



25 August 2014

The Manager
The Australian Securities Exchange
The Announcements Officer
Level 4/20 Bridge Street
SYDNEY NSW 2000

Dear Sir

## DRILLING REPORT NO. 11 FOR DUNNART-2 IN EP437, PERTH BASIN, WESTERN AUSTRALIA FOR THE PERIOD 0600 HOURS 22 AUGUST 2014 TO 0600 HOURS 25 AUGUST 2014

We attach herewith ASX Announcement for Investors regarding the drilling activities at Dunnart-2, EP437, Onshore Perth Basin.

Joint Venture participants in EP437 are:

Key Petroleum Limited (Key Petroleum (Australia) Pty Ltd) (Operator)43.47%Rey Resources Limited (Rey Oil and Gas Perth Pty Ltd)43.47%Caracal Exploration Pty Limited13.06%

Regards

KANE MARSHALL
Managing Director

**KEY PETROLEUM LIMITED** 





## **ASX RELEASE**

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Key Petroleum Limited ("Key") advises that since its last report the hole was circulated clean and an open hole drill stem test ("DST") was conducted over a 13m section. The DST tool encountered a mechanical failure so the decision was made to drill to total depth ("TD") and log the well. On retrieving the DST tools to the surface the tool was found to contain some good quality Bookara Sandstone that fluoresced under UV light, indicative of live oil. A mechanical failure means that the test was invalid and was not related to any issues with the reservoir or interval drilled to date. Since retrieving the test tools the well has been drilled to a TD of 670m RT. Further oil shows, including a lower reservoir quality interval above the basement had oil shows and will be evaluated from wireline logs.

Drilling cuttings from the 11m interval drilled prior to the open hole DST indicated that there was another 2m of live oil at 625m RT similar to that of the interval previously drilled (refer photograph). Bright yellow fluorescence under a fluoroscope (UV light) is interpreted to be indicative of live, and not residual oil. Similar oil shows in smaller intervals were also observed within the Bookara Formation.

The current plan is to log the well with wireline logs from Crocker Group with the inclusion of the Formation Evaluation Tool (FET) depending on the results and preliminary interpretations of the first suite of logs. The standard set of wireline logs will determine reservoir quality and net pay.

The FET tool is a wireline formation test tool that can obtain pressure data and quantitative information about reservoir quality and formation samples including any oil or water samples. Data from this logging tool will assist in determining the intervals at which production testing will be carried out at a later date if warranted through 7" casing. The Joint Venture has sourced 7" casing equipment, in addition to the 7" production casing at site, and a production wellhead which will be mobilised to site in the next day.

Daily drilling reports to the ASX will continue until all drilling and formation evaluation of Dunnart-2 has been completed.

For more information please contact: **Key Petroleum Limited** +61 8 6389 0322

Kane Marshall
Managing Director

25 August 2014







## DUNNART-2 PETROLEUM EXPLORATION WELL EP437 – PERTH BASIN

1.	Well Name/Permit:	Dunnart-2 EP437, Perth Basin, Western Australia			
2.	The Report is for the Period:	0600 – 22 August 2014 to 0600 – 25 August 2014			
3.	This ASX Release Time and Date:	0730 WST – 25 August 2014			
4.	Report No:	Eleven			
5.	Start Date/DCA Rig #7:	13 July 2014			
	Days since commencement of drilling operations:	Forty Two			
7.	Locations of the Well:	North Perth Basin			
8.	Elevation:	GL	40.96m		
		RT from GL (MSL)	3.5m		
		RT to MSL	44.46m		
9.	Proposed Total Depth:	670 metres TVD RT			
10.	Targets:	Primary: Bookara Sandstone Formation			
		Secondary: Basement			
11.	Present Depth:	670m RT			
12.	Geological Summary:		Formation Tops (m RT):		
			Prognosed	Actual	Difference
		Yarragadee Sandstone	82m	82m	-
		Cadda Formation	280m	281m	-1
		Cattamarra Formation	325m	324m	+1
		Woodada Formation	484m	482.5m	+1.5
		Kockatea Shale	504m	503m	+1.0
		Bookara Sandstone Formation	615m	614m	+1
		Basement	670m	670	







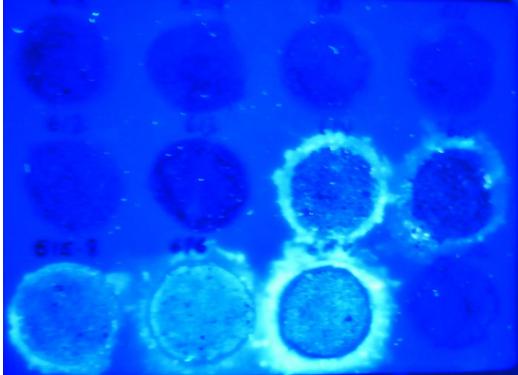
		Oil Shows: At 614m a drilling break was observed over a 1.5m interval (614m – 615.5m).		
		Live light oil was observed and collected. The oil is light and has be evaluated at 34° API. A further 1.37m was drilled with live oil circulated up.		
13.	Hydrocarbon Indications:	An open hole DST was conducted over this interval in the Bookara Sandstone from 614m - 616.87m. The tool plugged and was an invalid test.		
		A further section of 11m was drilled to 627m RT which has shows over a 2m sand interval. The entire 13m interval was DST tool experienced a mechanical failure meaning an invalit tool was found to have good quality Bookara sand with indexil. Further oil shows have been observed in a lower reinterval above basement.	tested and the d test. The DST lications of live	
14.	Operations since last Report:	Cleaned and conditioned 8 ½" hole with high viscosity mud and reaming of the Kockatea Shale above the main primary objective. Conduct open hole DST which encountered mechanical failure. Pull tools out of hole and drill ahead to TD for logging.		
15.	<b>Current Operations:</b>	Preparing to run wireline logging suite.		
16.	Future Operations:	Complete wireline logging suites and depending on results of logging run FET tool. Mobilise additional 7" production casing equipment and production wellhead.		
17.	Prospect Description:	The Dunnart prospect is a well-defined moderate relief fault closed structure with the top seal provided by the proven regional seal, the Kockatea Shale which is the source rock for oil discovered to date in the North Perth Basin.		
		The Bookara Sandstone is middle to upper shoreface sand which laps the south-western margin of the Northampton Block. Dunnart-1 encountered good oil shows in Bookara sands but was never tested or cored. Estimated prospective resources in the best case estimate are 2 million barrels under SPE-PRMS guidelines.		
18.	Participants in the Well:	Key Petroleum (Australia) Pty Ltd (Operator)	43.47%	
		Rey Oil and Gas Perth Pty Ltd	43.47%	
		Caracal Exploration Pty Ltd	13.06%	









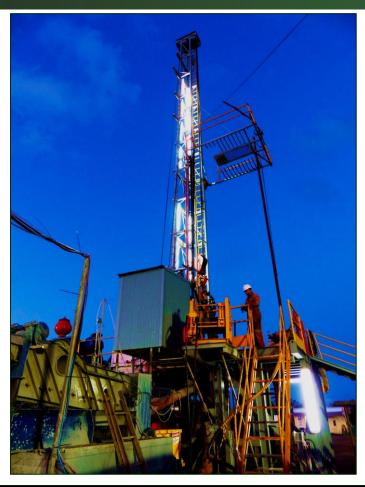


Managing Director Kane Marshall overseeing Drill Stem Testing (DST) on the rig floor (above) and fluorescence testing under UV light indicating samples with live oil (as indicated bottom).











DCA Rig 7 at night.

