

# EMPIRE OIL & GAS NL

## Quarterly Report June 2016



### Empire achieves record gas sales for FY16

Perth Basin domestic gas producer **Empire Oil and Gas NL (Empire, ASX: EGO)** is pleased to provide its quarterly activities report for the quarter ending 30 June 2016.

#### Production

- **FY16 gas sales of 2,985 TJ up 3.8% from FY15 (2,875 TJ)**
- **Red Gully Processing Facility (RGPF) achieves 3 Year Lost Time Injury (LTI) free safety record**
- **Average daily gas production rate of 7.5 TJ/day for the quarter**

#### Exploration

- **Red Gully North-1 (RGN-1) confirmed to be gas bearing**
- **Remedial cementing solution for RGN-1**

#### Finance and Corporate

- **Mineral Resources Ltd (ASX:MIN) acquires ERM Power's 18.72% shareholding in Empire**
- **New A\$15m revolving capital working facility with Mineral Resources Ltd to refinance ERM debt**
- **Revenue of A\$4.6m for the quarter and A\$20.0m for FY16**

Commenting on the quarter, Chief Executive Officer Ken Aitken said the overall quarterly gas sales of 682 TJ represented a solid operating result.

"Our annual gas sales are up 4.7% from last year's record result, which underpins the strength and consistency of the Red Gully operations. We are particularly proud of achieving a significant safety milestone of 3 years LTI free at the RGPF, a reflection of our operational expertise."

"Our exploration efforts at RGN-1 are encouraging and despite the unexpected setback of excess formation water and casing cement issues, we are confident in our remedial strategy. We continue to achieve excellent costs savings in our operations and are adjusting our planned production levels to reflect market conditions."

"We also welcome our new major shareholder, Mineral Resources, who has indicated its support for our growth strategy and are providing debt finance to replace the ERM Power debt obligation."

#### About Empire Oil & Gas NL

**ASX Code:** EGO

**Cash on hand (quarter end):**  
A\$2.9m

**Market capitalisation (quarter end):** A\$38m

**Share price range in quarter:**  
A\$0.27 to A\$0.43

Empire Oil & Gas is an Australian energy company focussed on exploration and production opportunities in the onshore Perth Basin.

Empire owns and operates the Red Gully gas and condensate field which has been in production since mid-2013.

Empire holds around half of the highly prospective onshore Perth Basin acreage. The Perth Basin has excellent infrastructure and a strong gas market.

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## PRODUCTION

Quarterly Sales	June Quarter 2016	March Quarter 2015	FY15/16 YTD
<b>Red Gully Facility (100%)</b>			
<b>Gas sales (TJ)</b>			
Gas sales for the quarter	682.2	816.5	2,985.1
Cumulative RGPF gas sales <sup>1</sup>	7,765.2		
<b>Condensate sales (bbl)</b>			
Condensate sales for the quarter	21,735	27,883	104,816
Cumulative RGPF condensate sales <sup>1</sup>	317,856		
<b>Plant performance</b>			
Average plant run time (% of total hours)	91.4	96.8	93.5
Average daily gas sales (TJ/day)	7.5	9.0	8.2
Average daily condensate sales (bbl/day)	239.0	306.4	287.2

<sup>1</sup> Cumulative RGPF sales represent total volumes delivered from the commencement of RGPF operations in 2013 to the end of the June 2016 quarter.

### Production and Safety Performance

The RGPF achieved a milestone 3 years LTI free safety record on 30 May 2016. No Medical Treatment or Lost Time Injuries were recorded during the June quarter.

Total gas delivered to Alcoa during the June quarter was 682.2TJ, 16.5% lower than the March quarter due to reduced gas nominations, planned Red Gully-1 (RG-1) shut-ins to allow well intervention work to be carried out and a high amount of unplanned production downtime.

A peak production rate of 8.6 TJ/d was achieved with average RGPF daily gas sales of 7.5 TJ/day for the June quarter.

Export gas volumes of approximately 6.4 TJ/day are anticipated for the remainder of the year except August when nominations will return to 8TJ/day. This reduction is in response to Alcoa's gas requirements. Export gas volumes of 8.0 TJ/day are anticipated for the second half of the financial year.(Jan-Jun17)

The condensate volume delivered to BP over the June quarter was 21,735 bbl (239 bbls/day), 22% lower than the March quarter. The fall in condensate production was affected by reduced gas nominations, RG-1 well shut-ins and plant downtime. RG-1 B sand actual condensate to gas ratio (CGR) was also lower than the predicted CGR.

## Red Gully-1 Well Update

In late March, the RG-1 well started to produce small amounts of water in addition to normal condensation water volumes. Laboratory analysis confirmed this to be formation water. A production logging tool was run to determine zonal flow contributions from each of the five B sand production zones and the location of produced water inflow. Subsequent analysis of the production logging tool data indicated :

- A high drawdown pressure was potentially causing inflow of produced water in the two lower production zones
- There was reduced perforation connectivity to the B sand across all five production zones
- There was a need to re-perforate the upper three production zones to improve overall well productivity

During the quarter, the upper three production zones were re-perforated using wireline conveyed perforating guns. Well performance improvements were observed after the re-perforation, confirmed by a post perforating production log, including a significant reduction in drawdown pressure, stabilisation in produced water, an increased contribution of gas from the upper two production zones and significant productivity improvement in the third production zone.

The water produced from the RG-1 well has not affected gas nominations to date. The company will continue to actively monitor produced water rates and mitigation plans are underway to address any further increases in water and maximise reserve recovery.

## RGPF uptime

The RGPF uptime for the quarter was 91.4% compared with the financial year average to of 93.5%. Unplanned downtime for the quarter was 126.3 hours (excluding weather related downtime), due to the following production disruptions:

- Change out of the condensate heater electric elements bundle
- Gas compressor package fuel gas supply solenoid failure
- Some unplanned downtime relating to the shut-ins for well intervention activities
- Abnormally high slug catcher downtime caused by post RG-1 well intervention foreign materials blocking the slug liquid level instrument bridle and control valve

These issues have now been fully resolved.

## Operating costs

Empire is continuously reviewing the costs required to operate the RGPF without compromising its outstanding safety performance. This has resulted in annual O&M cost reduction of \$1m (18%) compared to the previous financial year at the RGPF

## Other activities

The design of the RGPF vent stack snuffing system continued during the quarter. This modification is required to allow remote extinguishing of any future vent stack lightning strike fires.

Detailed engineering work on an intelligent pigging inspection of the RGPF export gas pipeline continued and intelligent pigging temporary launcher/receiver facilities fabrication also commenced during the quarter. The planned implementation date for this inspection is Q3/Q4 2016.

## EXPLORATION

### Red Gully North-1 Well Remediation Programme and Production Testing

In December 2015, the RGN-1 well intersected 53m of net gas pay in the primary Cattamarra C and D sand objectives, based on drilling data and log evaluation. A perforation and completion programme was carried out by Enerdrill Rig 1 between 23 March and 13 April. This was followed by a well test programme to assess fluid composition, deliverability and reserves of the C sand and the Upper and Lower D sands.

The C and Upper D sands produced movable hydrocarbons to surface, however, the tests were compromised, and therefore deemed invalid, due to a high amount of formation water production from a high porosity zone above the C sands related to poor 7" casing cement integrity caused by a large washed out 8.5" hole. An independent external study conducted during the June quarter confirmed the 7" casing cement was insufficient to isolate the C and Upper D sands from a nearby water zone. The independent study recommended the following remedial actions:

- A diagnostic testing programme
- Remedial cement squeeze to isolate the formation water production above C and D sands.

Circulation cement squeezes are standard industry techniques with a proven high success rate. This recommended solution is also expected to enable a valid production test in the RGN-1 C and Upper D sands to determine gas reservoir deliverability.

Diagnostic testing is currently underway and subsequently, long lead completion equipment will be purchased. The remedial cementing process is planned for early Q4 subject to completion delivery, rig equipment availability and government approvals. The indicative cost of the project is expected to be approximately A\$1.5m to A\$2m and is economically positive given:

- Contingent reserves of 7.5PJ (refer ASX Announcement dated 26 April 2016)
- High condensate production yields
- Requirement of only a short, low cost, 4 km pipeline to tie-back to the RGPF.

### Acreage Evaluation

Empire is also in the early stages of planning a 2D seismic survey (the Black Cormorant Seismic Survey) to mature leads identified by the Black Swan Airborne Gradiometric Gravity Survey, into prospects for future drilling. Subject to funding and regulatory approval, the Black Cormorant 2D Seismic Survey will focus on maturing leads identified in EP 389, EP 432 and EP 454.

During the quarter, highly prospective permits EP 432, EP 454 and EP 426 were renewed by the regulator for Five Year exploration terms.

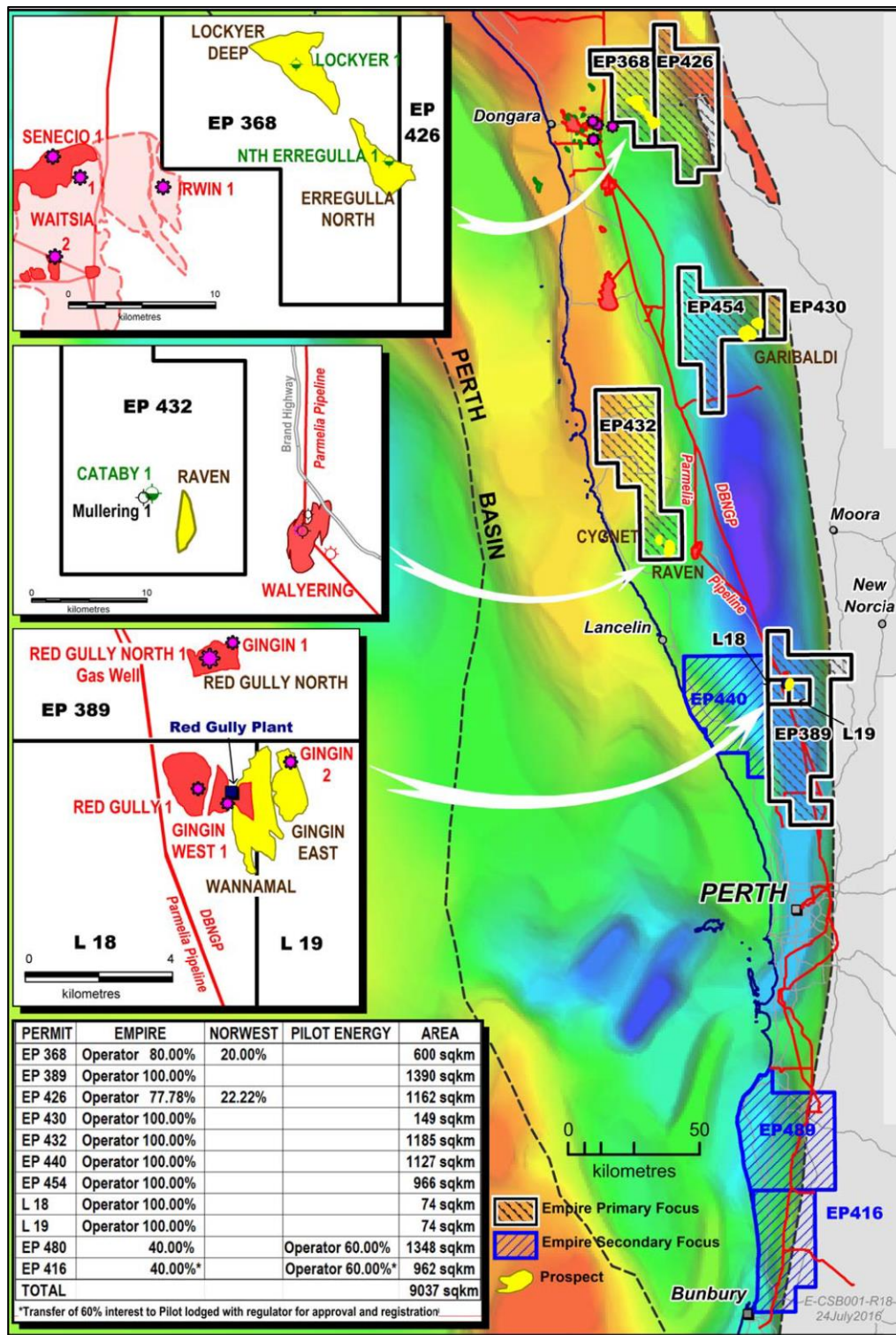
### Farmouts

Farmout discussions continued with a number of potential parties.

The second stage of the farmout of the south Perth Basin acreage (EP 480 and EP 416) to Pilot Energy was completed during the quarter. Empire now retains a 40% non-operator interest in EP 480, allowing the Company to concentrate its resources on its primary focus areas in the north Perth Basin. The third and final stage of the farmout will be concluded upon the renewal of EP 416.



Figure 1: Overview of Empire's Perth Basin petroleum interests



## FINANCE & CORPORATE

### Cashflow

Empire had A\$2.9m cash at bank as at 30 June 2016. The major expenditure item for the June quarter were A\$2.9m for RGN-1 well completion & testing costs. A further A\$1.2m was spent on production costs over the quarter and cash outflow for corporate costs was A\$0.8m.

Expected cash outflows for the September 2016 quarter will include costs related to preparation for the RGN-1 remediation activities. Cash inflows from gas and condensate sales are expected to offset production costs with surplus funds at the end of the September quarter.

### Red Gully Revenue

Accrued revenue for the quarter totalled A\$4.6m, with approximately 83% of total revenue derived from gas sales. Gas revenue continues to be unaffected by oil price fluctuations due to the secure CPI-linked contracts in place, however, gas revenue was down 12% for the quarter to A\$3.8m, due to lower nominations, scheduled shutdowns and well intervention downtime. Condensate revenue increased 33% to A\$0.8m notwithstanding lower quarterly production volumes as a result of rising oil prices over the last 3 months.

### Debt Refinancing

Empire has executed a binding term sheet with Mineral Resources to refinance the A\$15m ERM Power Ltd (ASX:EPW) debt obligation, repayable on 31 August 2016, through a revolving working capital facility. The new facility carries an annual interest rate equal to BBSY plus 5% and a three year term. The ASX has granted a waiver of Listing Rule 10.1 in relation to Empire granting first ranking security to Mineral Resources for the working capital facility. Full details of the transaction are outlined in the 30 June 2016 ASX Release.

As a result of the arrangement with Mineral Resources, Empire ceased progressing previously announced arrangements with Viburnum Funds Pty Ltd in relation to their proposed secured loan facility.

The A\$15m debt to ERM was established as a result of the purchase of ERM's interest in the RGPF and exploration tenements of which Empire now owns 100%.

### Change in Cornerstone Shareholder

During June, ERM Power sold its 18.72% shareholding in Empire to Mineral Resources, one of Australia's leading providers of mining infrastructure services. The trade was executed at A\$0.45/share, representing a 41% premium to the last closing price of the day for Empire.

### Business development

Empire continues to pursue value adding business development opportunities.

### Community Relations

Empire actively supports the local community around Gingin and is a proud sponsor of the Gingin Football Club and the Gingin Aquatic Centre. The Gingin Football Club is currently farming a section of Empire's land with the funds raised assisting with improving club facilities. During the quarter they sowed their second fund raising crop on Cattamarra Farm.

**Issued Capital as at 30 June 2016**

Ordinary shares	102,404,989
Listed options	7,853,059
Unlisted options	1,719,994



Ken Aitken  
**CEO**  
**Empire Oil & Gas NL**

## Appendix 1

### Petroleum Tenements – Interests

Permit	Joint Venture Parties	Permit Interest	Changes Q2 2016
Perth Basin Permit Tenure			
L-18 Production Licence	Empire	100%	No Change
L-19 Production Licence	Empire	100%	No Change
PL-96 Pipeline Licence	Empire	100%	No Change
EP 389	Empire	100%	No Change
EP 426	* Empire Westranch	77.78% 22.22%	Permit Renewed for 5 Years ^
EP 368	* Empire Westranch	80% 20%	No Change
EP 432	Empire	100%	Permit Renewed for 5 Years ^^
EP 454	Empire	100%	Permit Renewed for 5 Years
EP 430	Empire	100%	No Change
# EP 416	Empire * Pilot Energy	40% 60%	Permit Renewal Lodged with DMP & Awaiting Approval
EP 440	Empire	100%	No Change
EP 480	Empire * Pilot Energy	40% 60%	No Change

\* Denotes Permit Operator of Joint Venture

# Farmout with Pilot Energy in Final Phase of Agreement Process

^ EP 426 - 16 Graticular Blocks Relinquished in Permit Renewal

^^ EP 432 - 1 Graticular Block Relinquished in Permit Renewal