

ASX ANNOUNCEMENT

11 December 2009

2009 Drilling Campaign Completed

Pilbara Project - Western Australia

Activities Report – No 31

highlights



FLINDERS
MINES

- 2009 drilling campaign completed at the Pilbara Iron Ore Project, with a total of 721 holes drilled for 35,480m and all assay results expected by mid-January 2010
- Assays continue to confirm high grade intersections of high quality direct shipping ore (DSO) bedded and channel iron mineralisation, with low silica and alumina values
- 70% of highly prospective Delta Deposit drilled to Indicated Resource status
- 32 metallurgical drill holes across Delta, Champion and Eagle deposits complete, with test work underway
- Successful capital raising adds an additional \$52.8M (before costs) to cash on hand



Tenements E47/882 (Blacksmith) and E47/1560 (Anvil)

Flinders Mines Limited (FMS) 100%

DRILLING ACTIVITY

The 2009 fieldwork program at the Pilbara Project in northern Western Australia is drawing to a close, with all areas and activities running to the prefeasibility study schedule. The last drill hole for the year was completed on Monday 7th December. A total of 721 holes were completed in 2009 across all target areas, for a combined 35,480m of drilling. This brings the total since drilling began in 2008 to 1,022 holes for 50,519m (Table 1).

Table 1 2009 completed reverse circulation drillholes in each area.

Target Area	2008 No of Holes	2009 No of Holes	2009 Metres Drilled
Ajax	0	93	3,180
Blackjack	34	11	480
Champion	103	39	2,118
Delta	67	319	18,232
Eagle	97	19	984
Anvil		240	10,486
Total	301 holes for 15,039m	721 holes for 35,480m	

Delta Indicated Drilling

The indicated drilling at the Delta Prospect has been undertaken at a spacing of 125m by 100m (Figure 1). Approximately 70% of the prospect has now been drilled at this spacing, including all of the more prospective north arm and a large proportion of the south arm. In total, 386 holes have been drilled for 21,243m at the Delta Prospect alone. Some of this drilling was undertaken in an area not previously drilled in the southeast of the prospect and outside of the current resource, with very encouraging visual Bedded Iron Deposit (BED) intersections recorded at shallow depths.

Assays have been received for approximately 90% of the holes in the north arm of Delta, with all assays expected by the middle of January 2010. Recent assays received for the north arm support and reinforce the DSO quality intersections previously reported (Table 2). Characteristically low silica and alumina BED mineralisation was intersected in HRC2084, including a standout intersection of 56m @ 59.8% iron, 2.2% silica and 1.8% alumina from surface. Other significant BED intersections include HRC2066 with 28m @ 57.4% iron, 4.1% silica and 3.2% alumina from 4m. Further high quality Channel Iron Deposit (CID) mineralisation has also been intersected; for example, HRC2151 intersected 34m @ 59.4% iron, 7.2% silica and 3.9% alumina, with a high grade zone of 20m @ 62.8% iron, 2.9% silica and 3.3% alumina.

Metallurgical Drilling

A total of 32 PQ diameter (83mm) metallurgical drillholes, for 1,569.7m, were drilled in Champion, Delta and Eagle to collect sample material to carry out ore characterisation and beneficiation test work.

Resource Estimates

Work has commenced on interpreting the relevant data to develop an Indicated Resource estimate and to update the current Inferred Resource estimate. The focus will remain on the Indicated Resource at Delta, with an estimate expected in the first quarter of 2010. This Indicated Resource will feed into the mine planning and scheduling for the ongoing Prefeasibility Study. Once the Indicated Resource estimate is complete, work will commence on developing a Global Inferred Resource that encompasses both the Blacksmith and Anvil tenements.

METALLURGICAL TESTWORK

This drilling has been completed and all relevant drill core has been transported to Perth. Metallurgical test work has commenced on the core at Amdel Ltd under the supervision of Mineral Engineering Technical Services Pty Ltd (METS). This work aims to define potential iron ore products and, in some cases, determine whether the ore quality can be upgraded through metallurgical processing. Results are expected early in the first quarter of 2010.

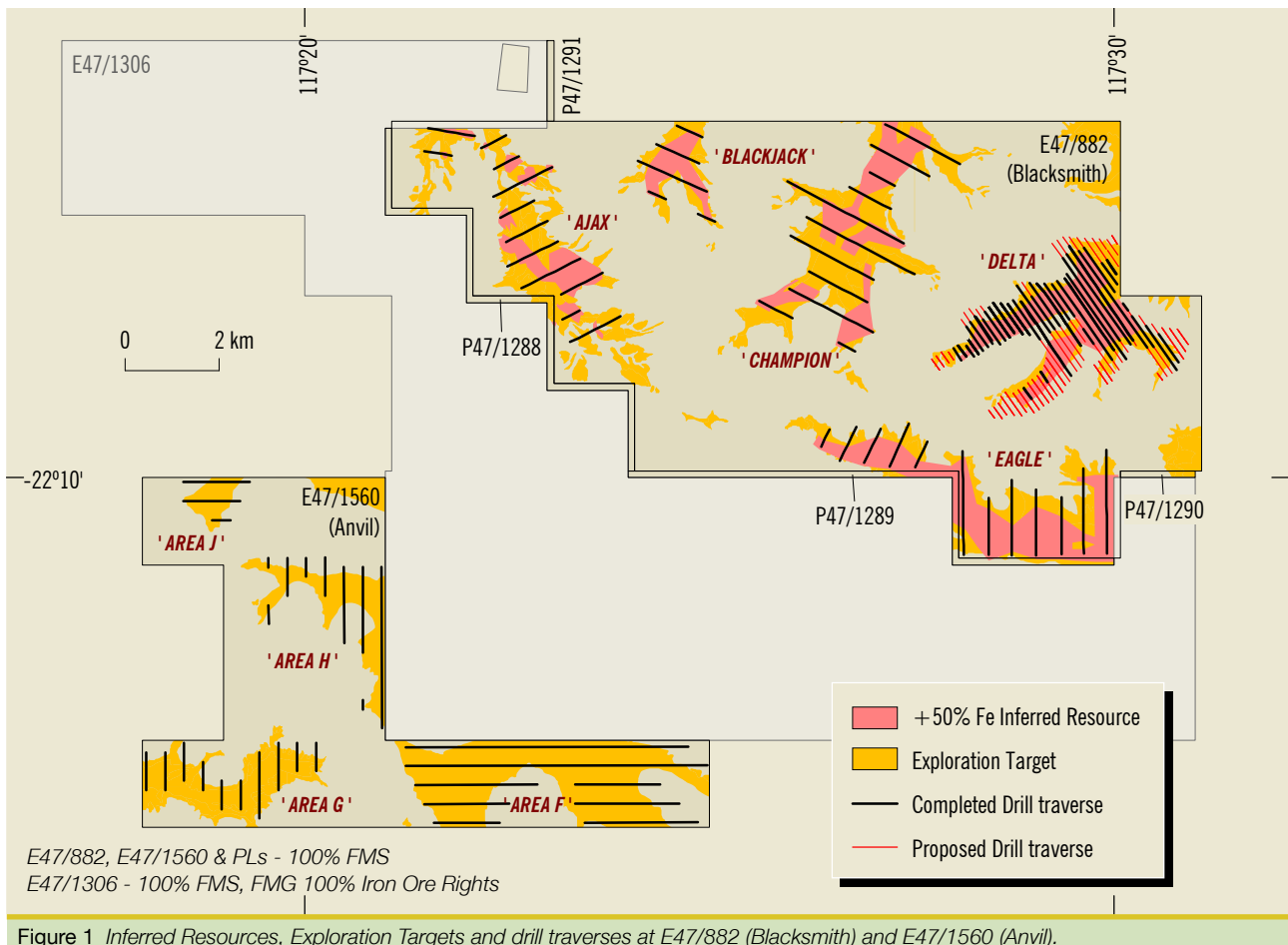


Figure 1 Inferred Resources, Exploration Targets and drill traverses at E47/882 (Blacksmith) and E47/1560 (Anvil).

Table 2: List of significant reverse circulation drillhole intersections from Delta.

Hole ID	From (m)	To (m)	Interval (m)	Fe %	SiO ₂ %	Al ₂ O ₃ %	P %	LOI %
HPRC2037	38	56	18	58.3	6.7	4.9	0.07	3.2
HPRC2046	40	66	26	59.9	4.9	3.3	0.12	5.3
HPRC2066	4	32	28	57.4	4.1	3.2	0.11	9.7
HPRC2074	8	30	22	58.7	4.0	2.6	0.15	8.5
HPRC2083	2	42	40	55.9	9.7	2.1	0.10	7.4
incl	26	40	14	57.4	5.3	1.9	0.12	10.0
HPRC2084	0	56	56	59.8	2.2	1.8	0.15	9.9
HPRC2087	36	60	24	61.4	5.1	3.2	0.08	3.1
HPRC2093	30	54	24	60.3	2.3	2.2	0.11	8.8
HPRC2096	30	78	48	54.6	10.6	4.9	0.11	5.4
Incl	50	72	22	57.7	5.4	3.6	0.15	7.4
HPRC2103	6	60	54	59.9	4.7	2.4	0.11	6.7
HPRC2111	16	50	34	60.1	6.7	4.6	0.05	1.9
HPRC2112	26	50	24	60.7	4.9	3.8	0.08	4.0
HPRC2118	22	46	24	58.8	8.7	4.8	0.04	1.6
HPRC2120	16	34	18	62.1	5.4	3.5	0.05	1.5
HPRC2151	28	62	34	59.4	7.2	3.9	0.08	3.0
incl	40	60	20	62.8	2.9	3.3	0.09	3.0
HPRC2155	56	84	28	57.3	5.3	3.4	0.18	8.6
HPRC2156	58	82	24	56.0	5.8	4.1	0.19	9.2
HPRC2164	6	50	44	55.2	9.0	4.5	0.09	6.4
incl	18	40	22	59.0	4.3	3.4	0.10	6.9
HPRC2167	46	70	24	58.0	6.2	4.5	0.10	5.4
incl	54	70	16	59.1	4.0	3.5	0.12	7.0

NB: These intersections are based on an Fe cut-off grade of 50%, with no top cut, and a maximum internal dilution of 2m; Analysis via XRF fusion at Ultratrace Laboratories; LOI = Loss on ignition.

COMMERCIAL

Placement and Rights Issue

The Company is pleased to advise that its recent capital raising has been successfully concluded, with the non-renounceable Rights Issue raising \$29.6 million (before costs) for the issue of 227.4 million new ordinary shares. The Board is very pleased with the high level of support for the Rights Issue, which was underwritten by Euroz Securities Limited.

Funds from the Rights Issue, combined with the earlier Placement, have raised a total of \$52.8 million (before costs), which will be utilised to advance the Company's wholly-owned Pilbara Iron Ore Project, including completion of the Prefeasibility Study and possible fast-tracking of mining operations from the Delta deposit, with the balance of funds being applied towards a Bankable Feasibility Study into the exploitation of the Company's whole resource inventory.

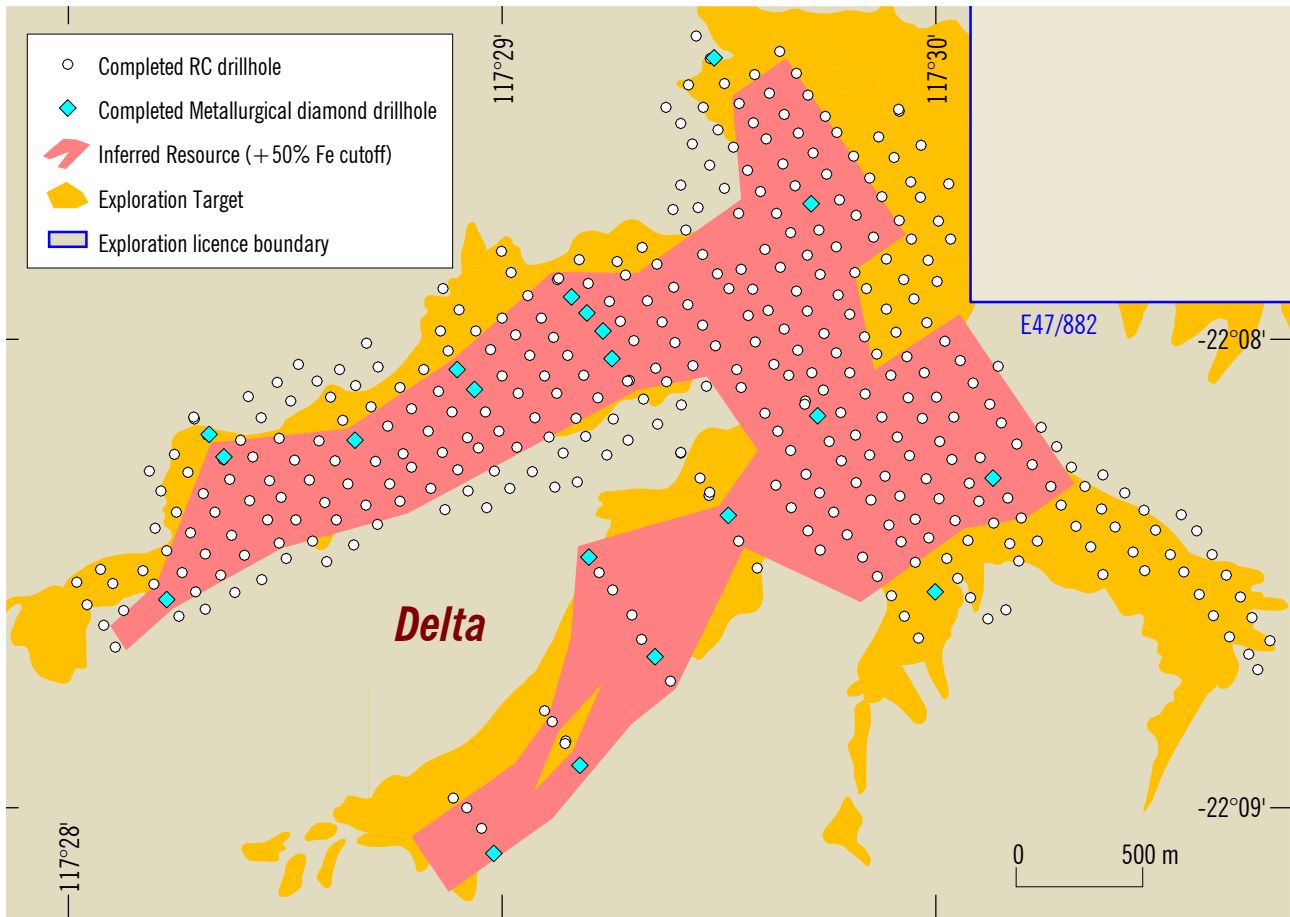


Figure 2 Location of Inferred Resource and recent holes drilled at the Delta Deposit.

OTHER ACTIVITIES

During the month of November, the 20 person Blacksmith camp was purchased from Ausco to support the permanent presence of the Company in the area. The camp provides an excellent base for ongoing activities and future expansion.

Recruitment has commenced for staff to build the owner's team for the feasibility studies. These are managerial roles to provide expertise and support in areas such as mining, project management, health & safety, environmental activities, and marketing.

DR KEVIN WILLS
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Nightshift diamond drilling at Delta.

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) and Mr N Corlis (who is a member of the Australian Institute of Geoscientists). Dr Wills and Mr Corlis are employees of Flinders Mines Limited. Both have sufficient experience that is relevant to the style of mineralisation and types of deposit under consideration and consent to inclusion of the information in this report in the form and context in which it appears. Dr Wills and Mr Corlis qualify as Competent Persons as defined in the 2004 Edition of the "Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves".