Date: 17/09/2021 4:34:55 PM From: "BARTHOLOMEW Lana"

To: "P&G Hub All" Subject: Approval

Attachment: image001.png;

• PCA 305 over ATP 645 (BNG – QGC) Surat/Bowen basin – declared by ED 17 September 2021



Lana Bartholomew
Executive Director

Petroleum and Gas | Georesources

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Department of Resources DEPARTMENT BRIEFING NOTE

SUBJECT: Declaration of a Potential Commercial Area

Number 305 over an area of Authority to

Prospect Number 645

Authorised Holder: BNG (Surat) Pty. Ltd.

TIMING: Routine

Approved / Not approved / Noted

Name: Lana Bartholomew

Position: Executive Director, Petroleum and

As a delegate of the Minister under the Petroleum and Gas (Production and Safety) (Ministerial - DOR) Delegation (No

EXECUTIVE SUMMARY:

BNG (Surat) Pty. Ltd. (BNG) (part of the Shell Group (Shell)) as authorised holder of Authority to Prospect (ATP) Number 645, is seeking the declaration of Potential Commercial Area (PCA) Number 305 over an area of 275 sub-blocks. ATP 645 is a non-contiguous permit located about 60 kilometres southeast of Surat in the Surat and Bowen Basins. It is part of Shell's unconventional tight gas project in Queensland known as Bowen Tight Gas Sands. The principal petroleum target is tight gas from the Tinowan Formation and the secondary target is tight gas from the Lorelle Sandstone.

RECOMMENDATION:

It is recommended that you, as a delegate of the Minister under the Petroleum and Gas (Production and Safety) (Ministerial – DOR) Delegation (No 4) 2020:

- consider the matters set out in Attachment 1 in deciding whether to declare PCA 305 in accordance with your obligations under section 58 of the Human Rights Act 2019 (HR Act); and
- declare PCA 305 over an area of 275 sub-blocks, for a term of 15 years, pursuant to sections 90(1) and 92(1)(a) of the Petroleum and Gas (Production and Safety) Act 2004 (P&G Act) (Attachment 2).

KEY ISSUES:

- In regard to **recommendation a**, in considering whether to declare PCA 305, you are a public entity for the purposes of the HR Act. Under section 58(1) of the HR Act, it is unlawful for a public entity:
 - to act or make a decision in a way that is not compatible with human rights; or
 - in making a decision, to fail to give proper consideration to a human right relevant to the decision.
- To assist you in complying with your obligations under section 58(1) of the HR Act, Attachment 1 considers whether each of the human rights, identified in part 2, divisions 2 and 3 of the HR Act, is relevant to the decision to declare or refuse the application for PCA 305. For any rights identified as relevant, Attachment 1 considers whether the decision would limit the right and, if so, whether the limitation is reasonable and demonstrably justifiable in accordance with section 13 of the HR Act.
- If the Minister's delegate agrees with the assessment undertaken by the Department of Resources (the department), it is open to the delegate of the Minister to be satisfied that a decision to declare PCA 305 will be compatible with human rights. Specifically, those human rights engaged by the decision will be limited only to the extent that is reasonable and demonstrably justifiable in accordance with section 13 of the HR Act.
- In regard to recommendation b, BNG lodged applications for PCAs 305, 306, 307, 308 and 309 on 29 November 2019 over the total area of ATP 645 seeking a term of 15 years for each application.
- On 24 May 2020, particular amendments to the P&G Act contained within the Natural Resources Other Legislative Amendment Act 2019 commenced which removed the size limit (75 sub-blocks) on PCAs.
- On 23 June 2020, BNG lodged an amendment to the application for PCA 305, pursuant to section 844 of the P&G Act, to increase the area applied for from 75 sub-blocks to 275 sub-blocks. The increase of the sub-blocks now encompasses the area applied for in the applications for PCA 306, 307 and 308.
- BNG also sought to update the evaluation program to align with the increase in the area. The Chief Executive's delegate agreed to the amendment on 22 July 2020.
- Subsequently, the applications for PCAs 306, 307 and 308 were withdrawn on 8 September 2020.
- Section 90 of the P&G Act provides that the Minister (or his delegate) may declare an area the subject of the application to be a potential commercial area only if satisfied
 - the area is no more than is needed to cover the maximum extent of a natural underground reservoir identified in the report; and

Author	Recommended:	Endorsed:	
Name: Vijaya Kodali	Name: Kate Byrne	Name: Wendy Chan	
Title: Deputy Registrar	Title: A/Manager	Title: Director	
Group: PAH	Group: PAH	Group: PAH	
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Date:3/9/2021	Date: 10/09/2021	Date: sch4p4(6) F	

- petroleum production or storage in the area to be declared, is not, and will not soon be, commercially viable, but is likely to become viable within 15 years.
- 10. The department is satisfied that the area applied for in PCA 305 is no more than the maximum extent of the identified natural underground reservoirs (**Attachment 3**).
- 11. The department is satisfied that petroleum production in the area applied for in PCA 305 is not, and will not soon be, commercially viable, but is likely to become viable within the next 15 years (**Attachment 3**).
- 12. Section 90 of the P&G Act further provides that the area declared must form a single parcel of land and in deciding the application, regard must be had to whether the conditions of the relevant ATP have been substantially complied with.
- 13. The department is satisfied that PCA 305 forms a single parcel of land and that the holder has substantially complied with the conditions of the relevant ATP 645 (**Attachments 3**).
- 14. The declaration of a PCA is not the creation of a right to mine. The declaration has no impact on Native Title. Therefore, no Native Title process is required for the declaration of PCA 305.
- 15. Subject to the approval of **recommendation b**, a departmental letter will be sent to BNG confirming the declaration of PCA 305 and its committed activities within the proposed 15-year evaluation program. This letter will also advise BNG that if it proposes (or becomes aware of) a change to the committed activities in the evaluation program, consideration should be given to lodging a special amendment pursuant to section 107A of the P&G Act (**Attachment 4**)

BACKGROUND:

- 16. ATP 645 was granted to BNG Pty. Ltd. (100 per cent) under the *Petroleum Act 1923* on 21 December 1999 and commenced on 1 January 2000 over an area of 775 sub-blocks (**Attachment 5**).
- 17. ATP 645 became a converted ATP at its last renewal on 16 July 2010 and is now administered under the P&G Act.
- 18. ATP 645 is located about 60 kilometres southeast of Surat in the Surat and Bowen Basins, the main target is defining the prospectivity of Permian and Triassic tight gas sands reservoirs within the Taroom Trough of the Bowen Basin (**Attachment 6**).
- 19. The Operational Policy Application for declaration of a potential commercial area used by the department for PCA declarations is provided as **Attachment 7**.

ATTACHMENTS:

Attachment 1: Human Rights Assessment

Attachment 2: PCA 305 document Attachment 3: Technical Assessment Attachment 4: Declaration letter to BNG

Attachment 5: Resource Authority Departmental Report for PCA 305 **Attachment 6:** Location, Overlapping and Satellite Maps for PCA 305

Attachment 7: PCA Operational Policy

Human Rights Act 2019 Considerations

Application for Potential Commercial Area (PCA) Number 305

Section 58(1) of the Human Rights Act 2019 (HR Act) provides that it is unlawful for a public entity:

- (a) to act or make a decision in a way that is not compatible with human rights; or
- (b) in making a decision, to fail to give proper consideration to a human right relevant to the decision.

The Minister is a 'public entity' under the HR Act and is therefore subject to section 58(1) of this Act in deciding whether to declare or refuse PCA 305. Any person to whom the Minister has delegated these powers (the Minister's delegate), pursuant to section 857(1)(a) of the *Petroleum and Gas* (*Production and Safety*) *Act 2004* (P&G Act), is also a public entity.

Section 58(5) of the HR Act states that proper consideration to a human right in making a decision includes, but is not limited to, identifying the human rights that may be affected by the decisions and considering whether the decisions would be compatible with human rights.

Section 8 of the HR Act states a decision is compatible with human rights if the decision—

- (a) does not limit a human right; or
- (b) limits a human right only to the extent that is reasonable and demonstrably justifiable in accordance with section 13 of the HR Act.

Section 13 of the HR Act provides that a human right may be subject to 'reasonable limits that can be demonstrably justified'. Section 13(2) of the HR Act lists a number of factors that may be relevant to considering whether a limit on a human right is reasonable and demonstrably justifiable.

To assist the Minister's delegate in giving consideration to human rights relevant to the decision whether to declare or refuse PCA 305, the department has carried out a preliminary assessment of each human right identified in part 2, divisions 2 and 3 of the HR Act that may be engaged by a decision of the Minister's delegate and discusses whether a decision by the Minister's delegate to declare or refuse PCA 305. It also discusses whether these decisions would be decisions that are compatible with human rights.

Unless otherwise stated, a reference to a 'landholder' in this document, is a reference to both an owner and occupier of land, as defined in the P&G Act. A reference to 'authorised activities' means those activities authorised to be carried out in the area of an ATP, as detailed in chapter 2, part 1, division 1 of the P&G Act. A reference to 'operating plant' in this document has the meaning given it under section 670 of the P&G Act.

A PCA is a declaration over an existing Authority to Prospect (ATP) that allows a holder to retain an interest in a petroleum discovery made under an ATP where it is not currently commercial to develop it. It is not a tenure in its own right. To this end the following assessment of human rights focuses on those authorised activities for ATP 645 (the pre-requisite and underlying ATP for this PCA) and their potential to limit those rights listed under part 2, divisions 2 and 3 of the HR Act.

s15 Recognition and equality before the law	
Criteria:	(1) Every person has the right to recognition as a person before the law.
Consideration:	The P&G Act recognises a person within the Act. The recognition does not discriminate and gives every person equal rights. The department is therefore of the view that a decision by the Minister's delegate to declare or refuse PCA 305, made under the P&G Act would not engage this human right.
Criteria:	(2) Every person has the right to enjoy the person's human rights without discrimination.
Consideration:	The department considers that this human right would not be engaged by a decision by the Minister's delegate to declare or refuse PCA 305, as this decision does not discriminate against a person's human rights.
Criteria:	(3) Every person is equal before the law and is entitled to the equal protection of the law without discrimination.
Consideration:	Laws protect people by ensuring that our general safety, and rights as citizens are protected against abuses by other people, by organizations, and by the government. We have laws to help provide for our general safety and to ensure that decisions are made with the correct considerations. The P&G Act considers people to be equal and does not define or discriminate in its definition of a person or application of the Act.
Criteria:	(4) Every person has the right to equal and effective protection against discrimination.
Consideration:	This human right has been considered and a decision by the Minister's delegate to declare or refuse PCA 305, does not limit this right.
Criteria:	(5) Measures taken for the purpose of assisting or advancing persons or groups of persons disadvantaged because of discrimination do not constitute discrimination.
Consideration:	The relevant provisions of the P&G Act engaged by a decision by the Minister's delegate to declare or refuse PCA 305, does not involve measures of the kind described in section 15(5) of the HR Act.

s16 Right to life	
Criteria:	Every person has the right to life and has the right not to be arbitrarily deprived of life.
Consideration:	 The right to life, as identified in section 16 of the HR Act, may be relevant to a decision to declare or refuse PCA 305. This government accepts that human-induced greenhouse gas emissions are the major cause of accelerated global climate change and that climate change poses significant risks to the environment and, ultimately, to human life and health. It also endorses the international scientific and political consensus that global warming can and should be contained to less than 2° Celsius. The decision to declare or refuse PCA 305 gives authorisation to petroleum appraisal and evaluation activities only. These activities typically include desktop studies, seismic surveying, the drilling of wells and production testing where gas may be vented or flared. These activities may result in a minor increase in greenhouse gas emissions, for example, through the venting or flaring of gas where it is necessary to do so. However, it is the department's view that on balance, any limitation on the rights identified in section 16, is reasonable and demonstrably justifiable in accordance with section 13 of the HR Act, for the following reasons: — The decision to declare PCA 305, is justified given the direct and indirect economic and social benefits of petroleum exploration; Petroleum exploration is necessary to ensure future demand for gaseous hydrocarbons (gas) can be met. These supplies of gas are necessary to ensure stable and affordable energy supplies are available in the future to support Australia's transition to a carbon neutral economy. The department does not consider that at present there is any less restrictive and reasonable way to achieve this purpose. Reliable and affordable energy and a diversified and strong industrial sector are cornerstones of a healthy and vibrant economy and help to revitalise rural and regional communities, create jobs and increase standards of living. More immediately, the declaration of PCA 305 will contribute to the creation

s17 Protection from torture and cruel, inhuman or degrading treatment	
Criteria:	A person must not be—
	(a) subjected to torture; or
	(b) treated or punished in a cruel, inhuman or degrading way; or
	(c) subjected to medical or scientific experimentation or treatment without the person's full, free and informed consent.
Consideration:	The department has considered the right not to be subject to torture, cruel, inhuman or degrading treatment or punishment and
	not to be subjected to medical or scientific experimentation without free and informed consent. The department is of the view that
	these rights are not engaged by a decision by the Minister's delegate to declare or refuse PCA 305.

s18 Freedom from forced work	
Criteria:	(1) A person must not be held in slavery or servitude.
Consideration:	The department has considered the human right identified in section 18(1) of the HR Act and is of the view that the right is not engaged by a decision by the Minister's delegate to declare or refuse PCA 305.
Criteria:	(2) A person must not be made to perform forced or compulsory labour.
Consideration:	The department has considered the human right identified in section 18(2) of the HR Act and is of the view that the right is not engaged by a decision by the Minister's delegate to declare or refuse PCA 305.

s19 Freedom of movement		
Criteria:	Every person lawfully within Queensland has the right to move freely within Queensland and to enter and leave it and has the freedom to choose where to live.	
Consideration:	 The decision of the Minister's delegate to declare or refuse PCA 305, may limit the human right to move freely within Queensland. Public Safety is clearly of great importance. The declaration of PCA 305 may limit the human right of freedom of movement on select areas within the ATP, to ensure the ATP holder upholds its statutory health and safety requirements. This is done by ensuring the public at large, or the landholder, are not able to wander among operating plant that may cause injury. It is the department's view that any limitation is reasonable and demonstrably justifiable in accordance with section 13 of the HR Act, for the following reasons: The P&G Act allows for authorised activities for an ATP to be carried out on a landholder's land, despite the rights of the landholder'. However, this broad right is not all encompassing as a person who carries out such an activity must do so in a way that does not unreasonably interfere with anyone else carrying out a lawful activity on the land.² The interaction of these provisions demonstrates the P&G Act's balanced approach to the limitation of rights. This ensures that if a landholder, or any other person, is lawfully carrying out an activity on the same land, that they cannot be unreasonably interfered with by the ATP holder. This demonstrates that the P&G Act limits the right to freedom of movement only to the extent necessary to ensure authorised activities are carried on in a way that minimises conflict with other land uses. An ATP holder must, before carrying out authorised activities with other land uses. An ATP holder must, before carrying out authorised activities for the ATP) have an agreement, usually a 'conduct and compensation agreement' (CCA)³ in place with the landholder, for 'compensatable effects' and the landholder's land. 'Compensatable effects' include deprivation of possession of the land's surface suffered by the landholder and diminution of the use made, or that may be made, of the	

Section 108(2) P&G Act.
 Section 804 P&G Act.
 See section 43 Mineral and Energy Resources (Common Provisions) Act 2014.
 See section 81 Mineral and Energy Resources (Common Provisions) Act 2014.

 Further, it is necessary to ensure the holder of an ATP is able to manage its health and safety requirements effectively. This would be difficult if anyone could enter and move across land, subject to advanced activities.
• These limits, when the holder of the ATP is carrying out advanced activities, are required to ensure that an ATP holder meets its statutory safety obligations by excluding individuals, not associated with construction and sites of operating plant, from areas where authorised activities occur on the ATP.
• As stated above, the primary reasons why there may be a limitation of the human right under section 19 of the HR Act, to restrict access and movement across land within an ATP, is to protect the health and safety of people and to protect the economic position of the ATP holder. No other feasible alternative, that encourages a viable petroleum and fuel gas industry, balances and minimises land use conflicts, and ensures public safety, has been identified.
• On balance, for the reasons above, it is the department's view that the limitation of the human right under section 19 of the HR Act imposed by the declaration or refusal of PCA 305, is reasonable and justifiable in a free and democratic society based
on human dignity, equality and freedom.

s20 Freedom of thought, conscience, religion and belief	
Criteria:	 (1) Every person has the right to freedom of thought, conscience, religion and belief, including - (a) the freedom to have or to adopt a religion or belief of the person's choice; and (b) the freedom to demonstrate the person's religion or belief in worship, observance, practice and teaching, either individually or as part of a community, in public or in private.
Consideration:	The department has considered the right to freedom of thought, conscience, religion and belief and does not consider it is engaged by a decision by the Minister's delegate to declare or refuse PCA 305.
Criteria:	(2) A person must not be coerced or restrained in a way that limits the person's freedom to have or adopt a religion or belief.
Consideration:	The department has considered the right to freedom of thought, conscience, religion and belief and is of the view that the right to be free from coercion or restraint that limits a person's freedom to have, or adopt, a religion or belief is not engaged by a decision by the Minister's delegate to declare or refuse PCA 305.

s21 Freedom of expression	
Criteria:	(1) Every person has the right to hold an opinion without interference.
Consideration:	The department has considered the right for a person to hold an opinion without interference and does not consider it is engaged by a decision Minister's delegate to declare or refuse PCA 305.
Criteria:	 (2) Every person has the right to freedom of expression which includes the freedom to seek, receive and impart information and ideas of all kinds, whether within or outside Queensland and whether — (a) orally; or (b) in writing; or (c) in print; or (d) by way of art; or (e) in another medium chosen by the person.
Consideration:	All people are able to write, email, phone or visit any of the departmental offices to express their opinion on petroleum projects. The department's website also includes the ability for people to lodge comments. This human right is not impacted.

s22 Peaceful assembly and freedom of association	
Criteria:	(1) Every person has the right of a peaceful assembly.
Consideration:	The existence of an ATP limits the ability of any owner of land, covered by the area of the ATP, to control entry to the land. Therefore, a decision by the Minister's delegate to declare PCA 305, may be considered a limit on this human right. However, the department is of the view that the limitation is reasonable and demonstrably justifiable under section 13 of the HR Act for the same reasons the limiting effect of the decision on the right, identified under section 19 of the HR Act, is considered reasonable and justifiable. As discussed above, limiting access to the area of an ATP is important for health and safety reasons. The fact that persons are not able to assemble within the area of an ATP itself does not preclude them from
Criteria:	assembling in other places where they may lawfully do so. (2) Every person has the right to freedom of association with others, including the right to form and join trade unions.
Consideration:	The department has considered the human right under section 22 of the HR Act, for a person to enjoy freedom of association with others and does not consider this right is engaged by a decision of the Minister's delegate to declare or refuse PCA 305, because any such decision does not have any effect on the ability of individuals to associate freely and join trade unions.

s23 Taking part in public life	
Criteria:	(1) Every person in Queensland has the right, and is to have the opportunity, without discrimination to participate in the conduct of public affairs, directly or through freely chosen representatives.
Consideration:	The department has considered the human right identified in section 23(1) of the HR Act and is of the view that the right is not engaged by a decision by the Minister's delegate to declare or refuse PCA 305.
Criteria:	 (2) Every eligible person has the right, and is to have the opportunity, without discrimination — (a) to vote and be elected at periodic State and local government elections that guarantee the free expression of the will of electors; and (b) to have access, on general terms of equality, to the public service and to public office.
Consideration:	The department has considered the human right identified in section 23(2) of the HR Act and is of the view that the right is not engaged by a decision by the Minister's delegate to declare or refuse PCA 305.

s24 Property rights	
Criteria:	(1) All persons have the right to own property alone or in association with others.
Consideration:	The department has considered the human right identified in section 24(1) of the HR Act and is of the view that the right is not engaged by a decision by the Minister's delegate to declare or refuse PCA 305 because it will not affect the ownership of property.
Criteria:	(2) A person must not be arbitrarily deprived of the person's property.
Consideration:	 The nature of the human right in section 24(2) of the HR Act is to ensure that people are not arbitrarily deprived of their property. The Explanatory Notes for the HR Act state that the right "essentially protects a person from having their property unlawfully removed". This could apply to a landowner or lessee of a property (collectively, a landholder). The declaration or refusal of PCA 305, may deprive a landholder of sections of their real property for a period of time. This is because the landholder's consent is not required for the holder of the underlying and pre-requisite ATP to access its land, which can occur either by agreement between the parties or after the ATP holder files an application in the Land Court. It is therefore likely that the decision to declare or refuse PCA 305, will limit the human right in section 24(2) of the HR Act. However, the department considers the limitation is reasonable and demonstrably justifiable in accordance with section 13 of the HR Act. The limitation has two purposes:
21-298	— Firstly, it allows the State to realise its property in the petroleum that sits below a landholder's land. The subsequent rent, and royalties paid by the ATP holder (for any future petroleum production from a PL granted from the area of this ATP) to the State provide revenue that funds general expenditure for Queensland residents. The limitation helps achieve this purpose by allowing the State to control when and to whom rights to explore for or appraise petroleum are given. Requiring landholder consent before the declaration or refusal of PCA 305, would effectively give veto

power to a landholder over the development of the State's petroleum resources. This is not considered reasonable in a democratic society where the petroleum resources are not owned by the individual but by the State. The limitation is important in maintaining and growing the royalty stream from petroleum that funds services for Queenslanders and gives the State a return on its resources. The limitation is necessary because without exclusive rights to explore for, appraise (and ultimately) exploit petroleum resources in a particular area, resources operators would be unwilling to invest the large sums required to explore for and appraise petroleum reservoirs and ultimately establish and operate petroleum production fields and supporting infrastructure.

- Secondly, the limitation helps achieve the purpose of protecting public health and safety and provides for the proper management of environmental risks. The limitation helps achieve this purpose by ensuring that only appropriately trained and qualified persons are able to enter and remain on a part of the ATP where authorised activities are actively occurring.
- The limitation itself is restricted by the legislative framework around how ATP holders can get access to a landholder's land to conduct authorised activities. In practice, it is the authorised activities under an ATP that limit the landholder's property rights, not the grant itself. That is, the ATP holder is not entitled to go on the land by virtue of the grant of the ATP or declaration of PCA 305, alone.
- There are two levels of activities an ATP holder can undertake on land. Preliminary activities are those that have no impact, or only a minor impact, on the landholder's business or land use on which the activity is to be carried out. The ATP holder still needs to give the landholder 10 business days' notice before entry on to the landholder's land, to carry out preliminary activities. The ATP holder is liable for any damage caused in undertaking these activities.
- The second level of activities are advanced activities it is these authorised activities that are more likely to limit a landholder's property rights. Before carrying out advanced activities (such as the use of operating plant associated with authorised activities for the ATP) the ATP holder needs to have an agreement, usually a CCA,⁵ in place with the landholder, for 'compensatable effects'⁶ on the land. A CCA can cover how and when an ATP holder may enter the landholder's land, how authorised activities must be carried out and the ATP holder's compensation liability for any compensatable effect.
- If the parties cannot reach agreement, there is a legislated negotiation process whereby the ATP holder can gain access to the landholder's land after 50 business days. Of these 50 business days, 20 business days are for negotiation and an additional 20 business days are for a dispute resolution process to be carried out. If, at the conclusion of this process, the parties still have not agreed, then the ATP holder can apply to the Land Court for the Court to decide the terms of any agreement. After filing in the Land Court, the ATP holder can give the landholder 10 business days' notice before entering the land. Alternatively the parties may agree to go to arbitration instead of the Land Court.
- This legislated negotiation framework goes a long way to restricting the limitation of the declaration or refusal of PCA 305, on the human right in section 24(2) of the HR Act. This is because the landholder is afforded a due process and full compensation for any impacts authorised activities will have on its land. Additionally, environmental authority conditions that

⁵ See section 43 Mineral and Energy Resources (Common Provisions) Act 2014.

⁶ Seegeotion 81 Mineral and Energy Resources (Common Provisions) Act 2014.

apply to the ATP holder for its activities protect the landholder's enjoyment of their property from nuisance impacts as a result
of authorised activities, e.g. noise and dust limits.
Finally, the declaration or refusal of PCA 305, does not create an interest in land.
On balance, for the reasons above, it is the department's view that the limitation of the human right at section 24(2) of the

HR Act, imposed by the declaration or refusal of PCA 305, is reasonable and justifiable in a free and democratic society

s25 Privacy and reputation	
Criteria:	A person has the right— (a) not to have the person's privacy, family, home or correspondence unlawfully or arbitrarily interfered with; and
Consideration:	It is the department's view that the human right in section 25(a) of the HR Act is not engaged or limited by any decision to declare or refuse PCA 305. This is because the ATP holder is not permitted to enter land within 200 metres laterally of a permanent building used as a residence and 50 metres laterally of a cemetery or burial place, without the landholder's consent. Further, the family home itself cannot be accessed. ⁷
Criteria:	(b) not to have the person's reputation unlawfully attacked.
Consideration:	It is the department's view that the human right in section 25(b) of the HR Act is not engaged or limited by any decision to declare or refuse PCA 305, because there is no relationship between these decisions and any attack on a person's reputation.

s26 Protection of families and children	
Criteria:	(1) Families are the fundamental group unit of society and are entitled to be protected by society and the State.
Consideration:	It is the department's view that the human right in section 26(1) of the HR Act is not engaged by any decision to declare or refuse PCA 305.
Criteria:	(2) Every child has the right, without discrimination, to the protection that is needed by the child, and is in the child's best interests, because of being a child
Consideration:	• It is the department's view that the human right in section 26(2) of the HR Act is not engaged by any decision to declare or refuse PCA 305.
Consideration.	To the extent that the best interests of the child concerns the child's other human rights (such as the right to life), those human rights have been considered elsewhere.
Criteria:	(3) Every person born in Queensland has the right to a name and to be registered, as having been born, under a law of the State as soon as practicable after being born.
Consideration:	It is the department's view that the human right in section 26(3) of the HR Act is not engaged by any decision to declare or
	refuse PCA 305.

⁷ Seezeegtion 68(1)(a)(i)(A) Mineral and Energy Resources (Common Provisions) Act 2014File I

based on human dignity, equality and freedom.

s27 Protection from torture and cruel, inhuman or degrading treatment	
Criteria:	All persons with a particular cultural, religious, racial or linguistic background must not be denied the right, in community with other persons of that background, to enjoy their culture, to declare and practise their religion and to use their language.
Consideration:	It is the department's view that the human right in section 27 of the HR Act is not engaged by any decision to declare or refuse PCA 305.

s28 Cultural righ	hts Aboriginal peoples and Torres Strait Islander peoples
Criteria:	 (1) Aboriginal peoples and Torres Strait Islander peoples hold distinct cultural rights. (2) Aboriginal peoples and Torres Strait Islander peoples must not be denied the right, with other members of their community— (a) to enjoy, maintain, control, protect and develop their identity and cultural heritage, including their traditional knowledge, distinctive spiritual practices, observances, beliefs and teachings; and (b) to enjoy, maintain, control, protect, develop and use their language, including traditional cultural expressions; and (c) to enjoy, maintain, control, protect and develop their, kinship ties; and (d) to maintain and strengthen their distinctive spiritual, material and economic relationship with the land, territories, waters, coastal seas and other resources with which they have a connection under Aboriginal tradition or Island custom; and (e) to conserve and protect the environment and productive capacity of their land, territories, waters, coastal seas and other resources.
Consideration:	 It is the department's view that the human right in section 28(2)(a) of the HR Act is not engaged or limited by any decision to declare PCA 305. This is because the declaration allowing authorised activities will not interfere with Aboriginal peoples' and Torres Strait Islander peoples' rights to enjoy, control, protect and develop cultural heritage or traditional knowledge and beliefs etc. To the extent cultural heritage under the <i>Aboriginal Cultural Heritage Act 2003</i> or <i>Torres Strait Islander Cultural Heritage Act 2003</i> (CH Acts) is relevant to this right, the CH Acts safeguard the cultural heritage of Aboriginal people and Torres Strait Islander people by imposing a duty of care on a person who carries out an activity. The duty of care requires that all reasonable and practicable measures must be taken to ensure the activity does not harm 'cultural heritage'. Authorised activities will be subject to these requirements. It is the department's view that the human right in section 28(2)(b) of the HR Act is not engaged or limited by any decision to declare PCA 305, because the declaration or refusal allowing authorised activities will not interfere with Aboriginal peoples' or Torres Strait Islander peoples' right to speak, develop or use their language or traditional cultural expressions. It is the department's view that the human right in section 28(2)(c) of the HR Act is not engaged or limited by any decision to declare PCA 305 This is because the declaration that allows authorised activities will not interfere with Aboriginal peoples' or Torres Strait Islander peoples' rights to enjoy and maintain their kinship ties. It is the department's view that the human right in section 28(2)(d) of the HR Act is engaged by any decision to declare PCA 305. But this is only to the extent the grant may relate to land where Aboriginal peoples or Torres Strait Islander peoples wish

- to maintain and strengthen their spiritual, material and economic relationship with this land and other resources they have a connection with under Aboriginal peoples' or Torres Strait Islander peoples' tradition.
- Limitation of this human right is minimised, as the applicant for the declaration of this PCA is the holder of this ATP, and the holder of ATP 645 has entered into an Indigenous Land Use Agreement (ILUA) with the Mandandanji People (QI12010/034).
- The ILUAs must address matters relating to the access of land and waters by the determined Native Title party and may
 include an ancillary agreement which would typically address other matters including compensation, cultural heritage
 management and employment opportunities.
- It is recognised that the human right in section 28(2)(d) of the HR Act may apply to Aboriginal peoples or Torres Strait Islander peoples other than Native Title holders. Other than the Native Title claimants or holders, the department is not aware of any other Aboriginal peoples or Torres Strait Islander peoples who may hold a connection with the land.
- 'Cultural heritage' is defined as anything that is, to Aboriginal peoples or Torres Strait Islander peoples, a significant area, a significant object or evidence of occupation of an area of Queensland. The duty of care required by the CH Acts ensures the areas and things of distinctive spiritual, material and economic importance to Aboriginal peoples or Torres Strait Islander peoples are protected. Limitation of the human right in section 28(2)(d) of the HR Act, particularly regarding the spiritual relationship with the land, is minimised given the duty of care requirements under the CH Acts.
- The department does not consider there is any less restrictive and reasonably available way to achieve the purpose of giving rights to an ATP holder to explore for, appraise and ultimately develop the State's petroleum resources. At this stage, the State relies on the Native Title and cultural heritage processes to balance the rights of Aboriginal peoples or Torres Strait Islander peoples who have a connection to land with the policy of developing the State's resources for the benefit of all Queenslanders.
- It is the department's view that the human right in section 28(2)(e) of the HR Act is engaged by a decision to declare PCA 305. But this is only to the extent the declaration may relate to areas where Aboriginal peoples or Torres Strait Islander peoples have a role in conserving and protecting the environment and the productive capacity of the land.
- If PCA 305 is declared, the human right in section 28(2)(e) of the HR Act may be limited. This is because the ATP holder will be able to carry out authorised activities in the area, which could conflict with the rights of Aboriginal peoples or Torres Strait Islander peoples under section 28(2)(e) of the HR Act.
- This limitation is, however, necessary because the PCA holder needs to be able to make decisions on how to undertake authorised activities in order that these lead to the development of the State's petroleum resources safely and efficiently. As the owner of the petroleum resources, the State declares a PCA within the area of this ATP, to allow the petroleum to be explored for or appraised and eventually produced and sold for the benefit of all Queenslanders. Any limitation to the rights under section 28(2)(e) of the HR Act will not be permanent but only apply for the length of any PCA declaration periods and, if PLs are granted from these areas, the term of the PL (to a maximum initial term of 30 years, with the possibility of renewal).
- The limitation on the human right under section 28(2)(e) of the HR Act, particularly the protection of the environment, is minimised by the requirement that an ATP cannot be renewed (and authorised activities cannot be carried out on the area of the ATP) unless a relevant environmental authority has been issued for it under the *Environmental Protection Act 1994*. The environmental authority EPPG00839513 has been issued for this ATP 645 and remains current. This ensures that the holder of an ATP is held to strict environmental standards and that the environment is protected or remediated to a high standard.

	 The declaration of PCA 305 will facilitate the carrying out of authorised activities in Queensland in line with the objectives of the P&G Act. The limitations have been minimised as far as is reasonably possible by integrating the requirement to negotiate Native Title and to be issued an environment authority, before land within the area of ATP 645 may be accessed and authorised activities carried out in this area. For the rest of the land within the area of this ATP, that is over land types where Native Title is taken to be extinguished, the department considers the human rights under sections 28(2)(d) and (e) of the HR Act have not been engaged or limited as the department has no information that there are any Aboriginal peoples or Torres Strait Islander peoples that are associated with, or have a relationship with, this land. While the human rights under sections 28(2)(d) and (e) of the HR Act extend to Aboriginal peoples or Torres Strait Islander peoples, other than Native Title claimants or holders, the department has no information that there are any Aboriginal peoples or Torres Strait Islander peoples with a relationship within these lands. Even if there were such Aboriginal peoples or Torres Strait Islander peoples, given the land is of a type where Native Title is taken to be extinguished, unless they are the landowners they would not be entitled to enter it to enjoy the human rights under sections 28(2)(d) and (e) of the HR Act without the landowner's permission. The department considers the declaration of PCA 305, over lands where Native Title is taken to be extinguished, does not limit or deny the human rights under sections 28(2)(d) and (e) of the HR Act to any greater extent than the grants that established the extinction of Native Title, have already done. Therefore on balance, for the reasons detailed above, it is the department's view that the limitation of the human rights under sections 28(2)(d) and (e) of the HR Act, imposed by the declaration of PCA 305 i
	democratic society based on human dignity, equality and freedom.
Criteria:	(3) Aboriginal peoples and Torres Strait Islander peoples have the right not to be subjected to forced assimilation or destruction of their culture.
Consideration:	It is the department's view that the human right in section 28(3) of the HR Act is not engaged by any decision to declare or refuse PCA 305.

s29 Right to liberty and security of person	
Criteria:	(1) Every person has the right to liberty and security.
Consideration:	It is the department's view that the human right in section 29(1) of the HR Act is not engaged by any decision to declare or refuse PCA 305.
Criteria:	(2) A person must not be subjected to arbitrary arrest or detention.
Consideration:	It is the department's view that the human right in section 29(2) of the HR Act is not engaged by any decision to declare or refuse PCA 305.
Criteria:	(3) A person must not be deprived of the person's liberty except on grounds, and in accordance with procedures, established by law.
Consideration:	It is the department's view that the human right in section 29(3) of the HR Act is not engaged by any decision to declare or refuse PCA 305.

Criteria:	(4) A person who is arrested or detained must be informed at the time of the arrest or detention of the reason for the arrest or detention and must be promptly informed about any proceedings to be brought against the person.
Consideration:	It is the department's view that the human right in section 29(4) of the HR Act is not engaged by any decision to declare or refuse PCA 305.
Criteria:	 (5) A person who is arrested or detained on a criminal charge — (a) must be promptly brought before a court; and (b) has the right to be brought to trial without unreasonable delay; and (c) must be released if paragraph (a) or (b) is not complied with.
Consideration:	It is the department's view that the human right in section 29(5) of the HR Act is not engaged by any decision to declare or refuse PCA 305.
Criteria:	 (6) A person awaiting trial must not be automatically detained in custody, but the person's release may be subject to guarantees to appear — (a) for trial; and (b) at any other stage of the judicial proceeding; and (c) if appropriate, for execution of judgement.
Consideration:	It is the department's view that the human right in section 29(6) of the HR Act is not engaged by any decision to declare or refuse PCA 305.
Criteria:	 (7) A person deprived of liberty by arrest or detention is entitled to apply to a court for declaration or order regarding the lawfulness of the person's detention, and the court must — (a) make a decision without delay; and (b) order the release of the person if it finds the detention is unlawful.
Consideration:	It is the department's view that the human right in section 29(7) of the HR Act is not engaged by any decision to declare or refuse PCA 305.
Criteria:	(8) A person must not be imprisoned only because of the person's inability to perform a contractual obligation.
Consideration:	It is the department's view that the human right in section 29(8) of the HR Act is not engaged by any decision to declare or refuse PCA 305.

s30 Humane trea	s30 Humane treatment when deprived of liberty	
Criteria:	(1) All persons deprived of liberty must be treated with humanity and with respect for the inherent dignity of the human person.	
Consideration:	It is the department's view that the human right in section 30(1) of the HR Act is not engaged by any decision to declare or refuse PCA 305.	

Criteria:	(2) An accused person who is detained or a person detained without charge must be treated in a way that is appropriate for a person who has not been convicted
Consideration:	It is the department's view that the human right in section 30(2) of the HR Act is not engaged by any decision to declare or refuse PCA 305.

s31 Fair hearing	
Criteria:	(1) A person charged with a criminal offence or a party to a civil proceeding has the right to have the charge or proceeding decided by a competent, independent and impartial court or tribunal after a fair and public hearing.
Consideration:	It is the department's view that the human right in section 31(1) of the HR Act is not engaged by any decision to declare or refuse PCA 305.
Criteria:	(2) However, a court or tribunal may exclude members of media organisations, other persons or the general public from all or part of a hearing in the public interest or the interests of justice.
Consideration:	It is the department's view that the human right in section 31(2) of the HR Act is not engaged by any decision to declare or refuse PCA 305.
Criteria:	(3) All judgments or decisions made by a court or tribunal in a proceeding must be publicly available.
Consideration:	It is the department's view that the human right in section 31(3) of the HR Act is not engaged by any decision to declare or refuse PCA 305.

s32 Rights in cr	iminal proceedings
Criteria:	(1) A person charged with a criminal offence has the right to be presumed innocent until proved guilty according to law.
Consideration:	It is the department's view that the human right in section 32(1) of the HR Act is not engaged by any decision to declare or refuse PCA 305.
Criteria:	 (2) A person charged with a criminal offence is entitled without discrimination to the following minimum guarantees— (a) to be informed promptly and in detail of the nature and reason for the charge in a language or, if necessary, a type of communication the person speaks or understands; (b) to have adequate time and facilities to prepare the person's defence and to communicate with a lawyer or advisor chosen by the person; (c) to be tried without unreasonable delay; (d) to be tried in person, and to defend themselves personally or through legal assistance chosen by the person or, if eligible, through legal aid; (e) to be told, if the person does not have legal assistance, about the right, if eligible, to legal aid; (f) to have legal aid provided if the interests of justice require it, without any costs payable by the person if the person is eligible for free legal aid under the Legal Aid Queensland Act 1997;

	(g) to examine, or have examined, witnesses against the person;			
	 (h) to obtain the attendance and examination of witnesses on the person's behalf under the same conditions as witnesses for the prosecution; (i) to have the free assistance of an interpreter if the person cannot understand or speak English; (j) to have the free assistance of specialised communication tools and technology, and assistants, if the person has 			
	communication or speech difficulties that require the assistance;			
	not to be compelled to testify against themselves or to confess guilt			
Consideration:	It is the department's view that the human right in section 32(2) of the HR Act is not engaged by any decision to declare or refuse PCA 305.			
Criteria:	(3) A child charged with a criminal offence has the right to a procedure that takes account of the child's age and the desirability of promoting the child's rehabilitation.			
Consideration:	It is the department's view that the human right in section 32(3) of the HR Act is not engaged by any decision to declare or refuse PCA 305.			
Criteria:	(4) A person convicted of a criminal offence has the right to have the conviction and any sentence imposed in relation to it reviewed by a higher court in accordance with law			
Consideration:	It is the department's view that the human right in section 32(4) of the HR Act is not engaged by any decision to declare or refuse PCA 305.			

s33 Children in the criminal process				
Criteria:	(1) An accused child who is detained, or a child detained without charge, must be segregated from all detained adults.			
Consideration:	It is the department's view that the human right in section 33(1) of the HR Act is not engaged by any decision to declare or refuse PCA 305.			
Criteria:	(2) An accused child must be brought to trial as quickly as possible.			
Consideration:	It is the department's view that the human right in section 33(2) of the HR Act is not engaged by any decision to declare or refuse PCA 305.			
Criteria:	(3) A child who has been convicted of an offence must be treated in a way that is appropriate for the child's age.			
Consideration:	It is the department's view that the human right in section 33(3) of the HR Act is not engaged by any decision to declare or refuse PCA 305.			

s34 Right not to be tried or punished more than once

Criteria:	(1) A person must not be tried or punished more than once for an offence in relation to which the person has already be finally convicted or acquitted in accordance with the law	
Consideration:	It is the department's view that the human right in section 34(1) of the HR Act is not engaged by any decision to declare or refuse PCA 305.	

s35 Retrospective criminal laws					
Criteria:	(1) A person must not be found guilty of a criminal offence because of conduct that was not a criminal offence when it was engaged in.				
Consideration:	It is the department's view that the human right in section 35(1) of the HR Act is not engaged by any decision to declare or refuse PCA 305.				
Criteria:	(2) A penalty must not be imposed on any person for a criminal offence that is greater than the penalty that applied to the offence when it was committed.				
Consideration:	It is the department's view that the human right in section 35(2) of the HR Act is not engaged by any decision to declare or refuse PCA 305.				
Criteria:	(3) If a penalty for an offence is reduced after a person committed the offence but before the person is sentenced for the offence, the person is eligible for the reduced penalty.				
Consideration:	It is the department's view that the human right in section 35(3) of the HR Act is not engaged by any decision to declare or refuse PCA 305.				
Criteria:	(4) Nothing in this section affects the trial or punishment of any person for any act or omission that was a criminal offence under international law at the time it was done or omitted to be done.				
Consideration:	It is the department's view that the human right in section 35(4) of the HR Act is not engaged by any decision to declare or refuse PCA 305.				

s36 Right to education				
Criteria:	(1) Every child has the right to have access to primary and secondary education appropriate to the child's needs.			
Consideration:	on: It is the department's view that the human right in section 36(1) of the HR Act is not engaged by any decision to declare or refuse PCA 305.			
Criteria: (2) Every person has the right to have access, based on the person's abilities, to further vocational education and training the is equally accessible to all.				
Consideration: It is the department's view that the human right in section 36(2) of the HR Act is not engaged by any decision to decision				

s37 Right to health services

Criteria:	(1) Every child has the right to have access to primary and secondary education appropriate to the child's needs.			
Consideration:	on: It is the department's view that the human right in section 37(1) of the HR Act is not engaged by any decision to declare or refuse PCA 305.			
Criteria:	(2) A person must not be refused emergency medical treatment that is immediately necessary to save the person's life or to prevent serious impairment to the person.			
Consideration:	It is the department's view that the human right in section 37(2) of the HR Act is not engaged by any decision to declare or refuse PCA 305.			

Conclusion

For the reasons set out above, the department is of the view that, if the Minister's delegate agrees that the human rights identified in the tables above are limited only to the extent that is reasonable and demonstrably justifiable in accordance with section 13 of the HR Act, it is open to the Minister's delegate to be satisfied that a decision to declare or refuse PCA 305, is compatible with human rights.

Name: Vijaya Kodali

Position: A/Petroleum Registrar Petroleum Assessment Hub Date: 3 September 2021

PETROLEUM AND GAS (PRODUCTION AND SAFETY) ACT 2004

AUTHORITY TO PROSPECT (ATP) NUMBER 645

POTENTIAL COMMERCIAL AREA NUMBER 305

I, THE DELEGATE OF THE HONOURABLE SCOTT STEWART MP, MINISTER FOR RESOURCES for the State of Queensland, pursuant to section 90(1) of the Petroleum and Gas (Production and Safety) Act 2004 ("the Act"), declare the following part of ATP 645 to be a Potential Commercial Area.

1. AREA DESCRIPTION:

That part of the State of Queensland within the boundaries of the blocks and subblocks as defined and as shown on the Queensland Block Identification Map (BIM) - Series B and set out below, other than that land detailed under Excluded/Unavailable Land for ATP 645.

BIM	Block(s)	Sub-Block(s)
CHAR	2657	ALL
CHAR	2658	ALL
CHAR	2659	ALL
CHAR	2660	ALL
CHAR	2729	ALL
CHAR	2730	ALL
CHAR	2731	ALL
CHAR	2732	ALL
CHAR	2802	ALL
CHAR	2803	ALL
CHAR	2875	ALL

2. TERM OF DECLARATION: 15 Years from 17 September 2021

3. EVALUATION PROGRAM

The approved evaluation program is taken to be an additional part of the existing approved work program for ATP 645.

Year	Activities	
Year 1	Review and update of geological model, reservoir characterisation and	
Tour T	in-place gas resources.	
Year 2	Review of existing and future potential technological options, including drilling, completion, stimulation and production optimisation for input into well design and program planning.	
Year 3 Review of well and seismic results and planning for future app		
Year 4	Review of well and seismic results and planning for future appraisal.	
Year 5	Studies in support of further appraisal and front-end loading development planning.	
Year 6	Studies in support of further appraisal and front-end loading development planning.	
Year 7	Studies in support of further appraisal and front-end loading development planning.	
Voor 9	Studies in support of further appraisal and front-end loading	
Year 8	development planning.	

Year	Activities		
Year 9	Studies in support of further appraisal and front-end loading development planning.		
Year 10	Studies in support of further appraisal and front-end loading development planning.		
Year 11	Selection of development concept.		
Year 12	Define development concept and update project economic evaluation.		
Year 13	Pre-FEED engineering studies. Negotiate gas sales agreement(s).		
Year 14	Pre-FEED engineering studies. Negotiate gas sales agreement(s).		
Year 15	Pre-FEED engineering studies. Reserve certification to underpin gas sales agreement and investment decision.		

Date Declared: 17 September 2021



Potential Commercial Area (PCA) application – Technical Assessment

Unless otherwise stated, all references below to sections relate to the *Petroleum and Gas* (*Production and Safety*) *Act 2004* (*P&G Act*).

Enter permit number

PCA 305

Prerequisite permit number

ATP 645

Applicant

BNG (Surat) Pty Ltd

Contact Details

QGC Pty Limited

GPO Box 3107 Brisbane QLD 4001

Email: QGC-Tenures@shell.com

Milestone: Summary

PCA application 305 was assessed against the relevant requirements of the legalisation in conjunction with the operational policy and these matters are outlined thoroughly within this report.

The applicant has provided sufficient evidence to demonstrate the following:

- (1) **Petroleum discovery** has been solidly established:
 - a. Gas and condensate have been flowed to surface at sustained rates from the clearly identified targets (Tinowon tight sands) in three tight gas exploration wells within the PCA 305 area (Dunk 1 and Overston 2A in north-western part and Daydream 1 in south-eastern corner), and gas bearing reservoir has been confirmed on gas shows and logs in Magnetic 1 in the south-western corner of the area;
 - b. Coring, logging and testing through fracturing stimulation in those multiple wells have been utilised in establishing the discovery status;
 - c. Presence of significant quantity of hydrocarbons has been demonstrated;
 - d. The applicant has demonstrated that the hydrocarbons are potentially commercial within the next 15 years.

(2) **Commerciality**:

- a. Significant amounts of recoverable (prospective) gas and condensate resources have been estimated even though no contingent resources have been achieved;
- The applicant has demonstrated the petroleum production is not commercially viable now, or would not soon, with the gas rates already or possibly achievable with the currently tested drilling and completion techniques (vertical wells and the singlestaged fracturing stimulation);
- c. The applicant has convincingly demonstrated that petroleum production would potentially be commercially viable within 15 years with utilisation of horizontal wells and multi-staged fracturing stimulation in the area, by potentially improving well production rates and reducing total well/development costs through improving characterisation of the tight gas sand reservoirs in order to identify sweet spots and assessment of various drilling and completion techniques that may unlock deliverability in tight sands;
- (3) **Area**:



The applicant has provided sufficient evidence to demonstrate that the required area for PCA 305 is no more than it needed to cover the maximum extent of the identified reservoirs, since:

- a. SPE-PRMS has stated that "the extent of the discovery within a pervasive accumulation is based on the evaluator's <u>reasonable confidence</u> based on <u>distances</u> from existing experience, otherwise quantities remain as undiscovered";
- b. The applicant has provided sufficient evidence in reasonable confidence to support its claimed existence of pervasive unconventional tight gas sand reservoirs in Tinowon sandstones over the whole PCA 305 area, such as:
 - (a) All the seven exploration wells with gas flow or gas shows in the area were targeting specifically tight gas resources in the first place;
 - (b) All the seven wells were drilled outside any structural highs, which has actually ruled out with high confidence of any conventional resources to be connected with the discovered petroleum in the wells;
 - (c) The applicant has provided that the primary tight gas target, the Tinowon Formation is present across nine of the 11 graticular blocks of the PCA 305 area except the two blocks in the west, while the secondary target of tight gas resources in PCA 305, the Lorelle Sandstone is present across the western part of the area, thanks to the significant amounts of seismic data in the area (see below for the impressive 826 km new 2D seismic acquisition, the 4151 km 2D seismic reprocessing, and the 195 km2 3D seismic reprocessing);
 - (d) The exploration wells with petroleum discovery have covered reasonably even and representative areas of PCA 305. The farthermost is less than 20 kilometres from the discovery wells, which is not a too far-reach in comparison with QLS's current practice in assessing the extent of discovery of the other pervasive unconventional petroleum resources like coal seam gas reservoirs;
- c. The applicant has also demonstrated the need to maximise the appraisal area to maximise the chances of realising a commercial development due to the inherent high cost of developing unconventional tight gas and the uncertainty in gas price over the modelled timeframe of the forecasted development scenarios in its financial assessment on the commerciality of potential production.
- (4) Significant local activities of exploration and appraisal focussing specifically on tight gas resources within the PCA 305 area since 2010 have provided strong support to the applicant's claims for the PCA 305 application, mainly including:
 - Seven wells drilled;
 - 826 km 2D seismic acquisition;
 - 4151 km 2D seismic re-processing;
 - 193 km2 3D seismic re-processing;
 - Fracture stimulation and production testing in four of the newly drilled seven wells;
 - In excess of \$300 million expenditure.
- (5) Sufficient financial data and economic analysis with reasonably forecasted development scenarios have been provided and the conclusions have provided strong support to the applicant's claim on commercial viability of potential petroleum production in the area;
- (6) A appropriate evaluation program including LWP activities for the relevant renewal ATP 645 has been proposed, with impressive focus on solving the challenges of the currently identified contingencies for potential commercial petroleum production in the area, including filling the identified small gaps to sufficiently characterising the two reservoirs of tight gas and achieving estimates of contingent resources or even reserves in the area through further proving lateral extent of the gas-bearing reservoirs and employing best-practice unconventional drilling and completion practices. The proposed activities include drilling more wells and 2D seismic acquisition;
- (7) Contingent resources have not been achieved (only a non-SPE-coded category "recoverable resources" has been provided, which could be substantially categorized as prospective resources) and the applicant has shown great honesty to report that (even though the holder has been so close to achieve it), which does not stop the area being eligible for being announced as a PCA since it satisfies the requirements for a PCA stipulated by the P&G Act



which does not specifically include achieving contingent resources. SPE-PRMS has been strictly followed, and the provided estimate of recoverable (prospective) resources is sufficient for the PCA declaration.

Milestone: Recommendation

It is recommended that, pursuant to section 90(1) of the *Petroleum and Gas (Production and Safety) Act 2004*, the Minister declare the areas of PCA 305 to be potential commercial areas for a term of 15 years.

Name: Dawood Paracha

Designation: Petroleum Engineer

Date: 24/03/2020, 22/04/2020, 14/07/2020, 4/08/2020, 14/10/2020

Peer Reviewer/Contributor Name(s): Dingchuang Qu

Designation: Senior Geoscientist/Engineer

Date: 12/08/2020, 19/10/2020

Peer Reviewer/Contributor Name(s): Andrew McNamara

Designation: Technical Manager

Date: 24/04/2020, 14/07/2020, 4/08/2020, 30/10/2020



Milestone: Overview

PCA 305 application is for a Potential Commercial Area in ATP 645 which is fully operated and held by BNG (Surat) Pty Ltd, a wholly owned subsidiary of QGC (Pty) Limited and in turn Royal Dutch Shell. ATP 645 is a non-contiguous permit located in the Surat Basin, east of the town of Surat within the Western Downs Regional Council and Maranoa Regional Council areas in south-east Queensland, as shown in Figure 1.

ATP 645 covers two areas and a total of 300 sub-blocks. At the time the original application was submitted, ATP 645 was in its third and final four-year period of the renewed term ending 31 December 2019. PCA 305 forms the northern contiguous part of ATP 645, as shown in Figure 2.

A brief history of the prerequisite permit ATP 645 is provided below:

- ATP 645 was first granted under the Petroleum Act 1923 (PA1923) for four years commencing 1 January 2000.
- ATP 645 was renewed for a further four years under the PA1923 on 1 January 2004.
- ATP 645 became a converted ATP under section 876 of the Petroleum and Gas (Petroleum and Safety) Act 2004 (P&G Act) on 31 December 2004.
- On 1 January 2008, ATP 645 was renewed for a further twelve year term.
- On 22 September 2015, approval was given to combine 100% QGC held ATP 645, ATP 785, ATP 768 and ATP 1101 into a project area, the Bowen tight gas sands (TGS) Project Area (BTPA).
- In 2018, the applicant entered into two non-operated joint ventures (ATP 2040 and ATP 2045) operated by Santos (QNT) Pty Ltd located adjacent to ATP 645 with field activity commencing in 2019.

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

Despite substantial resource, the challenge in commercialising tight sands within PCA 305 is that, based on current drilling and completion techniques for vertical wells, deliverability is sub-economic. The applicant has also proven through well tests that the area has produced gas, but a full scale development will require more work to develop the extent of the resource and optimise the drilling and completion techniques for deep tight gas required for commerciality of the project. The declaration of the proposed PCA 305 will facilitate reservoir characterisation to underpin decision to test application of unconventional drilling and completion techniques.

Amendment to application

On 29 November 2019, the applicant lodged five PCA applications to cover the entire extent of Authority to Prospect (ATP) 645. PCAs 305 – 308 applications were to cover the northern contiguous part of ATP 645 while PCA 309 was over the southern non-contiguous part.

An amendment application was later lodged by the applicant on 23 June 2020 for the purpose of amalgamating the areas of PCAs 306-308 into PCA 305 which will give the effect of having PCA 305 to cover the northern extent of ATP 645 while PCA 309 will cover the southern non-contiguous part of ATP 645 (Figure

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

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

The larger PCA will reduce administrative burden, allow technical studies over a larger contiguous area and brings about economies of scale for the applicant and hence the technical assessor is recommending approval.

Additional information

Additional information was received from the applicant on 9 April 2020 providing an indicative timeline of ATP 645 activities outside of the proposed four year work program and over the applied 15 year period associated with the PCA applications. A summary of the additional information is provided below:

 Proposed activities for ATP 645 to support a 15-year PCA term mainly include drilling and production testing of multi-well design alternatives, technical studies, commercial agreements and approvals.

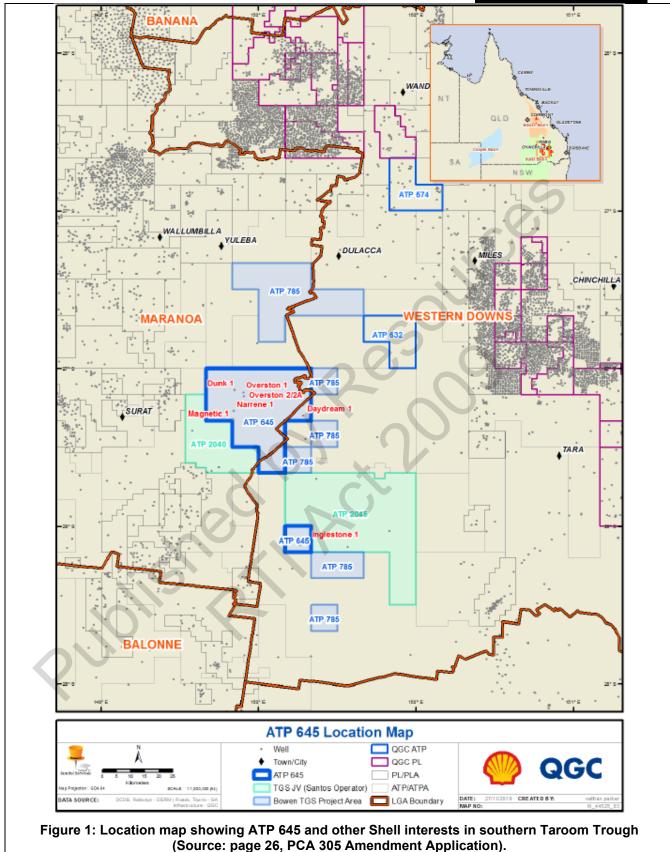


- Appraisal beyond the proposed work program will be dependent on the results and review of the proposed work program activities.
- Appraisal beyond the proposed work program will be dependent on the timeline and exploration
 programs of adjacent ATP 785, ATP 632 (PCA 160) and PLR2019-2-11 acreage (should the applicant
 be successful) as well as ATP 2040 and ATP 2045, which are operated as a joint venture with Santos
 (QNT) Pty Ltd.
- Review of the data gathered in the proposed work program from two wells and 150 kilometres (km) of 2D seismic will underpin the horizontal well design required for commerciality.

Additional information was provided by the applicant on 9 October 2020 in response to a letter from the department dated 21 September 2020. A summary of key information relevant to PCA 305 is provided below:

- The applicant has provided a cross section (Figure 5) and seismic map (Figures 6) which show that the main target formation within ATP 645, the Tinowan Formation is present within PCA 305. The technical assessor considers that these maps provide further evidence that the area of PCA 305 is no more than is needed to cover the maximum extent of the reservoir.
- The applicant has provided further details of the reservoir characterisation within PCA 305 derived from Overston 3D seismic and wells within the Overston 3D (Dunk 1, Overston 1, and Overston 2/2A). These maps show the porosity (Figure 8), net to gross (Figure 9) and sand thickness (Figure 10) of the Tinowan Formation within PCA 305. The technical assessor is satisfied that the applicant has sufficient knowledge of the target reservoir within PCA 305.
- The applicant has confirmed that contingent resources have not been achieved. Only a non-SPE-coded category "recoverable resources" has been provided, which could be substantially categorized as prospective resources. The technical assessor considers that the quantities of hydrocarbon within PCA 305 are prospective and not contingent. The applicant foresee that for contingent quantities to be established, a horizontal multi-frac well development involving production testing will be required.
- The applicant has identified a clerical error in the original gas in place (OGIP) estimate for PCA 305.
 The OGIP estimate for ATP 645, which reports the Lorelle Sandstone is incorrect and an amended OGIP estimate is provided for ATP 645.











Milestone: Area of proposed declaration			
1	Is the area no more than is needed to cover the maximum extent of a natural underground reservoir?	Yes	s.90(1)(a) and (2)

The technical assessor considers that the area applied for is sufficient and no more than required to cover the extent of the natural underground reservoirs, Tinowan Formation and Lorelle Sandstone. As a tight gas reservoir not bound by any particular structure, the target area can be quite large and laterally extensive.

The proposed area of PCA 305 is 275 sub-blocks (825 square kilometres (km2), as shown in Figure 3. The reservoirs of interest in PCA 305 is the Tinowan Formation and the Lorelle Sandstone. The reservoirs extends beyond the PCA area into adjacent tenure and open acreage, as can be seen in Figure 4. It can be seen in Figure 4 that the reservoir covers the extent of PCA 305.

Additional information was provided by the applicant on 9 October 2020 in response to a letter from the department dated 21 September 2020. The applicant has provided a cross section (Figure 5) and seismic map (Figure 6) which show that the main target formation within ATP 645, the Tinowan Formation is present within PCA 305. The technical assessor considers that these maps provide further evidence that the area of PCA 305 is no more than is needed to cover the maximum extent of the reservoir.



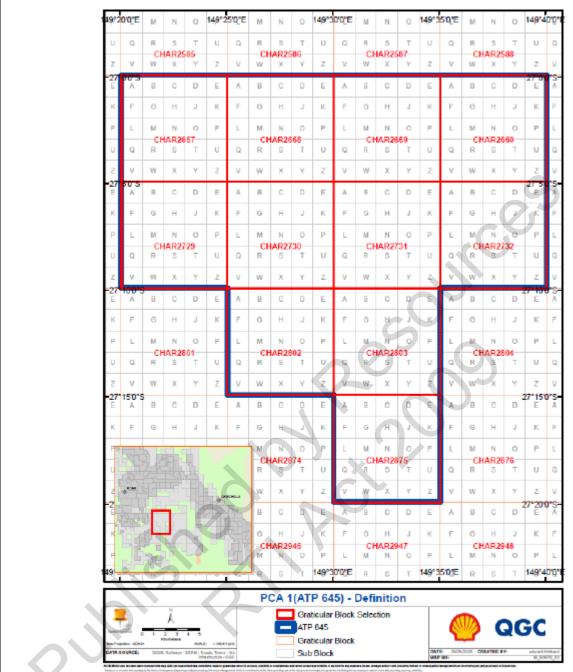


Figure 3: Sub-blocks forming part of PCA 305 application (Source: page 30, PCA 305 Amendment Application).







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Figure 5: sch4p4(7)(1)(c) Business/commercial/professional/financial affairs
rigure 5.
sch4p4(7)(1)(c) Business/commercial/professional/financial affairs
6
Figure 6: sch4p4(7)(1)(c) Business/commercial/professional/financial affairs sch4p4(7)(1)(c) Business/commercial/professional/financial affairs
Milestone: Commercial viability



2	Has the applicant provided sufficient details confirming:		s.89(5)(a) and s.231(1)(a) to (e)
	 each natural underground reservoir in the area; 	Yes	
	an estimate of the amount of petroleum in each recentury.	Yes	
	in each reservoir;the standards and procedures used to make the estimate;	Yes	
	 whether it is commercially viable to produce or store petroleum in the area; and 	No	
	 that in the holder's opinion, it will, within the next 15 years, be commercially viable to produce or store petroleum in the area. 	Yes	600

The technical assessor considers that the applicant has provided sufficient details to address each criteria.

Natural underground reservoir

The applicant has provided sufficient details on the natural underground reservoir in the PCA area, namely the Tinowan Formation and the Lorelle Sandstone. This includes geological background, petrophysical analysis and drilling details. Tinowan Formation and Lorelle Sandstone are present within the Back Creek Group, which is a widespread succession of marine to fluvial sands, silts, shales, coals and tuffs that predominately represent the thermal sag phase of the Bowen Basin development.

As can be seen in Figure 2, PCA 305 areas contains both the Tinowan Formation and the Lorelle Sandstone. The Tinowan Formation is divided into two distinct depositional sequences, the lower Tinowan/Wallabella Coal Member and the upper Tinowan. The upper Tinowan is the most prolific gas producing interval on the Roma Shelf with the largest gas fields in the province being present in this interval. The lower Tinowan 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 Tinowan. The applicant has also provided stratigraphy for the regions within the Bowen Basin, as shown in Figure 7. It can be seen that the Tinowan Formation is located in the South West Taroom Trough and belongs to the late Permian group.

The Lorelle Sandstones is 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. Lorelle Sandstone is the oldest reservoir in the Back Creek Group and to date has had no economic production despite being found to be gas-bearing in a number of wells. The key challenge in its exploration is understanding reservoir distribution and quality variation with a relatively small number of well penetrations.

The PCA 305 area contains six wells, three of which have flowed gas and condensate to surface following fracture stimulation. The results of these wells has provided impetus for selecting Tinowan Formation as the primary target reservoir and the Lorelle Sandstone as the secondary target reservoir.

Additional information was provided by the applicant on 9 October 2020 in response to a letter from the department dated 21 September 2020. The applicant has provided further details of the reservoir characterisation within PCA 305 derived from Overston 3D seismic and wells within the Overston 3D (Dunk 1, Overston 1, and Overston 2/2A). These maps show the porosity (Figure 8), net to gross (Figure 9) and sand thickness (Figure 10) of the Tinowan Formation within PCA 305. The technical assessor is satisfied that the applicant has sufficient knowledge of the target reservoir within PCA 305.



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



The following maps have provided new information on the real reservoir properties such as porosity (Figure 5), sand net to gross (Figure 6), and sand thickness (Figure 7) have been presented in those maps. Not only has the high-resolution aerial variation of those key reservoir properties surrounding the Overston area been presented, but also the less-resolution aerial variation of those properties along the 2D seismic lines. Although the high-resolution area does not cover the whole PCA 305 area, the new information provides further support of the broader extent of the petroleum discoveries in the PCA 305 area. The additional maps provide strong evidence for the claimed discovered reservoir which has extended from the discovery wells to cover almost the whole PCA 305 area.





sch4p4(7)(1)(c) Business/commercial/professional/financial affairs
Figure 9: sch4p4(7)(1)(c) Business/commercial/professional/financial affairs
Figure 9:
sch4p4(7)(1)(c) Business/commercial/professional/financial affairs
Figure 10: sch4p4(7)(1)(c) Business/commercial/professional/financial affairs
Amount of natural cum in each veces with
Amount of petroleum in each reservoir
sch4p4(7)(1)(c) Business/commercial/professional/financial affairs







(5)



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

Ability of the resource to be commercially viable within the next 15 years

The technical assessor considers that to develop PCA 305 application area into an economic project will require:

- Confirming the extent of the resource and calibrating reservoir parameters over the maximum possible area:
- Optimising the drilling and completion techniques deployed to realise the modelled type curves; and
- Demonstrating ability to execute project within capital expenditure profile assumptions in the economic analysis.

The applicant believes that over a period of 15 years and through addressing these considerations as part of the ATP 645 work program and the evaluation program for PCA 305, the application area will become commercially viable.

3	Has the applicant provided sufficient supporting data such as:	s.231(1)(f) and (2)(a) and (b)
	 technical data relating to the geology of, and natural underground reservoirs in the area; and market and financial data relevant to the opinions. 	Yes Yes

The technical assessor considers that the applicant has provided sufficient data to address the geology of the Tinowan Formation and the Lorelle Sandstones and the commerciality of the project area.

Geologic review

Prior to the grant of ATP 645, a number of deep wells were drilled during the 1980's in the southern part of ATP 645, with unstimulated flow tests recovering gas cut mud. These wells provided crucial support to the regionally pervasive nature of the gas-bearing reservoirs of the Back Creek Group and the tight-gas potential of the Tinowan Formation and the Lorelle Sandstones.

The earlier activity under ATP 645 was undertaken by Sunshine Gas acquiring the Overston 3D and drilling the Overston-1, Overston-2/2A and Narenne-1/1A wells. More recent activity has been undertaken by the current applicant through 2D seismic and 3 wells, named Daydream-1, Dunk-1 and Magnetic-1. Three wells (Overston-2/2A, Daydream-1 and Dunk-1) have flowed gas and condensate to surface following fracture stimulation and has provided encouraging indications of tight-gas sand reservoirs.

Through Dunk-1 drilling, core was taken of the Upper Tinowan Sandstone, which proved critical in defining gas saturation of approximately 75%. Dunk-1 was also fracture stimulated and production tested and peaked at 4 terajoule (TJ) PJ of gas per day before stabilising at 0.7 TJ of gas per day.

Daydream-1 was drilled to test the Taroom Trough and encountered the Tinowan Formation. This was the first well fracture-stimulated in the Bowen tight gas sand project area and despite a number of issues with these operations, including recovery of unbroken gel to surface during the clean-up and one stage being perforated incorrectly at 180° rather than at 60° as planned, gas and condensate were recovered at surface.

While OGIP and gas flow has been demonstrated in the PCA area, there is considerable uncertainty on reservoir characterisation due to the limited number of well penetrations. 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 PCA evaluation program support the ATP 645 work program to address the challenge of maturing an economic play by improving 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.

Financial and market review

In order to assess commerciality, a development concept was devised based on North American unconventional play development as a base model. The key parameters of the development concept are:



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Figure 16: sch4p4(7)(1)(c) Business/commercial/professional/financial affairs sch4p4(7)(1)(c) Business/commercial/professional/financial affairs	
Should the Minister be satisfied that petroleum production or storage in the area to be declared, Should the Minister be satisfied that petroleum s.90(1)(b)	



is not, and will not soon be, commercially viable,			
but is likely to be viable within 15 years?			

The Minister should be satisfied that commercial production from the area is not currently viable, but is likely to be viable within 15 years. The applicant has submitted a robust evaluation program to develop the tight gas sand resource within the PCA area.

The applicant has also proven through well tests that the area has produced gas, but a full scale development will require more work to develop the extent of the resource and optimise the drilling and completion techniques for deep tight gas required for commerciality of the project.

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This provides that the PCA 305 application areas hold excellent potential but due to the nature of the tight gas sand resource, the current exploration has not demonstrated commerciality. This is because the current wells within PCA 305 are all vertical ones with only one being fracture stimulated. To achieve commerciality, it is envisioned that horizontal multi-stage fracture stimulated wells will be needed. This represents an enormous expenditure and hence the PCA declaration will aid the applicant in assessing the reservoir quality, resource extent and drilling and completion techniques to reduce the project risks before applying for petroleum leases.

PCA 305 is in close proximity to infrastructure given its location near to existing Roma Shelf production facilities (Wallumbilla and Kincora Gas Plants) which would aid commerciality once initial hurdle of establishing the resource is overcome.

M	lestone: Compliance with relevant ATP		
5	Has the work program of the relevant authority to prospect been substantially complied with?	Yes s.90(3)	

The technical assessor is satisfied that the applicant has substantially complied with the work program for ATP 645.

The current work program for ATP 645 is for the two year period 1 January 2018 to 31 December 2019 and is provided below:

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

Figure 17: ATP 645 current approved work program (Source: page 4, PCA 305 Amendment Application).

As can be seen in Figure 17, the current approved work program for ATP 645 comprises of technical studies, prospect selection and well planning. The technical assessor considers the applicant compliant with the work program since the applicant has demonstrated a good understanding of the reservoir and well planning in its



PCA applications. Work undertaken as part of the current approved work program has collectively led to two PCA applications over the entire ATP 645 area.

In addition, the applicant has provided a summary of exploration activities undertaken as part of the Bowen tight gas sand project since 2010. This is provided below and in Figure 18.

- 826 km 2D seismic acquisition.
- 4,151 km 2D seismic re-processing and 193 km² 3D seismic re-processing of legacy surveys across the project area.
- Drilling of seven wells with total depth ranging from 3,180-4,694 m, four of which were fracture stimulated and production tested. Three of these wells were drilled within ATP 645.



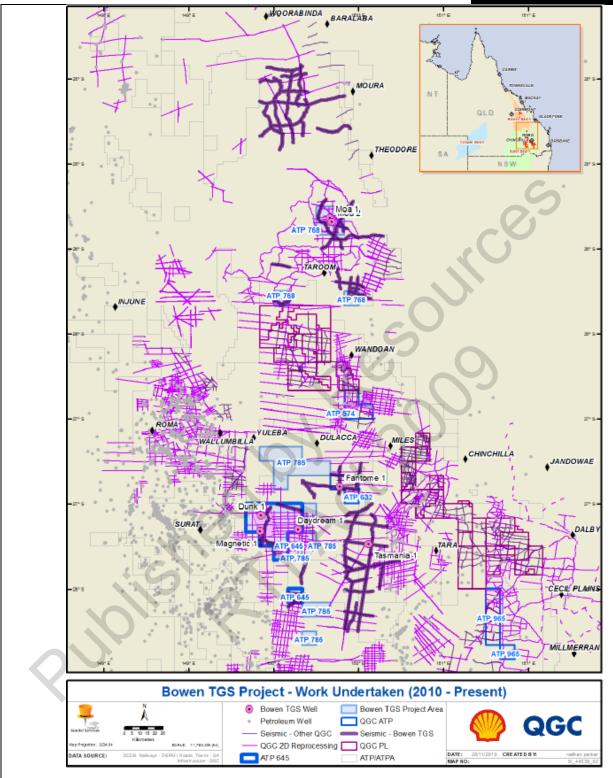


Figure 18: Summary of work undertaken as part of the Bowen tight gas sand project, including ATP 645 since 2009 (Source: page 27, PCA 305 Amendment Application).

Mile	estone: Evaluation program		
6	Has the applicant provided an appropriate program of work to evaluate the potential for petroleum production or storage and associated market opportunities?	Yes	s.89(5)(b)



The applicant has provided an evaluation program for PCA 305 for a 15 year declaration period.

The evaluation program does not contain any physical activities. In this instance it can be considered acceptable as the holder has drilled and tested three wells in the PCA area and proposed two wells as part of the ATP 645 work program from 1 January 2020 to 31 December 2023. Execution of the ATP 645 work program will be critical to supporting the evaluation program for PCA 305 to prove the tight gas sand resource.

The proposed ATP 645 work program for the period 1 January 2020 to 31 December 2023 is provided in Figure 20. ATP 645 is currently under assessment for a renewal term of 12 years expiring 31 December 2031.

Additional information was received from the applicant on 9 April 2020 providing an indicative timeline of ATP 645 activities outside of the proposed four year work program and over the applied 15 year period associated with the PCA applications. A summary of the additional information is provided below:

- Proposed activities for ATP 645 to support a 15-year PCA term are provided below in Figure 21 and mainly include drilling and production testing of multi-well design alternatives, technical studies, commercial agreements and approvals.
- Appraisal beyond the proposed work program will be dependent on the results and review of the proposed work program activities.
- Appraisal beyond the proposed work program will be dependent on the timeline and exploration
 programs of adjacent ATP 785, ATP 632 (PCA 160) and PLR2019-2-11 acreage (should the applicant
 be successful) as well as ATP 2040 and ATP 2045, which are operated as a joint venture with Santos
 (QNT) Pty Ltd.
- Review of the data gathered in the proposed work program from two wells and 150 km of 2D seismic will underpin the horizontal well design required for commerciality.

The evaluation program provided by the applicant addresses risks around the commerciality of the project. The applicant appears to address a number of these issues in the evaluation program provided through reviews of available technology, updating models and resource estimates and reviewing project economics.

The evaluation program is provided below:



sch4p4(7)(1)(c) Business/commercial/professional/financial affairs Figure 19: sch4p4(7)(1)(c) Business/commercial/professional/financial affairs		Year	Activity	Estimated Expenditure per PCA (\$A)	
Figure 10. sch4p4(7)(1)(c) Business/commercial/professional/financial affairs	s	sch4p4(7))(1)(c) Business/commercial/professional/financial affairs		
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Sch4p4(7)(1)(c) Business/commercial/professional/financial affairs			2000	5	
Figure 40. sch4p4(7)(1)(c) Business/commercial/professional/financial affairs			4,000		



Permit Year	Authorised Activity	Expenditure
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		5
		.(0
		60
		2) _0\
	. 107	` <i>V</i>
gure 20: sch4p4((7)(1)(c) Business/commercial/professional/financial at	ffairs



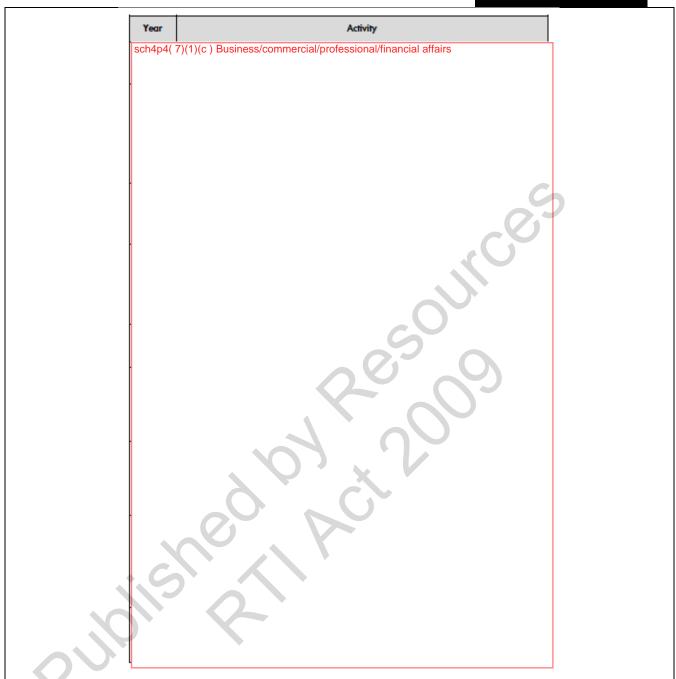






Figure 21: sch4p4(7)(1)(c) Business/commercial/professional/financial affairs

Mile	estone: Term of declaration		
7	Is the declaration for 15 years?	Yes	s.92(1)
8	If NO, does the shorter period consider the following: • when any petroleum discovery was made; and • any commercial viability report or independent viability assessment for, or that includes, the proposed potential commercial area.	N/A	s.92(2)

The applicant has applied for a 15 year declaration for PCA 305. The technical assessor is recommending a declaration of 15 years because of the following reasons:

- The technical assessor believes that a declaration term of 15 years is needed to confirm the resource extent, optimise drilling and completion techniques and finalise commercial aspects of the tight gas project.
- Three wells within PCA 305 application area have flowed gas and condensate to surface following fracture stimulation. This confirms presence of the resource and necessitates further evaluation.
- sch4p4(7)(1)(c) Business/commercial/professional/financial affairs



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

With the target resource being tight gas where risk is generally higher, the 15 year declaration period is more acceptable. This will provide the applicant the required time to demonstrate commerciality before significant investment associated with multi-stage fracture stimulated horizontal wells, which will be required for commercial production.

The tight gas project could be of significant financial benefit for the State and any geological and engineering knowledge gained through the drilling and development of deep tight basin centred gas would also be of significant benefit.

The technical assessor recommends that the PCA 305 be granted for a period of 15 years.

Our Ref: ATP 645 & PCA 305

Queensland Government

Department of Natural Resources, Mines and Energy

17 September 2021

Mr Tyson Croll BNG (Surat) Pty. Ltd. C/- QGC Pty Limited GPO Box 3107 BRISBANE QLD 4001

E-mail: QGC-Tenures@shell.com

Dear Mr Croll,

I refer to the application for Potential Commercial Area (PCA) number 305 lodged over the area of Authority to Prospect (ATP) Number 645 by BNG (Surat) Pty. Ltd. (BNG (Surat)) (ACN: 090 629 913) on 29 November 2019 and subsequent amendment to application lodged on 23 June 2020.

On 17 September 2021, pursuant to section 90 of the *Petroleum and Gas (Production and Safety)* 2004 Act (P&G Act), the Minister's delegate declared PCA 305 for a term of 15 years ending on 16 September 2036. Please note that BNG (Surat), before the end of term of PCA 305 will have the option to progress to a higher form of tenure or seek a further PCA declaration over the area.

The evaluation program commitments that are taken to be an additional part of the existing work program are detailed in the attached hard copy endorsements and are summarised below:

PCA 305 Evaluation program

Year	Activities
Year 1	Review and update of geological model, reservoir characterisation and
	in-place gas resources.
Year 2	Review of existing and future potential technological options, including
	drilling, completion, stimulation and production optimisation for input
	into well design and program planning.
Year 3	Review of well and seismic results and planning for future appraisal.
Year 4	Review of well and seismic results and planning for future appraisal.
Year 5	Studies in support of further appraisal and front-end loading
	development planning.
Year 6	Studies in support of further appraisal and front-end loading
	development planning.
Year 7	Studies in support of further appraisal and front-end loading
	development planning.
Year 8	Studies in support of further appraisal and front-end loading
	development planning.
Year 9	Studies in support of further appraisal and front-end loading
	development planning.
Year 10	Studies in support of further appraisal and front-end loading
	development planning.
Year 11	Selection of development concept.
Year 12	Define development concept and update project economic evaluation.

Year 13	Pre-FEED engineering studies. Negotiate gas sales agreement(s).
Year 14	Pre-FEED engineering studies. Negotiate gas sales agreement(s).
Year 15	Pre-FEED engineering studies. Reserve certification to underpin gas sales agreement and investment decision.

Should you have further enquiries, please contact Vijaya Kodali, A/Petroleum Registrar, Petroleum Assessment Hub of the Department of Resources on telephone number (07) 3199 8119 or email Vijaya.kodali@resources.qld.gov.au

Yours sincerely

sch4p4(6) Perso

Vijaya Kodali A/ Petroleum Registrar Petroleum Assessment Hub

Att/Enc: Endorsement



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Actions	7

21-296

File I



- Permit details	
Permit ID:	PCA 305
Туре:	Potential Commercial Area - Petroleum
Permit name:	Bowen TGS: PCA 1
Status:	Application
Lodged date:	29/11/2019
Grant date:	
Commencement date:	
Expiry date:	
Term sought:	15 years
Work program type:	
Conditions:	
Locality:	East of Surat
Public remarks:	
Departmental remarks:	
Act permit granted under:	
Act now administered under:	

Holders

Authorised holder representative (AHR)

QGC Pty Limited GPO Box 3107 Brisbane QLD 4001

Phone: 30247806

Email: QGC-Tenures@shell.com

Holders

	Holder name		Change reason	Share %	Status	Held from	Held to	Authorised holder
*	BNG (SURAT) PTY. LTD. (ACN: 090629913) GPO Box 3107 Brisbane QLD 4001 +61730247806 QGC-Tenures@shell.com	7		100.00000000000000000000000000000000000	Current	29/11/2019		Yes

Tenancy type: Sole Holder **Authorised Holder Group**

No data available

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Area	- Area									
Location:	View Map									
Mining district:	Dalby									
Local authority:	Maranoa Regional Council, Western Downs Regional Council									
Area:	275 Sub-blocks									
Exclusions:										
Marked out date:										

Sub-blocks

BIM	Block	А	В	С	D	Е	F	G	н	J	K	L	М	N	0	Р	Q	R	s	T	U	٧	W	X	Υ	Z
Charleville	2657	Α	В	С	D	Е	F	G	Н	J	K	L	М	N	0	Р	Q	R	S	Τ	U	٧	W	Χ	Υ	Z
Charleville	2658	Α	В	С	D	Е	F	G	Н	J	K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	Χ	Υ	Z
Charleville	2659	Α	В	С	D	Е	F	G	Н	J	K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	Χ	Υ	Z
Charleville	2660	Α	В	С	D	Е	F	G	Н	J	K	L	М	N	0	Р	Q	R	s	Т	U	٧	W	Χ	Υ	Z
Charleville	2729	Α	В	С	D	Е	F	G	Н	J	K	L	М	N	0	Ρ	Q	R	S	Т	U	٧	W	Χ	Υ	Z
Charleville	2730	Α	В	С	D	Е	F	G	Н	J	K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	Χ	Υ	Z
Charleville	2731	Α	В	С	D	Е	F	G	Н	J	K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	Χ	Υ	Z
Charleville	2732	Α	В	С	D	Е	F	G	Н	J	K	L	M	N	0	Р	Q	R	S	Т	U	٧	W	Χ	Υ	Z
Charleville	2802	Α	В	С	D	Е	F	G	Н	J	K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	Χ	Υ	Z
Charleville	2803	Α	В	С	D	Е	F	G	Н	J	K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	Χ	Υ	Z
Charleville	2875	Α	В	С	D	Е	F	G	Н	J	K	L	М	Ν	0	Р	Q	R	S	Т	U	٧	W	Х	Υ	Z

Background land

No data available

Survey plans

No data available

Relinquishment details

No data available

Sub-blocks retained

No data available

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Controlling permit: ATP 645



- Environmental Authority and Fi	nancial Provision		
Environmental Authority (EA)	No data currently available from e	xternal service. Last updat	ed date: 03/09/2021 12:17 PM
EA Number:			
EA Version:			
EA Permit Status:			
EA Application No:			
EA Application Type:			
EA Grant Date:			
EA Effective Date:			
Other Permits on Same EA:			Co
Estimated Rehabilitation Cost (ERC)			
ERC Number:			
ERC Amount:			
ERC Decision Date:			
ERC Reason Name:			
Financial Provision (FP)	No data currently available from e	xternal service. Last updat	ed date: 03/09/2021 12:17 PM
FP Status:			
FP Decision Date:			
FP Payment Due Date:			
FP Payment Receipt Date:			
- Term history			
Term Date notice issued Date lodged	Date approved Date c	commenced Date term ends	Term Act granted under
29/11/2019			
→ Native title			
No data available			
 Purpose and minerals 			
Prescribed minerals			
Prescribed minerals Petroleum			

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 Financial 	
Rent details	
Area units: 275	
Rate/unit area:	
Rent schedule	
No data available	
Security	
Security held:	\$0.00
Current assessed security:	
Initial assessed security:	\$0.00
Date of initial assessment:	
Security adjustment	
Date adjusted:	
Reason for adjustment:	
MMOL ref number:	
Revised assessed security:	
Amount of adjustment:	
Remarks:	
Financial balance sum	mary
No data available	

- Activities						
Activity name	Activity / Dealing No	Status	Date received	Expected completion	Date completed	Remarks
Maintain sub-blocks	322936	Approved	10/08/2020	10/08/2020	10/08/2020	
Maintain sub-blocks	322841	Approved .	07/08/2020	07/08/2020	07/08/2020	
Maintain sub-blocks	322436	Approved	06/08/2020	05/08/2020	06/08/2020	
Amendment to application	317447	Approved .	23/06/2020		22/07/2020	
Amendment assessment	317598	Closed(Accepted)	23/06/2020	27/07/2020	22/07/2020	Amendment approved.
Change Principal Holder Address	1,5	Closed	22/04/2020	22/04/2020	22/04/2020	Change from GPO Box 3107 Brisbane QLD 4001 to GPO Box 3107 Brisbane QLD 4001
Change Authorised holder representative address		Closed	22/04/2020	22/04/2020	22/04/2020	Change from GPO Box 3107 Brisbane QLD 4001 to GPO Box 3107 Brisbane QLD 4001
Change Authorised holder representative address		Closed	22/04/2020	22/04/2020	22/04/2020	Change from GPO Box 3107 Brisbane QLD 4001 to GPO Box 3107 Brisbane QLD 4001
Change Authorised holder representative address		Closed	22/04/2020	22/04/2020	22/04/2020	Change from GPO Box 3107 Brisbane QLD 4001 to GPO Box 3107 Brisbane QLD 4001
Change Authorised holder representative address		Closed	22/04/2020	22/04/2020	22/04/2020	Change from GPO Box 3107 Brisbane QLD 4001 to GPO Box 3107 Brisbane QLD 4001
Application assessment	296573	In progress	29/11/2019	19/10/2020		No comment.

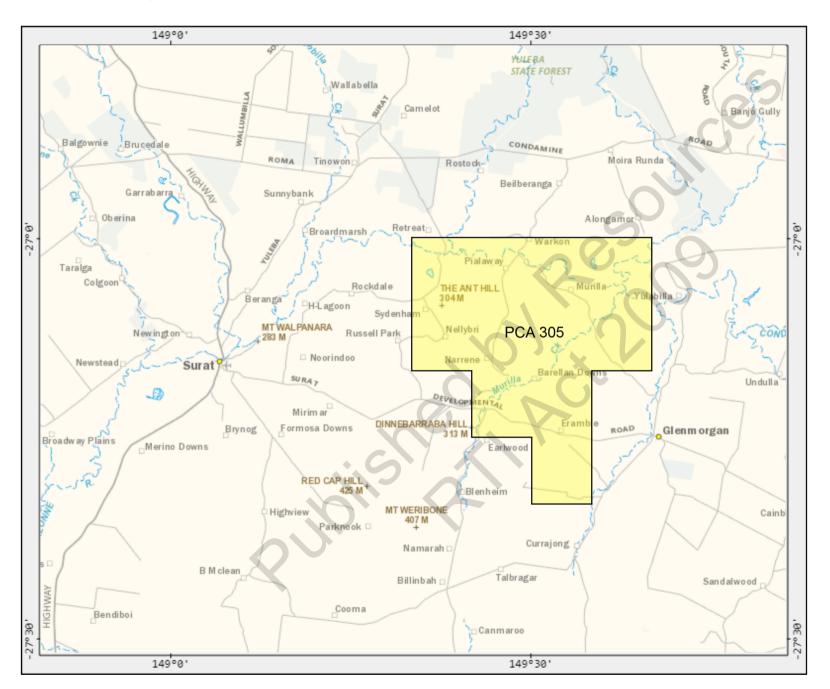
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- Actions										
Current actions										
Action	Context	Status	Date started	Due date	Last updated by	Remarks	Documents			
Native Title	Application - Native title assessment	Completed	10/12/2019	10/12/2019	Julieanne Butteriss	10.12.2019 - The declaration of a Potential Commercial Area is not the creation of a right to mine. The declaration has no impact on native title and no assessment has been undertaken. Should any further mining tenement applications be made over the declared area, a native title assessment will be required.				
Historical actions										
Action	Context	Date started	Due date	Date completed	Last updated by	Remarks	Documents			
File Note – External Correspondence	PCA306, PCA307, PCA308	04/12/2019	29/12/2019	04/12/2019	Kate Byrne	Advice from QGC regarding PCA. Further information in email attached.	<u> Email f</u> …			
Additional information request	PCA309	23/09/2020	09/10/2020	21/10/2020	Kate Byrne	Additional information request sent to QGC on 22/9/2020. Given until 9/10/2020 to provide information. See attachment for further information. QGC provided a response to the information request on 9/10/2020.	Letter t. ED ema. Emailfro. Respon.			
Natural Justice Letter	PCA309	20/11/2020	02/04/2021	30/03/2021	Vijaya Kodali	Notice sent to the holder on 20/11/2020 with consideration to refuse PCA 309 and progress with the declaration of PCA 305. The holder has until 8/2/2021 to make a submission. Extension of time requested. Response due 2/4/2021. Response received 30/3/2021.	NaturalJ. EOTReq. Respon.			
Archived actions	'					5				
No data available						7, ()				

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Location Map PCA 305



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Location Map PCA 305



Legend

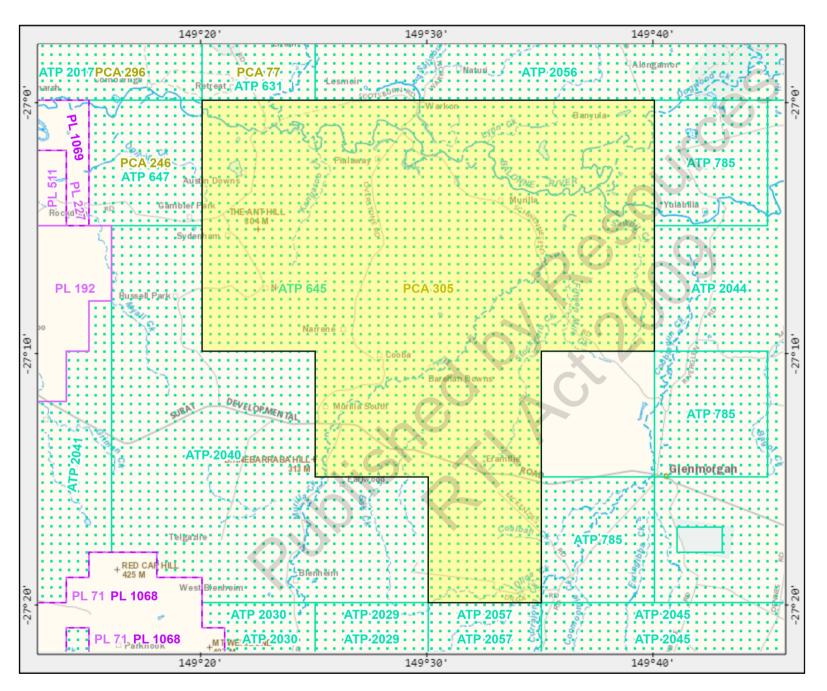


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Overlapping Map PCA 305



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Overlapping Map PCA 305



Legend

EPC application

EPC granted

EPM application

EPM granted

EPM special application

EPM special granted

MDL permit application

MDL access application

MDL permit granted

MDL access granted

EPG application
EPG granted
EPQ application
EPQ granted
ATP application
ATP granted
Petroleum PCA
application

Petroleum PCA

MC permit application

MC access application

aranted

MC permit granted

MC access granted

ML permit application

ML surface area application

ML access application

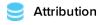
ML permit granted

ML surface area granted

ML surface restricted land granted

ML access granted

PL application



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Department of Resources, Dept.of Environment and Science, Esri, HERE, Garmin, METI/NASA, USGS

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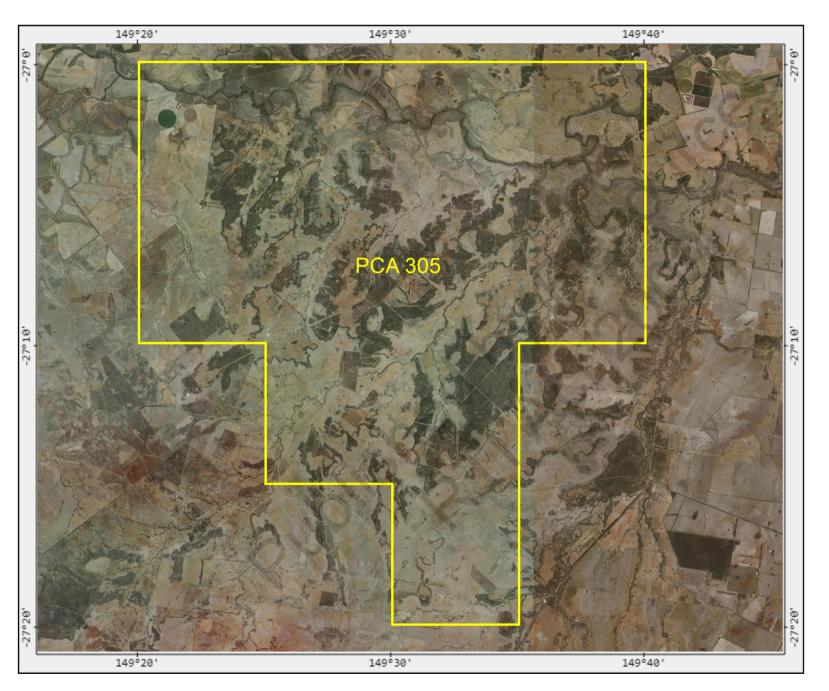
Overlapping Map PCA 305



PL granted
GL application
GL granted
GL application
QL application
QL granted

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Satellite Map PCA 305



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Printed at: A4 Print date: 3/9/2021

Projection: Web Mercator EPSG 102100

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Satellite Map PCA 305



Legend



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Operational policy

Application for declaration of a Potential Commercial Area

MIN/2015/1318 03 March 2021 Version 2.03

1. Purpose

Pursuant to section 3 of the *Petroleum and Gas (Production and Safety) Act 2004* (P&G Act), the main purpose of the P&G Act is to facilitate and regulate the carrying out of responsible petroleum activities and the development of a safe, efficient and viable petroleum and fuel gas industry in various ways, including to:

- manage the State's petroleum resources for the benefit of all Queenslanders;
- enhance knowledge of the State's petroleum resources;
- encourage and maintain an appropriate level of competition in the carrying out of petroleum activities; and
- optimise coal seam gas production and coal or oil shale mining in a safe and efficient way.

The purpose of this policy is to inform industry of certain matters that will be considered by the Minister (or authorised delegate) when deciding whether to declare a potential commercial area (PCA) under section 90 of the P&G Act.

The department is committed to respecting, protecting and promoting human rights. Under the *Human Rights Act 2019*, the department has an obligation to act and make decisions in a way that is compatible with human rights and, when making a decision, to give proper consideration to human rights. To the extent an act or decision under this document may engage human rights under the *Human Rights Act 2019*, regard will be had to that Act in undertaking the act or making the decision.

The holder of an authority to prospect (ATP) can apply, under section 89 of the P&G Act, for a declaration of a PCA over all or a part of the area of the ATP. In that regard, applicants are referred to the Potential Commercial Area Application Guideline.

2. Policy determination

The purpose of a PCA is to enable an ATP holder (the holder) who discovers petroleum or a natural underground reservoir suitable for the storage of petroleum that is not currently commercially viable, to retain an interest in and later develop that discovery. A PCA is not intended to be used as a means of retaining an interest in an ATP if such a discovery has not been made.

A PCA is a statutory declaration over an existing ATP area, which can affect the relinquishment requirements for the ATP. In particular, sub-blocks covered by a PCA are not required to be relinquished by an ATP holder (although, they can be). A PCA declaration can therefore operate to preserve areas of an ATP which would otherwise need to be relinquished. The purpose of this is to allow for appraisal and other activities to prove up the commerciality of the petroleum discovery.



21-296 File I

When declaring a PCA, the Minister (or authorised delegate) must be satisfied the decision criteria in section 90 of the P&G Act have been met. While this operational policy focuses on the decision criteria in section 90(1) of the P&G Act, it should be noted that other requirements also apply.¹

Each PCA application is to be assessed on a case-by-case basis and on the basis of the legislation in force at the relevant time.

3. Decision criteria in section 90(1) of the P&G Act

3.1 The area of the PCA is no more than is needed

The Minister (or authorised delegate) may declare an area of an ATP to be a PCA only if satisfied that the area is no more than is needed to cover the maximum extent of a natural underground reservoir identified in the report accompanying the application for the PCA declaration.²

When declaring a PCA, the Minister (or authorised delegate) will therefore consider what area is reasonable for the resource type being targeted, taking into account the extent of the relevant natural underground reservoir.

The applicant must have identified in the report accompanying the PCA declaration application, each relevant natural underground reservoir. If the area being applied for is greater than the relevant reservoir, the applicant will need to demonstrate why the greater area is appropriate.

3.2 Petroleum production or storage in the proposed PCA is not, and will not soon be, commercially viable, but is likely to become viable within 15 years

The Minister (or authorised delegate) may declare an area to be a PCA only if satisfied that petroleum production or storage in the area to be declared is not, and will not soon be, commercially viable, but is likely to become viable within 15 years.³

The applicant must have lodged a report with its PCA declaration application which, among other things:

- states whether, in the applicant's opinion, it is commercially viable to produce or store petroleum in the proposed area;
- if the applicant's opinion is that it is **not** commercially viable to produce or store petroleum in the proposed area, states whether, in the applicant's opinion, it will, within the next 15 years, be commercially viable to produce or store petroleum in the proposed area; and
- gives data, and an analysis of the data, that supports each opinion.

The supporting data and analysis provided must cover relevant:

- technical and geological issues; and
- market and financial issues.

A PCA declaration application must also have been accompanied by an evaluation program relating to the potential petroleum production or storage in the proposed PCA and associated market opportunities.

Although not mandatory, the department recommends the data and analysis contained in the report accompanying the PCA application is independently prepared and certified. The report

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¹ See, for example, Petroleum and Gas (Production and Safety) Act 2004, sections 89, 90(2) and (3).

² Petroleum and Gas (Production and Safety) Act 2004, s90(1)(a).

³ Ibid s90(1)(b).

should detail the factors affecting the commerciality of the proposed PCA and, in appropriate cases, assess the commerciality of alternative development scenarios or pathways to market.

The department recommends petroleum discoveries within a proposed PCA area be evidenced and classified in accordance with the <u>Society of Petroleum Engineers - Petroleum Resources Management System</u> (PRMS) as approved by the Society of Petroleum Engineers (SPE) in June 2018. The potential resource classifications, and their likely treatment by the Minister (or authorised delegate) are summarised in the table below.

Resource Classification	Commerciality status	Definition	Recommended Resource Authority
Prospective Resource (1U; 2U; 3U)	Not commercial	 "Prospective resources" – are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects; have both an associated chance of geologic discovery and a chance of development; are further categorized in accordance with the range of uncertainty associated with recoverable estimates, assuming discovery and development, and may be subclassified based on project maturity. 	Any "prospective resources" should be further evaluated by carrying out authorised activities under the ATP. Prospective resources do not represent a petroleum discovery and are unlikely to support a PCA application.
Contingent Resource (1C; 2C; 3C)	Potentially commercial	 "Contingent resources" - are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations, by the application of development project(s) not currently considered to be commercial owing to one or more contingencies; have an associated chance of development; may include, for example, projects for which there are currently no viable markets, or where commercial recovery is dependent on technology under development, or where evaluation of the accumulation is insufficient to clearly assess commerciality; are further categorized in accordance with the range of uncertainty associated with the estimates and should be subclassified based on project maturity and/or economic status. 	Contingent resources can only be booked where a petroleum discovery has been made. If "contingent resources" are identified, they may be suitable for a PCA application. The report supporting the PCA application will need to identify the "contingent resource" and demonstrate that the proposed PCA is not now, and will not soon be, commercially viable, but it is likely to become viable within 15 years.

Resource Classification	Commerciality status	Definition	Recommended Resource Authority
Reserves (1P; 2P; 3P)	Commercial	 "Reserves" - are those quantities of petroleum anticipated to be commercially recoverable by application of development projects to known accumulations from a given date forward under defined conditions; reserves must satisfy four criteria: they must be discovered, recoverable, commercial, and remaining (as of a given date) based on the development project(s) applied. 	If estimates indicate that the area of the ATP contains 2P reserves of petroleum, a PCA is unlikely to be considered appropriate. A PL application is likely to be considered more appropriate for the area.

3.3 Determining the term of a declared PCA

A PCA may be declared for a period of up to 15 years. The Minister may declare a PCA for a shorter term, if the timing and circumstances around a petroleum discovery and the content of the commercial viability report warrant a shorter term. Applicants should consider only applying for a term that is required to commercialise the resource.

4. Other matters

4.1 PCA and PL applications over the same area

The department notes it is possible for an application for a PCA and an application for a PL to be lodged over the same area by the same ATP holder.

Before lodging both a PCA application and a PL application over the same area, the department recommends the applicant consider whether the information provided in support of those applications could conflict in any way, noting a PCA is intended to support activities which relate to a currently uncommercial discovery and a PL will generally support activities associated with petroleum production.

If conflicts exist, they may need to be considered and resolved:

- before a particular application is accepted for consideration; or
- before a particular application is decided.

On the acceptance of the later PCA or PL application, the department will expect the ATP holder to withdraw the application that does not comply with the requirements for grant under either section 90 (for PCA applications) or section 121 (for PL applications) of the P&G Act.

Important Note: The department's policy position is that a holder of an ATP cannot make an application for a PL or PCA after the 12 year term of the ATP. This is despite the ATP continuing past the 12 year term because of previously lodged PL or ATP renewal applications that have yet to be decided. An ATP holder is encouraged to engage with the department prior to the end of the 12 year term of the ATP, to discuss any concerns they may have in regards to the development of a discovery within the ATP area.

Document information

Availability: External

Location: Business Industry Portal

Owner and approver: Deputy Director-General, Georesources Division

Review date: 25 May 2022

Related documents: This policy should be read in conjunction with the <u>Potential commercial area application guideline</u> and the Society of Petroleum Engineers – Guidelines for Application of the <u>Petroleum Resources Management System 2018</u>.

Contact: For help and information contact the Petroleum Assessment Hub on (07) 3199 8118 or

email petroleumhub@resources.qld.gov.au.



Disclaimer

The purpose of this policy is to provide a framework for consistent application and interpretation of the legislation administered by the department. Policies may be applied flexibly where individual circumstances require an alternative application of policy. Where this policy, or part of this policy, is inconsistent with relevant legislation, the legislation will prevail to the extent of the inconsistency. While this document has been prepared with care it contains general information and does not profess to offer legal, professional or commercial advice. The Queensland Government accepts no liability for any external decisions or actions taken on the basis of this document. Persons external to the Queensland Government should satisfy themselves independently and by consulting their own professional advisors before embarking on any proposed course of action.

Keywords

MIN/2015/1318; Resources; PCA; authority to prospect; extend; declaration

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Department of Resources DEPARTMENT BRIEFING NOTE

SUBJECT: Declaration of a Potential Commercial Area

Number 305 over an area of Authority to

Prospect Number 645

Authorised Holder: BNG (Surat) Pty. Ltd.

TIMING: Routine

EXECUTIVE SUMMARY:

BNG (Surat) Pty. Ltd. (BNG) (part of the Shell Group (Shell)) as authorised holder of Authority to Prospect (ATP) Number 645, is seeking the declaration of Potential Commercial Area (PCA) Number 305 over an area of 275 sub-blocks. ATP 645 is a non-contiguous permit located about 60 kilometres southeast of Surat in the Surat and Bowen Basins. It is part of Shell's unconventional tight gas project in Queensland known as Bowen Tight Gas Sands. The principal petroleum target is tight gas from the Tinowan Formation and the secondary target is tight gas from the Lorelle Sandstone.

RECOMMENDATION:

It is recommended that you, as a delegate of the Minister under the Petroleum and Gas (Production and Safety) (Ministerial – DOR) Delegation (No 4) 2020:

- a. **consider** the matters set out in **Attachment 1** in deciding whether to declare PCA 305 in accordance with your obligations under section 58 of the *Human Rights Act 2019* (HR Act); and
- b. **declare** PCA 305 over an area of 275 sub-blocks, for a term of 15 years, pursuant to sections 90(1) and 92(1)(a) of the *Petroleum and Gas (Production and Safety) Act 2004* (P&G Act) (**Attachment 2**).

KEY ISSUES:

- 1. In regard to **recommendation a**, in considering whether to declare PCA 305, you are a public entity for the purposes of the HR Act. Under section 58(1) of the HR Act, it is unlawful for a public entity:
 - to act or make a decision in a way that is not compatible with human rights; or
 - in making a decision, to fail to give proper consideration to a human right relevant to the decision.
- 2. To assist you in complying with your obligations under section 58(1) of the HR Act, **Attachment 1** considers whether each of the human rights, identified in part 2, divisions 2 and 3 of the HR Act, is relevant to the decision to declare or refuse the application for PCA 305. For any rights identified as relevant, **Attachment 1** considers whether the decision would limit the right and, if so, whether the limitation is reasonable and demonstrably justifiable in accordance with section 13 of the HR Act.
- 3. If the Minister's delegate agrees with the assessment undertaken by the Department of Resources (the department), it is open to the delegate of the Minister to be satisfied that a decision to declare PCA 305 will be compatible with human rights. Specifically, those human rights engaged by the decision will be limited only to the extent that is reasonable and demonstrably justifiable in accordance with section 13 of the HR Act.
- 4. In regard to **recommendation b**, BNG lodged applications for PCAs 305, 306, 307, 308 and 309 on 29 November 2019 over the total area of ATP 645 seeking a term of 15 years for each application.
- 5. On 24 May 2020, particular amendments to the P&G Act contained within the *Natural Resources Other Legislative Amendment Act 2019* commenced which removed the size limit (75 sub-blocks) on PCAs.
- 6. On 23 June 2020, BNG lodged an amendment to the application for PCA 305, pursuant to section 844 of the P&G Act, to increase the area applied for from 75 sub-blocks to 275 sub-blocks. The increase of the sub-blocks now encompasses the area applied for in the applications for PCA 306, 307 and 308.
- 7. BNG also sought to update the evaluation program to align with the increase in the area. The Chief Executive's delegate agreed to the amendment on 22 July 2020.
- 8. Subsequently, the applications for PCAs 306, 307 and 308 were withdrawn on 8 September 2020.
- 9. Section 90 of the P&G Act provides that the Minister (or his delegate) may declare an area the subject of the application to be a potential commercial area only if satisfied—
 - the area is no more than is needed to cover the maximum extent of a natural underground reservoir identified in the report; and

	_	
Author	Recommended:	Endorsed:
Name: Vijaya Kodali	Name: Kate Byrne	Name: Wendy Chan
Title: Deputy Registrar	Title: A/Manager	Title: Director
Group: PAH	Group: PAH	Group: PAH
Telephone: 3199 8119	Telephone: sch4p4(6) F	Telephone: sch4p4(6) P
Date:3/9/2021	Date: 10/09/2021	Date: sch4p4(6) P

- petroleum production or storage in the area to be declared, is not, and will not soon be, commercially viable, but is likely to become viable within 15 years.
- 10. The department is satisfied that the area applied for in PCA 305 is no more than the maximum extent of the identified natural underground reservoirs (**Attachment 3**).
- 11. The department is satisfied that petroleum production in the area applied for in PCA 305 is not, and will not soon be, commercially viable, but is likely to become viable within the next 15 years (**Attachment 3**).
- 12. Section 90 of the P&G Act further provides that the area declared must form a single parcel of land and in deciding the application, regard must be had to whether the conditions of the relevant ATP have been substantially complied with.
- 13. The department is satisfied that PCA 305 forms a single parcel of land and that the holder has substantially complied with the conditions of the relevant ATP 645 (**Attachments 3**).
- 14. The declaration of a PCA is not the creation of a right to mine. The declaration has no impact on Native Title. Therefore, no Native Title process is required for the declaration of PCA 305.
- 15. Subject to the approval of **recommendation b**, a departmental letter will be sent to BNG confirming the declaration of PCA 305 and its committed activities within the proposed 15-year evaluation program. This letter will also advise BNG that if it proposes (or becomes aware of) a change to the committed activities in the evaluation program, consideration should be given to lodging a special amendment pursuant to section 107A of the P&G Act (**Attachment 4**)

BACKGROUND:

- 16. ATP 645 was granted to BNG Pty. Ltd. (100 per cent) under the *Petroleum Act 1923* on 21 December 1999 and commenced on 1 January 2000 over an area of 775 sub-blocks (**Attachment 5**).
- 17. ATP 645 became a converted ATP at its last renewal on 16 July 2010 and is now administered under the P&G Act.
- 18. ATP 645 is located about 60 kilometres southeast of Surat in the Surat and Bowen Basins, the main target is defining the prospectivity of Permian and Triassic tight gas sands reservoirs within the Taroom Trough of the Bowen Basin (**Attachment 6**).
- 19. The Operational Policy Application for declaration of a potential commercial area used by the department for PCA declarations is provided as **Attachment 7**.

ATTACHMENTS:

Attachment 1: Human Rights Assessment

Attachment 2: PCA 305 document Attachment 3: Technical Assessment Attachment 4: Declaration letter to BNG

Attachment 5: Resource Authority Departmental Report for PCA 305 **Attachment 6:** Location, Overlapping and Satellite Maps for PCA 305

Attachment 7: PCA Operational Policy

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Human Rights Act 2019 Considerations

Application for Potential Commercial Area (PCA) Number 305

Section 58(1) of the Human Rights Act 2019 (HR Act) provides that it is unlawful for a public entity:

- (a) to act or make a decision in a way that is not compatible with human rights; or
- (b) in making a decision, to fail to give proper consideration to a human right relevant to the decision.

The Minister is a 'public entity' under the HR Act and is therefore subject to section 58(1) of this Act in deciding whether to declare or refuse PCA 305. Any person to whom the Minister has delegated these powers (the Minister's delegate), pursuant to section 857(1)(a) of the *Petroleum and Gas* (*Production and Safety*) *Act 2004* (P&G Act), is also a public entity.

Section 58(5) of the HR Act states that proper consideration to a human right in making a decision includes, but is not limited to, identifying the human rights that may be affected by the decisions and considering whether the decisions would be compatible with human rights.

Section 8 of the HR Act states a decision is compatible with human rights if the decision—

- (a) does not limit a human right; or
- (b) limits a human right only to the extent that is reasonable and demonstrably justifiable in accordance with section 13 of the HR Act.

Section 13 of the HR Act provides that a human right may be subject to 'reasonable limits that can be demonstrably justified'. Section 13(2) of the HR Act lists a number of factors that may be relevant to considering whether a limit on a human right is reasonable and demonstrably justifiable.

To assist the Minister's delegate in giving consideration to human rights relevant to the decision whether to declare or refuse PCA 305, the department has carried out a preliminary assessment of each human right identified in part 2, divisions 2 and 3 of the HR Act that may be engaged by a decision of the Minister's delegate and discusses whether a decision by the Minister's delegate to declare or refuse PCA 305. It also discusses whether these decisions would be decisions that are compatible with human rights.

Unless otherwise stated, a reference to a 'landholder' in this document, is a reference to both an owner and occupier of land, as defined in the P&G Act. A reference to 'authorised activities' means those activities authorised to be carried out in the area of an ATP, as detailed in chapter 2, part 1, division 1 of the P&G Act. A reference to 'operating plant' in this document has the meaning given it under section 670 of the P&G Act.

A PCA is a declaration over an existing Authority to Prospect (ATP) that allows a holder to retain an interest in a petroleum discovery made under an ATP where it is not currently commercial to develop it. It is not a tenure in its own right. To this end the following assessment of human rights focuses on those authorised activities for ATP 645 (the pre-requisite and underlying ATP for this PCA) and their potential to limit those rights listed under part 2, divisions 2 and 3 of the HR Act.

s15 Recognition	n and equality before the law
Criteria:	(1) Every person has the right to recognition as a person before the law.
Consideration:	The P&G Act recognises a person within the Act. The recognition does not discriminate and gives every person equal rights. The department is therefore of the view that a decision by the Minister's delegate to declare or refuse PCA 305, made under the P&G Act would not engage this human right.
Criteria:	(2) Every person has the right to enjoy the person's human rights without discrimination.
Consideration:	The department considers that this human right would not be engaged by a decision by the Minister's delegate to declare or refuse PCA 305, as this decision does not discriminate against a person's human rights.
Criteria:	(3) Every person is equal before the law and is entitled to the equal protection of the law without discrimination.
Consideration:	Laws protect people by ensuring that our general safety, and rights as citizens are protected against abuses by other people, by organizations, and by the government. We have laws to help provide for our general safety and to ensure that decisions are made with the correct considerations. The P&G Act considers people to be equal and does not define or discriminate in its definition of a person or application of the Act.
Criteria:	(4) Every person has the right to equal and effective protection against discrimination.
Consideration:	This human right has been considered and a decision by the Minister's delegate to declare or refuse PCA 305, does not limit this right.
Criteria:	(5) Measures taken for the purpose of assisting or advancing persons or groups of persons disadvantaged because of discrimination do not constitute discrimination.
Consideration:	The relevant provisions of the P&G Act engaged by a decision by the Minister's delegate to declare or refuse PCA 305, does not involve measures of the kind described in section 15(5) of the HR Act.

s16 Right to life	
Criteria:	Every person has the right to life and has the right not to be arbitrarily deprived of life.
Consideration:	 The right to life, as identified in section 16 of the HR Act, may be relevant to a decision to declare or refuse PCA 305, This government accepts that human-induced greenhouse gas emissions are the major cause of accelerated global climate change and that climate change poses significant risks to the environment and, ultimately, to human life and health. It also endorses the international scientific and political consensus that global warming can and should be contained to less than 2° Celsius. The decision to declare or refuse PCA 305 gives authorisation to petroleum appraisal and evaluation activities only. These activities typically include desktop studies, seismic surveying, the drilling of wells and production testing where gas may be vented or flared. These activities may result in a minor increase in greenhouse gas emissions, for example, through the venting or flaring of gas where it is necessary to do so. However, it is the department's view that on balance, any limitation on the rights identified in section 16, is reasonable and demonstrably justifiable in accordance with section 13 of the HR Act, for the following reasons: — The decision to declare PCA 305, is justified given the direct and indirect economic and social benefits of petroleum exploration, is necessary to ensure future demand for gaseous hydrocarbons (gas) can be met. These supplies of gas are necessary to ensure stable and affordable energy supplies are available in the future to support Australia's transition to a carbon neutral economy. The department does not consider that at present there is any less restrictive and reasonable way to achieve this purpose. Reliable and affordable energy and a diversified and strong industrial sector are cornerstones of a healthy and vibrant economy and help to revitalise rural and regional communities, create jobs and increase standards of living. More immediately, the declaration of PCA 305 will contribute to the creation of regional jobs and i

s17 Protection from torture and cruel, inhuman or degrading treatment	
	A person must not be—
Criteria:	(a) subjected to torture; or
	(b) treated or punished in a cruel, inhuman or degrading way; or
	(c) subjected to medical or scientific experimentation or treatment without the person's full, free and informed consent.
Consideration:	The department has considered the right not to be subject to torture, cruel, inhuman or degrading treatment or punishment and
	not to be subjected to medical or scientific experimentation without free and informed consent. The department is of the view that
	these rights are not engaged by a decision by the Minister's delegate to declare or refuse PCA 305.

s18 Freedom from forced work	
Criteria:	(1) A person must not be held in slavery or servitude.
Consideration:	The department has considered the human right identified in section 18(1) of the HR Act and is of the view that the right is not engaged by a decision by the Minister's delegate to declare or refuse PCA 305.
Criteria:	(2) A person must not be made to perform forced or compulsory labour.
Consideration:	The department has considered the human right identified in section 18(2) of the HR Act and is of the view that the right is not engaged by a decision by the Minister's delegate to declare or refuse PCA 305.

s19 Freedom of movement	
Criteria:	Every person lawfully within Queensland has the right to move freely within Queensland and to enter and leave it and has the freedom to choose where to live.
Consideration:	 The decision of the Minister's delegate to declare or refuse PCA 305, may limit the human right to move freely within Queensland. Public Safety is clearly of great importance. The declaration of PCA 305 may limit the human right of freedom of movement on select areas within the ATP, to ensure the ATP holder upholds its statutory health and safety requirements. This is done by ensuring the public at large, or the landholder, are not able to wander among operating plant that may cause injury. It is the department's view that any limitation is reasonable and demonstrably justifiable in accordance with section 13 of the HR Act, for the following reasons: The P&G Act allows for authorised activities for an ATP to be carried out on a landholder's land, despite the rights of the landholder'. However, this broad right is not all encompassing as a person who carries out such an activity must do so in a way that does not unreasonably interfere with anyone else carrying out a lawful activity on the land.² The interaction of these provisions demonstrates the P&G Act's balanced approach to the limitation of rights. This ensures that if a landholder, or any other person, is lawfully carrying out an activity on the same land, that they cannot be unreasonably interfered with by the ATP holder. This demonstrates that the P&G Act limits the right to freedom of movement only to the extent necessary to ensure authorised activities are carried on in a way that minimises conflict with other land uses. An ATP holder must, before carrying out authorised activities with other land uses. An ATP holder must, before carrying out authorised activities for the ATP) have an agreement, usually a 'conduct and compensation agreement' (CCA)³ in place with the landholder, for 'compensatable effects' and the landholder's land. 'Compensatable effects' include deprivation of possession of the land's surface suffered by the landholder and diminution of the use made, or that may be made, of the

Section 108(2) P&G Act.
 Section 804 P&G Act.
 See section 43 Mineral and Energy Resources (Common Provisions) Act 2014.
 See section 81 Mineral and Energy Resources (Common Provisions) Act 2014.

 Further, it is necessary to ensure the holder of an ATP is able to manage its health and safety requirements effectively. This would be difficult if anyone could enter and move across land, subject to advanced activities.
• These limits, when the holder of the ATP is carrying out advanced activities, are required to ensure that an ATP holder meets its statutory safety obligations by excluding individuals, not associated with construction and sites of operating plant, from areas where authorised activities occur on the ATP.
• As stated above, the primary reasons why there may be a limitation of the human right under section 19 of the HR Act, to restrict access and movement across land within an ATP, is to protect the health and safety of people and to protect the economic position of the ATP holder. No other feasible alternative, that encourages a viable petroleum and fuel gas industry, balances and minimises land use conflicts, and ensures public safety, has been identified.
• On balance, for the reasons above, it is the department's view that the limitation of the human right under section 19 of the HR Act imposed by the declaration or refusal of PCA 305, is reasonable and justifiable in a free and democratic society based
on human dignity, equality and freedom.

s20 Freedom of thought, conscience, religion and belief	
Criteria:	 (1) Every person has the right to freedom of thought, conscience, religion and belief, including - (a) the freedom to have or to adopt a religion or belief of the person's choice; and (b) the freedom to demonstrate the person's religion or belief in worship, observance, practice and teaching, either individually or as part of a community, in public or in private.
Consideration:	The department has considered the right to freedom of thought, conscience, religion and belief and does not consider it is engaged by a decision by the Minister's delegate to declare or refuse PCA 305.
Criteria:	(2) A person must not be coerced or restrained in a way that limits the person's freedom to have or adopt a religion or belief.
Consideration:	The department has considered the right to freedom of thought, conscience, religion and belief and is of the view that the right to be free from coercion or restraint that limits a person's freedom to have, or adopt, a religion or belief is not engaged by a decision by the Minister's delegate to declare or refuse PCA 305.

s21 Freedom of expression	
Criteria:	(1) Every person has the right to hold an opinion without interference.
Consideration:	The department has considered the right for a person to hold an opinion without interference and does not consider it is engaged by a decision Minister's delegate to declare or refuse PCA 305.
Criteria:	 (2) Every person has the right to freedom of expression which includes the freedom to seek, receive and impart information and ideas of all kinds, whether within or outside Queensland and whether — (a) orally; or (b) in writing; or (c) in print; or (d) by way of art; or (e) in another medium chosen by the person.
Consideration:	All people are able to write, email, phone or visit any of the departmental offices to express their opinion on petroleum projects. The department's website also includes the ability for people to lodge comments. This human right is not impacted.

s22 Peaceful assembly and freedom of association	
Criteria:	(1) Every person has the right of a peaceful assembly.
Consideration:	The existence of an ATP limits the ability of any owner of land, covered by the area of the ATP, to control entry to the land. Therefore, a decision by the Minister's delegate to declare PCA 305, may be considered a limit on this human right. However, the department is of the view that the limitation is reasonable and demonstrably justifiable under section 13 of the HR Act for the same reasons the limiting effect of the decision on the right, identified under section 19 of the HR Act, is considered reasonable and justifiable. As discussed above, limiting access to the area of an ATP is important for health and
	safety reasons. The fact that persons are not able to assemble within the area of an ATP itself does not preclude them from assembling in other places where they may lawfully do so.
Criteria:	(2) Every person has the right to freedom of association with others, including the right to form and join trade unions.
Consideration:	The department has considered the human right under section 22 of the HR Act, for a person to enjoy freedom of association with others and does not consider this right is engaged by a decision of the Minister's delegate to declare or refuse PCA 305, because any such decision does not have any effect on the ability of individuals to associate freely and join trade unions.

s23 Taking part	in public life
Criteria:	(1) Every person in Queensland has the right, and is to have the opportunity, without discrimination to participate in the conduct of public affairs, directly or through freely chosen representatives.
Consideration:	The department has considered the human right identified in section 23(1) of the HR Act and is of the view that the right is not engaged by a decision by the Minister's delegate to declare or refuse PCA 305.
Criteria:	 (2) Every eligible person has the right, and is to have the opportunity, without discrimination — (a) to vote and be elected at periodic State and local government elections that guarantee the free expression of the will of electors; and (b) to have access, on general terms of equality, to the public service and to public office.
Consideration:	The department has considered the human right identified in section 23(2) of the HR Act and is of the view that the right is not engaged by a decision by the Minister's delegate to declare or refuse PCA 305.

s24 Property rights	
Criteria:	(1) All persons have the right to own property alone or in association with others.
Consideration:	The department has considered the human right identified in section 24(1) of the HR Act and is of the view that the right is not engaged by a decision by the Minister's delegate to declare or refuse PCA 305 because it will not affect the ownership of property.
Criteria:	(2) A person must not be arbitrarily deprived of the person's property.
Consideration:	 The nature of the human right in section 24(2) of the HR Act is to ensure that people are not arbitrarily deprived of their property. The Explanatory Notes for the HR Act state that the right "essentially protects a person from having their property unlawfully removed". This could apply to a landowner or lessee of a property (collectively, a landholder). The declaration or refusal of PCA 305, may deprive a landholder of sections of their real property for a period of time. This is because the landholder's consent is not required for the holder of the underlying and pre-requisite ATP to access its land, which can occur either by agreement between the parties or after the ATP holder files an application in the Land Court. It is therefore likely that the decision to declare or refuse PCA 305, will limit the human right in section 24(2) of the HR Act. However, the department considers the limitation is reasonable and demonstrably justifiable in accordance with section 13 of the HR Act. The limitation has two purposes: Firstly, it allows the State to realise its property in the petroleum that sits below a landholder's land. The subsequent rent, and royalties paid by the ATP holder (for any future petroleum production from a PL granted from the area of this ATP) to the State provide revenue that funds general expenditure for Queensland residents. The limitation helps achieve this purpose by allowing the State to control when and to whom rights to explore for or appraise petroleum are given. Requiring landholder consent before the declaration or refusal of PCA 305, would effectively give veto.

power to a landholder over the development of the State's petroleum resources. This is not considered reasonable in a democratic society where the petroleum resources are not owned by the individual but by the State. The limitation is important in maintaining and growing the royalty stream from petroleum that funds services for Queenslanders and gives the State a return on its resources. The limitation is necessary because without exclusive rights to explore for, appraise (and ultimately) exploit petroleum resources in a particular area, resources operators would be unwilling to invest the large sums required to explore for and appraise petroleum reservoirs and ultimately establish and operate petroleum production fields and supporting infrastructure.

- Secondly, the limitation helps achieve the purpose of protecting public health and safety and provides for the proper management of environmental risks. The limitation helps achieve this purpose by ensuring that only appropriately trained and qualified persons are able to enter and remain on a part of the ATP where authorised activities are actively occurring.
- The limitation itself is restricted by the legislative framework around how ATP holders can get access to a landholder's land to conduct authorised activities. In practice, it is the authorised activities under an ATP that limit the landholder's property rights, not the grant itself. That is, the ATP holder is not entitled to go on the land by virtue of the grant of the ATP or declaration of PCA 305, alone.
- There are two levels of activities an ATP holder can undertake on land. Preliminary activities are those that have no impact, or only a minor impact, on the landholder's business or land use on which the activity is to be carried out. The ATP holder still needs to give the landholder 10 business days' notice before entry on to the landholder's land, to carry out preliminary activities. The ATP holder is liable for any damage caused in undertaking these activities.
- The second level of activities are advanced activities it is these authorised activities that are more likely to limit a landholder's property rights. Before carrying out advanced activities (such as the use of operating plant associated with authorised activities for the ATP) the ATP holder needs to have an agreement, usually a CCA,⁵ in place with the landholder, for 'compensatable effects'⁶ on the land. A CCA can cover how and when an ATP holder may enter the landholder's land, how authorised activities must be carried out and the ATP holder's compensation liability for any compensatable effect.
- If the parties cannot reach agreement, there is a legislated negotiation process whereby the ATP holder can gain access to the landholder's land after 50 business days. Of these 50 business days, 20 business days are for negotiation and an additional 20 business days are for a dispute resolution process to be carried out. If, at the conclusion of this process, the parties still have not agreed, then the ATP holder can apply to the Land Court for the Court to decide the terms of any agreement. After filing in the Land Court, the ATP holder can give the landholder 10 business days' notice before entering the land. Alternatively the parties may agree to go to arbitration instead of the Land Court.
- This legislated negotiation framework goes a long way to restricting the limitation of the declaration or refusal of PCA 305, on the human right in section 24(2) of the HR Act. This is because the landholder is afforded a due process and full compensation for any impacts authorised activities will have on its land. Additionally, environmental authority conditions that

⁵ See section 43 Mineral and Energy Resources (Common Provisions) Act 2014.

⁶ Seegeotion 81 Mineral and Energy Resources (Common Provisions) Act 2014.

apply to the ATP holder for its activities protect the landholder's enjoyment of their property from nuisance impacts as a result
of authorised activities, e.g. noise and dust limits.
Finally, the declaration or refusal of PCA 305, does not create an interest in land.
On balance, for the reasons above, it is the department's view that the limitation of the human right at section 24(2) of the

HR Act, imposed by the declaration or refusal of PCA 305, is reasonable and justifiable in a free and democratic society

s25 Privacy and	25 Privacy and reputation	
Criteria:	A person has the right— (a) not to have the person's privacy, family, home or correspondence unlawfully or arbitrarily interfered with; and	
Consideration:	It is the department's view that the human right in section 25(a) of the HR Act is not engaged or limited by any decision to declare or refuse PCA 305. This is because the ATP holder is not permitted to enter land within 200 metres laterally of a permanent building used as a residence and 50 metres laterally of a cemetery or burial place, without the landholder's consent. Further, the family home itself cannot be accessed. ⁷	
Criteria:	(b) not to have the person's reputation unlawfully attacked.	
Consideration:	It is the department's view that the human right in section 25(b) of the HR Act is not engaged or limited by any decision to declare or refuse PCA 305, because there is no relationship between these decisions and any attack on a person's reputation.	

s26 Protection of	s26 Protection of families and children	
Criteria:	(1) Families are the fundamental group unit of society and are entitled to be protected by society and the State.	
Consideration:	It is the department's view that the human right in section 26(1) of the HR Act is not engaged by any decision to declare or refuse PCA 305.	
Criteria:	(2) Every child has the right, without discrimination, to the protection that is needed by the child, and is in the child's best interests, because of being a child	
Consideration:	 It is the department's view that the human right in section 26(2) of the HR Act is not engaged by any decision to declare or refuse PCA 305. To the extent that the best interests of the child concerns the child's other human rights (such as the right to life), those 	
	human rights have been considered elsewhere.	
Criteria:	(3) Every person born in Queensland has the right to a name and to be registered, as having been born, under a law of the State as soon as practicable after being born.	
Consideration:	It is the department's view that the human right in section 26(3) of the HR Act is not engaged by any decision to declare or refuse PCA 305.	

⁷ Seezeegtion 68(1)(a)(i)(A) Mineral and Energy Resources (Common Provisions) Act 2014File I

based on human dignity, equality and freedom.

s27 Protection from torture and cruel, inhuman or degrading treatment	
Criteria:	All persons with a particular cultural, religious, racial or linguistic background must not be denied the right, in community with other persons of that background, to enjoy their culture, to declare and practise their religion and to use their language.
Consideration:	It is the department's view that the human right in section 27 of the HR Act is not engaged by any decision to declare or refuse PCA 305.

s28 Cultural righ	hts Aboriginal peoples and Torres Strait Islander peoples
Criteria:	 (1) Aboriginal peoples and Torres Strait Islander peoples hold distinct cultural rights. (2) Aboriginal peoples and Torres Strait Islander peoples must not be denied the right, with other members of their community— (a) to enjoy, maintain, control, protect and develop their identity and cultural heritage, including their traditional knowledge, distinctive spiritual practices, observances, beliefs and teachings; and (b) to enjoy, maintain, control, protect, develop and use their language, including traditional cultural expressions; and (c) to enjoy, maintain, control, protect and develop their, kinship ties; and (d) to maintain and strengthen their distinctive spiritual, material and economic relationship with the land, territories, waters, coastal seas and other resources with which they have a connection under Aboriginal tradition or Island custom; and (e) to conserve and protect the environment and productive capacity of their land, territories, waters, coastal seas and other resources.
Consideration:	 It is the department's view that the human right in section 28(2)(a) of the HR Act is not engaged or limited by any decision to declare PCA 305. This is because the declaration allowing authorised activities will not interfere with Aboriginal peoples' and Torres Strait Islander peoples' rights to enjoy, control, protect and develop cultural heritage or traditional knowledge and beliefs etc. To the extent cultural heritage under the <i>Aboriginal Cultural Heritage Act 2003</i> or <i>Torres Strait Islander Cultural Heritage Act 2003</i> (CH Acts) is relevant to this right, the CH Acts safeguard the cultural heritage of Aboriginal people and Torres Strait Islander people by imposing a duty of care on a person who carries out an activity. The duty of care requires that all reasonable and practicable measures must be taken to ensure the activity does not harm 'cultural heritage'. Authorised activities will be subject to these requirements. It is the department's view that the human right in section 28(2)(b) of the HR Act is not engaged or limited by any decision to declare PCA 305, because the declaration or refusal allowing authorised activities will not interfere with Aboriginal peoples' or Torres Strait Islander peoples' right to speak, develop or use their language or traditional cultural expressions. It is the department's view that the human right in section 28(2)(c) of the HR Act is not engaged or limited by any decision to declare PCA 305 This is because the declaration that allows authorised activities will not interfere with Aboriginal peoples' or Torres Strait Islander peoples' rights to enjoy and maintain their kinship ties. It is the department's view that the human right in section 28(2)(d) of the HR Act is engaged by any decision to declare PCA 305. But this is only to the extent the grant may relate to land where Aboriginal peoples or Torres Strait Islander peoples wish

- to maintain and strengthen their spiritual, material and economic relationship with this land and other resources they have a connection with under Aboriginal peoples' or Torres Strait Islander peoples' tradition.
- Limitation of this human right is minimised, as the applicant for the declaration of this PCA is the holder of this ATP, and the
 holder of ATP 645 has entered into an Indigenous Land Use Agreement (ILUA) with the Mandandanji People (QI12010/034).
- The ILUAs must address matters relating to the access of land and waters by the determined Native Title party and may
 include an ancillary agreement which would typically address other matters including compensation, cultural heritage
 management and employment opportunities.
- It is recognised that the human right in section 28(2)(d) of the HR Act may apply to Aboriginal peoples or Torres Strait Islander peoples other than Native Title holders. Other than the Native Title claimants or holders, the department is not aware of any other Aboriginal peoples or Torres Strait Islander peoples who may hold a connection with the land.
- 'Cultural heritage' is defined as anything that is, to Aboriginal peoples or Torres Strait Islander peoples, a significant area, a significant object or evidence of occupation of an area of Queensland. The duty of care required by the CH Acts ensures the areas and things of distinctive spiritual, material and economic importance to Aboriginal peoples or Torres Strait Islander peoples are protected. Limitation of the human right in section 28(2)(d) of the HR Act, particularly regarding the spiritual relationship with the land, is minimised given the duty of care requirements under the CH Acts.
- The department does not consider there is any less restrictive and reasonably available way to achieve the purpose of giving rights to an ATP holder to explore for, appraise and ultimately develop the State's petroleum resources. At this stage, the State relies on the Native Title and cultural heritage processes to balance the rights of Aboriginal peoples or Torres Strait Islander peoples who have a connection to land with the policy of developing the State's resources for the benefit of all Queenslanders.
- It is the department's view that the human right in section 28(2)(e) of the HR Act is engaged by a decision to declare PCA 305. But this is only to the extent the declaration may relate to areas where Aboriginal peoples or Torres Strait Islander peoples have a role in conserving and protecting the environment and the productive capacity of the land.
- If PCA 305 is declared, the human right in section 28(2)(e) of the HR Act may be limited. This is because the ATP holder will be able to carry out authorised activities in the area, which could conflict with the rights of Aboriginal peoples or Torres Strait Islander peoples under section 28(2)(e) of the HR Act.
- This limitation is, however, necessary because the PCA holder needs to be able to make decisions on how to undertake authorised activities in order that these lead to the development of the State's petroleum resources safely and efficiently. As the owner of the petroleum resources, the State declares a PCA within the area of this ATP, to allow the petroleum to be explored for or appraised and eventually produced and sold for the benefit of all Queenslanders. Any limitation to the rights under section 28(2)(e) of the HR Act will not be permanent but only apply for the length of any PCA declaration periods and, if PLs are granted from these areas, the term of the PL (to a maximum initial term of 30 years, with the possibility of renewal).
- The limitation on the human right under section 28(2)(e) of the HR Act, particularly the protection of the environment, is minimised by the requirement that an ATP cannot be renewed (and authorised activities cannot be carried out on the area of the ATP) unless a relevant environmental authority has been issued for it under the *Environmental Protection Act 1994*. The environmental authority EPPG00839513 has been issued for this ATP 645 and remains current. This ensures that the holder of an ATP is held to strict environmental standards and that the environment is protected or remediated to a high standard.

	 The declaration of PCA 305 will facilitate the carrying out of authorised activities in Queensland in line with the objectives of the P&G Act. The limitations have been minimised as far as is reasonably possible by integrating the requirement to negotiate Native Title and to be issued an environment authority, before land within the area of ATP 645 may be accessed and authorised activities carried out in this area. For the rest of the land within the area of this ATP, that is over land types where Native Title is taken to be extinguished, the department considers the human rights under sections 28(2)(d) and (e) of the HR Act have not been engaged or limited as the department has no information that there are any Aboriginal peoples or Torres Strait Islander peoples that are associated with, or have a relationship with, this land. While the human rights under sections 28(2)(d) and (e) of the HR Act extend to Aboriginal peoples or Torres Strait Islander peoples, other than Native Title claimants or holders, the department has no information that there are any Aboriginal peoples or Torres Strait Islander peoples with a relationship within these lands. Even if there were such Aboriginal peoples or Torres Strait Islander peoples, given the land is of a type where Native Title is taken to be extinguished, unless they are the landowners they would not be entitled to enter it to enjoy the human rights under sections 28(2)(d) and (e) of the HR Act without the landowner's permission. The department considers the declaration of PCA 305, over lands where Native Title is taken to be extinguished, does not limit or deny the human rights under sections 28(2)(d) and (e) of the HR Act to any greater extent than the grants that established the extinction of Native Title, have already done. Therefore on balance, for the reasons detailed above, it is the department's view that the limitation of the human rights under sections 28(2)(d) and (e) of the HR Act, imposed by the declaration of PCA 305 i
	democratic society based on human dignity, equality and freedom.
Criteria:	(3) Aboriginal peoples and Torres Strait Islander peoples have the right not to be subjected to forced assimilation or destruction of their culture.
Consideration:	It is the department's view that the human right in section 28(3) of the HR Act is not engaged by any decision to declare or refuse PCA 305.

s29 Right to liberty and security of person	
Criteria:	(1) Every person has the right to liberty and security.
Consideration:	It is the department's view that the human right in section 29(1) of the HR Act is not engaged by any decision to declare or refuse PCA 305.
Criteria:	(2) A person must not be subjected to arbitrary arrest or detention.
Consideration:	It is the department's view that the human right in section 29(2) of the HR Act is not engaged by any decision to declare or refuse PCA 305.
Criteria:	(3) A person must not be deprived of the person's liberty except on grounds, and in accordance with procedures, established by law.
Consideration:	It is the department's view that the human right in section 29(3) of the HR Act is not engaged by any decision to declare or refuse PCA 305.

Criteria:	(4) A person who is arrested or detained must be informed at the time of the arrest or detention of the reason for the arrest or detention and must be promptly informed about any proceedings to be brought against the person.
Consideration:	It is the department's view that the human right in section 29(4) of the HR Act is not engaged by any decision to declare or refuse PCA 305.
Criteria:	 (5) A person who is arrested or detained on a criminal charge — (a) must be promptly brought before a court; and (b) has the right to be brought to trial without unreasonable delay; and (c) must be released if paragraph (a) or (b) is not complied with.
Consideration:	It is the department's view that the human right in section 29(5) of the HR Act is not engaged by any decision to declare or refuse PCA 305.
Criteria:	 (6) A person awaiting trial must not be automatically detained in custody, but the person's release may be subject to guarantees to appear — (a) for trial; and (b) at any other stage of the judicial proceeding; and (c) if appropriate, for execution of judgement.
Consideration:	It is the department's view that the human right in section 29(6) of the HR Act is not engaged by any decision to declare or refuse PCA 305.
Criteria:	 (7) A person deprived of liberty by arrest or detention is entitled to apply to a court for declaration or order regarding the lawfulness of the person's detention, and the court must — (a) make a decision without delay; and (b) order the release of the person if it finds the detention is unlawful.
Consideration:	It is the department's view that the human right in section 29(7) of the HR Act is not engaged by any decision to declare or refuse PCA 305.
Criteria:	(8) A person must not be imprisoned only because of the person's inability to perform a contractual obligation.
Consideration:	It is the department's view that the human right in section 29(8) of the HR Act is not engaged by any decision to declare or refuse PCA 305.

s30 Humane trea	s30 Humane treatment when deprived of liberty	
Criteria:	(1) All persons deprived of liberty must be treated with humanity and with respect for the inherent dignity of the human person.	
Consideration:	It is the department's view that the human right in section 30(1) of the HR Act is not engaged by any decision to declare or refuse PCA 305.	

Criteria:	(2) An accused person who is detained or a person detained without charge must be treated in a way that is appropriate for a person who has not been convicted
Consideration:	It is the department's view that the human right in section 30(2) of the HR Act is not engaged by any decision to declare or refuse PCA 305.

s31 Fair hearing	s31 Fair hearing	
Criteria:	(1) A person charged with a criminal offence or a party to a civil proceeding has the right to have the charge or proceeding decided by a competent, independent and impartial court or tribunal after a fair and public hearing.	
Consideration:	It is the department's view that the human right in section 31(1) of the HR Act is not engaged by any decision to declare or refuse PCA 305.	
Criteria:	(2) However, a court or tribunal may exclude members of media organisations, other persons or the general public from all or part of a hearing in the public interest or the interests of justice.	
Consideration:	It is the department's view that the human right in section 31(2) of the HR Act is not engaged by any decision to declare or refuse PCA 305.	
Criteria:	(3) All judgments or decisions made by a court or tribunal in a proceeding must be publicly available.	
Consideration:	It is the department's view that the human right in section 31(3) of the HR Act is not engaged by any decision to declare or refuse PCA 305.	

s32 Rights in criminal proceedings	
Criteria:	(1) A person charged with a criminal offence has the right to be presumed innocent until proved guilty according to law.
Consideration:	It is the department's view that the human right in section 32(1) of the HR Act is not engaged by any decision to declare or refuse PCA 305.
Criteria:	 (2) A person charged with a criminal offence is entitled without discrimination to the following minimum guarantees— (a) to be informed promptly and in detail of the nature and reason for the charge in a language or, if necessary, a type of communication the person speaks or understands; (b) to have adequate time and facilities to prepare the person's defence and to communicate with a lawyer or advisor chosen by the person; (c) to be tried without unreasonable delay; (d) to be tried in person, and to defend themselves personally or through legal assistance chosen by the person or, if eligible, through legal aid; (e) to be told, if the person does not have legal assistance, about the right, if eligible, to legal aid; (f) to have legal aid provided if the interests of justice require it, without any costs payable by the person if the person is eligible for free legal aid under the Legal Aid Queensland Act 1997;

(g) to examine, or have examined, witnesses against the person;					
	(g) to examine, or have examined, withesses against the person,				
	(h) to obtain the attendance and examination of witnesses on the person's behalf under the same conditions as witnesses				
	for the prosecution;				
	(i) to have the free assistance of an interpreter if the person cannot understand or speak English;				
	(j) to have the free assistance of specialised communication tools and technology, and assistants, if the person has				
	communication or speech difficulties that require the assistance;				
not to be compelled to testify against themselves or to confess guilt					
Consideration:	It is the department's view that the human right in section 32(2) of the HR Act is not engaged by any decision to declare or refuse				
Consideration:	PCA 305.				
Criteria:	(3) A child charged with a criminal offence has the right to a procedure that takes account of the child's age and the desirability				
Ciliteria.	of promoting the child's rehabilitation.				
0	It is the department's view that the human right in section 32(3) of the HR Act is not engaged by any decision to declare or				
Consideration:	refuse PCA 305.				
Cuitouio.	(4) A person convicted of a criminal offence has the right to have the conviction and any sentence imposed in relation to it				
Criteria:	reviewed by a higher court in accordance with law				
Consideration	It is the department's view that the human right in section 32(4) of the HR Act is not engaged by any decision to declare or				
Consideration:	refuse PCA 305.				

s33 Children in the criminal process				
Criteria:	(1) An accused child who is detained, or a child detained without charge, must be segregated from all detained adults.			
Consideration:	Consideration: It is the department's view that the human right in section 33(1) of the HR Act is not engaged by any decision to declare or refuer PCA 305.			
Criteria:	(2) An accused child must be brought to trial as quickly as possible.			
Consideration:	It is the department's view that the human right in section 33(2) of the HR Act is not engaged by any decision to declare or refuse PCA 305.			
Criteria:	(3) A child who has been convicted of an offence must be treated in a way that is appropriate for the child's age.			
Consideration: It is the department's view that the human right in section 33(3) of the HR Act is not engaged by any decision to decision				

s34 Right not to be tried or punished more than once

Criteria:	(1) A person must not be tried or punished more than once for an offence in relation to which the person has already be finally convicted or acquitted in accordance with the law	
Consideration:	It is the department's view that the human right in section 34(1) of the HR Act is not engaged by any decision to declare or refuse PCA 305.	

s35 Retrospective criminal laws				
Criteria:	ia: (1) A person must not be found guilty of a criminal offence because of conduct that was not a criminal offence when it was engaged in.			
Consideration:	ration: It is the department's view that the human right in section 35(1) of the HR Act is not engaged by any decision to declare or refuse PCA 305.			
Criteria:	(2) A penalty must not be imposed on any person for a criminal offence that is greater than the penalty that applied to the offence when it was committed.			
Consideration:	It is the department's view that the human right in section 35(2) of the HR Act is not engaged by any decision to declare or refuse PCA 305.			
Criteria:	(3) If a penalty for an offence is reduced after a person committed the offence but before the person is sentenced for the offence, the person is eligible for the reduced penalty.			
Consideration:	Consideration: It is the department's view that the human right in section 35(3) of the HR Act is not engaged by any decision to declare or refuse PCA 305.			
Criteria:	(4) Nothing in this section affects the trial or punishment of any person for any act or omission that was a criminal offence under international law at the time it was done or omitted to be done.			
Consideration:	It is the department's view that the human right in section 35(4) of the HR Act is not engaged by any decision to declare or refuse PCA 305.			

s36 Right to education				
Criteria:	(1) Every child has the right to have access to primary and secondary education appropriate to the child's needs.			
Consideration:	It is the department's view that the human right in section 36(1) of the HR Act is not engaged by any decision to declare or refuse PCA 305.			
Criteria: (2) Every person has the right to have access, based on the person's abilities, to further vocational education and training is equally accessible to all.				
Consideration:	It is the department's view that the human right in section 36(2) of the HR Act is not engaged by any decision to declare or refuse PCA 305.			

s37 Right to health services

Criteria:	(1) Every child has the right to have access to primary and secondary education appropriate to the child's needs.			
Consideration:	sideration: It is the department's view that the human right in section 37(1) of the HR Act is not engaged by any decision to declare or rePCA 305.			
Criteria:	(2) A person must not be refused emergency medical treatment that is immediately necessary to save the person's life or to prevent serious impairment to the person.			
Consideration:	It is the department's view that the human right in section 37(2) of the HR Act is not engaged by any decision to declare or refuse PCA 305.			

Conclusion

For the reasons set out above, the department is of the view that, if the Minister's delegate agrees that the human rights identified in the tables above are limited only to the extent that is reasonable and demonstrably justifiable in accordance with section 13 of the HR Act, it is open to the Minister's delegate to be satisfied that a decision to declare or refuse PCA 305, is compatible with human rights.

Name: Vijaya Kodali

Position: A/Petroleum Registrar Petroleum Assessment Hub Date: 3 September 2021

PETROLEUM AND GAS (PRODUCTION AND SAFETY) ACT 2004

AUTHORITY TO PROSPECT (ATP) NUMBER 645

POTENTIAL COMMERCIAL AREA NUMBER 305

I, THE DELEGATE OF THE HONOURABLE SCOTT STEWART MP, MINISTER FOR RESOURCES for the State of Queensland, pursuant to section 90(1) of the Petroleum and Gas (Production and Safety) Act 2004 ("the Act"), declare the following part of ATP 645 to be a Potential Commercial Area.

1. AREA DESCRIPTION:

That part of the State of Queensland within the boundaries of the blocks and subblocks as defined and as shown on the Queensland Block Identification Map (BIM) - Series B and set out below, other than that land detailed under Excluded/Unavailable Land for ATP 645.

BIM	Block(s)	Sub-Block(s)
CHAR	2657	ALL
CHAR	2658	ALL
CHAR	2659	ALL
CHAR	2660	ALL
CHAR	2729	ALL
CHAR	2730	ALL
CHAR	2731	ALL
CHAR	2732	ALL
CHAR	2802	ALL
CHAR	2803	ALL
CHAR	2875	ALL

2. TERM OF DECLARATION: 15 Years from 17 September 2021

3. EVALUATION PROGRAM

The approved evaluation program is taken to be an additional part of the existing approved work program for ATP 645.

Year	Activities				
Year 1	Review and update of geological model, reservoir characterisation and				
Tour T	in-place gas resources.				
Year 2	Review of existing and future potential technological options, including drilling, completion, stimulation and production optimisation for input into well design and program planning.				
Year 3	Review of well and seismic results and planning for future appraisal.				
Year 4	Review of well and seismic results and planning for future appraisal.				
Year 5	Studies in support of further appraisal and front-end loading development planning.				
Year 6	Studies in support of further appraisal and front-end loading development planning.				
Year 7	Studies in support of further appraisal and front-end loading development planning.				
Voor 9	Studies in support of further appraisal and front-end loading				
Year 8	development planning.				

Year	Activities		
Year 9	Studies in support of further appraisal and front-end loading development planning.		
Year 10	Studies in support of further appraisal and front-end loading development planning.		
Year 11	Selection of development concept.		
Year 12	Define development concept and update project economic evaluation.		
Year 13	Pre-FEED engineering studies. Negotiate gas sales agreement(s).		
Year 14	Pre-FEED engineering studies. Negotiate gas sales agreement(s).		
Year 15	Pre-FEED engineering studies. Reserve certification to underpin gas sales agreement and investment decision.		

Date Declared: 17 September 2021



Potential Commercial Area (PCA) application – Technical Assessment

Unless otherwise stated, all references below to sections relate to the *Petroleum and Gas* (*Production and Safety*) *Act 2004* (*P&G Act*).

Enter permit number

PCA 305

Prerequisite permit number

ATP 645

Applicant

BNG (Surat) Pty Ltd

Contact Details

QGC Pty Limited

GPO Box 3107 Brisbane QLD 4001

Email: QGC-Tenures@shell.com

Milestone: Summary

PCA application 305 was assessed against the relevant requirements of the legalisation in conjunction with the operational policy and these matters are outlined thoroughly within this report.

The applicant has provided sufficient evidence to demonstrate the following:

- (1) **Petroleum discovery** has been solidly established:
 - a. Gas and condensate have been flowed to surface at sustained rates from the clearly identified targets (Tinowon tight sands) in three tight gas exploration wells within the PCA 305 area (Dunk 1 and Overston 2A in north-western part and Daydream 1 in south-eastern corner), and gas bearing reservoir has been confirmed on gas shows and logs in Magnetic 1 in the south-western corner of the area;
 - b. Coring, logging and testing through fracturing stimulation in those multiple wells have been utilised in establishing the discovery status;
 - c. Presence of significant quantity of hydrocarbons has been demonstrated;
 - d. The applicant has demonstrated that the hydrocarbons are potentially commercial within the next 15 years.

(2) **Commerciality**:

- a. Significant amounts of recoverable (prospective) gas and condensate resources have been estimated even though no contingent resources have been achieved;
- The applicant has demonstrated the petroleum production is not commercially viable now, or would not soon, with the gas rates already or possibly achievable with the currently tested drilling and completion techniques (vertical wells and the singlestaged fracturing stimulation);
- c. The applicant has convincingly demonstrated that petroleum production would potentially be commercially viable within 15 years with utilisation of horizontal wells and multi-staged fracturing stimulation in the area, by potentially improving well production rates and reducing total well/development costs through improving characterisation of the tight gas sand reservoirs in order to identify sweet spots and assessment of various drilling and completion techniques that may unlock deliverability in tight sands;
- (3) **Area**:



The applicant has provided sufficient evidence to demonstrate that the required area for PCA 305 is no more than it needed to cover the maximum extent of the identified reservoirs, since:

- a. SPE-PRMS has stated that "the extent of the discovery within a pervasive accumulation is based on the evaluator's <u>reasonable confidence</u> based on <u>distances</u> from existing experience, otherwise quantities remain as undiscovered";
- b. The applicant has provided sufficient evidence in reasonable confidence to support its claimed existence of pervasive unconventional tight gas sand reservoirs in Tinowon sandstones over the whole PCA 305 area, such as:
 - (a) All the seven exploration wells with gas flow or gas shows in the area were targeting specifically tight gas resources in the first place;
 - (b) All the seven wells were drilled outside any structural highs, which has actually ruled out with high confidence of any conventional resources to be connected with the discovered petroleum in the wells;
 - (c) The applicant has provided that the primary tight gas target, the Tinowon Formation is present across nine of the 11 graticular blocks of the PCA 305 area except the two blocks in the west, while the secondary target of tight gas resources in PCA 305, the Lorelle Sandstone is present across the western part of the area, thanks to the significant amounts of seismic data in the area (see below for the impressive 826 km new 2D seismic acquisition, the 4151 km 2D seismic reprocessing, and the 195 km2 3D seismic reprocessing);
 - (d) The exploration wells with petroleum discovery have covered reasonably even and representative areas of PCA 305. The farthermost is less than 20 kilometres from the discovery wells, which is not a too far-reach in comparison with QLS's current practice in assessing the extent of discovery of the other pervasive unconventional petroleum resources like coal seam gas reservoirs;
- c. The applicant has also demonstrated the need to maximise the appraisal area to maximise the chances of realising a commercial development due to the inherent high cost of developing unconventional tight gas and the uncertainty in gas price over the modelled timeframe of the forecasted development scenarios in its financial assessment on the commerciality of potential production.
- (4) Significant local activities of exploration and appraisal focussing specifically on tight gas resources within the PCA 305 area since 2010 have provided strong support to the applicant's claims for the PCA 305 application, mainly including:
 - Seven wells drilled;
 - 826 km 2D seismic acquisition;
 - 4151 km 2D seismic re-processing;
 - 193 km2 3D seismic re-processing;
 - Fracture stimulation and production testing in four of the newly drilled seven wells;
 - In excess of \$300 million expenditure.
- (5) Sufficient financial data and economic analysis with reasonably forecasted development scenarios have been provided and the conclusions have provided strong support to the applicant's claim on commercial viability of potential petroleum production in the area;
- (6) A appropriate evaluation program including LWP activities for the relevant renewal ATP 645 has been proposed, with impressive focus on solving the challenges of the currently identified contingencies for potential commercial petroleum production in the area, including filling the identified small gaps to sufficiently characterising the two reservoirs of tight gas and achieving estimates of contingent resources or even reserves in the area through further proving lateral extent of the gas-bearing reservoirs and employing best-practice unconventional drilling and completion practices. The proposed activities include drilling more wells and 2D seismic acquisition;
- (7) Contingent resources have not been achieved (only a non-SPE-coded category "recoverable resources" has been provided, which could be substantially categorized as prospective resources) and the applicant has shown great honesty to report that (even though the holder has been so close to achieve it), which does not stop the area being eligible for being announced as a PCA since it satisfies the requirements for a PCA stipulated by the P&G Act



which does not specifically include achieving contingent resources. SPE-PRMS has been strictly followed, and the provided estimate of recoverable (prospective) resources is sufficient for the PCA declaration.

Milestone: Recommendation

It is recommended that, pursuant to section 90(1) of the *Petroleum and Gas (Production and Safety) Act 2004*, the Minister declare the areas of PCA 305 to be potential commercial areas for a term of 15 years.

Name: Dawood Paracha

Designation: Petroleum Engineer

Date: 24/03/2020, 22/04/2020, 14/07/2020, 4/08/2020, 14/10/2020

Peer Reviewer/Contributor Name(s): Dingchuang Qu

Designation: Senior Geoscientist/Engineer

Date: 12/08/2020, 19/10/2020

Peer Reviewer/Contributor Name(s): Andrew McNamara

Designation: Technical Manager

Date: 24/04/2020, 14/07/2020, 4/08/2020, 30/10/2020



Milestone: Overview

PCA 305 application is for a Potential Commercial Area in ATP 645 which is fully operated and held by BNG (Surat) Pty Ltd, a wholly owned subsidiary of QGC (Pty) Limited and in turn Royal Dutch Shell. ATP 645 is a non-contiguous permit located in the Surat Basin, east of the town of Surat within the Western Downs Regional Council and Maranoa Regional Council areas in south-east Queensland, as shown in Figure 1.

ATP 645 covers two areas and a total of 300 sub-blocks. At the time the original application was submitted, ATP 645 was in its third and final four-year period of the renewed term ending 31 December 2019. PCA 305 forms the northern contiguous part of ATP 645, as shown in Figure 2.

A brief history of the prerequisite permit ATP 645 is provided below:

- ATP 645 was first granted under the Petroleum Act 1923 (PA1923) for four years commencing 1 January 2000.
- ATP 645 was renewed for a further four years under the PA1923 on 1 January 2004.
- ATP 645 became a converted ATP under section 876 of the Petroleum and Gas (Petroleum and Safety) Act 2004 (P&G Act) on 31 December 2004.
- On 1 January 2008, ATP 645 was renewed for a further twelve year term.
- On 22 September 2015, approval was given to combine 100% QGC held ATP 645, ATP 785, ATP 768 and ATP 1101 into a project area, the Bowen tight gas sands (TGS) Project Area (BTPA).
- In 2018, the applicant entered into two non-operated joint ventures (ATP 2040 and ATP 2045) operated by Santos (QNT) Pty Ltd located adjacent to ATP 645 with field activity commencing in 2019.

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Despite substantial resource, the challenge in commercialising tight sands within PCA 305 is that, based on current drilling and completion techniques for vertical wells, deliverability is sub-economic. The applicant has also proven through well tests that the area has produced gas, but a full scale development will require more work to develop the extent of the resource and optimise the drilling and completion techniques for deep tight gas required for commerciality of the project. The declaration of the proposed PCA 305 will facilitate reservoir characterisation to underpin decision to test application of unconventional drilling and completion techniques.

Amendment to application

On 29 November 2019, the applicant lodged five PCA applications to cover the entire extent of Authority to Prospect (ATP) 645. PCAs 305 – 308 applications were to cover the northern contiguous part of ATP 645 while PCA 309 was over the southern non-contiguous part.

An amendment application was later lodged by the applicant on 23 June 2020 for the purpose of amalgamating the areas of PCAs 306-308 into PCA 305 which will give the effect of having PCA 305 to cover the northern extent of ATP 645 while PCA 309 will cover the southern non-contiguous part of ATP 645 (Figure

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

The larger PCA will reduce administrative burden, allow technical studies over a larger contiguous area and brings about economies of scale for the applicant and hence the technical assessor is recommending approval.

Additional information

Additional information was received from the applicant on 9 April 2020 providing an indicative timeline of ATP 645 activities outside of the proposed four year work program and over the applied 15 year period associated with the PCA applications. A summary of the additional information is provided below:

 Proposed activities for ATP 645 to support a 15-year PCA term mainly include drilling and production testing of multi-well design alternatives, technical studies, commercial agreements and approvals.

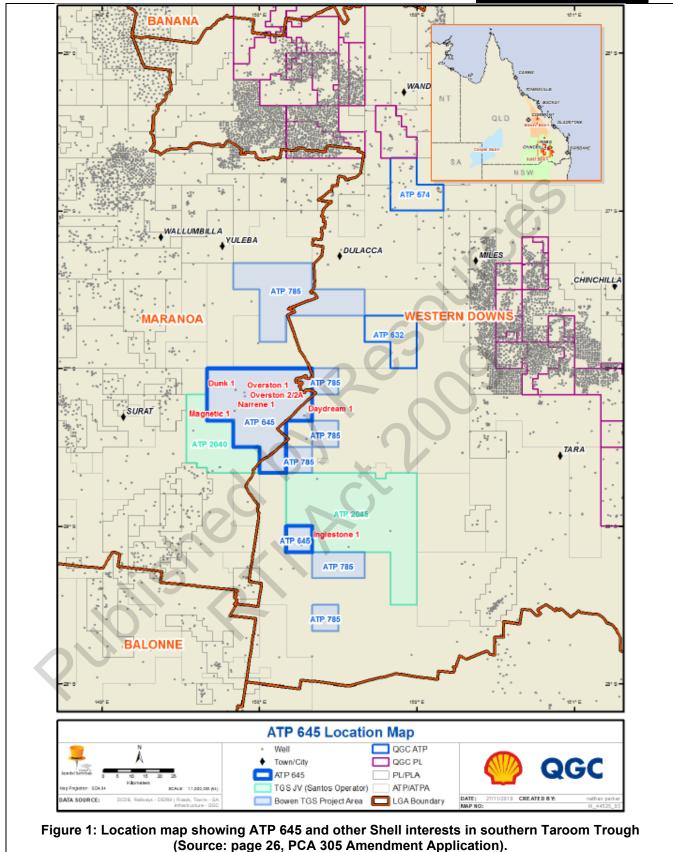


- Appraisal beyond the proposed work program will be dependent on the results and review of the proposed work program activities.
- Appraisal beyond the proposed work program will be dependent on the timeline and exploration
 programs of adjacent ATP 785, ATP 632 (PCA 160) and PLR2019-2-11 acreage (should the applicant
 be successful) as well as ATP 2040 and ATP 2045, which are operated as a joint venture with Santos
 (QNT) Pty Ltd.
- Review of the data gathered in the proposed work program from two wells and 150 kilometres (km) of 2D seismic will underpin the horizontal well design required for commerciality.

Additional information was provided by the applicant on 9 October 2020 in response to a letter from the department dated 21 September 2020. A summary of key information relevant to PCA 305 is provided below:

- The applicant has provided a cross section (Figure 5) and seismic map (Figures 6) which show that the main target formation within ATP 645, the Tinowan Formation is present within PCA 305. The technical assessor considers that these maps provide further evidence that the area of PCA 305 is no more than is needed to cover the maximum extent of the reservoir.
- The applicant has provided further details of the reservoir characterisation within PCA 305 derived from Overston 3D seismic and wells within the Overston 3D (Dunk 1, Overston 1, and Overston 2/2A). These maps show the porosity (Figure 8), net to gross (Figure 9) and sand thickness (Figure 10) of the Tinowan Formation within PCA 305. The technical assessor is satisfied that the applicant has sufficient knowledge of the target reservoir within PCA 305.
- The applicant has confirmed that contingent resources have not been achieved. Only a non-SPE-coded category "recoverable resources" has been provided, which could be substantially categorized as prospective resources. The technical assessor considers that the quantities of hydrocarbon within PCA 305 are prospective and not contingent. The applicant foresee that for contingent quantities to be established, a horizontal multi-frac well development involving production testing will be required.
- The applicant has identified a clerical error in the original gas in place (OGIP) estimate for PCA 305.
 The OGIP estimate for ATP 645, which reports the Lorelle Sandstone is incorrect and an amended OGIP estimate is provided for ATP 645.











Milestone: Area of proposed declaration			
1	Is the area no more than is needed to cover the maximum extent of a natural underground reservoir?	Yes	s.90(1)(a) and (2)

The technical assessor considers that the area applied for is sufficient and no more than required to cover the extent of the natural underground reservoirs, Tinowan Formation and Lorelle Sandstone. As a tight gas reservoir not bound by any particular structure, the target area can be quite large and laterally extensive.

The proposed area of PCA 305 is 275 sub-blocks (825 square kilometres (km2), as shown in Figure 3. The reservoirs of interest in PCA 305 is the Tinowan Formation and the Lorelle Sandstone. The reservoirs extends beyond the PCA area into adjacent tenure and open acreage, as can be seen in Figure 4. It can be seen in Figure 4 that the reservoir covers the extent of PCA 305.

Additional information was provided by the applicant on 9 October 2020 in response to a letter from the department dated 21 September 2020. The applicant has provided a cross section (Figure 5) and seismic map (Figure 6) which show that the main target formation within ATP 645, the Tinowan Formation is present within PCA 305. The technical assessor considers that these maps provide further evidence that the area of PCA 305 is no more than is needed to cover the maximum extent of the reservoir.



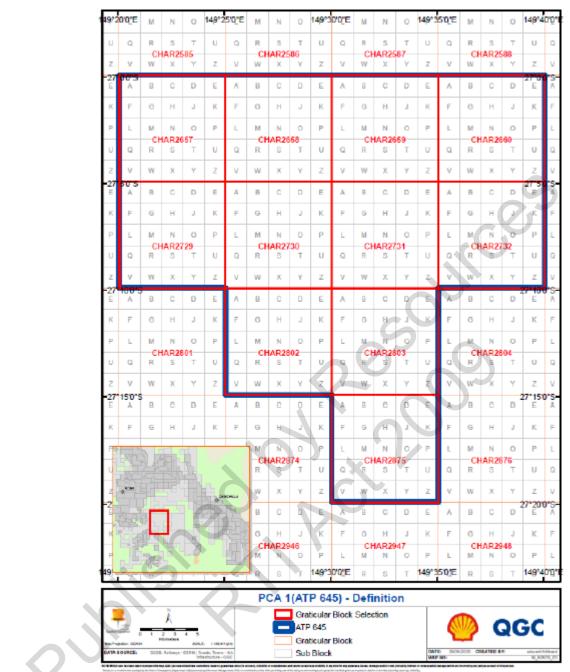


Figure 3: Sub-blocks forming part of PCA 305 application (Source: page 30, PCA 305 Amendment Application).







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Milestone: Commercial viability	



2	Has the applicant provided sufficient details confirming:		s.89(5)(a) and s.231(1)(a) to (e)
	 each natural underground reservoir in the area; 	Yes	
	 an estimate of the amount of petroleum in each reservoir; 	Yes	
	the standards and procedures used to make the estimate;	Yes	
	 whether it is commercially viable to produce or store petroleum in the area; and 	No	
	 that in the holder's opinion, it will, within the next 15 years, be commercially viable to produce or store petroleum in the area. 	Yes	600

The technical assessor considers that the applicant has provided sufficient details to address each criteria.

Natural underground reservoir

The applicant has provided sufficient details on the natural underground reservoir in the PCA area, namely the Tinowan Formation and the Lorelle Sandstone. This includes geological background, petrophysical analysis and drilling details. Tinowan Formation and Lorelle Sandstone are present within the Back Creek Group, which is a widespread succession of marine to fluvial sands, silts, shales, coals and tuffs that predominately represent the thermal sag phase of the Bowen Basin development.

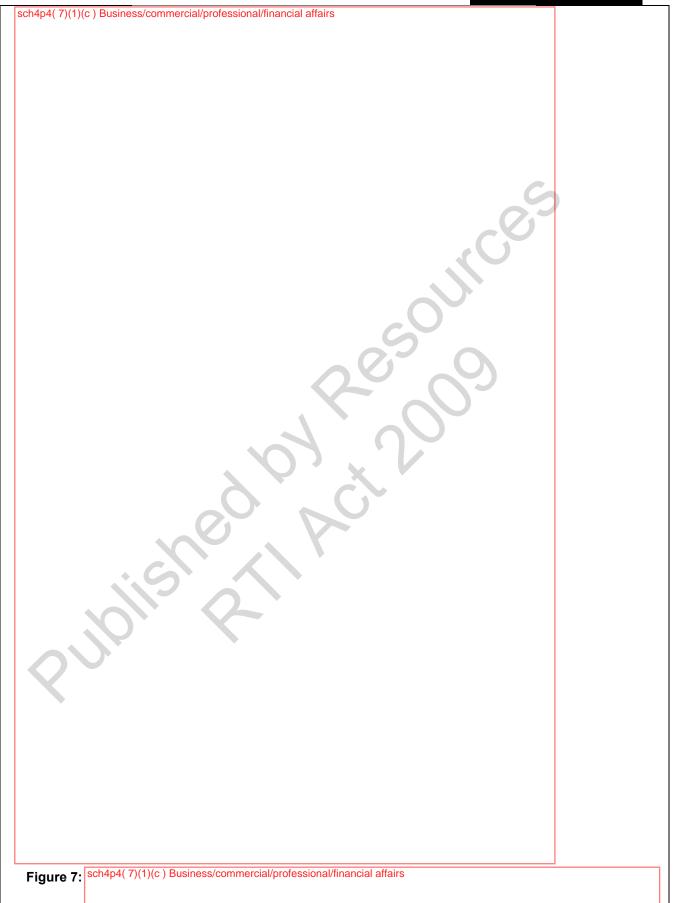
As can be seen in Figure 2, PCA 305 areas contains both the Tinowan Formation and the Lorelle Sandstone. The Tinowan Formation is divided into two distinct depositional sequences, the lower Tinowan/Wallabella Coal Member and the upper Tinowan. The upper Tinowan is the most prolific gas producing interval on the Roma Shelf with the largest gas fields in the province being present in this interval. The lower Tinowan 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 Tinowan. The applicant has also provided stratigraphy for the regions within the Bowen Basin, as shown in Figure 7. It can be seen that the Tinowan Formation is located in the South West Taroom Trough and belongs to the late Permian group.

The Lorelle Sandstones is 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. Lorelle Sandstone is the oldest reservoir in the Back Creek Group and to date has had no economic production despite being found to be gas-bearing in a number of wells. The key challenge in its exploration is understanding reservoir distribution and quality variation with a relatively small number of well penetrations.

The PCA 305 area contains six wells, three of which have flowed gas and condensate to surface following fracture stimulation. The results of these wells has provided impetus for selecting Tinowan Formation as the primary target reservoir and the Lorelle Sandstone as the secondary target reservoir.

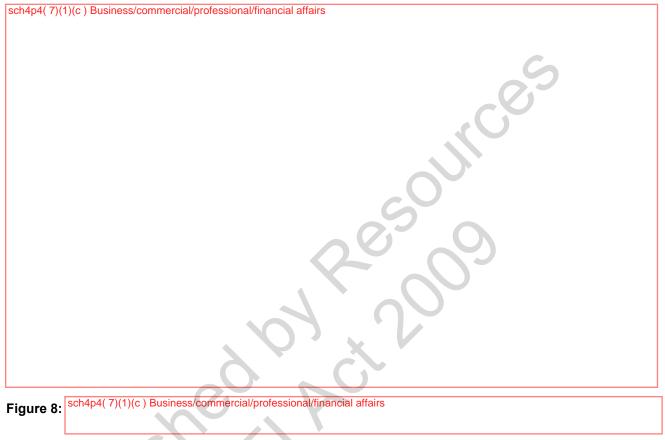
Additional information was provided by the applicant on 9 October 2020 in response to a letter from the department dated 21 September 2020. The applicant has provided further details of the reservoir characterisation within PCA 305 derived from Overston 3D seismic and wells within the Overston 3D (Dunk 1, Overston 1, and Overston 2/2A). These maps show the porosity (Figure 8), net to gross (Figure 9) and sand thickness (Figure 10) of the Tinowan Formation within PCA 305. The technical assessor is satisfied that the applicant has sufficient knowledge of the target reservoir within PCA 305.







The following maps have provided new information on the real reservoir properties such as porosity (Figure 5), sand net to gross (Figure 6), and sand thickness (Figure 7) have been presented in those maps. Not only has the high-resolution aerial variation of those key reservoir properties surrounding the Overston area been presented, but also the less-resolution aerial variation of those properties along the 2D seismic lines. Although the high-resolution area does not cover the whole PCA 305 area, the new information provides further support of the broader extent of the petroleum discoveries in the PCA 305 area. The additional maps provide strong evidence for the claimed discovered reservoir which has extended from the discovery wells to cover almost the whole PCA 305 area.





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Figure 9: sch4p4(7)(1)(c) Business/commercial/professional/financial affairs
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Figure 10: sch4p4(7)(1)(c) Business/commercial/professional/financial affairs
mount of petroleum in each reservoir
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Ability of the resource to be commercially viable within the next 15 years

The technical assessor considers that to develop PCA 305 application area into an economic project will require:

- Confirming the extent of the resource and calibrating reservoir parameters over the maximum possible area:
- Optimising the drilling and completion techniques deployed to realise the modelled type curves; and
- Demonstrating ability to execute project within capital expenditure profile assumptions in the economic analysis.

The applicant believes that over a period of 15 years and through addressing these considerations as part of the ATP 645 work program and the evaluation program for PCA 305, the application area will become commercially viable.

3	Has the applicant provided sufficient supporting data such as:	s.231(1)(f) and (2)(a) and (b)
	 technical data relating to the geology of, and natural underground reservoirs in the area; and market and financial data relevant to the opinions. 	Yes Yes

The technical assessor considers that the applicant has provided sufficient data to address the geology of the Tinowan Formation and the Lorelle Sandstones and the commerciality of the project area.

Geologic review

Prior to the grant of ATP 645, a number of deep wells were drilled during the 1980's in the southern part of ATP 645, with unstimulated flow tests recovering gas cut mud. These wells provided crucial support to the regionally pervasive nature of the gas-bearing reservoirs of the Back Creek Group and the tight-gas potential of the Tinowan Formation and the Lorelle Sandstones.

The earlier activity under ATP 645 was undertaken by Sunshine Gas acquiring the Overston 3D and drilling the Overston-1, Overston-2/2A and Narenne-1/1A wells. More recent activity has been undertaken by the current applicant through 2D seismic and 3 wells, named Daydream-1, Dunk-1 and Magnetic-1. Three wells (Overston-2/2A, Daydream-1 and Dunk-1) have flowed gas and condensate to surface following fracture stimulation and has provided encouraging indications of tight-gas sand reservoirs.

Through Dunk-1 drilling, core was taken of the Upper Tinowan Sandstone, which proved critical in defining gas saturation of approximately 75%. Dunk-1 was also fracture stimulated and production tested and peaked at 4 terajoule (TJ) PJ of gas per day before stabilising at 0.7 TJ of gas per day.

Daydream-1 was drilled to test the Taroom Trough and encountered the Tinowan Formation. This was the first well fracture-stimulated in the Bowen tight gas sand project area and despite a number of issues with these operations, including recovery of unbroken gel to surface during the clean-up and one stage being perforated incorrectly at 180° rather than at 60° as planned, gas and condensate were recovered at surface.

While OGIP and gas flow has been demonstrated in the PCA area, there is considerable uncertainty on reservoir characterisation due to the limited number of well penetrations. 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 PCA evaluation program support the ATP 645 work program to address the challenge of maturing an economic play by improving 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.

Financial and market review

In order to assess commerciality, a development concept was devised based on North American unconventional play development as a base model. The key parameters of the development concept are:



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SCN4	p4(7)(1)(c) Business/commercial/professional/financial affairs	
	Should the Minister be satisfied that petroleum Yes s.90(1)(b)	
	production or storage in the area to be declared,	



is not, and will not soon be, commercially viable,]		
but is likely to be viable within 15 years?			

The Minister should be satisfied that commercial production from the area is not currently viable, but is likely to be viable within 15 years. The applicant has submitted a robust evaluation program to develop the tight gas sand resource within the PCA area.

The applicant has also proven through well tests that the area has produced gas, but a full scale development will require more work to develop the extent of the resource and optimise the drilling and completion techniques for deep tight gas required for commerciality of the project.

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This provides that the PCA 305 application areas hold excellent potential but due to the nature of the tight gas sand resource, the current exploration has not demonstrated commerciality. This is because the current wells within PCA 305 are all vertical ones with only one being fracture stimulated. To achieve commerciality, it is envisioned that horizontal multi-stage fracture stimulated wells will be needed. This represents an enormous expenditure and hence the PCA declaration will aid the applicant in assessing the reservoir quality, resource extent and drilling and completion techniques to reduce the project risks before applying for petroleum leases.

PCA 305 is in close proximity to infrastructure given its location near to existing Roma Shelf production facilities (Wallumbilla and Kincora Gas Plants) which would aid commerciality once initial hurdle of establishing the resource is overcome.

Mil	Milestone: Compliance with relevant ATP		
5	Has the work program of the relevant authority to prospect been substantially complied with?	Yes	s.90(3)

The technical assessor is satisfied that the applicant has substantially complied with the work program for ATP 645.

The current work program for ATP 645 is for the two year period 1 January 2018 to 31 December 2019 and is provided below:

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

Figure 17: ATP 645 current approved work program (Source: page 4, PCA 305 Amendment Application).

As can be seen in Figure 17, the current approved work program for ATP 645 comprises of technical studies, prospect selection and well planning. The technical assessor considers the applicant compliant with the work program since the applicant has demonstrated a good understanding of the reservoir and well planning in its



PCA applications. Work undertaken as part of the current approved work program has collectively led to two PCA applications over the entire ATP 645 area.

In addition, the applicant has provided a summary of exploration activities undertaken as part of the Bowen tight gas sand project since 2010. This is provided below and in Figure 18.

- 826 km 2D seismic acquisition.
- 4,151 km 2D seismic re-processing and 193 km² 3D seismic re-processing of legacy surveys across the project area.
- Drilling of seven wells with total depth ranging from 3,180-4,694 m, four of which were fracture stimulated and production tested. Three of these wells were drilled within ATP 645.



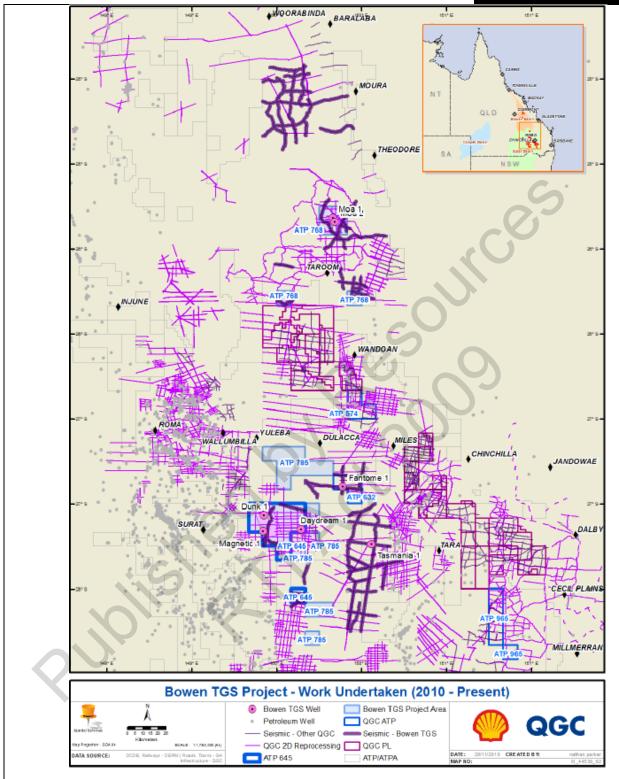


Figure 18: Summary of work undertaken as part of the Bowen tight gas sand project, including ATP 645 since 2009 (Source: page 27, PCA 305 Amendment Application).

Milestone: Evaluation program			
6	Has the applicant provided an appropriate program of work to evaluate the potential for petroleum production or storage and associated market opportunities?	Yes	s.89(5)(b)



The applicant has provided an evaluation program for PCA 305 for a 15 year declaration period.

The evaluation program does not contain any physical activities. In this instance it can be considered acceptable as the holder has drilled and tested three wells in the PCA area and proposed two wells as part of the ATP 645 work program from 1 January 2020 to 31 December 2023. Execution of the ATP 645 work program will be critical to supporting the evaluation program for PCA 305 to prove the tight gas sand resource.

The proposed ATP 645 work program for the period 1 January 2020 to 31 December 2023 is provided in Figure 20. ATP 645 is currently under assessment for a renewal term of 12 years expiring 31 December 2031.

Additional information was received from the applicant on 9 April 2020 providing an indicative timeline of ATP 645 activities outside of the proposed four year work program and over the applied 15 year period associated with the PCA applications. A summary of the additional information is provided below:

- Proposed activities for ATP 645 to support a 15-year PCA term are provided below in Figure 21 and mainly include drilling and production testing of multi-well design alternatives, technical studies, commercial agreements and approvals.
- Appraisal beyond the proposed work program will be dependent on the results and review of the proposed work program activities.
- Appraisal beyond the proposed work program will be dependent on the timeline and exploration
 programs of adjacent ATP 785, ATP 632 (PCA 160) and PLR2019-2-11 acreage (should the applicant
 be successful) as well as ATP 2040 and ATP 2045, which are operated as a joint venture with Santos
 (QNT) Pty Ltd.
- Review of the data gathered in the proposed work program from two wells and 150 km of 2D seismic will underpin the horizontal well design required for commerciality.

The evaluation program provided by the applicant addresses risks around the commerciality of the project. The applicant appears to address a number of these issues in the evaluation program provided through reviews of available technology, updating models and resource estimates and reviewing project economics.

The evaluation program is provided below:



Year Activity Estimated Expenditure per PCA (SA)

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

Figure 19: | sch4p4(7)(1)(c) Business/commercial/professional/financial affairs



Permit Year	Authorised Activity	Expenditure
sch4p4(7)(1)(c) Bus	I iness/commercial/professional/financial affairs	
		S
		60
		5
	26	0
		0
	' \(\(\times \) \\ \(\times \)	
	~O ~ C'	
	.6	
		<u> </u>
gure 20: sch4p4(7)(1)(c) Business/commercial/professional/financial affa	airs



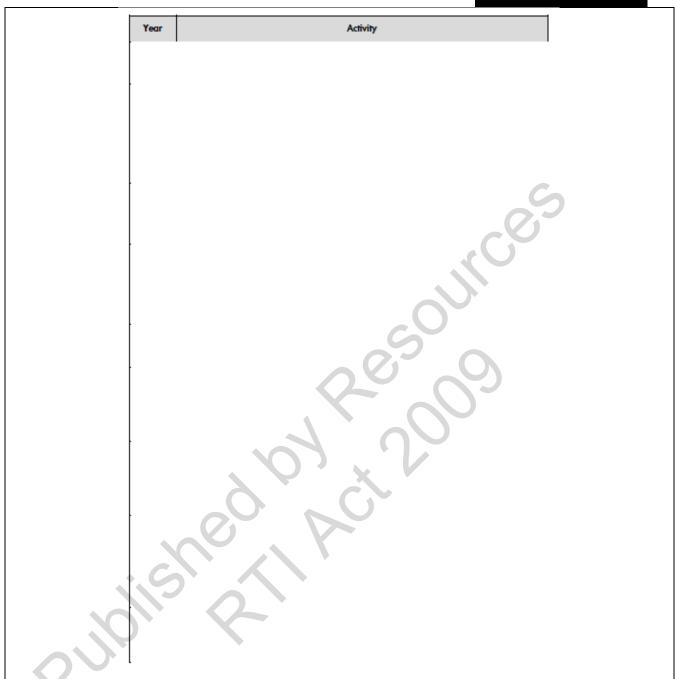






Figure 21: sch4p4(7)(1)(c) Business/commercial/professional/financial affairs

Milestone: Term of declaration			
7	Is the declaration for 15 years?	Yes	s.92(1)
8	If NO, does the shorter period consider the following: • when any petroleum discovery was made; and • any commercial viability report or independent viability assessment for, or that includes, the proposed potential commercial area.	N/A	s.92(2)

The applicant has applied for a 15 year declaration for PCA 305. The technical assessor is recommending a declaration of 15 years because of the following reasons:

- The technical assessor believes that a declaration term of 15 years is needed to confirm the resource extent, optimise drilling and completion techniques and finalise commercial aspects of the tight gas project.
- Three wells within PCA 305 application area have flowed gas and condensate to surface following fracture stimulation. This confirms presence of the resource and necessitates further evaluation.
- sch4p4(7)(1)(c) Business/commercial/professional/financial affairs



With the target resource being tight gas where risk is generally higher, the 15 year declaration period is more acceptable. This will provide the applicant the required time to demonstrate commerciality before significant investment associated with multi-stage fracture stimulated horizontal wells, which will be required for commercial production.

The tight gas project could be of significant financial benefit for the State and any geological and engineering knowledge gained through the drilling and development of deep tight basin centred gas would also be of significant benefit.

The technical assessor recommends that the PCA 305 be granted for a period of 15 years.

Our Ref: ATP 645 & PCA 305

Queensland Government

Department of Natural Resources, Mines and Energy

17 September 2021

Mr Tyson Croll BNG (Surat) Pty. Ltd. C/- QGC Pty Limited GPO Box 3107 BRISBANE QLD 4001

E-mail: QGC-Tenures@shell.com

Dear Mr Croll,

I refer to the application for Potential Commercial Area (PCA) number 305 lodged over the area of Authority to Prospect (ATP) Number 645 by BNG (Surat) Pty. Ltd. (BNG (Surat)) (ACN: 090 629 913) on 29 November 2019 and subsequent amendment to application lodged on 23 June 2020.

On 17 September 2021, pursuant to section 90 of the *Petroleum and Gas (Production and Safety)* 2004 Act (P&G Act), the Minister's delegate declared PCA 305 for a term of 15 years ending on 16 September 2036. Please note that BNG (Surat), before the end of term of PCA 305 will have the option to progress to a higher form of tenure or seek a further PCA declaration over the area.

The evaluation program commitments that are taken to be an additional part of the existing work program are detailed in the attached hard copy endorsements and are summarised below:

PCA 305 Evaluation program

Year	Activities
Year 1	Review and update of geological model, reservoir characterisation and
	in-place gas resources.
Year 2	Review of existing and future potential technological options, including
	drilling, completion, stimulation and production optimisation for input
	into well design and program planning.
Year 3	Review of well and seismic results and planning for future appraisal.
Year 4	Review of well and seismic results and planning for future appraisal.
Year 5	Studies in support of further appraisal and front-end loading
	development planning.
Year 6	Studies in support of further appraisal and front-end loading
	development planning.
Year 7	Studies in support of further appraisal and front-end loading
	development planning.
Year 8	Studies in support of further appraisal and front-end loading
	development planning.
Year 9	Studies in support of further appraisal and front-end loading
	development planning.
Year 10	Studies in support of further appraisal and front-end loading
	development planning.
Year 11	Selection of development concept.
Year 12	Define development concept and update project economic evaluation.

Year 13	Pre-FEED engineering studies. Negotiate gas sales agreement(s).
Year 14	Pre-FEED engineering studies. Negotiate gas sales agreement(s).
Year 15	Pre-FEED engineering studies. Reserve certification to underpin gas sales agreement and investment decision.

Should you have further enquiries, please contact Vijaya Kodali, A/Petroleum Registrar, Petroleum Assessment Hub of the Department of Resources on telephone number (07) 3199 8119 or email Vijaya.kodali@resources.qld.gov.au

Yours sincerely

sch4p4(6) Personal ir

Vijaya Kodali A/ Petroleum Registrar Petroleum Assessment Hub

Att/Enc: Endorsement



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File I



- Permit details	
Permit ID:	PCA 305
Type:	Potential Commercial Area - Petroleum
Permit name:	Bowen TGS: PCA 1
Status:	Application
Lodged date:	29/11/2019
Grant date:	
Commencement date:	
Expiry date:	
Term sought:	15 years
Work program type:	
Conditions:	
Locality:	East of Surat
Public remarks:	
Departmental remarks:	
Act permit granted under:	
Act now administered under:	

Holders

Authorised holder representative (AHR)

QGC Pty Limited GPO Box 3107 Brisbane QLD 4001

Phone: 30247806

Email: QGC-Tenures@shell.com

Holders

	Holder name	Y	Change reason	Share %	Status	Held from	Held to	Authorised holder
*	BNG (SURAT) PTY. LTD. (ACN: 090629913) GPO Box 3107 Brisbane QLD 4001 +61730247806 QGC-Tenures@shell.com	7		100.00000000000000000000000000000000000	Current	29/11/2019		Yes

Tenancy type: Sole Holder Authorised Holder Group

No data available

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Location: Mew Map Mining district: Dalby Local authority: Maranca Regional Council, Western Downs Regional Council Area: 275 Sub-blocks Exclusions: Marked out date:

Sub-blocks

BIM	Block	А	В	С	D	E	F	G	Н	J	K	L	М	N	0	Р	Q	R	s	T	U	٧	W	X	Υ	Z
Charleville	2657	Α	В	С	D	Е	F	G	Н	J	K	L	М	N	0	Р	Q	R	S	T	U	٧	W	Χ	Υ	Z
Charleville	2658	Α	В	С	D	Е	F	G	Н	J	K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	Χ	Υ	Z
Charleville	2659	Α	В	С	D	Е	F	G	Н	J	K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	Χ	Υ	Z
Charleville	2660	Α	В	С	D	Е	F	G	Н	J	K	L	М	N	0	Р	Q	R	s	Т	U	٧	W	Χ	Υ	Z
Charleville	2729	Α	В	С	D	Е	F	G	Н	J	K	L	М	Ν	0	Р	Q	R	S	Т	U	٧	W	Χ	Υ	Z
Charleville	2730	Α	В	С	D	Е	F	G	Н	J	K	L	М	Ν	0	Р	Q	R	S	Т	U	٧	W	Χ	Υ	Z
Charleville	2731	Α	В	С	D	Е	F	G	Н	J	K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	Χ	Υ	Z
Charleville	2732	Α	В	С	D	Е	F	G	Н	J	K	L	M	N	0	Р	Q	R	S	Т	U	٧	W	Х	Υ	Z
Charleville	2802	Α	В	С	D	Е	F	G	Н	J	K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	Х	Υ	Z
Charleville	2803	Α	В	С	D	Е	F	G	Н	J	K	L	М	N	0	Р	Q	R	S	Т	U	٧	W	Χ	Υ	Z
Charleville	2875	Α	В	С	D	Е	F	G	Н	J	K	L	М	Ν	0	Р	Q	R	S	Т	U	٧	W	Х	Υ	Z

Background land

No data available

Survey plans

No data available

Relinquishment details

No data available

Sub-blocks retained

No data available

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Controlling permit: ATP 645



 Environmental Authority and F 	inancial Provision				
Environmental Authority (EA)	No data currently availa	ıble from external servi	ce. Last updat	ed date: 0	3/09/2021 12:17 PM
EA Number:					
EA Version:					
EA Permit Status:					
EA Application No:					
EA Application Type:					
EA Grant Date:					
EA Effective Date:					
Other Permits on Same EA:				Co	
Estimated Rehabilitation Cost (ERC)				3	
ERC Number: ERC Amount:					
ERC Decision Date:			-		
ERC Reason Name:					
FP Status: FP Decision Date: FP Payment Due Date: FP Payment Receipt Date:		280	9		
→ Term history					
Term Date notice Date lodged	Date approved	Date commenced	Date term ends	Term	Act granted under
29/11/2019					
→ Native title					
No data available					
- Purpose and minerals					
Prescribed minerals Petroleum					

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 Financia 	I	
Rent details		
Area units:	275	
Rate/unit area:		
Rent schedul	е	
No data available		
Security		
Security held:		\$0.00
Current assesse	ed security:	
Initial assessed	security:	\$0.00
Date of initial as	ssessment:	
Security adju	stment	
Date adjusted:		
Reason for adju	ustment:	
MMOL ref numb	er:	
Revised assesse	ed security:	
Amount of adjus	stment:	
Remarks:		
Financial bala	ance sum	mary
No data available		

- Activities						
Activity name	Activity / Dealing No	Status	Date received	Expected completion	Date completed	Remarks
Maintain sub-blocks	322936	Approved	10/08/2020	10/08/2020	10/08/2020	
Maintain sub-blocks	322841	Approved .	07/08/2020	07/08/2020	07/08/2020	
Maintain sub-blocks	322436	Approved	06/08/2020	05/08/2020	06/08/2020	
Amendment to application	317447	Approved .	23/06/2020		22/07/2020	
Amendment assessment	317598	Closed(Accepted)	23/06/2020	27/07/2020	22/07/2020	Amendment approved.
Change Principal Holder Address	(5)	Closed	22/04/2020	22/04/2020	22/04/2020	Change from GPO Box 3107 Brisbane QLD 4001 to GPO Box 3107 Brisbane QLD 4001
Change Authorised holder representative address		Closed	22/04/2020	22/04/2020	22/04/2020	Change from GPO Box 3107 Brisbane QLD 4001 to GPO Box 3107 Brisbane QLD 4001
Change Authorised holder representative address		Closed	22/04/2020	22/04/2020	22/04/2020	Change from GPO Box 3107 Brisbane QLD 4001 to GPO Box 3107 Brisbane QLD 4001
Change Authorised holder representative address		Closed	22/04/2020	22/04/2020	22/04/2020	Change from GPO Box 3107 Brisbane QLD 4001 to GPO Box 3107 Brisbane QLD 4001
Change Authorised holder representative address		Closed	22/04/2020	22/04/2020	22/04/2020	Change from GPO Box 3107 Brisbane QLD 4001 to GPO Box 3107 Brisbane QLD 4001
Application assessment	296573	In progress	29/11/2019	19/10/2020		No comment.

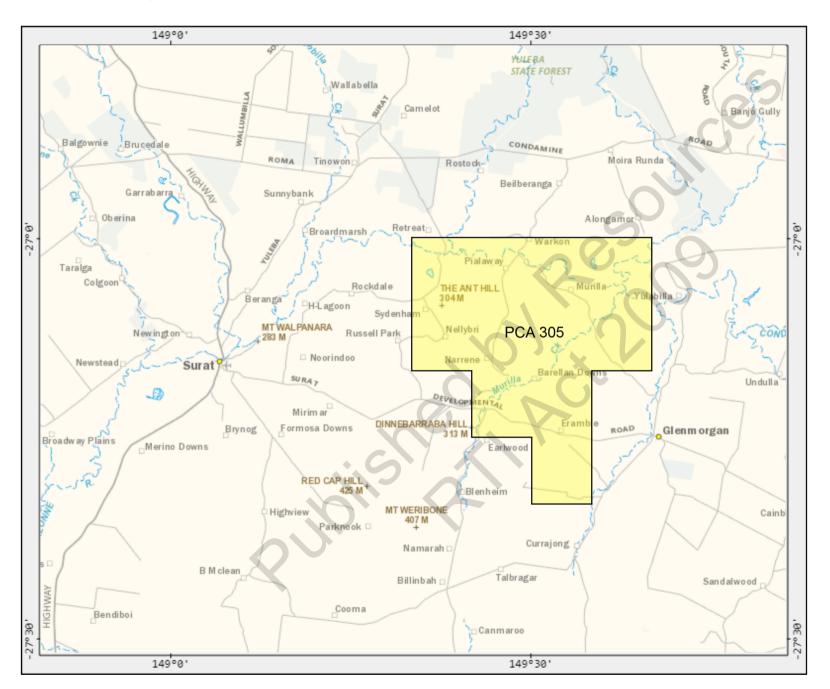
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- Actions							
Current actions							
Action	Context	Status	Date started	Due date	Last updated by	Remarks	Documents
Assess permit area for Native Title	Application - Native title assessment	Completed	10/12/2019	10/12/2019	Julieanne Butteriss	10.12.2019 - The declaration of a Potential Commercial Area is not the creation of a right to mine. The declaration has no impact on native title and no assessment has been undertaken. Should any further mining tenement applications be made over the declared area, a native title assessment will be required.	
Historical actions							
Action	Context	Date started	Due date	Date completed	Last updated by	Remarks	Documents
File Note – External Correspondence	PCA306, PCA307, PCA308	04/12/2019	29/12/2019	04/12/2019	Kate Byrne	Advice from QCC regarding PCA. Further information in email attached.	rall f
Additional information request	PCA309	23/09/2020	09/10/2020	21/10/2020	Kate Byrne	Additional information request sent to QGC on 22/9/2020. Given until 9/10/2020 to provide information. See attachment for further information. QGC provided a response to the information request on 9/10/2020.	ED ema Emailfro Respon
Natural Justice Letter	PCA309	20/11/2020	02/04/2021	30/03/2021	Vijaya Kodali	Notice sent to the holder on 20/11/2020 with consideration to refuse PCA 309 and progress with the declaration of PCA 305. The holder has until 8/2/2021 to make a submission. Extension of time requested. Response due 2/4/2021. Response received 30/3/2021.	NaturalJ. Control Respon.
Archived actions						9	
No data available							

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Location Map PCA 305



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Scale: 1:553333

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Projection: Web Mercator EPSG 102100

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Location Map PCA 305



Legend

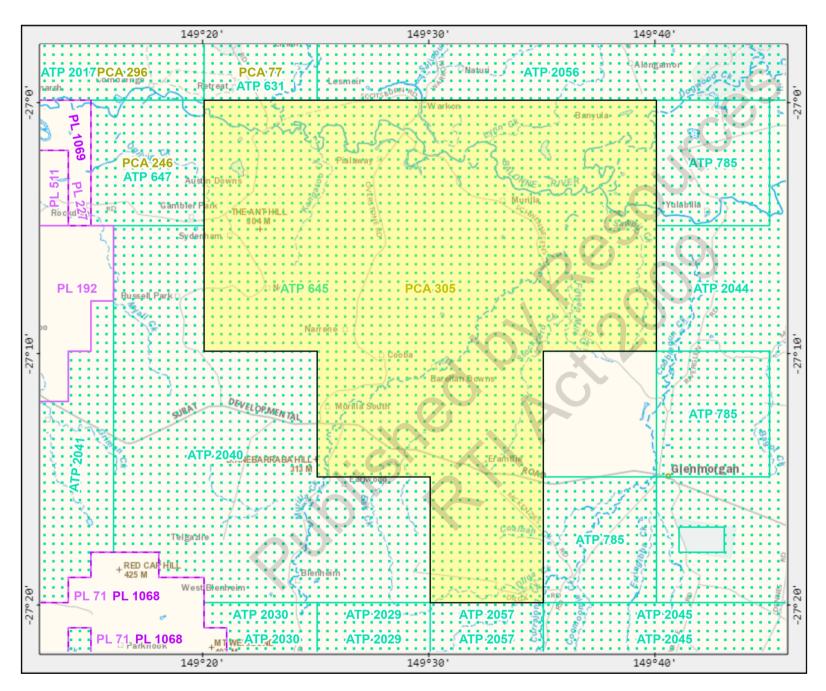


Esri, CGIAR

Department of Resources, Dept.of Environment and Science, Esri, HERE, Garmin, FAO, METI/NASA, USGS

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Overlapping Map PCA 305



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Overlapping Map PCA 305



Legend

EPC application

EPC granted

EPM application

EPM granted

EPM special application

EPM special granted

MDL permit application

MDL access application

MDL permit granted

MDL access granted

EPG application
EPG granted
EPQ application
EPQ granted
ATP application
ATP granted
Petroleum PCA application
Petroleum PCA granted

MC permit application

MC access application

MC permit granted MC access granted ML permit application ML surface area application ML access application ML permit granted ML surface area granted ML surface restricted land granted ML access granted PL application



Esri, Geoscience Australia, NASA, NGA, USGS

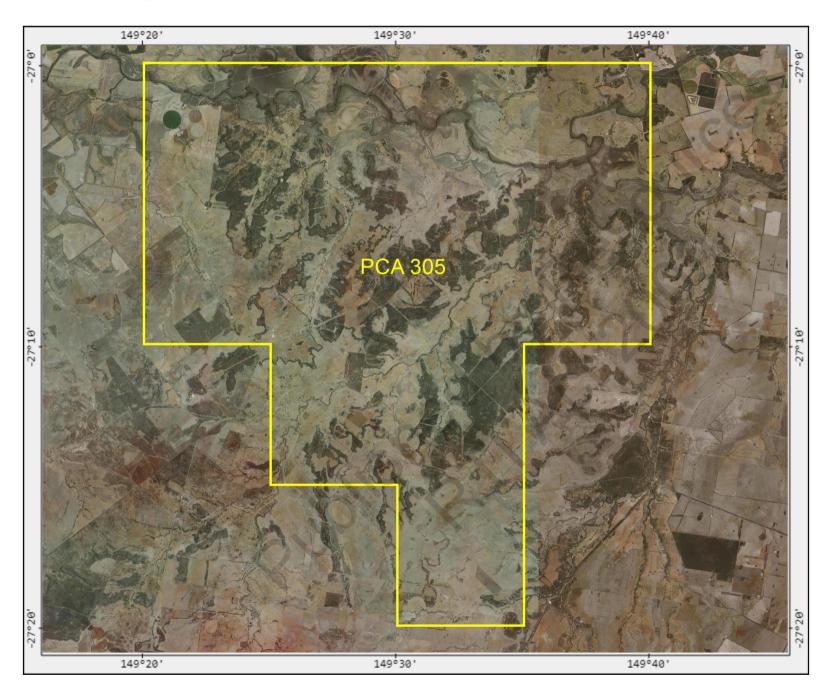
Department of Resources, Dept.of Environment and Science, Esri, HERE, Garmin, METI/NASA, USGS

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PL granted
GL application
GL granted
GL application
QL application
QL granted

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Satellite Map PCA 305



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Satellite Map PCA 305



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Operational policy

Application for declaration of a Potential Commercial Area

MIN/2015/1318 03 March 2021 Version 2.03

1. Purpose

Pursuant to section 3 of the *Petroleum and Gas (Production and Safety) Act 2004* (P&G Act), the main purpose of the P&G Act is to facilitate and regulate the carrying out of responsible petroleum activities and the development of a safe, efficient and viable petroleum and fuel gas industry in various ways, including to:

- manage the State's petroleum resources for the benefit of all Queenslanders;
- enhance knowledge of the State's petroleum resources;
- encourage and maintain an appropriate level of competition in the carrying out of petroleum activities; and
- optimise coal seam gas production and coal or oil shale mining in a safe and efficient way.

The purpose of this policy is to inform industry of certain matters that will be considered by the Minister (or authorised delegate) when deciding whether to declare a potential commercial area (PCA) under section 90 of the P&G Act.

The department is committed to respecting, protecting and promoting human rights. Under the *Human Rights Act 2019*, the department has an obligation to act and make decisions in a way that is compatible with human rights and, when making a decision, to give proper consideration to human rights. To the extent an act or decision under this document may engage human rights under the *Human Rights Act 2019*, regard will be had to that Act in undertaking the act or making the decision.

The holder of an authority to prospect (ATP) can apply, under section 89 of the P&G Act, for a declaration of a PCA over all or a part of the area of the ATP. In that regard, applicants are referred to the Potential Commercial Area Application Guideline.

2. Policy determination

The purpose of a PCA is to enable an ATP holder (the holder) who discovers petroleum or a natural underground reservoir suitable for the storage of petroleum that is not currently commercially viable, to retain an interest in and later develop that discovery. A PCA is not intended to be used as a means of retaining an interest in an ATP if such a discovery has not been made.

A PCA is a statutory declaration over an existing ATP area, which can affect the relinquishment requirements for the ATP. In particular, sub-blocks covered by a PCA are not required to be relinquished by an ATP holder (although, they can be). A PCA declaration can therefore operate to preserve areas of an ATP which would otherwise need to be relinquished. The purpose of this is to allow for appraisal and other activities to prove up the commerciality of the petroleum discovery.



21-296 File I

When declaring a PCA, the Minister (or authorised delegate) must be satisfied the decision criteria in section 90 of the P&G Act have been met. While this operational policy focuses on the decision criteria in section 90(1) of the P&G Act, it should be noted that other requirements also apply.¹

Each PCA application is to be assessed on a case-by-case basis and on the basis of the legislation in force at the relevant time.

3. Decision criteria in section 90(1) of the P&G Act

3.1 The area of the PCA is no more than is needed

The Minister (or authorised delegate) may declare an area of an ATP to be a PCA only if satisfied that the area is no more than is needed to cover the maximum extent of a natural underground reservoir identified in the report accompanying the application for the PCA declaration.²

When declaring a PCA, the Minister (or authorised delegate) will therefore consider what area is reasonable for the resource type being targeted, taking into account the extent of the relevant natural underground reservoir.

The applicant must have identified in the report accompanying the PCA declaration application, each relevant natural underground reservoir. If the area being applied for is greater than the relevant reservoir, the applicant will need to demonstrate why the greater area is appropriate.

3.2 Petroleum production or storage in the proposed PCA is not, and will not soon be, commercially viable, but is likely to become viable within 15 years

The Minister (or authorised delegate) may declare an area to be a PCA only if satisfied that petroleum production or storage in the area to be declared is not, and will not soon be, commercially viable, but is likely to become viable within 15 years.³

The applicant must have lodged a report with its PCA declaration application which, among other things:

- states whether, in the applicant's opinion, it is commercially viable to produce or store petroleum in the proposed area;
- if the applicant's opinion is that it is **not** commercially viable to produce or store petroleum in the proposed area, states whether, in the applicant's opinion, it will, within the next 15 years, be commercially viable to produce or store petroleum in the proposed area; and
- gives data, and an analysis of the data, that supports each opinion.

The supporting data and analysis provided must cover relevant:

- technical and geological issues; and
- market and financial issues.

A PCA declaration application must also have been accompanied by an evaluation program relating to the potential petroleum production or storage in the proposed PCA and associated market opportunities.

Although not mandatory, the department recommends the data and analysis contained in the report accompanying the PCA application is independently prepared and certified. The report

¹ See, for example, Petroleum and Gas (Production and Safety) Act 2004, sections 89, 90(2) and (3).

² Petroleum and Gas (Production and Safety) Act 2004, s90(1)(a).

³ Ibid s90(1)(b).

should detail the factors affecting the commerciality of the proposed PCA and, in appropriate cases, assess the commerciality of alternative development scenarios or pathways to market.

The department recommends petroleum discoveries within a proposed PCA area be evidenced and classified in accordance with the <u>Society of Petroleum Engineers - Petroleum Resources Management System</u> (PRMS) as approved by the Society of Petroleum Engineers (SPE) in June 2018. The potential resource classifications, and their likely treatment by the Minister (or authorised delegate) are summarised in the table below.

Resource Classification	Commerciality status	Definition	Recommended Resource Authority
Prospective Resource (1U; 2U; 3U)	Not commercial	 "Prospective resources" – are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from undiscovered accumulations by application of future development projects; have both an associated chance of geologic discovery and a chance of development; are further categorized in accordance with the range of uncertainty associated with recoverable estimates, assuming discovery and development, and may be subclassified based on project maturity. 	Any "prospective resources" should be further evaluated by carrying out authorised activities under the ATP. Prospective resources do not represent a petroleum discovery and are unlikely to support a PCA application.
Contingent Resource (1C; 2C; 3C)	Potentially commercial	 "Contingent resources" - are those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations, by the application of development project(s) not currently considered to be commercial owing to one or more contingencies; have an associated chance of development; may include, for example, projects for which there are currently no viable markets, or where commercial recovery is dependent on technology under development, or where evaluation of the accumulation is insufficient to clearly assess commerciality; are further categorized in accordance with the range of uncertainty associated with the estimates and should be subclassified based on project maturity and/or economic status. 	Contingent resources can only be booked where a petroleum discovery has been made. If "contingent resources" are identified, they may be suitable for a PCA application. The report supporting the PCA application will need to identify the "contingent resource" and demonstrate that the proposed PCA is not now, and will not soon be, commercially viable, but it is likely to become viable within 15 years.

Relea

Resource Classification	Commerciality status	Definition	Recommended Resource Authority
Reserves (1P; 2P; 3P)	Commercial	 "Reserves" - are those quantities of petroleum anticipated to be commercially recoverable by application of development projects to known accumulations from a given date forward under defined conditions; reserves must satisfy four criteria: they must be discovered, recoverable, commercial, and remaining (as of a given date) based on the development project(s) applied. 	If estimates indicate that the area of the ATP contains 2P reserves of petroleum, a PCA is unlikely to be considered appropriate. A PL application is likely to be considered more appropriate for the area.

3.3 Determining the term of a declared PCA

A PCA may be declared for a period of up to 15 years. The Minister may declare a PCA for a shorter term, if the timing and circumstances around a petroleum discovery and the content of the commercial viability report warrant a shorter term. Applicants should consider only applying for a term that is required to commercialise the resource.

Other matters

4.1 PCA and PL applications over the same area

The department notes it is possible for an application for a PCA and an application for a PL to be lodged over the same area by the same ATP holder.

Before lodging both a PCA application and a PL application over the same area, the department recommends the applicant consider whether the information provided in support of those applications could conflict in any way, noting a PCA is intended to support activities which relate to a currently uncommercial discovery and a PL will generally support activities associated with petroleum production.

If conflicts exist, they may need to be considered and resolved:

- before a particular application is accepted for consideration; or
- before a particular application is decided.

On the acceptance of the later PCA or PL application, the department will expect the ATP holder to withdraw the application that does not comply with the requirements for grant under either section 90 (for PCA applications) or section 121 (for PL applications) of the P&G Act.

Important Note: The department's policy position is that a holder of an ATP cannot make an application for a PL or PCA after the 12 year term of the ATP. This is despite the ATP continuing past the 12 year term because of previously lodged PL or ATP renewal applications that have yet to be decided. An ATP holder is encouraged to engage with the department prior to the end of the 12 year term of the ATP, to discuss any concerns they may have in regards to the development of a discovery within the ATP area.

Document information

Availability: External

Location: Business Industry Portal

Owner and approver: Deputy Director-General, Georesources Division

Review date: 25 May 2022

Related documents: This policy should be read in conjunction with the <u>Potential commercial area application guideline</u> and the Society of Petroleum Engineers – Guidelines for Application of the <u>Petroleum Resources Management System 2018</u>.

Contact: For help and information contact the Petroleum Assessment Hub on (07) 3199 8118 or

email petroleumhub@resources.qld.gov.au.



Disclaimer

The purpose of this policy is to provide a framework for consistent application and interpretation of the legislation administered by the department. Policies may be applied flexibly where individual circumstances require an alternative application of policy. Where this policy, or part of this policy, is inconsistent with relevant legislation, the legislation will prevail to the extent of the inconsistency. While this document has been prepared with care it contains general information and does not profess to offer legal, professional or commercial advice. The Queensland Government accepts no liability for any external decisions or actions taken on the basis of this document. Persons external to the Queensland Government should satisfy themselves independently and by consulting their own professional advisors before embarking on any proposed course of action.

Keywords

MIN/2015/1318; Resources; PCA; authority to prospect; extend; declaration

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Brief and Tenures Summary Checklist (2004 Act)

Internal quality control checklist

		Registrar	Manager	Director
1.	Declaration of PCA 305	✓	✓	
2.	Holder/s and % correct	✓	✓	
3.	Executive Summary:	✓	✓	
4.	Recommendation			
5.	satisfied the area is no more than is needed to cover the maximum extent of a natural underground reservoir Section 90(1)(a)	√	, CO,	
6.	satisfied that petroleum production in the area to be declared, is not, and will not soon be, commercially viable, but is likely to become viable within 15 years Section 90(1)(b)	, 65		
7.	Declare PCA area Section 90(1)		\odot	
8.	Declaration Period (check against MMOL and tenure assessment)	Years: 15	Years: 15	Years:
9.	Area (check total and list in brief under key issues)	Sub-blocks: 275	Sub-blocks: 275	Sub-blocks:
10.	Key Issues			
11.	Conditions of ATP have been substantially complied with Section 90(3)	√	√	
12.	Sections of the Act checked and correct	✓	✓	
13.	Answer given to all recommendations?	✓	✓	
14.	Significant information listed?	✓	✓	
15.	Does the area form a single parcel of land? Section 90(2)	√	√	
16.	Term of declaration for 15 years from the making of the declaration or if the declaration states a shorter period- the shorter period Section 92(1) (a) or Section 92(1)(b)	✓ 15yrs	15 yrs	
17.	Matters considered for shorter period – include when any petroleum discovery is made and any commercial viability report or independent viability assessment for, or that includes, the proposed potential commercial area	N/A	N/A	

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	Section 92(2)(a) and (b)			
18.	Background			
19.	Background information (date of lodgement, location of PCA – refer to Location Map Attachment, any ATP grant date)	✓	✓	
20.	Native title Process NTA – Brief and Tenure Assessment	✓	N/A – PCA declaration is not the creation of an additional right	
21.	If no excluded land decided, Include DNTO details in background. NT not a consideration in making decision,	N/A	No excluded land	
22.	Attachments		40	
23.	All references to attachments are correct?	✓	\checkmark	
24.	Delegations checked?	1	✓	
25.	Spell check completed on briefing note package?	50	()	
	Peer Review	Registrar	Manager	Director
1	Accept all track changes and up-rev document	Registrar	Manager 🗸	Director
1 2		Registrar ✓		Director
	Accept all track changes and up-rev document	Registrar ✓	√	Director
2	Accept all track changes and up-rev document ACN correct	Registrar	✓ ✓	Director
2	Accept all track changes and up-rev document ACN correct Holders name and % correct References to the Act (including Act name)	✓ ✓	✓ ✓	Director
3 4	Accept all track changes and up-rev document ACN correct Holders name and % correct References to the Act (including Act name) correct	✓ ✓ ✓	✓ ✓ ✓	Director
2 3 4 5	Accept all track changes and up-rev document ACN correct Holders name and % correct References to the Act (including Act name) correct Formatting consistent throughout	✓ ✓ ✓	✓ ✓ ✓	Director
2 3 4 5 6	Accept all track changes and up-rev document ACN correct Holders name and % correct References to the Act (including Act name) correct Formatting consistent throughout Spelling and grammar checked Terminology consistent throughout (i.e. once a	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	Director
2 3 4 5 6 7	Accept all track changes and up-rev document ACN correct Holders name and % correct References to the Act (including Act name) correct Formatting consistent throughout Spelling and grammar checked Terminology consistent throughout (i.e. once a spade always a spade)	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓	Director

	Name	Signature	Date
Deputy Registrar	Vijaya Kodali	VK	3/9/2021
Manager	Kate Byrne		10/11/2020
Director			
Comments			