

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 April 2022

Santos reference: CB22-09

Chief Executive  
RPI Act Development Assessment Team  
Department of State Development, Infrastructure, Local Government and Planning  
PO Box 15009  
City East QLD 4002

via email: [RPIAct@dsmip.qld.gov.au](mailto:RPIAct@dsmip.qld.gov.au)

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) (reference number RPI21/030 Santos). This application seeks to authorise petroleum activities on Authority to Prospect (ATP) 1189, Petroleum Lease (PL 301) and area Petroleum Pipeline Licence (PPL) 2050 within the Channel Country SEA.

The application includes the following information:

- Attachment 1 – *Regional Planning Interests Act 2014* Assessment Application Form
- Attachment 2 – Current State Tenure Title Searches
- Attachment 3 – Resource Authority Public Reports
- Attachment 4 – Assessment Report
- Attachment 5 – GIS Files

Payment of the application fee of \$13,719 was made on 13<sup>th</sup> April 2022.

Please do not hesitate to contact Janelle Twyman (07) 3838 5696 or [janelle.twyman@santos.com](mailto:janelle.twyman@santos.com) should you have any queries in relation to the attached.

Yours sincerely,



Liz Dunlop  
**Principal Environmental Advisor**

**ATTACHMENT 1 – RPI ACT ASSESSMENT APPLICATION FORM**

# Regional Planning Interests Act 2014

## Assessment Application Form

Approved under section 94 of the *Regional Planning Interests Act 2014*. Version 3.1 is effective from 1 August 2019.

### 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 Regional Planning Interests Act 2014* here:

<https://planning.dsdmip.qld.gov.au/planning/regional-planning-interests-act>

- consider contacting the RPI Act Development Assessment Team on 1300 967 433 or email [RPIAct@dsdmip.qld.gov.au](mailto:RPIAct@dsdmip.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:*

- i. made to the chief executive in the approved form; and*
- ii. 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*
- iii. 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

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

- **Email** [RPIAct@dsdmip.qld.gov.au](mailto:RPIAct@dsdmip.qld.gov.au)
- **Post** RPI Act Development Assessment Team DSDMIP, PO Box 15009, City East QLD 4002
- **Hand deliver** RPI Act Development Assessment Team DSDMIP, Level 13, 1 William Street, Brisbane.

*(For hand deliveries, contact the RIDA Development Assessment Team on 1300 967 433).*

## 1. Property description of the land the subject of the application

Identify all lots or parts of lots on which the activity is proposed, and the total area of disturbance. Provide a map.

Lot on Plan description (e.g. 1RP12345)	Lot 1 on SP133822 (Maya 2 and Wackett developments) Lot 1 on SP209773 (ZMT development)
Street address/suburb/locality and postcode	Durham Downs, Durham QLD 4492 (Maya 2 and Wackett developments) Naryilco, Durham QLD 4492 (ZMT development)
Closest town	Ballera

## 2. Application details

Attach a map that clearly shows all relevant areas of regional interest on the land the subject of the application and the corresponding proposed location of the proposed activity/activities

Identify the area/s of regional interest (ARI) in the application area and the area of the ARI to be disturbed

Area of regional interest (ARI)	Area of disturbance	Area of regional interest (ARI)	Area of disturbance
<input type="checkbox"/> Priority agricultural area	___ ha	<input type="checkbox"/> Priority living area	___ ha
<input type="checkbox"/> Strategic cropping area	___ ha	<input checked="" type="checkbox"/> Strategic environmental area	43.3 ha

Identify the resource or regulated activity

<input type="checkbox"/> Resource activity: mining and other resource activities (not petroleum and gas). (Add the type of mining on this form (e.g. coal, bauxite))
<input checked="" type="checkbox"/> Resource activity: petroleum and gas
<input type="checkbox"/> Regulated activity: broadacre cropping (Only relevant where the application relates to a strategic environmental area)
<input type="checkbox"/> Regulated activity: water storage (dam) (Only relevant where the application relates to a strategic environmental area)

**Provide a detailed description of the proposed activities**

*Provide a description of the proposed activities for which approval is sought, location and the surface area of the activities.*

Area of regional interest	Activity	Location	Total area of disturbance (ha)
Strategic Environmental Area – Channel Country	Petroleum Production – Refer to Assessment Report	Lot 1 on SP133822 (Maya 2 and Wackett developments) and Lot 1 on SP209773 (ZMT development)	43.3 ha

**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 1km 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 1km radius of the boundaries of the land that is the subject of the application.*

*Refer to Assessment Report.*

*The proposed activities are located on part of Durham Downs and Naryilco Stations on Lot 1 on SP133822 and Lot 1 on SP209773 within the Channel Country strategic environmental area.*

*Durham Downs Station is a 8,910 km<sup>2</sup> sized property. Naryilco Station is a 7,510 km<sup>2</sup> sized property. Cattle grazing and petroleum activities are the primary land uses on the properties. Sections of both pastoral leases have been extensively overgrazed from pastoral operations.*

**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		
<i>Attach map/s to identify the location of this information and lot on plan details.</i>		
Are there any <i>resource authorities</i> or applications for <i>resource authorities</i> over all or part of the land the subject of the application? (e.g. for exploration or resource development)	<input checked="" type="checkbox"/> 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)	<input type="checkbox"/> No
Is there a <i>SCL protection decision</i> over all or part of the land the subject of the application?	<input type="checkbox"/> Yes (Provide decision number/s)	<input checked="" type="checkbox"/> No
Is there an <i>environmental authority</i> (EA) over all or part of the land the subject of the application?	<input checked="" type="checkbox"/> Yes EPPG03518215 (Maya 2 development) EA0002115 (Wackett development) EPPG00383513 (ZMT development)	<input type="checkbox"/> No
Are there any easements over any part of the land the subject of the application?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Attach a current title search for each lot or part of a lot the subject of the application <i>(NOTE: the searches must be obtained no more than 3 business days prior to making the application.)</i>	<input checked="" type="checkbox"/> Tick to confirm title searches are attached.	
Attach GIS data files for the proposed activities identified in section 2 above.	<input checked="" type="checkbox"/> 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?	<input checked="" type="checkbox"/> Yes Refer to Assessment Report	<input type="checkbox"/> No
5. Landowner details		
Name/s of all landowner/s	S. Kidman & Co Pty LTD	
Postal address/es	PO Box 346, North Adelaide SA 5006	
Telephone/mobile number and/or email address/es (non-mandatory)	08 8334 7100	

Is the applicant the owner (as defined in schedule 1 to the RPI Act) of the land the subject of the application?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No <i>Refer to Assessment Report</i>
Is it necessary, under section 30 of the RPI Act, to provide a copy of the application to the owner of the land? <i>(NOTE: proof of delivery will be required.)</i>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> 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 Limited ABN 80 007 550 923
Applicant's postal address and email address for service	Level 19, 32 Turbot Street Brisbane QLD 4000
Authorised contact person for applicant: name, position and company	Liz Dunlop, Principal Environmental Adviser, Santos Limited
Contact phone number and/or mobile number	(07) 3838 3668
Contact email address	liz.dunlop@santos.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> ?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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### 8. Application fee *(Fees are prescribed in the Regional Planning Interests Regulation 2014)*

Amount payable	\$13,719
Reference number <i>(Contact RIDA assessment team for a reference number)</i>	RPI21/030 Santos

Payment option (Contact RIDA assessment team for account details)	<input checked="" type="checkbox"/> Direct deposit      Date deposited: 13/04/2022 (EFT Number 6100090145)
	<input type="checkbox"/> Cheque attached

### 9. Use and Disclosure of Information Statement

The information is collected in accordance with the RPI Act and will be used by Queensland Government Agencies for the processing and assessment of your assessment application, and may involve the chief executive:

1. and other officers of DSDMIP, and any consultants engaged by or on behalf of the chief executive, reviewing the information provided for the purpose of considering and assessing your assessment application
2. providing a copy of the assessment application to relevant Queensland Government Agencies prescribed as assessing agencies for the assessment application (including the local government), the Gasfields Commission or any person asked to provide advice or comment on the assessment application.

The assessment application and the accompanying report will also be made publicly available on the DSDMIP website from the time the assessment application is made until the time it lapses or is withdrawn or, if is decided, until the end of the last period during which an appeal may be made against a decision on the application. However, information will not be made publicly available on the DSDMIP website to the extent that it is provided by an owner of land (as defined in Schedule 1 to the RPI Act) (an *owner*) who is not the applicant, and is commercial-in-confidence or personal information, and that owner has not consented to its disclosure, or to the extent that it is information which is considered to be sensitive security information.

Where an application proposes a resource or regulated activity in a Priority Agricultural Area (PAA) and the applicant is required to provide information about the productive capacity or operation of a priority agricultural land use to address the prescribed solutions in the Regional Planning Interests Regulation 2014 (Schedule 2, Part 2), the information is to be provided in a separate document 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 DSDMIP website; and if so, provide the express written agreement of that owner to the information being made publicly available on the DSDMIP website.

If an owner, other than the applicant, does not provide express written agreement, the information will not be made available on the DSDMIP 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 DSDMIP.

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:	Richard Nolan, HSER Manager Onshore
Date:	20/04/2022

**Signature of Applicant**

Signature of applicant/authorised person:	
Name and Position:	
Date:	

<b>Office use only</b>	Date received	
	RIDA reference number	
	Source number	

**ATTACHMENT 2 – CURRENT STATE TENURE TITLE SEARCH**

Queensland Titles Registry Pty Ltd  
ABN 23 648 568 101

<b>Title Reference:</b> 17666157	<b>Search Date:</b> 20/04/2022 11:10
<b>Date State Tenure Created:</b> 21/10/1995	<b>Request No:</b> 40813936
<b>Creating Dealing:</b>	

## 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

## REGISTERED LESSEE

Dealing No: 719448294 07/06/2019  
S. KIDMAN & CO PTY LTD A.C.N. 007 872 317

## 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

## 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.  
1. Permitted Use: The lessee must use the land only for the purpose for which the tenure was issued under the Land Act 1994.  
2. Duty of Care: The lessee has the responsibility for a duty of care, for the land under the Land Act 1994.  
3. 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](http://www.dnrm.qld.gov.au).  
4. 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.  
5. Information to Minister: The lessee must give the Minister administering the Land Act 1994, information the Minister asks for about the tenure.

**CONDITIONS (Continued)**

6. 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, within a period of 3 months from the date of the forfeiture, surrender, 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:-----

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 brought 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:

- a. the granting of this lease to the lessee;
- 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 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 .

**CONDITIONS (Continued)**

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 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
  - b. any department within the Queensland or Commonwealth governments (including the department administering the Land Act 1994), local authority or statutory instrumentality having jurisdiction over the land, or the development, use and occupation of the land, in regard to its use, occupation and development of the land.

SPECIAL-CONDITIONS:-----  
 -----

These conditions relate to this lease.

Improvements or development on or to the land

1. 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.

**CONDITIONS (Continued)**

**ENCUMBRANCES AND INTERESTS**

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

**ENCUMBRANCES AND INTERESTS (Continued)**

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
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

**ENCUMBRANCES AND INTERESTS (Continued)**

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
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



**ENCUMBRANCES AND INTERESTS (Continued)**

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
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

**ENCUMBRANCES AND INTERESTS (Continued)**

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
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

Queensland Titles Registry Pty Ltd  
 ABN 23 648 568 101

<b>Title Reference:</b>	<b>17666157</b>
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**ENCUMBRANCES AND INTERESTS (Continued)**

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

**ADMINISTRATIVE ADVICES**

Dealing	Type	Lodgement Date	Status
717904118	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	17/03/2017 10:26	CURRENT
717904175	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	17/03/2017 10:40	CURRENT
717904177	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	17/03/2017 10:41	CURRENT
719767646	EXEMPT CONS SEC 322AA LAND ACT 1994	02/12/2019 08:28	CURRENT
720297668	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	29/09/2020 14:30	CURRENT
720388984	CON COM AGMT	11/11/2020 14:09	CURRENT

Queensland Titles Registry Pty Ltd  
 ABN 23 648 568 101

<b>Title Reference:</b>	<b>17666157</b>
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**ADMINISTRATIVE ADVICES (Continued)**

Dealing	Type	Lodgement Date	Status
721204587	MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014 CON COM AGMT	27/10/2021 08:11	CURRENT
721204588	MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014 CON COM AGMT	27/10/2021 08:11	CURRENT
721475714	MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014 CON COM AGMT	14/02/2022 07:51	CURRENT
721475715	MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014 CON COM AGMT	14/02/2022 07:52	CURRENT
721625880	MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014 CON COM AGMT	19/04/2022 13:29	UNVERIFIED DEALING
721625886	MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014 CON COM AGMT	19/04/2022 13:31	UNVERIFIED DEALING

**UNREGISTERED DEALINGS**

NIL

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)

Queensland Titles Registry Pty Ltd  
ABN 23 648 568 101

<b>Title Reference:</b> 17666223	<b>Search Date:</b> 20/04/2022 11:10
<b>Date State Tenure Created:</b> 21/10/1995	<b>Request No:</b> 40813936
<b>Creating Dealing:</b>	

## DESCRIPTION OF LAND

Tenure Reference: PDH 15/5320  
Lease Type: ROLLING TERM LEASE  
LOT 1 SURVEY PLAN 209773  
Local Government: BULLOO  
Area: 751000.000000 Ha. (ABOUT)  
No Land Description  
No Forestry Entitlement Area  
Purpose for which granted:  
NO PURPOSE DEFINED

## REGISTERED LESSEE

Dealing No: 719448295 07/06/2019  
S. KIDMAN & CO PTY LTD A.C.N. 007 872 317

## 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

## 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.  
1. Permitted Use: The lessee must use the land only for the purpose for which the tenure was issued under the Land Act 1994.  
2. Duty of Care: The lessee has the responsibility for a duty of care, for the land under the Land Act 1994.  
3. 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](http://www.dnrm.qld.gov.au).  
4. 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.  
5. Information to Minister: The lessee must give the Minister administering the Land Act 1994, information the Minister asks for about the tenure.

**CONDITIONS (Continued)**

6. 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, within a period of 3 months from the date of the forfeiture, surrender, 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:-----  
-----

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 brought 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:

- a. the granting of this lease to the lessee;
- 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 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 .

**CONDITIONS (Continued)**

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 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
  - b. any department within the Queensland or Commonwealth governments (including the department administering the Land Act 1994), local authority or statutory instrumentality having jurisdiction over the land, or the development, use and occupation of the land, in regard to its use, occupation and development of the land.

SPECIAL-CONDITIONS:-----  
-----

These conditions relate to this lease.

Improvements or development on or to the land

1. 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.

**CONDITIONS (Continued)**

**ENCUMBRANCES AND INTERESTS**

1. Rights and interests reserved to the Crown by  
Lease No. 17666223
2. EASEMENT No 602805810 (A1051) 28/02/1977  
EASEMENT PURSUANT TO NOTICE DATED 9TH SEPTEMBER, 1976, UNDER  
THE PIPELINE AUTHORITY ACT 1973 (COMMONWEALTH) AND THE LANDS  
ACQUISITION ACT 1955 (COMMONWEALTH) AS PUBLISHED IN THE  
AUSTRALIAN GOVERNMENT GAZETTE NO. G.46 AT CANBERRA OVER AN  
AREA OF 22.5 HECTARES OF THE WITHINDESCRIBED HOLDING FOR THE  
PURPOSE OF CONSTRUCTION, MAINTENANCE AND OPERATION OF  
PIPELINES OR PART THEREOF UNDER AND IN ACCORDANCE WITH THE  
AFORESAID PIPELINE AUTHORITY ACT 1973, ACQUIRED AND VESTED  
IN THE PIPELINE AUTHORITY AS FROM 9TH SEPTEMBER, 1976.  
(SECTION 282(3)) (SEC. 284)
3. VESTING No 702016613 04/06/1997 at 15:52  
EASEMENT: 602805810 (A1051)  
COMMONWEALTH OF AUSTRALIA TENANT IN COMMON 1/2  
EAST AUSTRALIAN PIPELINE LIMITED A.C.N. 064 629 009  
TENANT IN COMMON 1/2
4. EASEMENT IN GROSS No 707542558 09/03/2004 at 12:00  
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 D ON SP152685
5. TRANSFER No 715191715 09/07/2013 at 11:21  
EASEMENT IN GROSS: 707542558  
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
6. EASEMENT IN GROSS No 708042378 09/09/2004 at 12:18  
burdening the land  
SANTOS AUSTRALIAN HYDROCARBONS PTY LTD A.B.N. 83 010 850 487  
SANTOS PETROLEUM PTY LTD A.B.N. 95 000 146 369  
SANTOS LIMITED A.B.N. 80 007 550 923  
DELHI PETROLEUM PTY LTD A.B.N. 65 007 854 686  
ORIGIN ENERGY RESOURCES LIMITED A.B.N. 66 007 845 338  
VAMGAS PTY LTD A.B.N. 76 006 245 110  
ORIGIN ENERGY CSG LIMITED A.B.N. 68 001 646 331  
over  
EASEMENTS E,F,H AND I ON SP157755



Queensland Titles Registry Pty Ltd  
 ABN 23 648 568 101

Title Reference: 17666223

## ENCUMBRANCES AND INTERESTS (Continued)

7. TRANSFER No 715191588 09/07/2013 at 11:13  
 EASEMENT IN GROSS: 708042378  
 SANTOS AUSTRALIAN HYDROCARBONS PTY LTD  
 TENANT IN COMMON 3/250  
 SANTOS PETROLEUM PTY LTD TENANT IN COMMON 117/625  
 SANTOS LIMITED TENANT IN COMMON 3263/10000  
 DELHI PETROLEUM PTY LTD TENANT IN COMMON 29/125  
 ORIGIN ENERGY RESOURCES LIMITED TENANT IN COMMON 1339/8000  
 VAMGAS PTY LTD TENANT IN COMMON 601/8000
8. EASEMENT IN GROSS No 708106876 05/10/2004 at 08:51  
 burdening the land  
 SANTOS LIMITED A.B.N. 80 007 550 923  
 DELHI PETROLEUM PTY LTD A.B.N. 65 007 854 686  
 SANTOS PETROLEUM A.B.N. 95 000 146 369  
 VAMGAS PTY LTD A.B.N. 76 006 245 110  
 over  
 EASEMENT J ON SP163455
9. EASEMENT IN GROSS No 713743578 04/03/2011 at 11:49  
 burdening the land  
 SANTOS LIMITED A.B.N. 80 007 550 923  
 over  
 EASEMENT AA ON SP227736, EASEMENTS AB, AC AND AD  
 ON SP227737, AND EASEMENT AG ON SP227739
10. AMENDMENT OF LEASE CONDITIONS No 716063412 09/10/2014 at 05:00  
 THE CONDITIONS OF THE WITHIN TENURE ARE HEREBY AMENDED.
11. EASEMENT IN GROSS No 720259767 10/09/2020 at 11:59  
 burdening the land  
 EAST AUSTRALIAN PIPELINE PTY LIMITED A.C.N. 064 629 009  
 over  
 EASEMENT V ON SP317184

## ADMINISTRATIVE ADVICES

Dealing	Type	Lodgement Date	Status
717904155	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	17/03/2017 10:32	CURRENT
717904156	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	17/03/2017 10:33	CURRENT
718076139	NT DETERM NATIVE TITLE ACT 1993 (CTH)	09/06/2017 11:58	CURRENT
719767646	EXEMPT CONS SEC 322AA LAND ACT 1994	02/12/2019 08:28	CURRENT
720537234	CON COM AGMT MINERAL AND ENERGY RESOURCES (COMMON PROVISIONS) ACT 2014	20/01/2021 14:54	CURRENT

## UNREGISTERED DEALINGS

NIL

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)

**ATTACHMENT 3 – RESOURCE AUTHORITY PUBLIC REPORTS**

# PL 301 Resource authority public report

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## ▼ Permit details

<b>Permit ID:</b>	PL 301
<b>Status:</b>	Granted
<b>Lodged date:</b>	30/06/2009
<b>Grant date:</b>	03/12/2009
<b>Commencement date:</b>	01/01/2010
<b>Expiry date:</b>	31/12/2030
<b>Plan/program expiry date:</b>	31/05/2025
<b>Current term:</b>	21 years
<b>Work program type:</b>	
<b>Conditions:</b>	
<b>Locality:</b>	~60KMSW OF THE JACKSON OIL FIELD
<b>Remarks:</b>	Approved for 21 years over 14 sub-blocks - 3/12/09.
<b>Act permit granted under:</b>	Petroleum Act 1923
<b>Act now administered under:</b>	Petroleum Act 1923

▼ 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 LIMITED Team Leader, Tenures and Compliance Level 22, Santos Place 32 Turbot Street Brisbane QLD 4000	37.50000000000000	Current	30/06/2009		Yes
* DELHI PETROLEUMPTY. LTD. Level 8 80 Flinders Street ADELAIDE SA 5000	30.00000000000000	Current	30/06/2009		No
* SANTOS PETROLEUMPTY.LTD Team Leader, Tenures and Compliance Level 22, Santos Place 32 Turbot street Brisbane QLD 4000	25.00000000000000	Current	30/06/2009		No
* VAMGAS PTY.LTD Team Leader, Tenures and Compliance Level 22, Santos Place 32 Turbot Street Brisbane QLD 4000	7.50000000000000	Current	30/06/2009		No

**Tenancy type:** Tenancy in Common

Area

Location:	<a href="#">View Map</a>
Mining district:	Quilpie
Local authority:	Bulloo Shire Council
Area:	4114.0000 Hectares
Exclusions:	
Marked out date:	

Sub-blocks

No data available

Background land

No data available

Survey plans

Plan No.	Description	Date received	Locality	Volume	Folio
MP39444	PWL "Zeus #3"	20/09/2011	CAMERON CORNER		
MP39445	PWL "Zeus #2"	20/09/2011	CAMERON CORNER		
MP39469	PWL - ZEUS #4, 5, 6, 7	04/03/2013	CAMERON CORNER		
MP43871	PWL - ZEUS 8	19/12/2013	CAMERON CORNER		
MP43872	PWL - ZEUS 9, 10	20/02/2014	CAMERON CORNER		
MP43873	PWL - MINOS 2	20/02/2014	CAMERON CORNER		
MP45601	PWL - ZEUS 11, ZEUS 12	21/12/2017	CAMERON CORNER		
MP45712	PWL OF MINOS 3	18/12/2018	CAMERON CORNER		

Relinquishment details

No data available

Sub-blocks retained

No data available

Term history

Term	Date notice issued	Date lodged	Date approved	Date commenced	Date term ends	Term	Act granted under
2010 - 2030		30/06/2009	03/12/2009	01/01/2010	31/12/2030	21 years	Petroleum Act 1923

Native title

Outcome	Process
Pre-existing rights based Act	Pre-existing Right Based Act

▼ Purpose and minerals

**Purpose**

PETROLEUM

**Minerals**

Conventional Gas

Oil

Petroleum

▼ Related permits

**Pre-requisite permits:** ATP 259 ADMINISTERED UNDER PA1923

▼ Financial

**Rent details**

**Area units:** 42

**Rate/unit area:** \$162.00



## ▼ Activities

Activity name	Activity / Dealing No	Status	Date received	Expected completion	Date completed	Remarks
Later Development Plan Due		Closed	12/06/2014	31/05/2015	26/03/2015	LDP DUE 31/05/2015. LATER DEVELOPMENT PLAN FOR PLAN PERIOD 01/06/2015 TO 31/05/2020 LODGED BY HOLDER 26/03/2015.
Correction Of Document		Closed	26/03/2014	23/04/2014	26/03/2014	DEPARTMENT NOTIFIED BY HOLDER THAT AREA OF PL 301 ORIGINALLY ASKED FOR ON APPLICATION WAS DIFFERENT FROM WHAT WAS GRANTED ON THE INSTRUMENT. SHAPE FILES LODGED 12/11/2013. CLERICAL ERROR APPROVED ON 26/03/2014.
Mortgage	1032706	Registered	28/06/2011	10/09/2011	05/09/2011	MORTGAGE OF DELHI PETROLEUMPTY LTD 30% INTEREST TO WESTPAC BANKING CORPORATION, LEVEL 3, WESTPAC PLACE, 275 KENT STREET, SYDNEY, NSW, 2000
Later Development Plan		Closed	02/06/2010	31/12/2010	30/05/2011	LDP REQUIRED 6 MONTHS FROM GRANT DUE 20/05/10. LDP RECEIVED 2/6/10. FORWARDED TO TAS 21/6/10. LDP FOR A 5 YEAR PERIOD FROM 1 JUNE 2010 TO 31 MAY 2015. LDP APPROVED 30/05/2011 FOR A PERIOD OF 5 YEARS TO EXPIRE 31/05/2015. APPROVAL SENT TO HOLDER 01/06/2011.

# ATP 1189 Resource authority public report

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### ▼ Permit details

<b>Permit ID:</b>	ATP 1189
<b>Status:</b>	Granted
<b>Lodged date:</b>	16/10/2014
<b>Grant date:</b>	24/12/2014
<b>Commencement date:</b>	01/01/2015
<b>Expiry date:</b>	31/12/2022
<b>Plan/program expiry date:</b>	31/12/2022
<b>Current term:</b>	4 years
<b>Work program type:</b>	
<b>Conditions:</b>	
<b>Locality:</b>	W JACKSON (COOPER/EROMANGA BASINS)
<b>Remarks:</b>	pursuant to section 201 of the Mineral and Energy Resources (Common Provisions) Act 2014, the department's resource authority register has been corrected on 18/12/2018 to reflect that the current area of ATP 1189 reaches the QLD/SA border. The following sub-blocks have been added to ATP 1189, but only to the extent of the QLD/SA border BIMBlock Sub-block COOP 2916 e, k, p, u and z COOP 2988 e, k, p, u and z BROK 36 e, k, p, u and z BROK 108 e, k, p, u and z BROK 180 e, k, p, u and z BROK 252 e and k BROK 396 p, u and z pursuant to section 848 of the Petroleum and Gas (Production and Safety) Act 2004 instrument of authority has been amended to include sub-blocks in the area of ATP 1189. The area of these sub-blocks, within the area of PLs 301 and 502, are not in the area of ATP 1189. BIMBlock Sub-block COOP 3432 z BROK 48 e, k, p and u
<b>Act permit granted under:</b>	Petroleum and Gas (Production and Safety) Act 2004
<b>Act now administered under:</b>	Petroleum and Gas (Production and Safety) Act 2004

### ▼ Holders

#### Authorised holder representative (AHR)

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

#### Holder

	Holder name	Share %	Status	Held from	Held to	Authorised holder
*	DELHI PETROLEUMPTY. LTD. Level 8 80 Flinders Street ADELAIDE SA 5000	50.00000000000000	Current	16/10/2014		No
*	SANTOS LIMITED Team Leader, Tenures and Compliance Level 22, Santos Place 32 Turbot Street Brisbane QLD 4000	50.00000000000000	Current	16/10/2014		Yes

**Tenancy type:** Tenancy in Common

Area

<b>Location:</b>	<a href="#">View Map</a>
<b>Mining district:</b>	Quilpie
<b>Local authority:</b>	Barcoo Shire Council, Bulloo Shire Council, Quilpie Shire Council
<b>Area:</b>	1136 Sub-blocks
<b>Exclusions:</b>	Excluded Land: Any land subject to native title within the following sub-blocks that is within the Boonthamurra People native title claim (QC2006/015)(QUD435/2006), registered with the National Native Title Tribunal on 30/07/2007. BIMBlock(s) Sub-Block(s) COOP 2067 M,R COOP 2139 S,T,U,Z COOP 2211 E COOP 2212 A,B,G
<b>Marked out date:</b>	

Sub-blocks

BIM	Block	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Broken Hill	36															P					U					Z
Broken Hill	37											L	M	N	O		Q	R	S	T	U	V	W	X	Y	Z
Broken Hill	48					E					K					P					U					Z
Broken Hill	108					E					K					P					U					Z
Broken Hill	109	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Broken Hill	116								H	J	K				N	O	P			S	T	U				
Broken Hill	117														N		Q	R	S							
Broken Hill	120					E					K					P					U					Z
Broken Hill	121											L					Q					V				
Broken Hill	180					E					K					P					U					Z
Broken Hill	181	A	B	C	D	E	F				K	L				P	Q				U	V				Z
Broken Hill	182											L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Broken Hill	252					E					K															
Broken Hill	253	A	B	C	D	E	F	G	H	J	K					P					U					
Broken Hill	254	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Broken Hill	255											L					Q	R	S			V	W	X	Y	
Broken Hill	258																	R	S				W	X		
Broken Hill	325																					U				Z
Broken Hill	326	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S			V	W	X		
Broken Hill	327	A	B				F	G				L	M													
Broken Hill	330		B	C	D			G	H	J																
Broken Hill	397					E					K															
Broken Hill	398	A	B	C			F	G	H																	
Cooper Creek	1777	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Cooper Creek	1778	A	B	C	D	E	F	G	H	J	K	L	M	N			Q	R	S			V	W	X		
Cooper Creek	1849	A	B	C	D	E	F	G	H	J	K	L	M	N	O		Q	R	S			V	W	X		
Cooper Creek	1921	A	B	C	D		F	G	H	J	K	L	M	N	O	P		R	S	T	U		W	X		
Cooper Creek	1922								H	J	K	L	M	N	O	P	Q	R	S	T	U		W	X	Y	Z
Cooper Creek	1993										L	M				Q	R					V	W	X	Y	
Cooper Creek	1994				D	E				J	K				N	O	P			S	T	U	W	X	Y	Z

BIM	Block	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Cooper Creek	2065	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Cooper Creek	2066	A	B	C	D		F	G	H	J		L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Cooper Creek	2067											L	M				Q	R									
Cooper Creek	2137	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Cooper Creek	2138	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Cooper Creek	2139						F					L					Q	R	S	T	U	V	W	X		Z	
Cooper Creek	2210	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Cooper Creek	2211	A				E					K						P	Q	R	S	T	U	V	W			
Cooper Creek	2212	A	B				F	G				L	M														
Cooper Creek	2281				D	E				J	K																
Cooper Creek	2282	A	B	C	D	E	F	G				L	M														
Cooper Creek	2283	A	B																								
Cooper Creek	2344					E					K						P					U				Z	
Cooper Creek	2345	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Cooper Creek	2353																Q						V	W	X	Y	Z
Cooper Creek	2415	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Cooper Creek	2416	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P			S	T	U				Y	Z	
Cooper Creek	2425	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Cooper Creek	2497	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Cooper Creek	2637	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Cooper Creek	2638																						V				
Cooper Creek	2639		B	C	D	E		G	H	J	K		M	N	O	P		R	S	T	U			X	Y	Z	
Cooper Creek	2709	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S			V	W				
Cooper Creek	2710	A					F					L															
Cooper Creek	2711			C	D	E			H	J	K			N	O	P		R	S	T	U		W	X	Y	Z	
Cooper Creek	2712	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Cooper Creek	2783		B	C	D	E		G	H	J	K		M	N	O	P											
Cooper Creek	2784	A	B	C	D	E	F	G	H	J	K	L	M		O	P		R		T	U				Y	Z	
Cooper Creek	2785	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Cooper Creek	2786	A	B	C			F	G	H																		
Cooper Creek	2847	A	B				F	G	H	J		L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Cooper Creek	2848											L	M				Q	R	S	T		V	W	X	Y	Z	
Cooper Creek	2856				D	E			H	J	K			N	O	P			S								
Cooper Creek	2857	A	B	C			F	G				L	M	N				R	S								
Cooper Creek	2858																									Z	
Cooper Creek	2859																						V	W			
Cooper Creek	2917	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Cooper Creek	2918	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Cooper Creek	2919	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Cooper Creek	2920	A	B	C	D	E	F				K					O	P				T	U	V	W	X	Y	Z

BIM	Block	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Cooper Creek	2930					E					K														Y	Z
Cooper Creek	2931	A	B				F	G					M				R					V	W			
Cooper Creek	2989	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Cooper Creek	3002	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P										
Cooper Creek	3003	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P					U					
Cooper Creek	3070	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Cooper Creek	3071											L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Cooper Creek	3072											L					Q	R	S	T	U	V	W	X	Y	Z
Cooper Creek	3218	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Cooper Creek	3219	A	B	C	D	E	F	G	H	J		L	M	N	O		Q	R				V	W			
Cooper Creek	3285	A	B	C	D	E	F	G	H	J		L	M	N			Q	R				V				
Cooper Creek	3286	A																								
Cooper Creek	3357	A					F					L					Q	R	S	T	U	V	W	X	Y	Z
Cooper Creek	3358																Q	R				V	W			
Cooper Creek	3432																									Z

## Background land

No data available

## Survey plans

Plan No.	Description	Date received	Locality	Volume	Folio
MP44850	PWL - BOLAH 2	22/09/2015	DURHAM		
MP44852	PWL Plan of Cocinero #3	07/10/2015	DURHAM		
MP44853	PWL Plan - WHANTO SOUTH WEST 1	03/11/2015	EROMANGA		
MP44855	PWL - WHANTO EAST 1	14/12/2015	EROMANGA		
MP44854	PWL - COUGAR EAST 1	14/12/2015	EROMANGA		
MP44857	PWL - WHANTO WEST 1	23/02/2016	EROMANGA		
MP45345	PWL - Cocinero 2	26/10/2016	DURHAM		
MP45352	PWL - GALLAN 1	17/05/2017	DURHAM		
MP45353	PWL - HECTOR SOUTH 1	23/05/2017	DURHAM		
MP45356	PWL - SNEFRU 1	10/08/2017	DURHAM		
MP45355	PWL - COUGAR 1	11/08/2017	QUILPIE		
MP45358	PWL - OKOTOKO NORTH 1	12/12/2017	DURHAM		
MP45594	PWL OF BANTAM 1	21/06/2018	DURHAM		
MP45593	PWL OF WHANTO 5	21/06/2018	EROMANGA		
MP45592	PWL OF HOBGOBLIN 1	08/08/2018	DURHAM		
MP45595	PWL OF WHANTO 6	08/08/2018	EROMANGA		
MP45598	PWL OF MOUNTAIN GOAT 1	08/08/2018	DURHAM		
MP45597	PWL OF BEARCAT 1	26/09/2018	CAMERON CORNER		
MP45591	PWL OF TIGRIS 1	26/09/2018	CAMERON CORNER		
MP45710	PWL OF COGYDD 1	18/12/2018	DURHAM		
MP45708	PWL OF ADELIE 1	18/12/2018	CAMERON CORNER		
MP45707	PWL OF LANE 1	18/12/2018	CAMERON CORNER		
MP45706	PWL OF LOIS 1	18/12/2018	CAMERON CORNER		
MP45711	PWL OF CHOCKOLA 1	18/12/2018	TANBAR		
MP45716	PWL OF WALLIS 1	05/02/2019	NOCKATUNGA		
MP45717	PWL OF WENDA 1	05/02/2019	NOCKATUNGA		
MP45718	PWL OF ANNA NORTH 1	05/02/2019	DURHAM		

## Relinquishment details

<b>Last relinquishment date:</b>	02/01/2019	
<b>Current sub-blocks held:</b>	1136 Sub-blocks	
<b>Relinquishment due date</b>	<b>End of year</b>	<b>Sub-blocks to be relinquished</b>
31/12/2018	4	3024

## Sub-blocks retained

Years	Period start date	Period end date	Sub-blocks to be retained
1-4	01/01/2015	31/12/2018	3024



### Term history

Term	Date notice issued	Date lodged	Date approved	Date commenced	Date term ends	Term	Act granted under
2015 - 2018		16/10/2014	24/12/2014	01/01/2015	31/12/2018	4 years	Petroleum and Gas (Production and Safety) Act 2004
2019 - 2022		21/12/2018	23/05/2019	01/01/2019	31/12/2022	4 years	Petroleum and Gas (Production and Safety) Act 2004

### Native title

Outcome	Process
All land subject to Native Title (<10%) is excluded from the permit area	Predominantly Exclusive Land
No registered claimant	Right to Negotiate
Existing private ILUA	Existing Private ILUA

### Purpose and minerals

Prescribed minerals
Conventional Gas
Petroleum

## ▼ Related permits

<b>Previous permit number:</b>	ATP259
<b>Pre-requisite permits:</b>	ATP 259
<b>Applied from permits:</b>	<a href="#">PL 1013</a> ; <a href="#">PL 1016</a> ; <a href="#">PL 1046</a> ; <a href="#">PL 1047</a> ; <a href="#">PL 1056</a> ; <a href="#">PL 1055</a> ; <a href="#">PL 1058</a> ; <a href="#">PCA281</a> ; <a href="#">PCA279</a> ; <a href="#">PCA278</a> ; <a href="#">PCA280</a> ; <a href="#">PL 1060</a> ; <a href="#">PCA282</a> ; <a href="#">PL 1077</a> ; <a href="#">PL 1087</a> ; <a href="#">PL 1093</a> ; <a href="#">PL 1107</a> ; <a href="#">PL 1108</a> ; <a href="#">PL 1119</a>
<b>Dependent permits:</b>	PCA247; <a href="#">PCA248</a> ; <a href="#">PPL 2035</a> ; <a href="#">PPL 2036</a> ; <a href="#">PCA250</a> ; <a href="#">PCA251</a> ; <a href="#">PCA252</a> ; <a href="#">PCA253</a> ; <a href="#">PCA254</a> ; PCA267; <a href="#">PCA275</a> ; <a href="#">PCA276</a> ; <a href="#">PCA 277</a> ; <a href="#">PCA274</a> ; <a href="#">PCA273</a> ; <a href="#">PCA272</a> ; <a href="#">PCA271</a> ; <a href="#">PCA270</a> ; <a href="#">PCA269</a> ; <a href="#">PCA268</a> ; <a href="#">PCA283</a> ; DAA2023; <a href="#">PPL 2064</a> ; PPL 2065

## ▼ Financial

### Rent details

<b>Area units:</b>	1136
<b>Rate/unit area:</b>	\$3.00

## ▼ Activities

Activity name	Activity / Dealing No	Status	Date received	Expected completion	Date completed	Remarks
Relinquish sub-blocks	267084	Approved	02/01/2019	02/01/2019	24/01/2019	All requirements have been met 15 sub-blocks relinquished on 02/01/2019
Relinquish sub-blocks	265514	Approved	02/01/2019	02/01/2019	07/01/2019	Relinquishment accepted. 1867 sub-blocks relinquished on 02/01/2019
Add excluded land	119217	Approved	16/01/2015		29/07/2015	MMOL Reference:119217.
Later Work Program		Closed	24/12/2014	24/12/2014	24/12/2014	APPROVED ON 24/12/2014 TO COMMENCE 1/1/2015 FOR 4 YEARS. APPROVED PROGRAM IS GEOLOGICAL AND GEOPHYSICAL STUDIES AND EVALUATION, ACQUIRE 300KM2D SEISMIC (OR EQUAL 3D SEISMIC),ACQUIRE 400KM2 3D SEISMIC, DRILL 8 WELLS TARGETING JURASSIC / CRETACEOUS AND PERMIAN INTERVALS

# PL 1107 Resource authority public report

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## ▼ Permit details

<b>Permit ID:</b>	PL 1107
<b>Status:</b>	Application
<b>Lodged date:</b>	10/11/2020
<b>Grant date:</b>	
<b>Commencement date:</b>	
<b>Expiry date:</b>	
<b>Term sought:</b>	15 years
<b>Work program type:</b>	
<b>Conditions:</b>	
<b>Locality:</b>	24.65KM NE OF BALLERA GAS PLANT
<b>Remarks:</b>	
<b>Act permit granted under:</b>	
<b>Act now administered under:</b>	

▼ 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 LIMITED Team Leader Tenures and Compliance Level 22, Santos Place 32 Turbot St BRISBANE CITY QLD 4000	52.00000000000000	Current	10/11/2020		Yes
* DELHI PETROLEUM PTY. LTD. Level 8 80 Flinders Street ADELAIDE SA 5000	28.80000000000000	Current	10/11/2020		No
* BEACH ENERGY (OPERATIONS) LIMITED Level 8 80 Flinder Street Adelaide SA 5000	10.00000000000000	Current	10/11/2020		No
* VAMGAS PTY LTD Team Leader, Tenures and Compliance Level 22, Santos Place 32 Turbot Street Brisbane QLD 4000	7.20000000000000	Current	10/11/2020		No
* SANTOS AUSTRALIAN HYDROCARBONS PTY LTD Team Leader, Tenures and Compliance Level 22, Santos Place 32 Turbot Street Brisbane QLD 4001	2.00000000000000	Current	10/11/2020		No

Tenancy type: Tenancy in Common

▼ Area

Location:	<a href="#">View Map</a>
Mining district:	Quilpie
Local authority:	Bulloo Shire Council
Area:	10 Sub-blocks
Exclusions:	
Marked out date:	

**Sub-blocks**

BIM	Block	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Cooper Creek	2784															P					U					Z
Cooper Creek	2785											L					Q	R	S			V	W	X		

**Background land**

No data available

**Survey plans**

No data available

**Relinquishment details**

No data available

**Sub-blocks retained**

No data available

Term history							
Term	Date notice issued	Date lodged	Date approved	Date commenced	Date term ends	Term	Act granted under
		10/11/2020					

Native title	
Outcome	Process
Private ILUA	Existing agreement

Purpose and minerals	
Purpose	
Petroleum production	
Minerals	
Petroleum	

Related permits	
Pre-requisite permits:	
	ATP 1189

Financial	
Rent details	
Area units:	
Rate/unit area:	
	23

Activities
No data available



# PL 1047 Resource authority public report

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▼ Permit details	
<b>Permit ID:</b>	PL 1047
<b>Status:</b>	Application
<b>Lodged date:</b>	02/02/2018
<b>Grant date:</b>	
<b>Commencement date:</b>	
<b>Expiry date:</b>	
<b>Term sought:</b>	14 years
<b>Work program type:</b>	
<b>Conditions:</b>	
<b>Locality:</b>	25 km north east of the Ballera Gas Plant, Cooper Basin
<b>Remarks:</b>	The area contains 10 full sub-blocks and 3 partial sub-blocks. The full sub-blocks are listed below BIMBLOCK sub-blocks COOP 2857 a b c f g l m n r s The following are the 3 partial sub-blocks BIMBLOCK sub-blocks COOP 2856 e k p
<b>Act permit granted under:</b>	
<b>Act now administered under:</b>	

▼ 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 LIMITED Team Leader, Tenures and Compliance Level 22, Santos Place 32 Turbot Street Brisbane QLD 4000	40.00000000000000	Current	02/02/2018		Yes
* DELHI PETROLEUMPTY. LTD. Level 8 80 Flinders Street ADELAIDE SA 5000	32.00000000000000	Current	02/02/2018		No
* VAMGAS PTY LTD Team Leader, Tenures and Compliance Level 22, Santos Place 32 Turbot Street Brisbane QLD 4000	15.50000000000000	Current	02/02/2018		No
* MAWSON PETROLEUMPTY LIMITED Level 8 80 Flinders Street ADELAIDE SA 5000	6.50000000000000	Current	02/02/2018		No
* AUSTRALIAN GASFIELDS LIMITED 9A Seaforth Crescent Seaforth NSW 2092	2.00000000000000	Current	02/02/2018		No
* BOUNTY OIL & GAS NL LEVEL 7 283 GEORGE STREET SYDNEY NSW 2000	2.00000000000000	Current	02/02/2018		No
* BRIDGEPORT (EROMANGA) PTY LTD Level 7 111 Pacific Highway North Sydney NSW 2000	2.00000000000000	Current	02/02/2018		No

Tenancy type: Tenancy in Common

▼ Area

<b>Location:</b>	<a href="#">View Map</a>
<b>Mining district:</b>	Quilpie
<b>Local authority:</b>	Bulloo Shire Council
<b>Area:</b>	13 Sub-blocks
<b>Exclusions:</b>	
<b>Marked out date:</b>	

**Sub-blocks**

BIM	Block	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	
Cooper Creek	2856					E					K					P											
Cooper Creek	2857	A	B	C			F	G				L	M	N				R	S								

**Background land**

No data available

**Survey plans**

No data available

**Relinquishment details**

No data available

**Sub-blocks 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					

Native title	
Outcome	Process
Existing private ILUA	Existing Private ILUA

Purpose and minerals
Purpose
Petroleum production
Minerals
Petroleum

Related permits
Pre-requisite permits:
ATP 1189

Financial	
Rent details	
Area units:	
Rate/unit area:	
32	

Activities
No data available

# PPL 2050 Resource authority public report

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<b>Permit ID:</b>	PPL 2050
<b>Status:</b>	Granted
<b>Lodged date:</b>	29/11/2019
<b>Grant date:</b>	08/06/2020
<b>Commencement date:</b>	08/06/2020
<b>Expiry date:</b>	07/06/2050
<b>Current term:</b>	30 years
<b>Work program type:</b>	
<b>Conditions:</b>	
<b>Locality:</b>	East of the Ballera Gas Plant
<b>Remarks:</b>	
<b>Act permit granted under:</b>	Petroleum and Gas (Production and Safety) Act 2004
<b>Act now administered under:</b>	Petroleum and Gas (Production and Safety) Act 2004
<b>Type of pipeline:</b>	Area pipeline



▼ 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 LIMITED Team Leader, Tenures and Compliance Level 22, Santos Place 32 Turbot Street Brisbane QLD 4000	32.630000000000	Current	08/06/2020		Yes
* DELHI PETROLEUMPTY. LTD. Level 8 80 Flinders Street ADELAIDE SA 5000	23.200000000000	Current	08/06/2020		No
* SANTOS PETROLEUMPTY LTD Team Leader, Tenures and Compliance Level 22, Santos Place 32 Turbot Street Brisbane QLD 4000	18.720000000000	Current	08/06/2020		No
* BEACH ENERGY (OPERATIONS) LIMITED Level 8 80 Flinders Street ADELAIDE SA 5000	16.737500000000	Current	08/06/2020		No
* VAMGAS PTY LTD Team Leader, Tenures and Compliance GPO Box 1010 Brisbane QLD 4000	7.512500000000	Current	08/06/2020		No
* SANTOS AUSTRALIAN HYDROCARBONS PTY LTD Team Leader Tenures and Compliance GPO Box 1010 Brisbane QLD 4001	1.200000000000	Current	08/06/2020		No

**Tenancy type:** Tenancy in Common

**Area**

<b>Location:</b>	<a href="#">View Map</a>
<b>Mining district:</b>	Quilpie
<b>Local authority:</b>	Bulloo Shire Council
<b>Area:</b>	201 Sub-blocks
<b>Exclusions:</b>	
<b>Marked out date:</b>	

**Sub-blocks**

BIM	Block	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Cooper Creek	2856													N	O	P			S	T	U		W	X	Y	Z
Cooper Creek	2857									J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Cooper Creek	2926																									Z
Cooper Creek	2927															P					U				Y	Z
Cooper Creek	2928		B	C	D	E		G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Cooper Creek	2929	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Cooper Creek	2998					E					K					P					U	V	W	X	Y	Z
Cooper Creek	2999	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Cooper Creek	3000	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
Cooper Creek	3001	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U	V				
Cooper Creek	3071	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P										
Cooper Creek	3072	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S	T	U					Z
Cooper Creek	3073	A					F					L					Q					V				

**Background land**

No data available

**Survey plans**

No data available

**Relinquishment details**

No data available

**Sub-blocks retained**

No data available

**Term history**

Term	Date notice issued	Date lodged	Date approved	Date commenced	Date term ends	Term	Act granted under
2020 - 2050		29/11/2019	08/06/2020	08/06/2020	07/06/2050	30 years	Petroleum and Gas (Production and Safety) Act 2004

**Native title**

Outcome	Process
Private ILUA	Existing Private ILUA

▼ Purpose and minerals

<b>Entitlements</b>
Gas
<b>Minerals sought</b>
Conventional Gas

▼ Related permits

No data available

▼ Financial

<b>Rent details</b>	
Area units:	9
Rate/unit area:	\$40.15

▼ Activities

Activity name	Activity / Dealing No	Status	Date received	Expected completion	Date completed	Remarks
Change of holder name	301339	Registered	23/01/2020		30/01/2020	MMOL Reference:301339. Changed name from LATTICE ENERGY LIMITED to BEACH ENERGY (OPERATIONS) LIMITED .

**ATTACHMENT 4 – ASSESSMENT REPORT**

**Regional Interests  
Development Application  
Assessment Report  
(reference number: RPI21/030  
Santos)**

**ZMT, Maya 2 and Wackett  
developments**

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## Abbreviations and Definitions

Acronym/Term	Description
ATP	Authority to Prospect
CDZ	Construction Disturbance Zone
DES	Department of Environment and Science, Queensland
DoR	Department of Resources
DSDILGP	Department of State Development, Infrastructure, Local Government and Planning
EA	Environmental Authority
ESA	Environmentally Sensitive Area
EUE	External Upset End
Linear infrastructure	Above ground oil pipelines, buried gas pipelines and access tracks.
Non-linear infrastructure	All components of proposed activities other than pipelines and access tracks.
P&G Act	<i>Petroleum and Gas (Production and Safety) Act 2004</i>
PL	Petroleum Lease
Proposed activities	Construction and operation of: <ul style="list-style-type: none"> <li>• four conventional petroleum wells (Zeus 13, Zeus 14, Zeus 15 and Minos 4), associated well leases, borrow pits and linear infrastructure; and</li> <li>• three buried gas flowlines (Maya 2, Wackett South 2 and Wackett 14 redirection)</li> </ul>
RE	Regional Ecosystem
RIDA	Regional Interests Development Approval
RPI Act	<i>Regional Planning Interests Act 2014</i>
RPI Reg	<i>Regional Planning Interests Regulation 2014</i>
SEA	Strategic Environmental Areas
Site	The footprint of the proposed activities including the outer construction boundary.



## 1.0 Introduction

Santos Limited (Santos) is the principal holder of Authority to Prospect (ATP) 1189, Petroleum Lease (PL) 301, and area Petroleum Pipeline Licence (PPL) 2050. All tenures are located in the Queensland Cooper Basin, with the furthest tenure, PL301, being located approximately 75 km south-east of the Ballera Gas Plant. The development proposed by this application (the proposed activities) is located entirely (100%) within the Channel Country strategic environmental area (SEA) prescribed under the *Regional Interests Planning Regulation 2014* (RPI Reg). Prescribed SEAs are identified as ‘areas of regional interest’ under Section 7 of the *Regional Interests Planning Act 2014* (RPI Act). A regional interest development approval (RIDA) issued under Section 53 of the RPI Act is required to carry out a resource activity within an ‘area of regional interest’.

Santos is proposing to undertake three separate developments in the Channel Country SEA as described in Table 1. These are comprised of the construction and operation of four conventional oil wells and their associated infrastructure (access tracks, borrow pits and flowlines) as well as another three buried gas flowlines. The developments, associated property, tenement and environmental authority (EA) details are listed in Table 1. The general location of each of the sites and relevant boundaries are show in Figure 1.

**Table 1: Development, Tenements and Property Details**

Development Name	Development Description	Tenement	Associated Environmental Authority	Property Name	Lot on Plan
ZMT	4 conventional petroleum wells and associated infrastructure including borrow pits, aboveground flowlines and access tracks	PL 301	EPPG00383513	Naryilco	1SP209773
Maya 2 flowline	Buried gas flowline	ATP 1189	EPPG03518215	Durham Downs	1SP133822
		PLA 1047	EPPG03517215		
		PLA 1107	Not yet applied for		
Wackett development	2 x buried gas flowlines	PPL 2050	EA0002115		1SP133822

*PPL – Petroleum Pipeline Licence; PL – Petroleum Lease; PLA – Petroleum Lease Application*

This assessment report has been prepared to support a RIDA application for the proposed resource activities. It 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 SEAs as detailed in the RPI Reg.

## 1.1 Applicant and Related Approvals

Construction and operation of infrastructure associated with the:

- ZMT development is authorised under PL 301 and EA EPPG00383513;
- Wackett development is authorised under PPL 2050 and EA0002115; and
- Maya 2 flowline is authorised under ATP 1189 and EA EPPG03518215.

Activities under ATP 1189 are exempt from the RIDA requirement under Section 24 of the RPI Act which provides an exemption for pre-existing resource activities. PLA 1047 and PLA 1107 are currently in application and overlap the area of interest for the Maya 2 development. The new tenures (once awarded) and their respective EAs will not qualify for the exemption for pre-existing activities under Section 24 of the RPI Act. Therefore, a RIDA is sought to authorise the construction and operation of the infrastructure.

Santos is the primary holder of ATP 1189, PL 301 and PPL 2050 and their associated environmental authorities. Santos is also the primary applicant for PLA 1047 and PLA 1107. As such Santos Limited is an *eligible person* under Section 28 of the RPI Act.

Other RIDAs associated with the above listed tenures include:

- PL 301:
  - *RPI17/002 Santos – Zeus*
  - *RPI17/007 Santos – Zeus*
- PL 1047:
  - *RPI18/020 Santos – Okotoko North 1*
  - *RPI18/022 Santos – Inca 1 Well and Flowline*
  - *RPI19/001 Santos – Cherokee 1 & Piute 1*
  - *RPI19/011 Santos – Okotoko North 2 Well and Flowline*
- PPL 2050:
  - *RPI19/010 Santos – Wackett Area*
  - *RPI21/027 Santos – Wackett 4*

## 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 within the Channel Country SEA are located over Lot 1 on SP209773 (ZMT development) and Lot 1 on SP133822 (Maya 2 and Wackett developments) forming part of the Naryilco and Durham Downs stations respectively. Discretionary notification under Section 34(4) of the RPI Act would not be necessary given that separate regulatory systems are in place that require Santos to notify the landholder of petroleum activities occurring within their property, 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 Landholder Copy of the Application**

In accordance with Section 30 of the RPI Act and Schedule 5 of the RPI Reg, a copy of the application will be given to the landowner within 5 business days after the application is made. S Kidman and Co Ltd is the relevant landholder for all three proposed development sites.

### **1.4 Referable Application**

In accordance with Section 12(2) and Schedule 1 of the RPI Reg, the application is referable to the Department of Environment and Science (DES) and the Department of Resources (DoR).

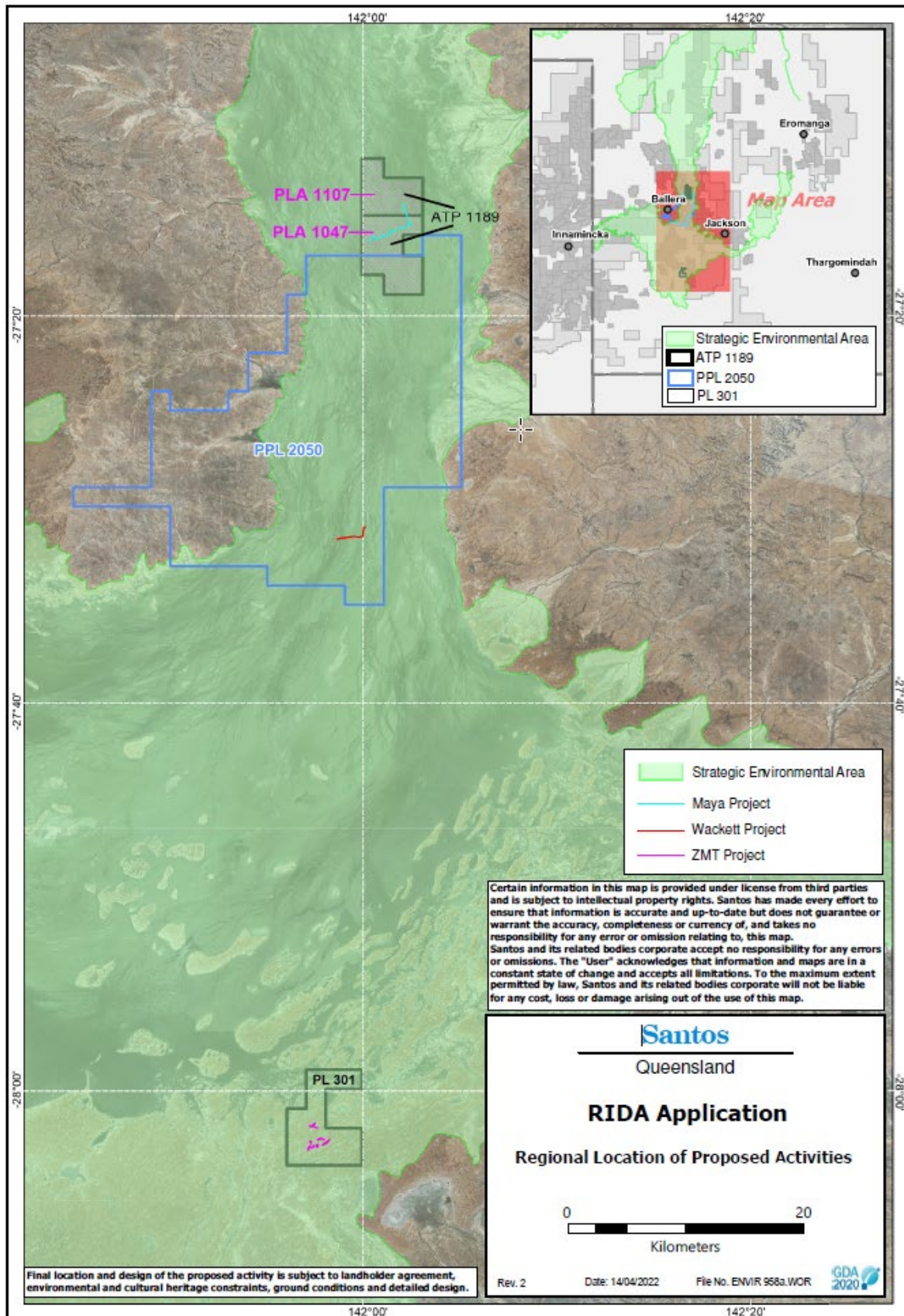


Figure 1: Regional Location of Proposed Activities

## 2.0 Proposed Activity

Santos is seeking to undertake the construction and operation (including ‘production’) of the following infrastructure within the Channel Country SEA:

- ZMT
  - 4 oil wells (Zeus 13, 14 and 15, and Minos 4)
  - 4 borrow pits (including disturbance of existing pits)
  - ~3.8 km of access tracks
  - ~2 km of above ground flowline
- Maya 2
  - ~7 km of buried gas flowlines
- Wackett
  - ~4 km of buried gas flowline

Descriptions of the above listed resource activities are provided in Sections 2.1 and 2.2.

The maximum area of disturbance associated with the proposed activities for all three developments within the Channel Country SEA is 43.3 ha (refer Table 2). A construction disturbance zone (CDZ) has been defined to allow flexibility for final well and borrow pit placement and linear infrastructure alignments. Post ground-truthing, the final location of the infrastructure may shift within the defined construction disturbance zones because of cultural heritage, engineering and environmental constraints. Final alignments will influence the final area of disturbance however, the total proposed disturbance area within the Channel Country SEA will not be more than that outlined in Table 2. The spatial files of the infrastructure provided as part of this application are therefore indicative only. These reflect the preferred alignments and locations but are not final. The anticipated location of the above listed infrastructure and the construction disturbance zones are shown in Figures 2 – 4.

**Table 2: Proposed Surface Disturbance within SEA**

Proposed Development	Maximum Disturbance Area (ha)
ZMT	20.4
Maya 2 flowline	13.3
Wackett South 2 flowline & Wackett 14 redirection flowline	9.6
<b>Total</b>	<b>43.3 ha</b>

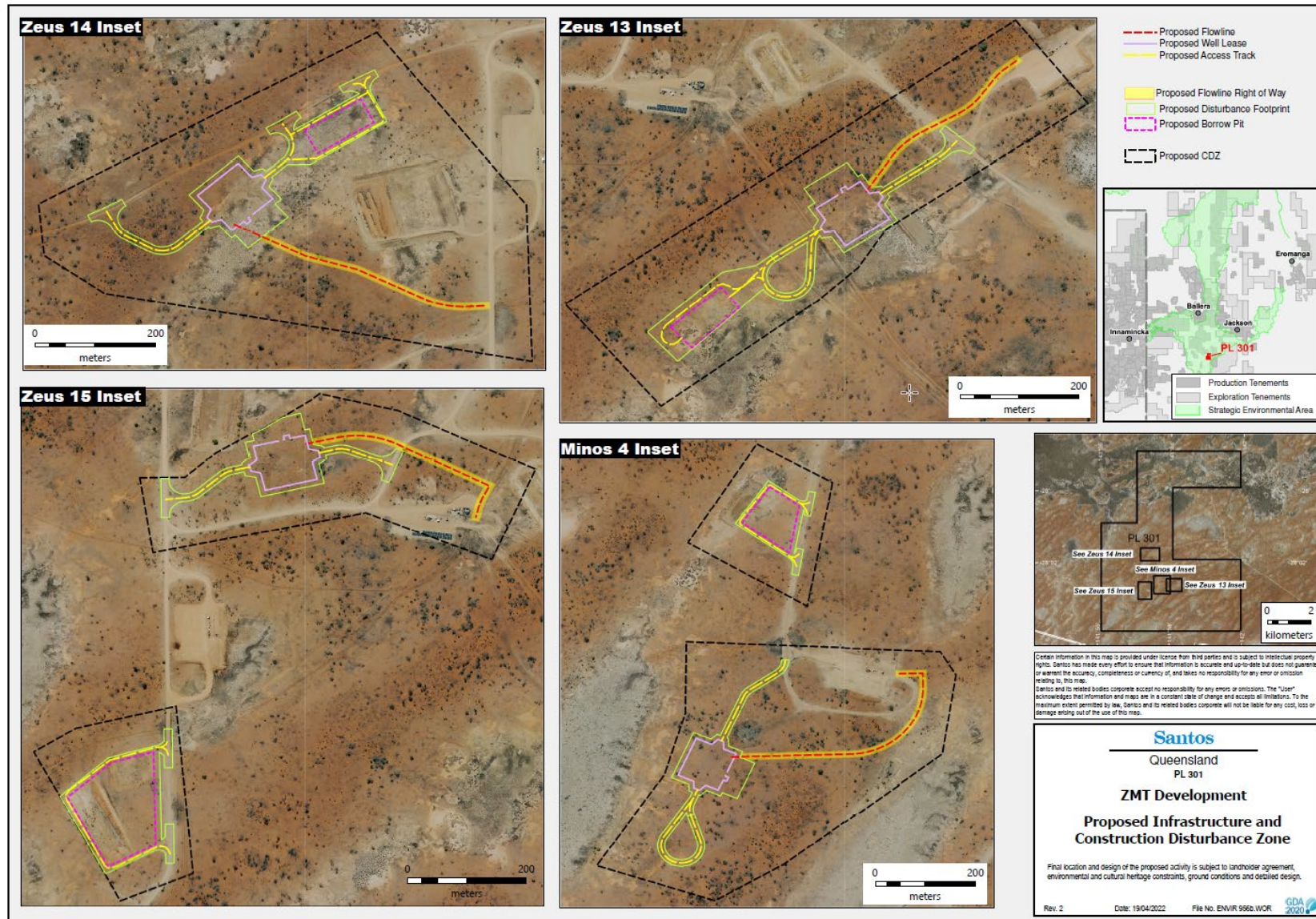


Figure 2: Proposed Infrastructure and Construction Disturbance Zone – ZMT Development

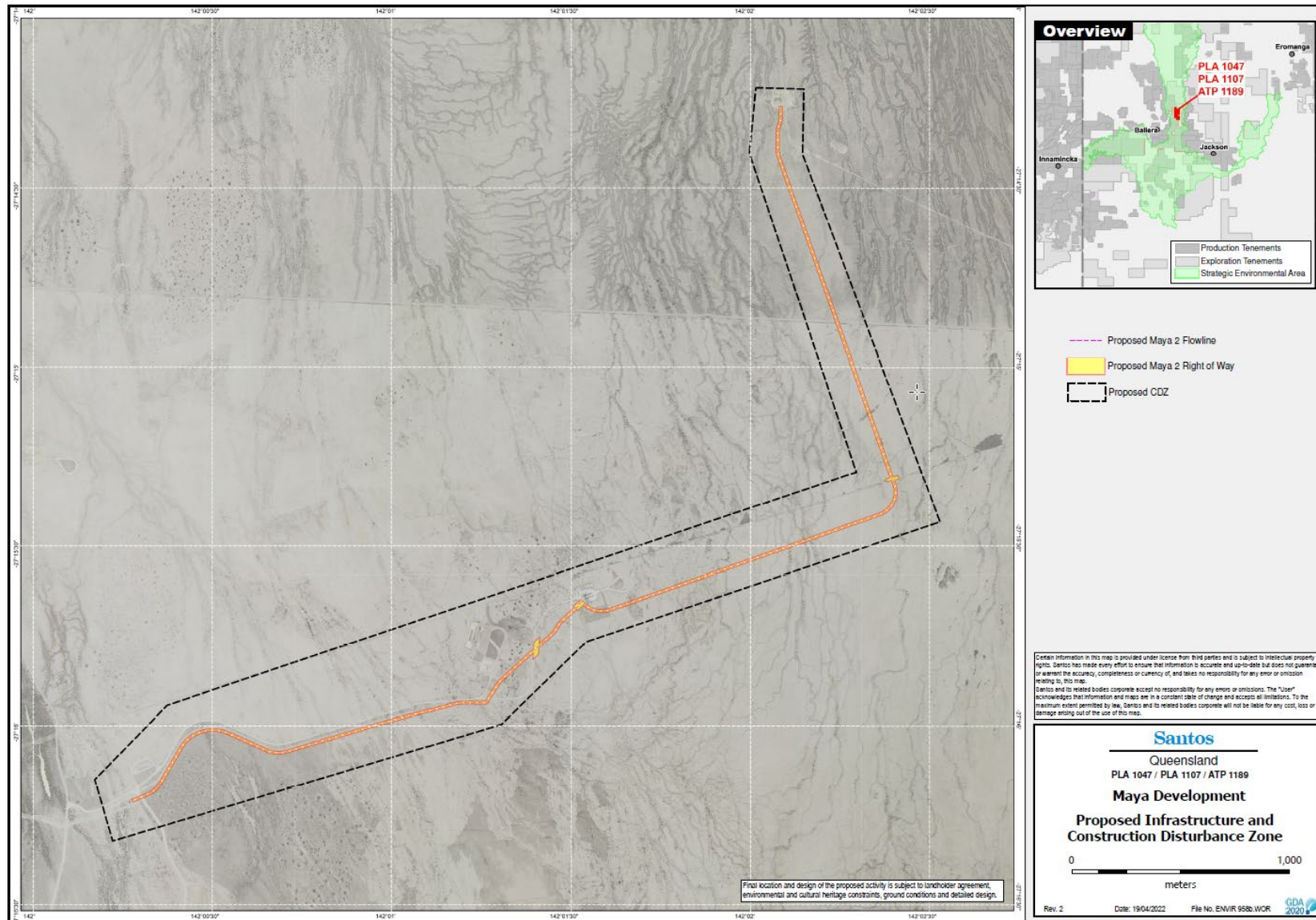


Figure 3: Proposed Infrastructure and Construction Disturbance Zone – Maya 2 Development

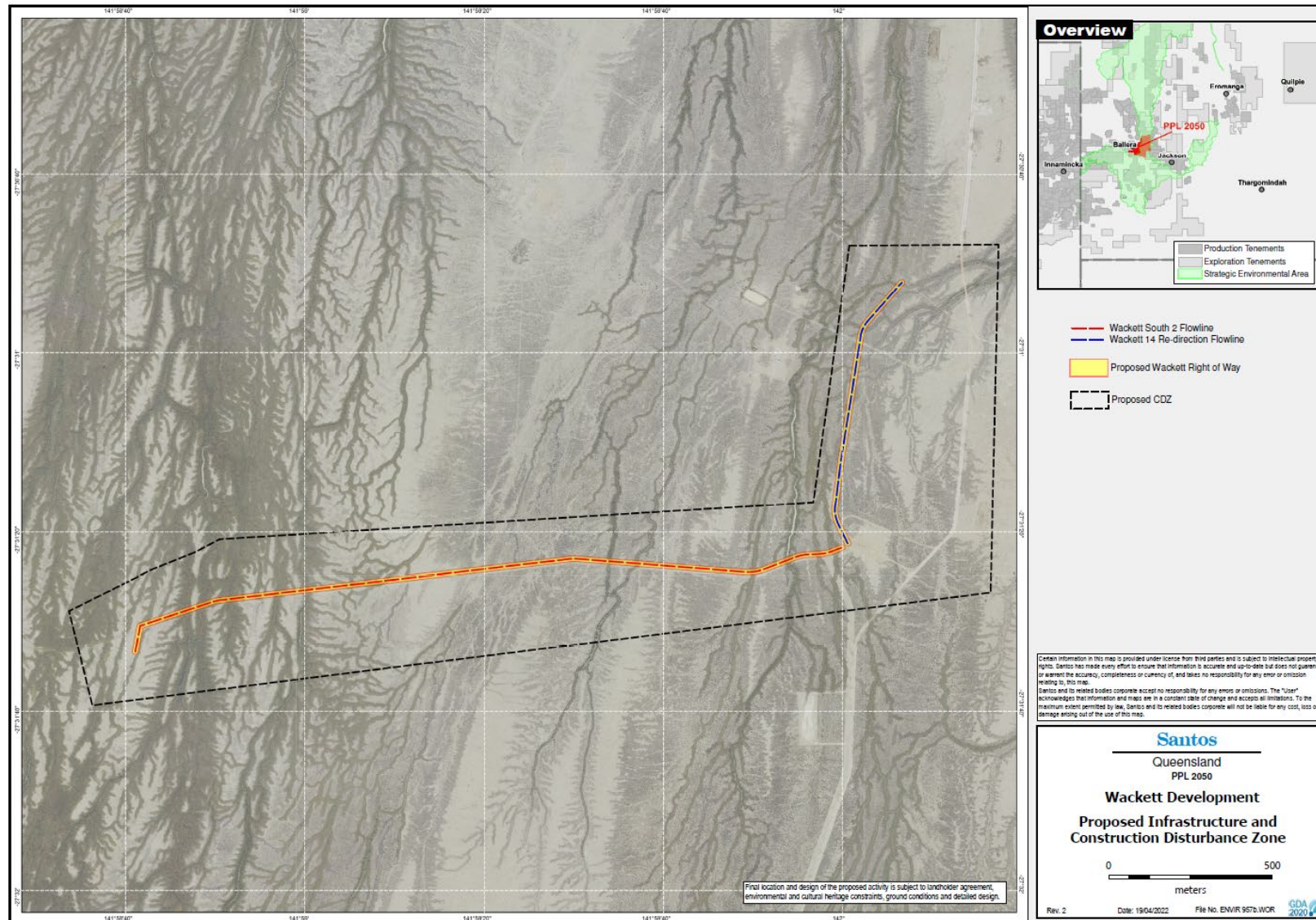


Figure 4: Proposed Infrastructure and Construction Disturbance Zone – Wackett Development



## 2.1 ZMT development

### 2.1.1 Conventional Petroleum Well and Lease

Four well leases are proposed to be constructed as a part of the ZMT development to accommodate modular drilling and ancillary equipment, including a derrick, power generators, pipe handling equipment, tanks, chemical injection skid, drilling sumps and associated stockpile, flares and office areas. The layout of a typical well lease during drilling is provided in Appendix A.

#### **Construction**

Once the drilling rig is in place on the well pad, drilling will be undertaken for approximately 11 days. Drilling fluid will be continuously circulated down the drill pipe and back to the surface equipment to balance underground pressure (if required), cool the drill bit and flush out rock cuttings. A drilling fluids sump would be used to contain drilling fluids and is designed to exclude overland flow.

Following the completion of drilling, the drilling rig will be dismantled and transported from site and partial rehabilitation will commence, including the removal of drilling fluids from the drilling sump if required and backfilling of the drilling fluids sump. Flood alerts will be monitored to ensure affected sumps are emptied and backfilled before forecast floodwater has the potential to impact the site.

Drilling activities would be scheduled during periods where surface water is expected to be absent from the site, and outside of flood events / inundation periods. The well would be drilled in accordance with Santos Management System (SMS) Onshore Drilling and Completions Technical Standards, which are consistent with industry standards from the American Petroleum Institute (API) and NORSOK and *Code of Practice for the Construction and Abandonment of Petroleum Wells and Associated Bores in Queensland* (DNRME, 2018). These standards provide minimum construction requirements and good industry practice for petroleum production. The preliminary well design is a 2-string design with 7-5/8" steel surface casing and 3-1/2" chrome steel tubing. These strings would be cemented either back to surface or to inside the previous casing.

#### **Operation**

During operation of the well, surface facilities will be used for the purpose of petroleum production. Surface facilities will include the wellhead and a tie-in riser. The wellhead consists of equipment which supports the various pipe strings, seals off the well, and controls the paths and flow of reservoir fluids. The tie-in riser connects the well to the oil flowline and enables transportation of the extracted petroleum.

It is feasible that workover operations will be required for the wells 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) will need to be setup within the proposed disturbance footprint for a temporary duration. Workover operations will also be scheduled to be completed when no surface water is expected to be present on site and outside of flood events/inundation periods.

The wells will be plugged and abandoned at end-of-life in accordance with the requirements of the *Petroleum and Gas (Production and Safety) Act 2004* (P&G Act 2004), the *Petroleum and Gas (Safety) Regulation 2018* (P&G Regulation), any mandatory codes of practice, including the *Code of Practice for the Construction and Abandonment of Petroleum Wells and Associated Bores in Queensland* (or equivalent standards in place at the time of abandonment), and the well leases restored as per the relevant conditions of the EA EPPG00383513 (relevant to PL 301).

## 2.1.2 Above ground oil flowlines

To commercialise oil from the ZMT development wells, four above ground oil flowlines are required to connect the wells to the existing oil gathering infrastructure. The pipelines will be above-ground 73 mm diameter External Upset End (EUE) pipelines, raised approximately 150 mm above ground level on pre-fabricated supports located along the pipeline route. Details of the prefabricated supports are provided in Appendix B. The pipelines will begin at each of the proposed wells and will connect to the nearest well and/or the Zeus Manifold, where the resource will then be transferred to the Watson Oil Facility (PL 35) via the existing Santos pipeline network.

### **Construction**

A right-of-way (ROW) width of approximately 15 m is required for installation of the proposed above ground oil flowlines. This area comprises a basic clear and grade to ensure clear access for construction vehicles and pipe installation. Flowline material is screwed together at the temporary work station and dragged out onto the ROW with installation of sleepers and donuts to raise the flowline off the ground (refer Appendix B). Once the flowline installation is complete, testing is undertaken in the form of a hydrotest and visual leak test. Hydrotest water will not be released to land; it will be transported to the nearest licensed water management facility for treatment and/or disposal.

### **Operation**

Once operational, the flowlines will transport the petroleum resource either to other wells or directly to the Zeus Manifold where the resource will then be transferred to the Watson Oil Facility (PL 35) via the existing Santos pipeline network. Pipeline maintenance activities, such as visual inspections and would also be carried out from time to time. The finished ROWs can be used for inspections via light vehicles. No formed roads will be required.

The flowlines will be decommissioned at end-of-life in accordance with the P&G Act and the conditions of the EA EPPG00383513.

## 2.1.3 Access Tracks

Approximately 3.8 km of new access tracks will be required to access the proposed wells, borrow pits, truck turn around areas loop roads.

### **Construction**

The proposed access tracks would be approximately 14 m in width to accommodate a trafficable roadway and table drains either side of the roadway, spaced out as per Santos Class D road classification spacing recommendations (refer Appendix C for typical layout). Access track width may increase above 14 m when cutting into areas of elevated topography. The roadway would be graded and capped with clay or similar locally available borrow pit material.

### **Operation**

The proposed access tracks will be used for ongoing access to the well lease and other connected infrastructure (eg borrow pit). The proposed access tracks will be designed to convey natural surface water flows consistent with the existing hydrology and will not be accessed during prolonged wet weather.

At the end of operations, the access tracks will be rehabilitated in accordance with the relevant conditions of EA EPPG00383513, or left in place for future use by the landholder subject to their agreement.

## 2.1.4 Borrow Pits

New borrow pits and new disturbance to existing borrow pits, will be established close to each proposed well (Figure 2). These borrow pits will be used to provide a source of material for the construction of new infrastructure and ongoing maintenance of the well lease and access tracks associated with the proposed activities. The new disturbance to existing borrow pits has been included to provide a conservative total disturbance area calculation.

The side batters of the borrow pits will be maintained at a slope of approximately 6:1 (3:1 maximum) and the batters of the entrance/exit will be maintained at a slope of approximately 7:1.

The borrow pits will be restored by ripping the floor and sides to a depth of approximately 500 millimetres (mm) generally along the contour. Material from the related well lease and road will be returned to the pit, and stockpiled topsoil and vegetation will be re-spread to a uniform depth over the entire area from which it was removed. The sides and floor of the borrow pits are graded to give a contoured finish as required by the relevant conditions of EA EPPG00383513.

## 2.2 Maya 2 and Wackett Developments

### 2.2.1 Buried Gas Flowlines

To transport gas from the Maya 2, Wackett South 2 and Wackett 14 wells, three buried gas flowlines are required to connect the wells to the existing gas gathering network. The flowlines will be buried underground and the surface will be rehabilitated to reinstate existing drainage.

The proposed buried gas flowlines are located wholly within the Channel Country SEA (refer Figure 3 and Figure 4). All flowlines will consist of a 100 mm diameter steel (DN100) pipe, buried to a depth below 750 mm.

A portion of the Maya 2 flowline will run parallel with the existing Cherokee gas pipelines to reduce the level of disturbance required for construction. The remaining portion of the flowline will provide a new connection and as such is a new disturbance. Two midline risers are proposed as a part of the development to enable future connections to the gas gathering network.

The Wackett South 2 flowline will run parallel with the existing Wackett South 1 Gas flowline (PPL 2050) ROW to reduce the level of disturbance required for construction.

The Wackett 14 redirection flowline will provide a new connection from the Wackett 14 well to the Wackett 4 Gas flowline (PPL 2050) and will include a mid-line riser. The redirection line will allow for greater production from the existing well.

### **Construction**

An average ROW width of 19 m is required for installation of the proposed buried gas flowlines. This area comprises the topsoil bank on either side of the ROW, access for pipe truck and side boom tractor/excavator, the flowline trench and a trench spoil bank (refer Appendix D). The flowlines intersect a channel of the Cooper Creek (stream order 8) and wetlands of general ecological significance (GES). ROW widths will be restricted to the smallest extent practicable through these areas.

Once the flowline is laid within the trench, it will be tested, bedded with padding placed around it, backfilled and compacted. Hydrotest water will not be released to land; it will be transported to the nearest licensed water management facility for treatment and/or disposal.

The ROW will then be reinstated to the condition and profiles existing at the commencement of activities. All wheel and equipment ruts along the flowline route would be filled in and levelled by grading. Topsoil

and seed stock removed during installation would be re-spread over the ROW and windrows removed. Where seed stock has not been displaced during installation, the area would be lightly scarified to promote regrowth.

### ***Operation***

Once operational, the flowlines would transport gas into the existing gas gathering network. Pipeline maintenance activities (including dig-ups where required) and inspections would also be carried out from time to time. A 3 m wide corridor within the rehabilitated ROW will be used for the inspections via light vehicles. No formed roads will be required.

The flowline will be decommissioned at end-of-life in accordance with the P&G Act and the relevant conditions of EA EPPG03518215 and EA0002115.

## 3.0 Environmental Attributes

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.*

The RPI Act Statutory Guideline 05/14: Carrying Out Resource Activity and Regulated Activity within a Strategic Environmental Area summarises the above attributes to broadly relate to:

- riparian processes;
- wildlife corridors;
- water quality;
- hydrologic processes;
- geomorphic processes; and
- beneficial flooding.

The relevance of the above environmental attributes to the proposed activities is described below.

### 3.1 General

#### 3.1.1 Land Use

The ZMT development is located on Naryilco Station (Lot 1 SP209773). Naryilco Station is a 7,510 km<sup>2</sup> cattle station with a carrying capacity of 12 000 cattle<sup>1</sup>. The Wackett and Maya 2 developments are 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 21,000 head of cattle<sup>2</sup>.

The primary land uses for both properties are grazing and petroleum activities. The applicant has been carrying out petroleum activities on these properties for some time, with a number of existing wells and associated infrastructure already present.

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<sup>1</sup> <https://www.kidman.com.au/locations/naryilco-station/>

<sup>2</sup> <https://www.kidman.com.au/locations/durham-downs/>

## 3.1.2 Climate

The Channel Country SEA is located in an arid to semi-arid region of central Australia where the average rainfall is low. Seasons in the area are characterised by dry, hot summers and short, very dry winters. Average annual rainfall in the region ranges from 232 mm at Nockatunga Station (Station Number: 045024) to 200 mm at Orientos Station (Station Number: 045029) (BOM, 2021). In summer, mean maximum temperature is 37.5°C and mean minimum temperature is 24.6°C (BOM, 2021). In winter, mean maximum temperature is 21°C and mean minimum temperature is 7.6°C (BOM, 2021).

The El-Nino Southern Oscillation (ENSO) exerts significant influence on inter-annual climate variability across the area, produced marked fluctuations in the amount, timing and distribution of rainfall. As such, there is considerable year-to-year variation, particularly during the summer months, ranging from 'failed' wet seasons, to 'normal' and above average rainfall and tropical cyclone activity.

## 3.2 Riparian Processes

The proposed activities are located within the Cooper Creek drainage basin and the Cooper drainage basin sub-area, which is an ephemeral, highly sinuous braided channel system. The hydrology of this stream system is discussed in Section 3.5. Mapped watercourses are shown in Figure 11 – 13.

The ZMT development is located outside of the main Cooper Creek floodplain within the Bulloo Dunefields sub-region. The ZMT development will be undertaken predominately within the regional ecosystems (RE) 5.6.4 consisting of *Atalaya hemiglauca*, *Acacia aneura*, *Acacia* spp. and *Corymbia terminalis* low open woodland on reticulate sand dunes. This RE does not include any riparian vegetation.

As shown on Figure 11, the ZMT development is located approximately 1.6 km from the closest watercourse / riparian zone and RE containing riparian vegetation; RE 5.3.8a consisting of *Eucalyptus coolabah* low open woodland, *Duma florulenta* on braided channels, drainage lines, flood plain lakes and claypans. There are no known groundwater sources in the area, including the Great Artesian Basin and springs, that support waterhole persistence and ecosystems.

The Maya 2 and Wackett developments are located within the main Cooper Creek floodplain within the Cooper - Diamantina Plains sub-region. The Maya 2 development will be wholly undertaken within the REs 5.3.18a / 5.3.18b / 5.3.13a consisting of *Chenopodium auricomum* open shrubland and variable sparse to open-herbland (5.3.18a / 5.3.18b) and *Duma florulenta* open shrubland in depressions on flood plains, interdune flats, clay pans and clay plains (5.3.13a).

The Wackett development will be wholly undertaken within the REs 5.3.18b / 5.3.18a / 5.3.8a consisting of Braided channel complex of major alluvial plains, includes *Chenopodium auricomum* open shrubland and variable sparse to open-herbland (5.3.18a / 5.3.18b) and *Eucalyptus coolabah* low open woodland, *Duma florulenta* on braided channels, drainage lines, flood plain lakes and claypans (5.3.8a).

Vegetation in the area of the proposed activities has been subject to long-term cattle grazing from the operation of the existing cattle stations. RE mapping and aerial imagery indicate that vegetation present within the area of all three proposed developments is typical of vegetation located elsewhere within the Channel Country bioregion and the relative subregions.

Figure 5 – 7 show the mapped REs associated with the proposed developments. Mapped REs for each of the areas are summarised in Table 5. The REs which surround the proposed Maya 2 and Wackett activities are known to include riparian vegetation, particularly within the Cooper Creek and its braided channels.

All of the proposed development areas are mapped as Category B (remnant vegetation) least concern regional ecosystem (*Vegetation Management Act 1999*) and have a biodiversity status of No Concern

at Present (NCAP). No Environmentally Sensitive Areas (ESA) are present, nor are there permanent waterholes within or surrounding the proposed activities.

The ZMT development is not located within or in close proximity to mapped riparian corridors or buffers. However, Maya 2 and Wackett developments are located within or in close proximity to the Wilson River and Cooper Creek riparian corridor buffers (refer Section 3.3).

No wetlands of high ecological significance (HES) are mapped to occur within the area of the proposed activities. The ZMT development may intersect general ecological significance (GES), which are identified as lacustrine wetlands associated with RE 5.3.22a. These wetlands of GES are also common throughout the wider landscape and comprise sparse hermland, open water or bare areas on flood plain lakes and interdune clay pans and lakes (DES, 2013). The Maya 2 buried gas flowline traverses GES wetlands, which are identified as palustrine wetlands associated with RE 5.3.13a / 5.3.8a. These wetlands of GES are also common throughout the wider landscape and comprise arid/semi-arid floodplain lignum swamps (DES, 2013). The Wackett development does not intersect any mapped wetlands.

### 3.3 Wildlife Corridors

Figures 8 – 10 show the state, regional and local riparian and terrestrial corridors present within the area of the proposed activities as per the DES *Biodiversity Planning Assessments and Aquatic Conservation Assessments* environmental reports. The proposed developments are located within the Channel Country bioregion.

The riparian bioregional corridors in the Channel Country were established with the intention of connecting permanent waterholes. The riparian corridors stated in these environmental reports are based upon major channels and minor channels (250k geodata hierarchy 1, 2, and 3) necessary to capture permanent waterholes, buffered by 1 km either side and clipped to land zone 3<sup>3</sup>, and are associated with the Cooper Creek. The Channel Country Biodiversity Planning Assessment (BPA) was released on 30 September 2009.

The Maya 2 development is located within the Cooper Creek Biodiversity Planning Assessment derived riparian corridor buffer (refer Figure 9). The majority of the Wackett development is within the Cooper Creek Biodiversity Planning Assessment derived riparian corridor buffer (refer Figure 10).

The ZMT development is located approximately 20 km south-east of the Cooper Creek Biodiversity Planning Assessment derived riparian corridor (refer Figure 8).

The terrestrial corridors aim to maximise connectivity between tracts of remnant vegetation. The proposed ZMT development intersects a State terrestrial corridor buffer (although it is noted the defined attributes for the Channel Country SEA do not relate to terrestrial ecology).

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<sup>3</sup> DERM 2009 *Biodiversity Planning Assessment, Channel Country Bioregion, Landscape Expert Panel Report, Version 1.1*

**Table 3: Regional Ecosystem Descriptions relevant to the area of the proposed activities**

RE code	RE short description	VM Act Class	BD Status	Structural Category
<b>ZMT development</b>				
5.3.12b	<i>Chenopodium auricomum</i> +/- <i>Duma florulenta</i> open shrubland in depressions on flood plains, interdune flats, clay pans and clay plains	LC	NCAP	Very sparse
5.3.16a	<i>Eragrostis australasica</i> sparse tussock grassland on intermittently inundated depressions on flood plains, interdune flats, clay pans and clay plains	LC	NCAP	Very sparse
5.3.16b	<i>Eragrostis australasica</i> sparse tussock grassland on intermittently inundated depressions on flood plains, interdune flats, clay pans and clay plains	LC	NCAP	Very sparse
5.3.22a	Bare areas, water or scattered ephemeral vegetation of variable floristic and structural composition. Locally <i>Eleocharis pallens</i> and/or <i>Eragrostis setifolia</i> may predominate. An ephemeral herbland will often dominate bare areas exposed by receding water. Very occasional low shrubs such as <i>Chenopodium auricomum</i> , <i>Duma florulenta</i> and <i>Tecticornia spp.</i> may be present. Occurs on lakes and larger clay pans (area generally greater than 8 ha) in interdunes or on sandplains or less frequently on clay plains. Soils very deep, grey cracking clays. Lacustrine (BVG1M: 34a)	LC	NCAP	Other
5.3.22d	Bare areas, water or scattered ephemeral vegetation of variable floristic and structural composition. Locally <i>Eleocharis pallens</i> and/or <i>Eragrostis setifolia</i> may predominate. An ephemeral herbland will often dominate bare areas exposed by receding water. Very occasional low shrubs such as <i>Chenopodium auricomum</i> , <i>Duma florulenta</i> and <i>Tecticornia spp.</i> may be present. Occurs on smaller clay pans (area generally less than 8 ha) in interdunes or on sandplains or less frequently on clay plains. Soils very deep, grey cracking clays	LC	NCAP	Other
5.6.4	<i>Atalaya hermglauca</i> +/- <i>Acacia aneura</i> +/- <i>Acacia spp.</i> +/- <i>Corymbia terminalis</i> low open woodland on reticulate sand dunes	LC	NCAP	Sparse
<b>Maya 2 development</b>				
5.3.18a	Braided channel complex of major alluvial plains, includes <i>Chenopodium auricomum</i> open shrubland and variable sparse to open-herbland	LC	NCAP	Sparse
5.3.18b	Braided channel complex of major alluvial plains, includes <i>Chenopodium auricomum</i> open shrubland and variable sparse to open-herbland	LC	NCAP	Sparse
5.3.8a	<i>Eucalyptus coolabah</i> low open woodland +/- <i>Duma florulenta</i> on braided channels, drainage lines, flood plain lakes and claypans	LC	NCAP	Very Sparse
5.3.13a	<i>Duma florulenta</i> open shrubland commonly with <i>Chenopodium auricomum</i> , <i>Maireana aphylla</i> and occasional low trees and tall shrubs including <i>Acacia stenophylla</i> , <i>Acacia victoriae</i> , <i>Eremophila bignoniiflora</i> , <i>Eucalyptus coolabah</i> . The ground layer composition and density varies in response to incidence of flooding and may be dominated by perennial grasses, sedges and/or ephemeral forbs including <i>Eragrostis setifolia</i> , <i>Sporobolus mitchellii</i> , <i>Eleocharis pallens</i> , <i>Cyperus spp.</i> , <i>Eleocharis plana</i> , <i>Echinochloa turneriana</i> , <i>Eriochloa pseudoacrotricha</i> and <i>Panicum laevinode</i> , <i>Cullen cinereum</i> , <i>Marsilea drummondii</i> , <i>Ipomoea diamantinensis</i> , <i>Alternanthera nodiflora</i> , <i>Senecio depressicola</i> and <i>Ethuliopsis cunninghamii</i> . Forbs commonly dominate after inundation in cooler months and legumes/grasses including <i>Aeschynomene indica</i> and/or <i>Sesbania cannabina</i> +/- <i>Echinochloa turneriana</i> commonly dominate after inundation in hotter months. Occurs in intermittently inundated depressions or fringing braided channels on alluvial plains. Associated soils are very deep, neutral to moderately alkaline, crusted, grey cracking clays. Soils may be self mulching and may have sand bands in the profile. Moderate gilgai micro relief. Palustrine (BVG1M: 34g)	LC	NCAP	Very Sparse



RE code	RE short description	VM Act Class	BD Status	Structural Category
<b>Wackett development</b>				
5.3.18a	Braided channel complex of major alluvial plains, includes <i>Chenopodium auricomum</i> open shrubland and variable sparse to open-herbland	LC	NCAP	Sparse
5.3.18b	Braided channel complex of major alluvial plains, includes <i>Chenopodium auricomum</i> open shrubland and variable sparse to open-herbland	LC	NCAP	Sparse
5.3.8a	<i>Eucalyptus coolabah</i> low open woodland +/- <i>Duma florulenta</i> on braided channels, drainage lines, flood plain lakes and claypans	LC	NCAP	Very Sparse

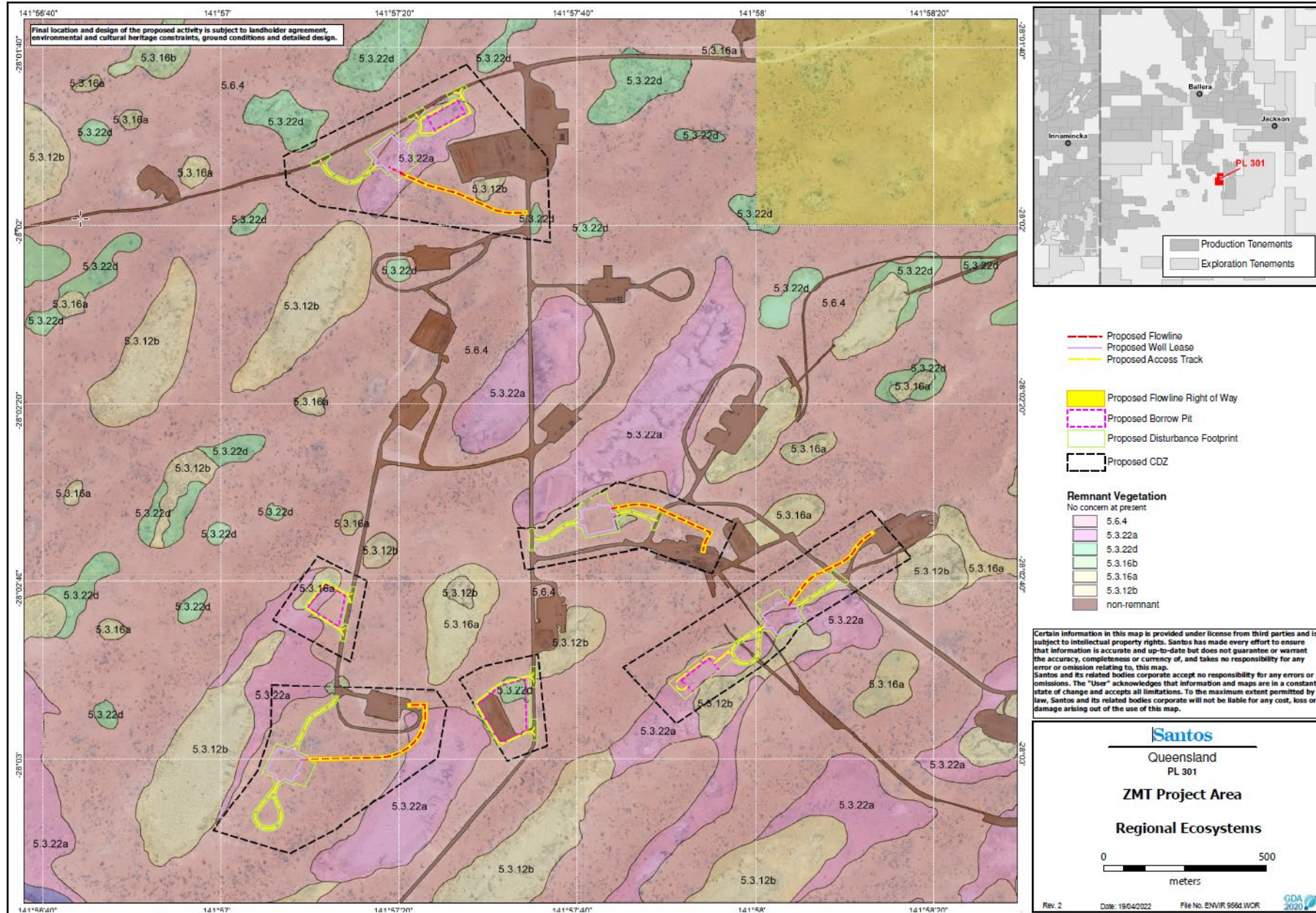


Figure 5: Regional Ecosystems – ZMT development

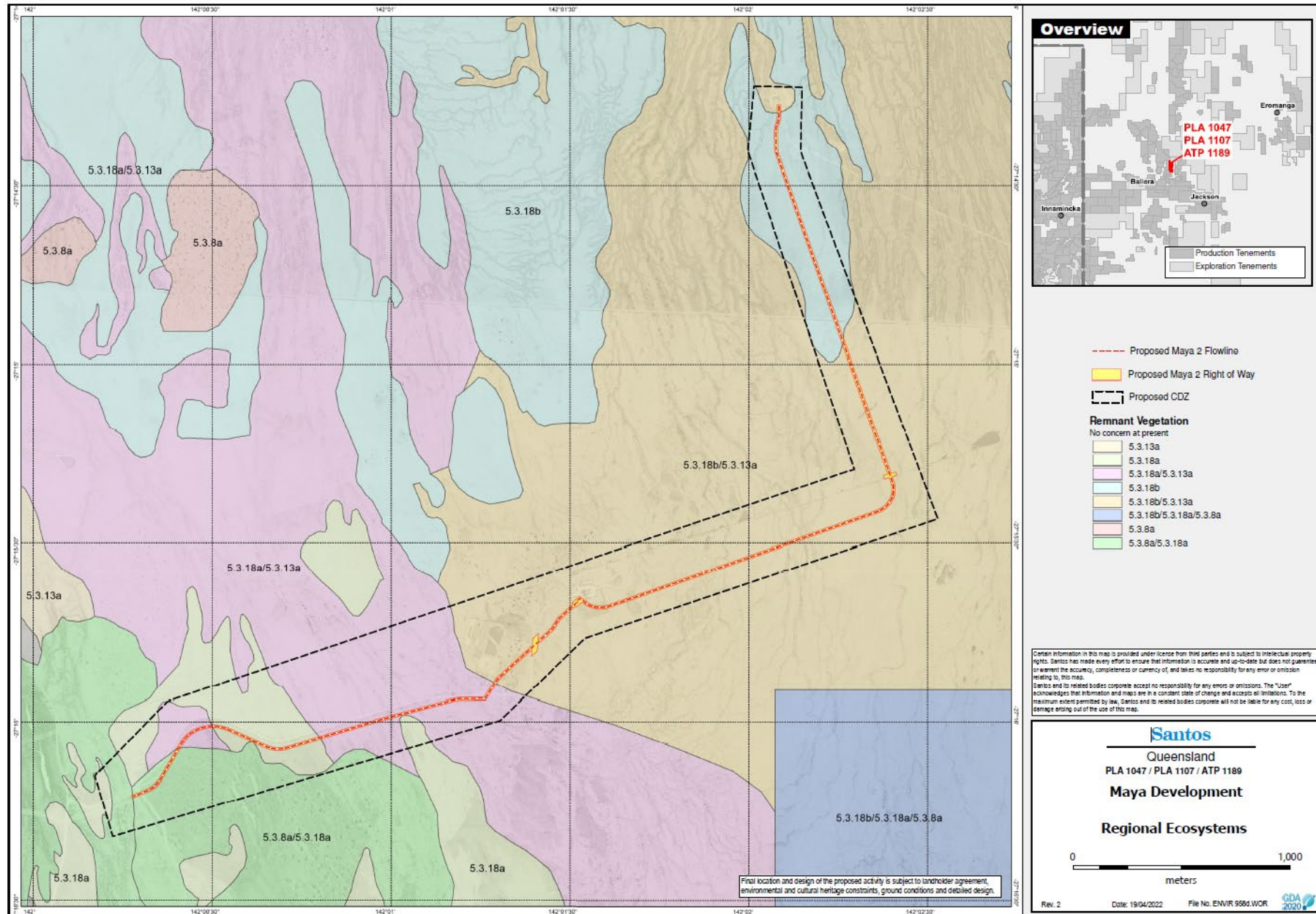


Figure 6: Regional Ecosystems – Maya 2 development

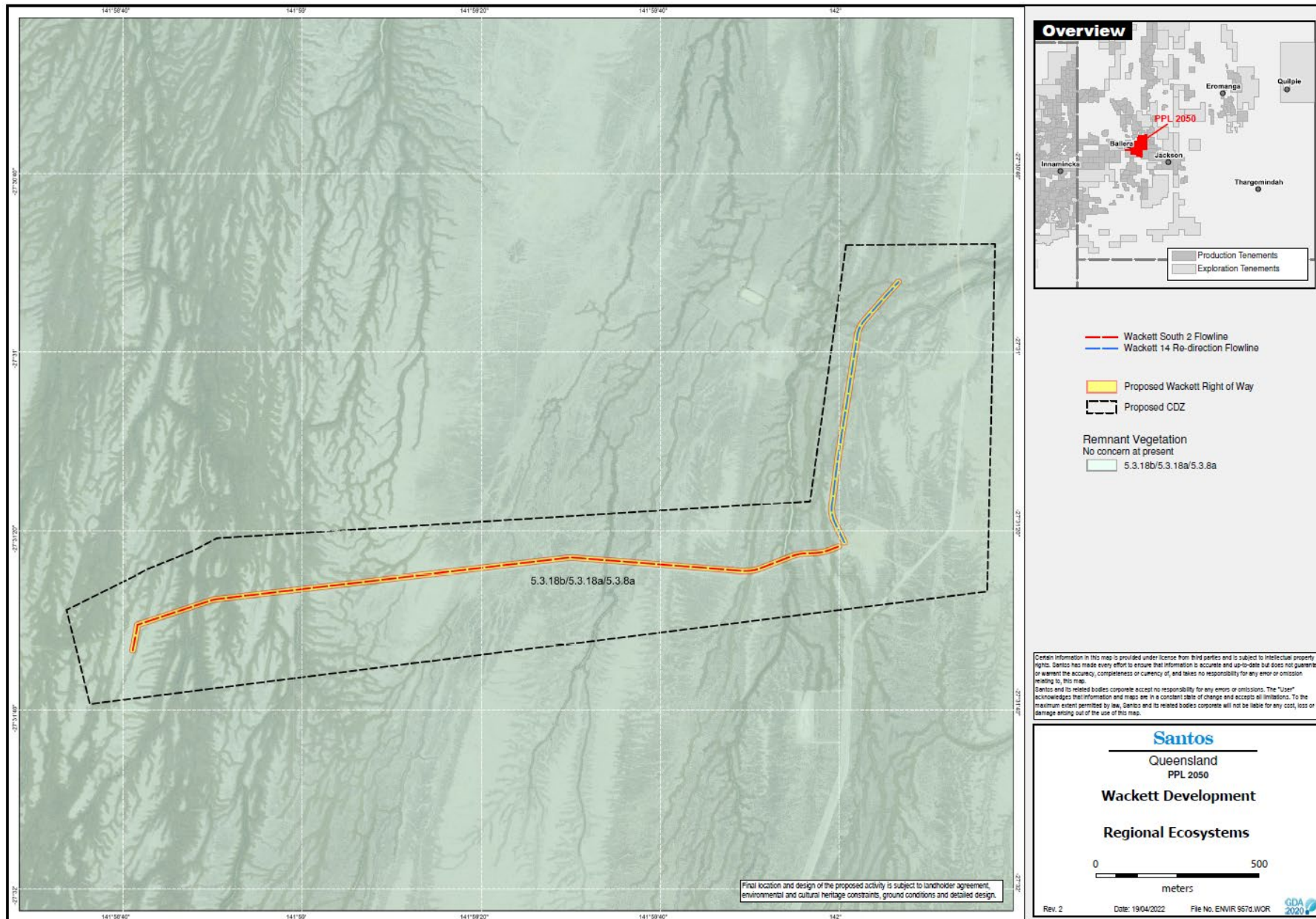


Figure 7: Regional Ecosystems – Wackett development

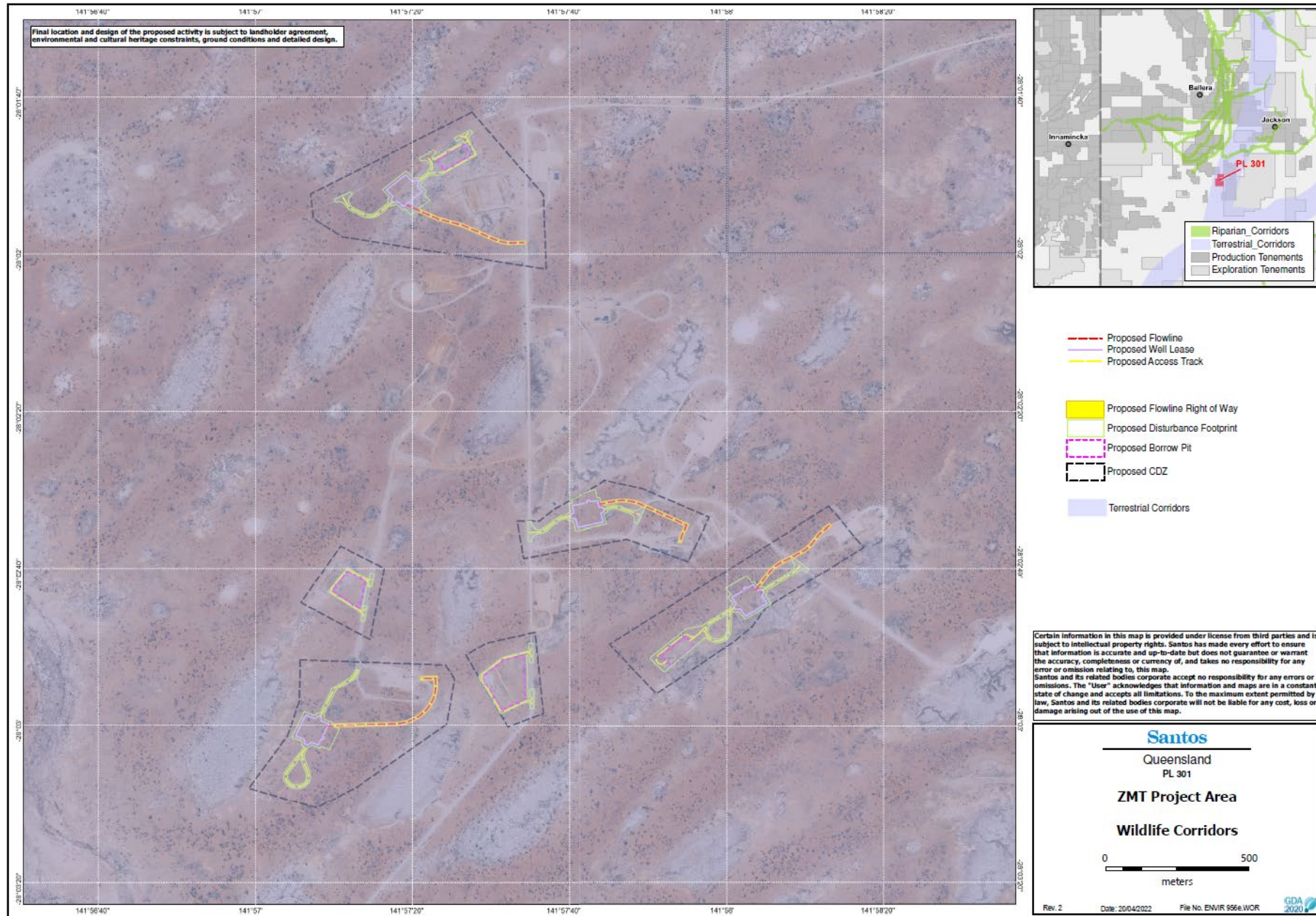


Figure 8: Wildlife Corridors – ZMT development

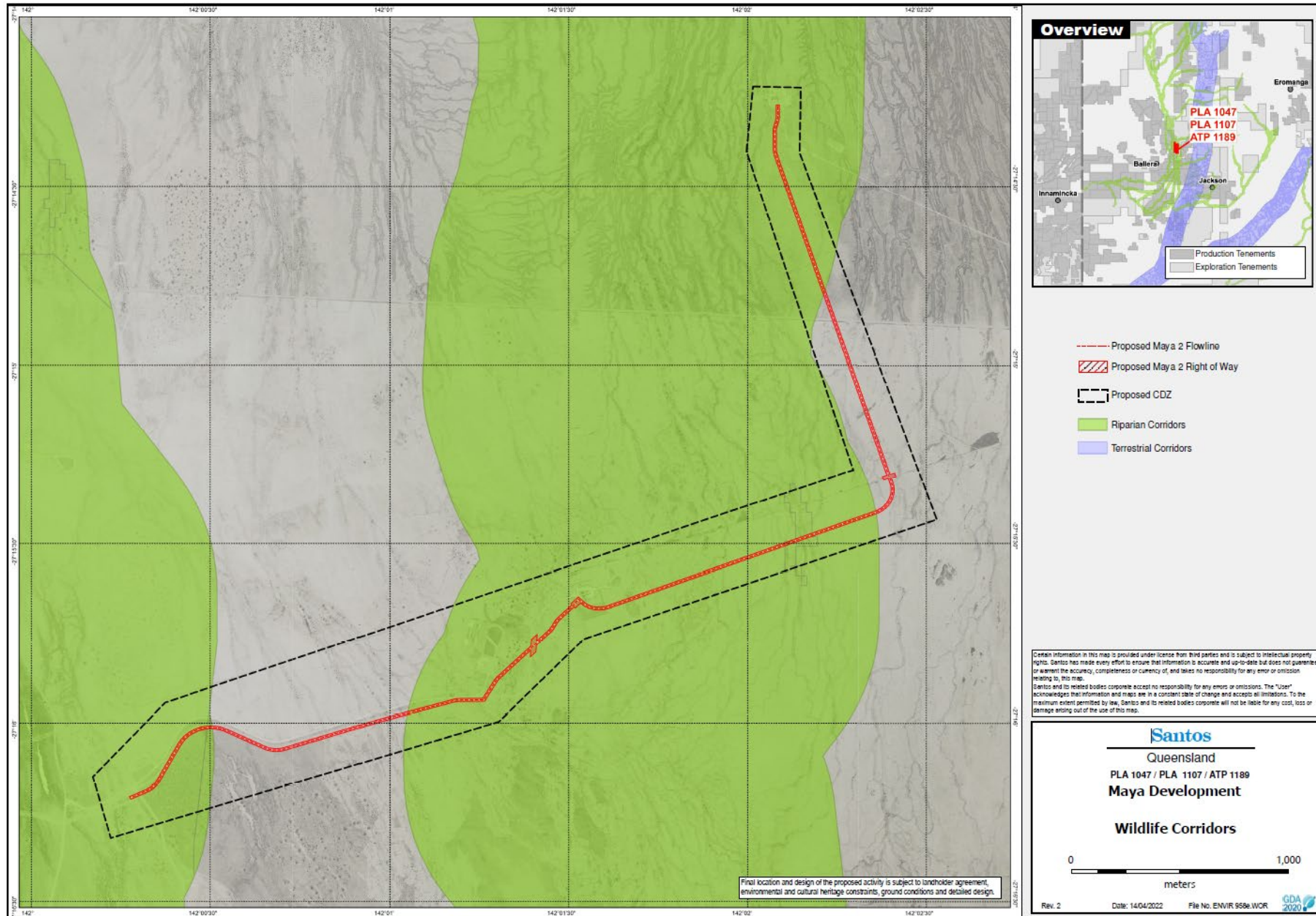


Figure 9: Wildlife Corridors – Maya 2 development

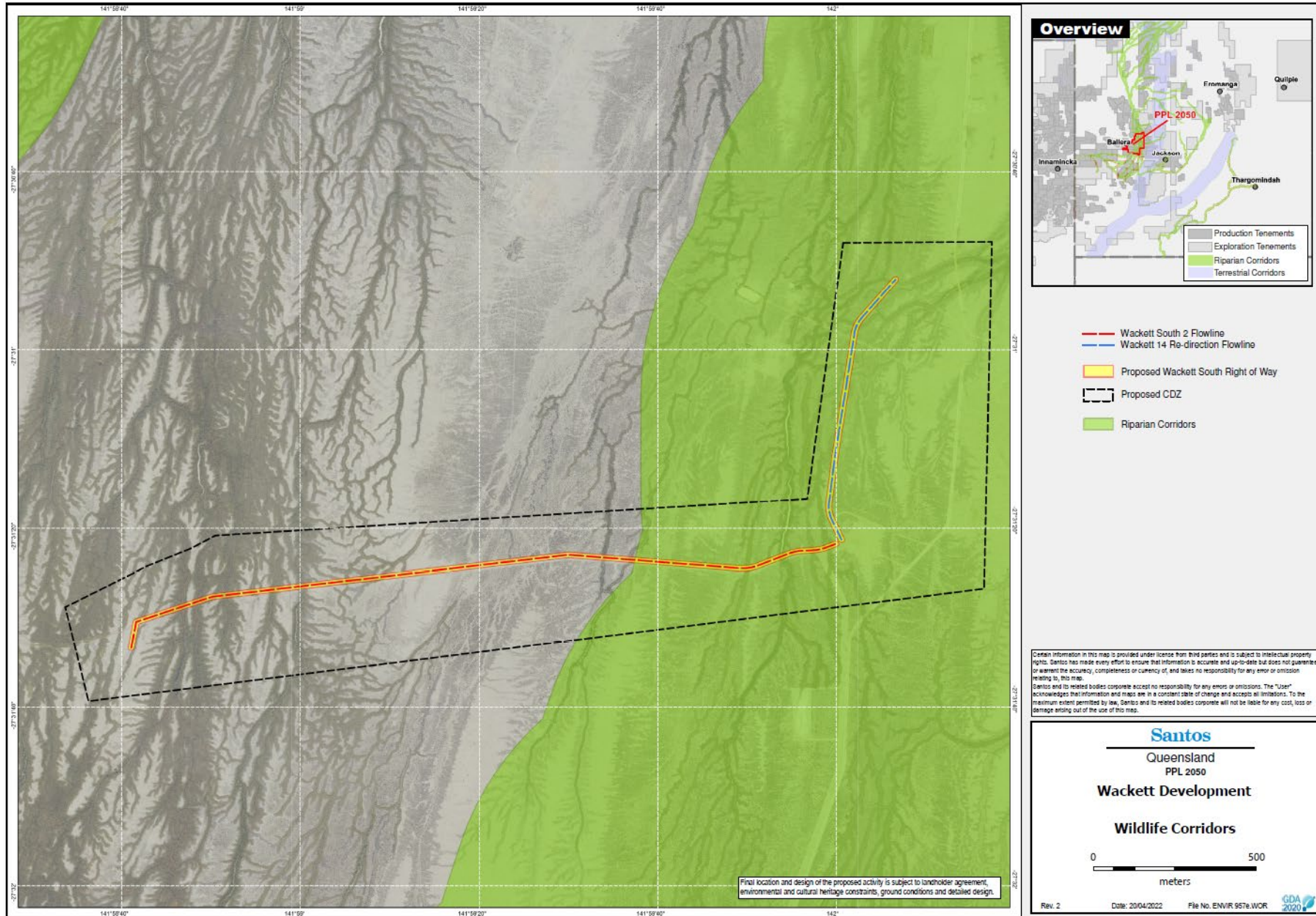


Figure 10: Wildlife Corridors – Wackett development

### 3.4 Water Quality

#### 3.4.1 Surface Water

The proposed activities are located in the Cooper Creek drainage basin and the Cooper drainage basin sub-area. The Cooper Creek drainage basin has a catchment area of 300,000 km<sup>2</sup>. Cooper Creek is Australia’s largest braided stream and inland floodplain (Wainwright et al, 2006). Cooper Creek is approximately 1,500 km long and stretches from the Warrego Range in Queensland to Lake Eyre in South Australia (Kotwicki, 1986).

Despite being situated in the Channel Country bioregion, at its closest point the ZMT development is located 2 km south-east of the main area of braided channels / floodplain associated with the Cooper Creek. No mapped watercourses intersect the proposed activities.

The Maya 2 and Wackett developments are situated in the Channel Country bioregion, directly within the Cooper Creek floodplain. The Maya 2 development is intersected by channels of the Cooper Creek (stream order 8) in four locations (refer to Figure 12). The Wackett development is intersected by channels of the Cooper Creek (stream order 8) in five locations (refer to Figure 13).

Historical (1965-2020) water quality data from the QLD Government’s Cooper Creek gauging station 003103A, located approximately 95km north-west of the ZMT development, 95 km south-west of the Maya 2 development and 85km south-west of the Wackett development, is summarised in Table 4.

**Table 4: Cooper Creek Surface Water Quality (1965-2020)**

Parameter	Average Value
Conductivity @ 25°C	314 µS/cm
Turbidity	537 NTU
pH	7.4
Total Nitrogen	1.3 mg/L
Total Phosphorus as P	0.4 mg/L
Sodium as Na	39.6 mg/L
Magnesium as Mg	6.6 mg/L
Chloride as Cl	59.5 mg/L
Fluoride as F	0.2 mg/L

#### 3.4.2 Groundwater

The main GAB aquifers (i.e. in the Eromanga Basin stratigraphy) in relation to the proposed ZMT development is the Birkhead Formation. 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 900 to 13,000 µS/cm<sup>4</sup>.

<sup>4</sup> Golder Associates 2019 *Underground Water Impact Report for Santos Cooper Basin Oil & Gas Fields, SW QLD*



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 total depth of the wells in the ZMT development are expected to be approximately 1,650 m. The primary target of the well is the Birkhead Formation. The Birkhead formations are interbedded siltstone, mudstone and fine sandstone. Oil reservoirs are present in the basal Birkhead mostly, scattered oil reservoirs are found in the middle Birkhead formation.

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).

Two registered bores (RN 23676 and RN 23611) are located within a five kilometre radius of the ZMT development.

There are no registered bores within a five kilometre radius of the Maya 2 development.

Three registered bores (RN 23766, RN 23942 and RN 23538) are located within a five kilometre radius of the Wackett development.

There are no GAB discharge or recharge springs located within or surrounding the proposed activities.

Terrestrial GDEs may be present in the area of the Maya 2 and Wackett developments.

## **3.5 Hydrological Processes and Beneficial Flooding**

### **3.5.1 Regional**

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 km<sup>2</sup>. Flows within Cooper Creek are usually confined to the main creek channels. Every 3-4 years, flows are sufficient to inundate parts of the Cooper floodplain via a network of tributary channels. 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. During extended periods of no flow, the Cooper Creek contracts to a series of waterholes.

### **3.5.2 Local**

#### **3.5.2.1 ZMT development**

The proposed activities are located approximately 2 km south-east of the Cooper Creek main channel / floodplain and outside of the extent of the flood area for all available mapped flood extents (1989, 1990, 1997, 2000, 2004, 2006 and 2010 flood extents). The area is dominated by highly permeable sands. However, heavy local rainfall events of approximately 25 mm or more may cause minor surface water flows and ponding in watercourses, alluvial plains and interdune claypans and lakes surrounding the site. Daily rainfall events of 25 mm or more have only been recorded six times at Ballera Gas Field

Station (Station Number: 045009) in the last five years (2017-2021), including four times in 2020, once in 2017 and once in 2021 (BOM, 2021).

The proposed activities intersect mapped lacustrine wetland associated with RE 5.3.22a, characterised as sparse herbland, open water or bare areas on flood plain lakes and interdune clay pans and lakes (refer Figure 11). These areas may be subject to intermittent surface water flows during storm events, causing localised ponding of surface water.

There are no wetlands of HES located within the vicinity of the proposed activity, with the nearest being associated with Cooper Creek approximately 2 km to the north.

### 3.5.2.2 Maya 2 flowline

The Maya 2 development is intersected by channels of the Cooper Creek (stream order 8) in four locations (refer to Figure 12). The area of the proposed activity is subject to intermittent flows associated with Cooper Creek flood events and will experience intermittent surface water flows during storm events, causing localised ponding of surface water as discussed in section 3.5.1.

The majority of the proposed buried flowline is located within mapped GES wetland. The GES wetland is mapped as palustrine wetlands associated with RE 5.3.13a / 5.3.8a, characterised as *Duma florulenta* open shrubland in depressions on flood plains, interdune flats, clay pans and clay plains (RE 5.3.13a) and *Eucalyptus coolabah* low open woodland, *Duma florulenta* on braided channels, drainage lines, flood plain lakes and claypans (RE 5.3.8a) (refer Figure 12).

There are no wetlands of HES located within the vicinity of the proposed activity. The nearest is associated with Cooper Creek and located over 34 km south of the proposed activity (refer Figure 12).

### 3.5.2.3 Wackett development

The Wackett development is intersected by channels of the Cooper Creek (stream order 8) in five locations (refer to Figure 13). The area of the proposed activity is subject to intermittent flows associated with Cooper Creek flood events and will experience intermittent surface water flows during storm events, causing localised ponding of surface water as discussed in section 3.5.1.

No areas mapped as containing wetlands of GES will be traversed by the proposed buried gas flowlines (refer Figure 13). The CDZ is located approximately 30m from mapped wetlands of GES (characterised as palustrine wetlands).

There are no wetlands of HES located within the vicinity of the proposed activity. The nearest is associated with Cooper Creek and located approximately 7.5 km south-east of the proposed activities.

## **3.6 Geomorphic Processes**

### **3.6.1 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 floodplain<sup>5</sup>. Fluvial processes also play a role in the geomorphology of the Channel Country SEA, as evident by the presence of isolated sand dunes.

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<sup>5</sup> Maroulis, J (undated) *Channel Country landforms and the processes that shape them*. University of Southern QLD Faculty of Education/Australian Centre for Sustainable Catchments.

### 3.6.2 Local

The ZMT development is located in the Channel Country bioregion and Bulloo Dunefields subregion. The Maya 2 and Wackett developments are located in the Channel Country bioregion and the Cooper – Diamantina Plains subregion.

The ZMT development is located outside of the main Cooper Creek floodplain, whilst the Maya 2 and Wackett developments are located inside the Cooper Creek floodplain. According to RE mapping the dominant land zone traversed by and surrounding the ZMT development is land zone 6 (Quaternary inland dunefields) and land zone 3 (recent Quaternary alluvial systems) for the Maya 2 and Wackett developments.

Land systems mapping, as detailed in the Western Arid Region Land Use Study – Part 1 (DES, 2019) indicates the proposed activities traverse two land systems as described in Table 5.

**Table 5: Land systems traversed by proposed activities**

Development	Map Code	Land System Description	Agricultural Land Class
ZMT	D4	Dunes (3-5 m high) with rounded crests, which infrequently may be mobile, and sloping duneflanks (1-5%). Dunes are reticulate, approaching longitudinal in places. Vegetated inter-connected interdune areas form drainage lines in places. Claypans which frequently become inundated are common.	C3 - Pasture Land - native pastures, light grazing
Maya 2	C1	Alluvial plains with gradients of less than 1:5,000; with anastomosing channels (0.1 to 1m relief), main channels (<10m relief), shallow flood depressions, waterholes, billabongs and swamps and slightly elevated more stable alluvial islands. Isolated sand dune.	C3 - Pasture Land - native pastures, light grazing
Wackett	C1C2	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.	C3 - Pasture Land - native pastures, light grazing

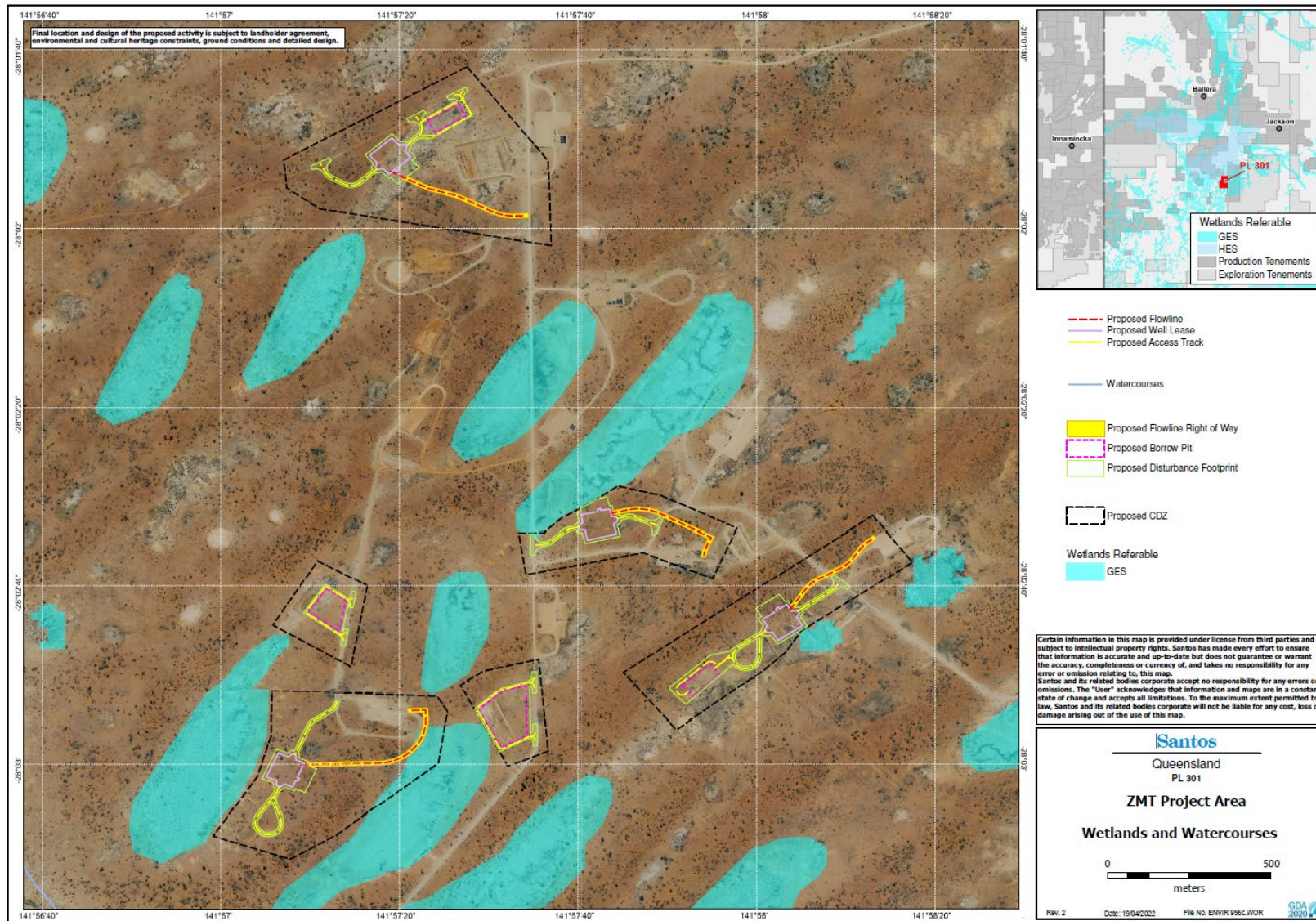


Figure 11: Wetlands and Watercourses – ZMT Development

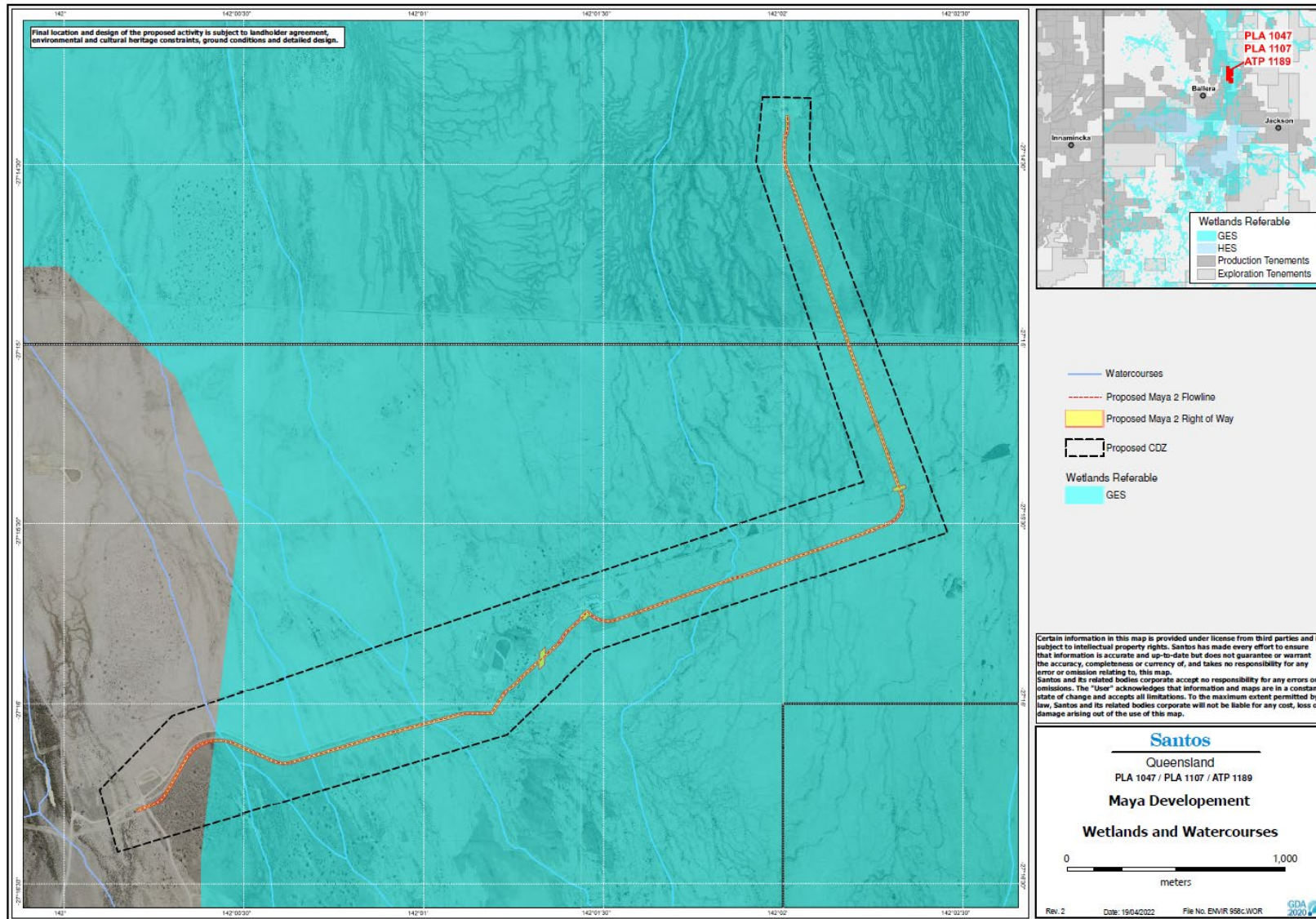


Figure 12: Wetlands and Watercourses – Maya 2 Development

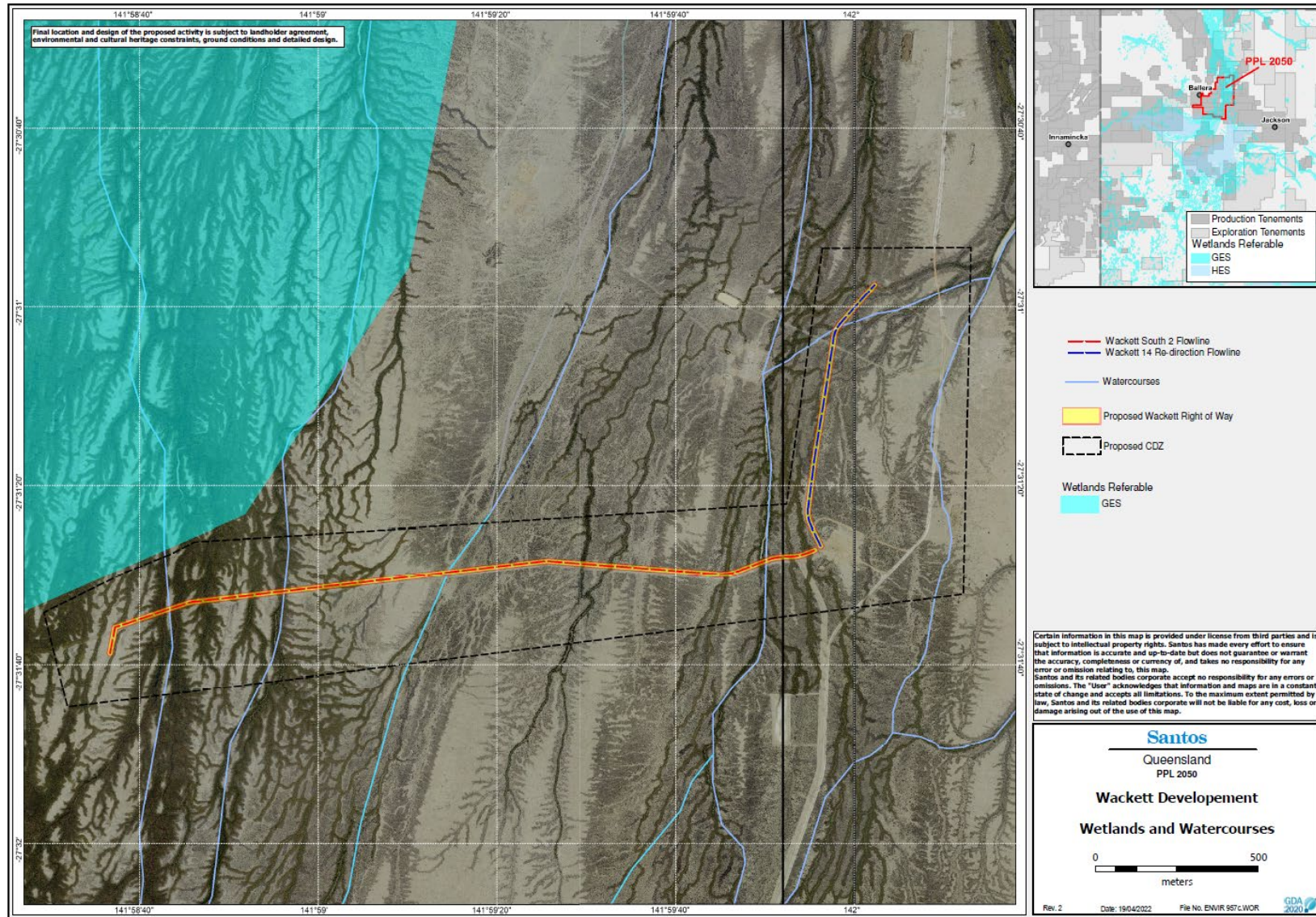


Figure 13: Wetlands and Watercourses – Wackett Development

## 4.0 Potential Impacts to Environmental Attributes and Proposed Mitigation

### 4.1 Riparian Processes and Wildlife Corridors

The proposed activities are located within floodplain environments, and intersect mapped watercourses and wetlands; however, it is anticipated that minimal clearing of woody vegetation will be required given the sparse and very sparse structure of the vegetation communities present. The mapped REs identified within the area of the proposed developments are naturally ephemeral and resilient to disturbance having adapted to the boom-and-bust periods associated with the Channel Country bioregion. Given their sparse and very sparse structure they are likely to respond well to rehabilitation under appropriate conditions.

The proposed activities are unlikely to compromise riparian function or critically impede the use of the riparian vegetation for migration, shelter and habitat associated with watercourses. This is particularly the case for buried infrastructure, where immediately after the cessation of construction, the surface is reinstated to original levels and able to rehabilitate.

In addition, Santos would implement the following measures to ensure the proposed activities do not compromise riparian processes or wildlife corridor functions:

- Vegetation disturbance would be minimised where practicable by:
  - co-locating pipelines with existing infrastructure to reduce the overall width;
  - relocating infrastructure within the CDZ to avoid mature trees; and
  - lopping/trimming branches rather than removing mature trees and shrubs.
- Where the developments intersect wetlands of GES or watercourses, the RoW corridor will be restricted to the smallest extent practicable.
- Chemicals and fuels will be stored and handled in accordance with Australian Standards and spill kits would be located on site to contain any spills if required.
- Measures will be adopted to prevent fauna entrapment within excavation work areas and infrastructure developments, such as:
  - restricting the length of open trenches to the minimum required at any one time, and ensuring breaks/bridges are employed as required for cattle and wildlife egress;
  - ensuring a cellar cover is installed at the well as soon as reasonably practicable.
- Access to and from authorised activities will occur along designated access tracks only.
- Rehabilitation to promote conditions suitable for the natural revegetation of disturbed areas will occur progressively.
- Infrastructure / disturbances with no future use will be rehabilitated as soon as reasonably practicable following the cessation of petroleum activities to promote the natural re-establishment of vegetation of similar species composition and density to the surrounding undisturbed land in accordance with the relevant conditions of EA's EPPG03518215, EPPG00383513 and EA0002115.

Given the characteristics of vegetation to be removed, minimal disturbance area required and implementation of the above management measures, the proposed activities are unlikely to cause widespread or irreversible impacts on riparian function or wildlife corridors within the Channel Country SEA.

## 4.2 Water Quality

Vegetation removal, earthworks, drilling and site access associated with the proposed activities may increase the erosion potential of the area of the proposed developments, which in turn could increase sedimentation of surrounding watercourses. The Department of Resources (DoR) vegetation management watercourse and drainage feature map identified several stream order 8 features that will be traversed by the Maya 2 and Wackett developments within the SEA. No watercourses are intersected by the ZMT development and given the sandy nature of the environment; limited sediment will be available. In any event, erosion and sediment controls will be installed as necessary and as required by the conditions of the relevant EAs.

The proposed buried gas flowlines have been co-located with existing pipeline infrastructure as much as practicable to reduce the total disturbance. Santos would commence rehabilitation as soon as reasonably practicable following the cessation of activities to further reduce disturbance levels and erosion potential of the disturbance footprint.

Work programs in riparian and water crossing areas will be scheduled to take into account seasonal conditions and rainfall / flood likelihood. The proposed buried gas flowline construction will be conducted in the following preferential order:

- (a) firstly, in times where there is no water present;
- (b) secondly, in times of no flow; and
- (c) thirdly in times of flow, but in a way that does not impede low flow.

No proposed activities involve the discharge of water (i.e. point or diffuse sources) or the construction or operation of regulated dams and other major infrastructure (i.e. separator ponds, permanent camps).

Any fuels/chemicals used on site will be stored and handled in accordance with Australian Standards and spill kits will be located on site 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 relevant conditions of EA's EPPG03518215, EPPG00383513 and EA0002115. Rehabilitation to promote conditions suitable for the natural revegetation of disturbed areas will occur progressively.

Measures for unplanned releases of contaminants will be implemented in accordance with the relevant 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 areas for potential flood impacts.

In these situations, all non-essential materials present on site at the time (e.g. hydrocarbons, chemicals, infrastructure) will be removed from construction and/or operational areas prior to the arrival of floodwaters.

Hydrotest water will not be released to land; it will be transported to the nearest licenced facility for treatment and/or disposal.

The petroleum wells will be completed with steel surface casing, steel production casing, and cement in accordance with the SMS Onshore Drilling and Completions technical standards and *Code of Practice for the Construction and Abandonment of Petroleum Wells and Associated Bores in Queensland* (DNRME, 2018), to isolate the wells from aquifers, including the GAB, and other geological units that may contain terrestrial groundwater dependent ecosystems.

The closest GAB springs are located more than 220 km east from the proposed ZMT development activities. These springs are too far away to be at risk of hydraulic impact due to the proposed activities.



Given the scope and nature of the proposed activities, combined with the implementation of the above management measures, the proposed activities will not cause a widespread or irreversible impact on water quality within the Channel Country SEA.

### 4.3 Hydrological Processes and Beneficial Flooding

The proposed activities are unlikely to affect existing hydrological processes and beneficial flooding given their minimal footprint and location. The ZMT development activities are located predominantly in interdune flats, clay pans and clay plains which are elevated above the Cooper Creek floodplain.

Infrastructure associated with the drilling program for the ZMT development is largely temporary. Drilling fluids would be removed from site if required and sumps backfilled. All non-essential infrastructure would be removed prior to the onset to flood events/inundation periods.

Access tracks will be constructed at or near grade to allow the natural flow of surface water across the site. The proposed flowlines will be either buried or above ground and the surface rehabilitated following construction to reinstate natural drainage patterns.

Surface excavations, such as the drilling fluids sump or borrow pits, have the potential to result in diversion or interception of a negligible amount of overland flow. Both are relatively small compared to the surrounding catchment, and the drilling fluids sump would be designed to exclude overland flow. These activities would also be temporary and scheduled to be completed when no surface water is expected to be present on site and outside of flood events/inundation periods.

The ZMT development wells will be completed with steel surface casing, chrome steel tubing, and cement in accordance with the Santos Management System (SMS) Onshore Drilling and Completions technical standards and *Code of Practice for the Construction and Abandonment of Petroleum Wells and Associated Bores in Queensland* (DNRME, 2018), to ensure that the wells are isolated from aquifers, and other geological units. The vertical separation of the target formation for the proposed wells and the location of any potential terrestrial ecosystems that may be dependent on groundwater is too great to be at risk of hydraulic impact.

Workover operations may occur throughout operation of the wells. The infrastructure and activities required for (and therefore potential impacts of) well workovers are similar to those required for initial well drilling. These would also be temporary and conducted outside of periods of surface water flow. Following workover operations, drilling fluids would be removed from site if required and sumps backfilled and workover equipment would be removed from the site.

Following cessation of petroleum production, above-ground infrastructure would be removed and associated disturbances rehabilitated to promote the natural re-establishment of vegetation consistent to the surrounding undisturbed land.

Given the minor nature of the proposed activities and the measures described above, the proposed activities are unlikely to result in widespread or irreversible impacts on hydrological processes or beneficial flooding within the Channel Country SEA.

### 4.4 Geomorphic Processes

The proposed activities are considered unlikely to significantly affect geomorphic processes of the SEA given the minor area of proposed disturbance and the temporary nature of construction which is when erosion potential is highest.

Within the Cooper Creek floodplain, the proposed flowlines from the Maya 2 and Wackett developments cross several stream order 8 mapped watercourses. These flowlines will be buried and the width of the corridor will be restricted to the smallest extent practicable through these crossings. activities will be

undertaken outside of periods of inundation. Further, the surface will be immediately rehabilitated, reducing the potential for sedimentation.

The ZMT development is located away from the main sources / areas of geomorphic processes – being 2 km from the closest watercourse, outside of the main Cooper Creek floodplain area and outside the extent of the flood areas for the available mapped flood events (1989, 1990, 1997, 2000, 2004, 2006 and 2010). Given the distance to these major sources of geomorphic change and the surface geology at the location of the proposed activities, it is not envisaged that there would be widespread or irreversible impacts on the geomorphic processes within the Channel Country SEA.

Following completion of construction activities, areas no longer needed for operation of the activity, (such as the drilling sump at wells and the pipeline RoW) will be rehabilitated. Remaining disturbed land, such as the well leases, will be rehabilitated following the cessation of petroleum activities. Rehabilitation will aim to reinstate the natural drainage features and micro-contours and re-establish vegetation consistent with the surrounding undisturbed land such that natural erosion, sedimentation and depositional processes are maintained in the long-term.

Other measures to reduce the proposed activities impact on existing geomorphic processes described above include:

- minimising the total area of disturbance and vegetation clearing required by co-locating the proposed buried gas pipelines with existing pipeline infrastructure where possible;
- reinstating the proposed pipeline ROW following pipeline installation consistent with the surrounding contours of the land;
- designing access at or near grade to allow maintenance of natural overland flows; and
- ensuring activities are conducted outside of flooding/inundation periods.

## 5.0 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 Schedule 2, Part 5 of the RPI Reg, the proposed activity will meet the required outcome for the regional interest. Critically, the application demonstrates that the prescribed solution provided in Schedule 2, Part 5, Item 15(1)(b) of the RPI Reg will be met as outlined within Table 6.

**Table 6: Schedule 2, Part 5 RPI Reg**

Schedule 2, Part 5 RPI Reg		Relevance to Application
<b>14 Required outcome</b> <i>The activity will not result in a widespread or irreversible impact on an environmental attribute of a strategic environmental area.</i>	✓	The proposed activities will not result in widespread or irreversible damage to the environmental attributes listed in Section 7 of the RPI Reg for the Channel Country SEA as demonstrated in Section 4.0. The application demonstrates the proposed activities will be undertaken in accordance with the below prescribed solution.
<b>15 Prescribed solution</b> <i>(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 (b) all of the following—</i>	✓	The application demonstrates the proposed activities will be undertaken in accordance with the prescribed solution provided in Schedule 2, Part 5, Item 15(1)(b) of the RPI Reg.
<i>(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;</i>	✓	The proposed activities do not include any of the unacceptable uses prescribed by Schedule 2, Part 5, Item 15(2) of the RPI Reg.
<i>(ii) the construction and operation footprint of the activity on the environmental attribute is minimised to the greatest extent possible;</i>	✓	In accordance with EA EPPG03518215 (Schedule F- Biodiversity, conditions (F5) and (F6)), EPPG00383513 (Schedule F- Biodiversity, conditions (F5) and (F6)) and EA0002115 (Schedule B – Protecting environment values, condition (PPSCB 5) and (PPSCE 3)), the location of the proposed activities has been selected in accordance with the following site planning principles: <ul style="list-style-type: none"> <li>• maximise the use of areas of pre-existing disturbance;</li> <li>• in order of preference, avoid, minimise or mitigate any impacts, including cumulative impacts, on areas of native vegetation or other areas of ecological value;</li> <li>• minimise disturbance to land that may result in land degradation;</li> <li>• in order of preference, avoid then minimise isolation, fragmentation, edge effects or dissection of tracts of vegetation;</li> <li>• in order of preference, avoid then minimise clearing of native mature trees;</li> <li>• maximise co-location of linear infrastructure corridors; and</li> <li>• minimise the width of linear infrastructure corridors to the greatest practicable extent.</li> </ul> Application of these site planning principles has been demonstrated throughout Section 2.0 – 4.0. For example: <ul style="list-style-type: none"> <li>• the disturbance footprint associated with the ZMT development has been located outside of the Cooper Creek floodplain;</li> <li>• the proposed buried flowlines associated with the Maya 2 and Wackett developments cross mapped watercourses and wetlands of GES. The flowlines will be buried and the width of the corridors will be restricted to the smallest extent practicable through these crossings;</li> </ul>

Schedule 2, Part 5 RPI Reg		Relevance to Application
		<ul style="list-style-type: none"> <li>proposed petroleum well lease pads has been restricted to a maximum 1.65 ha disturbance area;</li> <li>the proposed drilling pads will be orientated to avoid clearing mature trees as far as practicable, and to minimise the amount of clearing required; and</li> <li>the proposed buried flowline ROW's have been co-located with existing pipeline infrastructure as far as practicable.</li> </ul>
<i>(iii) the activity does not compromise the preservation of the environmental attribute within the strategic environmental area;</i>	✓	Refer to Sections 3.0 – 4.0.
<i>(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.</i>	✓	The South West Regional Plan does not identify the Channel Country SEA.

The application also demonstrates the proposed use of a temporary drilling sump does not constitute a regulated activity as defined by the RPI Act (refer Table 7).

**Table 7: Regulated Activities**

Section 11(3) of the RPI Reg		Relevance to Application
<p><i>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—</i></p> <p><i>(a) to meet the domestic water needs of the occupants of the land;</i></p> <p><i>(b) to water the stock that is usually grazed on the land;</i></p> <p><i>(c) to water stock that is travelling on a stock route on or near the land.</i></p>	✓	N/A – the application does not propose to store water in a dam. The application proposes to temporarily store drilling fluids in sumps designed to exclude surface flow and avoid the impounding of surface water. In addition, construction and workover activities would be scheduled to be completed when no surface water is expected to be present on site and outside of flood events/inundation periods.
Schedule 6 of the RPI Reg		Relevance to the Application
<p><i>dam—</i></p> <p><i>(a) means the following—</i></p> <p><i>(i) a barrier, whether permanent or temporary, that does, could or would impound water;</i></p>	✓	N/A – the drilling sumps would not impound water. Santos drilling sumps are designed to exclude surface water and avoid the impounding of surface water. Construction and workover activities would be scheduled to be completed when no surface water is expected to be present on site and outside of flood events/inundation periods.
<p><i>(ii) the storage area created by the barrier;</i></p> <p><i>(iii) an embankment or other structure that is associated with the barrier and controls the flow of water; but</i></p>	✓	N/A – the drilling sumps would not constitute a barrier for the storage of water.
<p><i>(b) does not include a water tank, including a rainwater tank, constructed of steel, concrete, fibreglass, plastic or similar material.</i></p>	✓	N/A – the drilling sumps do not constitute a water tank.

## 6.0 References

Bureau of Meteorology, 2021, Climate data, Ballera Gas Field Station – 045009, viewed 23 July 2021, available at: <http://www.bom.gov.au/climate/data/>

Department of Environment and Heritage Protection, 2015, (ESR/2016/2388) Eligibility criteria and standard conditions – Petroleum pipeline activities (version 2), viewed 6 April 2022, available at: [https://environment.des.qld.gov.au/\\_\\_data/assets/pdf\\_file/0029/88616/rs-es-petroleum-pipeline.pdf](https://environment.des.qld.gov.au/__data/assets/pdf_file/0029/88616/rs-es-petroleum-pipeline.pdf)

Department of Environment and Science, 2013, Arid and semi-arid grass, sedge and herb swamp – Hydrology, WetlandInfo, viewed 23 July 2021, available at: <https://wetlandinfo.des.qld.gov.au/wetlands/ecology/aquatic-ecosystemsnatural/palustrine/arid-grass-sedge-herb-swamp/hydrology.html>

Department of Environment and Science, 2019, Western Arid Region Land Use Study (WARLUS), South West Queensland Part 1, viewed 6 April 2022, available at: <https://www.publications.qld.gov.au/dataset/land-systems-warlus-awa2>

Karim F, Smith M and Cassel R, 2015, Current water accounts and water quality for the Cooper subregion. Product 1.5 for the Cooper subregion from the Lake Eyre Basin Bioregional Assessment, Department of the Environment, Bureau of Meteorology, CSIRO and Geoscience Australia, Australia.

Kotwicki, V. (1986) Floods of Lake Eyre. Engineering and Water Supply Department, South Australian Government, Adelaide.

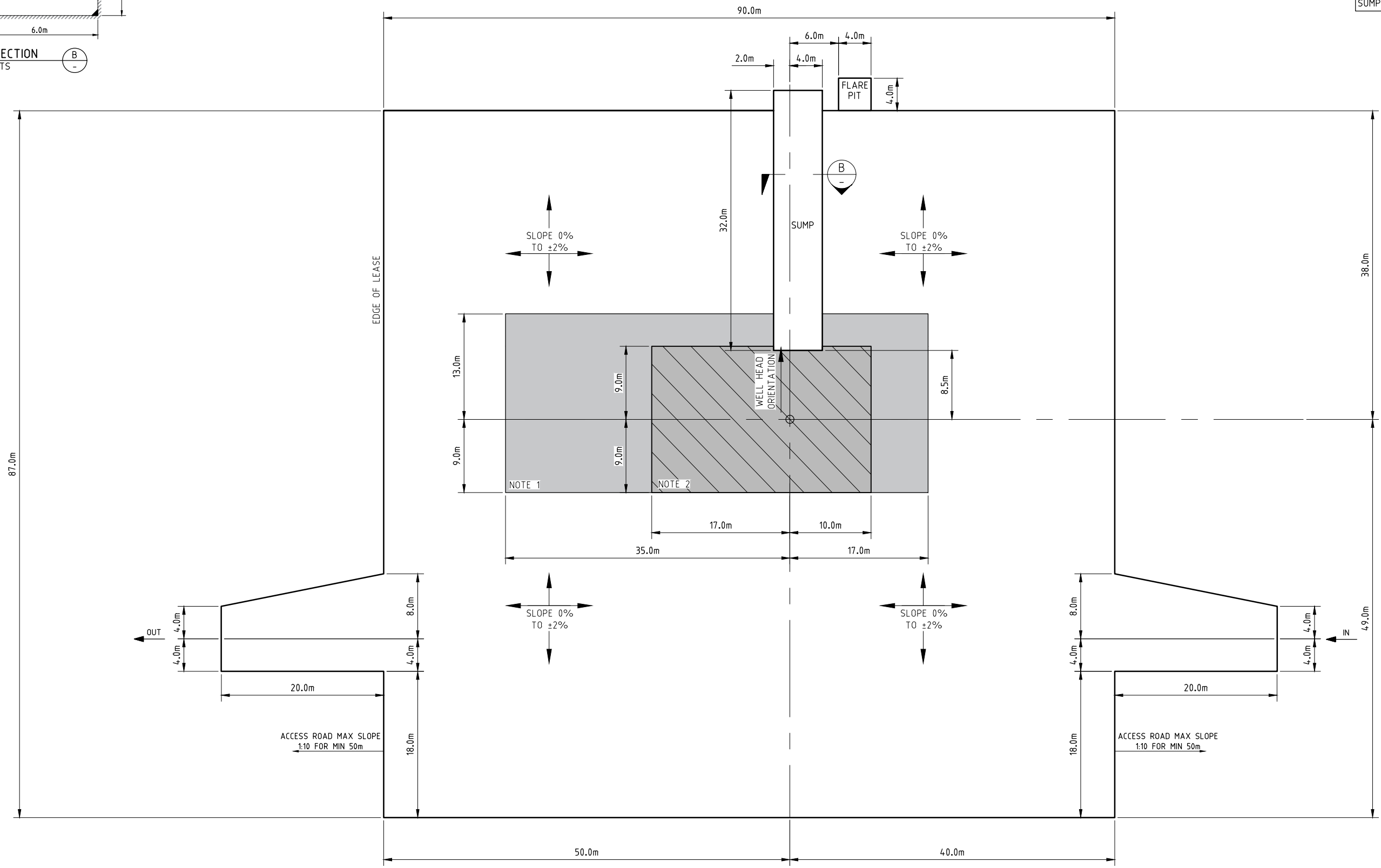
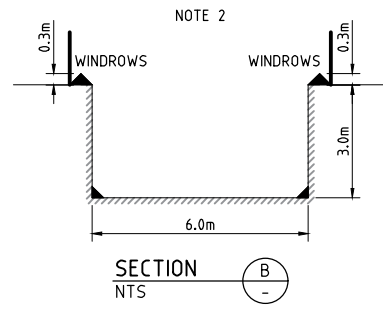
Queensland Government, 2021, Queensland Globe, viewed 6 April 2022, available at: <https://qldglobe.information.qld.gov.au/>

Queensland Government (2021). Water Monitoring Information Portal. 003103A Cooper Creek at Nappa Merrie. Prepared Outputs – Site Water Quality Table. Accessed: 13 July 2021. Available at: [https://water-monitoring.information.qld.gov.au/host.htm?ppbm=003103A&rs&1&rsf\\_org](https://water-monitoring.information.qld.gov.au/host.htm?ppbm=003103A&rs&1&rsf_org)

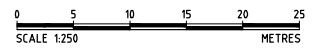
Smith M, Pavey C, Ford J, Sparrow A, Karim F and Radke B, 2016, *Conceptual modelling for the Cooper subregion. Product 2.3 for the Cooper subregion from the Lake Eyre Basin Bioregional Assessment.* Department of the Environment and Energy, Bureau of Meteorology, CSIRO and Geoscience Australia, Australia.

## **Appendix A – Proposed Well Lease Layout During Drilling**

LEASE INFO	
LEASE DISTURBANCE AREA	8,261m <sup>2</sup>
CAPPING AREA EXCLUDING HARDSTAND & SUMP	7,586m <sup>2</sup>
RIG HARDSTAND	483m <sup>2</sup>
SUMP VOLUME	576m <sup>3</sup>
SUMP AREA	192m <sup>2</sup>



PLAN  
SCALE 1:250



- NOTES:**
- LEASE LEVEL TOLERANCE IN RIG PAD AREA (GREY SHADED) = +/- 50mm - 15mm MAX DIFFERENCE ACROSS ANY 3m LENGTH. GROUND COMPACTION TO BE FIRM ENOUGH TO SUPPORT RIG.
  - RIG HARDSTAND PAD AREA (DIAGONAL HATCHED) TO FILLED WITH 600mm SUITABLE MOISTURE CONDITIONED CLAY AND COMPACTED. LEVEL TOLERANCE TO BE +/- 20mm, 10mm MAX DIFFERENCE ACROSS ANY 3m HEIGHT.
  - NO SPU DISCHARGE IN THIS AREA, WITHIN 60m OF LEASE.
  - GRADIENTS OF +/- 2% CAN BE USED ACROSS THE LEASE IN ALL AREAS OTHER THAN THOSE COVERED BY NOTE 1.

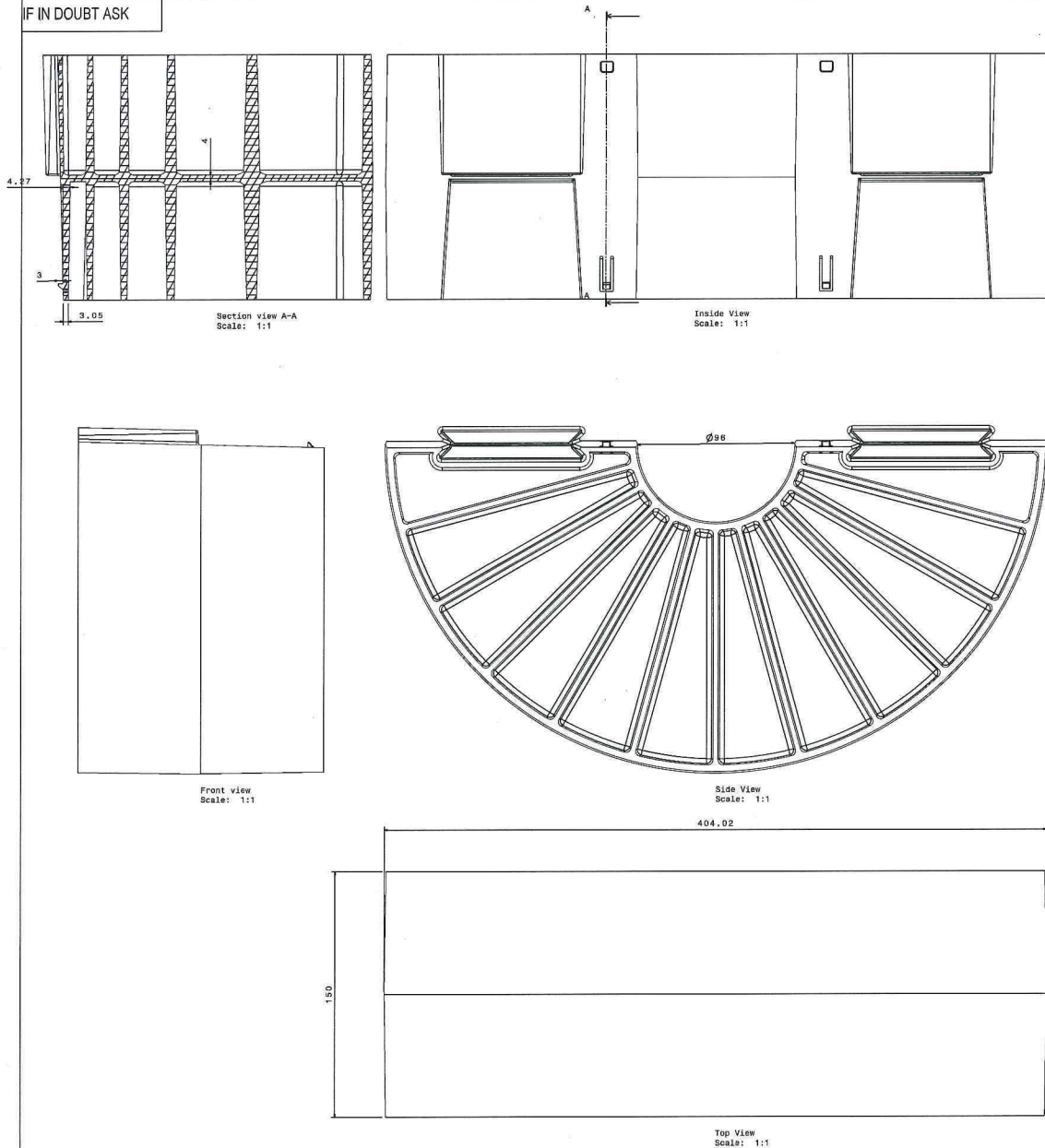
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0	11/12/18	FYF	KGR	OWL					ISSUED FOR CLIENT REVIEW		
REVISIONS										REFERENCE DRAWINGS	

DRN: FYF	<p>LEASE PLAN ENSIGN 967 RIG</p> <p><b>Santos</b></p>	DATE: 02/07/18	DRAWING No.	REV 0
SCALE: 1:250				
CHKD: KRR				
ENG: OWL				
Q.A.:				
PROJ:				
ACC:				
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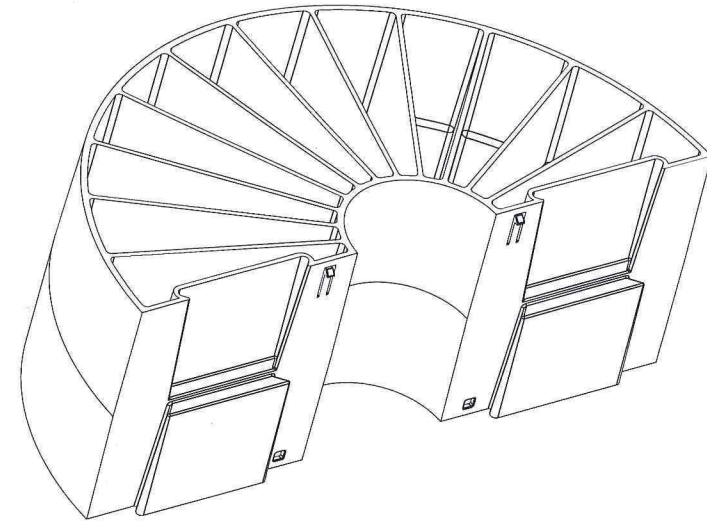
## Appendix B – Flowline Supports



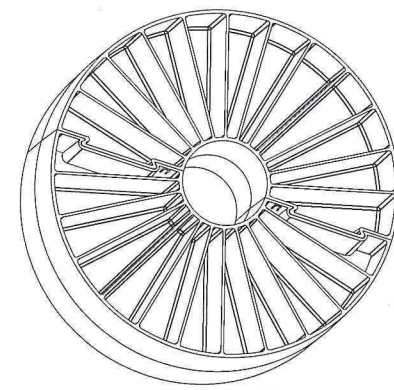
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ISSUE	DESCRIPTION	T/O No.	DRAWN	DATE	APPROVED	DATE
A	RELEASE FOR TOOLING	Eba	EC	12-9-12		



Isometric view  
Scale: 1:1



Iso Assy View  
Scale: 1:2

Suitable for 2 7/8" EVE and  
3 1/2" EVE. Approx 5M  
spacing for both

QUALITY NOTE  
SINK  
Product may have up to 3% sinkage  
SURFACE FINISH  
Product may have small amounts of  
flash on the parting lines

**NOTES**  
ALL DIMENSIONS IN MILLIMETERS  
MAXIMUM DEVIATION FROM SURFACE DATA +/- 0.1 MM UNLESS OTHERWISE SPECIFIED  
SURFACE FINISH RELEASE POLISH ONLY UNLESS OTHERWISE SPECIFIED

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 THIRD ANGLE PROJECTION	 Advanced Plastic Recycling 4000 Churchville Road Aurora, IL 60015	DESIGNED E.C.	SCALE X:X	MATERIAL TP PP
		DRAWN E.C.	© DATE XXXXXXXX	SHRINKAGE 1.2%
		CHECKED E.C.	APPROVED CL	SHEET 1 OF 1
PART NAME		PIPE SUPPORT		PART NO.
400 OD x 100 ID ROLLING				400x100 RPS

## Appendix C – Typical Buried Pipeline Right-of-Way

1 2 3 4 5 6 7 8 9 10 11 12

A

B

C

D

E

F

G

H

A

B

C

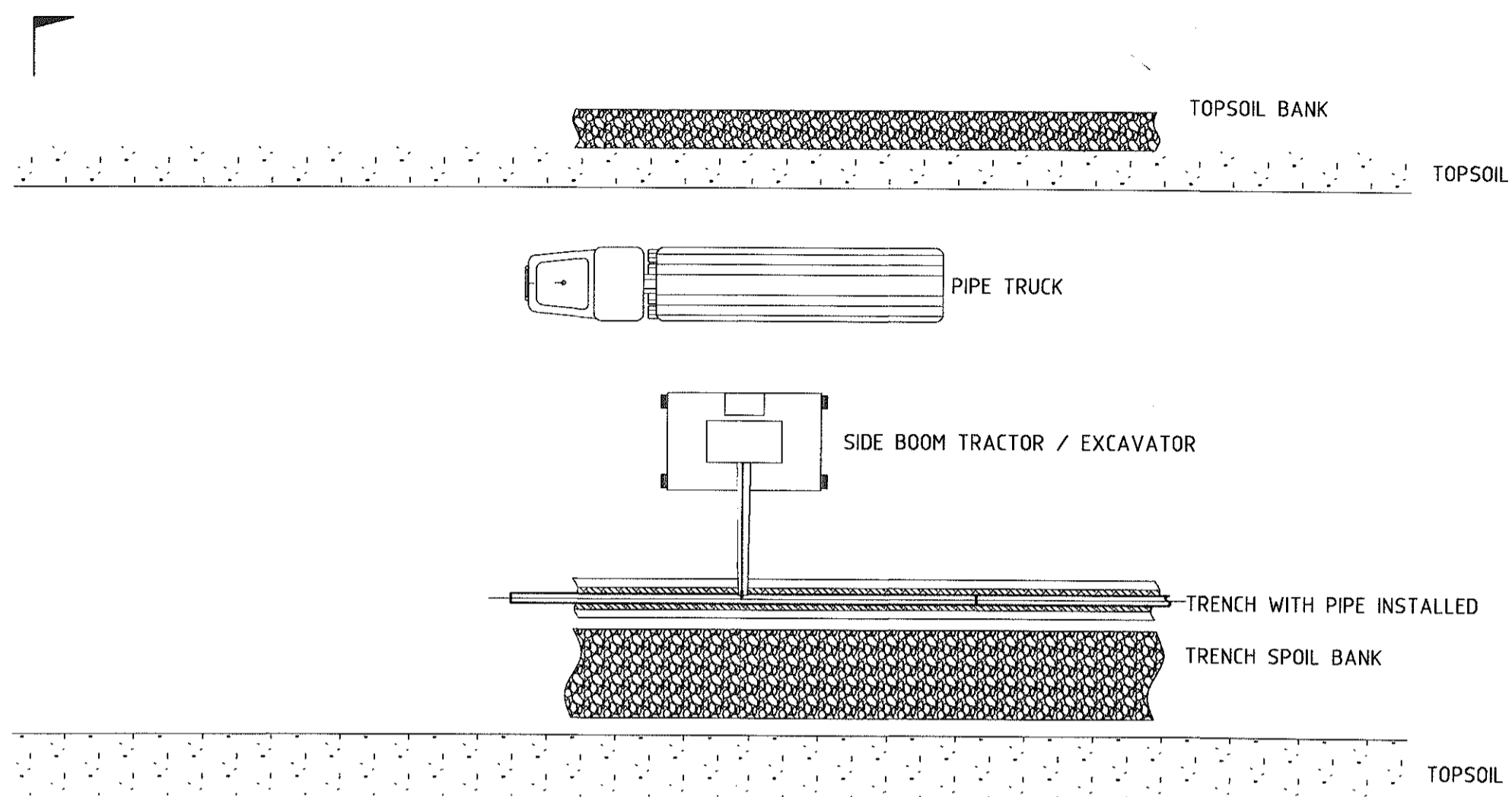
D

E

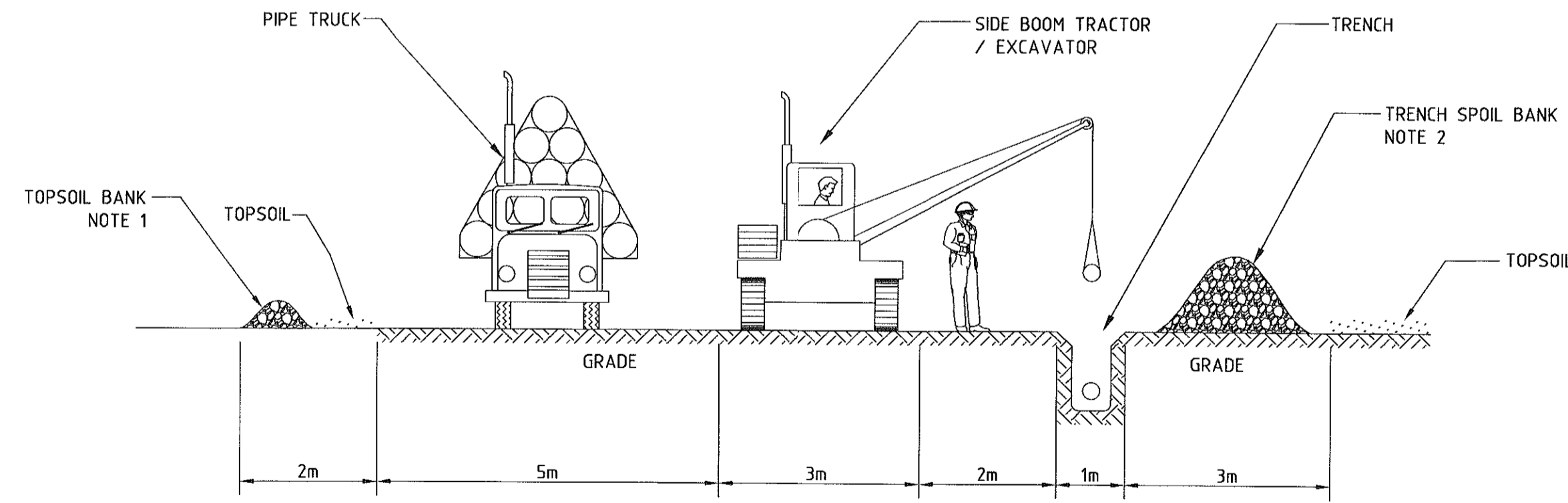
F

G

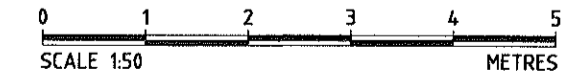
H



BURIED STEEL PIPELINE  
PLAN VIEW  
SCALE 1:100



BURIED STEEL & <DN150 GRE PIPELINE  
ELEVATION VIEW



SECTION A  
SCALE: 1:50

NOTES

1. TOPSOIL SHALL BE STRIPPED FROM RIGHT OF WAY AND STOCK PILED SEPARATELY FROM SUB SOIL.
2. EXCAVATED MATERIAL SHALL BE PLACED IN PILES WITHIN THE LIMITS OF RIGHT OF WAY.
3. TURNING CIRCLE APPROXIMATELY EVERY 2km OR NEAREST CLAY PAN. EXISTING INFRASTRUCTURE TO BE USED WHERE POSSIBLE.
4. NO RESTRICTION TO RIGHT OF WAY WIDTH OVER DUNES.
5. WHERE BELLHOLES ARE REQUIRED, (eg TIE-INS, CROSSINGS) RIGHT OF WAY WIDTH TO BE INCREASED..
6. TYPICAL RIGHT OF WAY LAYOUT BASED ON STD BURIAL DEPTH OF 750mm. EXTRA DEPTH WILL INCREASE OVERALL WIDTH.

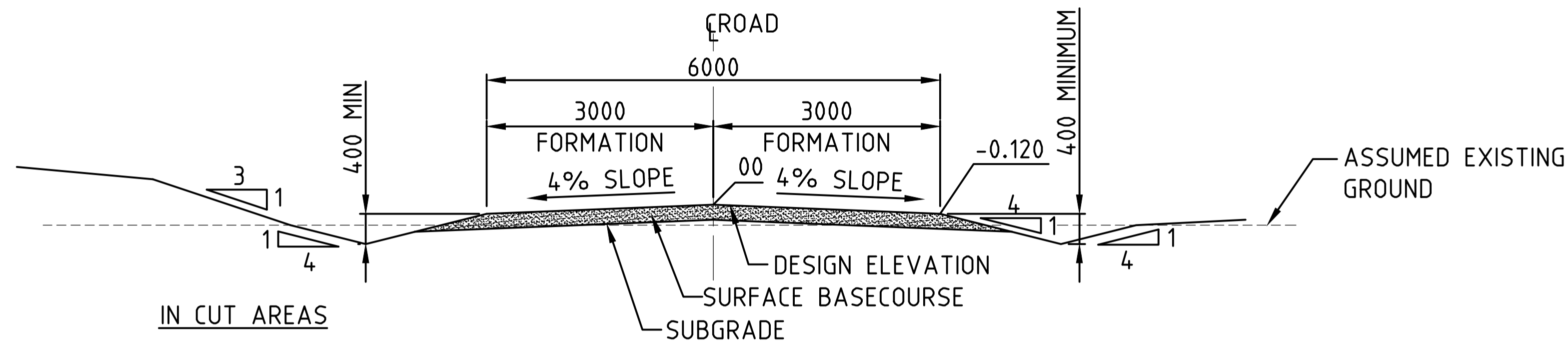
No	DATE	DRN	CHKD	ENG	Q.A.	PROJ	ACC	CP	DESCRIPTION	DRG No.	SUBJECT	REFERENCE DRAWINGS	DRN:	FYF	DATE:	01/11/11	SCALE:	AS SHOWN	CHKD:	MW	ENG:	TJG	PROJ:	5307054	ACC:	A.B.N.	80 007 550 923
0									ORIGINAL ISSUE	1500-40-817	STANDARD BELL HOLE DESIGN																
									REVISIONS																		

AREA 1500 - STANDARD DRAWING  
TYPICAL RIGHT OF WAY (R.O.W.) FOR  
BURIED STEEL & < DN150 GRE PIPELINE INSTALLATION  
PLAN AND ELEVATION ILLUSTRATION

**Santos** DRAWING No. 1500-50-1276

REV 0

## Appendix D – Typical Road Cross Section for Class D Roads

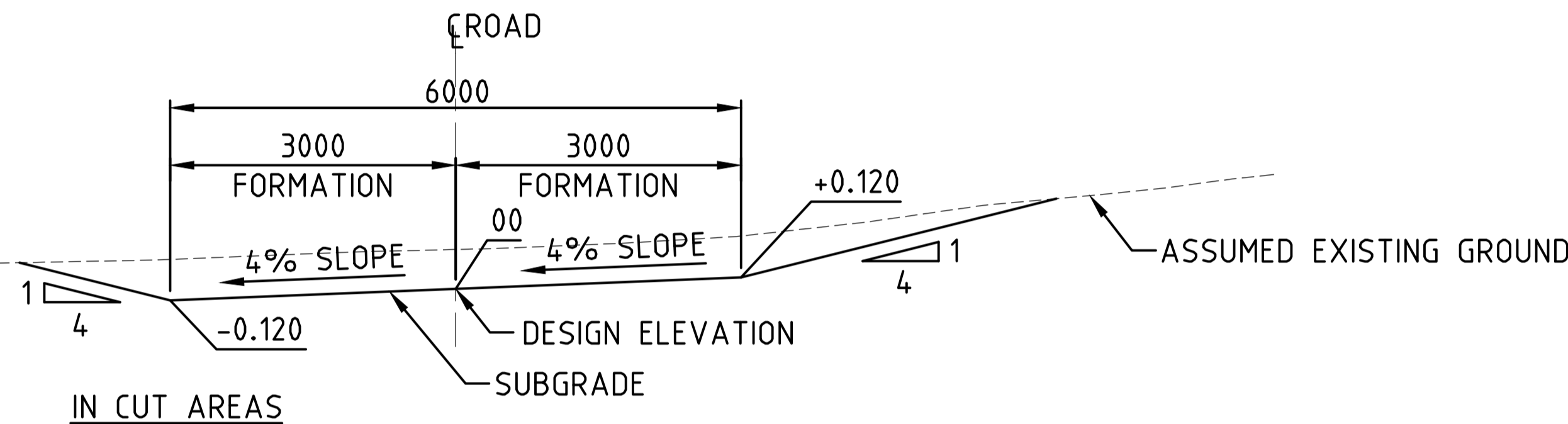


PAVEMENT MATERIAL - CLASS C ROAD

SURFACE COURSE	MINIMUM 200mm BEST AVAILABLE LOCAL (CLAY OR CLAYEY SAND) MATERIAL, COMPACTED TO 95% MMDD @ +/- 2% OMC.
SUBGRADE	REMOVE ALL VEGETATION AND COMPACT 200mm SUBGRADE TO 95% MMDD @ +/- 2% OMC.

TYPICAL SECTION - CLASS D ROAD (FOR ELEVATED SECTIONS)

SCALE 1:50



TYPICAL SECTION - CLASS D ROAD (FOR SECTIONS GRADED TO HARD SURFACE)

SCALE 1:50

ROAD CONDITION	MIN. VERTICAL CURVE LENGTH (m)	
	CLASS D	CLASS D 30kph*
1	80	30
2	80	30
3	90	30
4	120	30
5	150	30
6	180	30
7	210	40
8	240	40
9		50
10		55

CLASS D ROADS, SAND DUNE CROSSINGS

ROAD CONDITION	SPEED LIMIT	MIN. HORIZONTAL CURVE LENGTH (m)
CLASS D ROAD	80kph	500

NOTES:

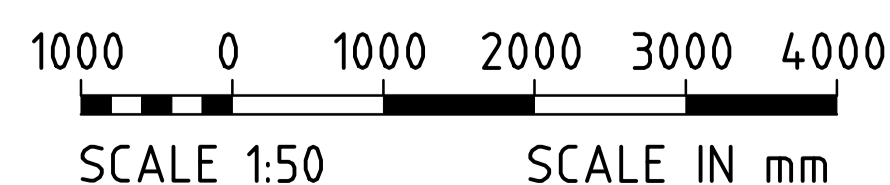
- THIS DRAWING TO BE READ IN CONJUNCTION WITH ALL THE COMPLETE CONTRACT DOCUMENTS AND SPECIFICATIONS.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
- FOR SITE PREPARATION, EXCAVATION AND BACKFILL REFER TO PROJECT SPECIFICATION.
- FOR ROAD CONSTRUCTION REFER TO ROAD WORKS SPECIFICATION 1515-120-S006.
- SIDE BATTER SLOPES FOR CLASS D ROAD SHALL BE 4 HORIZONTAL TO 1 VERTICAL IN CUT AND FILL.
- CLEARING, GRUBBING AND STRIPPING OF FULL DEPTH (MIN. 100mm) OF TOPSOIL WITHIN THE ROAD RIGHT OF WAY SHALL BE UNDERTAKEN FOR THE NEW ROAD ALIGNMENTS.
- FOR CLASS D ROAD, FORMATION ELEVATED TO PROVIDE STABLE RUNNING SURFACE NO PROVISION FOR DRAINAGE.

ROAD CLASSES	D
ROAD WIDTH - METRES	
NORMAL WIDTH	6.0
SAND DUNE CROSSING	8.0
CULVERT/FLOODWAY	8.0

- TABLE DRAINS. TABLE DRAINS SHALL MITRE AT THE FOLLOWING SPACING.

RECOMMENDED MITRE DRAIN SPACING		
SLOPE		SPACING (m) (MAXIMUM)
%	GRADIENT	
0.5	1 : 200	120
1	1 : 100	120
2	1 : 50	100
3	1 : 33	80
4	1 : 25	60
5	1 : 20	60
6	1 : 17	50
8	1 : 12.5	30

- MINIMUM INVERT OF TABLE DRAIN TO BE BELOW PAVEMENT SUB-GRADE LEVEL.
- VERTICAL GRADE ON DUNE APPROACH ROADS TO BE LIMITED TO (10% MAX.) 6% VERTICAL GRADIENT PREFERRED.



No	DATE	DRN	CHKD	ENG	Q.A.	PROJ	ACC	DESCRIPTION	DRG No.	SUBJECT	REFERENCE DRAWINGS
C	07/11/17	FYFE	SJM					UPDATED FOR CLIENT REVIEW			
B	01/04/16	FYFE	SJM					REVISED FOR REVIEW UNDER MOC-CB-002992			
A		KBR	BC					ISSUED FOR CLIENT REVIEW			

DRN:	FYFE
DATE:	
SCALE:	AS SHOWN
CHKD:	
ENG:	SJM
Q.A.:	
PROJ:	
ACC:	
A.B.N.	80 007 550 923

CIVIL STANDARD DRAWING  
TYPICAL ROAD CROSS SECTION  
CLASS D ROADS

**Santos** DRAWING No. 0001-040-DDR-0005 REV C

**ATTACHMENT 5 – GIS FILES**