



**NSW DEPARTMENT OF  
PRIMARY INDUSTRIES**

Our Reference: V09/499  
Your Reference: 9042505

Mr Howard Reed  
A/Manager  
Major Development Assessment  
Department of Planning  
GPO Box 39  
SYDNEY NSW 2001

Dear Mr Reed

**APEX ENERGY EXPLORATION DRILLING PROJECT**

I refer to your letter dated 1 April 2009, inviting the Department of Primary Industries (DPI) to comment on the Environmental Assessment (EA) for the proposed Apex Energy Exploration Drilling Project.

DPI technical officers have reviewed the EA and support the proposed project as an appropriate investigation of the State's petroleum resources. DPI makes the following comments and suggested requirements.

**DPI - MINERAL RESOURCES COMMENTS:**

**Environmental Issues**

Overall the EA is considered satisfactory, however DPI-MR makes the following requirements:

1. A Surface Disturbance Notice prior to commencement of any activities on site.
2. Clearing of intact native vegetation communities should be avoided or at least minimised.
3. Aquifers encountered in the drilling must be isolated to ensure there is no mixing of waters.
4. Boreholes when no longer required, must be grouted for the full length of the hole ensuring isolation of aquifers; that no gas can escape; and compliance with appropriate mine safety standards.
5. A method of determining rehabilitation success must be described in the Surface Disturbance Notice. Before and after photographs are to be submitted with the Exploration Rehabilitation and Relinquishment Report (EDG 13).
6. Apex Energy must calculate the cost of rehabilitation of each borehole and submit to DPI-MR for approval. No drilling activity can be undertaken until the rehabilitation security has been received by DPI.

**Geological Resource Issues**

The proposed project involves drilling 15 exploratory boreholes throughout Apex Energy's Petroleum Exploration Licences (PEL) Nos 442 and 444. The boreholes would be drilled

to variable depths up to 50 m below the base of the Illawarra Coal Measures to determine the gas potential in the coal seams, as well as the commercial potential of goaf gas which has collected in areas of abandoned workings predominantly in the Bulli Seam.

PEL442 and PEL444 overlie various coal exploration and/or mining titles held by other companies. DPI-MR recommends Apex Energy contact the affected title holders to inform them of the proposed drilling programme.

DPI-MR considers the technical aspect of the EA to be satisfactory with respect to drilling activities. However the following comments are provided:

1. Provided the Safety Guidelines are followed and conditions adhered to according to the *Schedule of Onshore Petroleum Operations and Production Safety Requirements (1992)*, then DPI-MR considers that the drilling operations should have no issues.
2. Apex Energy should be able to commission at least two rigs working in tandem to cut the project timing in half. Additionally, since the majority of the drilling operation is Type I (11 holes) and drilled faster as open hole, the estimation of drilling period is pessimistic at 28 months. A more realistic estimation of the duration of the drilling project should be undertaken.
3. 24/7 drilling operations as proposed by Apex Energy is not justified. To cite that rig availability will not be a problem if a contractor is allowed 24/7 access is purely conjectural. Other reasons outlined in the Rig Availability section of the EA for 24/7 drilling justification also do not provide adequate justification.

#### **DPI – FISHERIES COMMENTS:**

DPI-Fisheries advise that best practice erosion and sediment control will be needed to protect downstream waterways. Some of these waterways support populations of Macquarie Perch (threatened fish species) which are particularly susceptible to sedimentation of their habitat (and were not included in the flora and fauna assessment of the EA).

The following conditions are recommended by DPI-Fisheries:

1. Erosion and sediment mitigation devices should be erected in a manner consistent with currently accepted Best Management Practice (i.e. *Managing Urban Stormwater: Soils and Construction 4th Edition Landcom, 2004*) to prevent the entry of sediment into the waterway prior to any earthworks being undertaken.
2. The erosion and sediment mitigation devices are to be maintained in good working order for the whole duration of the drilling works and subsequently until the site has been stabilised, and the risk of erosion and sediment movement from the site is considered minimal. Exposed soil should be reseeded or turfed.
3. An audit of erosion and sediment controls be carried by an independent and suitably qualified person or organisation at the approximate half way point of the project and a copy of the report be provided to the Department of Planning.

If you have any general enquiries regarding this project please contact Mr Steve Cozens,  
A/Principal Advisor, Development Coordination on (02) 8289 3932.

Yours sincerely



William Hughes  
A/Director  
Development Coordination

11/5/09