

Annual Report

Petroleum Exploration Licence (PEL) 637

24 April 2014 – 2 November 2014
Licence Year 4 (Term 1)

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1 INTRODUCTION

Petroleum Exploration Licence (PEL) 637 was granted on 24 April 2014 following the division of PEL 516 into two separate licences. The licence is located in the Cooper / Eromanga Basin, South Australia. This report details the work conducted during Licence Year 4 of the licence (24 April to 2 November 2014 inclusive), in accordance with Regulation 33 of the *Petroleum and Geothermal Energy Act 2000*.

1.1 Associated Activities Licence

Associated Activities Licence (AAL) 208 was granted on 3 September 2014 and expires 2 September 2015. The licence was granted for the Wilpinnie 3D Seismic Survey.

Associated Activities Licence (AAL) 211 was granted on 9 September 2014 and expires 8 September 2015. The licence was granted for the Cooloon 3D Seismic Survey.

2 PERMIT SUMMARY

At the commencement of the licence year, the licensee for Petroleum Exploration Licence (PEL) 637 was:

- Stuart Petroleum Pty Limited 100%

During the licence year, Origin Energy farmed into PEL 637 so that at the conclusion of the licence year, licensees were:

- Stuart Petroleum Pty Limited 60%
- Origin Energy Resources Limited 40%

With the division of the original PEL 516 licence area into two separate licences, the work commitments were also divided between PEL 516 and PEL 637. As a result, the current work commitments for PEL 637 are as shown in Table 1.

Table 1 Current work commitments by licence year

Licence Year	Work Program Year	Minimum Work Program
One 20 May 2010 – 2 Nov 2011	20 May 2010 – 2 November 2011	G&G Studies
Two 3 November 2011 – 2 November 2012	3 November 2011 – 2 November 2012	Drill 2 Wells
Three 3 November 2012 – 2 November 2013	3 November 2012 – 2 May 2014	G&G Studies
Four 24 April 2014 – 2 Nov 2014	24 April 2014 – 1 November 2015	Drill 2 wells 300km 2D seismic acquisition 1,000km seismic reprocessing
Five 3 November 2014 – 2 Nov 2015	3 November 2014 – 1 May 2016	G&G Studies
Six (Extended Period) 3 November 2015 – 1 May 2016		

Licence Year four concluded on 2 November 2014. The following table displays the minimum work program (after all variations) and the actual work completed up until the end of the current licence period for both PEL 516 and PEL 637.

Table 2 Final work program and work completed (as of end of current reporting period) by licence year

Year	Minimum Work Program	Actual Work
1	G&G Studies	Met by PEL516 activities prior to grant of PEL637
2	Drill 2 Wells	Met by PEL516 activities prior to grant of PEL637 (Drilled 2 Wells: Sasanof-1 & Skipton-1)
3	G&G Studies	Met by PEL516 activities prior to grant of PEL637
4	Drill 2 wells 300km 2D seismic acquisition 1,000km seismic reprocessing	Wilpinnie 3D Seismic Survey

2.1 Licence Suspensions

A 6 month Section 76a Suspension was granted for the period 2 May 2015 – 1 November 2015. As there was no corresponding extension to the licence term, PEL 637 will expire on 1 May 2016.

3 REGULATED ACTIVITIES

Pursuant to Regulation 33(2) (a) of the Regulations, an annual report must include: “a summary of the regulated activities conducted under the licence during the [current reporting] year.”

This information is detailed below in designated sections.

3.1 Drilling and Related Activities

No regulated activities occurred during the licence period

3.2 Seismic Data Acquisition

- Wilpinnie 3D Seismic Survey
- 123km² total and 16.3 km² within PEL 637.
- Acquisition facilitated by Terrex Seismic
- 30/09/2014 – 17/10/2014

3.3 Seismic Data Processing and Reprocessing

No regulated activities occurred during the licence period

3.4 *Geochemical, Gravity, Magnetic and other surveys*

No regulated activities occurred during the licence period

3.5 *Production and Processing*

No regulated activities occurred during the licence period

3.6 *Pipeline/ Flowline Construction and Operation*

No regulated activities occurred during the licence period

3.7 *Preliminary Survey Activities*

No regulated activities occurred during the licence period

4 COMPLIANCE ISSUES

Licence and Regulatory Compliance

Pursuant to Regulations 33(2) (b) & (c), an annual report must include:

“a report for the year on compliance with the Act, these regulations, the licence and any relevant statement of environmental objectives,” and

“a statement concerning any action to rectify non-compliance with obligations imposed by the Act, these regulations or the licence, and to minimise the likelihood of recurrence of any such non-compliances.”

Detailed information on the individual instances of non-compliance are provided below in designated sections.

4.1 *Licence Non-Compliance*

No licence non-compliances identified for PEL 637.

4.2 *Regulatory Non-Compliance*

No regulatory non-compliances identified for PEL 637.

4.3 *SEO Non-Compliance*

No SEO non-compliances identified for PEL 637.

4.4 *Management System Audits*

Pursuant to Regulation 33(2) (d) under the Act, an annual report must include:

“a summary of any management system audits undertaken during the relevant licence year including information on any failure or deficiency identified by the audit and any corrective actions that has, or will be taken”.

No management system audits undertaken.

4.5 Compliance with Statement of Environmental Objectives

Geophysical activities conducted in PEL 637 have been assessed against the following Statement of Environmental Objectives:

- Statement of Environmental Objectives for Geophysical Activities in the Cooper Basin, South Australia (DSD. 2014).

Table 3 SEO for Geophysical Activities, Cooper Basin, SA (DSD. 2014)

Objective / Goals	Assessment Criteria	Compliant/ Non-Compliant	Comments
1.0 Minimise the visual impact of activities.	<p><u>Campsite and survey line preparation</u></p> <p>Proposed survey lines and campsites have been appropriately located and prepared to minimise the visual impact.</p> <p>The attainment of 0, +1 or +2 GAS criteria for 'visual impact' objective listed in Appendix A.</p>		
2.0 Minimise disturbance and avoid contamination to soil.	<p><u>Campsite and survey line preparation</u></p> <p>Attainment of 0, +1 or +2 GAS criteria for 'disturbance to land surface' objective, as listed in Appendix A.</p> <p>Proposed survey lines and campsites have been appropriately located and prepared to minimise the disturbance to soil resources.</p> <p><u>Fuel and Chemical Storage and Management</u></p> <p>No re-fuelling occurs outside designated refuelling/service areas.</p> <p>Spills or leaks are immediately reported and clean up actions initiated. Records of spill events and corrective actions are maintained in accordance with company procedures.</p> <p>Appropriate spill response</p>	Compliant / Achieved	<p>The main sources of disturbance to soils are survey line preparation, vehicle traffic along tracks and restoration activity.</p> <p>The impacts associated with soil disturbance can potentially include wind and water erosion and dust generation.</p> <p>All fuel stored and used should be under the control of qualified or trained personnel.</p>

Objective / Goals	Assessment Criteria	Compliant/ Non-Compliant	Comments
	<p>equipment is available on site.</p> <p>Fuel storage appropriately contained (e.g. double skin tanker with safety valves) or bunded.</p> <p>Appropriate containment bunding for site drum storage protection is implemented.</p>		
<p>3.0 Minimise disturbance to native vegetation and fauna.</p>	<p><u>Campsite and Survey Line Preparation</u></p> <p>0, +1 or +2 GAS criteria attained for goals related to this objective as listed in Appendix A.</p> <p>No mature trees are removed.</p> <p>Existing tracks or old seismic lines to be used when possible to gain access into the program areas.</p> <p>Vehicle access to survey lines is to be via existing access tracks or pre-existing survey lines, except where they have rehabilitated. Other temporary access tracks may be utilised.</p> <p><u>Fuel and Chemical Storage and Management</u></p> <p>Refer to assessment criteria for Objective 2.</p> <p><u>Waste Management</u></p> <p>Refer to assessment criteria for Objective 8.</p> <p><u>Fire Danger Restrictions and Education</u></p> <p>All personnel are fully informed on the fire danger season and associated restrictions.</p>	<p>Compliant / Achieved</p>	<p>Primary risks to native fauna include clearing of habitat and obstruction of movement through prepared areas.</p> <p>Current survey line and access track preparation techniques have been shown by a number of studies to have an insignificant impact on wildlife habitat and minimal impact on vegetation. This is due to the small and confined area of impact of survey lines and the rate of recovery of most vegetation types and surface morphology.</p> <p>The aim of this objective is to also maximise the potential for vegetation regrowth.</p>

Objective / Goals	Assessment Criteria	Compliant/ Non-Compliant	Comments
	<p>Fire- fighting equipment is available on site and crews are trained in its use.</p>		<p>DENWR can advise on any aspect of fire management.</p>
<p>4.0 Avoid disturbance to sites of cultural and heritage significance.</p>	<p>Appropriately trained and experienced cultural/heritage advisers have scouted proposed survey line locations and access tracks</p> <p>Any cultural heritage sites identified have been flagged and subsequently avoided.</p> <p>The company has a mechanism in place to appropriately report and respond to any sites discovered during survey activities.</p> <p>Any sites identified have been flagged and subsequently avoided.</p> <p>The EIR details this possible procedure.</p>	<p>Compliant / Achieved</p>	<p>This aim of this objective is to ensure that any sites of cultural (Aboriginal or non-Aboriginal) heritage significance are identified and protected.</p> <p>New suspected sites located should be recorded and copies of the records submitted to the Division of Aboriginal Affairs and Reconciliation (DAAR).</p> <p>New suspected sites located should be recorded and copies of the records submitted to DAAR.</p>
<p>5.0 Minimise disturbance to livestock, pastoral infrastructure, and landholders.</p>	<p>The attainment of 0, +1 or +2 GAS criteria for 'impact on infrastructure' objective listed in Appendix A.</p> <p>No reasonable concerns raised by stakeholders are left unresolved.</p> <p>The relevant sections of the Act and Regulations have been followed and implemented and in particular in relation to landowner liaison and notification.</p>	<p>Compliant / Achieved</p>	<p>Communication and the establishment of good relations with landowners and community are fundamental to minimising disturbance as much as practicably possible.</p> <p>Organic Beef and Cattle Care properties may be affected by fuel and chemical storage, moving machinery and contaminated sites.</p> <p><i>Note: The DSD publication "Liaison guidelines for landholders and petroleum explorers in South Australia" is a recommended source for effective liaison with landowners.</i></p>

Objective / Goals	Assessment Criteria	Compliant/ Non-Compliant	Comments
			<p>Access to land is a key factor for a long-term sustainable petroleum industry. Community support is vital for the petroleum industry to access land and hence realise the resources beneath the land. It is imperative that the industry establishes and maintains good relations with the landowner/occupier particularly pastoralists and managers of parks and reserves and tourist interests.</p>
<p>6.0 Avoid the introduction or spread of pest plants, pest animals and pathogens and implement control measures as necessary.</p>	<p>Containment and control of biosecurity issues, including no new outbreak or spread of weeds, pest animals or pathogens as a result of geophysical activities.</p>	<p>Compliant / Achieved</p>	<p>A potential source of weed or pest introduction is from vehicles and equipment, or carried on footwear brought in from other regions of the State or interstate.</p> <p>The most effective technique to prevent the introduction and spreading of weed species is to ensure that vehicles and equipment are appropriately cleaned prior to entering the Cooper Basin.</p>
<p>7.0 Minimise disturbance to drainage patterns and avoid contamination of surface waters and shallow groundwater resources.</p>	<p><u>Campsite and survey line preparation</u></p> <p>Campsites and survey lines/traverses are located and constructed to avoid diversion of water flows.</p> <p>0, +1 or +2 GAS criteria are attained for 'disturbance to land surface' objective as listed in Appendix A.</p> <p>No uncontrolled flows to surface from aquifers intersected in upholes /</p>	<p>Compliant / Achieved</p>	<p>The main threats to drainage patterns, surface waters and shallow aquifers are considered to be interruption of natural flows as a result of survey line and access track preparation through watercourse channels and creek bank disturbance.</p> <p>Campsite and line preparation should aim</p>

Objective / Goals	Assessment Criteria	Compliant/ Non-Compliant	Comments
	<p>shallow boreholes.</p> <p>No impediment or unnecessary interference with natural drainage features.</p> <p><u>Fuel and Chemical Storage and Management</u></p> <p>Fuel storage appropriately contained (e.g. double skin tanker with safety valves) or bunded.</p> <p>Appropriate containment bunding for site drum storage protection is implemented.</p> <p>No spills occur outside designated refuelling/service areas.</p> <p>Appropriate spill response equipment is available on site.</p> <p>Spills and leaks are immediately reported and clean-up actions initiated promptly.</p>		<p>to minimise impacts to drainage systems, by avoiding sensitive areas and using appropriate preparation methods to avoid or minimise the development of windrows.</p> <p>Any remediation work should be undertaken immediately upon completion of all activities.</p> <p>Localised contamination may result from spills or leaks during storage and handling or vehicle movements.</p> <p>The major threat of spills is the threat to soil, vegetation and watercourses directly impacted by the spill.</p> <p>Therefore, the achievement of his objective also consequently contributes to the achievement of Objectives 2 and 3 in relation to minimising the impacts to soil and native vegetation and habitat.</p>
<p>8.0 Minimise waste generation and maximise reuse and recycling.</p>	<p>Wastes are segregated and transported to an EPA approved recycling or waste disposal facility.</p> <p>0, +1 or +2 GAS criteria are attained for 'Negligible survey markers and rubbish in situ' objective listed in Appendix A.</p> <p>Wastewater management practices conform to <i>Public Health (Wastewater) Regulations 201, SA Health On-site Wastewater Systems Code</i> or to the satisfaction of the Department for Health and Ageing.</p>	<p>Compliant / Achieved</p>	<p>Waste reduction requires continual improvements in purchasing, efficiency of use and reuse.</p> <p>Geographical isolation may limit the viability of some recycling opportunities.</p> <p>However, continual review of recycling options is conducted to ensure that emerging opportunities are evaluated and where possible</p>

Objective / Goals	Assessment Criteria	Compliant/ Non-Compliant	Comments
			<p>implemented.</p> <p>All wastewater (not from industrial processes) appropriately collected, treated and disposed so there is no adverse impact on health or the environment.</p> <p>There is to be no untreated wastewater exposed to the open environment or discharged directly into the ground.</p>
<p>9.0 Remediate and rehabilitate operational areas to agreed standards.</p>	<p><u>Campsite and survey line preparation</u></p> <p>Refer to assessment criteria for Objectives 2, 3, 7 and 8.</p> <p>0, +1 or +2 GAS criteria are attained for 'minimise the visual impact' and 'revegetation of indigenous species' as listed in Appendix A.</p>	<p>Compliant / Achieved</p>	<p>At the completion of survey activities appropriate restoration and rehabilitation activities will be carried out where required.</p> <p>Any rehabilitation plans for regulated activities will be developed in consultation with relevant stakeholders.</p>

4.6 Report and Data Submissions

Pursuant to Regulation 33(2) (e) under the Act, an annual report must include:

“a list of all report and data relevant to the operation of the Act generated by the licensee during the licence year”.

Table 4 List of report and data submissions during current licence reporting year

Description of Report/Data	Date Due	Date Submitted	Compliant / Non-Compliant
Initial Activity Notification - Wilpinnie 3D Seismic Acquisition Survey	-	7/08/2014	
Further Activity Notification Documents - Wilpinnie Seismic Program (EMP & Program Design Outline)	-	15/08/2014	
Weekly Progress Report - Wilpinnie 3D Seismic Survey	19/09/2014	19/09/2014	Compliant
Weekly Progress Report - Wilpinnie 3D Seismic Survey	26/09/2014	25/09/2014	Compliant
Weekly Progress Report - Wilpinnie 3D Seismic Survey	3/10/2014	3/10/2014	Compliant
Weekly Progress Report - Wilpinnie 3D Seismic Survey	10/10/2014	9/10/2014	Compliant
Weekly Progress Report - Wilpinnie 3D Seismic Survey	17/10/2014	17/10/2014	Compliant
Weekly Progress Report - Wilpinnie 3D Seismic Survey	24/10/2014	24/10/2014	Compliant
Wilpinnie Seismic Survey Field Tape and Support Data	15/10/2015	31/10/2014	Compliant

4.7 Incidents

Pursuant to Regulation 33(2) (f), an annual report must include:

“in relation to any incidents reported to the Minister under the Act and these Regulations during the relevant licence year –

- (i) an overall assessment and analysis of the incidents, including the identification and analysis of any trends that have emerged; and
- (ii) an overall assessment of the effectiveness of any action taken to rectify non-compliance with obligations imposed by the Act, these regulations or the licence, or to minimise the risk of recurrence of any such non-compliance”.

No reportable incidents occurred during the licence period.

4.8 Threat Prevention

Pursuant to Regulation 33(2) (g) under the Act, an annual report must include:

“a report on any reasonably foreseeable threats (other than threats previously reported on) that reasonably presents, or may present, a hazard to facilities or activities under the licence, and a report on any corrective action that has, or will be taken”.

No foreseeable threats identified.

4.9 Future Work Program

Pursuant to Regulation 33(2) (h) under the Act, an annual report must include:

“unless the relevant licence year is the last year in which the licence is to remain in force – a statement outlining operations proposed for the ensuing year”

Table 5 Future work program by licence year for term

Area of Activity	Minimum Work Program	Planned Work	Commencement Date
Drilling and related activities	Drill two wells	Drill two wells	Q3 2015
Seismic data and acquisitions	300km 2D seismic acquisition	300km 2D seismic acquisition	Q1 2015
Seismic data processing and reprocessing	1000km seismic reprocessing	1000km reprocessing of 2D seismic data	Q1 2015
Production and Processing	-	-	-
Geochemical, Gravity, Magnetics and other surveys	-	-	-
Pipeline Construction and Operation	-	-	-
Geological and Geophysical studies			

5 EXPENDITURE STATEMENT

Pursuant to Regulation 33(3) under the Act, an annual report must contain:

“An annual report must be accompanied by a statement of expenditure on regulated activities conducted under the licence for the relevant licence year, showing expenditure under each of the following headings:

- a) drilling activities;
- b) seismic activities;
- c) technical evaluation and analysis;
- d) other surveys;
- e) facility construction and modification;
- f) operating and administration expenses (not already covered under another heading)”.

Please refer to Appendix 1 for the expenditure statement for the current reporting period.