



ACN 119 057 457

## AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT

12<sup>th</sup> January 2010

### **Nickel Sulphide Diamond Drilling to Resume at Mt Thirsty**

Fission Energy Limited (ASX: FIS) and 50% Joint Venture partner Barra Resources Limited (ASX: BAR) are pleased to announce the resumption of follow-up diamond drilling at the Mt Thirsty Cobalt-Nickel-Manganese Project located 20 kilometres north-northwest of Norseman in southern Western Australia.

The program will focus on the depth extension of hole MTDD008 which intersected several zones of disseminated and stringer nickel sulphides. The decision to deepen hole MTDD008 was made after hole MTDD011 drilled at shallower depths intersected the footwall contact indicating a modest easterly dip of 50-55 degrees. Based on a 50 degree dip hole MTDD008 should pass through the footwall contact at around 1,500m. A larger capacity drilling rig has been sourced with drilling to commence late this week. Further drilling south of hole MTDD011 will be considered after MTDD008 has been completed.

#### **Background on MTDD008**

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.

Originally MTDD008 which was designed to test a substantial electromagnetic (EM) anomaly adjacent to the Mt Thirsty cobalt-nickel-manganese oxide deposit. MTDD008 intersected several zones of disseminated and stringer sulphide mineralisation including some nickel sulphides. Most encouraging was the intersection of a 6 centimetre thick fragment of massive sulphide including some pentlandite (Ni bearing sulphide) caught up in a much younger Proterozoic aged mafic dyke. Narrow Proterozoic dykes are common in the Norseman-Kambalda area but don't normally contain nickel sulphide mineralisation.

It is thought that during its emplacement from depth the dyke may have picked up nickel sulphides from the basal footwall contact, (see Figures 1 to 3). The nickel sulphide fragment shown in Figure 3 exhibits unusually high values of cobalt (0.15%) and copper (0.60%); very different from the low cobalt and copper grades returned from the massive stringer sulphide zones elsewhere in the hole. Clearly, the nickel sulphide fragment within the dyke is from a different source.

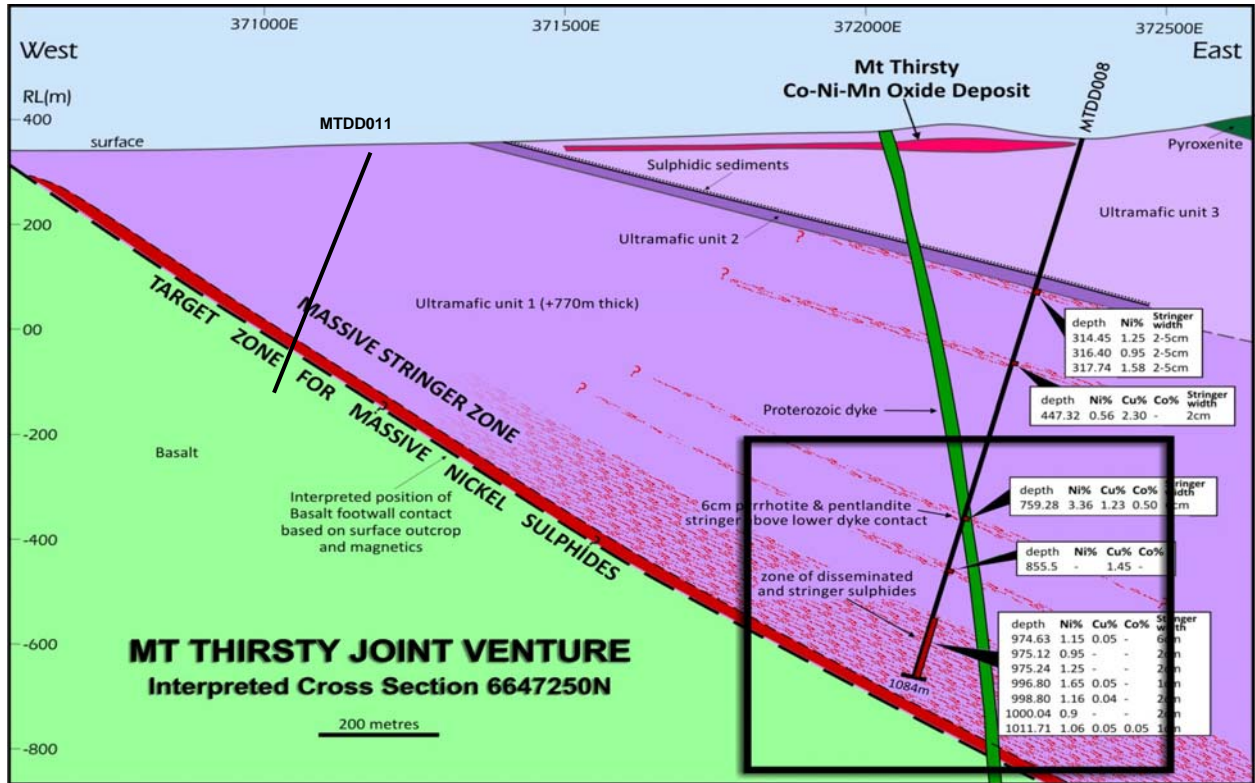


Figure 1: Mt Thirsty Interpreted East-West Geological Cross Section through drill hole MTDD008 showing projected location of hole MTDD011, and spot Niton\* readings of stringer sulphide veins and interpreted basal footwall target zone.

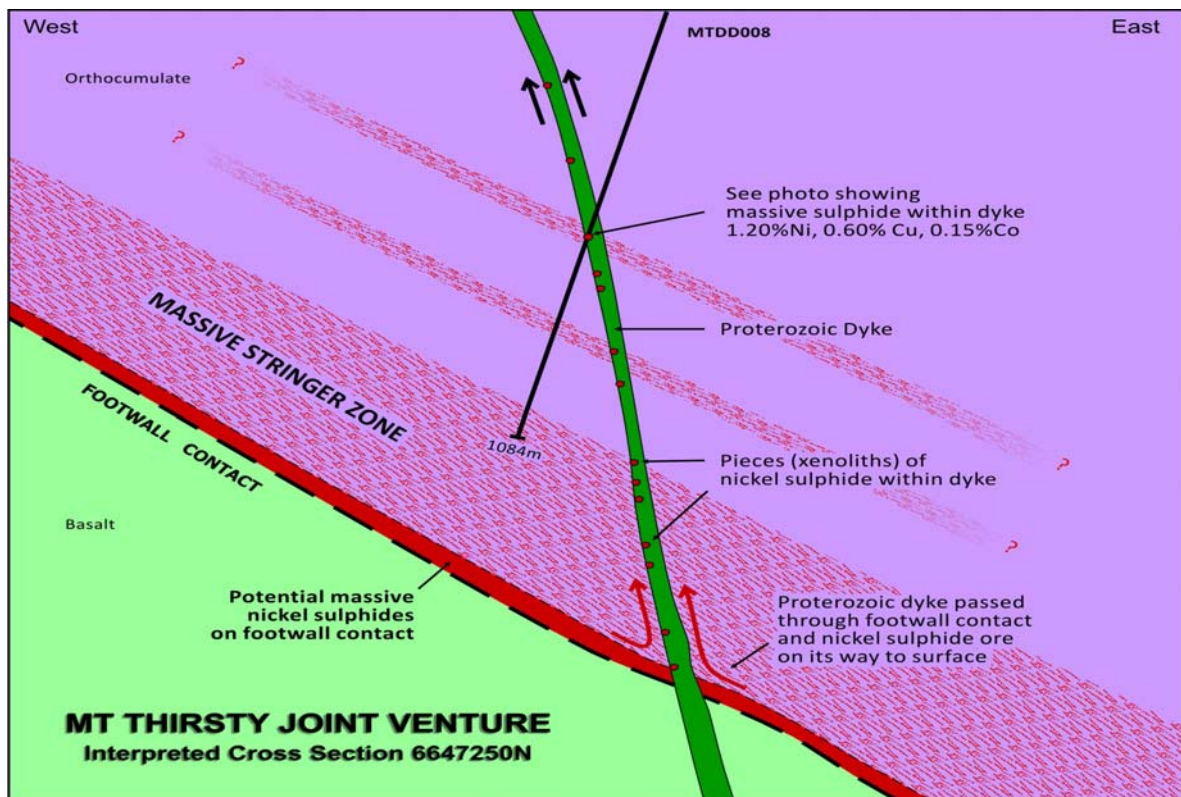
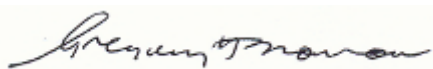


Figure 2: Zoom-in of boxed area in Figure 1 showing Proterozoic dyke and its possible relationship with potential massive nickel sulphides on the basal footwall contact.



**Figure 3: MTDD008 6cm wide massive sulphide fragment near lower contact in Proterozoic dyke at 759m depth.**

MTDD008 was drilled to a maximum depth of 1,084m, the depth capacity of the drilling rig and failed to reach the footwall contact. A larger capacity rig will be used to test the target zone as shown in Figure 1. Should any significant nickel sulphides be intersected near the footwall it may be possible to track these to shallower depths.



Greg Solomon  
Executive Chairman

*\*Note: The nickel grade estimates for diamond hole MTDD008 shown in Figure 1 were 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. Niton XRF analysis is not considered a substitute for conventional analytical methods.*

*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.*