

Annual Report

Petroleum Production Licences (PPLs) PPL 203, PPL 207-209, PPL 211, PPL 213-215, PPL 217-218, PPL 221, PPL 240-243, PPL 251, PPL 258, PPL 263 - 266 and PPL 268

Cooper Basin, South Australia

1 January 2021 to 31 December 2021

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1 Introduction

This Annual Report details the work conducted by Impress (Cooper Basin) Pty Ltd, a wholly owned subsidiary of Beach Energy Limited (Beach), in 23 Petroleum Production Licences (PPLs) in the South Australian Cooper Basin for the 12 months from 1 January 2021 to 31 December 2021. Please refer to section 2.1 and 2.2 for a summary of the PPLs and Associated Activities Licences (AALs) covered in this Annual Report.

This Annual Report has been prepared in accordance with the requirements of Regulation 33 of the *Petroleum and Geothermal Energy Act 2000* (the Act).

The Department for Energy and Mining (DEM) approved a request by the licence holders to amalgamate the annual reports for the PPLs into a single annual report pursuant to Regulation 33(6) of the Act.

2 Licence Summary

An Asset Sale Agreement dated 2 November 2020 between Senex Energy Limited (and its subsidiaries), Beach Energy Limited and subsidiary Impress (Cooper Basin) Pty Ltd was entered on the public register on 30 November 2020.

Approval and registration of dealings for the assignment of PPLs to Impress (Cooper Basin) Pty Ltd, was entered on the public register on 17 June 2021. The current interests in the PPLs are reflected in section 2.1 Petroleum Production Licences.

2.1 Petroleum Production Licences

PPL	Field	PPL Grant Date	PPL Holder	%
PPL 203	Acrasia	12 August 2003	Impress (Cooper Basin) Pty Ltd	100%
PPL 207	Warrior	4 November 2004	Impress (Cooper Basin) Pty Ltd Cooper Energy Ltd	70% 30%
PPL 208	Derrilyn West	12 November 2004	Impress (Cooper Basin) Pty Ltd	100%
PPL 209	Harpoono	25 May 2005	Impress (Cooper Basin) Pty Ltd	100%
PPL 211	Reg Sprigg West	2 December 2005	Impress (Cooper Basin) Pty Ltd	100%
PPL 213	Mirage	25 August 2006	Impress (Cooper Basin) Pty Ltd	100%
PPL 214	Ventura	25 August 2006	Impress (Cooper Basin) Pty Ltd	100%
PPL 215	Toparoa	24 January 2007	Impress (Cooper Basin) Pty Ltd	100%
PPL 217	Arwon – West	8 August 2007	Impress (Cooper Basin) Pty Ltd	100%
PPL 218	Arwon – East	8 August 2007	Impress (Cooper Basin) Pty Ltd	100%
PPL 221	Padulla	11 March 2009	Impress (Cooper Basin) Pty Ltd	100%
PPL 240	Snatcher	15 August 2012	Impress (Cooper Basin) Pty Ltd Springfield Oil & Gas Pty Ltd	85% 15%
PPL 241	Vintage Crop	16 August 2012	Impress (Cooper Basin) Pty Ltd	100%
PPL 242	Growler	7 March 2013	Impress (Cooper Basin) Pty Ltd Springfield Oil & Gas Pty Ltd	85% 15%

PPL 243	Mustang	13 June 2013	Impress (Cooper Basin) Pty Ltd Springfield Oil & Gas Pty Ltd	85% 15%
PPL 251	Burrunga	16 April 2014	Impress (Cooper Basin) Pty Ltd	100%
PPL 258	Spitfire	10 October 2014	Impress (Cooper Basin) Pty Ltd Springfield Oil & Gas Pty Ltd	85% 15%
PPL 263	Martlet North	4 February 2019	Impress (Cooper Basin) Pty Ltd Springfield Oil & Gas Pty Ltd	85% 15%
PPL 264	Martlet	4 February 2019	Impress (Cooper Basin) Pty Ltd Springfield Oil & Gas Pty Ltd	85% 15%
PPL 265	Marauder	4 February 2019	Impress (Cooper Basin) Pty Ltd Springfield Oil & Gas Pty Ltd	85% 15%
PPL 266	Breguet	12 September 2019	Impress (Cooper Basin) Pty Ltd Springfield Oil & Gas Pty Ltd	85% 15%
PPL 268	Vanessa	6 November 2019	Impress (Cooper Basin) Pty Ltd Acer Energy Pty Ltd	57% 43%
PPL 270	Gemba	10 September 2020	Impress (Cooper Basin) Pty Ltd	100%

2.2 Associated Activity Licences

AAL	PPL (Primary Licence)	AAL Grant Date	Purpose of AAL
AAL 147	PPL 203	15 May 2009	Acrasia produced water facilities, remained in place during the reporting period and will continue for the duration of PPL 203.
AAL 151	PPL 240	13 May 2009	Granted for the use and maintenance of a road adjunct to PEL 111, was transferred to PPL 240 in January 2015. The licence will remain in place for the duration of PPL 240.
AAL 169	PPL 240	22 December 2011	Granted for the use and maintenance of a road adjunct to PEL 111, was transferred to PPL 240 in January 2015. The licence will remain in place for the duration of PPL 240.
AAL 184	PPL 240	20 August 2012	Granted (originally adjunct to PEL 111) for the construction and operation of the Snatcher-Charo pipeline and was transferred to PPL 240 in January 2015. The licence will remain in place for the duration of PPL 240.
AAL 205	PPL 241	26 March 2014	Granted for the construction, maintenance and operation of Vintage Crop road, campsite and borrow pit facilities which remained in place during the reporting period and will continue for the duration of PPL 241.

AAL 212 & 213	PPL 242	24 October 2014	Granted for the construction, maintenance and use of the Growler Production Road. These AALs were approved to be surrendered on 16 April 2019 due to replacement AALs 267 and 268 being granted which overlapped the entire area of AALs 212 and 213.
AAL 243	PPL 240	21 February 2017	Granted for the construction, commissioning and operation of a flowline and any associated facilities or infrastructure, to connect the Charo waterflood injection infrastructure in PPL 177 to the Snatcher field in PPL 240. The licence will remain in place for the duration of PPL 240.
AAL 245	PPL 242	9 May 2017	Granted for the construction, maintenance and use of the road into the Growler oilfield (the Growler Sand Track) and will continue for the duration of PPL 242.
AAL 261	PPL 263	4 February 2019	Granted for the operation, maintenance and use of the existing Martlet North-1 access track and Martlet North-1 flowline and will continue for the duration of PPL 263.
AAL 262	PPL 265	4 February 2019	Granted for the operation and maintenance of the existing Marauder access track, Marauder-1 and Marauder-2 DW1 flowlines and will continue for the duration of PPL 265.
AAL 267 & 268	PPL 242	27 February 2019	Granted for the upgrade, maintenance and use of the existing landholder track to allow access into Senex's Growler field and will continue for the duration of PPL 242. These AALs were approved to replace AALs 212 and 213.
AAL 273	PPL 268	14 January 2020	Granted for the purpose of operating and maintaining the existing Vanessa-1 Pipeline and associate infrastructure and will continue for the duration of PPL 268. This AAL was approved to replace AAL 251, which was appended to PRL 135.
AAL 274	PPL 268	14 January 2020	Granted for the purpose of operating and maintaining the existing Vanessa access road and will continue for the duration of PPL 268. This AAL was approved to replace AAL 250, which was appended to PRL 135.
AAL 282	PPL 209	25 June 2020	Granted for the purpose of operating and maintaining the existing Harpoona access road in order to access the Harpoona Field and Facility. This will continue for the duration of PPL 209.

AAL 283	PPL 221	31 August 2020	Granted for the purpose of operating and maintaining the existing Padulla access road, side-tracks and borrow pits in order to access the Padulla Field and Facility. This will continue for the duration of PPL 221.
AAL 284	PPL 203	23 July 2020	Granted for the purpose of operating and maintaining the existing Acrasia access road in order to access the Acrasia Field and Facility. This will continue for the duration of PPL 203.
AAL 285	PPL 207	17 September 2020	Granted for the purpose of operating and maintaining the existing Worrior access road, side-tracks and borrow pits in order to access the Worrior Field and Facility. This will continue for the duration of PPL 207.
AAL 286	PPL 270	10 September 2020	Granted for the purpose of operating and maintaining the Gemba Flowline, associated facilities and the access track and will continue for the duration of PPL 270.
AAL 288	PPL 213	2 September 2020	Granted for the purpose of operating and maintaining the existing Mirage access road, side-tracks and borrow pits in order to access the Mirage Field and Facility. This will continue for the duration of PPL 213.
AAL 289	PPL 214	2 September 2020	Granted for the purpose of operating and maintaining the existing Ventura access road and borrow pits in order to access the Ventura Field and Facility. This will continue for the duration of PPL 214.
AAL 290	PPL 251	28 August 2020	Granted for the purpose of operating and maintaining the existing Burruna access road and borrow pits in order to access the Burruna Field and Facility. This will continue for the duration of PPL 251.

This report also pertains to the operations conducted during the licence year of AALs 147, 151, 169, 184, 205, 212, 213, 243, 245, 261, 262, 267, 268, 273, 274, 282, 283, 284, 285, 286, 288, 289 and 290 in accordance with Regulation 33 under the Petroleum and Geothermal Energy Act 2000.

3 Regulated Activities

Pursuant to Regulations 33(3)(a) An annual report must include -
 “a summary of the regulated activities conducted under the licence during the Year”

3.1 Drilling Activities

Summary of Wells Drilled						
Permit	Well Name	Type	Rig	Date Spudded	Rig Release Date	Status (at rig release)
PPL 242	Growler 18	Oil development	SLR 184	22 Oct 2021	11 Nov 2021	Cased and completed
PPL 258	Spitfire 9	Oil development	SLR 184	15 Nov 2021	28 Nov 2021	Cased and completed

3.2 In Wellbore Activities

Summary of Workovers Rig Activities			
Permit	Well	End Date	Details
PPL 258	Spitfire 4	29 April 2021	Rod Pump Recompletion
PPL 242	Growler 5	14 November 2021	Replace ESP Completion
PPL 242	Growler 18	21 November 2021	ESP Recompletion
PPL 258	Spitfire 9	7 December 2021	ESP Recompletion

Summary of Cased Hole Wireline Activities			
Permit	Well	Date	Details
PPL 240	Snatcher 12 DW1	November/December 2021	Acoustic Logging - Leak Detection
PPL 270	Gemba 1	December 2021	LET/MPLT

3.3 Surface Infrastructure

Summary of Facilities & Flowlines			
Permit	Field	Date Completed	Details
PPL 258	Spitfire 9	Dec 2021	Flowline Connection
PPL 242	Growler 18	Dec 2021	Flowline Connection

3.4 Monitoring and Maintenance

Summary of Monitoring & Maintenance			
Permit	Field	Date Completed	Details
PPL 203	Acrasia	Sep-Oct 2021	Well Integrity Testing / Maintenance
PPL 207	Worrior	Aug 2021	Well Integrity Testing / Maintenance
PPL 209	Harpoono	Aug 2021	Well Integrity Testing / Maintenance
PPL 217	Arwon	Aug 2021	Well Integrity Testing / Maintenance
PPL 221	Padulla	Sep 2021	Well Integrity Testing / Maintenance
PPL 268	Vanessa	Feb 2021	Well Integrity Testing / Maintenance
PPL 270	Gemba	Feb 2021	Well Integrity Testing / Maintenance

In the case of PPL 208 (Derrilyn), PPL 211 (Reg Sprigg West) and PPL 215 (Toparoa), information is to be reported by Santos (operator).

4 Compliance Issues

Pursuant to Regulations 33(3)(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.”

4.1 Licence and Regulatory Compliance

There were no instances of non-compliance with the Act or licence conditions during this reporting period.

There were four instances of non-compliance with the Regulations during the reporting period, caused by data submissions after their due date. Details of the non-compliances are included in Section 6. The Operator will apply to extend at risk submission deadlines to prevent future non-compliance of this nature.

In the case of PPL 208 (Derrilyn), PPL 211 (Reg Sprigg West) and PPL 215 (Toparoa) Licence and Regulatory Compliance is to be reported by Santos (operator).

4.2 Compliance with Statement of Environmental Objectives (SEO)

Production was carried out in fields during the reporting period in accordance with the Statement of Environmental Objectives – Cooper Basin Petroleum Production Operations (Senex Energy, September 2017) (Production SEO). An assessment of compliance with the Production SEO for production operations undertaken in the PRLs is attached as Appendix 1.

The drilling of wells was conducted in accordance with the South Australian Cooper Basin Statement of Environmental Objectives: Drilling, Completions and Well Operations (Santos, July 2021) (Drilling SEO). An assessment of compliance with the Drilling SEO for drilling operations undertaken in the PRLs is attached as Appendix 2.

5 Management System Audits

Pursuant to Regulation 33(3)(d) 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".

During the reporting period an independent internal audit of the Operations Excellence Management System was conducted. The audit identified a number of opportunities for improvement and the subsequent actions arising from the findings have been completed or are due for completion throughout 2022.

Beach continues to utilise three level of assurance and leading and lagging KPI's to assess and monitor the application of HSE systems in its operations. This includes Contractor HSE system audits undertaken prior to the commencement of activities for Beach operations, as well as undertaking emergency response exercises that covered various types of possible emergency situations related to Beach's operational activities.

In the case of PPL 208 (Derrilyn), PPL 211 (Reg Sprigg West) and PPL 215 (Toparoa), information is to be reported by Santos (operator).

6 Report and Data Submissions

Pursuant to Regulation 33(3)(i) 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".

Annual Report (Regulation 33)

Description of Report/Data	Date Due	Date Submitted	Compliant
Annual Report – Combined PPL 2020	28 February 2021	26 February 2021	Yes

Quarterly Incident Reports (Regulation 32)

Report / Data	Date Due	Date Submitted	Compliant
Q4 2020	31 January 2021	29 January 2021	Yes
Q1 2021	30 April 2021	30 April 2021	Yes
Q2 2021	31 July 2021	30 July 2021	Yes
Q3 2021	2 November 2021*	2 November 2021	Yes

*Extension granted

Quarterly Cased Hole Well Activity Report (Regulation 41)

Report / Data	Date Due	Date Submitted	Compliant
Q4 2020	31 January 2021	8 February 2021	No
Q1 2021	30 April 2021	30 April 2021	Yes
Q2 2021	31 July 2021	4 August 2021	No
Q3 2021	30 October 2021	28 October 2021	Yes

Down Hole Diagrams (Regulation 44)

Report / Data	Date Due	Date Submitted	Compliant
Spitfire 4 – Rod Pump Recompletion	29 June 2021	30 June 2021	No

Production Reports (Regulation 45)

Report / Data	Date Due	Date Submitted	Compliant
November 2020	31 January 2021	16 January 2021	Yes
December 2020	28 February 2021	23 February 2021	Yes
January 2021	31 March 2021	30 March 2021	Yes
February 2021	30 April 2021	30 April 2021	Yes
March 2021	31 May 2021	27 May 2021	Yes
April 2021	30 June 2021	30 June 2021	Yes
May 2021	31 July 2021	5 August 2021	No
June 2021	31 August 2021	26 August 2021	Yes
July 2021	30 September 2021	28 September 2021	Yes
August 2021	31 October 2021	28 October 2021	Yes
September 2021	30 November 2021	26 November 2021	Yes
October 2021	31 December 2021	24 December 2021	Yes

7 Incidents

Pursuant to Regulation 33(3)(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 no serious incidents during the reporting period within the Permits. A serious incident is defined in section 85(1) of the Act.

During the annual reporting period, there were 13 incidents reported to DEM through quarterly compliance reporting and is summarised in the table below. A reportable incident is defined in section 85(1) and regulation 32 of the Act.

In the case of PPL 208 (Derrilyn), PPL 211 (Reg Sprigg West) and PPL 215 (Toparoa), information is to be reported by Santos (operator).

Summary of Reportable Incidents

Permit	Field	Date	Incident Description	Cause	Rectification
PPL 242	Growler	22-Apr-21	Oil was discovered dripping from a small pipe on the underside of the second generator unit in the Growler Stores Yard. The generator unit is situated on a concrete slab. The oil was dripping onto the slab and then running off the edge of the slab onto the ground. Estimated volume of oil less than 500ml.	Monitoring / Maintenance	The Growler Storeman located a spare drip tray and placed it under the pipe to capture any further drips. Incident report was raised. Small leaks are continued to be monitored for trend analysis.
PPL 209	Harpoono	30-May-21	There was a wet area under the valve on the IBC and it was found that the camlock seal was not sealing and dripping into the bund. The chemical had leaked out of the bund on the south-east corner of the bund to grade. Suspected cause is the leg of the steel grate has worn through the bund floor.	Monitoring / Maintenance	The IBC was isolated and the 2" camlock seal was replaced and put back into service. Bund replaced. Not considered to be a systematic issue.
PPL 209	Harpoono	18-Jun-21	CFT conducted to confirm XSV open / close as per normal operation. When XV-004 (solenoid) tripped XV-4052 remained open. After investigation it was determined that the pneumatic three-way switch was faulty. This fault was found on both XSV.	Monitoring / Maintenance	Switches were replaced with spares and valves were tested once again. Maintenance strategy is in review
PPL 221	Padulla	21-Jun-21	As part of CFT checks at Padulla Facility, both XSVs for Padulla #2 and #3 would not close. Further investigation found the three-way pneumatic switches for each valve were faulty specifically the switching mechanism.	Monitoring / Maintenance	Corrective repairs have been completed and CFT re-performed to confirm correct operation. Engineering team are monitoring CFT performance statistics
PPL 258	Spitfire	11-Sep-21	Operator noticed crude fuel spraying to grade from the engine area and discovered that a fuel filter had split.	Work Practices	Investigation determined that the split was initiated where deformation was caused to the filter housing through the use of a filter strap to tighten the filter. The OEM recommendation is to hand tighten only. Maintenance bulletin distributed to communicate hazard to operations and maintenance personnel

PPL 242	Growler	19-Sep-21	Operator noticed crude spraying out of bleed point on fuel pump at Growler-8.	Work Practices	Operator turned off the motor and isolated fuel at fuel tank. Mechanical maintenance team have been briefed on the causal factor to raise awareness. Technical bulletin to be issued by Engineering Services to highlight and communicate the risk to operations
PPL 207	Warrior	01-Nov-21	The jet pump catcher on Warrior #4 wellhead was leaking crude, the seals had let go due to wellhead cooling down as HPS engine was being replaced. A small amount of crude, approx. 100 to 200ml had blown outside of the cellar.	Monitoring / Maintenance	Replaced jet pump catcher to prevent more loss of containment. Maintenance practices to include inspection of sealing parts (elastomers) when opening the jet pump catcher.
PPL 207	Warrior	03-Nov-21	Upon a detailed inspection of the Warrior produced water systems, multiple locations were found where the Victaulic couplings had weeped to grade or clay capped bunds and not been remediated.	Design	Plastic bunds placed under weeping joints. Options being evaluated to re-tighten the clamps to establish seal or replacement of elastomer which can handle temperature cycling.
PPL 258	Spitfire	14-Nov-21	Toolpusher had powered up HPU from Doghouse, then heard an abnormal sound coming from pipe tubs hydraulic circuit. Toolpusher hit the emergency stop to shut down the HPU. A walk around was conducted of the pipe tubs and oil was observed to leak clay capping at pipe tub #1.	Monitoring / Maintenance ; Work Practices	Contained spill and clean up area Plug and capped hydraulic line to eliminate any further spill Replaced hose and updated register Inspected and removed single pipe bin hydraulic hoses not required to be in service during next PMP
PPL 258	Spitfire	15-Nov-21	Motorman was transferring diesel from the Mogas bulk tanker to the rig diesel tank. The Leasehand (acting as spotter) observed diesel coming from 4" hose on suction side of transfer pump. Motor came down from the tanker and isolated 4" line at the bulk tanker. Initial inspection identified that the transfer hose female camlock fitting had detached from the suction side of the transfer pump, allowing diesel to syphon from Bulk tanker compartment #1. Spill area estimated at 5m diameter, all contained on lease clay capping.	Work Practices; Risk Management	Bulk transfers only to happen in daylight hours, and a mechanic to be present at all transfers. Camlock security with cable ties to be installed. Transfer pump installed onto larger 1000ltr bund and hoses secured.

PPL 240	Snatcher	29-Nov-21	The rig operations involved pressuring up on the 2-7/8" EUE completion tubing to set a down hole hydraulic anchor and then apply further pressure to blow out a ball seat on a down hole pump out plug. Pressure gauges revealed a rapid pressure reduction from 1500 psi to 0 psi an indication the ball seat had blown out which was the planned part of the operation. Upon entering the exclusion zone with all line pressure confirmed bled down, it was observed that there was a washed-out section of ground with damp soil observed below a 6 ft section of 2" high pressure line pipe. Further inspection revealed the section of 2" 15,000 psi steel high pressure line pipe had failed with a pin hole leak observed.	Monitoring / Maintenance	Investigation Ongoing.
PPL 270	Gemba	29-Nov-21	Corrosion Inhibitor Pump was not working at Gemba wellsite.	Monitoring / Maintenance	Precautionary NDT undertaken on surface piping - confirmed no material wall loss. Batteries and chemical injection system returned to service. Incident report raised and awareness provided to operations regarding criticality of corrosion inhibitor for carbon steel service.
PPL 258	Spitfire	21-Dec-21	Weep identified from threaded fitting on cross lease piping during commissioning activities at Spitfire 9.	Work Practices	Flange replaced and re-hydrotested Audit carried out of all remaining threaded flanges to ensure they are the correct profile

8 Threat Prevention

Pursuant to Regulation 33(3)(g) An annual report must include -

“a report on any reasonably foreseeable threats (other than threats previously reported on) that reasonably present, 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”.

There are no new threats to report.

In the case of PPL 208 (Derrilyn), PPL 211 (Reg Sprigg West) and PPL 215 (Toparoa), information is to be reported by Santos (operator).

9 Future Work Program

Pursuant to Regulation 33(3)(h) 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”.

Pursuant to Regulation 33(3)(j) An annual report must include -

“in the case of a production licence - an assessment of the development activities proposed to be undertaken under the licence, including the number of completion reports that are expected to occur, during the ensuing licence Year, or such longer period as the Minister may require”.

Proposed Work Programs for 2022

PPL	Field	Proposed Work Program
PPL 203	Acrasia	Site rectification activities
PPL 207	Worrior	-
PPL 208	Derrilyn West	-
PPL 209	Harpoono	-
PPL 211	Reg Sprigg West	-
PPL 213	Mirage	Well Integrity Testing / Maintenance
PPL 214	Ventura	Well Integrity Testing / Maintenance
PPL 215	Toparoa	-
PPL 217	Arwon – West	-
PPL 218	Arwon – East	-
PPL 221	Padulla	-
PPL 240	Snatcher	Snatcher North-1 Workover Well Integrity Testing / Maintenance
PPL 241	Vintage Crop	Well Integrity Testing / Maintenance

PPL 242	Growler	Growler-3, 5, 16 & 18 Workover Well Integrity Testing / Maintenance
PPL 243	Mustang	Well Integrity Testing / Maintenance
PPL 251	Burrunga	Well Integrity Testing / Maintenance
PPL 258	Spitfire	Commissioning of Spitfire-9 Spitfire-7 Workover Well Integrity Testing / Maintenance
PPL 263	Martlet North	Well Integrity Testing / Maintenance
PPL 264	Martlet	Martlet-3, 4 & 5 Completion Martlet-2 Workover Well Integrity Testing / Maintenance
PPL 265	Marauder	Well Integrity Testing / Maintenance
PPL 266	Breguet	Well Integrity Testing / Maintenance
PPL 268	Vanessa	-
PPL 270	Gemba	Liquids Evaluation Test & Multiphase Flowmeter Calibration

10 Estimated Production Forecast

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

“In the case of production licence - an estimate of the volume of petroleum likely to be produced, wasted, stored or sold under the licence during the ensuing year, or such longer period as the Minister may require”;

Production Forecast for 2022 Calendar Year

PPL	Field	Oil (kboe) / Gas* (bcf)	Water (bbl)
PPL 203	Acrasia	-	-
PPL 207	Warrior	15 kboe	3,000,000 bbl
PPL 208	Derrilyn West	-	-
PPL 209	Harpoono	0.6 kboe	600,000 bbl
PPL 211	Reg Sprigg West	-	-
PPL 213	Mirage	-	-
PPL 214	Ventura	-	-
PPL 215	Toparoa	-	-
PPL 217	Arwon – West	-	-
PPL 218	Arwon – East	-	-
PPL 221	Padulla	8 kboe	40,000 bbl

PPL 240	Snatcher	47 kboe	188,000 bbl
PPL 241	Vintage Crop	-	-
PPL 242	Growler	290 kboe	1600 bbl
PPL 243	Mustang	8.7 kboe	426,000 bbl
PPL 251	Burruna	-	-
PPL 258	Spitfire	50 kboe	450,000 bbl
PPL 263	Martlet North	14 kboe	1,400,000 bbl
PPL 264	Martlet	60 kboe	5,900,000 bbl
PPL 265	Marauder	9.6 kboe	54,000 bbl
PPL 266	Breguet	10 kboe	90,000 bbl
PPL 268	Vanessa	0	0
PPL 270	Gemba	0.407 Bcf	1221 bbl

11 Expenditure Statement

Pursuant to Regulation 33(4)

"An annual report must be accompanied by a statement of expenditure on regulated activities conducted under the licence for the relevant licence Year."

Please refer to Appendix 3 for the expenditure statement for the current reporting period.

Appendix 1

Compliance with Senex Statement of Environmental Objectives Cooper Basin Petroleum Production Operations, September 2017 – Production activities

Objective	Assessment Criteria	Compliance	Comments/Findings
1. Minimise any safety risk to Senex personnel, the public and third parties	<p>Reasonable measures implemented to ensure no injuries or health risks to the public or third parties.</p> <p>No injuries or incidents involving the public.</p> <p>No uncontrolled operations related fires.</p> <p>Emergency procedures implemented and personnel trained.</p> <p>Installations meet appropriate and relevant Standards (e.g. AS, API)</p>	Compliant	<p>Beach Energy OEMS includes periodic simulation of Emergency situations at production facilities.</p> <p>Emergency response procedures are implemented in the event of an emergency.</p> <p>No incidents of risk to public health and safety or injuries or incidents involving the public during the reporting period.</p> <p>No fires have occurred in the PRLs during the reporting period.</p>
2. Avoid or minimise disturbance to stakeholders and/or associated infrastructure	<p>Where disturbance is unavoidable or accidental, infrastructure or land use is restored to the satisfaction of the landholder/owner or as near as practicable to undisturbed condition.</p> <p>No unresolved reasonable landholder/third party complaints.</p> <p>Landholder activities not restricted or disturbed as a result of activities unless by prior arrangement</p>	Compliant	<p>Landholders notified of the construction activities and formal notification provided as required under the Petroleum and Geothermal Energy Act.</p> <p>Roads and fences are maintained where required.</p> <p>Regular liaison with landholders provides advance warning of any significant developments or activities.</p> <p>No unresolved reasonable landholder/third party complaints during the reporting period.</p>
3. Minimise disturbance and impacts to soil due to regulated activities or escape of petroleum, processed substance, chemical or fuel	<p><u>Construction Activities</u></p> <p>The extent of soil erosion is consistent or less than surrounding land.</p> <p>Any escape of petroleum, processed substance, chemical or fuel is either immediately contained and removed or assessed in accordance with NEPM guidelines and</p>	Compliant	<p><u>Construction Activities</u></p> <p>No significant erosion has been reported. Inspections undertaken following significant rainfall and remedial action undertaken where required.</p> <p>Any escape of petroleum, processed substance, chemical or fuel is either immediately contained and removed or</p>

Objective	Assessment Criteria	Compliance	Comments/Findings
	<p>remediated in accordance with relevant guidelines in a timely manner.</p> <p>No unauthorised off-road driving or creation of shortcuts.</p> <p>No subsidence is evident over pipeline trenches.</p> <p>No evidence of significant subsoil on surface (e.g. colour) on the pipeline ROW following construction.</p> <p>At pipeline dune crossings, dune profiles have been restored consistent with surrounding dune profiles.</p> <p>No production activities undertaken on salt lakes or steep tableland slopes or significant wetlands.</p> <p>No vehicle access in the PEL182 Walk In Zone (WIZ).</p> <p>Abandoned areas (e.g. borrow pits) are remediated and rehabilitated to be reasonably consistent with the surrounding area.</p> <p>0, +1 or +2 GAS criteria are attained for goals related to these criteria (see Appendix A).</p> <p>Also refer to Objective 6</p> <p><u>Fuel and Chemical Storage, Handling and Transportation</u></p> <p>No impact to soil due to an escape of petroleum, processed substance, chemical or fuel.</p> <p>Any escape of petroleum, processed substance, chemical or fuel is either immediately contained and removed or assessed in accordance with relevant guidelines in a timely manner.</p> <p>Also refer to Objective 13</p> <p><u>Oil/Condensate Spills (Pipeline/Road Transport)</u></p> <p>No trucking of oil within the CAZ during periods when watercourses are flooded and/or access roads are inundated.</p>		<p>assessed in accordance with relevant guidelines in a timely manner.</p> <p>Disturbance has been minimised where practical.</p> <p>Production activities are restricted to approved facilities and designated operational areas. All vehicle movements are restricted to the designated access roads and tracks.</p> <p>Inspections carried out during construction activities and inversion rectified where appropriate.</p> <p>No activities have been undertaken on salt lakes, steep tableland land systems or wetlands land systems.</p> <p>Where applicable, abandoned areas will be rehabilitated in accordance with Beach procedures.</p> <p>Borrow pits are constructed and rehabilitated in accordance with Beach HSE procedures in order to meet GAS criteria.</p>
		Compliant	<p><u>Fuel and Chemical Storage, Handling and Transportation</u></p> <p>Any escape of petroleum, processed substance, chemical or fuel is either immediately contained and removed or assessed in accordance with relevant guidelines in a timely manner.</p>
		Compliant	<p><u>Oil/Condensate Spills (Pipeline/Road Transport)</u></p> <p>No trucking of oil within the CAZ during the reporting period.</p>

Objective	Assessment Criteria	Compliance	Comments/Findings
	<p>No spills or leaks that affect an area that has not been specifically designed to contain such an escape.</p> <p>Level of hydrocarbon continually decreasing for in situ remediation.</p> <p>Soils remediated in consultation with DSD / EPA and to a level determined acceptable by the regulator.</p> <p><u>Produced Formation Water (PFW)</u></p> <p>No salinisation or seepage evident outside designated pond area (e.g. adjacent dune corridor).</p> <p>Water monitoring results indicate levels of Total Petroleum Hydrocarbons (TPH) below 30 mg/L in bunded holding / evaporation ponds and 10 mg/L in freeform evaporation ponds, infiltration ponds or natural disposal areas.</p> <p>No evidence of visible hydrocarbons outside of interceptor ponds (e.g. in holding ponds or outside pond walls).</p> <p>No evidence of overflow of product from interceptor pit or ponds.</p> <p>No observed impacts to local vegetation.</p> <p>Disposal of treated PFW restricted to defined areas in accordance with activity approval conditions.</p>	Compliant	<p><u>Produced Formation Water (PFW)</u></p> <p>Hydrocarbon levels in PFW at each facility are routinely monitored.</p> <p>No incidents regarding management of PFW during the reporting period.</p>
4. Minimise disturbance to native vegetation and fauna	<p><u>Construction Activities</u></p> <p>Vegetation clearing is in accordance with the <i>Native Vegetation Act 1991</i>.</p> <p>No removal of trees / vegetation of priority 1, 2 or 3 in Field Guide in areas where removal could have been avoided.</p> <p>Vegetation clearing is limited to previously disturbed areas or areas assessed to be of lowest sensitivity.</p>	Compliant	<p><u>Construction Activities</u></p> <p>Environmental assessments undertaken to identify and minimise disturbance to vegetation prior to construction.</p> <p>Where possible, areas with low vegetation density are utilised to minimise the clearing of Priority 1 or 2 vegetation.</p> <p>No removal of rare, vulnerable or endangered flora.</p> <p>Vegetation clearing minimised.</p>

Objective	Assessment Criteria	Compliance	Comments/Findings
	<p>Any sites of rare, vulnerable and endangered flora and fauna have been identified, flagged and subsequently avoided.</p> <p>No impact to rare, vulnerable or endangered flora and/or fauna, or important vegetation due to an escape of petroleum, processed substance, chemical or fuel.</p> <p>The type and density of vegetation on rehabilitated sites is consistent with the surrounding landscape, but less mature. Note: assessment will take into account that regrowth is a time and rainfall dependent process.</p> <p>No vehicle access in the PEL182 Walk In Zone (WIZ).</p> <p>0, +1 or +2 GAS criteria attained for goals related to this objective listed in (Appendix A)</p> <p><u>Borrow Pits</u></p> <p>0, +1 or +2 GAS criteria for goals related to this objective (Appendix A Table A1 to A2) or where 0, +1 or +2 GAS criteria are not attained; plans for remediation are documented and implemented in a timely manner. Note: see Objective 13 for final borrow pit rehabilitation (i.e. at relinquishment).</p> <p><u>Native Vegetation Act</u></p> <p>Significant Environmental Benefit (SEB) for native vegetation clearance approved by DSD (where delegated authority applies) or Native Vegetation Council.</p> <p>SEB obligation is ultimately satisfied / implemented</p> <p>Significant environmental benefit work undertaken in a timely manner</p> <p><u>Fauna Management</u></p> <p>Native fauna casualties associated with petroleum activities restricted to as low as reasonably practical.</p>		
		Compliant	<p><u>Borrow Pits</u></p> <p>Borrow pits are constructed and rehabilitated in accordance with Beach HSE procedures in order to meet GAS criteria.</p>
		Compliant	<p><u>Native Vegetation Act</u></p> <p>Earthworks pertaining to production activity are incorporated into Beach Energy's ongoing commitments for SEB.</p>
		Compliant	<p><u>Fauna Management</u></p> <p>Fauna ramps installed in well cellars.</p>

Objective	Assessment Criteria	Compliance	Comments/Findings
	<u>Fire Danger Season Restrictions and Education</u> All personnel are fully informed on the fire danger season and associated restrictions.	Compliant	<u>Fire Management</u> No fires associated with operational activities.
5. Avoid the Introduction or spread of pest plants, pest animals and Pathogens and Implement control measures as necessary	Weeds or feral animals are not introduced into, or spread in operational areas as a result of production activities. The presence of weeds or pathogens in operational areas is consistent with or better than adjacent land.	Compliant	No new outbreak or spread of weeds reported during the reporting period. Presence of weeds in operational areas is consistent with or better than adjacent areas.
6. Minimise disturbance to drainage patterns and Avoid contamination of surface water and shallow groundwater resources	<u>Construction Activities</u> Construction activities (e.g. access tracks or pipelines) are located and constructed to maintain pre-existing water flows (i.e. channel contours are maintained on floodplains and at creek crossings). No new water affecting activities as defined under the NRM Act undertaken unless relevant permits have been obtained. No unauthorised discharge or escape of any liquid (including wastewater, petroleum, processed substance, chemical or fuel) or solid waste to surface and/or shallow groundwater. For excavations, surface drainage profiles restored to a state that is consistent with pre-existing condition and surrounding area. No impacts to groundwater or surface water as a result of construction activities. No blockage of any creek channels within the PEL182 CAZ. No earthmoving activities to occur within the PEL182 CAZ when floodwaters pose an inundation risk to areas where earthworks are occurring or proposed to occur.	Compliant	<u>Construction Activities</u> No new production facilities constructed during the reporting period. Current operations do not significantly impact surface drainage patterns. No new 'water affecting activities' associated with current operations.

Objective	Assessment Criteria	Compliance	Comments/Findings
	<p><u>Production Activities</u></p> <p>Production facilities located to avoid areas subject to inundation as far as possible.</p> <p>Surface drainage profiles restored to state that is consistent with pre-existing condition and surrounding area.</p> <p>No unauthorised discharge or escape of any liquid (including wastewater, petroleum, processed substance, chemical or fuel) or solid wastes to surface water and/or shallow groundwater.</p> <p>No new water affecting activities as defined under the NRM Act undertaken unless relevant permits have been obtained.</p> <p>Any escape of petroleum, processed substance, chemical or fuel is either immediately contained and removed or assessed in accordance with NEPM guidelines and remediated in accordance with relevant guidelines in a timely manner.</p> <p>All creek crossings of pipelines within the PEL182 Controlled Access Zone (CAZ) are to be buried and incorporate:</p> <ul style="list-style-type: none"> • two physical mechanisms of oil spill protection; and • two systematic mechanisms of oil spill protection 	Compliant	<p><u>Production Activities</u></p> <p>Hydrocarbon levels in the disposed water at each facility are routinely monitored.</p> <p>Ground water monitoring bores installed at selected facilities and routinely monitored.</p> <p>No discharge into water ways.</p> <p>No new water affecting activities undertaken during the reporting period.</p>
	<p><u>Produced Formation Water (PFW)</u></p> <p>Refer to assessment criteria for Objective 3.</p> <p>No unlicensed discharge of water to waterways.</p> <p>No new water affecting activities as defined under the NRM Act undertaken unless relevant permits have been obtained.</p>	Compliant	<p><u>Produced Formation Water (PFW)</u></p> <p>No discharge into water ways.</p> <p>No new water affecting activities undertaken during the reporting period.</p>

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Objective	Assessment Criteria	Compliance	Comments/Findings
	<p>aquifers that may provide base flow to nearby waterholes).</p> <p><u>Waterflood Injection Wells</u></p> <p>No significant change in water quality as a result of these activities</p>		<p><u>Waterflood Activities</u></p> <p>No significant change in surface water or groundwater contamination as a result of water flood activities.</p>
8. Minimise noise due to operations	<p>Operational activities have taken reasonable practical measures to comply with noise regulations, under the <i>Environment Protection Act 1993</i> and the requirements of the Environment Protection (Noise) Policy.</p> <p>No unresolved reasonable complaints.</p>	Compliant	
9. Minimise air pollution or greenhouse Gas emissions.	<p>Reasonable practical measures implemented in design and operation to minimise emissions.</p> <p>No complaints received related to dust nuisance.</p> <p>Compliance with regulatory and legislative requirements</p>	Compliant	Atmospheric emissions are reported on a financial year basis as part of Beach's obligations under the National Greenhouse and Energy Reporting Act (NGER) and National Pollutant Inventory (NPI).
10. Avoid damage, disturbance Or interference to sites of cultural and heritage significance	<p>Work Area Clearances have been carried out for proposed construction areas and access tracks.</p> <p>Any identified cultural heritage sites have been flagged (where appropriate) and avoided.</p>	Compliant	<p>Beach has an agreement with the local Native Title Claimant group which specifies the requirements for scouting proposed well and facility sites and access tracks to identify and avoid areas of heritage value and archaeological significance.</p> <p>Site visits have been carried out with the Native Title Claimant group. Areas of significance were recorded and identified as exclusion zones.</p> <p>No impacts to culturally sensitive areas have been identified during the reporting period.</p>
11. Optimise waste avoidance, reduction, reuse, recycling, treatment and disposal	<p>Waste is segregated and transported to an Environment Protection Authority (EPA) approved waste disposal facility for recycling or disposal in accordance with approved procedures.</p> <p>No evidence of rubbish or litter on easements or at facilities.</p>	Compliant	<p>All waste materials collected, segregated and disposed of via appropriately licenced carriers and recycling and waste disposal facilities.</p> <p>Recycling systems are in operation at major facility yards and camps.</p>

Objective	Assessment Criteria	Compliance	Comments/Findings
	<p>Waste material is contained and disposed of in accordance with any EPA licensing requirements and the <i>Environment Protection Act 1993</i></p> <p><u>Sewage and Grey Water</u></p> <p>Waste water (sewage and grey water) disposed of in accordance with the <i>South Australian Public Health (Wastewater) Regulations 2013</i> or to the Department of Health's satisfaction.</p> <p>No spills or leaks from sludge treatment process and sludge pits.</p> <p><u>Land Treatment Areas for Soil Remediation</u></p> <p>No increase in contamination at any land treatment unit / designated treatment area</p>	<p>Compliant</p> <p>Compliant</p>	
12. Minimise impact of emergency situations	<p>Emergency response procedures are effectively implemented in the event of an emergency.</p> <p>Emergency response exercises are aligned with credible threats and consequences identified in the risk assessment</p>	Compliant	<p>Beach Energy OEMS includes periodic simulation of Emergency situations at production facilities.</p> <p>Emergency response procedures are implemented in the event of an emergency.</p>
13. Remediate and rehabilitate operational areas to agreed standards	<p><u>Contaminated Site Remediation</u></p> <p>Contaminated sites are remediated to a level as determined satisfactory by the regulator.</p> <p><u>Construction Site and Access Track Restoration</u></p> <p>Refer to assessment criteria for Objectives 3, 4, 6 and 11</p> <p>0, +1 or +2 GAS criteria are attained for 'minimise the visual impact' and 'revegetation of indigenous species' as listed in Appendix Table A4.</p> <p><u>Borrow Pit Restoration</u></p> <p>The attainment of 0, +1 or +2 GAS criteria for final borrow pit 'Rehabilitation' (i.e. at relinquishment) as</p>	<p>Not Applicable</p> <p>Not Applicable</p> <p>Compliant</p>	<p>No operational areas became redundant or were rehabilitated in the PRLs during the reporting period.</p> <p><u>Contaminated Site Remediation</u></p> <p>There are no known contaminated sites requiring remediation in the PRLs</p> <p><u>Borrow Pit Restoration</u></p> <p>Borrow pits are constructed and rehabilitated in accordance with Beach HSE procedures in order to meet GAS criteria.</p>

Objective	Assessment Criteria	Compliance	Comments/Findings
	<p>listed in Appendix Table A3 unless alternative agreement is reached with the regulator and stakeholders</p> <p><u>Production Facility Abandonment</u></p> <p>Surface structures are removed and the ground surface re-contoured to approximate pre-existing contours unless alternative agreement is reached with the regulator and stakeholders.</p> <p>0, +1 or +2 GAS criteria are attained for 'minimise the visual impact' and 'revegetation of indigenous species' as listed in Appendix Table A4, unless alternative agreement is reached with the regulator and stakeholders.</p> <p>Refer to criteria for contaminated site remediation under this objective (above)</p> <p>Refer to the assessment criteria for Objective 11</p> <p><u>Pipeline Abandonment</u></p> <p>Attainment of the following (unless otherwise agreed with stakeholders and approved by the regulatory authority):</p> <ul style="list-style-type: none"> No evidence of waste, redundant equipment/infrastructure or signs and markers on abandoned pipelines. Refer to criteria for contaminated site remediation under this objective (above). <p>Refer to the assessment criteria for Objective 11</p>	<p>Not Applicable</p> <p>Not Applicable</p>	

Appendix 2

Compliance with SA Cooper Basin Statement of Environmental Objectives Drilling, Completions and Well Operations (Santos 2021)

Note 1: The Santos SEO for Drilling, Completions and Well Operations has been adopted by Beach for its Drilling and Well Operations in the South Australian sector of the Cooper Basin. References to 'Table A1', 'Table A2', 'Table A3' and Appendix B refer to tables included in Santos' *South Australia Cooper Basin Statement of Environmental Objectives: Drilling, Completions and Well Operations November 2015*.

Objective	SEO Criteria	Compliance	Findings/Comments
1. No injuries, deaths or health impact to the public or third parties from regulated activities that could have been reasonably prevented by the operator	All reasonable measures implemented to ensure no injuries or health risks to the public or third parties.	Compliant	There have been no injuries or incidents involving the public. Regular liaison with landholders provides advance warning of any significant developments or activities.
	Investigation conducted by a relevant government authority into any injury or death does not result in a prohibition notice pursuant to Section 195 of the Work Health and Safety Act 2012.	Not Applicable	The design and operation of wells is undertaken in accordance with Beach safety policies, standards and guidelines.
	Compliance with the relevant legislation or approvals regarding noise and air quality.	Compliant	
	No unnecessary venting during well operations. Sewage and grey water to be managed in accordance with the South Australian Public Health (Wastewater) Regulations 2013 or to the satisfaction of the Department of Health and aging.	Compliant Complaint	

Objective	SEO Criteria	Compliance	Findings/Comments
2. Minimise impacts to native flora and fauna (terrestrial and aquatic) due to regulated activities or escape of petroleum, processed substance, chemical or fuel	Any escape of petroleum, processed substance, chemical or fuel is either immediately contained and removed or assessed in accordance with NEPM guidelines and remediated in accordance with relevant guidelines in a timely manner.	Compliant	In the event of a spill, fluids are contained, affected areas remediated and reporting and investigation procedures followed.
	No impact to rare, vulnerable or endangered flora and / or fauna, or important vegetation (as defined under Table A1) due to an escape of petroleum, processed substance, chemical or fuel.	Compliant	Causes of incidents are identified and where appropriate inform the revision of, or implementation of new systems, procedures, and design modifications, to reduce the chance of reoccurrence.
	No overflow, spill or seepage of completions fluids from temporary holding ponds	Compliant	Well leases and access tracks are constructed in accordance with Beach HSE procedures to achieve compliance with GAS criteria.
	No native fauna casualties that could have been reasonably prevented.	Compliant	Plugged and abandoned well sites rehabilitated in accordance with Beach HSE procedures in order to meet GAS criteria.
	The attainment of 0, +1 or +2 GAS criteria under well site construction (Table A1) for:	Compliant	Borrow pits are constructed and rehabilitated in accordance with Beach HSE procedures in order to meet GAS criteria.
	<ul style="list-style-type: none"> ▪ minimising impact to soil ▪ minimising impact on native vegetation and native fauna 		All waste materials collected and disposed of via appropriately licenced carriers and recycling and waste disposal facilities.
	The attainment of 0, +1 or +2 GAS criteria under borrow pit construction (Table A3) for:	Compliant	Bins are covered to prevent access by wildlife and prevent spread of rubbish by wind.
	<ul style="list-style-type: none"> ▪ minimising impacts on soil ▪ minimising impacts on vegetation. 		
	The attainment of 0, +1 or +2 GAS criteria under borrow pit management (Table A3) for:	Compliant	
	<ul style="list-style-type: none"> ▪ minimising water retention in the pit ▪ minimising impacts to soil ▪ minimising impacts on vegetation 		

Objective	SEO Criteria	Compliance	Findings/Comments
	Solid wastes and foreign material to remain contained onsite within the well lease / operational area boundaries until disposed of at an EPA licensed facility, with the exception of drilling and completions benign solids to be disposed of in drilling sump.	Compliant	
	No uncontrolled fires resulting from regulated activities.	Compliant	
	The extent of soil erosion is consistent or less than surrounding land	Compliant	
	For well site restoration and borrow pit rehabilitation GAS criteria refer to Objective 8		
3. Minimise disturbance to drainage patterns and avoid contamination of surface waters	The attainment of 0, +1 or +2 GAS criteria under well site construction for minimising disturbance to drainage patterns (Table A1)	Compliant	Environmental Factors Reports prepared for each well site to identify and minimise disturbance to surface drainage and waters.
	No new water affecting activities as defined under the NRM Act undertaken unless relevant permits have been obtained.	Compliant	Well leases and access tracks are constructed in accordance with Beach HSE procedures to achieve compliance with GAS criteria.
	No unauthorised discharge of water (or other liquids) or solid wastes to surface waters	Compliant	No leases or access tracks were constructed on sensitive landsystems (salt lakes, tablelands or wetlands). In the event of a spill, fluids are contained, affected areas remediated and reporting and investigation procedures followed.
4: No introduction of new species of weed, plant, pathogen or pests (feral animal) and prevent the spread of existing species, as necessary	Presence / absence and abundance of pest plants and animals are consistent with pre-existing conditions and / or adjacent land or where pest plants and animals are identified on operational areas, management plan is implemented immediately.	Compliant	No new outbreak or spread of weeds reported during the reporting period.

Objective	SEO Criteria	Compliance	Findings/Comments
	Declared plants / animals are reported and managed in accordance with relevant regulations	Not Applicable	
	The attainment of 0, +1 or +2 GAS criteria under management and rehabilitation of borrow pits for minimise impacts on vegetation (Weeds)(Table A3).	Compliant	
5: Avoid damage, disturbance or interference to sites objects or remains of Aboriginal and / or non-Aboriginal heritage	Aboriginal heritage surveys undertaken and sites are identified and avoided	Compliant	<p>Beach has an agreement with the 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. Areas of significance were recorded and marked as exclusion zones.</p> <p>No damage to heritage sites occurred during the reporting period.</p>
	Avoid damage, disturbance or interference to Aboriginal sites, objects or remains ("Aboriginal heritage") as required by the Aboriginal Heritage Act 1988 (SA) ("AHA").	Compliant	
	Where damage, disturbance or interference to Aboriginal heritage is unavoidable then application for authorisation in accordance with section 23 of the AHA will be sought and appropriate consultation with Aboriginal parties as required by section 13 of the AHA ¹ .	Not Applicable	
	Avoid damage/ disturbance to non-aboriginal sites where practicable	Compliant	
	0, +1 or +2 GAS criteria are attained under construction of borrow pits to protect sites of natural scientific or heritage significance.	Compliant	
6: Minimise loss of aquifer pressure and avoid aquifer contamination	No uncontrolled flow to surface (e.g. blow out).	Compliant	The Drilling Programs for wells are designed to ensure minimal loss of reservoir and aquifer pressures and minimal contamination of freshwater aquifers.

¹ in appropriate circumstances, a 'risk management' approach may be undertaken (see DSD-AAR Risk Management Guidelines) in which case a section 23 application is not necessary.

Objective	SEO Criteria	Compliance	Findings/Comments
	Effective barriers exist to prevent crossflow between separate aquifer systems or hydrocarbon reservoirs as listed in Appendix B.	Compliant	Wells have been either cased from total depth to surface or plugged and abandoned. No radioactive tools were left in any wells.
	No change in the capacity of third-party groundwater users to undertake their respective activities	Compliant	In the event of a spill, fluid has been contained, affected area remediated and reporting and investigation procedures followed.
	No unauthorised discharge or escape of any liquids (including water, petroleum, processed substance, chemical or fuel), or solid wastes to groundwater	Compliant	Causes of incidents were identified and where appropriate informed the revision of, or implementation of new systems, procedures, and design modifications, to reduce the chance of reoccurrence.
	Any escape of petroleum, processed substance, chemical or fuel is either immediately contained and removed or assessed in accordance with NEPM guidelines and remediated in accordance with relevant guidelines in a timely manner.	Compliant	
	Relevant government approval obtained for abandonment of radioactive tools if left downhole.	Not Applicable	
	No impact on groundwater dependant ecosystems as a result of groundwater extraction or contamination (i.e. aquifers that may provide base flow to nearby waterholes).	Compliant	
7: Maintain stakeholder relationships and minimise disturbance to landowners and / or associated infrastructure	No unresolved reasonable stakeholder complaints.	Compliant	Beach maintained regular contact with the landholder and associated stakeholders prior to, and while undertaking well drilling operations.
	No disturbance to landholder activities as a result of regulated activities unless by prior arrangement.	Compliant	No unresolved reasonable stakeholder complaints.

Objective	SEO Criteria	Compliance	Findings/Comments
	Where disturbance is unavoidable or accidental, infrastructure or land use is restored to the satisfaction of the landholder. For well site restoration and borrow pit rehabilitation GAS criteria refer to Objective 8	Not Applicable	
8: Rehabilitate land affected by regulated activities to agreed standards	<p>The attainment of 0, +1 or +2 GAS criteria under well site and access track restoration (Table A2) for:</p> <ul style="list-style-type: none"> • minimising visual impact • revegetation of indigenous species • site left in a clean tidy condition. <p>The attainment of 0, +1 or +2 GAS criteria under rehabilitation of borrow pits (Table A3) for</p> <ul style="list-style-type: none"> • minimising water retention in pit • minimise impacts to soil • minimise impacts on vegetation • minimise visual impacts • site to be left in a clean and tidy condition. <p>No unresolved reasonable stakeholder complaints</p> <p>Note: Contaminated sites rehabilitated in accordance with Objective 2. Well decommissioning in accordance with Objective 6</p>	<p>Compliant</p> <p>Compliant</p> <p>Compliant</p>	<p>Plugged and abandoned well sites rehabilitated in accordance with Beach HSE procedures in order to meet GAS criteria.</p> <p>Borrow pits are constructed and rehabilitated in accordance with Beach HSE procedures in order to meet GAS criteria.</p> <p>There are no contaminated sites associated with drilling activities.</p>