



SENEX ENERGY LIMITED

Annual Report

Licence Year 1 (Term 1)

9th November 2011 – 8th November 2012

Petroleum Exploration Licence (PEL) 514

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1. Introduction

Petroleum Exploration Licence (PEL) 514 was granted on 9th November 2011. The licence is located in the Cooper and Eromanga Basins, South Australia. This report details the work conducted during Licence Year 1 (Term 1) of the licence (9th November 2011 to 8th November 2012), in accordance with Regulation 33 of the *Petroleum and Geothermal Energy Act 2000*.

2. Permit Summary

At the commencement of licence year 1, the licensee for Petroleum Exploration Licence (PEL) 514 was Planet Cooper Basin Pty Limited. During the licence year, Stuart Petroleum Cooper Basin Oil Pty Ltd earned an interest by way of a farmin so that at the end of Year 1, licensees were:

- Planet Cooper Basin Pty Limited 50%
- Stuart Petroleum Cooper Basin Oil Pty Ltd 50%

The original work commitments associated with PEL 514 are listed in Table 1.

Table 1 Original work commitments by licence year

Licence Year	Licence Date	Minimum Work Program
1	9 Nov '11 – 8 Nov '12	Drill 1 well
2	9 Nov '12 – 8 Nov '13	Drill 4 wells 222km 2D seismic acquisition 1111km seismic reprocessing
3	9 Nov '13 – 8 Nov '14	Drill 1 well
4	9 Nov '14 – 8 Nov '15	Drill 1 well
5	9 Nov '15 – 8 Nov '16	Drill 1 well

On 27 January 2012, DMITRE approved an application to vary the PEL 514 work program to that shown in Table 2.

Licence Year 1 concluded on 8 November 2012. 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.

Table 2 Current work commitments (incl. variations) by licence year

Licence Year	Licence Date	Minimum Work Program
1	9 Nov '11 – 8 Nov '12	160 km ² of 3D Seismic Acquisition
2	9 Nov '12 – 8 Nov '13	Drill 3 wells
3	9 Nov '13 – 8 Nov '14	Drill 2 wells; 80km ² 3D Seismic Acquisition
4	9 Nov '14 – 8 Nov '15	Drill 1 well
5	9 Nov '15 – 8 Nov '16	Drill 1 well

Table3 Final work program and work completed (as of end of current reporting period) by licence year

Licence Year	Minimum Work Program	Actual Work
1	160 km ² of 3D Seismic Acquisition	158.7 km ² 3D Seismic Acquisition
2	Three wells	-
3	Two wells; 80km ² 3D Seismic Acquisition	-
4	One well	-
5	One well	-

On 19 October 2012, DMITRE advised that the amount of 3D seismic recorded in PEL 514 was sufficient to satisfy the Year 1 work commitment.

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 undertaken in the licence reporting period.

3.2 Seismic Data Acquisition

Cordillo 3D Seismic Acquisition Program was completed on 8 October 2012, covering a 158.7km² area of PEL 514.

3.3 Seismic Data Processing and Reprocessing

No regulated activities undertaken in the licence reporting period.

3.4 Geochemical, Gravity, Magnetic and other surveys

No regulated activities undertaken in the licence reporting period.

3.5 Production and Processing

No regulated activities undertaken in the licence reporting period.

3.6 Pipeline/ Flowline Construction and Operation

No regulated activities undertaken in the licence reporting period.

3.7 Preliminary Survey Activities

No regulated activities undertaken in the licence reporting 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.

Licence Non-Compliance

No licence non-compliances identified for PEL 514.

Regulatory Non-Compliance

No regulatory non-compliances identified for PEL 514.

Compliance with Statement of Environmental Objectives

Production activities conducted in PEL 514 have been assessed against the following Statement of Environmental Objectives:

- *Statement of Environmental Objectives: Cooper Basin Geophysical Operations (Santos Ltd. 2006).*

Table 4 SEO for Geophysical Operations, Cooper Basin, SA (Santos Ltd. 2006)

Objective / Goals	Assessment Criteria	Compliant/ Non-Compliant	Comments
Objective 1: To minimise the visual impact of operations.	<p><u>Campsite and survey line preparation</u> 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 3.</p>	Compliant/ Achieved	All relevant GAS scores were recorded at '0', '+1' or '+2'.
Objective 2: To minimise disturbance to and contamination of soil resources.	<p><u>Campsite and survey line preparation</u> Attainment of 0, +1 or +2 GAS criteria for 'Minimise impacts to land surface' objective, as listed in Appendix 3. Proposed survey lines and campsites have been appropriately located and prepared to minimise the disturbance to soil resources.</p> <p><u>Fuel Storage and Handling</u> No refuelling occurs outside designated refuelling/servicing areas. 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. Appropriate spill response equipment is available on site.</p>	Compliant/ Achieved	All relevant GAS scores were recorded at '0', '+1' or '+2'.

Objective / Goals	Assessment Criteria	Compliant/ Non-Compliant	Comments
<p>Objective 3: To minimise disturbance to native vegetation and fauna.</p>	<p><u>Campsite and survey line preparation</u> The attainment of either 0, +1 or +2 GAS criteria for 'Impact on native vegetation' objective listed in Appendix 3. No mature trees are removed. 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 where such use is likely to result in less environmental impact than other options. <u>Fuel and Chemical Storage and Management</u> Refer to assessment criteria for objective. <u>Fire Danger Season restrictions and education</u> All personnel are fully informed on the fire danger season and associated restrictions.</p>	<p>Compliant/ Achieved</p>	<p>All relevant GAS scores were recorded at '0', '+1' or '+2'.</p>

Objective / Goals	Assessment Criteria	Compliant/ Non-Compliant	Comments
<p>Objective 4: To avoid disturbance to sites of cultural and heritage significance.</p>	<p>The following is one possible procedure to achieve the objective. Appropriately trained and experienced cultural/ heritage advisors have scouted proposed survey line locations and access tracks.</p> <p>The operator has a mechanism in place to appropriately report and respond to any sites discovered during survey operations. Any sites identified have been flagged and subsequently avoided.</p> <p><i>Note:</i> Where a negotiated agreement or determination for heritage is in place, compliance with the negotiated agreement or determination takes precedence over the above criteria.</p>	<p>Compliant/ Achieved</p>	<p>Yandruwandha Yawarrawarrka advisors have scouted proposed survey line locations and access tracks. A full Cordillo Survey Heritage report will be conducted by the Yandruwandha Yawarrawarrka upon completion of the seismic program.</p>
<p>Objective 5: To 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 3.</p> <p>No reasonable concerns raised by stakeholders are left unresolved.</p> <p>The extent to which the relevant sections of the Petroleum Act and Regulations have been followed and implemented and in particular in relation to landowner liaison and notification.</p>	<p>Compliant/ Achieved</p>	<p>All relevant GAS scores were recorded at '0', '+1' or '+2'.</p>

Objective / Goals	Assessment Criteria	Compliant/ Non-Compliant	Comments
Objective 6: To avoid the introduction or spread of exotic species and implement control measures as necessary.	Weeds or feral animals are not introduced into, or spread, in operational areas	Compliant/ Achieved	No weeds or feral animals were introduced or spread in operational areas.
Objective 7: To minimise disturbance to drainage patterns and avoid contamination of surface waters and shallow groundwater resources.	<p><u>Campsite and survey line preparation</u> Campsites and survey lines/traverses are located and constructed to avoid diversion of water flows. The attainment of 0, +1 or +2 GAS criteria for 'disturbance to land surface' objective listed in Appendix 3. No uncontrolled flows to surface from aquifers intersected in upholes/ shallow boreholes. There is no unnecessary interference with natural drainage features.</p> <p><u>Fuel Storage and Handling</u> No spills occur outside of areas designed to contain them. Refuelling occurs at least 1km from watercourses or sensitive ecological environments (wetlands). Appropriate spill response equipment is available on site. Spills or leaks are immediately reported and clean up actions initiated promptly.</p>	Compliant/ Achieved	All relevant GAS scores were recorded at '0', '+1' or '+2'.

Objective / Goals	Assessment Criteria	Compliant/ Non-Compliant	Comments
Objective 8: To optimise waste reduction and recovery.	Wastes are segregated, burnt or transported to an Environment Protection Authority (EPA) approved waste disposal facility for recycling or burial in accordance with approved procedures. 0, +1 or +2 GAS criteria are attained for 'Negligible survey markers and rubbish in situ' objective listed in Appendix 3.	Compliant/ Achieved	All relevant GAS scores were recorded at '0', '+1' or '+2'.

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.

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 5 List of report and data submissions during current licence reporting year

Description of Report/Data	Date Due	Date Submitted	Compliant / Non-Compliant
2012 Cordillo 3D Seismic Survey – Activity Notification	-	25 January 2012	Compliant
2012 Cordillo 3D Seismic Survey – Activity Notification – REV 2	-	6 February 2012	Compliant
Weekly Reports for Field Operations - Cordillo 3D Seismic Survey	Weekly	Weekly	Compliant

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”.*

Table 6 List of incidents during current licence reporting year

Date of Incident	Activity	Incident Description	Type of Loss	Action to Rectify and Effectiveness of Action	Date Reported/ Reported to Whom
3 Aug 2012	Injury (Cordillo Downs)	IP pulled calf muscle whilst carrying cable in a hand carry section (soft ground of sand dune).	DMITRE Reportable (Restricted Work Incident)	Awareness training at Toolbox talks. Poor recognition of hazard - uneven ground.	3 Aug 2012/ HSE
5 Aug 2012	Injury (Cordillo Downs)	Whilst working on line, IP stepped onto some uneven ground, rolling his ankle.	DMITRE Reportable (Restricted Work Incident)	Awareness training at Toolbox talks. Poor recognition of hazard – uneven ground.	5 Aug 2012/ HSE
19 Aug 2012	Injury (Cordillo Downs – Terrex Seismic)	IP fell from a height of approximately 1.8m when dismounting a vibrator truck.	DMITRE Reportable (Lost Time Incident)	First aid was administered. Safework SA investigated the incident. Proper procedures were not followed, poor design and inadequate railing. Appropriate hand rail was installed, step was redesigned, guarding around compressor was installed, and safe practices and procedures were implemented.	19 Aug 2012/ HSE

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”.

Operations within PEL 514 are vulnerable to heavy rain events and major flooding of the Cooper Creek system.

A major flood in the Cooper Creek is the only foreseeable threat to seismic operations.

The progress of any flood events in the Queensland headwaters of the Cooper Creek is closely monitored by satellite surveillance to predict the time of their arrival in the area.

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 7 Future work program by licence year for term

Area of Activity	Minimum Work Program	Actual Work	Commencement Date
Drilling and related activities	Three wells	Two wells*	June 2013
Seismic data and acquisitions	-	Dundinna 3D Seismic Survey**	February 2013
Seismic data processing and reprocessing	-	Seismic Processing and Quantitative Interpretation***	December 2012
Production and Processing	-	-	-
Geochemical, Gravity, Magnetics and other surveys	-	-	-
Pipeline Construction and Operation	-	-	-
Geological and Geophysical studies	-	-	-

**Based on results of Seismic Processing and Cordillo 3D Survey.*

***Part of the PEL 90/ PEL100/ PEL 102/ PEL 110/ PEL 514 800km² Dundinna 3D Seismic Survey.*

****Part of the PEL 90, PEL 102, and PEL 514 Cooper Basin Seismic Processing and Quantitative Interpretation Project.*

Upon completion of the Dundinna Seismic Survey in 2013, it is anticipated that Senex will apply to vary the work program to swap one of the commitment wells for the 3D seismic recorded in PEL 514.

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.