



OUT13/33009

Mr Howard Reed
Manager Mining
Mining and Industry Projects
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Attention: Jessie Giblett

Dear Mr Reed

**Biblewindi Gas Exploration Pilot Expansion
State Significant Development (SSD 5934)
Exhibition of Environmental Impact Statement**

I refer to your email dated 23 September 2013 regarding the Santos NSW (Eastern) Pty Ltd's Environmental Impact Statement (EIS) for the Biblewindi Gas Exploration Pilot Expansion to construct a vertical well and one lateral pilot well.

NSW Trade & Investment, Regional Infrastructure & Services, Office of Coal Seam Gas (OCSG) has reviewed the *Biblewindi Gas Exploration Pilot Expansion EIS* dated 1 September 2013 and provides the following comments focusing on rehabilitation, as presented in Section 4.5 of the of the EIS document.

MINING TITLE

As coal seam gas (CSG) is a prescribed mineral under the *Petroleum (Onshore) Act 1991*, the proponent is required to hold a Petroleum Assessment Lease (PAL) granted by the OCSG in order to drill production test wells for CSG. The proposal is located within PAL2 held by the proponent.

The EIS, prepared in accordance with part 4 of the *Environmental Planning and Assessment Act 1979 (EP&A Act)* addresses the impacts associated with the following activities:

- installation of equipment, structures and facilities on the existing site areas of Biblewindi 14 and 19H to enable the drilling of one vertical pilot well (Biblewindi 31) and one lateral pilot well (Biblewindi 32) respectively and connection to the Biblewindi Multi-lateral Pilot;

- operation of the existing Bibblewindi Pilot (including Bibblewindi 31 and 32) for up to 3 years including managing water and gas extraction and general maintenance activities, and
- decommissioning and rehabilitation of pilot wells and ancillary infrastructure of suspended wells if there is no subsequently approved future potential use.

The EIS does not include the assessment of establishing the leased areas, the water and gas gathering system, access tracks and current partial rehabilitation of these lease areas. These works were previously assessed under Part 5 of the *EP&A Act* by the former NSW Department of Primary Industries (DPI), which approved drilling and operation of Bibblewindi 12 to 19H on 8 August 2008 and Bibblewindi 21H and 27-29 on 20 July 2009.

General

Generally, the proposed Bibblewindi Gas Exploration Pilot Expansion to be located within PAL2 is supported by OCSG. The proposed activity forms part of the Energy NSW CSG Exploration and Appraisal Program (E&A Program) necessary to evaluate the CSG potential of Petroleum Exploration License (PEL) 238 and PAL 2 to determine whether a commercial gas production project is viable.

As the footprint of the proposed new wells (Bibblewindi 31 and 32) will be on the existing well sites (Bibblewindi 14 and 19H) and construction and access will be along existing access tracks, there will be no new disturbance beyond the site areas and access tracks.

PEL 238 Produced Water Management Plan (PWMP)

In accordance with Condition 14 of PEL 238, OCSG granted approval of the *Santos Narrabri Gas Field Produced Water Management Plan (PWMP)* December 2012 in March 2013. The PWMP covers produced water management activities within the Narrabri Gas Field (PEL 238, PPL3, PAL2). In October 2013 a component of the E&A Program, the reactivation of the Tintsville Pilot (utilising Tintsville Ponds), was granted approval by OCSG under Part 5 of the *EP&A Act*. Condition 4 of this approval requires the PWMP to be revised and approved by OCSG. The development of the revised PWMP should be undertaken in concurrence with the NSW Office of Water (NOW).

PEL 238 Groundwater Monitoring and Modelling Plan (GMMP)

In accordance with Condition 13 of PEL238, OCSG approved the Santos Narrabri Gas Field Groundwater Monitoring and Modelling Plan (the GMMP) in July 2013. The GMMP covers groundwater assessment activities within the Narrabri Gas Field (PEL238, PPL3, PAL2). NOW were consulted in developing the existing GMMP.

OCSG are currently in discussion with NOW on the requirement for Santos to review and update the GMMP to address the reactivation of existing pilots and new exploration activities of the wider E&A Program. The development of the revised GMMP should be undertaken in consultation with NOW and to be approved by OCSG.

Department of Trade & Investment, Regional Infrastructure & Services
 Office of Coal Seam Gas
 GPO Box 3889, Sydney NSW 2001
 Tel: 02 4931 8281 7316 Fax: 02 8281 7799
 ABN 72 189 919 072
www.trade.nsw.gov.au

Securities

The Rehabilitation Cost Estimate for this project is currently being assessed as a separate process under the *Petroleum (Onshore) Act 1991* for the PEL238 and PAL2 for the entire E&A Program. The license holder will be separately advised by OCSG of this security deposit review determination.

Post Operation and Rehabilitation

Once drilling activities are complete any surplus site area is proposed to be rehabilitated to an area of 20 x 20 meters and on completion of operations, wells and ancillary infrastructure will be either decommissioned and the site areas rehabilitated or wells may be suspended for future use (in the event exploration and appraisal activities confirm the well is commercially viable). Surface infrastructure is to be removed. Buried infrastructure including gathering systems will be flushed, capped and left in-situ in accordance with legislative requirements. Decommissioning of the wells will be in accordance with the *NSW Code of Practice for Coal Seam Gas Well Integrity 2012*.

The final land use will be consistent with the surrounding areas of State Forest. A rehabilitation strategy will be developed in conjunction with the landowner, Forestry Corporation of NSW, taking into consideration the conditions within the Permit to Occupy.

The objectives of the rehabilitation program are to:

- stabilize the site to minimise erosion;
- return the disturbed areas to a self-sustaining native forest condition, typical of adjacent forestry ecosystems;
- rehabilitate the disturbed areas to the satisfaction of the landholder (Forestry Corporation of NSW), and
- facilitate natural re-vegetation.

The EIS has cited the success of the facilitated natural revegetation approach within the Narrabri Gas Field, demonstrated by measuring the effectiveness of this method of rehabilitation for six existing sites over several years. The rehabilitation performance criteria and rehabilitation completion criteria outlined in the EIS (and for the E&A Program) have been developed based on PAL2 conditions and the conditions within the Permit to Occupy. Rehabilitation success will be assessed by establishing and assessing monitoring sites with references to the pre-disturbance vegetation characteristics. Assisted planting would be considered in the event that natural regeneration is unsuccessful.

Recommendations

Based on the EIS, the rehabilitation proposal generally satisfies the Director General's Requirements (DGRs), OCSG recommends the following:

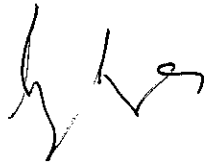
- that the Department of Planning and Infrastructure (DP&I) note that the development of the revised PWMP process is currently being undertaken in consultation with the NSW Office of Water (NOW) and will be subsequently approved by OCSG, and

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- that the DP&I note that the OCSG is reviewing the existing GMMP's adequacy to address the future groundwater monitoring and modelling requirements of the proposed CSG exploration in PEL238, PAL2 and PPL3. Where a revised GMMP is required, development of the GMMP will be undertaken in consultation with NOW and will be subsequently approved by OCSG.

Should you have any enquires regarding this matter please contact Gretel Friend, Operation Officer, Office of Coal Seam Gas on (02) 0427 9020687 or gretel.friend@industry.nsw.gov.au

Yours sincerely



GREG SUMMERHAYES
MANAGER, LICENSING & APROVALS
OFFICE OF COAL SEAM GAS

6 November 2013