



# Quarterly Report

Period ending 30 September 2008

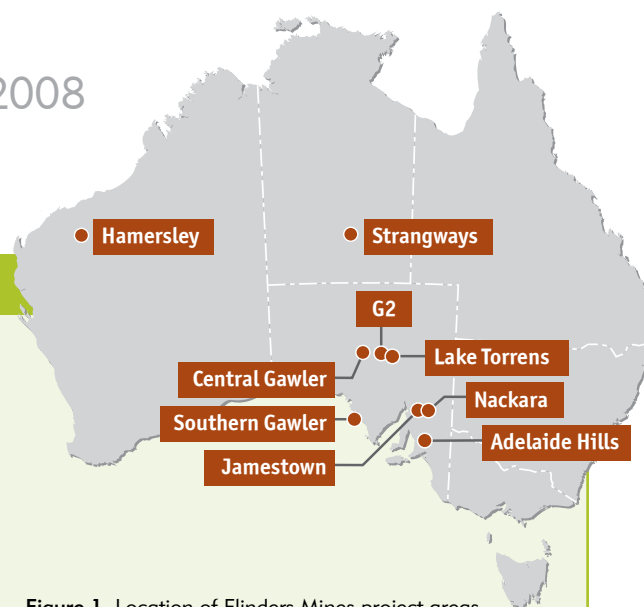


Figure 1 Location of Flinders Mines project areas.

## HIGHLIGHTS

### CORPORATE

- \$11.1 million cash inflow from exercising of 111 million 10 cent options, 29 September 2008.

### IRON ORE

- After two months of drilling at Flinders 100% owned Hamersley (E47/882) project, CID mineralisation has been proven in 4 of 5 areas targeted. In general intersections are in the 50-60% iron range with low deleterious elements. Mineralisation is present over larger thicknesses and over larger areas than predicted.

### DIAMONDS

- Interesting diamond indicator minerals located over new kimberlite targets in the Springfield and Boolcunda Basins where testing by trench excavation has commenced.

### PHOSPHATE

- Exploration program for phosphate has commenced.

### FINANCE

- \$2.4 million exploration expenditure on iron ore and \$0.6 million on diamonds.
- Forecast expenditure of \$4.7 million in December quarter, 2008.

## SUMMARY

### IRON ORE

#### WESTERN AUSTRALIA

#### Hamersley Project E47/882

A total of 129 drill holes completed for 6,756m.

Excellent drilling results received defining shallow, high grade iron over large thicknesses.

Drilling results have defined Channel Iron Deposit (CID) mineralisation confirming the areal extent of the initial Exploration Target, with average thicknesses in excess of the Exploration Target.

Three drill rigs operating – accelerating the rate of drilling.

Exploration Target of 120 to 175 million tonnes of iron ore averaging 45 to 60% iron on E47/1560. Combined Exploration Target on E47/882 & 1560 is 479 to 555 million tonnes of iron ore averaging 45 to 60% iron\*.

\* see note on page 9 for a clarification of Exploration Targets.

**SUMMARY continued**

**DIAMONDS**

SOUTH AUSTRALIA

**Flinders Ranges**

High interest kimberlitic indicators have been reported from 34 helimag targets flown over the southeast Springfield project.

Trenching of these targets is due to commence during late October.

**Gawler Craton**

Drilling started on the central Gawler project. Five drillholes completed.

**PHOSPHATE**

SOUTH AUSTRALIA

**Flinders Ranges and Adelaide hills**

Flinders Mines Limited (FMS) has decided to undertake an exploration program for phosphate.

Zones of interest up to 66 km long.

FMS will aim at locating a phosphate deposit of over 10 million tonnes.

**EXPLORATION ACTIVITIES REVIEW**

**IRON ORE**

Flinders is undertaking a five month drilling campaign, with two to three reverse circulation (RC) drill rigs, to assess the Hamersley iron ore target on E47/882. Flinders intends to drill all five target areas to a JORC Inferred Resource status prior to the end of 2008, with final resource statements due in early 2009. Initial exploration drilling started in Area E to determine the nature, extent and thickness of the mineralisation.

Geological mapping on E47/1560 by independent geologist,

Richard Russell, has established the potential for an Exploration Target\* of between 120 and 175 million tonnes of channel iron deposit (CID) averaging 45 to 60% iron. The current Exploration Target on E47/882 is estimated at between 333 and 380 million tonnes averaging between 45 and 60% iron. The combined Exploration Target on tenements E47/882 & E47/1560 is estimated to be between 453 and 555 million tonnes of iron ore averaging 45 to 60% iron – at Flinders’ 100% owned tenements in the Hamersley Ranges of Western Australia (see Figure 2).

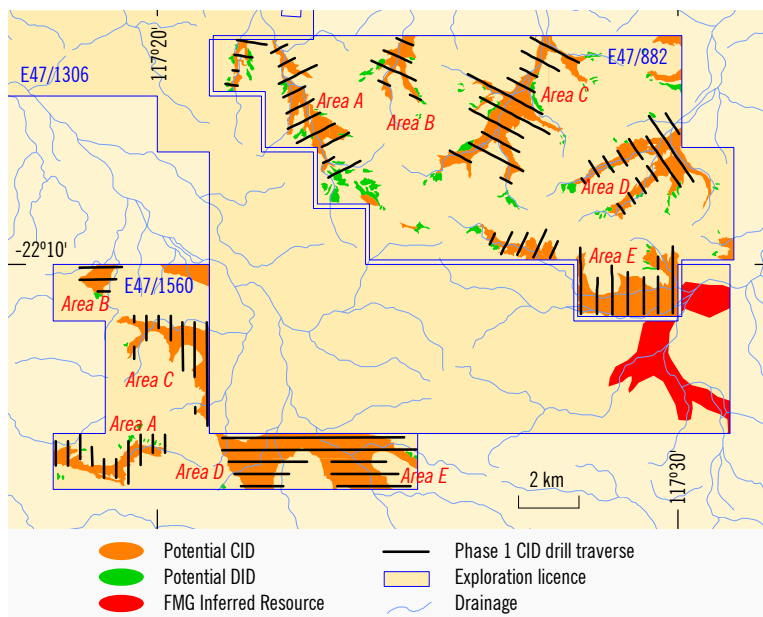


Figure 2 Location of Flinders Mines’ Iron ore Project areas.



\* see note on page 9 for a clarification of Exploration Targets.

## DIAMONDS

In South Australia the Company focussed on the Flinders Ranges (Figure 1), with indicators reported from many loam samples over helimag targets generated from the 2007-2008 Springfield helimag surveys (Figure 3). PIRSA approvals to commence trenching of these targets have been granted and trenching is expected to start in late October.

Within the east Nackara area, the Beatrice prospect has reported indicators over a complex magnetic anomaly originating from within the diamond stability field. A high resolution ground magnetic survey is planned for November, with plans for trenching at a future date.

In the central Gawler drilling problems and uncertainty surrounding long term access to the Woomera Prohibited Area, has curtailed further activities by the company.

## PHOSPHATE

Flinders' has carried out an independent assessment of the phosphate potential of its Springfield, Jamestown and Adelaide Hills project tenements. Zones of interest up to 66 kilometres long with large numbers of significant phosphate occurrences have been outlined in the Orroroo and Kapunda – Angaston areas.

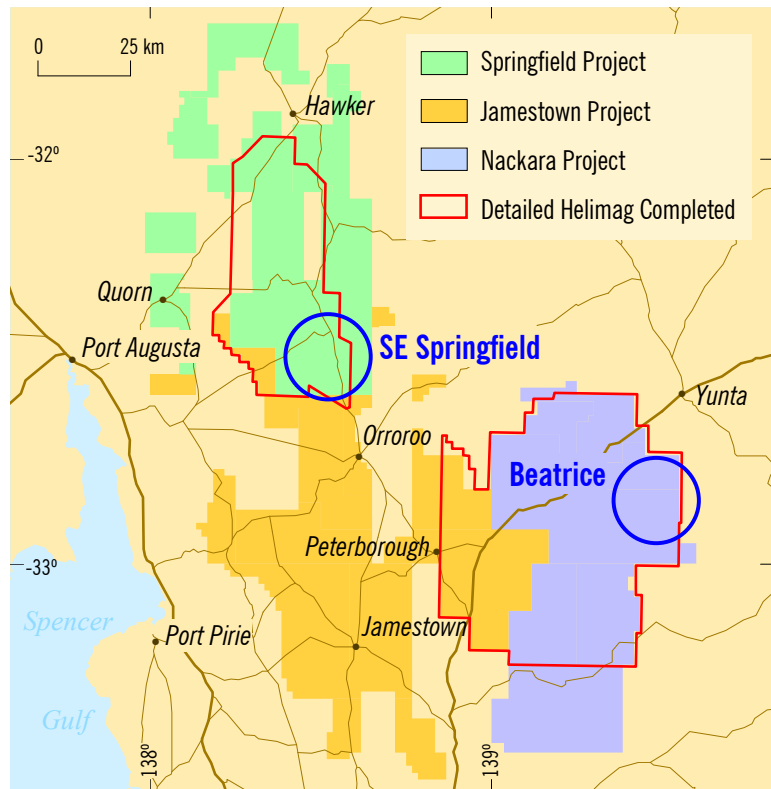


Figure 3 Location of Flinders Ranges Project areas.





## PROJECT REVIEW



WESTERN AUSTRALIA

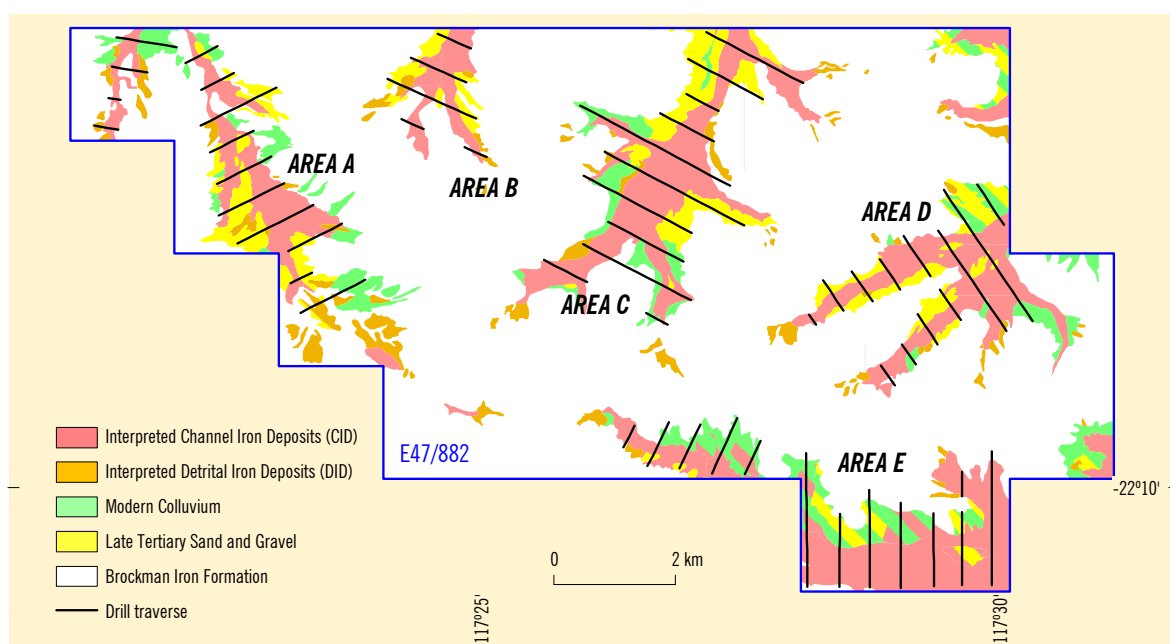
### IRON ORE

#### Exploration on E47/882

100% Flinders Mines

Flinders' Hamersley Iron Ore Project in WA comprises five target areas: Areas A, B, C, D and E (see Figure 4).

Flinders continues to intersect CID mineralisation in reverse circulation (RC) drilling on the Hamersley E47/882 licence in the Pilbara region of Western Australia. This is part of an \$8 million program to assess a target area containing numerous indications of significant Channel Iron Deposit (CID) and Detrital Iron Deposit (DID) mineralisation. Up to 30 September, a total of 59 drillholes for 3,582 metres have been completed on E47/882, 42 drillholes in Area E and 17 drillholes in Area D. Drilling in Area C will commence in late October.



**Figure 4** Location map showing the five iron ore target areas of the Hamersley E47/882 licence and the drilled and proposed RC drilling lines.

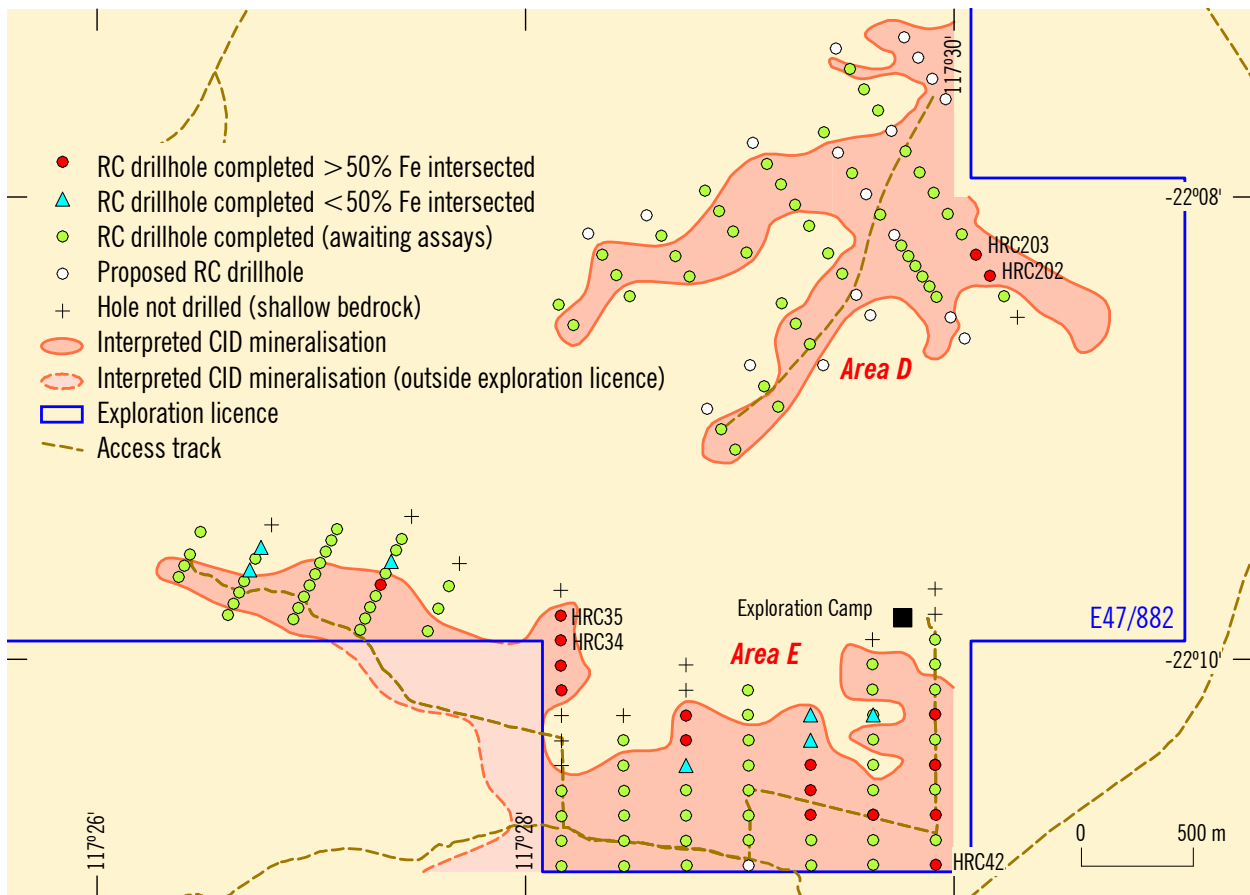


Figure 5 Location of Area E and D drilling and results at end of October.

This RC drilling shows that the channel iron ore mineralisation at the Hamersley Project is extensive (Figure 5). The drilling confirms the Exploration Target\*, and further, indicates that the mineralisation is thicker than initially predicted. For example, in Areas D and E the Exploration Target predicted the thickness of the mineralisation to be 8m, when in fact the average intersection in these Areas exceeds this value and is closer to twice the thickness. The interpreted area of CID mineralisation in Area E now stands at 6.5 sq km – compared to 4.05 sq km in the original estimate.

First pass drilling (500m x 200m) is complete in Areas D and E and infill (500m x 100m) is being carried out in the headwaters of each channel. The mineralisation

in the headwaters is thick, exceeding 20m in several holes. However, the width of the channel in the headwaters is narrower than the main channel and hence infill drilling to 100m along drill lines is required to develop Inferred Resources. Initial drilling in Area C, to develop a bore for a driller's camp, has intersected CID mineralisation. Together with outcropping CID mineralisation at the waterfall in Area A, CID mineralisation has now been confirmed in 4 of the 5 areas targeted.

There appears to be two main styles of mineralisation; lacustrine clay hosted CID, and a pisolitic hematite CID. The pisolitic material is generally shallow and has elevated iron concentrations and low levels of silica, alumina and phosphorus.

The bimodal nature of the mineralisation (pisolites within a fine alluvial matrix) bodes well for efficient beneficiation, should this be required. In several areas, the hanging wall and footwall of the main CID intersections contain sub grade ore with over 40% iron and provide an excellent opportunity to supplement high grade CID with beneficiated ore.

Another feature of the CID mineralisation intersected to date is that the gravels above the main CID horizons contain highly iron-rich sequences, which may average over 40% iron, composed of fragments of iron ore mixed with other rock types. It is highly likely that, should a mining operation be established, some degree of upgrading or beneficiation of the gravels above the main zones may

\* see note on page 9 for a clarification of Exploration Targets.

be viable. Such beneficiation is common with CIDs in the Pilbara, and could be by screening or density concentration – adding significantly to any mining output.

Results have been received for 24 holes from Area E and D and selected recent intersections are presented in Table 1. Most of the intersections exhibit high grade iron mineralisation with low deleterious elements, and the iron grade in several of the intersections is greater than 60%.

The 20-person Ausco camp was commissioned during the quarter. Archaeological clearances were conducted on Areas A, B and C. Earthworks have been completed in Areas B and C, with Area A to be completed shortly. The geophysical downhole logging truck has been in operation during the drilling campaign

and has had an excellent success rate logging drillholes. The third rig will arrive on site imminently and is a universal drill rig capable of both RC and diamond drilling (DD). Several DD holes will be completed this year to gain geological knowledge, metallurgical samples and provide calibration of the downhole geophysical data with cored rock samples to calculate actual values for the data, such as density.

#### Exploration Target on E47/1560

##### 100% Flinders Mines

FMS commissioned a study by independent iron ore consulting geologist, Dr Richard Russell, on the iron ore exploration potential of E47/1560. The results of this work are shown on Figure 2. An Exploration Target of between 120 and 175 million tonnes of iron

ore averaging 45 to 60% iron is outlined on E47/1560\*. Dr Russell has divided the tenement into main areas of potential mineralisation, then from the surface area and probable average thickness has estimated a total tonnage of CID and DID. The amount of DID on the tenements is estimated to be less than 5% of the total.

A drilling programme has been developed for E47/1560 and a Program of Work has been submitted to the Department of Industry and Resources for approval. Pending the approval, full anthropological and archaeological clearances will be conducted to enable earthworks to commence in readiness for commencement of drilling in the March 2009 quarter.

**Table 1: List of selected RC drillhole intersections**

Hole ID	From	To	Int	Fe	Al <sub>2</sub> O <sub>3</sub>	SiO <sub>2</sub>	P	LOI	Area
HRC34	16	28	12	58.1	3.8	9.1	0.060	2.4	Area E
including	22	28	6	61.1	2.1	6.4	0.072	2.2	Area E
HRC35	12	34	22	58.4	4.1	4.2	0.098	7.2	Area E
HRC42	56	102	46	52.8	3.8	9.3	0.084	11.4	Area E
including	74	92	16	55.3	3.2	6.5	0.090	11.0	Area E
HRC202	12	36	24	60.3	2.6	2.9	0.110	8.2	Area D
HRC203	14	16	2	50.3	5.5	19.5	0.037	2.4	Area D
and	22	44	22	57.8	5.3	9.2	0.043	2.0	Area D
including	38	44	6	60.8	3.8	6.3	0.065	1.9	Area D



\* see note on page 9 for a clarification of Exploration Targets.



SOUTH AUSTRALIA

**DIAMONDS**

**Flinders Ranges Project.**

*Flinders 100% of diamond rights*

A number of very interesting coincident indicator and ground magnetic targets have been reported from the southeast Springfield area (Figure 6). Trenching permits have been approved by PIRSA, and trenching will commence at the end of October.

The garnet mineral chemistries from the Springfield magnetic anomaly sampling, are G9 garnets from the diamond stability field, and have been reported east and west of Boolcunda Basin.

A large loam sampling grid over the Beatrice Prospect in the east Nackara area (Figure 7), has reported hundreds of indicators. At the Beatrice prospect, mineral chemistries from a number of picroilmenites have provided encouraging results, which show that a number of these grains originate from the diamond stability field. A detailed ground magnetic survey over the loam grid will be conducted over the next month, to better delineate the source of the indicators prior to a trenching program.

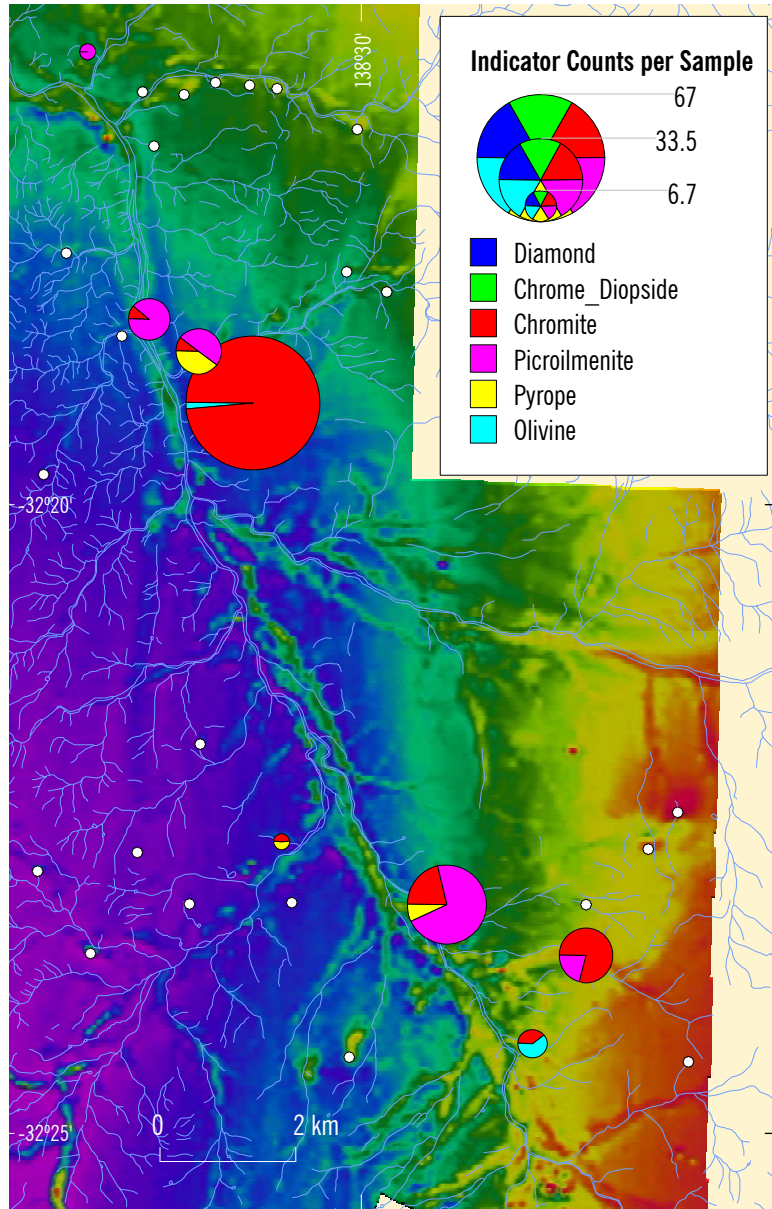
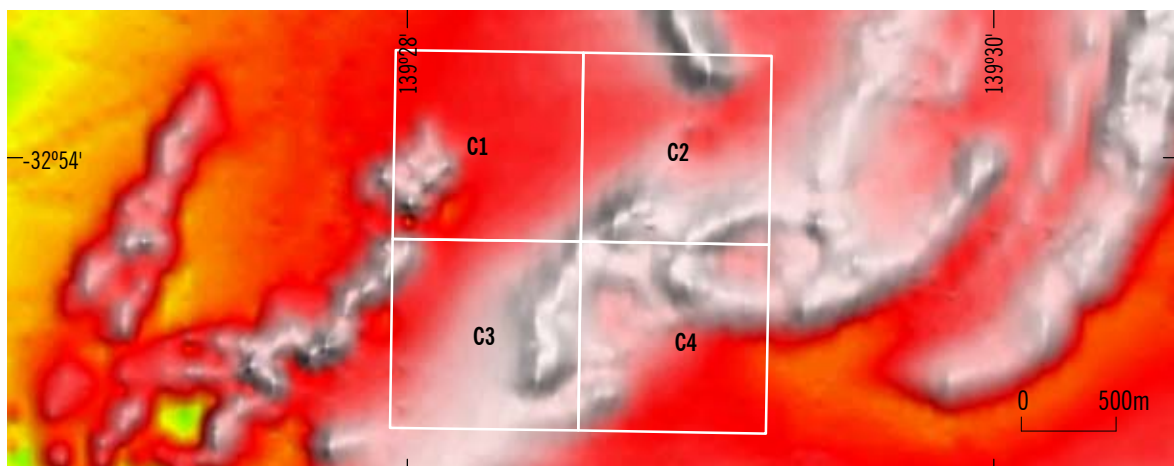


Figure 6 Multiple kimberlitic indicator results over Springfield helimag targets.

Figure 7 Location of Beatrice prospect loam sampling.



### **Adelaide Hills Project**

*Flinders 100% of diamond rights*

No work undertaken.

### **Gawler Craton Projects**

*Tawana JV Flinders earning 70%*

The lack of kimberlite despite the persistent recovery of surface and sub-surface indicators at Venus Bay, have necessitated a reappraisal of the geophysical data. There are indicator targets which are suitable for drilling, but so far have not been supported by geophysical anomalies.

### **Tasman JV**

*Flinders earning 70%*

During September five of the 45 magnetic anomalies were tested for kimberlite type intrusions within the Woomera Prohibited Area, which is part of the joint venture with Tasman Resources. A sonic drill rig was contracted, and five holes totalling 219m were drilled.

Heavy mineral and geochemical samples were collected from the basal section of the sedimentary cover, and the top section of the weathered basement in order to identify the presence of any kimberlitic indicator minerals.

The drilling indicates that the bedrock geology beneath

the geophysical anomalies is dominated by crystalline schists with minor intrusions of felsic and mafic rocks. Latter areas drilled, the sedimentary cover sequence ranges from 2-12m over the basement schists.

### **G2 Project**

No work undertaken

WESTERN AUSTRALIA.

### **Hamersley Project**

No work undertaken

### **Police Creek**

No work undertaken

NORTHERN TERRITORY

### **Strangways Project**

No work undertaken.

SOUTH AUSTRALIA

## **PHOSPHATE**

Flinders has initiated an independent assessment of the phosphate potential of its Flinders Ranges and Adelaide Hills project tenements (Figure 1) by consultant Johnson Geological Services (JGS).

Records indicate 13 known occurrences of phosphate on Flinders' tenements in the Jamestown – Orroroo district. Small tonnages of phosphate

rock have been produced from six of these occurrences. These occurrences are distributed over a N-S strike length of 66 km, with the majority contained within Flinders' tenements.

A zone for immediate follow-up exploration has been identified where 12 of the 13 occurrences are concentrated over a 26 km strike length from just south of Tarcowie to Orroroo. The width of the prospective zone varies from 1-8 km within the target horizons which have been repeated by folding. This is all contained within Flinders' Jamestown Project tenement package.

Pending the recommendations of JGS initial review report it is anticipated that Flinders will commence exploration within the 26 km strike length zone initially undertaking soil sampling to define phosphate concentrations with follow-up reverse circulation drilling to test anomalous features. This exploration would be aimed at locating a phosphate deposit of the order of 10 million tonnes which is deemed of the size required to support a significant phosphate mining operation with guaranteed on-going supplies to the SA and Australian market.





## CORPORATE

Flinders Mines' cash resources were boosted by the exercising of 111 million 10 cent options, 29 September 2008. This will enable the Company to complete its business objective of drilling out an Inferred Resource of iron ore at its Hamersley Project in Western Australia.

## FINANCE

On 30 September 2008, the Company had available funds of \$19.3 million. Exploration expenditure in the September quarter was \$3.0 million compared to a budget of \$3.1 million. Total exploration expenditure forecast for the December quarter is \$4.7 million, with \$4.3 million planned for iron ore and \$0.4 million planned for diamonds.

**Dr Kevin J A Wills**  
Managing Director

31 October 2008



**\*Note:** These Exploration Targets are reported according to Clause 18 of the JORC Code. This means that they are partly conceptual in nature and that considerable further exploration, particularly drilling, is necessary before any Identified Mineral Resource can be reported. It is uncertain if further exploration will lead to a larger, smaller or any mineral resource.

The information in this report that relates to Exploration Results, Mineral Resources and Ore Reserves is based on information compiled by Dr K J A Wills who is a Fellow of the Australasian Institute of Mining and Metallurgy. Dr Wills is an employee of Flinders Mines Limited. He has more than five years relevant experience in the style of mineralisation and types of deposit under consideration and consents to inclusion of the information in this report in the form and context in which it appears. Dr Wills qualifies as Competent Persons as defined in the 2004 Edition of the "Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves".

## Contact us

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# Appendix 5B

## Mining exploration entity quarterly report

Introduced 1/7/96. Origin: Appendix 8. Amended 1/7/97, 1/7/98, 30/9/2001.

Name of entity

Flinders Mines Limited

ABN

46 091 118 044

Quarter ended ("current quarter")

30 September 2008

### Consolidated statement of cash flows

Cash flows related to operating activities	Current quarter \$A'000	Year to date (3 months) \$A'000
1.1 Receipts from product sales and related debtors		
1.2 Payments for		
(a) exploration and evaluation	(3,449)	(3,449)
(b) development		
(c) production		
(d) administration	(447)	(447)
1.3 Dividends received		
1.4 Interest and other items of a similar nature received	370	370
1.5 Interest and other costs of finance paid		
1.6 Income taxes paid		
1.7 Other (provide details if material)		
<b>Net Operating Cash Flows</b>	<b>(3,526)</b>	<b>(3,526)</b>
<b>Cash flows related to investing activities</b>		
1.8 Payment for purchases of:		
(a) prospects		
(b) equity investments		
(c) other fixed assets	(176)	(176)
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 (provide details if material)		
<b>Net investing cash flows</b>	<b>(176)</b>	<b>(176)</b>
1.13 Total operating and investing cash flows (carried forward)	<b>(3,702)</b>	<b>(3,702)</b>

+ See chapter 19 for defined terms.

**Appendix 5B**  
**Mining exploration entity quarterly report**

1.13	Total operating and investing cash flows (brought forward)	(3,702)	(3,702)
<b>Cash flows related to financing activities</b>			
1.14	Proceeds from issues of shares, options, etc.	9,107	9,107
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 (provide details if material)		
	<b>Net financing cash flows</b>	9,107	9,107
<b>Net increase (decrease) in cash held</b>			
		5,405	5,405
1.20	Cash at beginning of quarter/year to date	13,925	13,925
1.21	Exchange rate adjustments to item 1.20		
1.22	<b>Cash at end of quarter</b>	19,330	19,330

**Payments to directors of the entity and associates of the directors**

**Payments to 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	70
1.24	Aggregate amount of loans to the parties included in item 1.10	

1.25 Explanation necessary for an understanding of the transactions

**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

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

+ 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	4,700,000
4.2 Development	
<b>Total</b>	<b>4,700,000</b>

### Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.

	Current quarter \$A'000	Previous quarter \$A'000
5.1 Cash on hand and at bank	7,395	77
5.2 Deposits at call	11,935	13,848
5.3 Bank overdraft		
5.4 Other (provide details)		
<b>Total: cash at end of quarter</b> (item 1.22)	<b>19,330</b>	<b>13,925</b>

### Changes in interests in mining tenements

	Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1	Interests in mining tenements relinquished, reduced or lapsed			
6.2	Interests in mining tenements acquired or increased			

+ See chapter 19 for defined terms.

**Appendix 5B**  
**Mining exploration entity quarterly report**

**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 <b>Preference +securities</b> <i>(description)</i>				
7.2 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3 <b>+Ordinary securities</b>	1,203,652,675	1,203,652,675		
7.4 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs	93,973,921	93,973,921		
7.5 <b>+Convertible debt securities</b> <i>(description)</i>				
7.6 Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7 <b>Options</b> <i>(description and conversion factor)</i>	150,000 2,800,000 782,500		<i>Exercise price</i> \$0.036 \$0.017 \$0.084	<i>Expiry date</i> 14/03/2009 20/03/2012 05/03/2013
7.8 Issued during quarter				
7.9 Exercised during quarter	93,923,921 50,000	93,923,921	\$0.10 \$0.084	29/09/2008 05/03/2013
7.10 Expired during quarter	270,500,718	270,500,718	\$0.10	290/9/2008
7.11 <b>Debentures</b> <i>(totals only)</i>				
7.12 <b>Unsecured notes</b> <i>(totals only)</i>				

+ See chapter 19 for defined terms.

## Compliance statement

- 1 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.



Richard W C Willson  
(Company secretary)

Date: 28 October 2008

## Notes

- 1 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.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining 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, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **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.
- 4 The definitions in, and provisions of, *AASB 1022: Accounting for Extractive Industries* and *AASB 1026: Statement of Cash Flows* apply to this report.
- 5 **Accounting Standards** ASX will accept, for example, the use of International Accounting 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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+ See chapter 19 for defined terms.