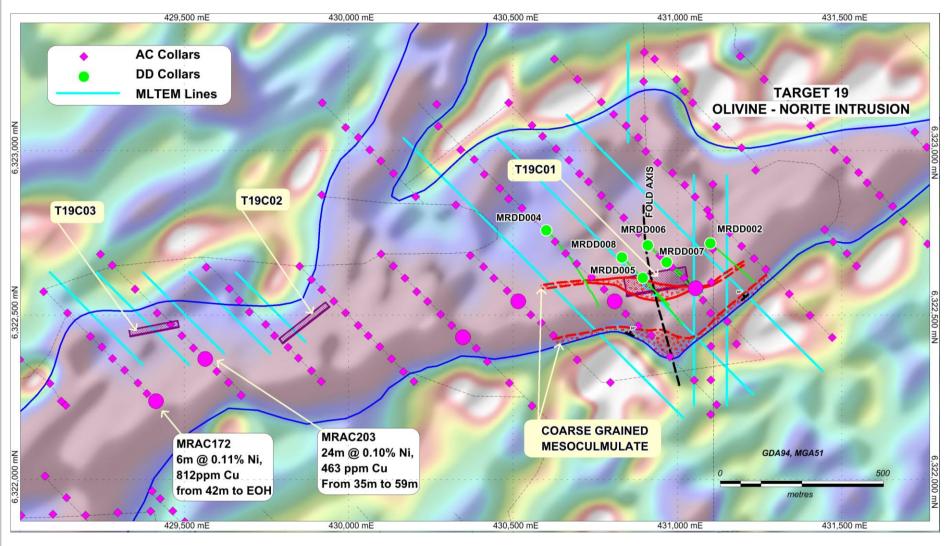
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**FIGURE 1**: Aeromagnetic image showing location of bedrock conductor T19C01 (purple plate) together with the location of recently drilled diamond holes MRDD006, MRDD007 and MRDD008. Also shows the location of the two coarse grained mesocumulate ultramafic units (red) and the newly identified conductive zones from recent ground EM surveying.

#### **MOUNT RIDLEY MINES LIMITED**

ABN / 93 092 304 964



### **CORPORATE**

During the quarter the Company raised \$532,000 through the issue of 28m shares with a 1 for 2 free attaching option exercisable at \$0.070 on or before 30/6/2016.

The transfer of one of the key Mt Ridley Project tenements (E63/1617) into the Company's name was completed during the quarter. It was previously held under a bare trust arrangement.

For and on behalf of the board

Mr Dean Goodwin. AIG

**Managing Director** 

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The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Dean Goodwin who is a Member of the Australian Institute of Geoscientists. Mr Goodwin is the Managing Director of the Company. Mr Goodwin has sufficient experience which is relevant to the style and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Goodwin consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

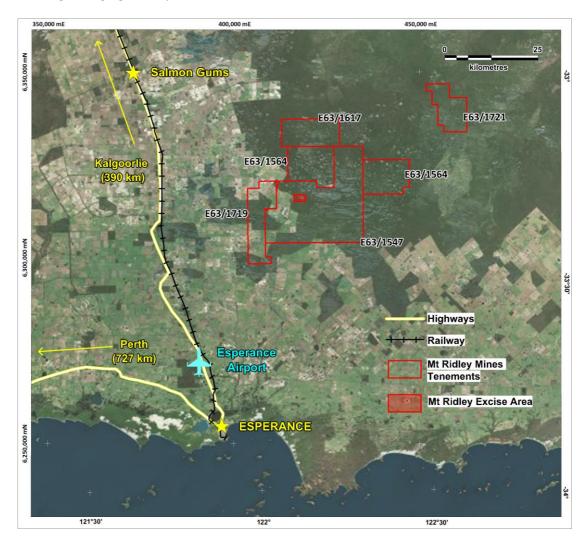


### **About Mt Ridley Mines Ltd**

Mt Ridley Mines Ltd is a Perth based Australian exploration company focusing primarily on projects in the Fraser Range region with the potential to host major mineral deposits in base and precious metals including nickel, copper, cobalt, silver and gold.

The Company is managed by a team of highly motivated professionals with significant expertise in mineral exploration, mining operations, finance and corporate management with a proven track record of successfully delivering value to shareholders.

Mt Ridley Mines Ltd is actively targeting nickel sulphide deposits in the Albany-Fraser Range Province of Western Australia, the site of Sirius Resources Nova Nickel-Copper Deposit. The Company currently has a portfolio of tenements totaling in excess of 1000sq/kms in what is fast becoming the world's most exciting emerging nickel province.



Rule 5.5

### **Appendix 5B**

## Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/2013

Name of entity

# ABN Quarter ended ("current quarter") 93 092 304 964 30 September 2015

### Consolidated statement of cash flows

		Current quarter	Year to date
Cash f	lows related to operating activities		(3 months)
		\$A'000	\$A'000
1.1	Receipts from product sales and related debtors		
1.2	Deciments for (a) explanation & explanation	(946)	(046)
1.2	Payments for (a) exploration & evaluation	(946)	(946)
	(b) development	-	-
	(c) production	(204)	(20.4)
1.0	(d) administration	(204)	(204)
1.3	Dividends received	-	-
1.4	Interest and other items of a similar nature received	6	6
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Other – GST refund/(paid)	35	35
	Net Operating Cash Flows	(1,109)	(1,109)
-	<b>K G</b>		
	Cash flows related to investing activities		
1.8	Payment for purchases of:		
	(a) prospects	(9)	(9)
	(b) equity investments	-	-
	(c) other fixed assets	(16)	(16)
1.9	Proceeds from sale of:		
	(a) prospects	-	-
	(b) equity investments	-	-
	(c) other fixed assets	-	-
1.10	Loans to other entities	-	-
1.11	Loans repaid by other entities	-	-
1.12	Other – Security Bond	-	-
	Not investing each flows	(25)	(25)
1.13	Net investing cash flows Total operating and investing cash flows		
1.13	(carried forward)	(1,134)	(1,134)

<sup>+</sup> See chapter 19 for defined terms.

### Appendix 5B Mining exploration entity and oil and gas exploration entity quarterly report

1.13	Total operating and investing cash flows (brought forward)	(1,134)	(1,134)
	Cash flows related to financing activities		
1.14	Proceeds from issues of shares, options, etc.	532	532
1.15	Proceeds from sale of forfeited shares	-	-
1.16	Proceeds from borrowings	-	-
1.17	Repayment of borrowings	-	-
1.18	Dividends paid	-	-
1.19	Other – Capital raising costs	(32)	(32)
	Net financing cash flows	500	500
	Net increase in cash held	(634)	(634)
1.20	Cash at beginning of quarter/year to date	1,369	1,369
1.21	Exchange rate adjustments to item 1.20	-	-
1.22	Cash at end of quarter	735	735

Payments to directors of the entity, associates of the directors, related entities of the entity and associates of the related entities

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	178
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

Payments for exploration and finance consulting services and directors fees.

### Non-cash financing and investing activities

2.1	Details of financing and investing transactions which have had a material effect on consolidated
	assets and liabilities but did not involve cash flows
	N/A

2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

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	/ 4				
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1 1 1	/A				
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<sup>+</sup> See chapter 19 for defined terms.

### Financing facilities available

Add notes as necessary for an understanding of the position.

		Amount available \$A'000	Amount used \$A'000
3.1	Loan facilities	-	-
3.2	Credit standby arrangements	-	-

### Estimated cash outflows for next quarter

		\$A'000
4.1	Exploration and evaluation	500
4.2	Development	-
4.3	Production	-
4.4	Administration	100
	Total	600

### **Reconciliation of cash**

in the	nciliation of cash at the end of the quarter (as shown consolidated statement of cash flows) to the related in the accounts is as follows.	Current quarter \$A'000	Previous quarter \$A'000
5.1	Cash on hand and at bank	735	1,369
5.2	Deposits at call	-	-
5.3	Bank overdraft	-	-
5.4	Other (provide details)	-	-
	Total: cash at end of quarter (item 1.22)	735	1,369

<sup>+</sup> See chapter 19 for defined terms.

### Changes in interests in mining tenements and petroleum tenements

6.1 Interests in mining tenements and petroleum tenements relinquished, reduced or lapsed

6.2 Interests in mining tenements and petroleum tenements acquired or increased

Tenement reference and location	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
EL63/1617	100% interest previously held by bare trust arrangement now held directly by the company	100%	100%

### 6.3 Interests in mining tenements at end of the quarter

Location	Project Name	Tenement #	Ownership	Titleholder
Western Australia	Mt Ridley	EL63/1547	100%	Mount Ridley Mines Limited
Western Australia	Mt Ridley	EL63/1564	100%	Mount Ridley Mines Limited
Western Australia	Mt Ridley	EL63/1617	100%	Mount Ridley Mines Limited
Western Australia	Mt Ridley	EL63/1719	100%	Mount Ridley Mines Limited

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<sup>+</sup> See chapter 19 for defined terms.

**Issued and quoted securities at end of current quarter**Description includes rate of interest and any redemption or conversion rights together with prices and dates.

		Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1	Preference				
	+securities				
	(description)				
7.2	Changes during				
	quarter				
	(a) Increases				
	through issues				
	(b) Decreases				
	through returns of capital, buy-				
	backs,				
	redemptions				
7.3	+Ordinary				
7.5	securities	825,174,646	825,174,646		Fully paid
		, , , , , ,			J 1
7.4	Changes during				
	quarter				
	(a) Increases	28,000,000	28,000,000	1.90 cents	Fully paid
	through issues				
	(1.) P				
	(b) Decreases				
	through returns of capital, buy-				
	backs				
7.5	+Convertible				
7.5	debt securities				
	(description)				
7.6	Changes during				
	quarter				
	(a) Increases				
	through issues				
	(b) Decreases				
	through				
	securities				
	matured,				
7.7	Converted Options			Exercise price	Expiry date
1.1	(description and	15,785,714	_	\$0.070	30 June 2016
	conversion	94,469,366	_	\$0.070	30 June 2016
	factor)	5,201,982	_	\$0.021	31 December 2016
	<i>J</i> ,	7,500,000	-	\$0.015	31 December 2016
		5,000,000	-	\$0.070	31 March 2018
		10,000,000	-	\$0.021	31 August 2019
		275,000,000	-	\$0.0125	31 August 2019
7.8	Issued during	14,000,000		\$0.070	30 June 2016
	quarter	14,000,000		\$0.070	30 June 2010
7.9	Exercised during				
	quarter				
7.10	Expired during				
	quarter				

<sup>+</sup> See chapter 19 for defined terms.

### Mining exploration entity and oil and gas exploration entity quarterly report

7.11	<b>Debentures</b> (totals only)		
7.12	Unsecured notes (totals only)		

### **Compliance statement**

- This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act or other standards acceptable to ASX (see note 5).
- 2 This statement does give a true and fair view of the matters disclosed.

Sign here: Dean Goodwin Date: 29 October 2015

(Managing Director)

Print name: Dean Goodwin

### **Notes**

- The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements and petroleum tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement or petroleum tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- The definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report.
- Accounting Standards ASX will accept, for example, the use of International Financial Reporting Standards for foreign entities. If the standards used do not address a topic, the Australian standard on that topic (if any) must be complied with.

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<sup>+</sup> See chapter 19 for defined terms.