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AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT

1st July 2009

MASSIVE STRINGER AND DISSEMINATED NICKEL SULPHIDES DISCOVERED AT MT THIRSTY

Fission Energy Limited ("Fission") and joint venture partner Barra Resources Limited ("Barra") are pleased to announce the discovery of several zones of primary nickel sulphide mineralisation in the first diamond hole (MTDD008) testing a substantial electromagnetic (EM) anomaly (refer Figure 1) adjacent to the joint venturers' Mt Thirsty cobalt-nickel-manganese oxide deposit. Mt Thirsty is located 20 kilometres north-northwest of Norseman, Western Australia.

Diamond Hole MTDD008 has so far intersected several zones of sulphide mineralisation, including a 16 metre thick hangingwall zone of stringer and heavily disseminated nickel sulphides at a down hole depth of 308 metres, coincident with the EM conductor's modelled depth of 320 metres. The zone of nickel sulphide mineralisation contains visible sulphide minerals including pyrrhotite, chalcopyrite, pentlandite, pyrite and magnetite. The hangingwall zone is located near the top of a very thick sequence of originally olivine-rich cumulate textured ultramafics. The latter are the preferred host rocks for nickel sulphide mineralisation such as that found at Kambalda, Western Australia.

The drill hole, collared at 372500E and 6447400N (GDA94 Zone 51) was initially orientated at 75° to the west. Based on the current geological interpretation down hole intercepts are believed to be close to true width.

The exploration strategy is based on a geological model similar to the basal lava channel embayment type structures observed at Kambalda. Basal lava channel embayments located on ultramafic-basalt contacts are a preferred location for nickel sulphide accumulations in the Kambalda region. Several of these basal embayment type structures have been identified within the project area and are currently being evaluated by the Joint Venture.

To verify the presence of nickel, a Niton hand held XRF device was used to test selected pieces of core from the hangingwall zone. Three spot readings of separate 2 to 5 centimetre thick stringer veins of massive sulphide were taken at down-hole depths of 314.45 metres, 316.40 metres and 317.74 metres, returning readings of 1.25%, 0.95% and 1.58% nickel respectively. The spot sampling of the core was conducted along the orientation line of the diamond drill core.

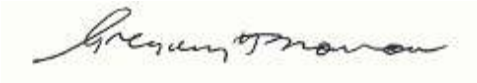
Niton XRF analysis is not considered a substitute for conventional analytical methods and hole MTDD008 is currently being prepared for more comprehensive laboratory analysis with results expected in two to three weeks*.

Diamond hole MTDD008 at the time of this announcement had passed through three additional 5 to 8 metre thick hangingwall sulphide zones but had not reached the lower-most footwall ultramafic-basalt contact where the majority of the nickel sulphide accumulation might be expected. Drilling is continuing.

Follow-up downhole EM surveying designed to detect any stronger sulphide mineralisation in close proximity to the drillhole will be carried out once hole MTDD008 has been completed.

The second diamond drill hole testing the extensive EM anomaly will commence next week.

**Note: The nickel grade estimates for diamond hole MTDD008 quoted in this release have been estimated using a Niton XLT 592 portable XRF analyser. These spot estimates are indicative only and have been provided to demonstrate that some highly anomalous nickel values are present in the core.*



Greg Solomon
Executive Chairman

The interpretations and conclusions reached in this report are based on current geological theory and the best evidence available to the authors at the time of writing. It is the nature of all scientific conclusions that they are founded on an assessment of probabilities and, however high these probabilities might be, they make no claim for complete certainty. Any economic decisions that might be taken on the basis of interpretations or conclusions contained in this report will therefore carry an element of risk.

The information in this announcement, insofar as it relates to Mineral Exploration activities, is based on information compiled Michael J. Glasson and Robert N Smith, who are members of the Australian Institute of Geoscientists, both of whom have more than five years experience in the field of activity being reported on. Mr Glasson and Mr Smith are consultants. Mr Glasson and Mr Smith have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Glasson and Mr Smith consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

It should not be assumed that the reported Exploration Results will result, with further exploration, in the definition of a Mineral Resource.

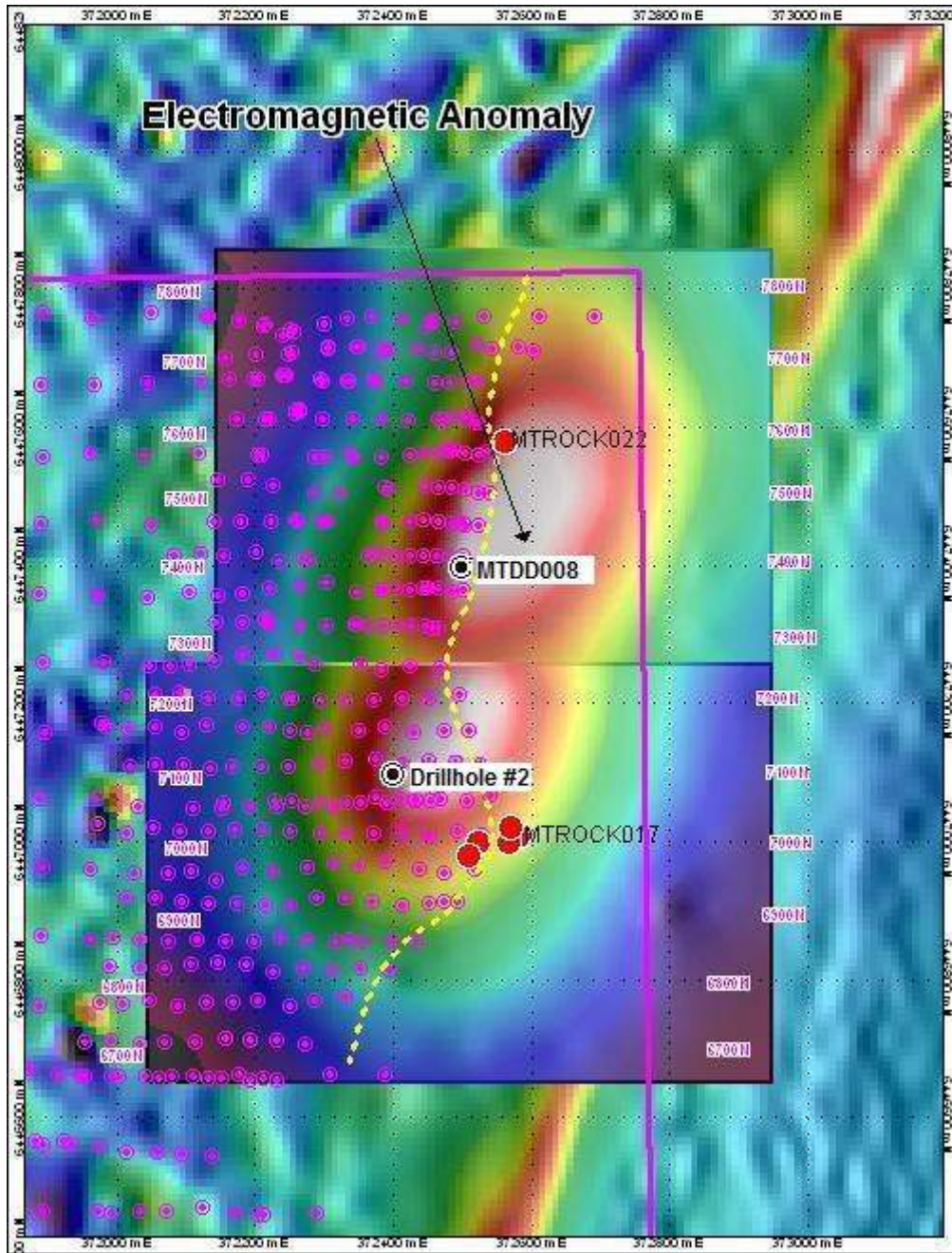


Figure 1: Electromagnetic anomaly showing drill hole MTDD008, planned follow up hole, Fission-Barra previous aircore drilling (pink dots) and nickel sulphide gossan locations.