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#### **ASX RELEASE**

31 October 2018

## **QUARTERLY ACTIVITIES REPORT**

1<sup>st</sup> July 2018 – 30<sup>th</sup> September 2018

#### **HIGHLIGHTS:**

- Silver City Drilling engaged to shortly commence drilling to investigate targets identified within PL 231 via reprocessing of historic seismic below the already discovered gas pool in the Cattle Creek gas sands, and to investigate the potential for both coal seam gas and conventional gas within the Reid's Dome Beds.
- Commencement of experienced petroleum geologist, Mr James Crowley *B.Sc(Hons)*, as Chief Operating Officer.
- Pipeline survey licence PSL 2028 issued to the Company to investigate options to connect with the Queensland Gas Pipeline.
- Completion of reprocessing of historic seismic data in southern area of PL 231.
- Continued investigation of monetisation options for known Cattle Creek Formation gas.

Brisbane-based conventional gas developer **State Gas Limited** (**ASX: GAS**) is pleased to provide its Quarterly Activities Report for the September Quarter, 2018.

# **Background**

State Gas Limited (State Gas or the Company) has a 60% interest in, and is operator of, the Reid's Dome Gas Project (PL 231) in central eastern Queensland, approximately 545 km northwest of Brisbane and 50 km southwest of Rolleston, in the Bowen Basin Central Queensland. The permit hosts a conventional gas accumulation discovered in the 1950's within the Denison Trough.

The accumulation is hosted within good quality sandstones of the marine Cattle Creek formation at depths of as shallow as 130 meters. Testing of this reservoir achieved sustained flow rates of 1.2 million cubic feet per day of pipeline-quality gas. Pressure data indicates the accumulation is over-pressured and confirms the integrity of the sealing shales. In addition, fluvial reservoirs of the underlying Reids Dome Beds form a major additional target in the permit. This target also produced gas on test during the drilling of the initial exploration and appraisal wells.

#### PROJECT ACTIVITIES

# Commencement of Mr James Crowley as COO and preparation for 2018 drilling program

Mr James Crowley *B.Sc(Hons)* commenced as Chief Operating Officer of the Company on 2 July 2018. With a petroleum career spanning 34 years in Australia, Egypt, New Zealand and the North Sea, James has held senior executive roles for AGL Energy, Senex Ltd, Origin Energy Ltd, and Apache Corporation.

Upon arrival Mr Crowley undertook a detailed review of the geology of the permit and the results of historical drilling, both in the permit area and of analogous wells into the same formations beyond the permit boundaries. As previously announced, this review has indicated that in addition to conventional gas, PL 231 may have potential for significant quantities of coal seam gas due to both the presence of Permian coal seams and positive pressure maintenance. The PL 231 permit area has not previously been explored for coal seam gas.

During the previous quarter the Company had been undertaking planning for a drilling campaign to investigate targets identified by the Company's reprocessing of historic seismic in the northern area of the permit.

Following the detailed geological review, the Company has refocussed its planning for drilling in the permit to encompass investigation of the coal seam gas potential.

As a result of work during the Quarter the Company entered into a contract with Silver City Drilling (NSW) Pty Ltd on 21 October 2018 to drill Primero West-1 in the northern area of the permit. With a planned depth of 250m, Primero West-1 will test the Cattle Creek Formation in accordance with the terms of the Reid's Dome Joint Operating Agreement.

Primero West-1 will be located approximately 650m southwest of AOE-1 and will be drilled to appraise the south-western extent of the Cattle Creek gas sand discovered in AOE-1 in 1955.

In addition, the gas potential of previously un-tested zones deeper within the Cattle Creek Formation will be investigated at a location where seismic interpretation indicates it is better-developed than other areas to the east. On completion of drilling, wireline logs will be acquired to confirm the reservoir quality and lateral extent of the reservoir and, if gas is confirmed, a flow test will be conducted and sample obtained for compositional analysis. The drilling of Primero West-1 will complete the Company's sole funding obligations under the Joint Operating Agreement for PL 231.

Following approval of the Joint Venture Operating Committee (received on 29 October 2018), the Company will also proceed to drill the Nyanda-4 corehole following completion of Primero West-1 to investigate both the gas potential of tight gas sands and Permian coal seams within the Reid's Dome Beds.

The Nyanda-4 well site will be located approximately 13.5km south of the Primero West-1 well and 50m southwest of Nyanda-1 (drilled in 1987). The planned total depth for Nyanda-4 is 1,000m.

Historical well log correlations indicate that the same interval where two sandstones were tested and flowed gas in AOE-1 in 1955 is likely to be present within the new Nyanda-4 well.

The formation also contains extensive coal measures throughout the permit which have not been evaluated in the PL-231 area to date. The uppermost of these coals lie at 390m at nearby Nyanda-1, where they were associated with gas kicks while drilling in 1987 prior to the emergence of exploration interest in coal seam gas in Australia.

Drilling is expected to commence in early November and be complete by late-November/ early-December 2018, subject to weather.

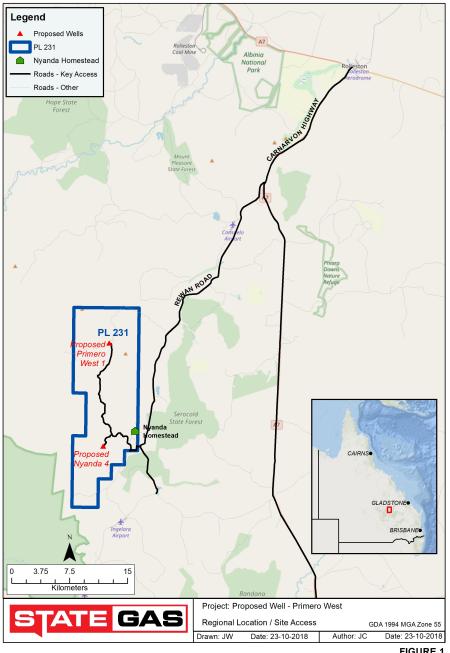


FIGURE 1

Figure 1: Location of Primero West-1 and Nyanda-4

### Phase II seismic reprocessing

Following the successful reprocessing of historic seismic in the northern area of the permit in previous Quarters, State Gas commissioned the Phase II reprocessing of the remaining historic seismic in the southern area of the permit. This work was completed during the Quarter.

The study involved simultaneous inversion of the 1995 Aldinga Survey lines near the Nyanda-1 well (Figure 2). This project was the southern extension of the seismic processing and inversion study carried out near the Primero-1 well, located on the western margin of the Denison Trough in the Permian-Triassic Bowen Basin.

The study was focused on shallow conventional gas sand targets and whether it was possible to discriminate between sands (brine and gas), shales and coals. Ultimately there were too many uncertainties with the seismic and well data to achieve satisfactory lithology predictions in the Nyanda-1 area. This contrasts to results of the Phase I seismic reprocessing project where much higher quality seismic data provided a much higher confidence in the inversion product.

A further seismic survey, the Southern Cross Survey, was acquired over 12 kilometres near Nyanda-1 in 2001 (see Figure 2). However the data available from this survey is currently very incomplete. The Company will explore alternative sources to locate the missing data and if successful will undertake further reprocessing of this seismic in due course.

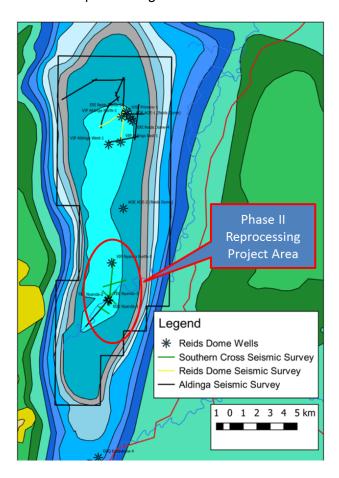


Figure 2 area of Phase II seismic reprocessing

### **CORPORATE ACTIVITIES**

The Company has continued to explore options to monetise the gas identified in the permit, holding discussions with infrastructure providers and development partners.

In addition, on 2 August 20108 the Company was issued Pipeline Survey Licence 2028 over the area outlined in blue on the map below. Valid for a period of 2 years, the PSL entitles the Company to enter upon the land covered by the licence to investigate potential pipeline routes. The area of the licence covers a broad area encompassing route options to the Rolleston Gas Plant to the north east, and to the Queensland Gas Pipeline to the south east. The Company has commenced discussions with the owners of both facilities.

Following the Company's IPO in late 2017, State Gas remains well-funded to meet its share of funding requirements for the 2018 drilling program.

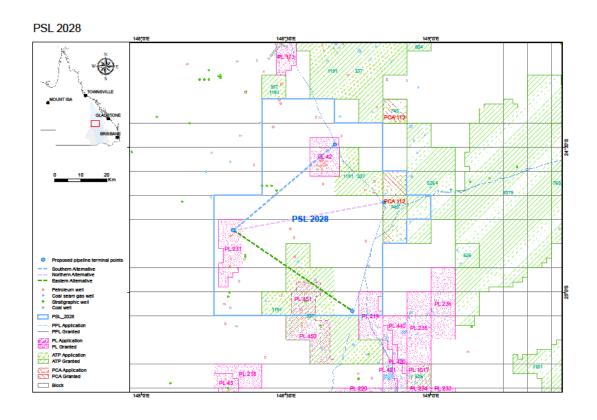


Figure 3: Area of PSL 2028

### FOR FURTHER INFORMATION

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### **ABOUT STATE GAS**

**STATE GAS LIMITED** (ASX: **GAS**) is a Queensland-based developer of the Reid's Dome gas field, originally discovered during drilling in 1955, located in the Bowen Basin in Central Queensland. State Gas is Operator and 60%-owner of the Reid's Dome gas project which is well-located 30 kilometres southwest of Rolleston, approximately 50 kilometres from the Queensland Gas Pipeline.

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**Above**: Nyanda-1 well (within PL 231), drilled in 1987 prior to interest in coal seam gas in Australia encountered gas shows while drilling through coal seams. The planned deeper Nyanda-4 well will be located 50m southwest of Nyanda-1.



**Above**: AOE-1 discovery well (at Reid's Dome within PL 231), drilled 1954-55 where the Cattle Creek gas sands were discovered, located 650 metres northeast of the planned Primero West-1 expected to spud in November 2018.