

Annual Report

Petroleum Production Licences (PPLs) 62, 168, 202 and Pipeline Licence (PL) 19

Otway Basin, South Australia

1 January 2021 to 31 December 2021

Date February 2022

Document Owner: Adelaide Energy Pty Ltd

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1. Introduction

This Annual Report details the work conducted in Petroleum Production Licences (the PPLs) 62, 168 and 202, and Pipeline Licence (PL) 19, in the South Australian Otway Basin. The report details the 12 months from 1 January 2021 to 31 December 2021. 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

Licence Type	Licence No.	Field	PPL Grant Date	PPL Holder
PPL	62	Katnook, Ladbroke Grove, Haselgrove	27 November 1990	Adelaide Energy Pty Ltd
PPL	168	Redman	26 June 1999	Adelaide Energy Pty Ltd
PPL	202	Haselgrove	3 October 2003	Adelaide Energy Pty Ltd
PL	19	Katnook Gathering	20 November 2009	Adelaide Energy Pty Ltd

Adelaide Energy Pty Ltd is the sole holder (100%) of PPLs, 62, 168, 202 and PL 19 (the Permits) and is a wholly owned subsidiary of Beach Energy Limited (Beach).

The Katnook, Ladbroke Grove, Haselgrove and Haselgrove South Fields are located within PPL 62 and PPL 202 while the Redman Field is within PPL 168.

PL 19 was granted to connect existing wells within Petroleum Exploration Licence 255 (PEL 255 and now PRL 32), Petroleum Retention Licence (PRL) 1, PRL 2 and PPL 202 to existing operational flow line infrastructure which is connected to Katnook Gas Processing Facility. PL 19 construction was completed in March 2010 and commissioned in April 2010.

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”

Routine annulus pressure surveys were performed during the reporting period.

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 was one instance of non-compliance with the Regulations during the reporting period, caused by data submission after its due date. Details of non-compliance are included in Section 6. The Operator will apply to extend at risk submission deadlines to prevent future non-compliance of this nature.

4.2. Compliance with Statement of Environmental Objectives (SEO)

Production activities were undertaken in accordance with the Statement of Environmental Objectives Onshore Otway Basin Petroleum Production Operations (Beach, March 2019) (the Production SEO). A statement of compliance against the Production SEO is provided in Appendix 1.

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”.

No management system audits were conducted during the reporting period.

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.

6. Report and Data Submissions

Pursuant to Regulation 33(3)(e)(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
Otway Basin PPLs 2020 Annual Report	15 March 2021*	15 March 2021	Yes
Otway Basin PPLs 2020 Annual Report Resubmitted	1 December 2021	17 November 2021	Yes

*Extension granted

Quarterly Reportable 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

Haselgrove PACE Gas Grant - Half Yearly Interim Project Report

Report / Data	Date Due	Date Submitted	Compliant
H2 2020	N/A	26 February 2021	Yes
H1 2021	N/A	23 August 2021	Yes

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 two 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.

Summary of Reportable Incidents

Permit	Field	Date	Incident	Cause	Rectification
PPL 62	Katnook	21-Jan-21	Leaking gland packer on resulted in approx. 2 litres of water/ condensate to leak onto concrete pad and ground.	Monitoring / Maintenance	Gland packer re-tensioned to stop leak. Re-tested and no signs of leaking packer.
PPL 62	Katnook	17-Dec-21	Smoke detectors failed to activate fire alarm upon testing with aerosol test spray	Monitoring / Maintenance	Additional technical assistance sought from site and engineering teams. Detectors subsequently determined to be fully functional

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.

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”.

Work planned during 2022 includes:

- Continue to examine the economic viability of connecting Haselgrove-4 DW 1 to the Katnook plant, including monitoring of well head pressures, integrated with assessment of Dombey 3D results.
- Continue to review performance of Haselgrove 3 ST1 to forecast likely date the well reaches turndown volumes for the Katnook plant.
- Partially rehabilitate the Hazelgrove 4 wellsite and fully rehabilitate the camp pad to minimise disturbance to local landholder.
- Regular annulus pressure surveys; and
- Well integrity maintenance and testing including hot tap process on select wells with inaccessible annulus monitoring ability.

10. Estimated Production

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 1 January 2022 to 31 December 2022

PPL	Field	Gas (kboe)	Water (bbl)
62	Haselgrove	66	2490

11. Pipeline

Pursuant to Regulation 33(3)(k) under the Act, an annual report must contain:
 “In the case of a pipeline licence – the volume of any regulated substance transported during the relevant licence year”;

Volume of Regulated Substance Transported

No regulated substances were transported within the suspended pipelines during the reporting period as they have been nitrogen packed since 2012.

Pipeline Patrol Activities

No regular pipeline patrols have been performed in the past reporting period for all suspended lines within PL 19, PPL 62, PPL 168 and PPL 202, as they are generally suspended with low pressure nitrogen.

The only regular patrols that have been completed in the past reporting period have been performed on the currently operating Haselgrove 3 to KGP pipeline. This pipeline has undergone daily patrols from KP0 to KP1.5, and irregular patrols from KP1.5 to KP6.0 (within private land).

During the reporting period no material issues occurred during the patrolling or other routine maintenance activities on the PL 19 pipeline. Regular road patrols were completed in accordance with AS2885.3 requirements ensuring the following:

Signage is in suitable condition and if not, repairs are made as soon as is practically possible.

There are no unauthorized activities occurring along the pipeline route or at any of the facilities.

Soil erosion due to wind and water is addressed and restored in accordance with the SEO.

There was no loss of the pipeline depth of cover during the reporting period.

There are no leaks occurring at any of the pipeline facilities or along the pipeline route.

All sites are secure and kept in a good, clean and tidy state.

Maintenance activities including touching up above ground pipe coating condition, restoring fences, gates, padlocks, signage and fire extinguishers along with other housekeeping activities such as weeds are addressed as required.

Leakage Detection

During the reporting period there were no instances of any leaking valves or equipment on the operating pipeline/flowline system. Beach monitors the pipelines and flowline for leakage:

Through ground patrols as staff travel along the pipeline. Operations personnel look for signs of gas leakage such as dust plumes, the sound of escaping gas and affected vegetation.

Cathodic Protection

Cathodic protection was upgraded on PPL 62 Haselgrove flowlines as part of the Haselgrove-3 well connection and new flowline Haselgrove-3 connection project.

For all other pipelines currently under suspension, cathodic protection is currently uncertain. As a result, Beach Energy is in the process of performing an investigative cathodic protection survey in March 2021, which will inform of the steps required to ensure full compliance with the requirements of AS 2885 and AS 2832.1.

Emergency Response Exercises

No emergency response exercises have been carried out in the last reporting period for all flowlines within the scope of this document.

12. 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 reporting period.

Appendix 1

Compliance with Statement of Environmental Objectives Onshore Otway Basin Petroleum Production Operations (Beach 2019)

Objective	Assessment Criteria	Compliance	Findings / Comments
1. To minimise disturbance to landholders, land use third party infrastructure, or the local community			
1.1 To minimise disturbance or damage to infrastructure / land use and remediate where disturbance cannot be avoided	<p>No adverse impact outside agreed disturbance on land use or third-party infrastructure as a result of activities</p> <p>Adverse impacts of accidental or unforeseen disturbance to infrastructure or land use resolved to the reasonable satisfaction of the landholder</p>	Compliant	No unresolved issues or impacts to landholders
1.2 To minimise disturbance to landholders and the local community	<p>Timely consultation and notification of proposed activities with relevant landowners and stakeholders can be demonstrated</p> <p>Landholder / stakeholder complaints are documented, and reasonable steps taken to resolve them can be demonstrated</p>	Compliant	No complaints received from land users.
1.3 To minimise the visual impact of operations	<p>Operations are restricted to agreed / defined areas</p> <p>Operational sites maintained in clean and tidy condition</p> <p>Operational areas are remediated and rehabilitated to be reasonably consistent with the surroundings (refer to Objective 10)</p>	Compliant	Operational activities confined to defined operational areas (facility, well leases, access tracks and pipeline easements)
2. To maintain soil stability / integrity			
2.1 To minimise and remediate soil disturbance	The extent of soil erosion as a result of production operations is consistent with or less than surrounding land	Compliant	Areas of soil disturbance remediated following completion of production construction activities.

Objective	Assessment Criteria	Compliance	Findings / Comments
	<p>No disturbance to soil profiles resulting from activities remains after restoration</p> <p>Operational areas are remediated and rehabilitated to be reasonably consistent with the surroundings (refer to Objective 10)</p>		
3. To minimise disturbance to native vegetation and native fauna (including wetland communities)			
3.1 To avoid or minimise clearing of native vegetation as part of production activities	<p>No unauthorised clearing of native vegetation</p> <p>Any sites of rare, vulnerable or endangered species or threatened communities have been identified, flagged and subsequently avoided</p> <p>No rare, vulnerable or endangered flora removed without appropriate permits</p> <p>High quality or significant remnant vegetation has not been cleared</p> <p>Activities are not carried out in parks or reserves established under the National Parks and Wildlife Act</p>	Compliant	<p>No new construction activities during the reporting period.</p> <p>Environmental assessments prepared to identify and avoid disturbance to vegetation prior to construction activities.</p> <p>All activities confined to previously disturbed areas such as facilities, access tracks, well leases and pipeline corridors.</p>
3.2 To achieve a significant environmental benefit for native vegetation clearance	<p>Significant environmental benefit for native vegetation clearance approved by DEM (where delegated authority applies) or Native Vegetation Council</p> <p>Significant environmental benefit obligation satisfied / implemented</p>	Not applicable	No clearing of native vegetation occurred during the reporting period.
3.3 To ensure production activities are planned and conducted in a manner that minimises impacts on native fauna	<p>No significant adverse impacts on native fauna as a result of production activities</p> <p>No rare, vulnerable or endangered fauna removed without appropriate permits</p> <p>No native fauna casualties that could have reasonably been prevented through management measures described in the guide</p>	Compliant	No native fauna injured.
4. Avoid the introduction or spread of weeds, pest animals and pathogens as a consequence of regulated activities			
4.1 To ensure that the presence of weeds, pest animals or pathogens is	The presence of weeds, pest animals or pathogens is consistent with or better than pre-disturbance	Compliant	No introduced exotic weed species as a consequence of activities.

Objective	Assessment Criteria	Compliance	Findings / Comments
consistent with or better than pre-disturbance conditions and adjacent land	conditions and adjacent land or where this is not the case, a management plan is implemented promptly Declared plants occurring as a result of regulated activities are reported and managed in accordance with the Natural Resources Management (NRM) Act and applicable NRM plans		Presence of weeds and pathogens consistent with or better than adjacent land.
5. To minimise the impact of production activities on water resources			
5.1 To maintain current surface drainage patterns and to minimise impact to surface water features	For pipeline easements and other reinstated excavations, surface drainage profiles restored to a state that is reasonably consistent with pre-existing conditions and the surrounding area All regulated activities are located and constructed to maintain pre-existing water flows to minimise impact to surface water features as far as practicable No new 'water affecting activities' (as defined under the NRM Act and regional NRM Plan) are undertaken unless relevant permits have been obtained	Compliant	No new construction activities during the reporting period.
5.2 To minimise impact to aquifers / groundwater volumes and flow patterns	Water Allocation Plan and water licence conditions are complied with No uncontrolled flow to the surface (i.e. no free-flowing bores) Landholder complaints regarding impact on groundwater users are documented and reasonable steps taken to resolve them can be demonstrated	Compliant	
6. To minimise land and water contamination			
6.1 To prevent spills and leaks occurring and if they occur minimise their impact	No adverse impact to land use or native vegetation and native fauna outside operational sites due to an escape of petroleum, processed substance, chemical or fuel No unauthorised discharge or escape of petroleum, processed substance, chemical, fuel or solid wastes to surface water and/or groundwater Any escape of petroleum, processed substance, chemical or fuel to land is either immediately	Compliant	No incidents involving contamination to groundwater. No spills or leaks occurred outside areas designed to contain them. Wellhead pressure surveys indicate no casing failures. Regular patrols undertaken to look for evidence of erosion, abnormal vegetation growth or death.

Objective	Assessment Criteria	Compliance	Findings / Comments
	contained and removed or assessed in accordance with NEPM guidelines and remediated in a timely manner		
6.2 To remediate and monitor any areas of contamination arising from production activities	Contaminated sites are assessed and rehabilitated (where required) using a risk-based approach, consistent with the principles of the NEPM	Not applicable	
6.3 To ensure that rubbish and waste material is disposed of in an appropriate manner	Wastes are segregated and transported to an EPA licensed facility for recycling or disposal Reasonable steps are taken to securely contain waste prior to removal from site	Compliant	All waste collected, segregated and removed from site and disposed of at a licenced waste facility by licenced contractors.
6.4 To prevent impacts as a result of hydrotest water and washdown water disposal	No evidence of significant impacts to soil, water and vegetation as a result of water disposal (e.g. soil erosion, dead vegetation, water discolouration) No unauthorised discharge of hydrotest water and washdown water to a watercourse or an area reasonably likely to enter surface water	Not applicable	
6.5 To ensure the safe and appropriate disposal of wastewater (sewage)	All wastewater is disposed in accordance with the South Australian Public Health (Wastewater) Regulations 2013	Compliant	
6.6 To prevent impacts as a result of produced formation water treatment and disposal	No evidence of overflow or leakage of produced formation water from PFW ponds Refer to Assessment Criteria under Objective 6.1	Not applicable	
6.7 To minimise impacts of gas well deliquification	Gas well deliquification does not result in contamination of soil, surface water and / or shallow groundwater resources	Not applicable	
6.8 To maintain well integrity to minimise loss of aquifer pressure	No aquifer contamination as a result of production activities There is no uncontrolled flow to surface (e.g. blow out)	Compliant	Wells constructed with appropriate barriers in place. Regular well inspections undertaken. Wellhead pressure surveys indicate no casing failures.

Objective	Assessment Criteria	Compliance	Findings / Comments
and prevent aquifer contamination	Appropriate barriers exist to protect separate aquifer systems and / or hydrocarbon reservoirs that are typically in natural hydraulic isolation from each other Well decommissioning program submitted to the satisfaction of DEM prior to well decommissioning		
7. To minimise the risk to public health and safety			
7.1 To protect public health and safety during production operations	Reasonable measures implemented to ensure no injuries or health risks to the public No injuries, incidents or adverse health impacts involving the public from regulated activities that could have been reasonably prevented by the operator	Compliant	No injuries to the public as a result of activities. Permit-to-Work system is used to manage workplace / worksite safety. Emergency Response Plans and procedures are in place.
7.2 To avoid uncontrolled fires associated with production activities	No uncontrolled operations related fires	Compliant	No fires associated with operational activities.
8. Air pollution and greenhouse gas emissions reduced to as low as reasonably practical			
8.1 To minimise atmospheric emissions	Emissions minimised by implementation of reasonable practical measures during design and operation as outlined in the guide to how objectives can be achieved column Modelling or monitoring (where appropriate) of atmospheric emissions from production facilities demonstrate that legislative requirements are met	Compliant	New facility designed to minimise emissions.
8.2 To minimise the generation of dust	Any stakeholder complaints related to dust nuisance are documented and reasonable steps taken to resolve them can be demonstrated	Compliant	
9. To adequately protect areas of cultural and heritage significance and values during operations and maintenance			
9.1 No damage, disturbance or interference to Aboriginal and non-Aboriginal heritage sites,	In the event the conditions of a cultural heritage clearance are not complied with, the incident is appropriately reported, investigated and remediated in consultation with the relevant Aboriginal heritage group	Compliant	No activities conducted outside current operating areas. No disturbance to Aboriginal and non-indigenous heritage sites.

Objective	Assessment Criteria	Compliance	Findings / Comments
objects, remains and places unless prior approval under relevant legislation obtained	<p>Damage, disturbance or interference to any Aboriginal sites, objects and remains (all as defined under the Aboriginal Heritage Act 1988) is avoided unless authorisation has been obtained under the Aboriginal Heritage Act 1988</p> <p>Any Aboriginal heritage sites, objects and remains discovered during operations have been appropriately reported and responded to, consistent with the Aboriginal Heritage Act 1988</p> <p>Non-Aboriginal heritage sites identified and avoided</p> <p>No impact to non-Aboriginal heritage places and related objects protected under the Heritage Places Act 1993 unless approval has been obtained under the Heritage Places Act 1993</p>		
10. Rehabilitate operational areas to agreed standards			
10.1 Rehabilitate operational areas to agreed standards	<p><u>Contaminated Site Remediation</u></p> <p>Refer to Objective 6.2</p> <p><u>Production Facility Decommissioning</u></p> <p>Site rehabilitation undertaken in accordance with site-specific decommissioning and reinstatement plan as agreed with relevant stakeholders and regulators</p> <p>Surface structures are removed and the ground surface re-contoured consistent with pre-existing contours unless alternative agreement is reached with the regulator and stakeholders</p> <p>Refer to assessment criteria for Objectives 1, 2, 3 and 6</p> <p><u>Pipeline Decommissioning</u></p> <p>Attainment of the following (unless otherwise agreed with stakeholders and approved by the regulatory authority):</p>	Compliant	<p>No production facility decommissioning or decommissioning of surface pipeline infrastructure occurred during the reporting period.</p> <p>Surface well structures have been removed from the Katnook-2 and Ladbroke Grove-3 wells as part of well decommissioning and rehabilitation activities at these sites.</p>

Objective	Assessment Criteria	Compliance	Findings / Comments
	<ul style="list-style-type: none"> No evidence of waste, redundant equipment / infrastructure or signs and markers on decommissioned pipelines Refer to assessment criteria for Objectives 1, 2, 3 and 6 <p><u>Well Decommissioning Following Production</u></p> <p>Refer to Objective 6.8</p> <p>Surface structures are removed and the ground surface re-contoured consistent with pre-existing contours unless alternative agreement is reached with the regulator and stakeholders</p> <p><u>Rehabilitation of Sites with Native Vegetation</u></p> <p>Rehabilitation of sites with native vegetation is undertaken in accordance with commitments and conditions of original approval of significant environmental benefit</p>		