

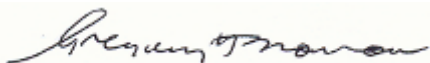
AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT**10th September 2009****Nickel Sulphide Diamond Drilling to
Resume at Mt Thirsty**

Fission Energy Limited and Joint Venture partner Barra Resources Limited are pleased to announce the resumption of follow-up diamond drilling at the Mt Thirsty Project. Mt Thirsty is located 20 kilometres north-northwest of Norseman in southern Western Australia.

The program will focus on following-up nickel sulphide occurrences and recent down hole electromagnetic (“EM”) surveying of drill hole MTDD008 in an attempt to locate more significant nickel sulphide accumulations on the footwall contact. Shallower holes will be drilled up dip of MTDD008 to locate the footwall contact together with potential nickel sulphides (Figure 1). Deepening of hole MTDD008 will be undertaken based on the outcome of the shallower drilling.

The drilling program will also include several holes at the nearby Woodcutters prospect to follow-up on a strong off-hole conductor detected by recent down hole EM surveying of drill hole WCDD001. Several gossanous rock-chip samples representing possible massive to disseminated nickel sulphide mineralisation associated with a basalt-ultramafic contact have been identified at Woodcutters. The large EM anomaly may well be indicating the presence of primary nickel sulphides at depth along strike from WCDD001. Several diamond holes have been designed to test the off-hole EM anomaly to a depth of about 350 metres. Drilling will commence later next week.

The exploration strategy is based on a geological model similar to 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.



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.

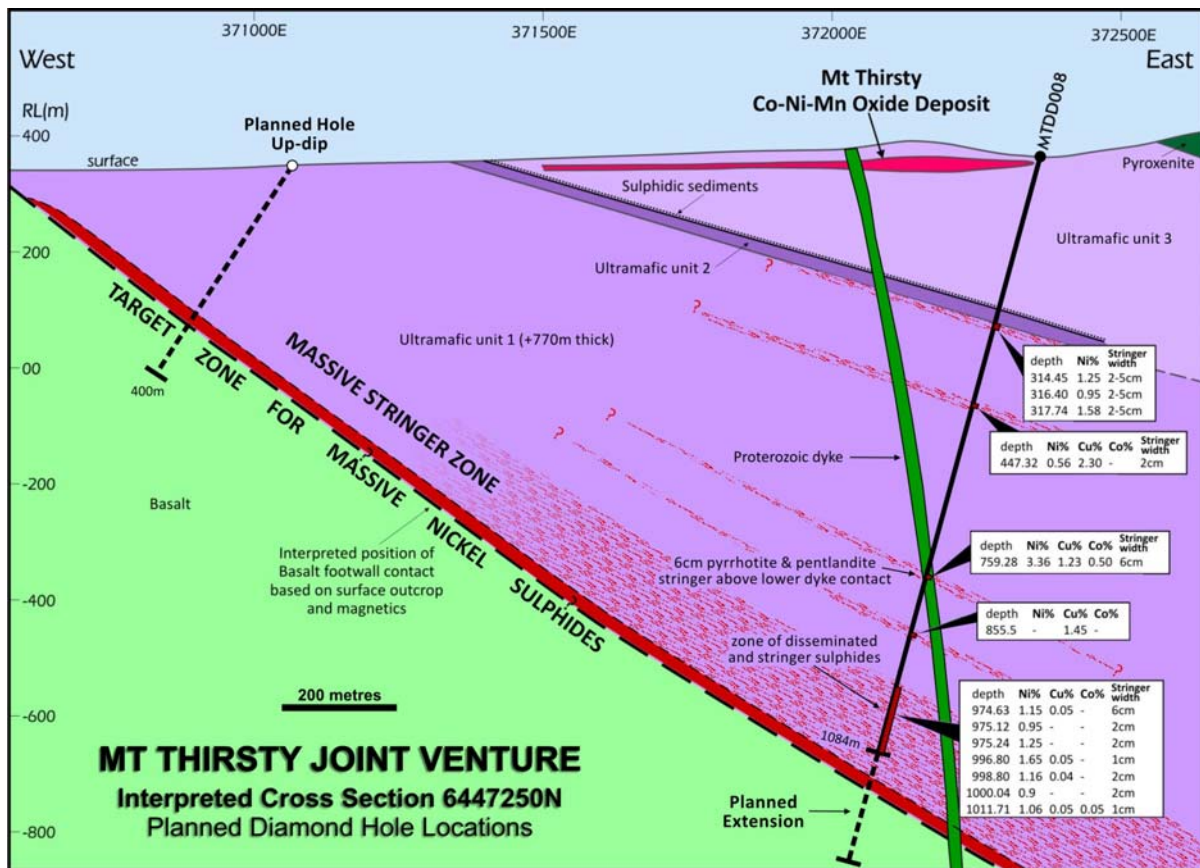


Figure 1: Mt Thirsty Interpreted East-West Geological Cross Section through drill hole MTDD008, showing spot Niton readings of stringer sulphide veins and interpreted basal footwall target zone and planned diamond drill hole extensions.