



State Gas Limited  
ACN 617 322 488  
Level 8, 46 Edward Street  
PO Box 10348  
BRISBANE QLD 4000

## **ASX RELEASE**

03 December 2019

# **Operational Update – Reid’s Dome Project**

### **Highlights:**

- Serocold-1 expected to spud this weekend, with drilling and testing expected to be completed within approximately two weeks.
- DST testing of the coals and sands in the Aldinga East-1A well (approximately six kilometres north of Serocold-1) is currently underway.
- Production testing at Nyanda-4 is expected to commence by end of the current week.

**State Gas Limited (ASX: GAS)** (“State Gas” or “the Company”) is pleased to provide an update on its Reid’s Dome Gas Project (PL 231).

The 2019 field season at the Reid’s Dome Gas Project is drawing to exciting end for State Gas as the hard work of the last three months begins to bear fruit.

### **Serocold-1**

State Gas has engaged Silver City Drilling Pty Ltd (SCD) to drill the final well in the current field program, Serocold-1. SCD Rig #25 has started mobilising to site and the well is expected to be spudded this weekend. It is anticipated that the well will be drilled and tested within approximately two weeks.

Located in the centre of the PL 231, approximately halfway between the Aldinga East-1A and Nyanda-4 wells, Serocold-1 will provide important indications about the extent of coals and gas throughout the permit.

Serocold-1 is planned to be drilled to 1,200m and will be logged and permeability tested. If the gas bearing sand discovered in the Cattle Creek Formation at the Aldinga East-1A well is also present in Serocold-1, a drill stem test will be undertaken of the sand to obtain gas flow and composition data. Subject to the outcomes of the testing Serocold-1 will be completed for production testing in the New Year.

## **Aldinga East-1A**

Approximately six kilometres north of Serocold-1, TDC Rig #4 is undertaking drill stem testing (DST) of the coals and sands in the Aldinga East-1A well. DSTs have been undertaken of the conventional sands in the Cattle Creek Formation and the Reid's Dome Beds, with a DST of the whole of the Reid's Dome Beds (coals and sands) still to be done. The DSTs are providing useful permeability data to inform future planning.

## **Nyanda-4 Production Test**

As advised on 27 November 2019, following completion of the workover preparing the Nyanda-4 well for production testing, the Company has been installing the necessary surface facilities for the test. Installation works are nearly complete and production testing is expected to commence before the end of this week.

The production test will provide the first production metrics for the Reid's Dome Beds in this region of the Bowen Basin, essential data for understanding the gas potential of the coals and sands in PL 231.

The production testing process involves State Gas extracting water from the well, thus lowering the pressure in the formations where they face the well bore. It is this pressure decrease that allows gas to desorb and be produced from the coals. It is vital that this pressure decrease is slow in order to minimize the risk of well and pump damage by the migration of coal fines (potentially plugging the formation or pump). While indications to date are that the coals are close to the isotherm (pressure at which gas is released) it takes a period of time for this pressure drop to travel into the coal formations. As a consequence, substantial gas production is not expected in the first few weeks of testing but should increase over a few months. The flow rates obtained will provide an indication of the rates and volumes of gas to be recovered in a future development; key inputs to enable the certification of reserves in the permit.

By contrast, conventional sandstone/siltstone reservoirs produce by pressure depletion (similar to draining air from a scuba tank). A conventional reservoir will produce at its highest rate at or (if there is formation damage to be overcome) near commencement of production, declining over time, while a coal seam gas reservoir typically increases in gas production over the initial period as the coals are dewatered. This can provide useful complementarity and while technically more complex than producing from a single reservoir type, commingling production from both reservoir types can be highly beneficial.

These reservoir characteristics mean that in short term tests such as DST's gas sands have the potential to yield gas flow if the near well formation has not been damaged by the drilling fluid, however because the coals are not dewatered, they are likely to provide only permeability data (the measurement of the ability of the coal to conduct fluid - in this case gas - from the formation to the well). However, the permeability data is highly valuable, as it is critical to design the Pilot Project(s) and Field Development Plans for the next phase of the Project.

The drilling and testing activities will wind-up in December, and production testing will continue into 2020, providing the data that State Gas requires to progress its Target 2021 Gas-to-Market strategy<sup>1</sup>.

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<sup>1</sup> See announcement 21 August 2019

## **Target 2021 Gas-to-Market Strategy**

State Gas Chairman, Mr Richard Cottee, said he was very encouraged with progress made by the current program of activities towards the Company's Target 2021 Gas-to-Market strategy, along with confirmation of the Company's 100%-ownership of the Reid's Dome Gas Project by the Queensland Court of Appeal during late November.

"The ongoing program of activities is providing essential data to inform the design of the appraisal activities to be undertaken next year. On completion of this current program we will be well placed to design the activities to properly assess the resource and provide the critical inputs for field and facility development of the Project and planning and permitting for pipeline infrastructure," he said.

"The unrestricted grant terms of PL 231 also provide State Gas flexibility for both domestic supply and export of its sales gas from the project. This, combined with the gas endowment at PL 231 and the expected east coast gas market shortages, all places the Company in a strong position for the development phase of Reid's Dome," Mr Cottee said.

Further updates will be provided as further results become available.

**ENDS**

### **FOR FURTHER INFORMATION**

Lucy Snelling

Chief Executive Officer

Phone: 0439 608 241

e-mail: [lucy@stategas.com](mailto:lucy@stategas.com)

Richard Cottee

Executive Chairman

Phone: 0458 517 850

e-mail: [richard@stategas.com](mailto:richard@stategas.com)

[www.stategas.com](http://www.stategas.com)

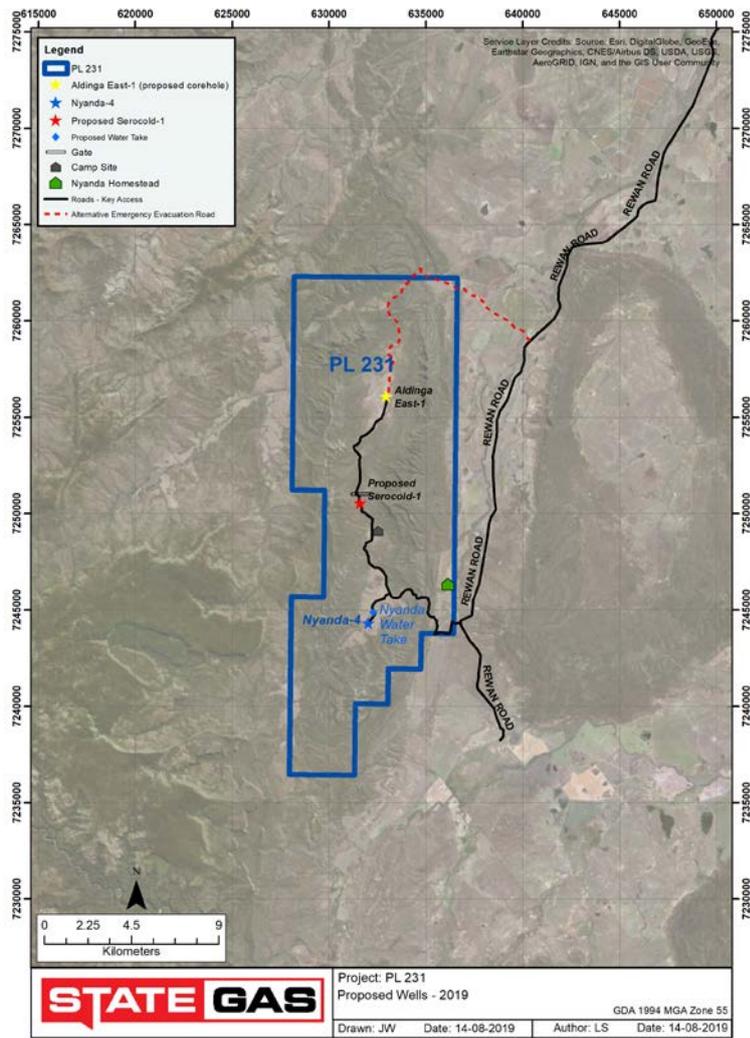


Fig 1: Location of Aldinga East-1A, Nyanda-4 and proposed Serocold-1 wells



Figure 2: SCD Rig #25 drilling at PL 231 in 2018