



**PEL 92
Cooper / Eromanga Basin
South Australia**



**Annual Report
Licence Year 3 of Term 2**

5 November 2008 to 4 November 2009

PEL 92 Annual Report Licence Year 3 Term 2

Contents

- 1 Introduction**
- 2 Licence Summary**
- 3 Exploration Activity**
 - 3.1 Drilling
 - 3.2 Seismic Data Acquisition
 - 3.3 Seismic Data Processing / Reprocessing
 - 3.4 Geochemical, Gravity, Magnetic and other Surveys
 - 3.5 Geological and Geophysical Studies
- 4 Administration**
 - 4.1 Regulatory Compliance
 - 4.2 Data Submissions
- 5 Expenditure Statement**

Appendices:

- Appendix 1 Statement of Expenditure Licence Year 3, Term 2
- Appendix 2 Annual Compliance Report

- Table A2-1 List of Licence Non-compliances for current reporting year
- Table A2-2 Compliance with the SEO for Cooper Basin Drilling Operations

Tables:

- Table 1 Original work commitments for Term 2 by Licence Year
- Table 2 Final work program and work completed as at end Permit Year 3
- Tables 3a-3h Status Summaries of Exploration Wells drilled during Licence Year 3
- Table 4 List of reports, other documents and samples submitted to PIRSA
- Table 5 List of Licence Non-compliances for current reporting year

Figures:

- Figure 1 Exploration Drilling PEL 92 during Licence Year 3, Term 2

cover photograph - Ensign 30 Rig at Perlubie South-1

1 Introduction

Petroleum Exploration Licence No. 92 is situated on the southwestern margin of the Cooper/Eromanga Basin, South Australia.

This report details the work performed by the Joint Venture during this third year of the license, in accordance with the requirements of Section 33 of the Petroleum Regulations 2002. The third year of the second term of the license covers the period 5 November 2008 to 4 November 2009.

2 Licence Summary

The working interests in PEL 92 at the end of this reporting period were:

Beach Petroleum Ltd (Operator)	75.0%
Cooper Energy Ltd	25.0%

The agreed work commitments for the second term of PEL 92 are detailed in Table 1 below:

Table 1 Original Work Commitments for Term 2 by Licence Year

Licence Year	Licence dates	Minimum Work Program
Year 1	5/11/06 - 4/11/07	Geological & Geophysical Studies, Administration
Year 2	5/11/07 - 4/11/08	100km² 3D seismic; Geological & Geophysical Studies, Administration
Year 3	5/11/08 - 4/11/09	Geological & Geophysical Studies, Administration
Year 4	5/11/09 - 4/11/10	One well; Geological & Geophysical Studies, Administration
Year 5	5/11/10 - 4/11/11	Geological & Geophysical Studies, Administration

There have been no changes in either the composition or the Operatorship of the Joint Venture since the Licence renewal was awarded.

There have been no suspensions applying to PEL 92 since the Licence renewal was awarded.

There have been no applications to vary the work program since the Licence renewal was awarded, hence the original commitments listed above also constitute the final work program.

Licence Year 3, Term 2 concluded on 4 November 2009. Table 2 below details the minimum work program required and the actual work completed up until the end of Licence Year 3.

Table 2 Final Work Program and Work Completed (as of end of current reporting period) by Licence Year

Licence Year	Minimum Work Program	Actual Work
Year 1 (05/11/06-04/11/07)	Geological and Geophysical studies	Acquisition of 277 km ² Neritus 3D seismic , drilled Callawonga-2 oil appraisal well and Sheringa-1 exploration well; drilled [Callawonga 3 and Callawonga 4 oil field development wells (PPL 220)]
Year 2 (05/11/07-04/11/08)	Acquire 100 kms 2D seismic Geological and Geophysical studies	Drilled Parsons-1 exploration well (oil discovery) and Parsons 2 appraisal well; acquisition of 195 km² Modiolus 3D seismic and 119 km Padollus 2D seismic ; reprocessed 80 km ² Neritus 3D seismic
Year 3 (05/11/08-04/11/09)	Geological and Geophysical studies	Drilled Gunyah-1, Perlubie-1, Tumby-1, Perlubie South-1, Butlers-1, Cheetima-1, Willunga-1 and Murninnie-1 exploration wells
Year 4 (05/11/09-04/11/10)	1 well Geological and Geophysical studies	
Year 5 (05/11/10-04/11/11)	Geological and Geophysical studies	

The minimum work program requirements for the full 5 year term comprise the acquisition of 100 kms of 2D seismic data, the drilling of one well (Licence Year 4) plus Geological and Geophysical Studies. By the end of the current Report Year (Year 3), the Joint Venture had acquired 472 sq kms of 3D and 119 kms of 2D seismic data, had reprocessed 80 sq km of 3D data and had drilled ten exploration wells (resulting in four discoveries) and two oil field appraisal wells.

3 Exploration Activity Year 3 of Term 2

3.1 Drilling.

Eight (8) petroleum exploration wells (Gunyah-1, Perlubie-1, Tumby-1, Perlubie South-1, Butlers-1, Cheetima-1, Willunga-1 and Murninnie-1) were drilled in PEL 92 during Year 3 of Term 2. These resulted in three (3) new oil field discoveries, - Perlubie, Perlubie South and Butlers.

The locations of the eight wells are shown on Figure 1; details of the wells are provided in Tables 3a - 3h.

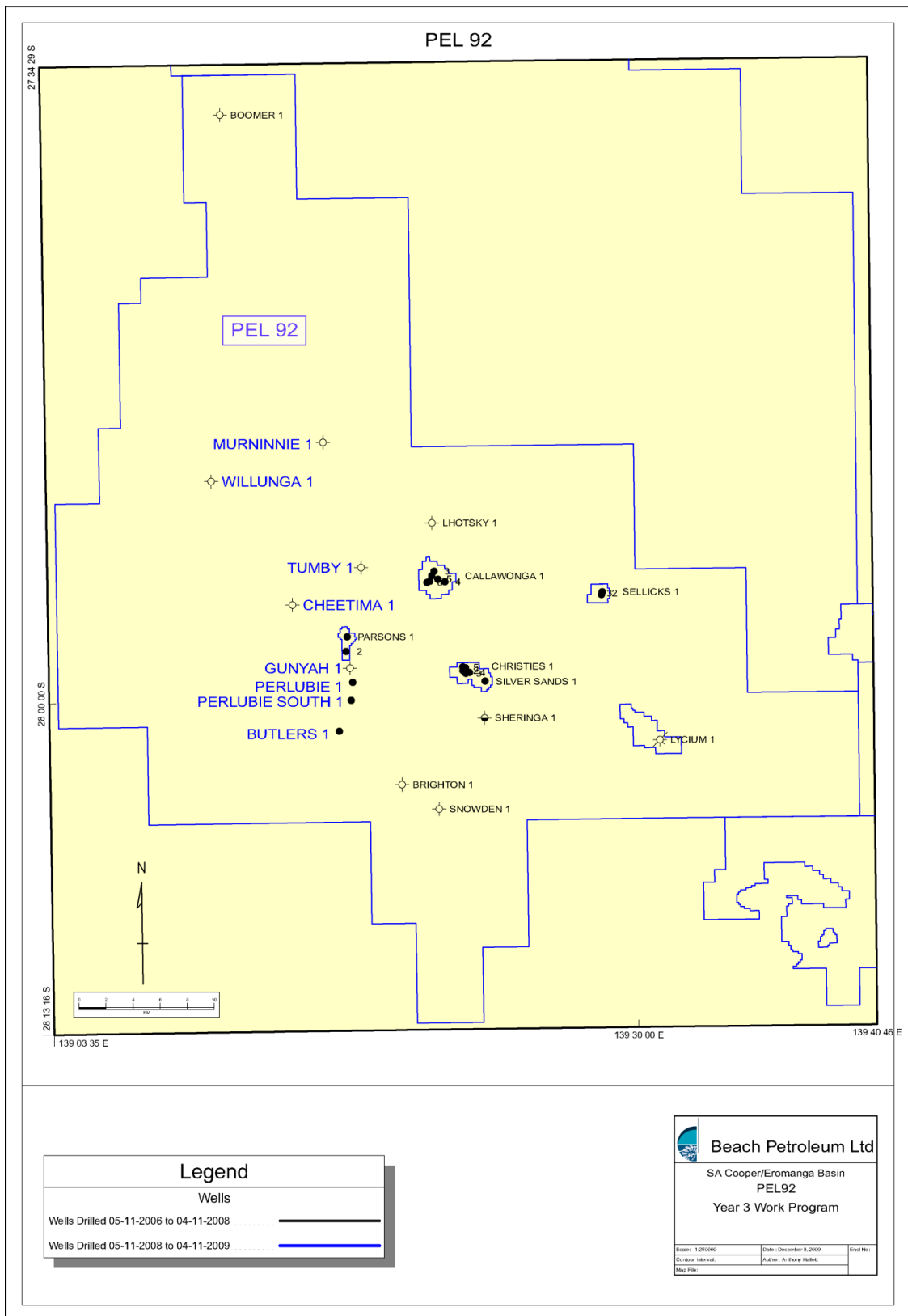


Figure 1: Exploration Drilling PEL 92 During Licence Year 3, Term 2

Tables 3a - 3h: Summary of Status of Wells Drilled During Licence Year 3

Table 3a Gunyah-1 Status Summary

Well Name	Gunyah-1
Type of well	Exploration
Contractor	Ensign International Energy Services
Date Spudded	7 January 2009
Status	Plugged and Abandoned
Evaluated hydrocarbon pay	No significant hydrocarbons were encountered in Gunyah-1
Cased/suspended date	N/A
Rig release date	17 January 2009
Rig	Ensign Rig 30
Pad construction	Earthworks commenced 6 November, 2008
Track construction	Earthworks commenced 25 October, 2008
Borrow Pit construction	A new borrow pit was excavated. Rehabilitation will be undertaken in accordance with PIRSA's guidelines
Formations Intersected	The depths at which each of the formation tops was intersected have been provided to PIRSA in the Well Completion Report, which will become 'open file' in January 2011.

Table 3b Perlubie-1 Status Summary

Well Name	Perlubie-1
Type of well	Exploration
Contractor	Ensign International Energy Services
Date Spudded	21 January 2009
Status	Cased and completed oil well
Evaluated hydrocarbon pay	Wireline logs failed to reach TD due to adverse hole conditions. As a result petrophysical analyses could not be performed over the reservoir pay interval.
Cased/suspended date	14 February 2009
Rig release date	14 February 2009
Rig	Ensign Rig 30
Pad construction	Earthworks commenced 29 December, 2008
Track construction	Earthworks commenced 29 December, 2008
Borrow Pit construction	A new borrow pit was excavated. Rehabilitation will be undertaken in accordance with PIRSA's guidelines
Formations Intersected	The depths at which each of the formation tops were intersected have been provided to PIRSA in the Well Completion Report, which will become 'open file' in February 2011.

Table 3c Tumby-1 Status Summary

Well Name	Tumby-1
Type of well	Exploration
Contractor	Ensign International Energy Services
Date Spudded	26 May 2009
Status	Plugged and Abandoned
Evaluated hydrocarbon pay	No significant hydrocarbons were encountered in Tumby-1
Cased/suspended date	N/A
Rig release date	4 June 2009
Rig	Ensign Rig 30
Pad construction	Earthworks commenced 12 May 2009
Track construction	Earthworks commenced 31 May 2009
Borrow Pit construction	A new borrow pit was excavated. Rehabilitation will be undertaken in accordance with PIRSA's guidelines
Formations Intersected	The depths at which each of the formation tops were intersected have been provided to PIRSA in the Well Completion Report, which will become 'open file' in June 2011.

Table 3d Perlubie South-1 Status Summary

Well Name	Perlubie South-1
Type of well	Exploration
Contractor	Ensign International Energy Services
Date Spudded	8 June 2009
Status	Cased and Suspended Namur Sandstone Oil Well
Evaluated hydrocarbon pay	3.0 metres net oil pay in the Namur Sandstone with an average porosity of 28 percent and an average hydrocarbon saturation of 70 percent
Cased/suspended date	15 June 2009
Rig release date	15 June 2009
Rig	Ensign Rig 30
Pad construction	Earthworks commenced 21 May 2009
Track construction	Earthworks commenced 21 May 2009
Borrow Pit construction	A new borrow pit was excavated. Rehabilitation will be undertaken in accordance with PIRSA's guidelines.
Formations Intersected	The depths at which each of the formation tops were intersected have been provided to PIRSA in the Well Completion Report, which will become 'open file' in June 2011.

Table 3e Butlers-1 Status Summary

Well Name	Butlers-1
Type of well	Exploration
Contractor	Ensign International Energy Services
Date Spudded	18 June 2009
Status	Cased and suspended oil well
Evaluated hydrocarbon pay	4.5 metres net oil pay in the Namur Sandstone with an average porosity of 28 percent and an average hydrocarbon saturation of 70 percent
Cased/suspended date	25 June 2009
Rig release date	25 June 2009
Rig	Ensign Rig 30
Pad construction	Earthworks commenced 1 June 2009
Track construction	Earthworks commenced 1 June 2009
Borrow Pit construction	A new borrow pit was excavated. Rehabilitation will be undertaken in accordance with PIRSA's guidelines
Formations Intersected	The depths at which each of the formation tops were intersected will be provided to PIRSA in the Well Completion Report, which will become 'open file' in June 2011.

Table 3f Cheetima-1 Status Summary

Well Name	Cheetima-1
Type of well	Exploration
Contractor	Ensign International Energy Services
Date Spudded	1 July 2009
Status	Plugged and abandoned
Evaluated hydrocarbon pay	No significant hydrocarbons were encountered in Cheetima-1
Cased/suspended date	N/A
Rig release date	8 July 2009
Rig	Ensign Rig 30
Pad construction	Earthworks commenced 17 June 2009
Track construction	Earthworks commenced 17 June 2009
Borrow Pit construction	A new borrow pit was excavated. Rehabilitation will be undertaken in accordance with PIRSA's guidelines
Formations Intersected	The depths at which each of the formation tops were intersected will be provided to PIRSA in the Well Completion Report, which will become 'open file' in July 2011.

Table 3g Willunga-1 Status Summary

Well Name	Willunga-1
Type of well	Exploration
Contractor	Ensign International Energy Services
Date Spudded	12 July 2009
Status	Plugged and abandoned
Evaluated hydrocarbon pay	No significant hydrocarbons were encountered in Willunga-1
Cased/suspended date	N/A
Rig release date	19 July 2009
Rig	Ensign Rig 30
Pad construction	Earthworks commenced 23 June 2009
Track construction	Earthworks commenced 23 June 2009
Borrow Pit construction	A new borrow pit was excavated. Rehabilitation will be undertaken in accordance with PIRSA's guidelines
Formations Intersected	The depths at which each of the formation tops were intersected will be provided to PIRSA in the Well Completion Report, which will become 'open file' in July 2011.

Table 3h Murninnie-1 Status Summary

Well Name	Murninnie-1
Type of well	Exploration
Contractor	Ensign International Energy Services
Date Spudded	24 July 2009
Status	Plugged and abandoned
Evaluated hydrocarbon pay	No significant hydrocarbons were encountered in Murninnie-1
Cased/suspended date	N/A
Rig release date	3 August 2009
Rig	Ensign Rig 30
Pad construction	Earthworks commenced 29 June 2009
Track construction	Earthworks commenced 29 June 2009
Borrow Pit construction	A new borrow pit was excavated. Rehabilitation will be undertaken in accordance with PIRSA's guidelines
Formations Intersected	The depths at which each of the formation tops were intersected will be provided to PIRSA in the Well Completion Report, which will become 'open file' in August 2011.

Perlubie-1 was perforated on 2 March, 2009. An extended production test (EPT) commenced in mid May and the well has produced over 50,000 barrels of oil and 150,000 barrels of water prior to the end of the permit year. The EPT period has been extended while acquiring production on performance testing Perlubie South as these fields are likely to be combined in one PPL application.

Perlubie South-1 was completed on 23 June, 2009 with perforations over a 1.5m Namur interval. During a two and a half hour clean-up flow the well averaged 730 bopd. A flowline has been constructed to connect the well back to Perlubie-1 and an extended production test is expected to commence in December 2009.

Butlers-1 was perforated over a 2.5m interval on 1 July 2009 and flowed at an estimated rate of 2600 bopd at a flowing wellhead pressure of 42 psi. A buried GRE flowline has been installed to connect this well back to the Parsons production facility and an extended production test is expected to commence in December 2009.

3.2 Seismic Data Acquisition

No seismic data was acquired in PEL 92 during Licence Year 3. The 210 km² Calpurnus 3D Seismic Survey and the 230 km Heliacus 2D Seismic Survey are scheduled for early (December-February) in Licence Year 4.

3.3 Seismic Data Processing/ Reprocessing

No PEL 92 seismic data was either processed or reprocessed during Licence Year 3.

3.4 Geochemical, Gravity, Magnetic and other Surveys

There were no other geological, geophysical or geochemical surveys conducted in Licence Year 3, Term 2.

3.5 Geological and Geophysical Studies.

Geophysical studies during the third year of the second Licence Term focused on the interpretation of the Modiolus 3D, Neritus 3D (reprocessed) and Padollus 2D seismic surveys. Geotechnical and Engineering studies were centred on the planning, monitoring, assessing and reporting for the eight exploration wells that were drilled during the course of the year and on planning for the 210 km² of the Calpurnus 3D and 230 km Heliacus 2D seismic surveys that will be acquired in PEL 92 during the early part of Licence Year 4.

4 Administration

4.1 Regulatory Compliance

A Compliance Report which details the Operator's compliance with the 2000 Petroleum Act, its Regulations, the terms and conditions of the Licence, and the agreed Statements of Environmental Objectives governing field operations undertaken during the Licence Term is attached as **Appendix 2**.

There were eight instances during Year 3 of the PEL 92 Licence in which Beach failed to comply with the Regulations of the 2000 Petroleum Act. Two of the non-compliances were late submissions of documents/data; the remaining six of the non-compliances involved field operations incidents.

4.2 Data submissions.

A list of the items submitted during the report period is contained in Table 4 below:

Table 4 List of reports, other documents and samples submitted to PIRSA

Title	Date Due	Date Submitted to PIRSA	Compliant / Non-compliant
Notification of Intention to Drill Gunyah-1 (Well Proposal and Drilling Program included)	17 December 2008	12 December 2008	Compliant
Notification of Intention to Drill Perlubie-1 (Well Proposal and Drilling Program included)	31 December 2008	6 January 2009	Non-compliant (6 days late)
Annual Report for PEL 92 Year 2 Term 2	18 January 2009 (Note 2 week extension granted)	14 January 2009	Compliant
1 x CD of Modiolus & Padollus Environmental Reports	13 February 2009	16 February 2009	Non-compliant (3 days late)
Hard copy and CD copy Wireline Logs and Mudlogs for Gunyah-1	17 February 2009	9 February 2009	Compliant
Annual Report for 6 Production Licences Secondary to PEL 92	28 February 2009	26 February 2009	Compliant
Hard copy and CD copy Wireline and Mudlogs for Perlubie-1	14 March 2009	3 March 2009	Compliant
Notification of Earthworks for exploration wells Tumbly-1 (92-30), Perlubie South-1 (92-127), Butlers-1 (92-9), Cheetima-1 (92-27), Willunga-1 (92-22) and Murninnie-1 (92-40)	21 April 2009	2 April 2009	Compliant
Notification of drilling and possible completion Perlubie South-1 (well proposal included)	16 May 2009	22 April 2009	Compliant

List of reports, other documents and samples submitted to PIRSA (cont'd)			
Title	Date Due	Date Submitted to PIRSA	Compliant / Non-compliant
Notification of drilling and possible completion Tumby-1 (well proposal included)	3 May 2009	27 April 2009	Compliant
Notification of drilling and possible completion Butlers-1 (well proposal included)	29 May 2009	30 April 2009	Compliant
Drilling Program for Perlubie South-1 Exploration well	N/A	30 April 2009	Compliant
Drilling Program for Tumby-1 Exploration well	N/A	1 May 2009	Compliant
Drilling Program Butlers-1 Exploration well	N/A	29 May 2009	Compliant
Notification of drilling and possible completion Cheetima -1 (well proposal included)	10 June 2009	4 June 2009	Compliant
Notification of drilling and possible completion Willunga-1 (well proposal included)	21 June 2009	4 June 2009	Compliant
Drilling Program for Cheetima-1	N/A	19 June 2009	Compliant
Drilling Program for Willunga-1	N/A	25 June 2009	Compliant
Notification of drilling and possible completion Murninnie-1 (well proposal included)	3 July 2009	26 June 2009	Compliant
Hard copy and CD electric logs for Perlubie South-1	15 July 2009	3 July 2009	Compliant
Hard copy and CD electric logs for Butlers-1	25 July 2009	3 July 2009	Compliant
Hard copy and CD electric logs for Tumby-1	4 July 2009	3 July 2009	Compliant
Murninnie-1 Drilling Program	N/A	10 July 2009	Compliant
Gunyah-1 Well Completion Report	17 July 2009	15 July 2009	Compliant
Gunyah-1 cuttings samples (one week extension granted)	24 July 2009	24 July 2009	Compliant
Perlubie-1 cuttings samples	14 August 2009	24 July 2009	Compliant
Modiolus 3D Seismic Final Data, Final Reports and Support Data	26 July 2009	24 July 2009	Compliant
Tumby-1 cuttings samples	4 December 2009	8 August 2009	Compliant

List of reports, other documents and samples submitted to PIRSA (cont'd)			
Title	Date Due	Date Submitted to PIRSA	Compliant / Non-compliant
Perlubie South-1 cuttings samples	15 December 2009	8 August 2009	Compliant
Cheetima-1 Well Logs hard copies	8 August 2009	27 July 2009	Compliant
Willunga-1 Well Logs - hard copies	19 August 2009	27 July 2009	Compliant
Padollus 2D Seismic Field Data, Final Reports and Support Data	31 July 2009	31 July 2009	Compliant
Padollus 2D Seismic Processed Data	31 July 2009 (part of the above submission - additional time requested)	5 August 2009	Compliant
Perlubie-1 Well Completion Report	14 August 2009	13 August 2009	Compliant
Murninnie-1 MWD / LWD logs	3 September 2009	21 August 2009	Compliant
Modiolus 3D Seismic Processed Data Final Stack and Final Stack Monk	26 July 2009	26 August 2009 (corrected version - original submitted December 2008)	Compliant
Tumby-1 cuttings samples	4 December 2009	8 September 2009	Compliant
Perlubie South-1 cuttings samples	15 December 2009	8 September 2009	Compliant
Quarterly Compliance Report Q3 2009 (includes PEL 92 incidents)	31 October 2009	19 October 2009	Compliant
Cheetima-1 cuttings samples	8 January 2010	22 October 2009	Compliant
Butlers-1 cuttings samples	25 December 2009	22 October 2009	Compliant
Notification Calpurnus 3D seismic survey	31 October 2009	19 October 2009	Compliant
Notification Heliacus 2D seismic survey	9 November 2009	12 November 2009 (change in program - PIRSA agreed that Beach proceed with survey after land holders waived their notification period)	Compliant

4.3 Forward Program Year 4 Term 2

The 210 km² Calpurnus 3D and 230 km Heliacus 2D seismic surveys are to be acquired during Q1 of Licence Year 4 and considerable focus will be on the acquisition, processing and interpretation of the two surveys. A further round of drilling is planned for Licence Year 4 in follow-up to the seismic acquisition. The number of wells remains to be determined at the time of this reporting.

5. Expenditure Statement

Commercial in Confidence

Appendix 2: Annual Compliance Report for PEL 92 Licence Year 3 of the Second Term

Introduction

Pursuant to Regulation 33 (2) of the 2000 Petroleum Act, Beach Petroleum, as Operator of PEL 92 in the Cooper Basin, South Australia, herewith submits its report on compliance with:

- the Petroleum Act,
- its Regulations,
- the PEL License conditions, and
- the various Statements of Environmental Objectives (SEOs) to which Beach Petroleum was committed in conducting its work commitments for Year 3 of the Licence.

Compliance Issues

The instances during Year 3 of the Second Term of the PEL 92 Licence in which Beach failed to comply with either the requirements of the Licence, the regulations of the 2000 Petroleum Act, or the objectives of the SEOs are summarised below:

Licence Non-Compliance

There were no instances during Year 3, Term 2 of the PEL 92 Licence in which Beach failed to comply with 2000 Petroleum Act or the Conditions of the Licence. Work obligations were significantly exceeded.

Regulatory Non-Compliance

There were eight instances during Year 3, Term 2 of the PEL 92 Licence in which Beach failed to comply with Regulations of the 2000 Petroleum Act.

Two of the non-compliances were late submissions of documents/data, as indicated in Table 4 above; the remaining six of the non-compliances involved field operations incidents (Table A2-1). Five incidents were related to petroleum exploration drilling operations that were undertaken within the Licence, and in each case, PIRSA was notified when the breach was realised. One incident related to excavation of the Butlers flowline, the right of way having been cleared too wide. PIRSA was notified when this breach was realised.

Table A2-1 List of Regulatory Non-compliances (Exploration Operational Activities) for current reporting year

Incident No.	Activity	Stated Commitment	Reason for Non-compliance	Rectification of Non-Compliance
1.	<i>Perlubie South-1drill</i>	<i>Borrow Pit and truck loading / unloading pit located too close to the access road and in dangerous position near bend in road (noted 12/08/09)</i>	<i>Work Practice</i>	<i>Discussions with Drilling Operations Manager to ensure all contractors are familiar with the Drilling Lease Prep Manual and HSE procedures</i>
2.	<i>Perlubie South-1drill</i>	<i>During a WAC for proposed flowlines, a sheet of plastic (?liner from Turkey's nest) was found left in Drill Sump. (noted 12/08/09)</i>	<i>Work Practice</i>	<i>Discussions with Drilling Operations Manager to ensure all contractors are familiar with the Drilling Lease Prep Manual and HSE procedures</i>
3.	<i>Murninnie-1drill</i>	<i>Murninnie-1 Drill sump left without free board and unfenced (noted 12/08/09)</i>	<i>Work Practice/Design</i>	<i>Discussions with Drilling Operations Manager to ensure all contractors are familiar with the Drilling Lease Prep Manual and PIRSA's Well-site Abandonment Manual</i>
4.	<i>Murninnie-1drill</i>	<i>Murninnie-1 salt lake - drilling fluids were pumped onto the salt lake (noted 12/08/09). In particular, discharge meant entering 'No Go' Zone</i>	<i>Work Practice/Design</i>	<i>Discussions with Drilling Operations Manager to ensure all contractors are familiar with the Drilling Lease Prep Manual and HSE procedures</i>
5.	<i>Murninnie-1drill</i>	<i>During a WAC for proposed flowlines, a sheet of plastic (?liner from Turkey's nest) was found left in Drill Sump (noted 12/08/09)</i>	<i>Work Practice</i>	<i>Discussions with Drilling Operations Manager to ensure all contractors are familiar with the Drilling Lease Prep Manual and PIRSA's Well-site Abandonment Manual</i>

Incident No.	Activity	Stated Commitment	Reason for Non-compliance	Rectification of Non-Compliance
6.	Butlers-1 Flowline	<i>Flowline corridor was cleared to a width of approximately 12m when it should have been 8-9m. This did not breach cultural heritage or environmental clearances, but was wider than requested by PIRSA Activity Notification</i>	<i>Communication and Supervision</i>	<i>Area was rehabilitated with the rest of the corridor. A new Construction Supervisor has been employed in the field to oversee construction operations.</i>

The first five of the above incidents were reported in Beach Energy's Compliance Report for Q3 2009. Incident 6 was reported in Beach Energy's Compliance Report for Q4 2009.

SEO Non-Compliance

Drilling

Government approvals for Beach to drill the **Gunyah-1, Perlubie-1, Tumby-1, Perlubie South-1, Butlers-1, Cheetima-1, Willunga-1 and Murninnie-1** wells were each conditional on Beach committing to achieving the objectives defined in the "Statement of Environmental Objectives for Drilling and Well Operations in the Cooper / Eromanga Basins – South Australia (SEO)".

Three of the eight wells, Perlubie-1, Perlubie South-1 and Butlers-1, intersected zones which are considered to have the potential for economic recovery of hydrocarbons and consequently have been cased and completed as producing oil wells. One of the three wells is currently on production, the other two are to be brought on stream early in Licence Year 4.

The full assessment of Beach's performance in achieving the SEO objectives cannot be completed until the three well sites have been rehabilitated. Full rehabilitation of the sites will not be accomplished until after production ceases.

Beach is satisfied, however, that it has met all of the other objectives required by the SEO for the drilling operations on these wells. **Table A2-2** (below) summarises the strategies that were employed to achieve this compliance.

Compliance with Statements of Environmental Objectives

Table A2-2 Compliance with the SEO for Cooper Basin Drilling Operations

Objective	Assessment Criteria	Compliant / Non-compliant	Comments
<p><u>Objective 1:</u> <i>Minimise the risk to public and other third parties.</i></p>	<p><u>Reasonable measures implemented to ensure no injuries or health risks to the public or to third parties.</u></p>	<p>Compliant</p>	<p>The design and operation of the wells was undertaken in accordance with Beach safety policies, standards and guidelines.</p> <p>All employees visiting or working on rigs undertook a safety induction prior to commencing work in the field and will undertake a refresher course if/when required.</p> <p>Signage was erected along each of the access roads to advise that only authorised personnel are permitted on to the respective well sites.</p> <p>Beach's Permit to Work System was in operation during drilling operations to control potentially dangerous situations.</p> <p>Accident / incident reporting systems were in place as defined in the Beach Drilling Operation Manual. Records are reviewed regularly to assess trends.</p> <p>Beach Safety Management Plans are updated and reviewed on a regular basis.</p> <p>Appropriate Personal Protective Equipment (PPE) was issued to all personnel involved in the drilling operations.</p>

TABLE A2-2 : DRILLING SEO (Continued)

Objective	Assessment Criteria	Compliant / Non-compliant	Comments
<p>Objective 1: (Continued) Minimise the risk to public and other third parties</p>			<p>The Beach emergency response system which includes; Emergency Management Manual, Site Emergency Response Plans and Emergency Management Initial response guidelines were reviewed during 2009 with documentation being updated to meet the changing roles and responsibilities in the organisation.</p> <p>Whilst no EM exercise was conducted specifically for PEL 92,the Beach EM system was tested with a formal Emergency Response Team test drill on 9 June 2009.</p> <p>Beach maintained regular contact with landholders and associated stakeholders during drilling operations.</p>

TABLE A2-2 : DRILLING SEO (Continued)

Objective	Assessment Criteria	Compliant / Non-compliant	Comments
<p>Objective 2: (Continued)</p> <p>(Minimise disturbance and avoid contamination to soil.)</p>	<p><u>Borrow pit construction and restoration</u></p> <p>0, +1 or +2 GAS criteria are attained for “Minimise Visual Impacts for constructing borrow pits” objective as listed in Appendix 3, and “Minimise visual impacts” and “Minimise impact on soil” objectives as listed in Appendix 5.</p> <p><u>Production Testing / Well Blowdowns</u></p> <ul style="list-style-type: none"> ▪ No soil contamination as a result of production testing or well blowdown operations. <p><u>Fuel and Chemical Storage and Handling</u></p> <p>No spills/leaks outside of areas designed to contain them.</p> <p>Level of hydrocarbon continually decreasing for in situ remediation of spills.</p> <p>Soils remediated to a level as determined by the SHI process.</p>		<p>Borrow pits will be rehabilitated and restored in accordance with the guidelines set down in PIRSA’s Field Guide for the Environmental Assessment of Abandoned Petroleum Wellsites in the Cooper Basin, South Australia, to attain the highest feasible GAS rating.</p> <p>Beach has initiated an in-depth review of the locations and status of its borrow pits in the Cooper-Eromanga Basin. A map showing borrow pit locations is being produced.</p> <p>Testing was undertaken at Perlubie-1, Perlubie South-1 and Butlers-1 with no spills or seepages.</p> <p>There were no spills during the drilling operations outside of areas that were designed to contain them.</p> <p>Beach’s Oil Spill Contingency Plan is included in the Emergency Response Plan.</p> <p>All fuel, oil and chemicals were stored in accordance with relevant standards.</p> <p>Refuelling was undertaken as per Drilling Contractors’ procedures.</p> <p>There were no spills during the drilling operations that required reporting or corrective action to be taken in accordance with the Beach Incident Reporting system.</p>

TABLE A2-2 : DRILLING SEO (Continued)

Objective	Assessment Criteria	Compliant / Non-compliant	Comments
<p>Objective 2: (Continued)</p> <p>(Minimise disturbance and avoid contamination to soil.)</p>	<p><u>Waste Disposal (domestic, sewage and sludges)</u></p> <p>All domestic wastes are disposed of in accordance with EPA licensing requirements.</p> <p>0, +1 or +2 GAS criteria for 'Waste material' objective is attained.</p> <p>No spills or leaks from sewage treatment process and sludge pits.</p>		<p>Wastes were managed as described in the Cooper Basin Drilling & Well Operations EIR.</p> <p>Wastes were collected, stored and transported in covered bins / containers.</p> <p>All rubbish was disposed of at a licensed waste facility .</p>
<p><u>Objective 3 :</u> Avoid the introduction or spread of pest plants and animals and implement control measures as necessary.</p>	<p>No weeds or feral animals are introduced to, or spread in operational areas as a consequence of activities.</p>	<p><i>Compliant</i></p>	<p>The Ensign 30 drilling rig and associated equipment and vehicles had been working in the Cooper Basin prior to commencing the PEL 92 drilling operations</p>

<p><u>Objective 4 :</u> <i>Minimise disturbance to drainage patterns and avoid contamination of surface waters and shallow ground water resources</i></p>	<p><u>Well Lease and Access Track Construction</u></p> <p>Well leases and access tracks are located and constructed to maintain pre-existing water flows (i.e. channel contours are maintained on floodplains and at creek crossings).</p> <p><u>Drilling Mud Sumps and Flare Pits</u></p> <p>No overflow of drill cuttings, muds and other drilling fluids from mud sumps.</p> <p>No waste material disposal to sumps and flare pits.</p> <p><u>Well Heads (Oil and Gas Systems)</u></p> <p>No leaks/spills outside of areas designed to contain them.</p>	<p><i>Compliant</i></p>	<p>None of the well sites were located in areas where flooding from local watercourses was likely to occur.</p> <p>The drill pads and access tracks were constructed and located to avoid diversion of flood waters from their natural direction of drainage in the event of local inundation.</p> <p>All drill cuttings, muds, and non toxic drill fluids were contained within designated mud sumps with adequate freeboard at the completion of operations to allow for a 1m cover of clean fill at remediation.</p>
--	--	-------------------------	---

TABLE A2-2 : DRILLING SEO (Continued)

Objective	Assessment Criteria	Compliant / Non-compliant	Comments
<p>Objective 4 : (Continued)</p> <p><i>(Minimise disturbance to drainage patterns and avoid contamination of surface waters and shallow ground water resources.)</i></p>	<p><u>Well Blowdown/Production Testing</u></p> <p>No water (surface or groundwater) contamination as a result of production testing or well blowdown operations.</p> <p><u>Fuel/Chemical Storage and Handling</u></p> <p>No leaks/spills outside of areas designed to contain them.</p>		<p>Testing was undertaken at Perlubie-1, Perlubie South-1 and Butlers-1, with no contamination of soils.</p> <p>Specific oil spill containment / cleanup materials were on site at all times.</p> <p>All storage of fuel, oil and chemicals was in accordance with relevant standards.</p> <p>Refuelling was undertaken as per Drilling Contractors' procedures.</p> <p>There were no spills during the drilling operations outside of areas designed to contain them.</p> <p>Beach's Oil Spill Contingency Plan is included in Beach's Emergency Response Plan.</p> <p>Whilst no Emergency Management exercise was conducted specifically for PEL 92, the Beach EM system was tested with an EM Team drill on 9 June, 2009.</p>

TABLE A2-2 : DRILLING SEO (Continued)

Objective	Assessment Criteria	Compliant / Non-compliant	Comments
<p><u>Objective 5 :</u> <i>Avoid disturbance to sites of cultural and heritage significance.</i></p>	<p>Proposed well sites and access tracks have been surveyed and any sites of Aboriginal and non-Aboriginal heritage identified.</p> <p>Any identified cultural and heritage sites have been avoided.</p> <p><u>Note:</u> Where a negotiated agreement or determination for heritage clearance is in place, compliance with the negotiated agreement or determination takes precedence over the above criteria.</p>	<p><i>Compliant</i></p>	<p>Beach has an agreement with the Dieri Aboriginal Corporation Native Title Claimant group which specifies the requirements for scouting proposed well sites and access tracks to identify and avoid areas of heritage value and archaeological significance.</p> <p>Joint site visits were carried out with the Native Title Claimant group. Proposed drilling locations and access routes were agreed and given heritage clearance.</p> <p>Areas of significance were recorded and marked as exclusion zones.</p>

TABLE A2-2 : DRILLING SEO (Continued)

Objective	Assessment Criteria	Compliant / Non-compliant	Comments
<p><u>Objective 6</u></p> <p>Minimise loss of aquifer pressures and avoid aquifer contamination.</p> <p>8</p>	<p><u>Drilling & Completion Activities</u></p> <p>There is no uncontrolled flow to surface (Blow- out).</p> <p>Sufficient barriers exist in casing annulus to prevent crossflow between separate aquifers or hydrocarbon reservoirs.</p> <p>Relevant Government approval obtained for abandonment of any radioactive tool left downhole.</p> <p><u>Producing, Injection, Inactive and Abandoned Wells</u></p> <p>No cross-flow behind casing between aquifers, and between aquifers and hydrocarbon reservoirs unless approved by DWLBC.</p>	<p><i>Compliant</i></p>	<p>The Drilling Programs for all eight of the wells that were drilled were designed to ensure minimal loss of reservoir and aquifer pressures and minimal contamination of freshwater aquifers.</p> <p>No radioactive tools were left in any of the well bores.</p> <p>During abandonment operations, cement plugs were installed to isolate any aquifers penetrated below surface casing (as per the outline under “Comments” in the SEO) and any zones of pressure differential to ensure no likelihood of cross-flow.</p> <p>Installed barriers meet the requirements for the abandonments of petroleum wells</p>

TABLE A2-2 : DRILLING SEO (Continued)

Objective	Assessment Criteria	Compliant / Non-compliant	Comments
<p><u>Objective 7:</u></p> <p>Minimise disturbance to native vegetation and native fauna.</p>	<p><u>Well Lease and Access Track Construction and Restoration</u></p> <ul style="list-style-type: none"> ▪ Any sites with rare, vulnerable and endangered flora and fauna have been identified and avoided. ▪ 0, +1 or +2 GAS criteria are attained for “Minimise impacts on vegetation” objective as listed in Appendix 2, during well lease and access track site selection and construction and for “Re-establish natural vegetation on abandoned well sites and access track” objective in Appendix 4. <p><u>Borrow Pits Construction and Restoration</u></p> <ul style="list-style-type: none"> ▪ 0, +1 or +2 GAS criteria are attained for “Minimise impacts on vegetation” objective as listed in Appendix 4 during borrow pit site selection and construction, and “Minimise Impact on Vegetation” objective in Appendix 5 for borrow pit restoration. <p><u>Waste Management</u></p> <ul style="list-style-type: none"> ▪ Refer to assessment criteria for Objective 11. <p><u>Fuel and Chemical Storage and Management</u></p> <ul style="list-style-type: none"> ▪ Refer to assessment criteria for Objectives 2 and 4. 	<p><i>Compliant</i></p>	<p>None of the eight wells were located in or near areas of high biological or wilderness values and hence the drilling operations presented no long term impacts to any such areas.</p> <p>National Parks and Wildlife flora/fauna databases contain no records of vulnerable or endangered species within several kilometres of each of the well sites.</p> <p>Construction of the access tracks required minimal clearance of vegetation and the routes were aligned to avoid clearing trees.</p> <p>Each of the well sites contained only sparse vegetation, and clearance was minimised. Trees that were present either on a site and adjacent to a site were not cleared. RPS Environment and Planning evaluated each of the sites prior to Beach undertaking activities</p> <p>Facilities were designed and constructed to minimise fauna entrapment.</p> <p>Borrow pits established for building the road and drill pad will be rehabilitated and restored in accordance with the guidelines set down in PIRSA’s Field Guide for the Environmental Assessment of Abandoned Petroleum Well Sites in the Cooper Basin, South Australia, to attain the highest feasible GAS rating.</p> <p>Beach is undertaking a detailed audit of the locations and status of its Borrow Pits in the Cooper Eromanga Basin.</p> <p>Beach’s Drilling Operations Manual sets out the company’s policy in relation to storage, use and disposal of hazardous material.</p> <p>At each of the well sites, wastes were managed as described in the Drilling & Well Operations EIR. Wastes were collected, stored and transported in covered bins / containers.</p> <p>All rubbish was disposed of at a licensed waste facility.</p>

TABLE A2-2 : DRILLING SEO (Continued)

Objective	Assessment Criteria	Compliant / Non-compliant	Comments
<p><u>Objective 8 :</u></p> <p>Minimise air pollution and greenhouse gas emissions.</p>	<p>Compliance with EPA requirements.</p>	<p><i>Compliant</i></p>	<p>Testing was undertaken at Perlubie-1, Perlubie South-1 and Butlers-1 with a minimal amount of gas flaring.</p>
<p><u>Objective 9:</u></p> <p>Maintain and enhance partnerships with the Cooper Basin community.</p>	<p>No unresolved reasonable complaints from the community.</p>	<p><i>Compliant</i></p>	<p>Beach maintained regular contact with landholders and associated stakeholders prior to, and while undertaking drilling operations.</p> <p>Beach sponsors local community social events including the Innamincka Races.</p> <p>Beach also provides major sponsorship to the Royal Flying Doctor Service.</p>
<p><u>Objective 10:</u></p> <p>Avoid or minimise disturbance to stakeholders and/or associated infrastructure</p>	<p>No reasonable stakeholder complaints left unresolved.</p>	<p><i>Compliant</i></p>	<p>Beach maintained regular contact with landholders and associated stakeholders prior to and while undertaking drilling operations at each of the well sites.</p> <p>The access tracks and well sites were located well away from regular tourist routes.</p> <p>Discussions will be undertaken with the landowner to determine whether he wishes to have any rehabilitation work undertaken on any of the access tracks to the wells.</p> <p>None of the well sites were located near cattle watering points and cattle were not present in significant numbers due to prevailing drought conditions.</p> <p>At the completion of the drilling operations, temporary cattle proof fencing was erected to isolate any pits or plant remaining on site. The fencing is kept in place until the pits are dry and machinery is available to fully rehabilitate the site.</p>

TABLE A2-2 : DRILLING SEO (Continued)

Objective	Assessment Criteria	Compliant / Non-compliant	Comments
<p><u>Objective 10:</u> (Continued)</p> <p>(Avoid or minimise disturbance to stakeholders and/or associated infrastructure)</p>			<p>Once production from the each of Perlubie-1, Perlubie South-1 and Butlers-1 ceases, the respective well sites will be fully rehabilitated and restored in accordance with the guidelines set down in PIRSA's Field Guide for the Environmental Assessment of Abandoned Petroleum Wellsites in the Cooper Basin, South Australia to attain the highest feasible GAS rating.</p>
<p><u>Objective 11 :</u></p> <p>Optimise waste reduction, reuse, recycling, treatment and disposal</p>	<p>With the exception of drilling fluids, drill cuttings and other fluids disposed during well clean-up, and sewage wastes, all wastes to be disposed of at an EPA licensed facility in accordance with EPA Licence conditions.</p> <p>Attainment of GAS criteria for "Site left in clean, tidy and safe condition after final clean-up" objective during well site restoration (refer Appendix 4).</p> <p>Attainment of GAS criteria for "Site left in clean, tidy and safe condition" objective during borrow pit restoration (refer Appendix 5).</p>	<p><i>Compliant</i></p>	<p>Waste was removed from the well sites in accordance with Beach's policy set out in the company's Drilling Operations Manual.</p> <p>Bins are covered to prevent access by wildlife and prevent spread of rubbish by wind.</p> <p>Non-putrescible waste material (including hazardous material) was stored safely on site for later removal to an EPA approved disposal facility.</p> <p>Beach conducts post drilling audits to ensure sites are free of waste materials.</p>

TABLE A2-2 : DRILLING SEO (Continued)

Objective	Assessment Criteria	Compliant / Non-compliant	Comments
<p><u>Objective 12 :</u></p> <p>Remediate and rehabilitate operational areas to agreed standards.</p>	<p>No unresolved reasonable stakeholder complaints.</p> <p><u>Contaminated Site Remediation</u></p> <p>Contaminated sites are remediated in accordance with criteria developed with the principles of the National Environment Protection Measure for Contaminated sites and in consultation with the EPA.</p> <p><u>Well Site and Access Track Restoration</u></p> <p>The attainment of 0, +1 or +2 GAS criteria for (refer Appendix 4):</p> <p>“minimise visual impact of abandoned well sites”</p> <p>“minimise visual impact of abandoned access tracks”</p> <p>“re-establish natural vegetation on abandoned well sites and access tracks”</p>	<p><i>Compliant</i></p>	<p>Once production from the each of Perlubie-1, Perlubie South-1 and Butlers-1 ceases, the respective well sites will be fully remediated in accordance with criteria developed with the principles of the National Environment Protection Measure for Contaminated sites and in consultation with the EPA.</p> <p>Restoration will continue when the sump pits have dried out and earthmoving machinery is available in the vicinity.</p> <p>Any contaminated sites are remediated in accordance with Beach Guidelines and Industry Standards.</p> <p>Discussions will be undertaken with the landowner to determine whether he wishes to have any rehabilitation work undertaken on any of the access tracks.</p> <p>Beach is currently completing post drill audits of each of the drill sites.</p>

TABLE A2-2 : DRILLING SEO (Continued)

Objective	Assessment Criteria	Compliant / Non-compliant	Comments
<p><u>Objective 12</u> <u>(Cont'd.)</u></p> <p><i>Remediate and rehabilitate operational areas to agreed standards.</i></p>	<p><u>Borrow Pit Restoration</u></p> <p>The attainment of 0, +1 or +2 GAS criteria (refer Appendix 5) for :</p> <p>“minimise impact on vegetation”,</p> <p>“minimise impact on soil”,</p> <p>“minimise visual impacts”</p>		<p>Borrow pits will be rehabilitated and restored using effective contouring in accordance with the guidelines set down in PIRSA’s Field Guide for the Environmental Assessment of Abandoned Petroleum Wellsites in the Cooper Basin, South Australia, to attain the highest feasible GAS rating.</p> <p>A register indicating details and status and a map showing locations of borrow pits in Beach operated areas in South Australia are being prepared.</p> <p>It has been noted while Beach was undertaking post drill audits, that in places, borrow pits have been excavated too close to existing roads; - this will be rectified for future drills.</p>

Seismic

No geophysical field based activities were undertaken in PEL 92 during Licence Year 3.

Government approvals for Beach to undertake the **Calpurnus 3D and Heliacus 2D** seismic surveys are conditional on Beach committing to the objectives defined in the “Statement of Environmental Objectives : **Geophysical Operations** - for the Cooper / Eromanga Basin – South Australia (June 2006)”.

A Cultural Heritage Survey was undertaken in October, 2009, in advance of the forthcoming seismic operations. Line clearances for the 210 km² Calpurnus 3D and the 230 km Heliacus 2D seismic surveys are scheduled to commence mid November - December 2009 (Licence Year 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 were undertaken during the licence year in relation to exploration activities on PEL 92.

Report and Data Submissions

Pursuant to Regulation 33(2) (e) under the Act, an annual report must include: “a list of all reports and data relevant to the operation of the Act generated by the licensee during the licence year”.

*A list of the reports and data generated in relation to the operations undertaken during Year 3 of the second Tem of the Licence is provided in **Table 4**.*

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”.*

There were five reportable incidents arising from the Field Operations undertaken within PEL 92 during the Licence Reporting Year. These are listed and described in Table A2-1 of this report.