Santos Ltd ABN 80 007 550 923 60 Flinders Street Adelaide, South Australia 5000 Telephone: 61 8 8116 5000 Facsimile: 61 8 8116 5050 www.santos.com



20 November 2018

Chief Executive RPI Act Development Assessment Team Department of Infrastructure, Local Government and Planning Level 13, 1 William Street BRISBANE QLD 4001

Dear Sir / Madam,

Please find attached an assessment application for a regional interests development approval (RIDA) under the *Regional Planning Interests Act 2014* (RPI Act). This application is of an administrative nature. It seeks only to authorise petroleum production on Lot 1 on Plan SP133822 and PL1047 within the Channel Country SEA from the existing Okotoko North 1 petroleum well and associated infrastructure. This is a result of a change in tenure from Authority to Prospect (ATP) to a Production Licence (PL), and subsequent requirement for a new Environmental Authority (EA). The new tenure and EA are to allow for commercialisation of a petroleum product, following extended production testing, conducted under Authority to Prospect (ATP) 1189.

The application includes the following information:

- Attachment 1 Regional Planning Interests Act 2014 Assessment Application Form
- Attachment 2 Current State Tenure Title Search (Lot 1 on Plan SP133822)
- Attachment 3 PL 1047 Resource Authority Public Report
- Attachment 4 RIDA Assessment Report
- Attachment 5 GIS Files

Payment of the application fee of \$6,480.00 has been paid upon lodgement of this application.

Please do not hesitate to contact Jodie Spencer on (07) 3838 3182 or <u>jodie.spencer@santos.com</u> should you have any queries in relation to the attached.

Yours sincerely,

Liz Dunlop

Principal Environmental Advisor



ATTACHMENT 1 - REGIONAL PLANNING INTERESTS ACT 2014 ASSESSMENT APPLICATION FORM

Regional Planning Interests Act 2014 Assessment application form

Approved under section 94 of the *Regional Planning Interests Act 2014*. Version 3.0 is effective from 3 July 2017.

Before lodging your application

- Read RPI Act Statutory Guideline 01/14: How to make an assessment application for a regional interests development approval under the <u>Regional Planning Interests Act 2014</u>
- Consider contacting the RPI Act Development Assessment team on 1300 967 433 or email RPIAct@dilgp.qld.gov.au for general queries, or to request a pre-application discussion on the proposed application.

Purpose of application form

This form is to be used when making an assessment application for a regional interests development approval (RIDA) under the *Regional Planning Interests Act 2014* (RPI Act).

Definitions

Expressions highlighted in bold italic type have the same meaning as in the RPI Act or in regulations made under the RPI Act.

How to make the Assessment Application Section 29 of the RPI Act states:

An assessment application must be:

- 1. made to the chief executive in the approved form; and
- 2. accompanied by a report:
 - assessing the resource activity or regulated activity's impact on the area of regional interest; and
 - identifying any constraints on the configuration or operation of the activity; and
- 3. accompanied by the fee prescribed under a regulation.

The applicant must complete all sections of the form either on the form or as an attachment.

Where to lodge

The preferred method of lodgement is to upload the application form on the electronic registration and login system. Access to the RIDA system is available on the <u>DILGP</u> <u>Planning website</u>.

OR

Provide **1 electronic copy** of the completed application form and the supporting information to the chief executive:

 Email: <u>RPIAct@dilgp.qld.gov.au</u>
 Post: RPI Act Development Assessment Team DILGP PO Box 15009 City East QLD 4002
 Hand deliver: RPI Act Development Assessment Team DILGP Level 13, 1 William Street, Brisbane (For hand deliveries, contact the RIDA Development Assessment team on 1300 967 433).



 Property description Identify all lots or par disturbance. Provide 	ts of	lots on which the			al area of					
Lot on Plan description (e.g. 1RP12345)										
Street address/suburb/ locality and post code										
Closest town Durham Downs										
2. Application details Attach a map that cl of the application an	early									
Identify the area/s of reg be disturbed	giona	l interest (ARI)	in the application	area and the	area of the ARI to					
Area of regional interest (ARI)		Area of disturbance	Area of regional	interest (ARI)	Area of disturbance					
Priority agricultural a	rea	Priority living a	areaha							
Strategic cropping ar	ea	ha	Strategic envir	2.94 ha ¹						
Identify the resource or	regu	lated activity								
Resource activity: n of mining on this for				petroleum and	gas). (Add the type					
Resource activity: p	etrole	eum and gas								
Regulated activity - strategic environme			Only relevant whe	re the applicati	on relates to a					
Regulated activity - strategic environme		• • •	(Only relevant whe	ere the applicat	ion relates to a					
Provide a detailed descr Provide a description of th area of the activities.				is sought, loca	ition and the surface					
Area of regional interest	A	ctivity		Location	Total area of disturbance (ha)					
Channel Country Strategi Environment Area	p	Production from opetroleum well. Rassessment repo	Refer to attached	Lot 1 SP133822	2.94 ha					

¹ Refer to assessment report. This is existing surface disturbance associated with pre-existing infrastructure.

Provide a description of current land use

Provide a description of what the land is currently being used for (e.g. horticulture, irrigated cropping, dryland grazing, nature conservation, residential, manufacturing and industrial, etc.) and the surrounding land within a 1 kilometre radius.

Attach a map that clearly shows the area and location of all existing land uses and activities on the land the subject of the application, and within a 1 kilometre radius of the boundaries of the land that is the subject of the application.

Refer to attached assessment report. The proposed activities would be located solely on Lot 1 SP133822 forming part of Durham Downs Pastoral Station, an 8, 910 km² cattle station operated by S. Kidman & Co. Ltd. The existing land use for this cattle station includes grazing from natural vegetation.

3. Supporting information to accompany this application

Report (addressing matters set out in section 29(b) of the RPI Act)

Maps, GIS data files, site plans (proposed activities)

Other documents (optional)

4. Other relevant information to accompany this application Attach map/s to identify the location of this information and lot on plan details.

Are there any resource authorities or applications for resource authorities over all or part of the land the subject of the application? (e.g. for exploration or resource development)	⊠ _{Yes}	(Provide the resource authority reference number, a description of the type of authority/approval, the status (i.e. in application stage or approved); date of application or approval; location and dimensions of each resource authority or application)	□ _{No}
Is there a SCL protection decision over all or part of the land the subject of the application?	□ _{Yes}	(Provide decision number/s)	⊠ _{No}
Is there an environmental authority (EA) over all or part of the land the subject of the application?	⊠ _{Yes}	(Provide environmental authority number/s)	□ _{No}
Are there any easements over any part of the land the subject of the application?	□ _{Yes}	(Include nature, location and dimensions of each easement e.g. for access, infrastructure)	⊠ _{No}
Attach a current title search for each lot or part of a lot the subject of the application (NOTE: the searches must be obtained within 3 business days before application.)	⊠ Tick	to confirm title searches are attached	
Attach GIS data files for the proposed activities identified in section 2 above.	Tick	to confirm data files are attached.	

Is an exemption from public notification for the assessment application under section 34(3) of the RPI Act sought?	Yes (/ ju	(Attach written request including justification for the exemption)								
5. Land owner details	ł									
Name of all land owner/s		S. Kidman & Co								
			Durham Downs Pastoral Station, Eromanga QLD 4480							
Telephone/mobile number/email address/s (non-mandatory)										
Is the applicant the owner (as defined in sch the RPI Act) of the land the subject of the ap		□ _{Yes}	No (Identify the land that is owned by the applican							
Is it necessary, under section 30 of the RPI A provide a copy of the application to the owner land? (NOTE: proof of delivery will be require	er of the	⊠ _{Yes}	□ _{No}							
6. Applicant/authorised person details Section 28 of the RPI Act prescribes who may be the applicant for a RIDA for a resource activity or regulated activity to be carried out in an area of regional interest. The decision about the application is issued to the applicant. The applicant need not be the owner of the land. The authorised person for a company (if applicable) is the contact person for the applicant and need not be the applicant (for example, director, company secretary or sole director). However, formal documents, such as any requirement notice and the decision about the application, will be sent to the applicant at the address for service stated below.										
Applicant/s name (individual or company name in full), include ABN or ACN number if applicable	Santos Lin	mited ABN 80 007 550 923								
Applicant's postal address and email address for service	Level 19, 3	Level 19, 32 Turbot Street Brisbane QLD 4000								
Authorised contact person for applicant: name, position and company	Jodie Spe	ncer, Env	vironmental Advisor, Santo	s Limited						
Contact phone number and mobile number	(07) 3838 0432 159 8									
Contact email address	jodie.spen	cer@sar	itos.com							

7. Electronic documentation								
Where an email address is provided in section 6 above, does the applicant consent to receiving written information relating to this assessment application, required or permitted to be provided under the <i>Regional Planning Interests Act 2014</i> or any other State law, in an electronic format pursuant to sections 11 and 12 of the <i>Electronic Transactions Act 2001?</i>								
8. Application fee (Fees are prescribed	in the Regional Planning Interests Regulat	ion 2014)						
Amount payable	\$6,480							
Reference number (Contact RIDA assessment team for a reference number)								
Payment option (Contact RIDA assessment team for	Direct deposit Date deposited:							
account details)	Cheque attached							
9. Use and Disclosure of Information S	Statement							
executive, reviewing the information pr your assessment application2. providing a copy of the assessment ap prescribed as assessing agencies for t	•	ion, and may he chief assessing ent Agencies ocal						
The assessment application and the accomp the DILGP website from the time the assess withdrawn or, if is decided, until the end of the against a decision on the application. However DILGP website to the extent that it is provide RPI Act) (an owner) who is not the applicant information, and that owner has not consent which is considered to be sensitive security Where an application proposes a resource of and the applicant is required to provide infor priority agricultural land use to address the p Regulation 2014 (schedule 2, part 2), the inf	ment application is made until the time it la ne last period during which an appeal may l yer, information will not be made publicly av ed by an owner of land (as defined in scheo c, and is commercial-in-confidence or perso ed to its disclosure, or to the extent that it is information. or regulated activity in a priority agricultural mation about the productive capacity or op prescribed solutions in the Regional Plannir	pses or is be made vailable on the lule 1 to the nal s information area (PAA) eration of a ng Interests						

- attached as an appendix to the assessment application report and the application must:
- identify the source of the information provided, including whether the information was provided by an owner other than the applicant
- state whether an owner other than the applicant agrees to the information being made publicly available on the DILGP website; and if so:

- provide the express written agreement of that owner to the information being made publicly available on the DILGP website.

If an owner, other than the applicant, does not provide express written agreement, the information will not be made available on the DILGP website with the other application information. You may also be required to publicly notify your application. A notice about the chief executive's decision relating to your application will also be publicly notified.

Your personal details will not be disclosed for a purpose outside this assessment process, except where required by legislation (including the *Right to Information Act 2009*). This information may be stored in a database by DILGP.

The information collected will be retained as required by the Public Records Act 2002.

10. Declaration

This declaration needs to be made by the individual applicant or, when the applicant is a company, an authorised person or persons who have the authority to act on behalf of that company in accordance with the *Corporations Act 2001* (Cth).

Where the declaration is made by a person who is authorised in writing to make that declaration on behalf of the company, evidence of that authorisation must accompany the application.

By making this application, I declare that all the information in this application is true and correct and that I have read and understood the 'Use and Disclosure of Information statement' on this form.

Signature of Applicant

Signature of applicant/authorised person:

Name and Position: Nick Fox, Head of Environment and Access, Santos Limited

Date: 19 November 2018

Office	Date received	
use only	RIDA reference number	
	Source number	



ATTACHMENT 2 – CURRENT STATE TENURE TITLE SEARCH (LOT 1 ON PLAN SP133822)

NATURAL RESOURCES, MINES AND ENERGY, QUEENSLAND

Request No: 30028081 Search Date: 19/11/2018 09:15

Title Reference: 17666157

Date Created: 21/10/1995

DESCRIPTION OF LAND

Tenure Reference: PDH 15/422

Lease Type: ROLLING TERM LEASE

LOT 1 SURVEY PLAN 133822 Local Government: BULLOO

Area: 782000.000000 Ha. (ABOUT)

No Land Description

No Forestry Entitlement Area

Purpose for which granted: NO PURPOSE DEFINED

TERM OF LEASE

Term and day of beginning of lease

Term: 30 years commencing on 01/04/1980

Expiring on 31/03/2010

Extended to 31/03/2060

REGISTERED LESSEE

Dealing No: 706291965 21/01/2003

S. KIDMAN & CO LTD A.C.N. 007 872 317

CONDITIONS

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NATURAL RESOURCES, MINES AND ENERGY, QUEENSLAND

Request No: 30028081 Search Date: 19/11/2018 09:15

Title Reference: 17666157

Date Created: 21/10/1995

CONDITIONS

A126	SPECIFIED CONDITIONS FOR: Term Lease PURPOSE: Rolling term lease - Pastoral												
	STATUTORY CONDITIONS:												
	 Statutory conditions are the general mandatory conditions of a lease and binds the lessee in accordance with Part 2 Division 1 of the Land Act. Permitted Use: The lessee must use the land only for the purpose for which the tenure was issued under the Land Act 1994. Duty of Care: The lessee has the responsibility for a duty of care, for the land under the Land Act 1994. Rent/Instalment: The lessee must pay the annual rent/instalment in accordance with the Land Act 1994 and the Land Regulation 2009. For further information on how annual rent is determined, refer to the department's website at www.dnrm.qld.gov.au. Noxious plants: The lessee must keep noxious plants on the land under control. If the lessee does not comply with this condition, the Minister may bring the noxious plants under control, the cost of which will be recovered from the lessee. Information to Minister: The lessee must give the Minister asks for about the tenure. Monies for Improvements: No money for improvements is payable by the State on the forfeiture, surrender or expiry of this lease but money may be payable if the State receives payment from an incoming lessee or buyer for the improvements on the land. However, the previous lessee may apply to the Minister to remove the improvements that belong to the lessee, or expiry of 												
	this lease. The lessee may only undertake the removal of the improvements in the presence of an authorised representative of the department, if required by the Minister. The lessee may only remove those improvements if all monies due from the lessee to the department under this lease have been paid.												
	REGULATORY-CONDITIONS:												
	<pre>A regulatory condition relates to a lease , in accordance with the Land Regulation. 1. Indemnity: The lessee indemnifies and agrees to keep indemnified the Minister, and the State of Queensland and its Representatives, (the "Indemnified parties") against all liability, costs, loss and expenses including claims in negligence (including any claims, proceedings or demands bought by any third party, and any legal fees, costs and disbursements on a solicitor and client basis) ("Claim") arising from or incurred in connection with:</pre>												

NATURAL RESOURCES, MINES AND ENERGY, QUEENSLAND

Request No: 30028081 Search Date: 19/11/2018 09:15

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CONDITIONS

- b. the lessee 's use and occupation of the land; or
- c. personal injury (including sickness and death) or property
 damage or loss in connection with the performance (or
 attempted purported performance or non-performance) of the
 lease or a breach of the lease by the lessee .

The lessee of a breach of the lease by the lessee . The lessee hereby releases and discharges to the full extent permitted by law, the Indemnified parties from all actions, claims, proceedings or demands and in respect of any loss, death, injury, illness or damage (whether personal or property and whether special, direct, indirect or consequential financial loss) arising out of the use and occupation of the lease. To the full extent permitted by law, the Minister, the State of Queensland and their Representatives will not be liable to the lessee for any special, indirect or consequential damages, including consequential financial loss arising out of the use and occupation of the lease.

- 2. Public Liability: The lessee must effect a public liability insurance policy with an insurer authorised under the Insurance Act 1973 (Commonwealth) or, if not so authorised then only with the Minister's approval, which can be given or withheld in the Minister's sole discretion, naming the lessee as the insured covering legal liability for any loss of, or damage to any property and for the injury (including death) to any person arising out of anything done or omitted on or about the land or any improvements thereon and against all claims, demands, proceedings, costs, charges, and expenses whatsoever (including claims in negligence) Such policy must:
 - a. be for an amount of not less than \$20,000,000.00 and have no per event sublimit or such higher amounts as the Minister may reasonably require.
 - b. be effected on a "claims occurring" basis; and
 - c. be maintained at all times during the currency of the lease, and upon receipt of any notice of cancellation, the lessee must immediately effect another public insurance policy in accordance with the terms of the lease.

The lessee must, as soon as practicable, inform the Minister, in writing, of the occurrence of any event that the lessee considers is likely to give rise to a claim under the policy of insurance effected and must ensure that the Minister is kept fully informed of subsequent actions and developments concerning the claim. The lessee must renew such policy, at the lessee's expense, each year during the currency of this lease. The condition will be satisfied if the lessee is the State of Queensland or a statutory authority eligible for cover under the Queensland Government Insurance Fund and is insured and continues to be insured by the Queensland Government Insurance Fund.

This condition will be satisfied if the lessee is the Commonwealth of Australia or a statutory authority eligible for cover under the Comcover Insurance Fund and is insured and

NATURAL RESOURCES, MINES AND ENERGY, QUEENSLAND

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Date Created: 21/10/1995

CONDITIONS

continues to be insured by Comcover.

- 3. Access: The provision of access, further access or services to the land will not be the responsibility of the State.
- 4. Survey Costs: If the land needs to be surveyed or re-surveyed the lessee must do this at their own cost under the Survey and Mapping Infrastructure Act 2003. This survey plan must be lodged in the land registry within the specified time.
- 5. Extension: The lease is subject to the extensions of rolling term leases provision of the Land Act 1994 and the Minister must grant an extension of the term of a rolling term lease if the lessee makes an application in the approved form. The extension will be for the original term of the lease and may be given subject to condition changes.
- 6. Jurisdiction: The lessee is subject to the Land Act 1994 and all other relevant Queensland and Commonwealth legislation.
- 7. Compliance with Laws the lessee must comply with all lawful requirements of the
 - a. Local Government; and

These conditions relate to this lease.

Improvements or development on or to the land

 The lessee must during the whole term of the lease, to the satisfaction of the relevant authorities, maintain all improvements and boundary fencing on the land in a good and substantial state of repair.

Quarry material

1. The lessee must allow any person authorised under the Forestry Act 1959 access to the leased land for the purpose of cutting and removing timber or removing other forest products, or quarry material, or other material from the leased land. Except as hereinafter provided the lessee must not interfere with any forest products or remove any quarry material (including any stone, gravel, sand, earth, soil, rock, guano or clay which is not a mineral within the meaning of the Mineral Resources Act 1989) or other material upon the leased land without the permission of the Minister administering the Land Act 1994 except under the authority of and in compliance in every respect with the requirements or a permit, licence, agreement or contract granted or made under the Forestry Act 1959.

NATURAL RESOURCES, MINES AND ENERGY, QUEENSLAND

Request No: 30028081 Search Date: 19/11/2018 09:15

Title Reference: 17666157

Date Created: 21/10/1995

- 1. Rights and interests reserved to the Crown by Lease No. 17666157
- 2. RESUMPTION EASEMENT No 702782044 13/07/1998 at 12:35 burdening the land THE STATE OF QUEENSLAND over EASEMENTS AV AND AW ON SP101337
- 3. EASEMENT IN GROSS No 703038619 01/12/1998 at 14:21 burdening the land SANTOS LTD A.C.N. 007 550 923 DELHI PETROLEUM PTY LTD A.C.N. 007 854 686 SANTOS PETROLEUM PTY LTD A.C.N. 000 146 369 BORAL ENERGY RESOURCES A.C.N. 007 845 338 VAMGAS PTY LTD A.C.N. 006 245 110 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD A.C.N. 010 646 331 OIL COMPANY OF AUSTRALIA LIMITED A.C.N. 001 646 331 OVER EASEMENT C ON CP864604
- 4. CHANGE OF NAME No 705651096 27/05/2002 at 12:41 EASEMENT IN GROSS: 703038619 SANTOS LTD TENANT IN COMMON 3263/10000 DELHI PETROLEUM PTY LTD TENANT IN COMMON 29/125 SANTOS PETROLEUM PTY LTD TENANT IN COMMON 117/625 ORIGIN ENERGY RESOURCES TENANT IN COMMON 33/200 VAMGAS PTY LTD TENANT IN COMMON 601/8000 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD TENANT IN COMMON 3/250 OIL COMPANY OF AUSTRALIA LIMITED TENANT IN COMMON 19/8000
- 5. TRANSFER No 715191739 09/07/2013 at 11:24 EASEMENT IN GROSS: 703038619 SANTOS LTD TENANT IN COMMON 3263/10000 DELHI PETROLEUM PTY LTD TENANT IN COMMON 29/125 SANTOS PETROLEUM PTY LTD TENANT IN COMMON 117/625 BORAL ENERGY RESOURCES TENANT IN COMMON 33/200 VAMGAS PTY LTD TENANT IN COMMON 601/8000 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD TENANT IN COMMON 3/250 ORIGIN ENERGY RESOURCES LIMITED A.B.N. 66 007 845 338 TENANT IN COMMON 19/8000
- 6. EASEMENT IN GROSS No 706987170 15/09/2003 at 12:15 burdening the land EPIC ENERGY QUEENSLAND PTY LTD A.B.N. 67 066 656 219 over EASEMENTS V,W AND X ON SP158291

NATURAL RESOURCES, MINES AND ENERGY, QUEENSLAND

Request No: 30028081 Search Date: 19/11/2018 09:15

Title Reference: 17666157

Date Created: 21/10/1995

- 7. EASEMENT IN GROSS No 707541465 09/03/2004 at 10:04 burdening the land SANTOS LIMITED A.C.N. 007 550 923 DELHI PETROLEUM PTY LTD A.C.N. 007 854 686 SANTOS PETROLEUM PTY LTD A.C.N. 000 146 369 ORIGIN ENERGY RESOURCES LIMITED A.C.N. 007 845 338 VAMGAS PTY LTD A.C.N. 006 245 110 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD A.C.N. 010 850 487 ORIGIN ENERGY CSG LIMITED A.C.N. 001 646 331 over EASEMENT Y ON SP154282
- 8. TRANSFER No 715191685 09/07/2013 at 11:18 EASEMENT IN GROSS: 707541465 SANTOS LIMITED TENANT IN COMMON 3263/10000 DELHI PETROLEUM PTY LTD TENANT IN COMMON 29/125 SANTOS PETROLEUM PTY LTD TENANT IN COMMON 117/625 ORIGIN ENERGY RESOURCES LIMITED TENANT IN COMMON 1339/8000 VAMGAS PTY LTD TENANT IN COMMON 601/8000 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD TENANT IN COMMON 3/250
- 9. EASEMENT IN GROSS NO 707541601 09/03/2004 at 10:19 burdening the land SANTOS LIMITED A.C.N. 007 550 923 DELHI PETROLEUM PTY LTD A.C.N. 007 854 686 SANTOS PETROLEUM PTY LTD A.C.N. 000 146 369 ORIGIN ENERGY RESOURCES LIMITED A.C.N. 007 845 338 VAMGAS PTY LTD A.C.N. 006 245 110 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD A.C.N. 010 850 487 ORIGIN ENERGY CSG LIMITED A.C.N. 001 646 331 over EASEMENT M ON SP145125
- 10. TRANSFER No 715191630 09/07/2013 at 11:16 EASEMENT IN GROSS: 707541601 SANTOS LIMITED TENANT IN COMMON 3263/10000 DELHI PETROLEUM PTY LTD TENANT IN COMMON 29/125 SANTOS PETROLEUM PTY LTD TENANT IN COMMON 117/625 ORIGIN ENERGY RESOURCES LIMITED TENANT IN COMMON 1339/8000 VAMGAS PTY LTD TENANT IN COMMON 601/8000 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD TENANT IN COMMON 3/250

NATURAL RESOURCES, MINES AND ENERGY, QUEENSLAND

Request No: 30028081 Search Date: 19/11/2018 09:15

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Date Created: 21/10/1995

- 11. EASEMENT IN GROSS No 707541642 09/03/2004 at 10:21 burdening the land SANTOS LIMITED A.C.N. 007 550 923 DELHI PETROLEUM PTY LTD A.C.N. 007 854 686 SANTOS PETROLEUM PTY LTD A.C.N. 000 146 369 ORIGIN ENERGY RESOURCES LIMITED A.C.N. 007 845 338 VAMGAS PTY LTD A.C.N. 006 245 110 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD A.C.N. 010 850 487 ORIGIN ENERGY CSG LIMITED A.C.N. 001 646 331 over EASEMENT D ON SP127015
- 12. TRANSFER No 715191732 09/07/2013 at 11:23 EASEMENT IN GROSS: 707541642 SANTOS LIMITED TENANT IN COMMON 3263/10000 DELHI PETROLEUM PTY LTD TENANT IN COMMON 29/125 SANTOS PETROLEUM PTY LTD TENANT IN COMMON 117/625 ORIGIN ENERGY RESOURCES LIMITED TENANT IN COMMON 1339/8000 VAMGAS PTY LTD TENANT IN COMMON 601/8000 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD TENANT IN COMMON 3/250
- 13. EASEMENT IN GROSS NO 707541654 09/03/2004 at 10:23 burdening the land SANTOS LIMITED A.C.N. 007 550 923 DELHI PETROLEUM PTY LTD A.C.N. 007 854 686 SANTOS PETROLEUM PTY LTD A.C.N. 000 146 369 ORIGIN ENERGY RESOURCES LIMITED A.C.N. 007 845 338 VAMGAS PTY LTD A.C.N. 006 245 110 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD A.C.N. 010 850 487 ORIGIN ENERGY CSG LIMITED A.C.N. 001 646 331 over EASEMENTS J TO L ON SP145115
- 14. TRANSFER No 715191654 09/07/2013 at 11:17 EASEMENT IN GROSS: 707541654 SANTOS LIMITED TENANT IN COMMON 3263/10000 DELHI PETROLEUM PTY LTD TENANT IN COMMON 29/125 SANTOS PETROLEUM PTY LTD TENANT IN COMMON 117/625 ORIGIN ENERGY RESOURCES LIMITED TENANT IN COMMON 1339/8000 VAMGAS PTY LTD TENANT IN COMMON 601/8000 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD TENANT IN COMMON 3/250

NATURAL RESOURCES, MINES AND ENERGY, QUEENSLAND

Request No: 30028081 Search Date: 19/11/2018 09:15

Title Reference: 17666157

Date Created: 21/10/1995

- 15. EASEMENT IN GROSS No 707542448 09/03/2004 at 11:49 burdening the land SANTOS LIMITED A.C.N. 007 550 923 DELHI PETROLEUM PTY LTD A.C.N. 007 854 686 SANTOS PETROLEUM PTY LTD A.C.N. 000 146 369 ORIGIN ENERGY RESOURCES LIMITED A.C.N. 007 845 338 VAMGAS PTY LTD A.C.N. 006 245 110 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD A.C.N. 010 850 487 ORIGIN ENERGY CSG LIMITED A.C.N. 001 646 331 over EASEMENT P ON SP148547
- 16. TRANSFER No 715191707 09/07/2013 at 11:20 EASEMENT IN GROSS: 707542448 SANTOS LIMITED TENANT IN COMMON 3263/10000 DELHI PETROLEUM PTY LTD TENANT IN COMMON 29/125 SANTOS PETROLEUM PTY LTD TENANT IN COMMON 117/625 ORIGIN ENERGY RESOURCES LIMITED TENANT IN COMMON 1339/8000 VAMGAS PTY LTD TENANT IN COMMON 601/8000 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD TENANT IN COMMON 3/250
- 17. EASEMENT IN GROSS NO 707542491 09/03/2004 at 11:52 burdening the land SANTOS LIMITED A.C.N. 007 550 923 DELHI PETROLEUM PTY LTD A.C.N. 007 854 686 SANTOS PETROLEUM PTY LTD A.C.N. 000 146 369 ORIGIN ENERGY RESOURCES LIMITED A.C.N. 007 845 338 VAMGAS PTY LTD A.C.N. 006 245 110 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD A.C.N. 010 850 487 ORIGIN ENERGY CSG LIMITED A.C.N. 000 051 696 over EASEMENT G ON SP145095
- 18. TRANSFER No 715191695 09/07/2013 at 11:19 EASEMENT IN GROSS: 707542491 SANTOS LIMITED TENANT IN COMMON 3263/10000 DELHI PETROLEUM PTY LTD TENANT IN COMMON 29/125 SANTOS PETROLEUM PTY LTD TENANT IN COMMON 117/625 ORIGIN ENERGY RESOURCES LIMITED TENANT IN COMMON 1339/8000 VAMGAS PTY LTD TENANT IN COMMON 601/8000 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD TENANT IN COMMON 3/250

NATURAL RESOURCES, MINES AND ENERGY, QUEENSLAND

Request No: 30028081 Search Date: 19/11/2018 09:15

Title Reference: 17666157

Date Created: 21/10/1995

- 19. EASEMENT IN GROSS No 707542519 09/03/2004 at 11:54 burdening the land SANTOS LIMITED A.C.N. 007 550 923 DELHI PETROLEUM PTY LTD A.C.N. 007 854 686 SANTOS PETROLEUM PTY LTD A.C.N. 000 146 369 ORIGIN ENERGY RESOURCES LIMITED A.C.N. 007 845 338 VAMGAS PTY LTD A.C.N. 006 245 110 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD A.C.N. 010 850 487 ORIGIN ENERGY CSG LIMITED A.C.N. 000 051 696 over EASEMENT N ON SP145126
- 20. TRANSFER No 715191690 09/07/2013 at 11:19 EASEMENT IN GROSS: 707542519 SANTOS LIMITED TENANT IN COMMON 3263/10000 DELHI PETROLEUM PTY LTD TENANT IN COMMON 29/125 SANTOS PETROLEUM PTY LTD TENANT IN COMMON 117/625 ORIGIN ENERGY RESOURCES LIMITED TENANT IN COMMON 1339/8000 VAMGAS PTY LTD TENANT IN COMMON 601/8000 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD TENANT IN COMMON 3/250
- 21. EASEMENT IN GROSS NO 707542593 09/03/2004 at 12:04 burdening the land SANTOS LIMITED A.C.N. 007 550 923 DELHI PETROLEUM PTY LTD A.C.N. 007 854 686 SANTOS PETROLEUM PTY LTD A.C.N. 000 146 369 ORIGIN ENERGY RESOURCES LIMITED A.C.N. 007 845 338 VAMGAS PTY LTD A.C.N. 006 245 110 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD A.C.N. 010 850 487 ORIGIN ENERGY CSG LIMITED A.C.N. 000 051 696 over EASEMENT E ON SP130818
- 22. TRANSFER No 715191704 09/07/2013 at 11:20 EASEMENT IN GROSS: 707542593 SANTOS LIMITED TENANT IN COMMON 3263/10000 DELHI PETROLEUM PTY LTD TENANT IN COMMON 29/125 SANTOS PETROLEUM PTY LTD TENANT IN COMMON 117/625 ORIGIN ENERGY RESOURCES LIMITED TENANT IN COMMON 1339/8000 VAMGAS PTY LTD TENANT IN COMMON 601/8000 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD TENANT IN COMMON 3/250

NATURAL RESOURCES, MINES AND ENERGY, QUEENSLAND

Request No: 30028081 Search Date: 19/11/2018 09:15

Title Reference: 17666157

Date Created: 21/10/1995

- 23. EASEMENT IN GROSS No 709586801 11/05/2006 at 15:15 burdening the land SANTOS LIMITED A.B.N. 80 007 550 923 TENANT IN COMMON 3263/10000 DELHI PETROLEUM PTY LTD A.B.N. 65 007 854 686 TENANT IN COMMON 29/125 SANTOS PETROLEUM PTY LTD A.B.N. 95 000 146 369 TENANT IN COMMON 117/625 ORIGIN ENERGY RESOURCES LIMITED A.B.N. 66 007 845 338 TENANT IN COMMON 33/200 VAMGAS PTY LTD A.B.N. 76 006 245 110 TENANT IN COMMON 601/8000 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD A.B.N. 83 010 850 487 TENANT IN COMMON 3/250 ORIGIN ENERGY CSG LIMITED A.B.N. 68 001 646 331 TENANT IN COMMON 19/8000 over EASEMENTS A AND B ON SP171544
- 24. TRANSFER No 715191718 09/07/2013 at 11:21 EASEMENT IN GROSS: 709586801 SANTOS LIMITED TENANT IN COMMON 3263/10000 DELHI PETROLEUM PTY LTD TENANT IN COMMON 29/125 SANTOS PETROLEUM PTY LTD TENANT IN COMMON 117/625 ORIGIN ENERGY RESOURCES LIMITED TENANT IN COMMON 1339/8000 VAMGAS PTY LTD TENANT IN COMMON 601/8000 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD TENANT IN COMMON 3/250
- 25. EASEMENT IN GROSS No 709586837 11/05/2006 at 15:17 burdening the land SANTOS LIMITED A.B.N. 80 007 550 923 TENANT IN COMMON 3263/10000 DELHI PETROLEUM PTY LTD A.B.N. 65 007 854 686 TENANT IN COMMON 29/125 SANTOS PETROLEUM PTY LTD A.B.N. 95 000 146 369 TENANT IN COMMON 117/625 ORIGIN ENERGY RESOURCES LIMITED A.B.N. 66 007 845 338 TENANT IN COMMON 33/200 VAMGAS PTY LTD A.B.N. 76 006 245 110 TENANT IN COMMON 601/8000 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD A.B.N. 83 010 850 487 TENANT IN COMMON 3/250 ORIGIN ENERGY CSG LIMITED A.B.N. 68 001 646 331 TENANT IN COMMON 19/8000 over EASEMENT F ON SP171545

NATURAL RESOURCES, MINES AND ENERGY, QUEENSLAND

Request No: 30028081 Search Date: 19/11/2018 09:15

Title Reference: 17666157

Date Created: 21/10/1995

- 26. TRANSFER No 715191742 09/07/2013 at 11:25 EASEMENT IN GROSS: 709586837 SANTOS LIMITED TENANT IN COMMON 3263/10000 DELHI PETROLEUM PTY LTD TENANT IN COMMON 29/125 SANTOS PETROLEUM PTY LTD TENANT IN COMMON 117/625 ORIGIN ENERGY RESOURCES LIMITED TENANT IN COMMON 1339/8000 VAMGAS PTY LTD TENANT IN COMMON 601/8000 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD TENANT IN COMMON 3/250
- 27. EASEMENT IN GROSS No 709586913 11/05/2006 at 15:22 burdening the land SANTOS LIMITED A.B.N. 80 007 550 923 TENANT IN COMMON 3263/10000 DELHI PETROLEUM PTY LTD A.B.N. 65 007 854 686 TENANT IN COMMON 29/125 SANTOS PETROLEUM PTY LTD A.B.N. 95 000 146 369 TENANT IN COMMON 117/625 ORIGIN ENERGY RESOURCES LIMITED A.B.N. 66 007 845 338 TENANT IN COMMON 33/200 VAMGAS PTY LTD A.B.N. 76 006 245 110 TENANT IN COMMON 601/8000 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD A.B.N. 83 010 850 487 TENANT IN COMMON 3/250 ORIGIN ENERGY CSG LIMITED A.B.N. 68 001 646 331 TENANT IN COMMON 19/8000 over EASEMENTS S,T,U,V,W,X,Y,Z,AA,AB AND AC ON SP166531
- 28. TRANSFER No 715191749 09/07/2013 at 11:26 EASEMENT IN GROSS: 709586913 SANTOS LIMITED TENANT IN COMMON 3263/10000 DELHI PETROLEUM PTY LTD TENANT IN COMMON 29/125 SANTOS PETROLEUM PTY LTD TENANT IN COMMON 117/625 ORIGIN ENERGY RESOURCES LIMITED TENANT IN COMMON 1339/8000 VAMGAS PTY LTD TENANT IN COMMON 601/8000 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD TENANT IN COMMON 3/250
- 29. AMENDMENT OF LEASE CONDITIONS No 716063411 09/10/2014 at 05:00 THE CONDITIONS OF THE WITHIN TENURE ARE HEREBY AMENDED.
- 30. EASEMENT IN GROSS No 716739564 08/09/2015 at 15:25 burdening the land SANTOS LIMITED A.C.N. 007 550 923 over EASEMENT AD ON SP271307

NATURAL RESOURCES, MINES AND ENERGY, QUEENSLAND

Request No: 30028081 Search Date: 19/11/2018 09:15

Title Reference: 17666157

Date Created: 21/10/1995

ADMINISTRA	TIVE ADVICES	
Dealing	Туре	Lodgement Date Status
717904118	CON COM AGMT	17/03/2017 10:26 CURRENT
	MINERAL AND ENERGY RESOURCES	(COMMON PROVISIONS) ACT 2014
717904175	CON COM AGMT	17/03/2017 10:40 CURRENT
	MINERAL AND ENERGY RESOURCES	(COMMON PROVISIONS) ACT 2014
717904177	CON COM AGMT	17/03/2017 10:41 CURRENT
	MINERAL AND ENERGY RESOURCES	(COMMON PROVISIONS) ACT 2014
UNREGISTER	ED DEALINGS - NIL	

Corrections have occurred - Refer to Historical Search

Caution - Charges do not necessarily appear in order of priority

** End of Current State Tenure Search **

Information provided under section 34 Land Title Act(1994) or section 281 Land Act(1994)

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ATTACHMENT 3 – PL 1047 RESOURCE AUTHORITY PUBLIC REPORT

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-Permit d	letails
Permit ID:	PL 1047
Status:	Application
Lodged date:	02/02/2018
Grant date:	
Commencement date:	
Expiry date:	
Term sought:	14 years
Conditions:	
Locality:	22.5km north east of the Ballera gas plant
Remarks:	
Act permit granted under:	
Act now administered under:	



- Holders

Authorised holder representative (AHR)

Santos Limited

Team Leader Tenures Compliance Level 22, Santos Place 32 Turbot Street BRISBANE QLD 4000

Holders

	Holder name	Share %	Status	Held from	Held to	Authorised holder
*	SANTOS LIMTED Team Leader, Tenures and Compliance Level 22, Santos Place 32 Turbot Street Brisbane QLD 4000	40.000000000000	Current	02/02/2018		Yes
*	DELHI PETROLEUMPTY LTD 25 CONYNGHAMSTREET GLENSIDE SA 5065	32.00000000000	Current	02/02/2018		No
*	VAWGAS PTY LTD Team Leader, Tenures and Compliance Level 22, Santos Place 32 Turbot Street Brisbane QLD 4000	15.5000000000000	Current	02/02/2018		No
*	MAWSON PETROLEUMPTY LIMITED 25 CONYNGHAM STREET GLENSIDE SA 5065	6.500000000000	Current	02/02/2018		No
*	AUSTRALIAN GASFIELDS LIMITED 9A Seaforth Crescent Seaforth NSW 2092	2.000000000000	Current	02/02/2018		No
*	BOUNTY OIL & GAS NL LEVEL 7 283 GEORGE STREET SYDNEY NSW 2000	2.00000000000	Current	02/02/2018		No
*	BRIDGEPORT (EROMANGA) PTY LTD LEVEL 7 111 PACIFIC HIGHWAY NORTH SYDNEY NSW 2000	2.000000000000	Current	02/02/2018		No

Tenancy type: Tenancy in Common

- Area

AICu	
Location:	<u>View Map</u>
Mining district:	Quilpie
Local authority:	Bulloo Shire Council
Area:	10 Sub-blocks
Exclusions:	
Marked out date:	
Cub blocks	

Sub-blocks

BIM	Block	Α	в	С	D	Е	F	G	н	J	к	L	М	N	ο	Ρ	Q	R	S	т	U	v	w	Х	Y	z
Cooper Creek	2857	Α	В	С			F	G				L	М	Ν				R	s							
Background	land																									
No data available																										
Survey plans	5																									
No data available																										
Relinquishm	ent details																									
No data available																										
Sub-blocks r	retained																									
No data available																										



-Term history							
Term	Date notice issued	Date lodged	Date approved	Date commenced	Date term ends	Term	Act granted under
		02/02/2018					
- Nat	ive t	itle					
Current proc		Description QI2012/073					
- Pur	pose	and mi	nerals				
Purpose							
Petroleum pr	oduction						
Minerals							
Petroleum	Petroleum						
- R e I	ated	permits					
Pre-requisite	Pre-requisite permits: ATP 1189						
- Fin	- Financial						
Rent details							
Area units: 31							
Rate/unit are	Rate/unit area:						
- Act	- Activities						
No data availa	No data available						



ATTACHMENT 4 – RIDA ASSESSMENT REPORT



Regional Interests Development Application Assessment Report

Okotoko North 1 Gas Well

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Abbreviations and Units

Acronym	Description		
ATP	Authority to Prospect		
DES	Department of Environment and Science, Queensland		
DILGP	Department of Infrastructure, Local Government and Planning		
DNRM	Department of Natural Resources and Mines		
EA	Environmental Authority		
ha	Hectares		
km	Kilometre		
m	Metres		
N/A	Not Applicable		
P&G Act 2004	Petroleum and Gas (Production and Safety) Act 2004		
PL	Petroleum Lease		
QLD	Queensland		
RE	Regional Ecosystem		
RIDA	Regional Interests Development Approval		
RPI Act	Regional Planning Interests Act 2014		
RPI Reg	Regional Planning Interests Regulation 2014		
SEA	Strategic Environmental Areas		

1.0 Introduction

Santos Limited (Santos) has prepared this assessment report to support an assessment application for a Regional Interests Development Approval (RIDA) as required under s29 of the *Regional Planning Interests Act 2014*) (RPI Act) to be submitted to the Department of Infrastructure, Local Government and Planning (DILGP).

This application is of an administrative nature. It seeks only to authorise petroleum production on Lot 1 on Plan SP133822 and PL1047 within the Channel Country SEA from the existing Okotoko North 1 petroleum well and associated infrastructure. This is a result of a change in tenure from Authority to Prospect (ATP) to a Production Licence (PL), and subsequent requirement for a new Environmental Authority (EA). The new tenure and EA are to allow for commercialisation of a petroleum product, following extended production testing, conducted under Authority to Prospect (ATP) 1189.

This assessment report has been prepared in accordance with the RPI Act Statutory Guideline 01/14: How to make an assessment application for a regional interests development approval under the Regional Planning Interests Act 2014 and the RPI Act Statutory Guideline 05/14: Carrying out resource activities and regulated activities within a Strategic Environmental Area.

This assessment report provides the following:

- Description of the proposed activities;
- Identification of the relevant environmental attributes of the land subject to the application;
- Evaluation of the potential impacts on the identified relevant environmental attributes; and
- An assessment of how the proposed activities meet the required outcome for Strategic Environmental Areas (SEA) as detailed in the *Regional Planning Interests Regulation 2014* (RPI Reg).

1.1 Landholder Copy of the Application

Separate regulatory systems are in place that require Santos to notify the landholder of petroleum activities occurring within their properties. Given the pre-existing nature of the activities (refer Section 2.0), notification to the landholder has already ensued. Notwithstanding, a copy of the application will be given to the landowner within 5 business days after the application is made, in accordance with Section 30 of the RPI Act and Schedule 5 of the RPI Reg.

1.2 Non-Notifiable Application

In accordance with Section 34(2) of the RPI Act, and Section 13 of the RPI Reg, notification of the assessment application is not mandatory, as the activities are not proposed to be carried out in an area of regional interest that is a priority living area.

The proposed activities would be located solely on Lot 1 SP133822 forming part of Durham Downs Pastoral Station, an 8,910 km² cattle station operated by S Kidman & Co Ltd. Discretionary notification under s34(4) would not be necessary given the pre-existing nature of the activities (notification to the landholder has already ensued), the very large size of the cattle station relative to the activities and that the landholder will receive a copy of the application as described below.

1.3 Referable Application

In accordance with Section 12(2) and Schedule 1 of the RPI Reg, the application is referrable to the Department of Environment and Science (DES) and the Department of Natural Resources, Mines and Energy (DNRME).

2.0 Proposed Activity

Santos is seeking to undertake 'petroleum production' on Lot 1 on Plan SP133822 and PL1047 within the Channel Country SEA from the infrastructure and disturbances listed in Table 1 and shown in Figure 1:

Dre Evicting Infractivisture	Pre-Existing Disturbance			
Pre-Existing Infrastructure	Length	Area		
Petroleum Well Pad (Okotoko Norht 1)	N/A	1.4 ha		
Buried Pipeline	3 km	0.3 ha		
Access Track	0.9 km	0.55 ha		
Borrow Pit	N/A	0.69 ha		
		2.94 ha		

Table 1: Pre-Existing Surface Disturbance

The infrastructure listed in Table 1 is pre-existing infrastructure, constructed and operated for the purposes of exploration and production testing activities as authorised by ATP 1189 and EA EPPG03518215. Santos now intends to utilise this infrastructure for the purpose of 'petroleum production' as evidenced by the submission of an application for PL 1047 on 2 February 2018 and an amendment application to EA EPPG03518115 to add PL 1047 on 23 July 2018.

The activity of petroleum production will not change the nature of the activities already conducted at these locations. 'Production' primarily refers to the ongoing commercialisation of the petroleum product generated from the activity. No new surface disturbance to land is required as part of this activity at this location. Activities will be limited to 'production' operational maintenance and restoration at their end-of-life. Descriptions of the activities are provided below (Section 2.1 to 2.4) with definitions provided in Appendix A.

Okotoko North 1 and associated infrastructure is located on the Durham Downs Pastoral Station (Lot 1 on Plan SP133822). Durham Downs is a pastoral lease that operates as a cattle station with a capacity of up to 21,500 head of cattle¹. The primary land uses are cattle grazing and petroleum activities.

2.1 Existing Conventional Petroleum Well and Lease

The existing Okotoko North 1 well currently extracts petroleum for exploration and production testing purposes via surfaces facilities including a well head, which comprises of equipment on the surface that supports the various pipe strings, seals off the well, and controls the paths and flow of reservoir fluids. It is feasible that workover operations will be required for the Okotoko North 1 well in the future. Workover operations include activities such as, cleaning out of production conduits and replacing tubing, retrieving or drilling out obstructions in the well, and well bore decommissioning. For some workovers, a workover rig and associated infrastructure (i.e. a drilling fluids sump) would need to be set up within the existing disturbance footprint for a temporary duration. Workover activities would be scheduled to be completed outside of the wet season.

¹ S. Kidman & Co Ltd (2018) *Durham Downs*, https://www.kidman.com.au/properties/5/durham-downs

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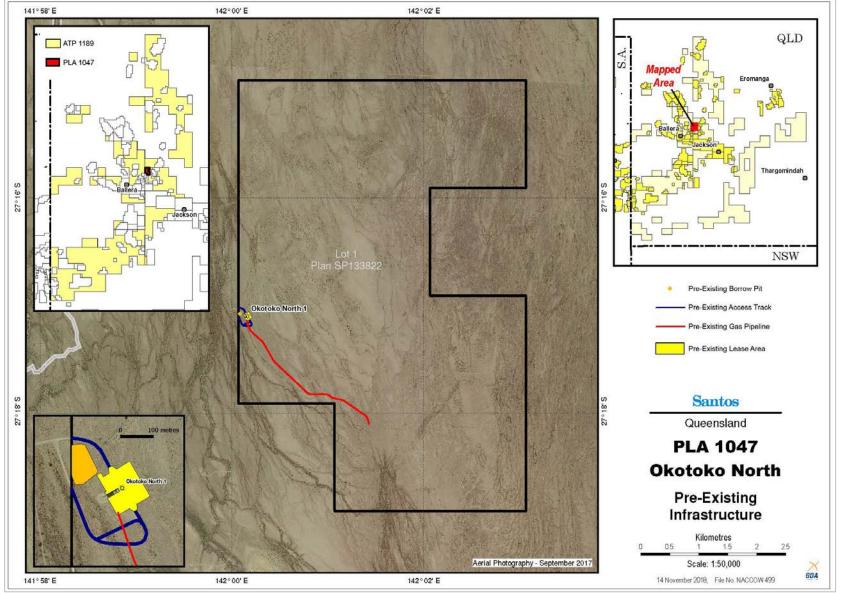


Figure 1: Location of Pre-Existing Infrastructure

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Extracting petroleum for 'production' will not change the nature of the activities already conducted at this location. The change in tenure is to enable the commercialisation of the petroleum product only. No new surface disturbance to land outside of the existing disturbance footprint is required at this location to facilitate ongoing production. The well will be restored at end-of-life in accordance with the P&G Act 2004 and the relevant EA conditions.

2.2 Existing Access Tracks

Access tracks are proposed to be used for ongoing access to the Okotoko North 1 well. No new access tracks are proposed. Pre-existing access tracks are not designed to be used during wet weather conditions, and therefore have not been constructed to any flood immunity, and will facilitate the passage of water keeping with existing hydrology. Maintenance of the tracks may be required over time (e.g. light grade). The access tracks will be restored at end-of-life in accordance with the *Petroleum and Gas* (*Production and Safety*) *Act 2004* (P&G Act 2004) and the relevant EA conditions.

2.1 Existing Borrow Pit

The borrow pit is proposed to be used to provide a source of material required for ongoing well lease and access track maintenance. The existing side batters of the borrow pit are maintained at a slope of approximately 3:1, and the batters of the entrance / exit are maintained at a slope of approximately 7:1. The borrow pit will be progressively restored by ripping the floor and sides of the borrow pit to a minimum depth of 500 mm generally along the contour (Figure 2). Stockpiled topsoil and vegetation is then respread to a uniform depth over the entire area from which it was removed. The sides and floor of the pit are graded to give a contoured finish, as required by the relevant EA conditions.

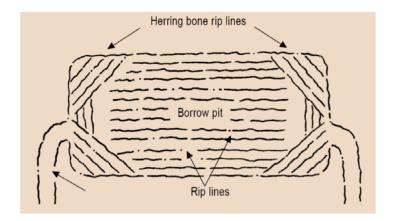


Figure 2: Example Borrow Pit Ripping for Rehabilitation

2.2 Existing Buried Pipeline

The existing pipeline is proposed to be utilised to transport extracted petroleum for production. The existing pipeline is buried underground and the surface has been rehabilitated to reinstate existing drainage. It is connected to the existing pipeline gathering network, to the Wippo to Okotoko Gas Spineline (PPL 39), and currently transports petroleum for exploration and production testing purposes. Transporting petroleum for sale will not change the nature of the activities already conducted at this location. No new surface disturbance to land is required. The pipeline will be restored at end-of-life in accordance with the relevant EA conditions



3.0 Environmental Attributes and Potential Impacts

Section 7 of the RPI Reg prescribes the following environmental attributes relevant to the Channel Country SEA:

(a) the natural hydrologic processes of the area characterised by-

(i) natural, unrestricted flows in and along stream channels and the channel network in the area; and

(ii) overflow from stream channels and the channel network onto the flood plains of the area, or the other way; and

(iii) natural flow paths of water across flood plains connecting waterholes, lakes and wetlands in the area; and

(*iv*) groundwater sources, including the Great Artesian Basin and springs, that support waterhole persistence and ecosystems in the area;

(b) the natural water quality in the stream channels and aquifers and on flood plains in the area;

(c) the beneficial flooding of land that supports flood plain grazing and ecological processes in the area.

DILGP's RPI Act Statutory Guideline 05/14: Carrying out resource activities and regulated activities within a Strategic Environmental Area summarises the above attributes to broadly relate to:

- Riparian process;
- Wildlife corridors;
- Water quality;
- Hydrologic processes;
- Geomorphic processes; and
- Beneficial flooding.

As discussed in Section 2.0, the proposed activity of petroleum production will not change the nature of the activities already conducted from existing infrastructure. The proposed activity is limited to production, operational maintenance and restoration of existing infrastructure at end-of-life. Notwithstanding, the relevance of the above environmental attributes to the activity is described below.

3.1 Riparian Process

The proposed activity would be undertaken within Regional Ecosystems (REs) 5.3.18b/5.3.18a/5.3.8a (60/30/10) (see Figure 3). These REs are listed as of No Concern at Present (NCAP), are known to include riparian vegetation, and are subject to long-term grazing from operation of the Durham Downs pastoral lease. They consist of variable sparse to open-herbland with either grasses or forbs dominating the ground layer depending on incidence of flooding and seasonal conditions (5.3.18b); *Chenopodium auricomum open shrubland,* frequently with pure stands of *Chenopodium auricomum* (5.3.18a); and *Eucalyptus coolabah* low open woodland with a distinct and semi-continuous, low shrub layer dominated by *Duma florulenta.* The braided channels associated with the Cooper Creek surround the proposed activity; at its closest point, the Cooper Creek is located approximately 250m to the west.

3.1.1 Potential Impacts

The activity is located within the existing infrastructure footprint. No new surface disturbance to land, such as clearing vegetation in or near streams, lakes, floodplains or wetlands, is required as part of the proposed activity. Access to and from the proposed activity will occur along the existing access tracks only.

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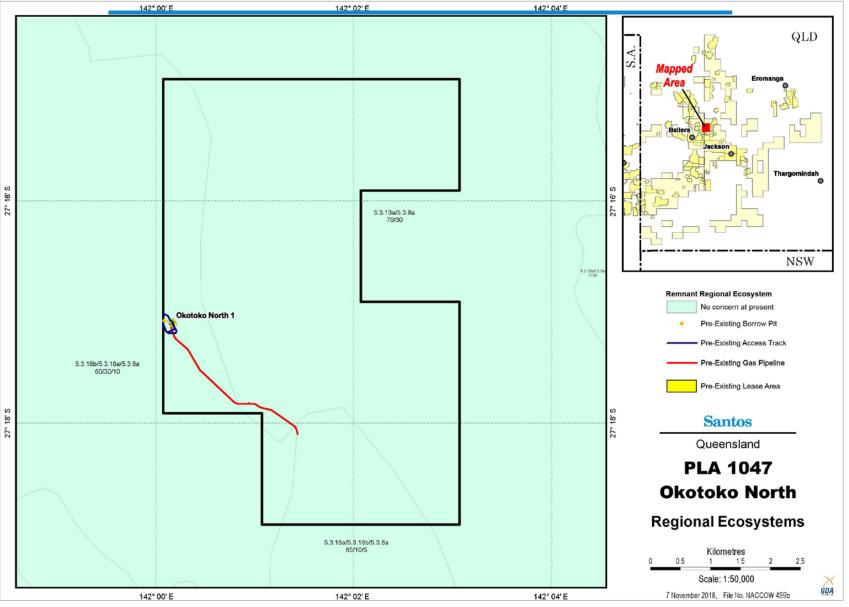


Figure 3: Regional Ecosystems

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Following cessation of petroleum production, existing infrastructure would be rehabilitated to promote the natural re-establishment of vegetation consistent with the surrounding undisturbed land in accordance with the relevant EA conditions. As such, there will be no new disturbance or change to riparian corridors along streams and lakes and within floodplains and wetlands as a part of this activity. Accordingly, the proposed activities would not cause a widespread or irreversible impact on riparian processes within the Channel Country SEA.

3.1 Wildlife Corridors

The proposed activity is located within a pre-disturbed area of an existing vegetated corridor. The area where the Okotoko North 1 well is located has been extensively overgrazed from operation of the Durham Downs pastoral lease. The REs surrounding the location (REs 5.3.18b/5.3.18a/5.3.8a (60/30/10)) may provide suitable general habitat for a range of wetland water birds, and for the Western Taipan (*Oxyuranus microlepidotus*) (Least Concern). There are no mapped Environmentally Sensitive Areas (ESA) near the Okotoko North 1 well; the closest ESA, Category C ESA Essential Habitat, is located approximately 5 km to the southeast.

3.1.1 Potential Impacts

No new disturbance(s) to aquatic and terrestrial fauna or wildlife corridors is to be undertaken as part of this activity. Measures will be adopted to prevent fauna entrapment within operational areas, and hygiene protocols will be implemented as appropriate to minimise the introduction, spread and persistence of weed species, in accordance with relevant EA conditions. Access to and from the proposed activity will occur along the existing access tracks only. Following cessation of petroleum production, existing infrastructure would be rehabilitated to promote the natural re-establishment of vegetation consistent with the surrounding undisturbed land, in accordance with relevant EA conditions. As such, there is no disturbance or change to wildlife corridors as a part of this activity and therefore the proposed activities would not cause a widespread or irreversible impact on wildlife corridors within the Channel Country SEA.

3.2 Water Quality

Surface Water

The proposed activity is located within an area of the Cooper Creek basin that is not typically flowing and is subject to intermittent flows associated with Cooper Creek flood events; which have occurred five times since 1989 (using Landsat data). Historical (1965-2016) water quality data from the QLD Government's Cooper Creek gauging station 003103A, located approximately 95km south west, is summarised in Table 2.

Average Value
345 µS/cm
512 NTU
7.4
1.4 mg/L
0.4 mg/L
44.6 mg/L
7.4 mg/L
62.6 mg/L

Table 2: Cooper	Creek Surface	Water Qu	uality (1956-201	6)
	0.001.001.000	mator de		~ <i>,</i>



Fluoride as F	0.2 mg/L
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Groundwater

The main GAB aquifers (i.e. in the Eromanga Basin stratigraphy) in relation to PL 1047 are the Winton Formation, Cadna-owie Formation, Hooray Sandstone, Hutton Sandstone and Poolowanna Formation (Precipice Sandstone equivalent). The aquifers of the Eromanga Basin are considered highly productive aquifers over most of the GAB. Shallow groundwater is generally found within the Quaternary and Tertiary alluvium formations associated with the very flat structures of flood plains and is absent where the Winton Formation occasionally outcrops. Groundwater from Tertiary sediments and the Winton Formation are characterised by a higher proportion of sodium and magnesium ranging in EC values from 3,000 to $13,000 \,\mu\text{S/cm}^2$.

The aquifers of the Cooper Basin, which underlies the GAB sediments of the Eromanga Basin, are not considered sandstone aquifers of the GAB. Groundwater yields from the Cooper Basin may be feasible from the Wimma Sandstone, Toolachee Formation, Epsilon Formation, Patchawarra Formation and Tirrawarra Formation.

The Okotoko North 1 well primarily targets the Toolachee Formation, but also intersects the secondary Epsilon and Patchawarra formations of the Cooper Basin. Together with the Tirrawarra Sandstone, these formations are the main gas reservoirs within the Cooper Basin and are located at depths of 2000 m or more.

Within the Santos Cooper Basin tenements, only the upper aquifers of the Eromanga Basin sequence are of economic interest to the local community. This is due to the significant depth of the water bearing formations in the Cooper Basin and the general unreliability of the groundwater quality that may be encountered (i.e. it may have a high salinity and contain free and dissolved hydrocarbons).

No registered groundwater bores are located nearby to the proposed activity. There are no known groundwater dependent ecosystems, including Great Artesian Basin springs, which support permanent waterholes or aquatic ecosystems in the area. The closest Great Artesian Basin discharge / recharge springs are located greater than 200 km from Okotoko North 1.

3.2.1 Potential Impacts

The activity does involve any new surface disturbance to land, such as clearing vegetation in or near streams, lakes, floodplains or wetlands. No activities proposed involve the discharges of water (point or diffuse sources) or the construction or operation of regulated dams and other major infrastructure (i.e. separation ponds, permanent camps).

Any fuels / chemicals used on site would be stored and handled in accordance with Australian Standards and spill kits will be located onsite where required to contain any spills should they occur. All waste materials and non-essential infrastructure will be removed at the end of the petroleum activities as soon as reasonably practicable, minimising risks associated with contamination, or a reduction in water quality, in accordance with EA conditions.

Contingency measures for unplanned releases of discharges of contaminants will be implemented in accordance with EA conditions. Moreover, due to the slow nature of the encroachment of flood waters in the Cooper Creek, sufficient time is generally available to prepare operational areas for potential flood impacts e.g. in these situations all non-essential materials present on site at the time (e.g. hydrocarbons, chemicals, infrastructure) shall be removed from operational areas prior to the arrival of floodwaters.

² Golder Associates 2013 Underground Water Impact Report For Santos Cooper Basin Oil & Gas Fields, SW QLD

The petroleum well has been completed with steel surface casing, steel production casing, and cement to isolate the well from aquifers, including the Great Artesian Basin, and other geological units.

Given the scope of proposed activities, combined with the above management measures, petroleum production from pre-existing infrastructure is unlikely to disturb or alter the physical, chemical and biological quality of water in the watercourse channels and on floodplains that support and maintain the natural aquatic and terrestrial ecosystems. Accordingly, the proposed activities would not cause a widespread or irreversible impact on water quality within the Channel Country SEA.

3.3 Hydrological Processes

Regional

Topography is limited to low undulating topography between the drainage channel system. The Channel Country is characterised by vast flat-lying, braided, flood and alluvial plains surrounded by gravel or gibber plains, dunefields and low ranges. The low resistant hills and tablelands are remnants of the flat-lying Cretaceous sediments.

The drainage system is dominated by the Cooper Creek Basin draining towards Lake Eyre. During periods of high rainfall, the flat topography and drainage channel system becomes a largely flooded plain with water flow concentrating where Cooper Creek crosses the QLD-SA border. The Cooper Creek system catchment covers an area of approximately 300,000 km². Generally, Cooper Creek streamflow is confined to the main channels, but every 3-4 years, flows are sufficient to inundate parts of the Cooper floodplain via a network of tributary channels. During extended periods of no flow, the Cooper Creek contracts to a series of waterholes. Very large Cooper Creek flood events with the potential to inundate the broader Channel Country region, and flow water into the lower Cooper Creek in South Australia, occur on average once every 10 years, reaching Lake Eyre North in an estimated 1 in every 20 years

Local

The braided channels associated with the Cooper Creek surround the proposed activity; at its closest point, the Cooper Creek is located approximately 250m to the west (Figure 4). The proposed activity is subject to intermittent flows associated with Cooper Creek flood events, which have occurred five times since 1989 (using Landsat data). The area of the proposed activity would experience intermittent surface water flows during storm events, causing localised ponding of surface water (occurring on average once every 5 years). The proposed activity is within an arid / semi-arid floodplain lignum swamp.

3.3.1 Potential Impacts

The proposed activity is located within the existing infrastructure footprint. The access tracks have not been constructed to any flood immunity, and will facilitate the passage of water keeping with existing hydrology. The existing pipeline is buried underground and the surface has been rehabilitated to reinstate existing drainage. Any surface infrastructure required as a part of future workover activities (i.e. a drilling sump), may result in diversion or interception of a negligible amount of overland flow, when considering the small footprint of the activity relative to the sub-catchment area (typical drilling sump has an operating volume of approximately 300kL and is designed to exclude surface flow). However, all workover activities would be temporary in nature and would be scheduled to be completed outside of the wet season (infrastructure removed prior to Cooper Creek flood events), therefore diversion or interception of overland flow is not expected. No new surface disturbance to land, such as clearing vegetation in or near streams, lakes, floodplains or wetlands, is required as part of the proposed activity. Given the nature of the proposed activities, and the implementation of the above design and management measures, there would be no widespread or irreversible impact on hydrological processes within the Channel Country SEA.

3.4 Geomorphic Processes

Regional

Surface geology is dominated by Quaternary alluvium deposits associated with flood plains, with consolidated Tertiary sediments or Winton Formation on the higher ground. Cooper Creek is a large sedimentary sump accreting over a vast floodplain³.

Local

Land systems mapped at the location of the proposed activities are consistent with Landzone mapping. The proposed activity location is entirely mapped as an alluvial plain with gradients less than 1:5000 and anastomosing channels, main channels and shallow flood depressions. The area is associated with the irregularly flooded Cooper Creek main channel area⁴. Land systems present within the proposed activity location is summarised in Table 3. Soils are entirely mapped as grey clays and grey cracking clays (Map Code: CC87)⁵.

Map Code	Land System Description	Agricultural Land Class
C1	Alluvial plains with gradients of less than 1:5,000; with anastomosing channels (0.1 to 1 m relief), main channels (<10 m relief), shallow flood depressions, waterholes, billabongs and swamps, and slightly elevated more stable alluvial islands. Isolated sand dunes.	C1 - Pasture Land - native pastures

Table 3: Land System at Proposed Activity Location

3.4.1 Potential Impacts

The proposed activity is located within the existing infrastructure footprint. No new surface disturbance to land, such as excavation, clearing or realigning the beds and banks of watercourse, cultivating soil or excavating on floodplains, are required as part of the proposed activity. No new structures are proposed to be placed in a watercourse, lake or spring or on floodplains as a part of this activity.

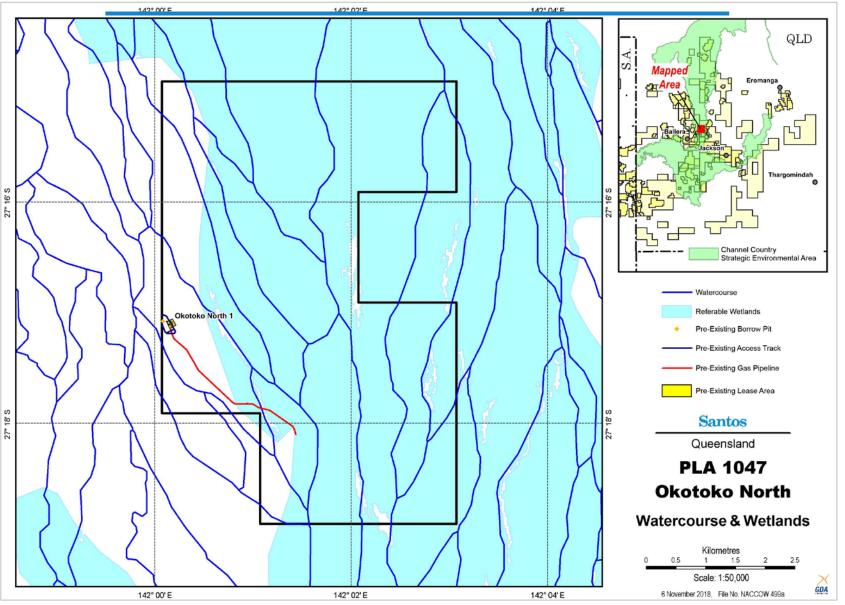
The proposed activities is located away from the sources / areas of significant geomorphic processes, approximately 250m from the closest watercourse. The access tracks have not been constructed to any flood immunity, and will facilitate the passage of water keeping with existing hydrology. The existing pipeline is buried underground and the surface has been rehabilitated to reinstate existing drainage. Any surface infrastructure required as a part of future workover activities (i.e. a drilling sump), may result in diversion or interception of a negligible amount of overland flow, when considering the small footprint of the activity relative to the sub-catchment area (typical drilling sump has an operating volume of approximately 300kL). However, all workover activities would be temporary in nature and would be completed outside of the wet season, therefore diversion or interception of overland flow is not expected.

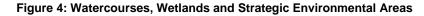
³ Maroulis, J (undated) *Channel Country landforms and the processes that shape them.* University of Southern QLD Faculty of Education/Australian Centre for Sustainable Catchments.

⁴ DES (2018). Land systems – western arid region land use study – part 1 – AWA2 (spatial dataset), Accessed 14/05/2018. Available online at: <u>gldspatial.information.gld.gov.au</u>

⁵ ASRIS (2018). Atlas of Australian Soils (spatial dataset), Australian Soil Resource Information System (CSIRO), Accessed 14/05/2018. Available online at: <u>http://www.asris.csiro.au/downloads/Atlas/soilAtlas2M.zip</u>

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Following cessation of petroleum production, existing infrastructure would be rehabilitated to promote the natural re-establishment of vegetation consistent with the surrounding undisturbed land. As such, the proposed activity would not alter the delivery of sediment to the river system from adjacent lands and the natural erosion of the bed, banks and floodplains. Accordingly, it is not envisaged that the proposed activity would not cause a widespread or irreversible impact on geomorphic processes within the Channel Country SEA.

3.5 Beneficial Flooding

The braided channels associated with the Cooper Creek surround the proposed activity; at its closest point, the Cooper Creek is located approximately 250m to the west. Notwithstanding, the area of the proposed activity would experience intermittent surface water flows during storm events, causing localised ponding of surface water (occurring on average once every 10 years).

Generally, the surrounding Cooper Creek streamflow is confined to the main channels, but every 3-4 years, flows are sufficient to inundate parts of the Cooper floodplain via a network of tributary channels. During extended periods of no flow, the Cooper Creek contracts to a series of waterholes. Very large Cooper Creek flood events with the potential to inundate the broader Channel Country region, and flow water into the lower Cooper Creek in South Australia, occur on average once every 10 years, reaching Lake Eyre North in an estimated 1 in every 20 years.

3.5.1 Potential Impacts

The proposed activity is located within the existing infrastructure footprint. No new surface disturbance activities, including placing new infrastructure within SEA, are proposed as part of this activity. Following cessation of petroleum production, existing infrastructure would be rehabilitated to promote the natural re-establishment of vegetation consistent to the surrounding undisturbed land. Given no new disturbance or activities other than 'production' from existing authorised infrastructure is proposed (as described in Section 2.0), altered natural flow paths and natural extent of flooding across floodplains will not occur. Accordingly, the proposed activities would not cause a widespread or irreversible impact on beneficial flooding within the Channel Country SEA.

4.0 Required Outcome Assessment

Schedule 2, Part 5 of the RPI Reg provides criteria for assessment by agencies. In accordance with Section 14(3) of the RPI Reg, if the application demonstrates compliance with either of the prescribed solutions stated in Part 5, Schedule 2, the proposed activity will meet the required outcome for the regional interest. Critically, the application demonstrates that the prescribed solution provided in s15(1)(a) will be met as the proposed activity, the production of gas from the Okotoko North 1 gas well will not impact on an environmental attribute of the Channel Country SEA. The application also demonstrates the prescribed solution provided in s15(1)(b) will also be met (Table 4).

Table 4: Schedule 2, Part 5 RPI Reg

Schedule 2, Part 5 RPI Reg		Relevance To Application
14 Required outcome The activity will not result in a widespread or irreversible impact on an environmental attribute of a strategic environmental area.	•	The proposed activities will not result in widespread or irreversible damage to the environmental attributes listed in s7 of the RPI Reg for the Channel Country SEA as described in Section 3.0.
 15 Prescribed solution (1) The application demonstrates either— (a) the activity will not, and is not likely to, have a direct or indirect impact on an environmental attribute of the strategic environmental area; or 	•	Refer to Section 3.0.
(b) all of the following— (i) if the activity is being carried out in a designated precinct in the strategic environmental area—the activity is not an unacceptable use for the precinct;	•	The proposed activities do not include any of the unacceptable uses prescribed by Section 15(2) of the RPI Act.
(ii) the construction and operation footprint of the activity on the environmental attribute is minimised to the greatest extent possible;	•	Existing operational footprint will be utilised entirely. No new disturbance footprint is proposed within this application.
(iii) the activity does not compromise the preservation of the environmental attribute within the strategic environmental area;	•	Refer to Section 3.0.
(iv) if the activity is to be carried out in a strategic environmental area identified in a regional plan— the activity will contribute to the regional outcomes, and be consistent with the regional policies, stated in the regional plan.	•	The South West Regional Plan does not identify the Channel Country SEA.

As discussed within Section 2.1, a drilling fluids sump may be required as a part of future temporary workover activities. The application also demonstrates the proposed use of a temporary drilling sump does not constitute a regulated activity as defined by the RPI Act.



s11(3) of the Regional Planning Interests Regulation 2014		Relevance To Application
Water storage (dam) is storing water using a dam, other than storing water on land to be used only for any or all of the following purposes— (a) to meet the domestic water needs of the occupants of the land; (b) to water the stock that is usually grazed on the land; (c) to water stock that is travelling on a stock route on or near the land.	•	N/A – the application does not propose to store water in a dam; The application proposes the temporary storing of drilling fluids in a drill sump designed to exclude surface flow if/when workover activities require it. Santos drilling sumps are designed to exclude surface flow and avoid the impounding of surface water. In addition, workover activities would be scheduled to be completed outside of the wet season, therefore all surface infrastructure, including a drill sump, would be removed prior to Cooper Creek flood events.
Schedule 6 of the Regional Planning Interests Regulation 2014		Relevance to the application
dam— (a) means the following— (i) a barrier, whether permanent or temporary, that does, could or would impound water;	•	N/A – the drilling sump would not impound water. Santos drilling sumps are designed to exclude surface water and avoid the impounding of surface water. Workover activities would be scheduled to be completed outside of the wet season, therefore all surface infrastructure, including a drill sump, would be removed prior to Cooper Creek flood events.
 (ii) the storage area created by the barrier; (iii) an embankment or other structure that is associated with the barrier and controls the flow of water; but 	•	N/A – the sump would not constitute a barrier for the storage of water.
(b) does not include a water tank, including a rainwater tank, constructed of steel, concrete, fibreglass, plastic or similar material.	•	N/A – the proposed sump does not constitute a water tank.

Appendix A – Definitions

Activity	Definition
Access Track	A cleared track approximately 6 m in width constructed of earthen material to facilitate ongoing operational maintenance access to the petroleum well.
Borrow Pit	A source of shallow earthen material excavated to provide material for well lease and access track maintenance.
Buried Pipeline	A pipeline buried underneath the ground used to transport petroleum.
Petroleum Production	A petroleum well operated under normal producing conditions to extract gas for ongoing commercial sale.
Production Testing	A petroleum well operated under normal producing conditions to capture key production measurements used to inform whether commercially viable quantities of gas are present for extraction.
Petroleum Well	A hole in the ground made by drilling through which petroleum or a prescribed gas is produced.
Petroleum Well Pad	An area of up to 1.4 hectares (e.g. approximately 120 m x 120 m) used to provide a stable platform for workover rigs and the operation of a petroleum well.



ATTACHMENT 5 – GIS FILES