
PEL 513

Cooper/Eromanga Basin

South Australia

Annual Report

Permit Year 2

11 October 2013 to 10 October 2014

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1 INTRODUCTION

Petroleum Exploration Licence 513 (“PEL 513” or “the Licence”) was granted to Drillsearch (513) Pty Limited (“Drillsearch”) on 11 October 2012.

On 10 September 2013, Drillsearch Energy Limited and Santos QNT (“Santos”) Pty Ltd formalised an agreement resulting in Santos farming into PEL 513 and earning a 60 % interest in the block (Ref: SA 2014-13).

The Licence area is located in the Cooper Basin, South Australia and is situated on the western margin of the Patchawarra trough, one of the major depocentres in the South Australian portion of the Cooper Basin.

This report details the work conducted during Licence Year 2 of the licence from 11 October 2013 to 10 October 2014, inclusive (the “Reporting Period”), in accordance with Regulation 33 of the *Petroleum and Geothermal Energy Regulations 2000* (the “Regulations”) under the *Petroleum and Geothermal Energy Act 2000* (the “Act”).

PEL 513 covers an area of approximately 1494 km² and is shown in Figure 1.

Associated Activities Licence (AAL) 207 was granted on 24 July, 2014. AAL 207 granted as an adjunct to PEL 513. The granting of the Associated Activities Licence permitted the carrying out of the 2014 Jacenza 3D seismic survey.

This report also pertains to the operations conducted during the licence year of PEL 513 in accordance with Regulation 33 of the *Petroleum and Geothermal Energy Regulations 2013*. AAL 207 was granted for a period of 12 months, with an expiry date of 23 July, 2015.

PEL 513 is due to expire on 10 October 2017.

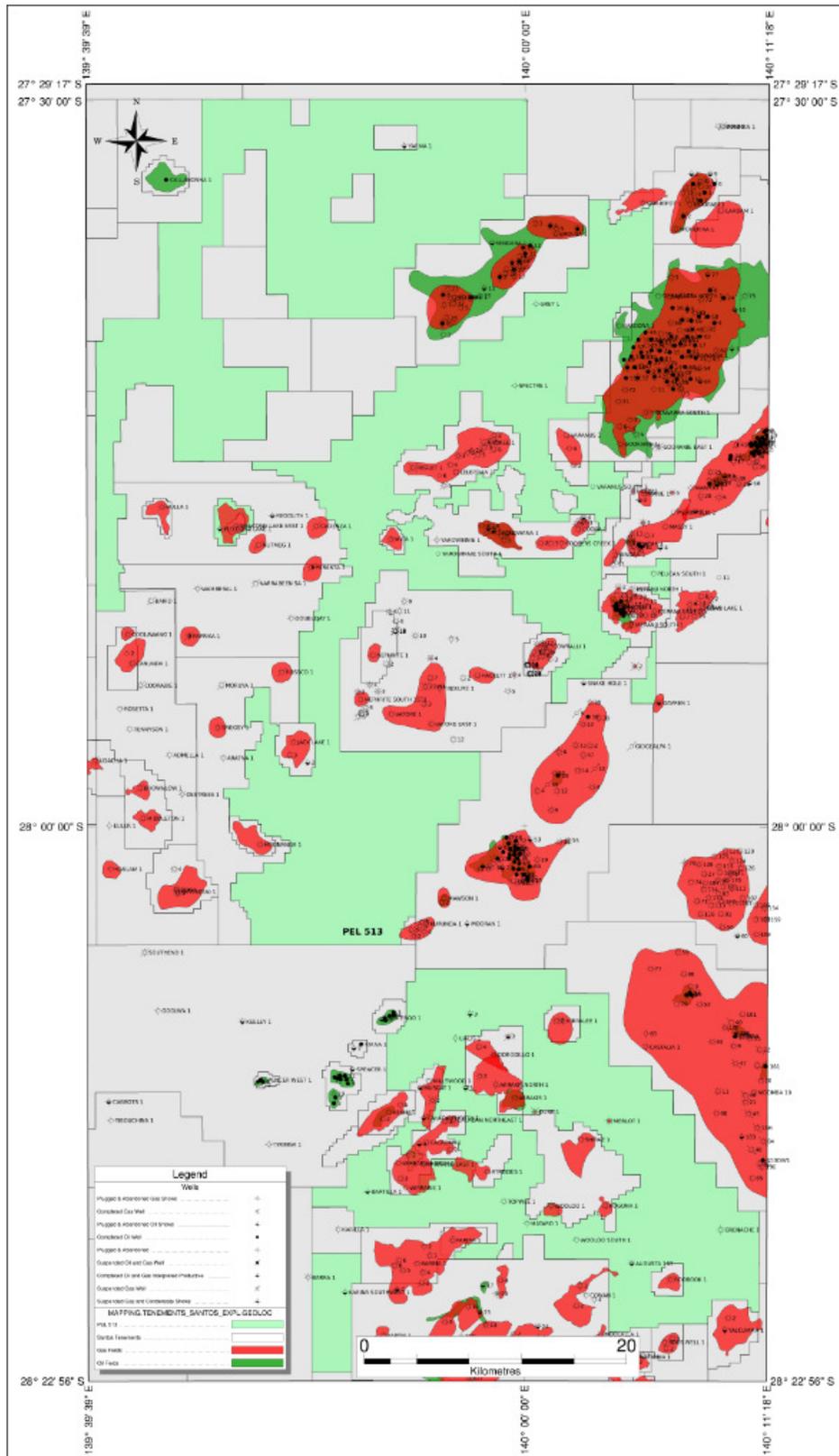


FIGURE 1 - PEL 513 MAP

2 PERMIT SUMMARY

For the duration of the licence year, licensees for Petroleum Exploration Licence (PEL) 513 were:

- *Santos QNT Pty Ltd* 60 %
- *Drillsearch (513) Pty Ltd* 40 %

Application for a suspension of the Year 2 commitments was approved on 19 June, 2014. Suspension of the year 2 work program commitments under condition 1 of Petroleum Exploration Licence (PEL) 513 is for the period from and including 11 October 2014 to 10 April 2015. Year 2 and Year 3 commitments will run concurrently from 11 October 2014 to 10 April 2015.

The current work commitments (including all variations) associated with PEL 513 can be seen in Table 1.

Table 1 Current work commitments by licence year

Licence Year	Licence dates	Minimum Work Program
Year 1	11/10/2012 – 10/10/2013	Geological and geophysical studies
Year 2	11/10/2013 – 10/10/2014	200 km ² 3D seismic acquisition Drill 3 wells (permit extension granted until April 2015)
Year 3	11/10/2014 – 10/10/2015	100 km ² 3D seismic acquisition Drill 3 wells
Year 4	11/10/2015 – 10/10/2016	300 km ² 3D seismic acquisition Drill 5 wells
Year 5	11/10/2016 - 10/10/2017	Drill 6 wells

Licence Year 2 concludes on 10 April 2015 (due to permit extension). The following table displays the minimum work program (after all variations) and the actual work completed, and the planned work program, up until the end of the current licence period.

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

Licence Year	Minimum Work Program	Completed/Planned Work Program
Year 1	Geological and geophysical studies	353 km ² 3D seismic acquisition
Year 2	200 km ² 3D seismic acquisition Drill 3 wells (permit extension granted until April 2015)	161 km ² 3D seismic acquisition Drill 3 wells- Varanus South-1, Yarowinnie South-1, Kyanite-1
Year 3	100 km ² 3D seismic acquisition Drill 3 wells	Drill 3 wells – Emerald-1, Emery-1, Moonanga South-1
Year 4	300 km ² 3D seismic acquisition Drill 5 wells	Drill 5 wells 86 km ² 3D seismic acquisition
Year 5	Drill 6 wells	Drill 6 wells

3 REGULATED ACTIVITIES

Pursuant to Regulation 33(2)(a) under the Act

3.1 DRILLING AND RELATED ACTIVITIES

No drilling took place in PEL 513 during the reporting period. However, quite a bit of preliminary work was conducted in preparation for drilling. Santos, as Operator of the permit, PEL 513, carried out preparatory work in advance of drilling the Varanus South-1 and Yarowinnie South-1 wells that will be spudded after the current Reporting Period. The three Year 2 wells are due to spud consecutively beginning 3rd November 2014.

3.2 SEISMIC DATA ACQUISITION

Jacenza 3D Seismic Survey

AAL 207 was granted on 24 July 2014 for the purpose of carrying out the 2014 Jacenza 3D seismic survey.

Inspection of the Jacenza 3D Seismic grid was conducted during the Cooper Basin Work Area Clearances which were conducted by Jan Scott and Tim Cuthbertson during 9 – 17 June 2014, on behalf of the Dieri Aboriginal Corporation.

The Jacenza 3D Seismic Survey consisted of 329.75 km² of seismic acquisition conducted by Terrex Seismic. Line clearing commenced 11 July 2014, recording commenced 27 July 2014 and acquisition was completed on 18 August 2014.

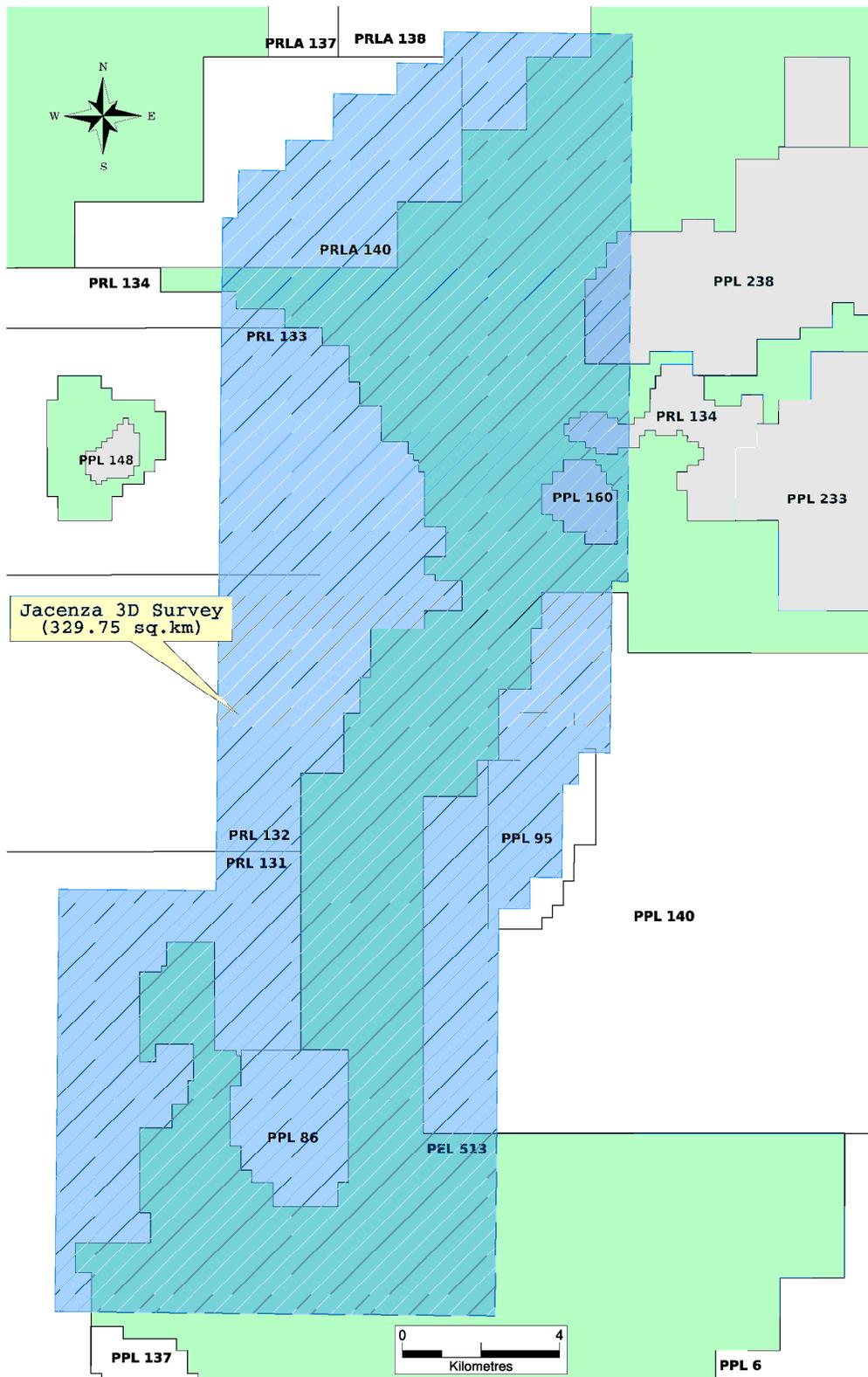


FIGURE 2 – JACENZA 3D SURVEY AREA

3.3 SEISMIC DATA PROCESSING AND REPROCESSING

Seismic data processing of the Munathiri 3D Seismic Survey (320.4 km²) was completed by Western Geco on the 7 March 2014. Final reports will be submitted to DSD, pursuant to Regulation 36 of the *Petroleum and Geothermal Energy Regulations 2013*.

Seismic data reprocessing of the Munathiri 3D Seismic Survey (320.4 km²) is currently in progress by Western Geco.

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 CONSTRUCTION AND OPERATION

No regulated activities were undertaken in the licence reporting period.

3.7 PRELIMINARY SURVEY ACTIVITIES

No regulated activities undertaken in the licence reporting period.

4 LICENCE AND REGULATORY COMPLIANCE

Pursuant to Regulations 33(2) (b) & (c)

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

4.1 LICENCE NON-COMPLIANCE

There were no instances of licence non-compliance arising from operations in PEL 513 during the Reporting Period.

4.2 REGULATORY NON-COMPLIANCE

One regulatory non-compliance was identified for PEL 513. Further details are contained in Table 3.

Table 3 List of regulatory non-compliances for current reporting year

No.	Date	Activity	Details of Non-Compliance	Rectification of Non-Compliance
1	25/02/14	Annual Report	Annual Report was not submitted by the due date.	Compliance tracking system in place to maintain key dates

4.3 COMPLIANCE WITH STATEMENT OF ENVIRONMENTAL OBJECTIVES

4.3.1 DRILLING

No drilling took place in PEL 513 during the Reporting Year.

4.3.2 SEISMIC

Seismic operations were conducted in accordance with Santos' South Australia Cooper Basin & Arid Regions, Statement of Environmental Objectives: Geophysical Operations (July 2012).

Table 4 South Australia Cooper Basin & Arid Regions, Statement of Environmental Objectives: Geophysical Operations (July 2012).

Objective	Assessment Criteria	Compliant/Non-Compliant (inc. Compliance statement)	Comments
Objective 1: Minimise the visual impact of operations	Campsite and survey line preparation <ul style="list-style-type: none"> Proposed survey lines and campsites have been appropriately located and prepared to minimise the visual impact. The attainment of 0, +1 or +2 GAS criteria for 'visual impact' objective listed in Appendix 3. 	Compliant / Achieved	All relevant GAS scores were recorded at '0', '+1' or '+2'.
Objective 2: Minimise disturbance to and contamination of soil resources	Campsite and survey line preparation <ul style="list-style-type: none"> 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. 	Compliant / Achieved	All relevant GAS scores were recorded at '0', '+1' or '+2'. Existing campsite utilised to prevent any new disturbance.
Objective 2: Minimise disturbance to and contamination of soil resources (cont)	Fuel and Chemical Storage and Management <ul style="list-style-type: none"> 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. Fuel storage (>10, 000L) contained within double skin tanker with safety valves. Appropriate containment bunding for site drum storage (up to 200L) protection is implemented 	Compliant / Achieved	Refuelling occurred in designated areas. No spills occurred. Spill response equipment on site and clearly marked and accessible. Bulk fuel storage is purpose built double skinned tanks with safety valves. All drums stored on appropriate capacity bunding.
Objective 3: Minimise disturbance to native vegetation and fauna	Campsite and survey line preparation <ul style="list-style-type: none"> The attainment of 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 	Compliant / Achieved	All relevant GAS scores were recorded at '0', '+1' or '+2'. No tree's removed. Good network of existing tracks / roads. No new tracks required. Campsite utilised an existing pad. No new ground disturbance.

	<p>other options.</p> <p>Fuel and Chemical Storage and Management Refer to assessment criteria for Objective 2.</p> <p>Fire Danger Season restrictions & education</p> <ul style="list-style-type: none"> • All personnel are fully informed on the fire danger season and associated restrictions. 		<p>Campsite utilised an existing pad. No new ground disturbance.</p> <p>Survey conducted outside Fire Danger Season.</p>
<p>Objective 4: Avoid disturbance to sites of cultural and heritage significance</p>	<ul style="list-style-type: none"> • Appropriately trained and experienced cultural heritage advisers have scouted proposed survey line locations and access tracks. • Any sites identified have been flagged and subsequently avoided. • Santos has a mechanism in place to appropriately report and respond to any sites discovered during survey operations. 	Compliant / Achieved	<p>Work area clearance conducted by Dieri representatives prior to survey commencement.</p> <p>Santos CH supervisor visited site regularly during line preparation phase.</p> <p>Additional site identified during works reported as required.</p>
<p>Objective 5: Minimise disturbance to livestock, pastoral infrastructure and landholders</p>	<ul style="list-style-type: none"> • The attainment of 0, +1 or +2 GAS criteria for 'Impact on infrastructure' objective listed in Appendix 3. • No reasonable concerns raised by stakeholders are left unresolved. • The relevant sections of the Act and Regulations have been followed and implemented and in particular in relation to landowner liaison and notification. 	Compliant / Achieved	<p>All relevant GAS scores were recorded at '0', '+1' or '+2'.</p> <p>No stakeholder concerns reported.</p> <p>All regulatory requirements and timeframes adhered to.</p>
<p>Objective 6: Avoid the introduction or spread of exotic species and implement control measures as necessary</p>	<ul style="list-style-type: none"> • Weeds or feral animals are not introduced into, or spread, in operational areas 	Compliant / Achieved	<p>Crew came from within the Cooper Basin. No washdown requirements as a result.</p> <p>No known weeds in survey area.</p>
<p>Objective 7: Minimise disturbance to drainage patterns and avoid contamination of surface waters and shallow groundwater resources</p>	<p>Campsite and survey line preparation</p> <ul style="list-style-type: none"> • 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. 	Compliant / Achieved	<p>All relevant GAS scores were recorded at '0', '+1' or '+2'.</p> <p>No drilling occurred.</p> <p>No interference with drainage features.</p>
<p>Objective 7: Minimise disturbance to drainage patterns and avoid contamination of surface</p>	<p>Fuel Storage and Handling</p> <ul style="list-style-type: none"> • Fuel storage contained within double skin tanker with safety valves. 	Compliant / Achieved	<p>Refuelling occurred in designated areas.</p>

waters and shallow groundwater resources	<ul style="list-style-type: none"> • Appropriate containment bunding for site drum storage protection is implemented. • No spills occur outside designated refuelling/servicing areas. • 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>No spills occurred.</p> <p>Spill response equipment on site and clearly marked and accessible.</p> <p>Bulk fuel storage is purpose built double skinned tanks with safety valves.</p> <p>All drums stored on appropriate capacity bunding.</p>
Objective 8: Optimise (in order of most to least preferable) waste avoidance, reduction, reuse, recycling, treatment and disposal	<ul style="list-style-type: none"> • Wastes are segregated and transported to an Environment Protection Authority (EPA) approved waste disposal facility for recycling or burial in accordance with approved procedures. • Latrine and kitchen waste collected and transported to a designated waste disposal site. • 0, +1 or +2 GAS criteria are attained for 'Negligible survey markers and rubbish in situ' objective listed in Appendix 3. 	Compliant / Achieved	<p>All relevant GAS scores were recorded at '+2'.</p> <p>All waste segregated and transferred to Moomba Waste facility.</p> <p>Latrine and kitchen waste was stored on site temporarily and then removed by Veolia</p>
Objective 9: Remediate and rehabilitate operational areas to agreed standards	<ul style="list-style-type: none"> • Refer to assessment criteria for Objectives 2, 3, 7 and 8. • 0, +1 or +2 GAS criteria are attained for 'minimise the visual impact' and 'revegetation of indigenous species' as listed in Appendix 3. 	Compliant / Achieved	<p>All relevant GAS scores were recorded at '0', '+1' or '+2'.</p> <p>Tracks restored as required.</p> <p>Sand dunes prepared to facilitate natural rehabilitation by piling sand on dune crests/flanks and not pushing to bottom of dune.</p>

4.3.3 PRODUCTION TESTING

No production testing took place in PEL 513 during the Reporting Year.

4.4 MANAGEMENT SYSTEM AUDITS

Pursuant to Regulation 33(2) (d) under the Act

No management system audits were undertaken in the reporting period.

4.5 REPORT AND DATA SUBMISSIONS

Pursuant to Regulation 33(2) (e) under the Act

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

Description of Report/Data	Date Submitted	Compliant / Non-Compliant
Activity Notification Well Application to Drill – Yarowinnie South-1	19 June 2014	YES
Activity Notification Well Application to Drill – Varanus South-1	19 June 2014	YES
Notification of Activity – Jacenza 3D Seismic Survey	29 May 2014	YES

4.6 INCIDENTS

Pursuant to Regulation 33(2) (f)

There were no reportable incidents during the reporting period.

4.7 **THREAT PREVENTION**

Pursuant to Regulation 33(2) (g) under the Act

No threats have been identified to the proposed exploration activities for PEL 513 for the reporting period.

4.8 **FUTURE WORK PROGRAM**

Pursuant to Regulation 33(2) (h) under the Act

Licence Year	Licence Dates	Minimum Work Program	Actual (Planned) Work Program
Year 2	11/10/2013-10/10/2014	200 km ² 3D seismic acquisition Drill 3 wells (permit extension granted until April 2015)	Drill 3 new exploration wells; Varanus South 1, Yarowinnie South 1, Kyanite 1 G&G studies including seismic interpretation and prospectivity review Jacenza 3D seismic survey acquisition (329.75 km ² ; and processing
Year 3	11/10/2014-10/10/2015	100 km ² 3D seismic acquisition Drill 3 wells	Interpret the Jacenza 3D seismic survey Drill 3 new exploration wells; Emerald 1, Emery 1, Moonanga South 1 G&G studies including seismic interpretation and prospectivity review

5 EXPENDITURE STATEMENT

Pursuant to Regulation 33(3) under the Act

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

APPENDIX 1 – EXPENDITURE STATEMENT

Pursuant to Regulation 33(3) under the Act

Confidential