



Application to renew a permit

Mineral Resources Act 1989, Petroleum and Gas (Production
and Safety) Act 2004, Petroleum Act 1923, Geothermal Energy Act 2010
and Greenhouse Gas Storage Act 2009

You may make an application to renew your permit electronically using the [MyMinesOnline](#) system. Alternatively you may complete the original of this application and submit the application, any attachments and the prescribed fee at a [Mines lodgement office](#).

Note: A document containing information that is false or misleading may attract a maximum penalty of 200-500 penalty units.

Please read the **Permit renewal guide** ('the guideline') and the permit expiry pack that was provided to the permit holder before completing this application. Please use a pen, and write neatly using **BLOCK LETTERS** Cross where applicable ☒. Where insufficient space anywhere on this form, attach a separate page.

Question 1 – Permit and holder details

Permit number (eg ML01234):	ATP645	Current expiry date:	31 Dec 2019		
Renewal term requested	12	Years	OR	Proposed renewal expiry date	

Detail the current holder(s)

	Holder 1	Holder 2	Holder 3
Company Name/surname:	BNG (Surat) Pty Ltd		
Given name (if individual):			
ACN/ARBN	090 629 913		
Address:	275 George St		
Town/City:	Brisbane		
State:	Qld		
Postcode:	4001		
Country:	Australia		
Phone:	+61 7 3024 7806		
Email:	QGC-Tenures@shell.com		
% Holding:	100		

OFFICE USE ONLY	Fees paid:	Payment Method:	Receiving officer
Received at: _____	Total \$ _____	Cash ☐	I confirm that:
Received by: _____	DNRM ☐	Credit Card ☐	• the details on application form have been checked;
Date: / /	Penalty ☐	EFTPOS ☐	• all attachments have been submitted;
Time: AM/PM	Receipt No. _____	Cheque ☐	• correct application fees have been submitted for the relevant application type
			Name: _____
			Signed: _____ Date: / /

Petroleum lease and Authority to prospect additional questions

Has the applicant lodged a notice of discovery and commercial viability, in relation to any reservoir in the permit area?

Yes ☒	No ☐
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Has the Minister obtained an independent viability assessment for the permit?

Yes ☐	No ☒
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Has the applicant been directed by the Minister to apply for a petroleum lease?

Yes ☐	No ☒
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1923 Act authority— Do you want to replace the permit being renewed with a permit granted under the *Petroleum and Gas (Production and Safety) Act 2004*?

Yes ☐	No ☐
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If yes, you must lodge a replacement permit application form with the department

Pipeline licence, petroleum facility licence – Are there proposed changes to your licence?

Yes ☐	No ☐
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If yes, provide a statement detailing these changes.

Mining lease

Select ML category

Corundum, gemstones and other precious stones	☐	Coal	☐
Elluvial, colluvial and alluvial gold and elluvial, colluvial and alluvial tin	☐	Other minerals	☐

Mining lease/mining claim - Is there a condition on the permit that prevents it from being renewed?

Yes ☐	No ☐
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If yes, provide a statement detailing why the mining lease should be renewed despite this condition.

Attachments required for all permit types:		
• Renewal justification statement - A statement providing reasons for seeking renewal, reasons for proposed term, reasons for the size and shape of the permits area and details of the workable quantities of minerals within permit area.	☒	
• Public interest statement (optional) - This statement is your opportunity to provide information to support your application when the Minister is considering the public interest impacts on your proposed project.	☒	
Attachments required for specific permit types:		
• MDL additional statement - Provide a statement of reasons seeking renewal of the MDL rather than applying for a mining lease.	☐	
• ML/MC additional statement - Provide a statement detailing why the mining lease or mining claim should be renewed despite being subject to a condition that prevents it from being renewed.	☐	
• PPL/PFL – Provide a statement detailing changes proposed for the licence	☐	

Question 2 – Holder obligations

For all permit types, the current holder(s) must confirm that they have met all relevant obligations below:

All statutory reporting for the permit has been provided and accepted	☒ Yes	☐ No	☐ NA	All royalty returns have been submitted and royalty as prescribed has been paid	☐ Yes	☐ No	☒ NA
All rent has been paid	☒ Yes	☐ No	☐ NA	All local government charges and penalties have been paid	☐ Yes	☐ No	☒ NA
				Security payments have been made	☒ Yes	☐ No	☐ NA

Attachments required for all permit types:

- (if 'no' has been selected above) - Statement providing details of how holder will address the obligation/s. ☐

- Obligation history statement** - This statement needs to outline if holders have complied with conditions of the permit (including work program, development plan conditions) and outline why application should still be considered if holders have not complied and demonstrating holders substantial compliance. ☒

Attachments required for specific permit types:

- Mining claim obligation history statement** - A checklist is available on the Departments website for mining claim holders to comply with this requirements ☐

Question 3 – Land information

Overlapping requirements that may apply to your application are outlined under either the Mineral Resources Act 1989, Petroleum and Gas (Production and Safety) Act 2004, or chapter 4 of the Mineral and Energy Resources (Common Provisions) Act 2014.

Overlapping tenure - Petroleum lease

Is the area of the petroleum lease within an area of-

		Is the permit a coal or oil shale permit	If yes - attachments required if Chapter 3 of the Petroleum and Gas (Production and Safety) Act 2004 overlapping provisions apply to the petroleum lease:
Exploration permit or mineral development licence	☐	Yes ☐ No ☐	- CSG Statement - Statement addressing CSG assessment criteria
Mining lease	☐	Yes ☐ No ☐	CSG Statement
Both	☐	Yes ☐ No ☐	- CSG Statement - Statement addressing CSG assessment criteria
Neither	☐		

Mining lease - Is the holder of the coal or oil shale mining lease also a holder of the petroleum lease?

Yes ☐ No ☐

Relinquishment - Exploration permit - Do you intend to relinquish any of the permit area required by the date of expiry of the current term of this permit?

Yes ☐ No ☒

If yes to above, the following attachments may be provided with renewal application:

- Relinquishment notice - notice must detail sub-blocks to be retained ☐
- Surrender of environmental authority form ☐

Consultation plan – Greenhouse gas and geothermal permits -**Attachments required:**

- Landholder consultation plan** - Provide a statement about how and when the holders propose to consult with, and keep informed, each owner and occupier of private or public land during the renewed term ☐

Overlapping tenure - Mining lease

Is this mining lease a coal or oil shale mining lease (excluding mineral hydrocarbon mining leases)?

Yes ☐	No ☒
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Is the area of the mining lease within an area of:

		Attachments required if Chapter 8 of the <i>Mineral Resources Act 1989</i> overlapping provisions apply to the mining lease:
Authority to prospect	☐	• CSG Statement • Statement addressing CSG assessment criteria
Petroleum lease	☐	• CSG Statement
Both	☐	• CSG Statement • Statement addressing CSG assessment criteria
Neither	☐	

Compensation agreements - Mining lease and mining claim

Is a compensation agreement required for this permit?

Yes ☐	No ☐
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If no, provide a statement detailing why a compensation agreement is not required

Continue to Land parcel details section

Is there a valid compensation agreement (or determination) in place applying to every land parcel covered by the permit area including access to the permit?

Yes ☐	No ☐
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If no - How do you intend to ensure that the compensation agreements will be filed with the department?

Continue to negotiate with land holders ☐	Apply for a determination of compensation from the Land Court ☐
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Have all compensation payments been made and all compensation works carried out as detailed in the compensation agreement provided to the department?

Yes ☐	No ☐
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If no, provide an explanation why the compensation payments or works have not been carried out.

Attachments required for specific permit types:

Signed compensation agreements with landholders, request for determination by Land Court or statement advising of negotiations taken place and expected date of lodgement. ☐

Note: compensation agreements are not a dutiable transaction under the Duties Act 2001 therefore, stamp duty is not required on compensation agreements.

Land parcel details - Mining lease, mining claim and mineral development licence

Provide property details for all land parcels covered by the permit (including access) (add a separate page if insufficient space).

Extract of land parcels can be obtained through MinesOnlineMaps - refer to your permits expiry pack sent with details on how to extract this information.

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Question 4 – Native title

Please ensure that you have read and understood the **Guide to the native title process** and supporting policies located on the departments website.

Was the permit originally granted subject to an agreement?

Yes ☐	No ☒
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Can the permit be renewed under the existing agreement?

Yes ☒	No ☐
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If yes -attachment required for all permit types:

Native title agreement showing the provision to allow renewal

☒

*Note: A new native title process is required for all permits granted under the **Alternative State Provisions (ASPs)** including those where renewal was addressed in negotiated agreements.*

If no - Please elect which native title process you wish to undertake.

Option 1	Exclusive		☐
Option 2	Expedited *	Advertising cost required	☐
Option 3	Expedited * and ILUA (existing, private or state ILUA)	Advertising cost required Name: _____ or Number: _____	☐
Option 4	Right to negotiate	Advertising cost required	☐
Option 5	Right to negotiate and ILUA (existing, private or State ILUA)	Advertising cost required Requires monthly updates be submitted to the department (for new private ILUA)	☐
Option 6	New Private ILUA	Requires monthly updates be submitted to the department	☐
Option 7	Opt into existing private ILUA	Name: _____ or Number: _____	☐
Option 8	State ILUA	Name: _____	☐

*** Native title protection conditions apply**

If you have elected to undertake a native title option that requires advertising, please select which advertising method you wish to undertake from one of the options below and submit payment with this application:

Multiple advertisement (batched advertising) \$1000.00 or \$500.00 for mining claims	☐
Single advertisement \$3000.00	☐
I agree to my application being advertised with the expedited or right to negotiate native title process *	☐

* The department will provide you a copy of the advertisement prior to publication.

Attachments required for all permit types:

Private ILUA or extract of private ILUA (Option 5 and 7)

☒

Opt in deed for ILUA (Option 5,7 and 8)

☐

Question 5 – Mining, work program and development plan

Exploration permit and authority to prospect

Complete the work program template with details of activities to be undertaken, including expenditure for the term you are applying for. *Work program templates are available from the Department's website for mineral, coal, petroleum and gas permits.*

Provide a work program rationale to support the proposed work program.

Mining lease for minerals and mining claim permits

Complete mining/work program template with details of activities to be undertaken. - *Mining/work program templates are available from the Department's website for these permits.*

Mining lease for coal or oil shale, petroleum, gas geothermal lease

Provide details about the proposed development plan you intend to carry out for this permit.

Start date:		End date:	
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Provide a statement about whether the current development plan for the permit has been complied with.

If the plan has not been complied with, provide a statement detailing the reasons for non-compliance with the current development plan.

Provide a later development plan for the permit. - *Development plan guidelines are available from the Department's website.*

Petroleum lease

If you are intending to commercially produce petroleum in the next five (5) years, you must supply targeted production figures. - *Production figures table is available from the Department's website.*

Attachments required for all permit types:

Exploration permit, Mineral development licence, Authority to prospect: Rationale for the work program	☒
Exploration permit, Mineral development licence, Authority to prospect: Later work program	☒
Mining lease coal/oil shale, Petroleum lease: Later development plan and statements	☐
Mining lease mineral, Mining claim: Mining program/work program	☐
Petroleum lease: Targeted production figures (if applicable)	☐

Question 6 – Financial and technical capability

Please tick one of the below statements and attach the required financial and technical documents and statements according to your exploration and mining history. *Note: These statements are not required for mining claims.*

I/we have more than five (5) years history in Queensland with a good compliance record.	I/we have less than five (5) years compliance and history in Queensland or do not wish to rely on my/our history.
Financial information:	Financial information:
Financial capability statement ☒	Financial capability statement ☐
Details of other financial commitments in relation to activity in Queensland ☐	Supporting evidence ☐
	Details of other financial commitments in relation to activity in Queensland ☐
Technical information:	Technical information:
Technical capability statement ☒	Technical capability statement ☐
Details of other human / technical resource commitments in relation to activity in Queensland ☐	Details of other human / technical resource commitments in relation to activity in Queensland ☐
Third party declaration (if a third party is providing resources for your program) ☐	Third party declaration (if a third party is providing resources for your program) ☐
	Supporting evidence ☐

Question 7 –Obligations and declaration

WARNING: Giving false or misleading information is a serious offence.

- I have read and understood the **Permit renewal guide** and resources legislation.
- I understand my obligations as an applicant/holder for the permit.
- I have truthfully declared all relevant details requested of me in this application.
- If any part of this form has been completed with the assistance of another person, I declare that the information as set down is true and correct and has been included with my full knowledge, consent and understanding.

(if additional signatures, attach a separate piece of paper)

Print name:	Ryan Dreibelbis	Signature:	sch4p4(6) Personal info
Position:	Manager Access and Authorised Representative	Date:	27.11.2019
Company:	BNG (Surat) Pty Ltd		
Print name:		Signature:	
Position:		Date:	
Company:			
Print name:		Signature:	
Position:		Date:	
Company:			
Print name:		Signature:	
Position:		Date:	
Company:			

I wish to receive an email confirmation of receipt of this application ☒ Provide email address below-

Email: QGC-Tenures@shell.com

Question 8 – Payment

Permit renewal application	Renewal fee ☒	Late lodgement fee ☐
Native title	Multiple advertisement (batched advertising) ☐	Single advertisement ☐

Late lodgement fee is 10 times the renewal fee and is applicable if the renewal application is submitted outside the renewal period for coal mining leases and petroleum, gas and geothermal permits. Note, if the permit is lodged outside the renewal period for a petroleum, gas or geothermal permit the renewal fee and a late lodgement fee is required (i.e. 11 times the renewal fee)

OFFICE USE ONLY CHECKLIST	
QUESTIONS RELATE TO ALL PERMITS EXCEPT WHERE STATED:	Yes/No/NA
Has the application been lodged within the allowable renewal period?	
Has a valid Late lodgement statement been provided (late applications only)?	
Have all holders consented to the renewal?	
MDL - Has the applicant provided an acceptable Statement of reasons for not applying for a mining lease?	
ML/MC – Has a Statement been provided detailing why the permit should be renewed despite being subject to a condition that prevents it from being renewed?	
Holder obligations: has a statement been provided outlining how the particular obligation will be met (obligations include royalty, rental, local government charges, reporting)	
Has an acceptable obligation history statement been lodged?	
MC – Has a MC obligation history statement (checklist) been provided?	
Land information: PL - Has holder completed petroleum overlapping requirements and submitted a CSG statement and Statement addressing the CSG assessment criteria (if applicable)?	
EP/P&G - If the holder intends on relinquishing area, has a relinquishment notice and surrender of EA form been provided?	
GHG/GEO – Has a Landholder consultation plan been provided?	
ML - Has holder completed mining lease overlapping requirements and submitted a CSG statement and Statement addressing the CSG assessment criteria (if applicable)?	
ML - Has the applicant provided an explanation why compensation agreement is not required?	
ML - Has the applicant provided copies of all finalised compensation agreements for the proposed term?	
ML - If compensation has been finalised, has applicant indicated the process to reach a compensation determination?	
ML/MC/MDL – Has the land parcel details been provided?	
Native title: Has the applicant provided the native title agreement allowing for renewal of the permit?	
Has the applicant identified the NT process to be undertaken (if applicable)?	

OFFICE USE ONLY CHECKLIST - CONTINUED**Work/mining programs and development plans:**

Has a work, mining program or development plan been lodged?

Does the work, mining program or development plan meet the department's requirements?

EP – Has a work program rationale been lodged?**Financial and technical capability (not required for MC)**

Has the applicant provided all required attachments to demonstrate the financial and technical capability for the permit holders?

Application fee, native title advertising fee and late penalty (if applicable) have been lodged with application?

Receiving officer

I confirm that:

- the details on this form have been checked
- the checklist above are complete
- attachments required are correct
- correct fees have been submitted.

The application to renew a permit **has / has not** provided all the information required by the legislation to be assessed.I recommend that the application **should / should not** be received.

Name: _____

Signed: _____ Date: / /

Departmental Officer

The application to renew a permit is **received and can be recorded on the register** or **refused to be received** under s386P of the MRA, s842 of the P&G, s120 of the 1923 Act, s412 of the GHG, s364 of the GEO Act (cross out Acts that do not apply).

Reasons for refused to receive:

Name: _____

Signed: _____ Date: / /

Disclaimer

The Queensland Government is collecting information provided on this form for the purposes of assessing the suitability of your application to renew a permit and maintain the public searchable register under the *Mineral Resources Act 1989 (MRA)*, *Petroleum and Gas (Production and Safety) Act 2004 (P&G)*, *Petroleum Act 1923 (PET)*, *Geothermal Energy Act 2010 (GEA)*, *Greenhouse Gas Storage Act 2009 (GHG)* and *Mineral and Energy Resources (Common Provisions) Act 2014 (MERCP)*. Some or all of this information may be provided to other agencies of the Queensland Government for the issuing of an environmental authority, to make register searches, extracts or copies under section 199 of the MERCP, or to make other approvals as required under the Act. Some of this information may be provided to Queensland Treasury, the Scheme Manager under the *Mineral and Energy Resources (Financial Provisioning) Act 2018 (MERFP Act)*, or any advisors to the Scheme Manager to enable the Scheme Manager to carry out the Scheme Manager's functions under the MERFP Act. Your personal information will not otherwise be disclosed to any other third party without your consent, unless authorised or required by law.



QGC Pty Limited

275 George Street

Brisbane

QLD 4001

Australia

Website: shell.com.au

Tel: +1 123 456 7890

Fax : +1 123 456 7890

Mob: +1 123 456 7890

Letter of Authority – QGC Pty Limited

24 May 2017

QGC Pty Limited ACN 089 642 553 ("QGC") and the Related Entities listed in Annexure A authorise any person holding the follow designations:

- (a) Vice President, QGC
- (b) General Manager, Development
- (c) General Manager, Upstream Integration
- (d) Manager, Access

to approve and sign any document to which QGC or the Related Entities is expressed to be a party for all applications, withdrawals, amendments and relinquishments for all forms of tenure including Authorities to Prospect, Petroleum Leases, Pipeline Licences, Petroleum Survey Licences, Petroleum Facilities Licences, Data Acquisition Authorities and Water Monitoring Authorities (Relevant Documents).

For the avoidance of doubt, this authority extends to any documentation incidental, ancillary to or referred to in the Relevant Documents including but not limited to government forms, certificates, notices, declarations, waivers or consents, whether required by law, regulation or otherwise; documentation necessary for the operation or implementation of or to give effect to any of the Relevant Documents; and including documentation generally referred to as ancillary documentation (to the Relevant Documents) in the business of QGC or the Related Entities.

Signed, sealed and delivered

by

QGC Pty Limited ACN 089 642 553

on 26 May 2017 by:

sch4p4(6) Personal informa

[Redacted signature box]

Director

sch4p4(6)

[Redacted signature box]

John Allan Crosisca

Full name of Director

sch4p4(6) Personal information

[Redacted signature box]

Director/Secretary

Kirsten Kenny

Full name of Director/Secretary

Related Entities Signatures

1. Signed, sealed and delivered

by

A.C.N. 081 118 292 Pty Limited ACN 081 118 292

on 26 May 2017 by:

sch4p4(6) Personal information

Director

sch4p4(6) Personal information

John Allan Crosisca

Full name of Director

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Director/Secretary

Kirsten Kenny

Full name of Director/Secretary

2. Signed, sealed and delivered

by

Australian Oil & Gas Corporation Pty Ltd ACN 055 977 270

on 26 May 2017 by:

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Director

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John Allan Crosisca

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Director/Secretary

Kirsten Kenny

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3. Signed, sealed and delivered

by

BG CPS Pty Limited ACN 130 582 357

on 26 May 2017 by:

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Director

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John Allan Crosisca

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BG International (AUS) 2 Pty Limited ACN 130 927 221

on 26 May 2017 by:

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Director

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BG International (AUS) 3 Pty Limited ACN 130 927 258

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9. Signed, sealed and delivered

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Director/Secretary

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Full name of Director/Secretary

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BG Pacific Holdings Pty Ltd ACN 133 050 281

on 26 May 2017 by:

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BNG (Surat) Pty. Ltd ACN 090 629 913

on 26 May 2017 by:

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Director

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Condamine 1 Pty Ltd ACN 139 748 486

on 26 May 2017 by:

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Director

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Director/Secretary

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Full name of Director

Kirsten Kenny

Full name of Director/Secretary

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Condamine 2 Pty Ltd ACN 139 748 511

on 26 May 2017 by:

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Director

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Condamine 3 Pty Ltd ACN 139 748 548

on 26 May 2017 by:

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Condamine 4 Pty Ltd ACN 139 748 566

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Director

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Condamine Power Station Pty Ltd ACN 121 868 273

on 26 May 2017 by:

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19. Signed, sealed and delivered

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Interstate Pipelines Pty Limited ACN 004 335 013

on 26 May 2017 by:

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Director

Director/Secretary

John Allan Crosisca

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Full name of Director/Secretary

20. Signed, sealed and delivered

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New South Oil Pty Ltd ACN 098 134 706

on 26 May 2017 by:

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Director

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21. Signed, sealed and delivered

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OME Resources Australia Pty. Ltd ACN 100 280 662

on 26 May 2017 by:

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Director

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Petroleum Exploration Australia Pty Ltd ACN 125 525 706

on 26 May 2017 by:

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Director

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Pure Energy Resources Pty Limited ACN 115 514 880

on 26 May 2017 by:

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QCLING Pty Ltd ACN 150 538 024

on 26 May 2017 by:

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Director

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John Allan Crosisca

Full name of Director

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Director/Secretary

Kirsten Kenny

Full name of Director/Secretary

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by
QGC (B7) Pty Ltd ACN 152 188 335
on 26 May 2017 by:

[Redacted Signature] sch4p4(6) Personal information

sch4p4(6) Personal information
Director

John Allan Crosisca

Full name of Director

[Redacted Signature] sch4p4(6) Personal information

Director/Secretary

Kirsten Kenny

Full name of Director/Secretary

26. Signed, sealed and delivered
by
QGC (Exploration) Pty Ltd ACN 133 878 618
on 26 May 2017 by:

[Redacted Signature] sch4p4(6) Personal information

sch4p4(6) Personal information
Director

John Allan Crosisca

Full name of Director

[Redacted Signature] sch4p4(6) Personal information

Director/Secretary

Kirsten Kenny

Full name of Director/Secretary

27. Signed, sealed and delivered
by
QGC (Infrastructure) Pty Ltd ACN 116 145 174
on 26 May 2017 by:

[Redacted Signature] sch4p4(6) Personal information

sch4p4(6) Personal information
Director

John Allan Crosisca

Full name of Director

[Redacted Signature] sch4p4(6) Personal information

Director/Secretary

Kirsten Kenny

Full name of Director/Secretary

28. Signed, sealed and delivered

by

QGC Northern Forestry Pty Ltd ACN 145 383 697

on 26 May 2017 by:

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Director

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Director/Secretary

John Allan Crosisca

Kirsten Kenny

Full name of Director

Full name of Director/Secretary

29. Signed, sealed and delivered

by

QGC Sales QLD Pty Ltd ACN 120 323 588

on 26 May 2017 by:

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Director

sch4p4(6)

Director/Secretary

John Allan Crosisca

Kirsten Kenny

Full name of Director

Full name of Director/Secretary

30. Signed, sealed and delivered

by

QGC Upstream Finance Pty Ltd ACN 131 154 642

on 26 May 2017 by:

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Director

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Director/Secretary

John Allan Crosisca

Kirsten Kenny

Full name of Director

Full name of Director/Secretary

31. Signed, sealed and delivered

by

Queensland Gas Company Pty Ltd ACN 116 145 110

on 26 May 2017 by:

sch4p4(6) Personal informati

Director

sch4p4(6)

John Allan Crosisca

Full name of Director

sch4p4(6) Personal information

Director/Secretary

Kirsten Kenny

Full name of Director/Secretary

32. Signed, sealed and delivered

by

Roma Petroleum Pty Limited ACN 066 018 979

on 26 May 2017 by:

sch4p4(6) Personal informatio

Director

sch4p4(6)

John Allan Crosisca

Full name of Director

sch4p4(6) Personal information

Director/Secretary

Kirsten Kenny

Full name of Director/Secretary

33. Signed, sealed and delivered

by

StarZap Pty Ltd ACN 079 932 246

on 26 May 2017 by:

sch4p4(6) Personal informatio

Director

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John Allan Crosisca

Full name of Director

sch4p4(6) Personal information

Director/Secretary

Kirsten Kenny

Full name of Director/Secretary

34. Signed, sealed and delivered

by

SGA (Queensland) Pty Limited ACN 114 116 068

on 26 May 2017 by:

[Redacted] sch4p4(6) Personal information

[Redacted] John Allan Crosisca

[Redacted] sch4p4(6)

Director

[Redacted] sch4p4(6)

John Allan Crosisca

Full name of Director

[Redacted] sch4p4(6) Personal information

Director/Secretary

Kirsten Kenny

Full name of Director/Secretary

35. Signed, sealed and delivered

by

SGAI Pty Limited ACN 116 132 873

on 26 May 2017 by:

[Redacted] sch4p4(6) Personal information

[Redacted] sch4p4(6)

Director

[Redacted] sch4p4(6)

John Allan Crosisca

Full name of Director

[Redacted] sch4p4(6) Personal information

Director/Secretary

Kirsten Kenny

Full name of Director/Secretary

36. Signed, sealed and delivered

by

Sunshine 685 Pty Limited ACN 103 512 241

on 26 May 2017 by:

[Redacted] sch4p4(6) Personal information

[Redacted] sch4p4(6)

Director

[Redacted] sch4p4(6)

John Allan Crosisca

Full name of Director

[Redacted] sch4p4(6) Personal information

Director/Secretary

Kirsten Kenny

Full name of Director/Secretary

37. Signed, sealed and delivered

by

Sunshine Gas Pty Limited ACN 098 563 663

on 26 May 2017 by:

sch4p4(6) Personal information

Director
sch4p4(6)

John Allan Crosisca

Full name of Director

sch4p4(6) Personal information

Director/Secretary

Kirsten Kenny

Full name of Director/Secretary

38. Signed, sealed and delivered

by

QGC Common Facilities Company Pty Ltd ACN 139 569 485

on 26 May 2017 by:

sch4p4(6) Personal information

Director
sch4p4(6)

John Allan Crosisca

Full name of Director

sch4p4(6) Personal information

Director/Secretary

Kirsten Kenny

Full name of Director/Secretary

39. Signed, sealed and delivered

by

QGC Midstream Investments Pty Ltd ACN 130 857 215

on 26 May 2017 by:

sch4p4(6) Personal information

Director
sch4p4(6)

John Allan Crosisca

Full name of Director

sch4p4(6) Personal information

Director/Secretary

Kirsten Kenny

Full name of Director/Secretary

40. Signed, sealed and delivered

by

QGC Midstream Land Pty Ltd ACN 135 148 506

on 26 May 2017 by:

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Director
[Redacted] sch4p4(6)

Director/Secretary

John Allan Crosisca

Kirsten Kenny

Full name of Director

Full name of Director/Secretary

41. Signed, sealed and delivered

by

QGC Midstream Services Pty Ltd ACN 123 756 034

on 26 May 2017 by:

[Redacted] sch4p4(6) Personal information

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Director
[Redacted] sch4p4(6)

Director/Secretary

John Allan Crosisca

Kirsten Kenny

Full name of Director

Full name of Director/Secretary

42. Signed, sealed and delivered

by

QGC Train 1 Pty Ltd ACN 139 569 412

on 26 May 2017 by:

[Redacted] sch4p4(6) Personal information

[Redacted] sch4p4(6) Personal information

Director
[Redacted] sch4p4(6)

Director/Secretary

John Allan Crosisca

Kirsten Kenny

Full name of Director

Full name of Director/Secretary

43. Signed, sealed and delivered

by

QGC Train 1 Tolling Pty Ltd ACN 142 293 650

on 26 May 2017 by:

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sch4p4(6) Personal information

Director

Director/ Secretary

sch4p4(6)

John Allan Crosisca

Kirsten Kenny

Full name of Director

Full name of Director/ Secretary

44. Signed, sealed and delivered

by

QGC Train 1 UJV Manager Pty Ltd ACN 142 293 776

on 26 May 2017 by:

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sch4p4(6) Personal information

Director

Director/ Secretary

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John Allan Crosisca

Kirsten Kenny

Full name of Director

Full name of Director/ Secretary

45. Signed, sealed and delivered

by

QGC Train 2 Pty Ltd ACN 139 569 458

on 26 May 2017 by:

sch4p4(6) Personal inform

sch4p4(6) Personal information

Director

Director/ Secretary

sch4p4

John Allan Crosisca

Kirsten Kenny

Full name of Director

Full name of Director/ Secretary

46. Signed, sealed and delivered

by

QGC Train 2 Tolling No.2 Pty Ltd ACN 147 896 535

on 26 May 2017 by:

sch4p4(6) Personal information

Director

sch4p4(6) Personal information

John Allan Crosisca

Full name of Director

sch4p4(6) Personal information

Director/Secretary

Kirsten Kenny

Full name of Director/Secretary

47. Signed, sealed and delivered

by

QGC Train 2 Tolling Pty Ltd ACN 142 293 687

on 26 May 2017 by:

sch4p4(6) Personal information

Director

sch4p4(6) Personal information

John Allan Crosisca

Full name of Director

sch4p4(6) Personal information

Director/Secretary

Kirsten Kenny

Full name of Director/Secretary

48. Signed, sealed and delivered

by

QGC Train 2 UJV Manager Pty Ltd ACN 145 383 704

on 26 May 2017 by:

sch4p4(6) Personal information

Director

sch4p4(6) Personal information

John Allan Crosisca

Full name of Director

sch4p4(6) Personal information

Director/Secretary

Kirsten Kenny

Full name of Director/Secretary

49. Signed, sealed and delivered

by

QCLNG Operating Company Pty Ltd ACN 138 872 385

on 26 May 2017 by:

sch4p4(6) Personal information

Director

sch4p4(6) P

John Allan Grosisca

Full name of Director

sch4p4(6) Personal information

Director/Secretary

Kirsten Kenny

Full name of Director/Secretary

Annexure A – Related Entities

1. A.C.N. 081 118 292 Pty Limited ACN 081 118 292
2. Australian Oil & Gas Corporation Pty Ltd ACN 055 977 270
3. BG CPS Pty Limited ACN 130 582 357
4. BG International (AUS) 2 Pty Limited ACN 130 927 221
5. BG International (AUS) 3 Pty Limited ACN 130 927 258
6. BG International (AUS) 4 Pty Limited ACN 130 927 294
7. BG International (AUS) 5 Pty Limited ACN 130 927 356
8. BG International (AUS) 6 Pty Limited ACN 130 927 365
9. BG International (AUS) 7 Pty Limited ACN 130 927 392
10. BG International (AUS) 8 Pty Limited ACN 130 927 418
11. BG International (AUS) 9 Pty Limited ACN 130 927 436
12. BG Pacific Holdings Pty Ltd ACN 133 050 281
13. BNG (Surat) Pty. Ltd ACN 090 629 913
14. Condamine 1 Pty Ltd ACN 139 748 486
15. Condamine 2 Pty Ltd ACN 139 748 511
16. Condamine 3 Pty Ltd ACN 139 748 548
17. Condamine 4 Pty Ltd ACN 139 748 566
18. Condamine Power Station Pty Ltd ACN 121 868 273
19. Interstate Pipelines Pty Limited ACN 004 335 013
20. New South Oil Pty Ltd ACN 098 134 706
21. OME Resources Australia Pty. Ltd ACN 100 280 662
22. Petroleum Exploration Australia Pty Ltd ACN 125 525 706
23. Pure Energy Resources Pty Limited ACN 115 514 880
24. QCLNG Pty Ltd ACN 150 538 024
25. QGC (B7) Pty Ltd ACN 152 188 335
26. QGC (Exploration) Pty Ltd ACN 133 878 618
27. QGC (Infrastructure) Pty Ltd ACN 116 145 174
28. QGC Northern Forestry Pty Ltd ACN 145 383 697
29. QGC Sales QLD Pty Ltd ACN 120 323 588
30. QGC Upstream Finance Pty Ltd ACN 131 154 642
31. Queensland Gas Company Pty Ltd ACN 116 145 110
32. Roma Petroleum Pty Limited ACN 066 018 979
33. StarZap Pty Ltd ACN 079 932 246
34. SGA (Queensland) Pty Limited ACN 114 116 068
35. SGAI Pty Limited ACN 116 132 873
36. Sunshine 685 Pty Limited ACN 103 512 241
37. Sunshine Gas Pty Limited ACN 098 563 663
38. QGC Common Facilities Company Pty Ltd ACN 139 569 485
39. QGC Midstream Investments Pty Ltd ACN 130 857 215
40. QGC Midstream Land Pty Ltd ACN 135 148 506
41. QGC Midstream Services Pty Ltd ACN 123 756 034
42. QGC Train 1 Pty Ltd ACN 139 569 412
43. QGC Train 1 Tolling Pty Ltd ACN 142 293 650
44. QGC Train 1 UJV Manager Pty Ltd ACN 142 293 776
45. QGC Train 2 Pty Ltd ACN 139 569 458
46. QGC Train 2 Tolling No.2 Pty Ltd ACN 147 896 535
47. QGC Train 2 Tolling Pty Ltd ACN 142 293 687
48. QGC Train 2 UJV Manager Pty Ltd ACN 145 383 704
49. QCLNG Operating Company Pty Ltd ACN 138 872 385

Attachment – Financial and Technical Capability

BNG (Surat) Pty Ltd ACN 090 629 913 is a wholly-owned subsidiary of QGC Pty Limited (**QGC**), which in turn is a wholly owned subsidiary of Royal Dutch Shell plc (**Shell**). QGC will continue as operator of ATP 645.

QGC Pty Limited (Operator)

Experience in Petroleum Exploration and Production

QGC has successfully been operating on coal seam gas (**CSG**) tenures since 2000, progressing from exploration, appraisal to development of CSG resources from the coal of the Walloon Subgroup in the Surat Basin. QGC, as the operating entity for Shell and associated JV partners as holders of 42 Petroleum Leases in the Surat Basin, is producing/developing the CSG resources in these tenures to provide gas, to the QCLNG project on Curtis Island, which commenced commercial production in late 2014 and to domestic gas contracts. QGC is currently producing from 40 Petroleum Leases in the Surat Basin.

Some of the highlights of QGC history include:

- Being the first CSG explorer to intensively explore and appraise the CSG potential of the Walloon Subgroup in the Surat Basin;
- Drilling the first two successful CSG exploration wells in the Surat Basin, with the second well Argyle 1 flowing “free” gas in excess of 1mmcf/d upon test immediately after drilling;
- Operating or participating in over 3500 core, exploration, appraisal and development wells since drilling its first exploration well in November 2000;
- Being the first exploration company to apply for and be granted a petroleum lease (PL 201) for CSG in the Surat Basin;
- Being the first company to apply for and be granted a petroleum pipeline licence (PPL 91) for CSG connecting QGC to the Roma to Brisbane Pipeline;
- Announcing in February 2008 an alliance with BG Group. Entering a three-part joint venture with respective ownership of 80/20 for the upstream tenures, 50/50 for the pipeline and 30/70 for the LNG plant and port assets;
- Achieving Significant Project status under the State Development & Public Works Organisation Act 1971 on 4 July 2008 for the Queensland LNG Project which includes the expansion of gas production operations, the development of a pipeline to Gladstone, and the construction of an LNG export facility at Curtis Island;
- Finalising the acquisition of Sunshine Gas Limited and Roma Petroleum NL and all associated subsidiaries on 8 December 2008. Additional tenures acquired include ATP 645P, 684P, 685P, 688P, 693P, 722P, 767P, 768P, 769P, 789P, 795P, 811P and PL 2 and PL 171;

- Becoming a wholly owned subsidiary of BG Group after completion of compulsory share acquisition on 20 March 2009 resulting in QGC operating as a BG Group business and delisted from the ASX in April 2009;
- Announcing an official takeover of Pure Energy Resources Ltd in April 2009, followed by the completion of share acquisition on 11 May 2009. Additional tenures acquired include ATP 758P, 759P, 806P, 831P and 852P now mostly operated by QGC for Pure Energy and its subsidiaries;
- Obtaining Queensland Government approval in June 2010 for the QCLNG Project following the Queensland Coordinator General's review of the project's social and environmental impact statement;
- Launching the QGC Sustainable Communities Fund in January 2011 providing \$6 million over 4 years to support community projects;
- Obtaining Queensland Government approval for the QGC \$150 million Social Impact Management Plan in April 2012;
- Achieving first LNG cargo loadout at Curtis Island in December 2014;
- Announcing the A\$1.7 billion Charlie Project as part of the continuous development of tenures in the Surat Basin
- On 15 February 2016, the entire issued and to be issued share capital of BG Group plc was acquired by Royal Dutch Shell plc. On 1 November 2016, QGC officially went live under the new arrangements.

QGC Petroleum Tenures/Operated Tenures

QGC is commonly the operator of each Authority to Prospect (**ATP**) or PL in which it holds interest and is the operator of most of the acreage in which it has interests in Queensland. As well, QGC operates in tenures held by Shell entities. These tenures include:

- Two CSG Surat Basin ATPs (574 and 965);
- Four CSG prospective Bowen Basin ATPs (ATPs 684, 758, 806 and 811);
- CSG production tenures, Petroleum Leases (PLs) 179, 180, 201, 211, 212, 228, 229, 247, 257, 263, 273, 274, 275, 276, 277, 278, 279, 299, 397, 398, 399, 401, 442, 443, 458, 459, 461, 464, 466, 467, 472, 474, 498, 503, 505, 506, 507, 510, 1008, 1009, 1010 and 1025;
- Three other prospective Surat/Bowen Basin ATPs (ATPs 632, 645 and 785);
- Three other ATPs operated wholly by others, ATPs 759, 2040 and 2045; and
- Pipeline Licences (**PPLs**) 91, 107, 108, 125, 153, 154, 155, 175, 176, 179, 184, 194, 195, 196, 197 and 2014 and Petroleum Facility Licences (**PFLs**) 11, 19 and 22.

Technical and Operational Resources

QGC has full in-house management, technical, commercial and field staff with proven capability in progressing exploration and appraisal success through to development and successful gas production. QGC also has access to experienced consultants/contractors with knowledge and resources both internally and at Shell to assist QGC in carrying out the necessary activities.

QGC currently operates under a Safety Management System and Safety and Operating Plan with a risk assessment-based process in place. (This has previously been supplied to DNRME).

QGC has established in-house field operations team that carry out:

- exploration activities including drilling and site location;
- field site preparation for drilling;
- gathering system planning and installation;
- wellhead completions;
- process plant operation and maintenance; and
- low and high pressure pipeline operation and maintenance.

QGC's field team is supported by field-based engineering, environmental, cultural heritage and safety personnel. Onsite supervisory staff is supported by management, compliance and engineering departments in Brisbane.

QGC owns several large rural properties throughout the tenures on which it operates. Additionally, QGC has extensive facilities in the field to support its activities.

Financial resources and commitments

QGC is a wholly owned subsidiary of Shell and operates as a business with access to finance to cover the tenure obligations on an annual basis, as planned, for the life of the tenure. The Queensland tenure obligations of QGC and its related-body corporates along with their joint venture partners total approximately \$sch4p4(7)(1) for the current period. QGC addresses these tenure obligations through annual planning and budget processes.

Environmental Values

Dedicated environmental personnel at various management levels play active roles in ensuring that environmental values within the project area, and the region, are protected and actively promote QGC's environmental practices to other staff and contractors.

By conditioning activities and ensuring current best practice and knowledge is shared and utilised in QGC's development approach, impacts on existing environmental features can be minimised or avoided.

Other aspects of QGC's commitment to minimising environmental impacts resulting from petroleum activities include:

- ensuring staff are made aware of the relevant Environmental Authority requirements and additional requirements under the *Environmental Protection Act 1994*;
- identification of and minimisation of impact on Environmentally Sensitive Areas (such as Endangered Regional Ecosystems, watercourses) in all planning activities;
- preparation of Environmental Management Plans (EMP) where required;
- a water quality sampling program, analysing associated production water from wells and water stored in holding dams and ponds;
- weed eradication, weed seed spread minimisation and monitoring as required in accordance with the Petroleum Industry Advisory Guidelines; and
- ongoing research into potential beneficial uses of associated water.

QGC endeavour to maintain a positive working relationship with regulatory authorities, including the Department of Environment and Science (**DES**) and Department of Natural Resources, Mines and Energy (**DNRME**), through regular meetings, correspondence and updates.

Key Personnel Profiles

Anthony Nunan, Vice President, QGC

Tony Nunan has developed a career spanning from the origins of the Queensland coal seam gas industry to globally focused leadership.

Originally from Toowoomba, Tony earned degrees in Land Resource Science from the University of Queensland and Law from the University of New England. After working in Environmental Science with the Department of Natural Resources, he joined legal firm, Hopgood Ganim as a solicitor within the resources and energy practice. He acted for large resources clients and participated in the redrafting and modernising of the Queensland Government policy and regulatory framework for the emerging coal seam gas industry resulting in the *Petroleum and Gas (Production and Safety) Act 2004 (Qld)*.

Tony joined QGC in 2008 as Legal Counsel just prior to the company's acquisition by BG Group. In 2009, he was appointed General Manager – Land and Community, with responsibility for negotiating land access and native title rights.

Tony's career progressed at QGC to Vice President Asset Management accountable for managing assets and business interests within the QCLNG project. Then in December 2013, he was appointed BG Group Vice President Operations. As a part of a multinational team, Tony was involved in decision-making on capital, people and direction and implemented a new governance framework comprising values-based culture, corporate structure and operating model designed for clear accountability.

Tony assumed the role of QGC Managing Director on 3 August 2015 and currently is Vice president, QGC.

Tony is a member of the Australian Petroleum Production and Exploration Association's Queensland Industry Leadership Group.

Cecile Wake, Vice-President Commercial/NBD, Shell Australia

Cecile Wake joined BG Group in May 2010 and Royal Dutch Shell in February 2016 following the combination of Shell and BG Group.

Cecile has been appointed Vice-President Commercial for Shell Australia with accountability for Shell's commercial arrangements and investments in Australia, including in the QGC, Prelude, Gorgon, NWS operating ventures and its broader development portfolio.

Cecile spent 5½ years at QGC (Jan 2011 – Jun 2016) in a variety of commercial and leadership roles, most recently as Growth Director overseeing the Commercial, Supply & Optimisation, Exploration, Business Development and Contracts & Procurement teams.

Prior to joining BG group in May 2010, Cecile was a partner at international law firm Herbert Smith LLP based in London in the corporate energy team. While at Herbert Smith, Cecile advised on the development and structuring of international LNG and upstream projects, negotiating off-take agreements and on substantial, cross-border M&A transactions in the oil, gas, LNG and mining sectors.

Cecile holds a LLB (Hons) and Bachelor of Economics from the University of Queensland.

Bill Langin: General Manager Upstream Asset

William (Bill) Langin was appointed to the position of General Manager, Upstream Asset, at QGC in October of 2017 and is accountable for safety performance, upstream production, projects, wells, engineering, and land access, and integrated planning at QGC.

Bill has more than 14 years of global energy industry experience across numerous businesses, operational and geological settings, and has deep experience in unconventional resource projects. Bill's career in the energy industry began when he joined Shell in 2003 to work on deepwater projects in the Gulf of Mexico, and later, Brazil. In 2010, Bill shifted his attention to the onshore United States, where he played a key role in the acquisition and development of Shell's shale gas business in the Appalachia region, which is currently producing from the Marcellus and Utica shales. Bill then went on to oversee Shell's exploration efforts across the onshore U.S. in the Permian Basin of West Texas, Rocky Mountains, Eagleford Shale, and Mississippi Lime ventures. In 2014 Bill moved to Oman where he served as Exploration Manager for Shell's joint venture with the government of Oman until his transition to QGC in 2016, where he first oversaw the delivery of Project Charlie before assuming his current role.

These diverse experiences allow Bill to bring deep insight into the key elements that drive value creation in the Upstream Energy business. In each of his assignments, Bill has been able to use that insight to drive superior business performance that has ultimately helped to deliver key projects for Shell and its partners and stakeholders and directly impact overall group financial performance.

Bill earned a Bachelor's Degree in Geology from Princeton University and also holds a PhD in Geophysics from Cornell University.

Katie Whittle: General Manager Development East

Katie is the General Manager Development East and is responsible for field development planning, subsurface, pre-sanction projects for the QGC LNG JV. Katie's work experience includes:

- Joined Shell in 1994
- Various Process Engineering, Project Engineering and Upstream Development roles in The Netherlands, Nigeria, the UK and Australia

- Exposure to full project lifecycle from opportunity initiation to asset operation.
- Seconded into Arrow Energy JV in 2012, initially as a Front End Development Manager and later General Manager New Opportunities, where she was the Business Opportunity Manager for the Arrow Surat Gas Project.
- Returned to Shell in May 2018 and is currently the General Manager Development East for Integrated Gas Australia.

Katie holds a Master of Engineering from the University of Oxford.

Royal Dutch Shell plc

QGC is a wholly owned subsidiary of Royal Dutch Shell plc (Shell) and operates as a business with access to finance to cover the proposed development plan on an annual basis, as planned, for the life of the development.

Royal Dutch Shell plc (Shell) is a public limited company registered in England and Wales and headquartered in The Hague, the Netherlands

Shell is one of the world's largest independent oil and gas companies in terms of market capitalization, operating cash flow and production.

The primary Shell activities include:

- Exploration for crude oil and natural gas worldwide, both in conventional fields and from sources such as tight rock, shale and coal formations;
- Production of natural gas to provide liquefied natural gas (LNG) that can be safely shipped to markets around the world and converting gas to liquids (GTL); and
- Owning and operating refineries and chemical plants producing refined and petrochemical products, which are moved and marketed around the world for domestic, industrial and transport use. Products sold include gasoline, diesel, heating oil, aviation fuel, marine fuel, LNG for transport, lubricants, bitumen and sulfur. (Shell has a refining capacity of 4.0 million bopd with interest in 35 refineries.)

The Shell Projects & Technology organisation manages the delivery of major projects and drives research and innovation to develop new technology solutions. It provides technical services and technology capability covering both Upstream and Downstream activities. It is also responsible for providing functional leadership across Shell in the areas of safety and environment, contracting and procurement, wells activities and CO2 management.

Shell future hydrocarbon production depends on the delivery of large and complex projects. Systematic management of lifecycle technical and non-technical risks is in place for each opportunity, with assurance and control activities embedded throughout the project lifecycle. Shell focuses on the cost-effective delivery of projects through quality commercial agreements, supply-chain management and construction and engineering productivity through effective planning and simplification of delivery processes. Development of Shell employees' project management competencies is underpinned by project principles, standards and processes. A dedicated competence framework, training, standards and processes exist for exploration and appraisal activities. In addition, Shell provides governance support for our non-operated ventures or projects.

Specific technologies recently advanced include: seismic processing and visualisation software that reveals previously unseen geological details; drilling-rig equipment that delivers wells faster and safer; oil-recovery methods that increase production from existing fields; processes that refine crude oil and liquefy natural gas more efficiently, and fuel and lubricant formulations that perform better.

Shell has international operations in Europe, Asia (including the Middle East and Russia) Africa, North

and South America and operates in over 70 countries.

For 2018:

US dollars are used in the currency amounts.

Revenue was \$388.4 billion, capital investment was \$24.8 billion.

Income was \$23.9 billion and Earnings per share of \$2.82.

R&D expenditure was \$986 million.

Production was 3,666 million barrels of oil equivalent (boe).

Proved oil and gas reserves at 31 December 2018 were approx. 11.6 billion boe.

In 2018, Shell employee numbers totaled 82,000. Employees in Australia totaled approx. 2,000.

On 15 February 2016, the entire issued and to be issued share capital of BG Group plc was acquired by Royal Dutch Shell plc (Shell). BG International Limited is a wholly owned subsidiary of the BG Group.

As a result of the acquisition, Shell's Queensland operations now include 30 gas processing facilities 3 water treatment plants and a 2-train LNG export facility (QCLNG) on Curtis Island with an 8.5 MTPA capacity, as well as the 140-megawatt Condamine Power station supplying the national electricity market.

Shell is also a 50:50 joint venture partner with PetroChina as holders of Arrow Energy Holdings Pty Limited. Arrow holds coal-bed methane exploration and production tenures and production assets in the Surat and Bowen Basins as well as domestic power interests.

In Western Australia, Shell has interests in offshore production and exploration licences located on the North West Shelf and greater Gorgon Areas of the Carnarvon Basin and Browse Basin. Shell is operator of the Prelude and Concerto gas fields. The development of the Prelude field is based on the Shell floating liquefied natural gas (FLNG) technology noting that the FLNG facility is in place and completing the commissioning phase.

Attachment – Financial and Technical Capability

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- Drilling the first two successful CSG exploration wells in the Surat Basin, with the second well Argyle 1 flowing “free” gas in excess of 1mmcf/d upon test immediately after drilling;
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- Two CSG Surat Basin ATPs (574 and 965);
- Four CSG prospective Bowen Basin ATPs (ATPs 684, 758, 806 and 811);
- CSG production tenures, Petroleum Leases (PLs) 179, 180, 201, 211, 212, 228, 229, 247, 257, 263, 273, 274, 275, 276, 277, 278, 279, 299, 397, 398, 399, 401, 442, 443, 458, 459, 461, 464, 466, 467, 472, 474, 498, 503, 505, 506, 507, 510, 1008, 1009, 1010 and 1025;
- Three other prospective Surat/Bowen Basin ATPs (ATPs 632, 645 and 785);
- Three other ATPs operated wholly by others, ATPs 759, 2040 and 2045; and
- Pipeline Licences (**PPLs**) 91, 107, 108, 125, 153, 154, 155, 175, 176, 179, 184, 194, 195, 196, 197 and 2014 and Petroleum Facility Licences (**PFLs**) 11, 19 and 22.

Technical and Operational Resources

QGC has full in-house management, technical, commercial and field staff with proven capability in progressing exploration and appraisal success through to development and successful gas production. QGC also has access to experienced consultants/contractors with knowledge and resources both internally and at Shell to assist QGC in carrying out the necessary activities.

QGC currently operates under a Safety Management System and Safety and Operating Plan with a risk assessment-based process in place. (This has previously been supplied to DNRME).

QGC has established in-house field operations team that carry out:

- exploration activities including drilling and site location;
- field site preparation for drilling;
- gathering system planning and installation;
- wellhead completions;
- process plant operation and maintenance; and
- low and high pressure pipeline operation and maintenance.

QGC's field team is supported by field-based engineering, environmental, cultural heritage and safety personnel. Onsite supervisory staff is supported by management, compliance and engineering departments in Brisbane.

QGC owns several large rural properties throughout the tenures on which it operates. Additionally, QGC has extensive facilities in the field to support its activities.

Financial resources and commitments

QGC is a wholly owned subsidiary of Shell and operates as a business with access to finance to cover the tenure obligations on an annual basis, as planned, for the life of the tenure. The Queensland tenure obligations of QGC and its related-body corporates along with their joint venture partners total approximately \$553 million for the current period. QGC addresses these tenure obligations through annual planning and budget processes.

Environmental Values

Dedicated environmental personnel at various management levels play active roles in ensuring that environmental values within the project area, and the region, are protected and actively promote QGC's environmental practices to other staff and contractors.

By conditioning activities and ensuring current best practice and knowledge is shared and utilised in QGC's development approach, impacts on existing environmental features can be minimised or avoided.

Other aspects of QGC's commitment to minimising environmental impacts resulting from petroleum activities include:

- ensuring staff are made aware of the relevant Environmental Authority requirements and additional requirements under the *Environmental Protection Act 1994*;
- identification of and minimisation of impact on Environmentally Sensitive Areas (such as Endangered Regional Ecosystems, watercourses) in all planning activities;
- preparation of Environmental Management Plans (EMP) where required;
- a water quality sampling program, analysing associated production water from wells and water stored in holding dams and ponds;
- weed eradication, weed seed spread minimisation and monitoring as required in accordance with the Petroleum Industry Advisory Guidelines; and
- ongoing research into potential beneficial uses of associated water.

QGC endeavour to maintain a positive working relationship with regulatory authorities, including the Department of Environment and Science (**DES**) and Department of Natural Resources, Mines and Energy (**DNRME**), through regular meetings, correspondence and updates.

Key Personnel Profiles

Anthony Nunan, Vice President, QGC

Tony Nunan has developed a career spanning from the origins of the Queensland coal seam gas industry to globally focused leadership.

Originally from Toowoomba, Tony earned degrees in Land Resource Science from the University of Queensland and Law from the University of New England. After working in Environmental Science with the Department of Natural Resources, he joined legal firm, Hopgood Ganim as a solicitor within the resources and energy practice. He acted for large resources clients and participated in the redrafting and modernising of the Queensland Government policy and regulatory framework for the emerging coal seam gas industry resulting in the *Petroleum and Gas (Production and Safety) Act 2004 (Qld)*.

Tony joined QGC in 2008 as Legal Counsel just prior to the company's acquisition by BG Group. In 2009, he was appointed General Manager – Land and Community, with responsibility for negotiating land access and native title rights.

Tony's career progressed at QGC to Vice President Asset Management accountable for managing assets and business interests within the QCLNG project. Then in December 2013, he was appointed BG Group Vice President Operations. As a part of a multinational team, Tony was involved in decision-making on capital, people and direction and implemented a new governance framework comprising values-based culture, corporate structure and operating model designed for clear accountability.

Tony assumed the role of QGC Managing Director on 3 August 2015 and currently is Vice president, QGC.

Tony is a member of the Australian Petroleum Production and Exploration Association's Queensland Industry Leadership Group.

Cecile Wake, Vice-President Commercial/NBD, Shell Australia

Cecile Wake joined BG Group in May 2010 and Royal Dutch Shell in February 2016 following the combination of Shell and BG Group.

Cecile has been appointed Vice-President Commercial for Shell Australia with accountability for Shell's commercial arrangements and investments in Australia, including in the QGC, Prelude, Gorgon, NWS operating ventures and its broader development portfolio.

Cecile spent 5½ years at QGC (Jan 2011 – Jun 2016) in a variety of commercial and leadership roles, most recently as Growth Director overseeing the Commercial, Supply & Optimisation, Exploration, Business Development and Contracts & Procurement teams.

Prior to joining BG group in May 2010, Cecile was a partner at international law firm Herbert Smith LLP based in London in the corporate energy team. While at Herbert Smith, Cecile advised on the development and structuring of international LNG and upstream projects, negotiating off-take agreements and on substantial, cross-border M&A transactions in the oil, gas, LNG and mining sectors.

Cecile holds a LLB (Hons) and Bachelor of Economics from the University of Queensland.

Bill Langin: General Manager Upstream Asset

William (Bill) Langin was appointed to the position of General Manager, Upstream Asset, at QGC in October of 2017 and is accountable for safety performance, upstream production, projects, wells, engineering, and land access, and integrated planning at QGC.

Bill has more than 14 years of global energy industry experience across numerous businesses, operational and geological settings, and has deep experience in unconventional resource projects. Bill's career in the energy industry began when he joined Shell in 2003 to work on deepwater projects in the Gulf of Mexico, and later, Brazil. In 2010, Bill shifted his attention to the onshore United States, where he played a key role in the acquisition and development of Shell's shale gas business in the Appalachia region, which is currently producing from the Marcellus and Utica shales. Bill then went on to oversee Shell's exploration efforts across the onshore U.S. in the Permian Basin of West Texas, Rocky Mountains, Eagleford Shale, and Mississippi Lime ventures. In 2014 Bill moved to Oman where he served as Exploration Manager for Shell's joint venture with the government of Oman until his transition to QGC in 2016, where he first oversaw the delivery of Project Charlie before assuming his current role.

These diverse experiences allow Bill to bring deep insight into the key elements that drive value creation in the Upstream Energy business. In each of his assignments, Bill has been able to use that insight to drive superior business performance that has ultimately helped to deliver key projects for Shell and its partners and stakeholders and directly impact overall group financial performance.

Bill earned a Bachelor's Degree in Geology from Princeton University and also holds a PhD in Geophysics from Cornell University.

Katie Whittle: General Manager Development East

Katie is the General Manager Development East and is responsible for field development planning, subsurface, pre-sanction projects for the QGC LNG JV. Katie's work experience includes:

- Joined Shell in 1994
- Various Process Engineering, Project Engineering and Upstream Development roles in The Netherlands, Nigeria, the UK and Australia

- Exposure to full project lifecycle from opportunity initiation to asset operation.
- Seconded into Arrow Energy JV in 2012, initially as a Front End Development Manager and later General Manager New Opportunities, where she was the Business Opportunity Manager for the Arrow Surat Gas Project.
- Returned to Shell in May 2018 and is currently the General Manager Development East for Integrated Gas Australia.

Katie holds a Master of Engineering from the University of Oxford.

Royal Dutch Shell plc

QGC is a wholly owned subsidiary of Royal Dutch Shell plc (Shell) and operates as a business with access to finance to cover the proposed development plan on an annual basis, as planned, for the life of the development.

Royal Dutch Shell plc (Shell) is a public limited company registered in England and Wales and headquartered in The Hague, the Netherlands

Shell is one of the world's largest independent oil and gas companies in terms of market capitalization, operating cash flow and production.

The primary Shell activities include:

- Exploration for crude oil and natural gas worldwide, both in conventional fields and from sources such as tight rock, shale and coal formations;
- Production of natural gas to provide liquefied natural gas (LNG) that can be safely shipped to markets around the world and converting gas to liquids (GTL); and
- Owning and operating refineries and chemical plants producing refined and petrochemical products, which are moved and marketed around the world for domestic, industrial and transport use. Products sold include gasoline, diesel, heating oil, aviation fuel, marine fuel, LNG for transport, lubricants, bitumen and sulfur. (Shell has a refining capacity of 4.0 million bopd with interest in 35 refineries.)

The Shell Projects & Technology organisation manages the delivery of major projects and drives research and innovation to develop new technology solutions. It provides technical services and technology capability covering both Upstream and Downstream activities. It is also responsible for providing functional leadership across Shell in the areas of safety and environment, contracting and procurement, wells activities and CO2 management.

Shell future hydrocarbon production depends on the delivery of large and complex projects. Systematic management of lifecycle technical and non-technical risks is in place for each opportunity, with assurance and control activities embedded throughout the project lifecycle. Shell focuses on the cost-effective delivery of projects through quality commercial agreements, supply-chain management and construction and engineering productivity through effective planning and simplification of delivery processes. Development of Shell employees' project management competencies is underpinned by project principles, standards and processes. A dedicated competence framework, training, standards and processes exist for exploration and appraisal activities. In addition, Shell provides governance support for our non-operated ventures or projects.

Specific technologies recently advanced include: seismic processing and visualisation software that reveals previously unseen geological details; drilling-rig equipment that delivers wells faster and safer; oil-recovery methods that increase production from existing fields; processes that refine crude oil and liquefy natural gas more efficiently, and fuel and lubricant formulations that perform better.

Shell has international operations in Europe, Asia (including the Middle East and Russia) Africa, North

and South America and operates in over 70 countries.

For 2018:

US dollars are used in the currency amounts.

ⁱRevenue was \$388.4 billion, capital investment was \$24.8 billion.

Income was \$23.9 billion and Earnings per share of \$2.82.

R&D expenditure was \$986 million.

Production was 3,666 million barrels of oil equivalent (boe).

Proved oil and gas reserves at 31 December 2018 were approx.11.6 billion boe.

In 2018, Shell employee numbers totaled 82,000. Employees in Australia totaled approx. 2000.

On 15 February 2016, the entire issued and to be issued share capital of BG Group plc was acquired by Royal Dutch Shell plc (Shell). BG International Limited is a wholly owned subsidiary of the BG Group.

As a result of the acquisition, Shell's Queensland operations now include 30 gas processing facilities 3 water treatment plants and a 2-train LNG export facility (QCLNG) on Curtis Island with an 8.5 MTPA capacity, as well as the 140-megawatt Condamine Power station supplying the national electricity market.

Shell is also a 50:50 joint venture partner with PetroChina as holders of Arrow Energy Holdings Pty Limited. Arrow holds coal-bed methane exploration and production tenures and production assets in the Surat and Bowen Basins as well as domestic power interests.

In Western Australia, Shell has interests in offshore production and exploration licences located on the North West Shelf and greater Gorgon Areas of the Carnarvon Basin and Browse Basin. Shell is operator of the Prelude and Concerto gas fields. The development of the Prelude field is based on the Shell floating liquefied natural gas (FLNG) technology noting that the FLNG facility is in place and completing the commissioning phase.

Attachment – Obligation History Statement**Tenure History**

ATP 645 is in the Surat Basin, east of the town of Surat within the Western Downs and Maranoa Regional Council areas as shown in Figure 1.

The ATP was first granted under the *Petroleum Act 1923* to BNG (Surat) Pty Ltd for 4 years commencing 1 January 2000 over an area of 31 graticular blocks. In 2003 BNG (Surat) Pty Ltd extended an interest of 50% to Samson-International (Australia) Pty Ltd.

ATP 645P was renewed for a further 4-year term under the *Petroleum Act 1923* on 1 January 2004 over an area of 24 graticular blocks. Departmental Policy Number MIN/2003/1192 saw both mid-term relinquishments waived with a 20% relinquishment (4 graticular blocks) required prior to renewal. In 2005 Samson-International (Australia) Pty Ltd assigned its 50% interest back to BNG (Surat) Pty Ltd.

Upon the proclamation of the *Petroleum and Gas (Production and Safety) Act 2004 (P&G Act)* ATP 645 was converted from the *Petroleum Act 1923* to be administered under the P&G Act.

On 1 January 2008, ATP 645 was renewed for a further 12-year term over an area of 475 sub-blocks. An amendment to the area of ATP 645 to include previously excluded land subject to native title was recorded on 20 May 2014 with ATP 645 being subject to the Mandandanji People and QGC Pty Limited ILUA (QI2010/034) registered with the National Native Title Tribunal on 12 May 2011. On 31 July 2014 the current approved work program and relinquishment condition was statutorily extended by 2 years from 31 December 2015 to 31 December 2017.

The tenure is currently in its third and final four-year period of this renewal term, ending 31 December 2019.

BNG (Surat) Pty Ltd is a 100% subsidiary company of QGC Pty Limited (**QGC**) who remains the operator. ATP 645 will continue to cover an area of 300 sub-blocks.

ATP 645 Exploration and Appraisal History

Exploration activity conducted in ATP 645 since grant consists of 6 wells to evaluate Permian Basin-Centred Gas potential of the Bowen Basin, acquisition of 108km of 2D seismic, re-processing of 1,154km 2D seismic, 193km² 3D seismic and geological and geophysical studies (Figure 2). This effort was successful in discovering an in-place basin-centred gas resource, however the sandstones were found to be of very low permeability and challenged in terms of gas deliverability using available drilling, completion and stimulation approaches.

sch4p4(7)(1)(c) Business/commercial/professional/financial affairs

Future efforts will be focussed on characterising the reservoir through calibration of interpreted attribute indications of reservoir quality. Should the materiality of the play be confirmed, it is envisaged that horizontal, multi-stage fracture stimulation development would be commercial within a 15-year timeframe.

Report Name	Company Report #
120503 – Approval Extended Production Testing – DAYDREAM 1	NA
120629 – Partial Relinquishment Report – ATP 645P	CR71757
121020 – Seismic Survey Final Report - ATP 632P, 645P, DAA 10, 12, QGC 2011-2012 BARRA 2D SEISMIC SURVEY, FINAL REPORT	CR81324
121123 – Notice of Partial Relinquishment	NA
121130 – Notice of Discovery – ATP 645 – DAYDREAM 1	NA
121205 – Hydraulic Fracturing Activities Completion Report - A-P 645P, QGC DAYDREAM 1	CR74521
130701 – Seismic Reprocessing Report - A-P 145, 241, 244, 253, 260, 350, 374, 379, 384, 389, 403, 493, QGC SURAT 2D 2013 REPRO, SEISMIC SURVEY REPROCESSING REPORT	CR99831
130722 – Well Completion Report - ATP 645P, QGC DAYDREAM 1	CR78710
140101 – Well Report - ATP 645P, 647P, OCA MYALL CREEK EAST 1, SIA OVERSTON 2/2A, COMBINED CHEMOSTRATIGRAPHY REPORT OF MYALL CREEK EAST 1, OVERSTON 2/2A AND DAYDREAM WELLS	CR95315
140919 – Well Abandonment Report - ATP 645P, SGO NARRENE 1-1A	CR86518
141017 – Well Abandonment Report - ATP 645P, SIA OVERSTON 2-2A	CR86917
141211 – Well Abandonment Report - ATP 645P, QGC OVERSTON 1	CR88998
150501 – Well Report - ATP 645P, QGC DUNK 1, SGO NARRENE 1/1A, COMBINED CHEMOSTRATIGRAPHY REPORT OF NARRENE 1/1A AND DUNK 1	CR95314
150507 – Well Production Testing Report – ATP 645, QGC DUNK 1, WELL PRODUCTION 30 DAY TESTING REPORT FOR PERIOD 3/4/2015 TO 2/5/2015	CR91675
150520 – Well Completion Report - ATP 645P, QGC MAGNETIC GW 1	CR91858
150702 – Well Completion Report - ATP 645P, QGC DUNK 1	CR92578
150908 – Well Completion Report - ATP 645P, QGC MAGNETIC 1	CR93533
151101 – Well Report ATP 645P - QGC DUNK 1, QGC MAGNETIC 1, SGO NARRENE 1/1A, COMBINED CHEMOSTRATIGRAPHIC CORRELATION OF MAGNETIC 1, NARRENE 1 AND DUNK 1	CR95316
160614 - ATP 645P, GEOLOGICAL AND GEOPHYSICAL STUDIES REPORT FOR PERIOD ENDING 1/06/2016	CR96956
171122 Notice of Partial Relinquishment (Project relinquishment from ATP 768 and ATP 1101)	NA

Table 1 - Reports lodged during current 12-year term of ATP 645 being 1 January 2008 to 31 December 2019

Conclusion

ATP 645 is in good standing. Table 2 shows the current period approved later work program, which has been met and form the basis of this ATP renewal for 12 years, and the relevant PCA applications

(Figure 3). All rent has been paid and all reporting has been submitted as required by the P&G Act. QGC believes there are no outstanding issues.

Period 5	Minimum Approved Activities	Estimated Expenditure
One (1) year ending 31 December 2018	Geological & Geophysical and engineering studies	\$100,000
One (1) year ending 31 December 2019	Geological & Geophysical and engineering studies Prospect selection, well planning & design	\$100,000
	TOTAL	\$200,000

Table 2 - ATP 645 Current Period Approved Later Work Programme

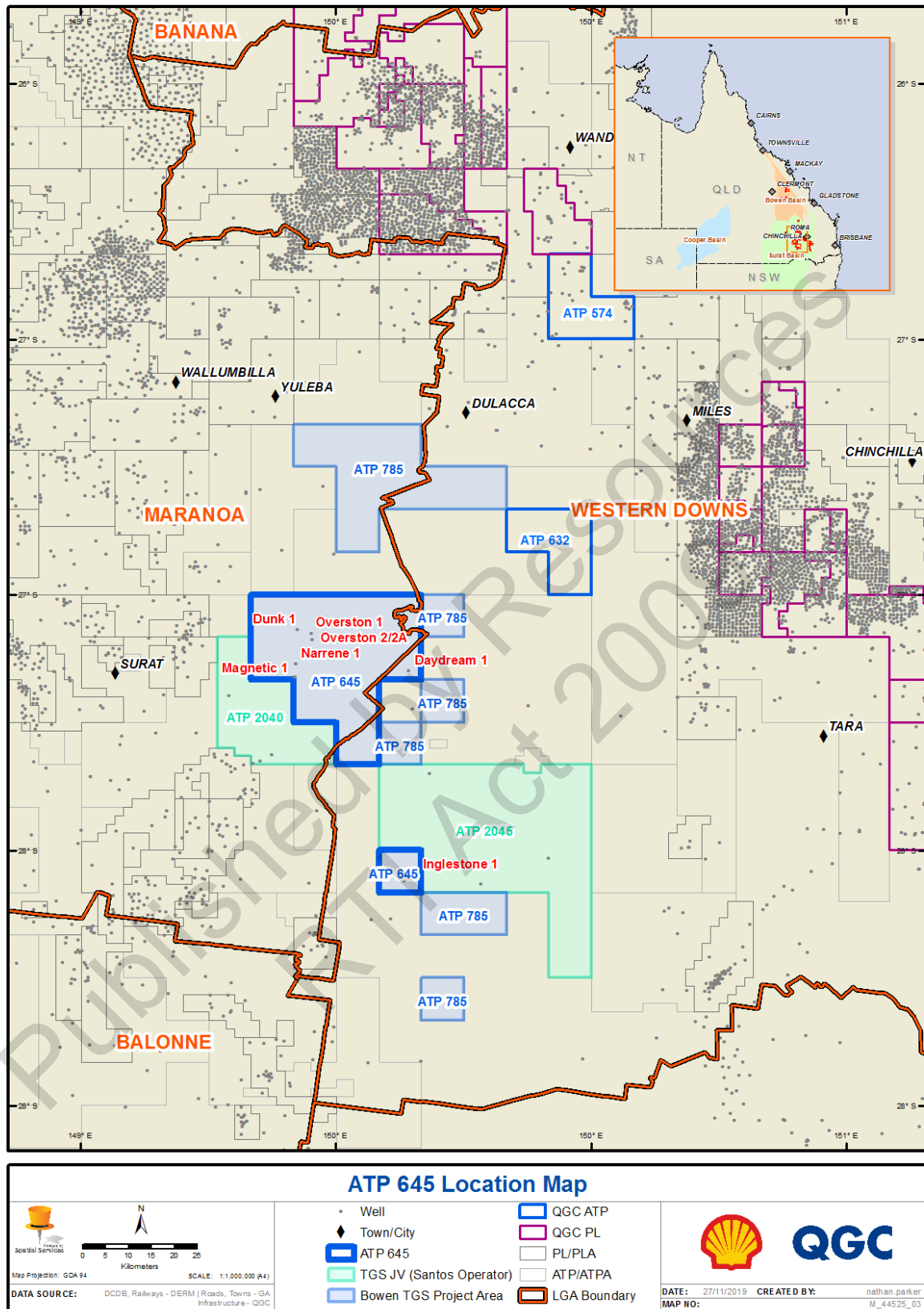


Figure 1 – ATP 645 location map

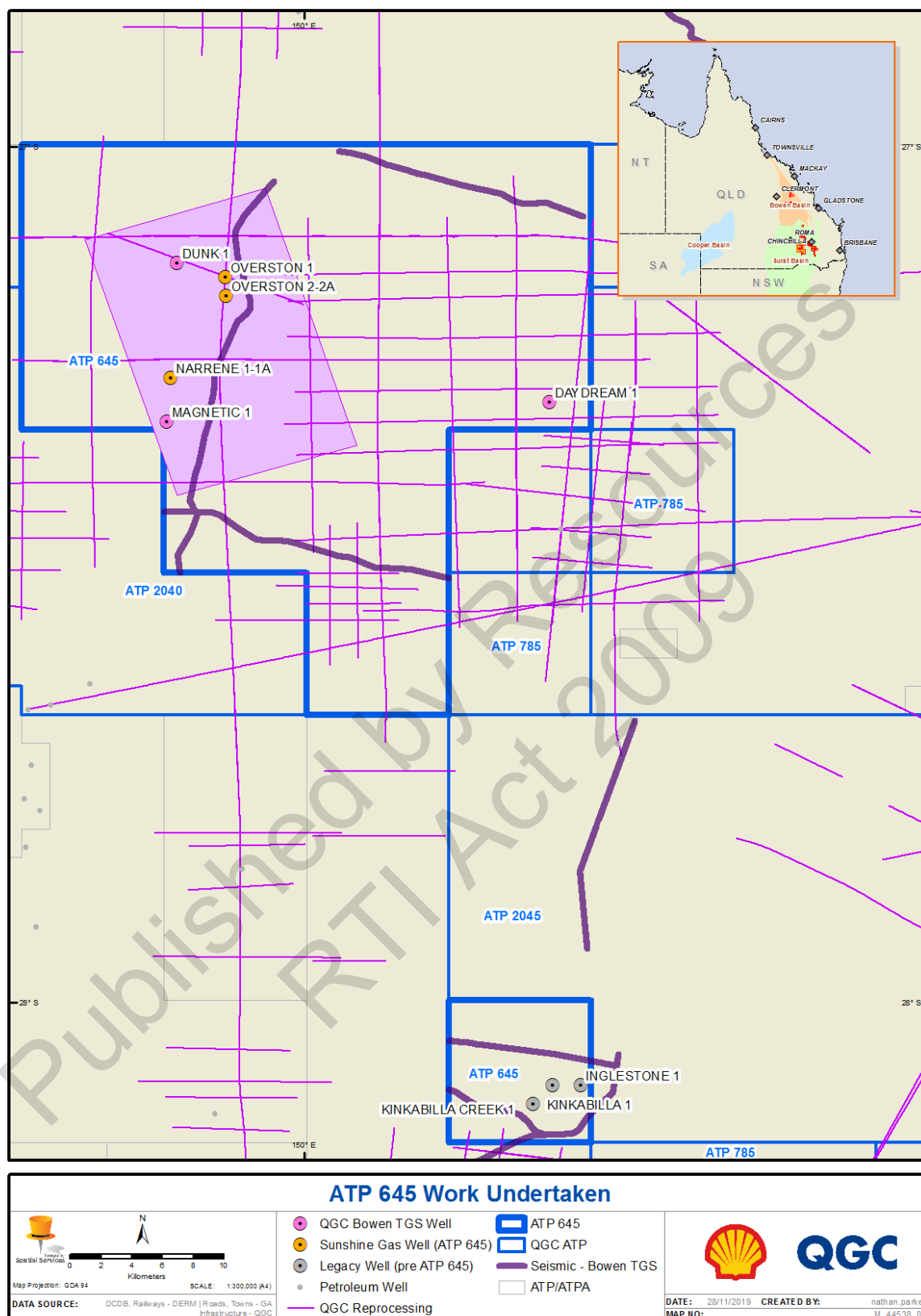


Figure 2: Exploration and Appraisal work undertaken under ATP 645.

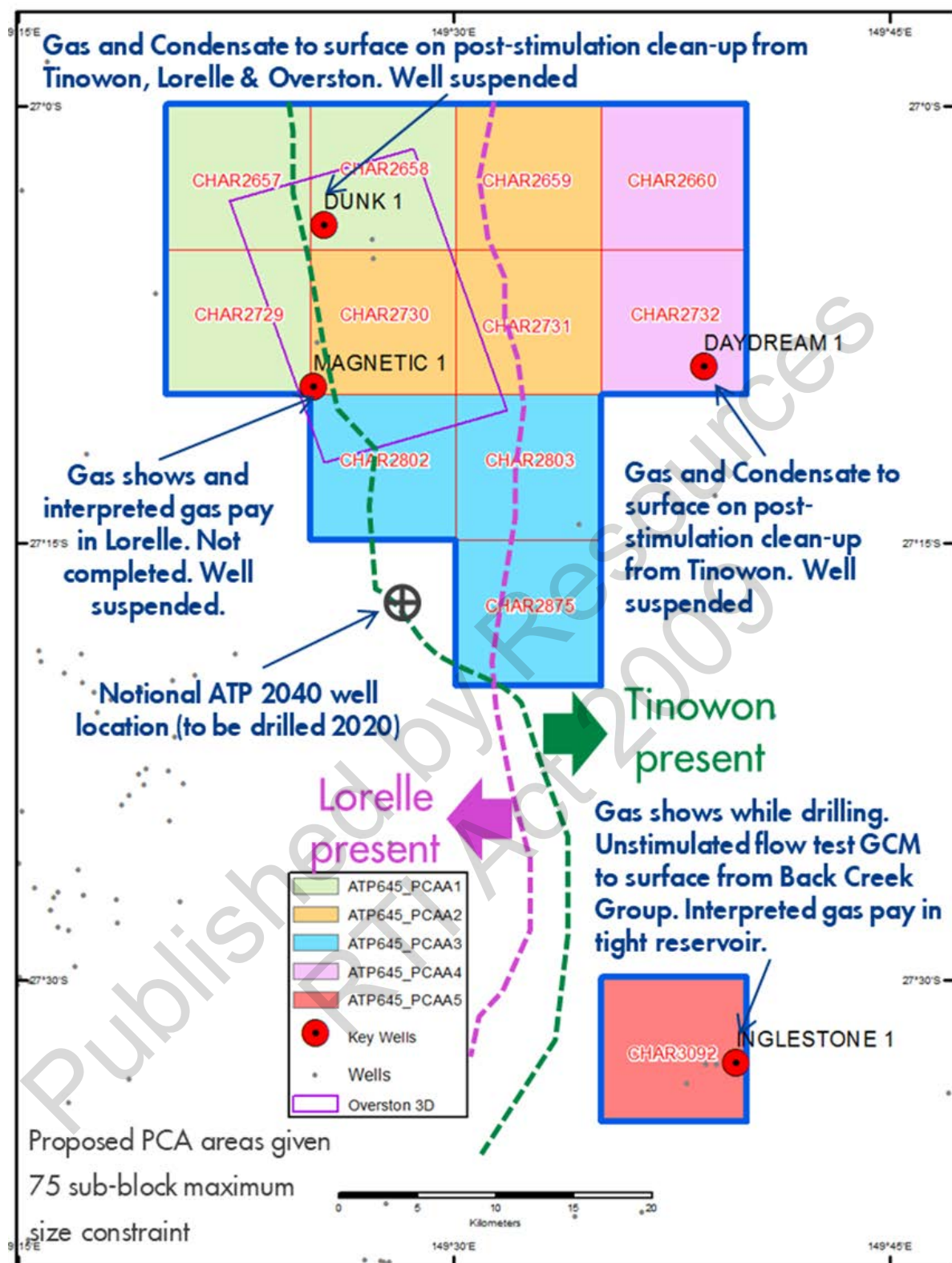


Figure 3: Definition of area of current ATP 645, with the extent of PCA applications 1 - 5

Attachment – Work Program – ATP 645 – 1 January 2020 to 31 December 2023

Permit Year	Authorised Activity	Expenditure
1	sch4p4(7)(1)(c) Business/commercial/professional/financial affairs	
2		
3		
4		
TOTAL		

The ATP work program for year 5 and beyond to year 12 will be proposed as a Later Work Program at the appropriate time.

Attachment – Renewal Justification Statement**Introduction / Background**

ATP 645 is held by BNG (Surat) Pty Ltd, a wholly owned subsidiary of Royal Dutch Shell PLC (Shell). ATP 645 was granted on 21 December 1999 and expires on 31 December 2019. QGC Pty Limited (QGC), also a wholly subsidiary of Shell, is the operator for and on behalf of the holder who seeks to renew the area of ATP 645 described in the table below for a 12-year term to underpin the declaration of five applications for Potential Commercial Area (PCA) covering the whole of the ATP area.

Proposed 12-year term of ATP 645 is from 1 January 2020 to 31 December 2031.

Block	Sub-blocks	# Sub-blocks
CHAR 2657	All	25
CHAR 2658	All	25
CHAR 2659	All	25
CHAR 2660	All	25
CHAR 2729	All	25
CHAR 2730	All	25
CHAR 2731	All	25
CHAR 2732	All	25
CHAR 2802	All	25
CHAR 2803	All	25
CHAR 2875	All	25
CHAR 3092	All	25
TOTAL		300

Table 1: ATP 645 sub-block listing.

Resource authority history

Please refer to the Obligation History Statement for the resource authority history.

Project details**Technical/Geological/Commercial/Business Reasoning**

This area is located along the western flank of the Taroom Trough where exploration for stratigraphic / hybrid traps of late Permian Back Creek Group tight gas sand reservoirs (primarily Tinowon & Lorelle) has confirmed the prospectivity of the area.

The Dunk-1 well discovered gas in multiple regionally extensive tight-gas sand reservoirs in 2015. Since then, studies have been ongoing to define the path to demonstration of a commercially viable resource. The reservoirs encountered in Dunk-1 are regionally extensive along the western flank of

the Taroom Trough and are productive updip on the Roma Shelf.

sch4p4(7)(1)(c) Business/commercial/professional/financial affairs

Please refer to the Description of Geological Model, Work Program and Work Program Rationale for further information.

Expressions of Interest

Looking to invest in new resource exploration projects, on 15 August 2019 Shell submitted three expressions of interest (EOI) nominating vacant lands be considered for inclusion in the next Queensland exploration competitive tendering land release.

These tracts of vacant land are adjacent to and along from ATP 645 held by BNG (Surat) Pty Ltd 100%, ATP 785 held by Starzap Pty Ltd 100% and Starzap Pty Ltd as a 50% titleholder with Santos QNT Pty Ltd in adjacent ATP 2040 and ATP 2045. Starzap Pty Ltd is a wholly owned subsidiary company of QGC Pty. Ltd, a part of the Royal Dutch Shell Group of Companies. See Figure 1 below.

- **EOI 1** - Shell nominated 6 blocks between ATP 645 and ATP 785;
- **EOI 2** - Shell nominated 12 blocks to south of ATP 645, west of ATP 2045 – connecting stranded ATP 645 and ATP 785 blocks; and
- **EOI 3** - Shell nominated 1 block surrounded by ATP 645 and ATP 785.

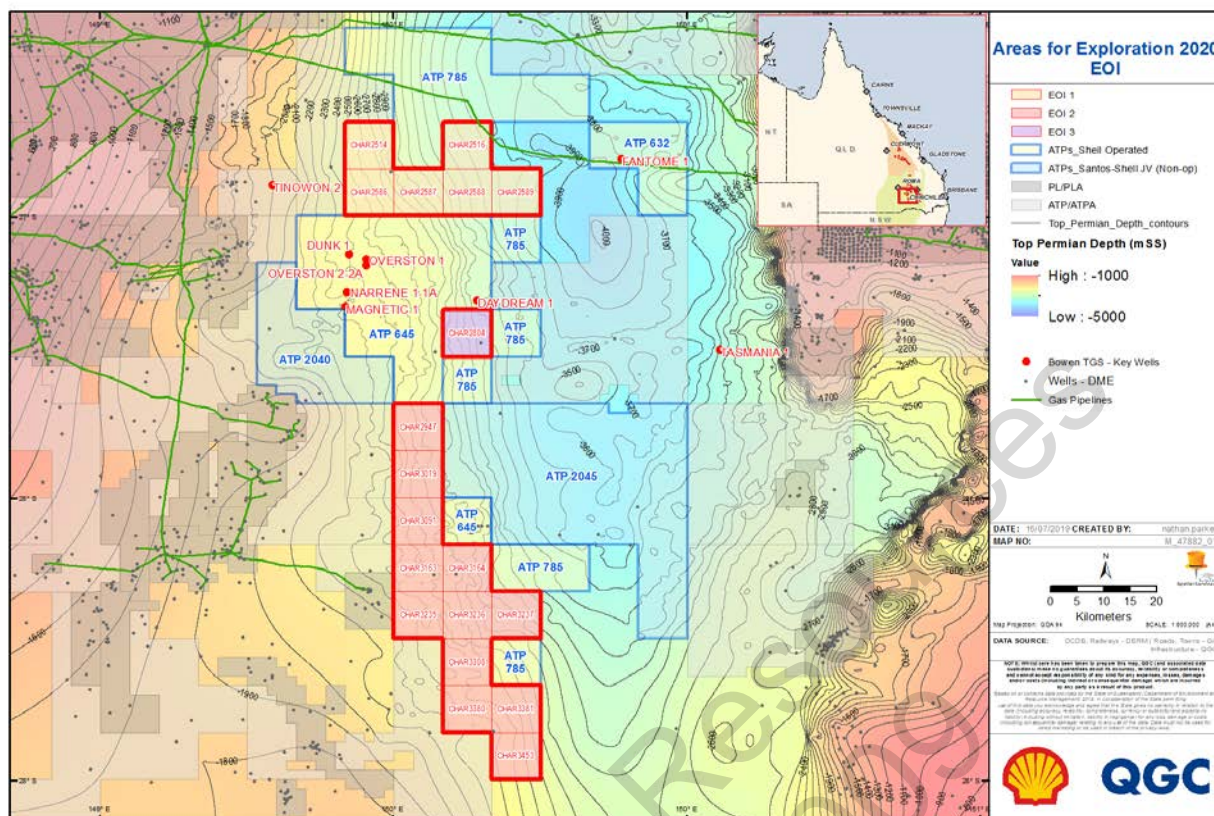


Figure 1: Bowen Tight Gas 2019 EOI Areas

At Shell our purpose is to provide more and cleaner energy for Australia and the world. Shell has been in Australia since 1901 and since that time the company has changed to meet a changing Australian market. Shell's QGC is one of Australia's leading natural gas producers, focused on developing Queensland's world-class onshore gas reserves.

sch4p4(7)(1)(c) Business/commercial/professional/financial affairs

Summary of expenditure / financial and technical resources

Please refer to the Capability Statement.

Economic viability

Please refer to associated Potential Commercial Area applications.

Environmental Considerations

Petroleum activities on ATP 645 are carried out and rehabilitated in accordance with conditions of Environmental Authority EPPG00839513.

- QGC implements an ISO14001 certified environmental management system (EMS) to:
- Integrate environmental management throughout business processes
- Protect the environment
- Fulfil compliance obligations
- Enhance environmental performance
- Achieve environmental objectives; and
- Systemise and document environment management practices.

QGC has operated a certified ISO 14001 EMS since 2012.

Attachment – Financial and Technical Capability

BNG (Surat) Pty Ltd ACN 090 629 913 is a wholly-owned subsidiary of QGC Pty Limited (**QGC**), which in turn is a wholly owned subsidiary of Royal Dutch Shell plc (**Shell**). QGC will continue as operator of ATP 645.

QGC Pty Limited (Operator)

Experience in Petroleum Exploration and Production

QGC has successfully been operating on coal seam gas (**CSG**) tenures since 2000, progressing from exploration, appraisal to development of CSG resources from the coal of the Walloon Subgroup in the Surat Basin. QGC, as the operating entity for Shell and associated JV partners as holders of 42 Petroleum Leases in the Surat Basin, is producing/developing the CSG resources in these tenures to provide gas, to the QCLNG project on Curtis Island, which commenced commercial production in late 2014 and to domestic gas contracts. QGC is currently producing from 40 Petroleum Leases in the Surat Basin.

Some of the highlights of QGC history include:

- Being the first CSG explorer to intensively explore and appraise the CSG potential of the Walloon Subgroup in the Surat Basin;
- Drilling the first two successful CSG exploration wells in the Surat Basin, with the second well Argyle 1 flowing “free” gas in excess of 1mmcf/d upon test immediately after drilling;
- Operating or participating in over 3500 core, exploration, appraisal and development wells since drilling its first exploration well in November 2000;
- Being the first exploration company to apply for and be granted a petroleum lease (PL 201) for CSG in the Surat Basin;
- Being the first company to apply for and be granted a petroleum pipeline licence (PPL 91) for CSG connecting QGC to the Roma to Brisbane Pipeline;
- Announcing in February 2008 an alliance with BG Group. Entering a three-part joint venture with respective ownership of 80/20 for the upstream tenures, 50/50 for the pipeline and 30/70 for the LNG plant and port assets;
- Achieving Significant Project status under the State Development & Public Works Organisation Act 1971 on 4 July 2008 for the Queensland LNG Project which includes the expansion of gas production operations, the development of a pipeline to Gladstone, and the construction of an LNG export facility at Curtis Island;
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Attachment – Financial and Technical Capability

BNG (Surat) Pty Ltd ACN 090 629 913 is a wholly-owned subsidiary of QGC Pty Limited (**QGC**), which in turn is a wholly owned subsidiary of Royal Dutch Shell plc (**Shell**). QGC will continue as operator of ATP 645.

QGC Pty Limited (Operator)

Experience in Petroleum Exploration and Production

QGC has successfully been operating on coal seam gas (**CSG**) tenures since 2000, progressing from exploration, appraisal to development of CSG resources from the coal of the Walloon Subgroup in the Surat Basin. QGC, as the operating entity for Shell and associated JV partners as holders of 42 Petroleum Leases in the Surat Basin, is producing/developing the CSG resources in these tenures to provide gas, to the QCLNG project on Curtis Island, which commenced commercial production in late 2014 and to domestic gas contracts. QGC is currently producing from 40 Petroleum Leases in the Surat Basin.

Some of the highlights of QGC history include:

- Being the first CSG explorer to intensively explore and appraise the CSG potential of the Walloon Subgroup in the Surat Basin;
- Drilling the first two successful CSG exploration wells in the Surat Basin, with the second well Argyle 1 flowing “free” gas in excess of 1mmcf/d upon test immediately after drilling;
- Operating or participating in over 3500 core, exploration, appraisal and development wells since drilling its first exploration well in November 2000;
- Being the first exploration company to apply for and be granted a petroleum lease (PL 201) for CSG in the Surat Basin;
- Being the first company to apply for and be granted a petroleum pipeline licence (PPL 91) for CSG connecting QGC to the Roma to Brisbane Pipeline;
- Announcing in February 2008 an alliance with BG Group. Entering a three-part joint venture with respective ownership of 80/20 for the upstream tenures, 50/50 for the pipeline and 30/70 for the LNG plant and port assets;
- Achieving Significant Project status under the State Development & Public Works Organisation Act 1971 on 4 July 2008 for the Queensland LNG Project which includes the expansion of gas production operations, the development of a pipeline to Gladstone, and the construction of an LNG export facility at Curtis Island;
- Finalising the acquisition of Sunshine Gas Limited and Roma Petroleum NL and all associated subsidiaries on 8 December 2008. Additional tenures acquired include ATP 645P, 684P, 685P, 688P, 693P, 722P, 767P, 768P, 769P, 789P, 795P, 811P and PL 2 and PL 171;

- Becoming a wholly owned subsidiary of BG Group after completion of compulsory share acquisition on 20 March 2009 resulting in QGC operating as a BG Group business and delisted from the ASX in April 2009;
- Announcing an official takeover of Pure Energy Resources Ltd in April 2009, followed by the completion of share acquisition on 11 May 2009. Additional tenures acquired include ATP 758P, 759P, 806P, 831P and 852P now mostly operated by QGC for Pure Energy and its subsidiaries;
- Obtaining Queensland Government approval in June 2010 for the QCLNG Project following the Queensland Coordinator General's review of the project's social and environmental impact statement;
- Launching the QGC Sustainable Communities Fund in January 2011 providing \$6 million over 4 years to support community projects;
- Obtaining Queensland Government approval for the QGC \$150 million Social Impact Management Plan in April 2012;
- Achieving first LNG cargo loadout at Curtis Island in December 2014;
- Announcing the A\$1.7 billion Charlie Project as part of the continuous development of tenures in the Surat Basin
- On 15 February 2016, the entire issued and to be issued share capital of BG Group plc was acquired by Royal Dutch Shell plc. On 1 November 2016, QGC officially went live under the new arrangements.

QGC Petroleum Tenures/Operated Tenures

QGC is commonly the operator of each Authority to Prospect (**ATP**) or PL in which it holds interest and is the operator of most of the acreage in which it has interests in Queensland. As well, QGC operates in tenures held by Shell entities. These tenures include:

- Two CSG Surat Basin ATPs (574 and 965);
- Four CSG prospective Bowen Basin ATPs (ATPs 684, 758, 806 and 811);
- CSG production tenures, Petroleum Leases (PLs) 179, 180, 201, 211, 212, 228, 229, 247, 257, 263, 273, 274, 275, 276, 277, 278, 279, 299, 397, 398, 399, 401, 442, 443, 458, 459, 461, 464, 466, 467, 472, 474, 498, 503, 505, 506, 507, 510, 1008, 1009, 1010 and 1025;
- Three other prospective Surat/Bowen Basin ATPs (ATPs 632, 645 and 785);
- Three other ATPs operated wholly by others, ATPs 759, 2040 and 2045; and
- Pipeline Licences (**PPLs**) 91, 107, 108, 125, 153, 154, 155, 175, 176, 179, 184, 194, 195, 196, 197 and 2014 and Petroleum Facility Licences (**PFLs**) 11, 19 and 22.

Technical and Operational Resources

QGC has full in-house management, technical, commercial and field staff with proven capability in progressing exploration and appraisal success through to development and successful gas production. QGC also has access to experienced consultants/contractors with knowledge and resources both internally and at Shell to assist QGC in carrying out the necessary activities.

QGC currently operates under a Safety Management System and Safety and Operating Plan with a risk assessment-based process in place. (This has previously been supplied to DNRME).

QGC has established in-house field operations team that carry out:

- exploration activities including drilling and site location;
- field site preparation for drilling;
- gathering system planning and installation;
- wellhead completions;
- process plant operation and maintenance; and
- low and high pressure pipeline operation and maintenance.

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Attachment – Work Program Rationale – 1 January 2020 to 31 December 2023

The Dunk-1 well discovered gas in multiple regionally extensive tight-gas sand reservoirs in 2015. Since then, extensive studies have been ongoing to define the path to demonstration of a commercially viable resource.

On the basis of the vertical well test deliverability, QGC cannot demonstrate a commercially viable project in ATP 645 and as such intends to make application for PCAs over the area. QGC asserts that, although not currently viable, the PCA area is potentially commercially viable within a timeframe of 15 years, and this can be demonstrated through execution of this and later LWPs and the proposed PCA evaluation program (which this ATP work program directly supports) to address the key aspects of this large but challenging resource. Some development enablers are:

- Significant in-place resource base;
- Encouraging seismic attribute support for reservoir characterisation across ATP 645 and beyond;
- sch4p4(7)(1)(c) Business/commercial/professional/financial affairs
- Proximity to infrastructure given location near to existing Roma Shelf production facilities; and
- Strong demand side support, including potential smaller local domestic demand for initial development, larger East Coast domestic demand for larger development, and LNG scale demand.

The key challenges that will impact commercialisation are routine to petroleum development and will be addressed as part of the proposed ATP LWP and PCA evaluation program. These include:

- Reservoir characterisation;
- Well deliverability and well cost;
- Development cost and scale;
- Utilisation of existing infrastructure; and
- Commercial aspects, such as co-ordination with neighbouring tenure holders or as part of combined development to give sufficient scale.

Proposed activities during the four-year period, commencing 1 January 2020, of a 12-year term are shown in the table below, consisting of seismic acquisition and drilling as well as other studies, carried out in conjunction with the proposed PCA evaluation program, including:

- Review and update of geological model, reservoir characterisation and in-place gas resource;
- Review of existing and future potential technological options, including drilling, completion, stimulation and production optimisation;
- Review of project economics, market conditions, commercial options, pipeline options; and
- Development of multiple development scenarios matching the resource and deliverability assumptions with various identified market options.

These are shown in the table below.

Permit Year	Authorised Activity	Expenditure
1	sch4p4(7)(1)(c) Business/commercial/professional/financial affairs	
2		
3		
4		
TOTAL		

The ATP work program for year 5 and beyond up to a 12-year term will be proposed as LWPs at the appropriate time.

Attachment – Description of the geological model for the area of the authority**Regional Geology – Bowen Basin**

The Bowen Basin covers over 160,000 km² of southern and central Queensland and has a maximum sediment thickness of about 10,000 metres concentrated in two north-south trending depocentres, the Taroom Trough in the east and the Denison Trough in the west. The basin first opened as a result of an Early Permian extensional tectonic phase. This set up a series of grabens and half-grabens into which fluvial-lacustrine sediments were deposited. This episode was also accompanied by extensive volcanics throughout the basin, but particularly along its eastern margin.

Following this extensional phase, a more passive thermal sagging phase occurred. This resulted in a basin wide marine transgression, which saw a temporary cessation of volcanic activity along the eastern margin of the basin. Sediment was dominantly sourced from the west and deposited eastward over the antecedent grabens and half-grabens. Deltaic sediments prograded into the basin from the west, filling in the various depocentres that are associated with coal deposition. The sediments deposited during this time comprise the mid-late Permian Back Creek Group.

By the Late Permian, a compressional phase led to foreland loading on the eastern margin of the basin. This event cut the basin off from the open sea, and resulted in rapid infilling of dominantly coastal plain to alluvial plain facies. Substantial amounts of coal were cyclically deposited (the Kiangra Formation and equivalents) throughout the basin. Renewed igneous activity brought about by the tectonic reactivation, several tuffaceous sediments are deposited during this time. By the middle to late Triassic, the basin was filled with sediments although continued diastrophism was experienced resulting in further deformation of the rocks.

The southern half of the Bowen Basin, where ATP 645 is located, is overlain by the Surat Basin which most notably contains the Walloon Coal Measures underpinning supply to the various LNG projects.

Back Creek Group

The Back Creek Group is a widespread succession of marine to fluvial sands, silts, shales, coals and tuffs that predominantly represent the thermal sag phase of Bowen Basin development. Sediment input during this time was predominantly from the west and as such the best reservoir development in this interval that has been encountered in the Taroom Trough is along the western flank of the south-west Taroom Trough on the basinward margin of the Roma Shelf.

Within the Back Creek Group, there are a number of discrete reservoir targets that are economic producers or form exploration targets on the Roma Shelf. The most significant of these are:

- **Lorelle Sandstone:** An early-mid Permian fan-delta system penetrated on the Roma Shelf and in a small number of wells on the western flank of the Taroom Trough. This is the oldest reservoir in the Back Creek Group and to date no economic production has been achieved from this reservoir despite being found to be gas-bearing in a number of wells. Given the depositional environment for this formation, a key challenge in its exploration is understanding reservoir distribution and quality variation with a relatively small number of well penetrations.
- **Tinowon Formation:** The late Permian Tinowon Formation is divided into two distinct depositional sequences, the lower Tinowon/Wallabella Coal Member and the upper Tinowon. Both units represent separate transgressive successions separated by a sequence boundary at the top of the lower Tinowon/Wallabella Coal Member. Across the Roma Shelf, these intervals represent fluvial-alluvial deposition however moving basinward, indications

of marine influence are seen with deposition interpreted to tend more coastal plain into the Taroom Trough. The upper Tinowon is the most prolific gas producing interval on the Roma Shelf with the largest gas fields in the province being reservoired in this interval. The lower Tinowon is productive but its prevalence as an economic producer is limited due mainly to localised depositional trends and generally poorer reservoir quality than the upper Tinowon.

Kianga Formation

The Kianga Formation is defined in the southern Taroom Trough and is the age equivalent to the late Permian Rangal Coal Measures and Baralaba Coal Measures in the northern Taroom Trough and Nebo Synclinerium. Deposition of the formation occurred during extensive foreland loading, in fluvial to marsh environments of a regional deltaic system. The lithology of these coal measures are predominately fine to medium grained lithic sandstones, inter-bedded with grey-brown siltstones abundant carbonaceous material and coals, tuffaceous shales and common tuff bands.

The Kianga Formation reaches a maximum thickness of over 1000m thick in the Taroom Trough (up to 500m in the southern Taroom Trough) and thins onto the Roma Shelf. The reservoir potential on the Roma Shelf is poor with coals and carbonaceous mudstones dominating the section however, well penetrations in the Taroom Trough show sandstone beds up to 10's m thickness interbedded with coal seams generally up to several metres thick.

ATP 645 Geology

ATP 645 is located on the southwestern flank of the Taroom Trough with strata dipping gently, basinward, down to the east (Figure 1). Drilling in the tenement area since the mid-2000's has focussed on testing Tight Gas Sand (TGS) play potential of the Permian Back Creek Group and Kianga Formations with all wells drilled outside of any known conventional structure or stratigraphic trapping feature.

Three wells (Overston-2/2A, Daydream-1 and Dunk-1) have flowed gas and condensate to surface following fracture stimulation and it is interpreted that a continuous gas column associated with a zone of overpressure occurs below 2000-2500mSS. The Dunk-1 discovery (Figure 2) provides the greatest impetus for further appraisal of ATP 645, with the Tinowon Formation being the key producing interval on test.

While OGIP has been demonstrated in the tenure, there is considerable uncertainty on reservoir characterisation due to the limited number of well penetrations. The Tinowon formation is mappable on seismic (Figure 3) and encouraging indications of the ability to utilise seismic for reservoir characterisation have been seen but further drilling is required to provide further calibration (Figure 4).

This LWP consists of further 2D seismic and drilling of two wells to calibrate the seismic response and allow extrapolation onto 2D seismic across ATP 645 and beyond to demonstrate materiality of the Tinowon Formation and also provide further data on the Lorelle Sandstone. Figure 5 illustrates the indicative location of the proposed LWP activity.

To date, post-stimulation production testing has not yielded economic flow rates from vertical wells, posing a challenge to economic development of the tenure using the current drilling and completion techniques. It is modelled that deliverability uplift through application of multi-stage fracture stimulated horizontal wells would result in a commercial development.

This work program, supported by the PCA evaluation program, addresses the challenge of maturing an economic play to improve characterisation of the tight gas sand reservoirs in order to identify sweetspots and consideration of drilling and completion techniques that may unlock deliverability in tight sands.

Assessment of the potential for petroleum discovery in the area

A petroleum resource has been discovered and the ATP 645 LWP is designed to calibrate the geological model, which is interpreted to be seismically supported, to identify sweetspots and assess the potential of improvements in drilling and completion techniques to unlock the discovered in-place volume in ATP 645. If the activities described in this LWP and associated PCA evaluation program provide encouragement that improved deliverability could be achieved economically then there is potential for further testing or drilling in later ATP LWP periods ahead of potential PL applications.

Rationale, in relation to the geological model for the area, for the activities proposed to be carried out under the proposed authority

The Dunk-1 well discovered gas in multiple regionally extensive tight-gas sand reservoirs in 2015. Since then, extensive studies have been ongoing to define the path to demonstration of a commercially viable resource.

On the basis of the vertical well test deliverability, QGC cannot demonstrate a commercially viable project in ATP 645 and as such intends to make application for PCAs over the area. QGC asserts that, although not currently viable, the PCA area is potentially commercially viable within a timeframe of 15 years, and this can be demonstrated through execution of this and later LWPs and the proposed PCA evaluation program (which this ATP work program directly supports) to address the key aspects of this large but challenging resource. Some development enablers are:

- Significant in-place resource base;
- Encouraging seismic attribute support for reservoir characterisation across ATP 645 and beyond;
- sch4p4(7)(1)(c) Business/commercial/professional/financial affairs
- Proximity to infrastructure given location near to existing Roma Shelf production facilities; and
- Strong demand side support, including potential smaller local domestic demand for initial development, larger East Coast domestic demand for larger development, and LNG scale demand.

The key challenges that will impact commercialisation are routine to petroleum development and will be addressed as part of the proposed ATP LWP and PCA evaluation program. These include:

- Reservoir characterisation;
- Well deliverability and well cost;
- Development cost and scale;
- Utilisation of existing infrastructure; and
- Commercial aspects, such as co-ordination with neighbouring tenure holders or as part of combined development to give sufficient scale.

Proposed activities during the four-year period, commencing 1 January 2020, of a 12-year term are shown in the table below, consisting of seismic acquisition and drilling as well as other studies, carried out in conjunction with the proposed PCA evaluation program, including:

- Review and update of geological model, reservoir characterisation and in-place gas resource;
- Review of existing and future potential technological options, including drilling, completion, stimulation and production optimisation;
- Review of project economics, market conditions, commercial options, pipeline options; and
- Development of multiple development scenarios matching the resource and deliverability assumptions with various identified market options

These are shown in the table below.

Permit Year	Authorised Activity	Expenditure
1	sch4p4(7)(1)(c) Business/commercial/professional/financial affairs	
2		
3		
4		
TOTAL		

The ATP work program for year 5 and beyond up to a 12-year term will be proposed as Later Work Programs at the appropriate time.

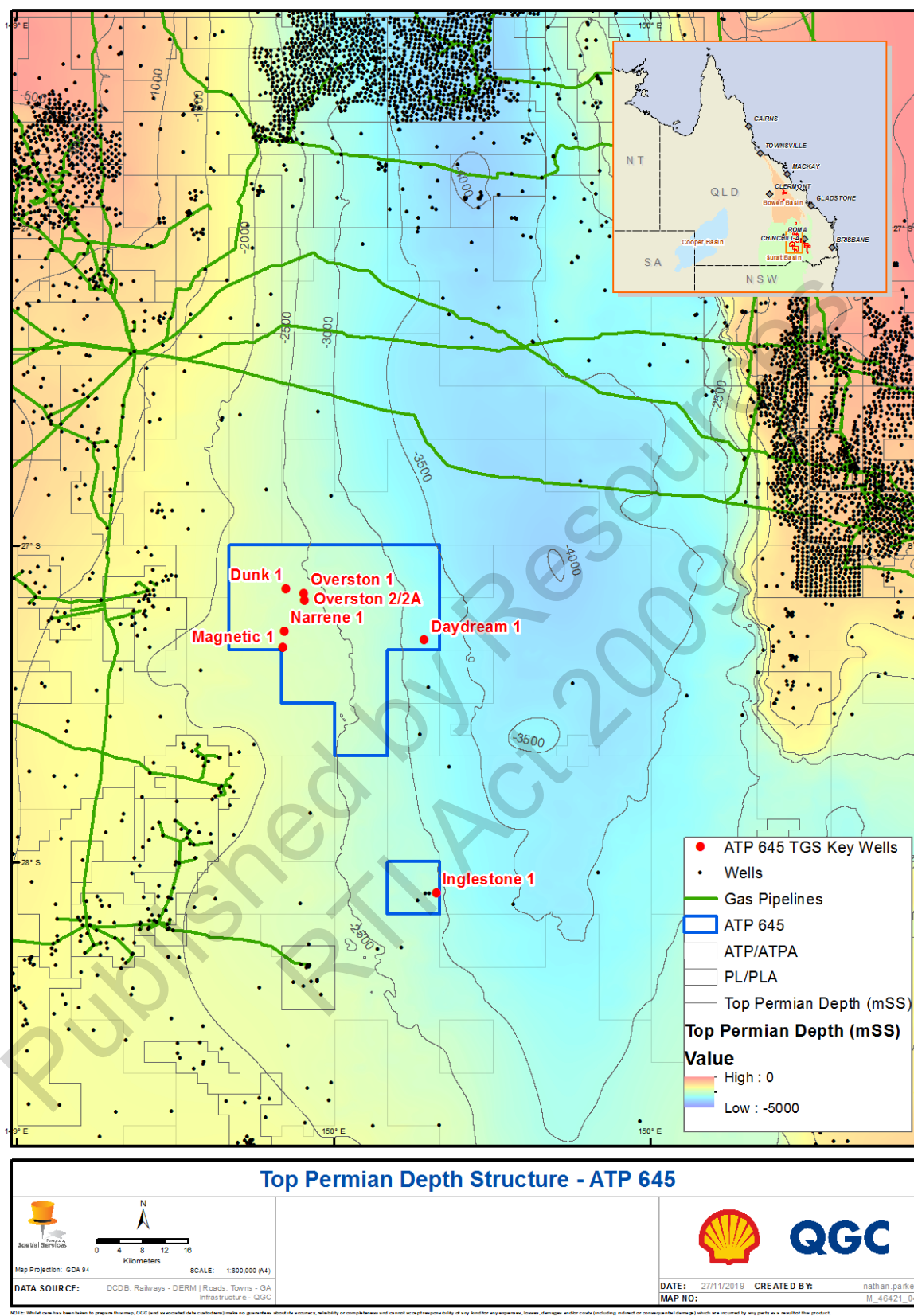


Figure 1: Top Permian depth map

sch4p4(7)(1)(c) Business/commercial/professional/financial affairs

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