



## Third Well Progress Report

### Highlights

- Wireline logs and drilling cuttings indicate that the primary target zone within the lower bench of the Ojinaga Formation is 220 feet thick and is highly naturally fractured.
- Excellent and continuous oil shows were observed throughout the drilling of this 220 feet thick zone.

### Presidio 141#2 well

Helios Energy Ltd (ASX Codes: HE8, HE8OA) (**Helios** or **Company**) is pleased to report the vertical portion of the Presidio 141#2 well has been drilled to a total depth of 5,074 feet ending at the base of the Eagle Ford Shale Formation. The well has been logged and in addition 50 rotary cores have been successfully extracted. The well has been plugged back and the 1,400 feet horizontal portion of the well is now being drilled into the primary target zone within the lower bench of the Ojinaga Formation. Excellent and continuous oil shows along with a high density of natural fractures were observed while drilling throughout the 220 feet thick primary target zone within the lower bench of the Ojinaga Formation.

The Presidio 141#2 well is located 2,300 feet to the east of the existing Quinn Creek 141 discovery well. The total measured depth of the well is anticipated to be 5,850 feet and this includes a 1,400 feet horizontal portion drilled into the primary target zone within the lower bench of the Ojinaga Formation.

The well is located structurally updip of the existing Quinn Creek 141 discovery well and the vertical portion was drilled through the entire San Carlos, Ojinaga and Eagle Ford Shale Formations. The vertical portion of the well ceased at the bottom of the Eagle Ford Shale Formation.

### San Carlos Formation

Wireline logs and drilling cuttings indicate that the San Carlos Formation is approximately 671 feet thick. Very good oil and gas shows were observed in an upper sand unit of the San Carlos Formation which contained 55 feet of net sand with 18% to 23% porosity. A lower interval of the San Carlos Formation had 65 feet of net sand with 10% to 15% porosity with fair oil shows.

ASX Code: HE8

### Directors

Hui Ye  
Non-Executive Chairman

Richard He  
Managing Director

Robert Bearden  
Non-Executive Director

Nicholas Ong  
Non-Executive Director

John Palermo  
Company Secretary

### Contact Details

#### Australian Office

Level 3, 18 Richardson Street  
West Perth WA 6005 Australia

PO Box 1485 West Perth  
WA Australia 6872

Tel +61 1300 291 195  
Fax +61 8 6298 6191

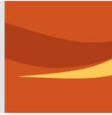
#### USA Office

2 Riverway, 17<sup>th</sup> Floor  
Suite 1710, Houston  
Texas USA 77056

Tel +1 713 333 3613  
Fax +1 713 583 0965

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

For personal use only



## Ojinaga Formation

Wireline logs and drilling cuttings indicate that the Ojinaga Formation is approximately 1,941 feet thick, with a thickened upper Ojinaga interval of approximately 1,018 feet. The upper Ojinaga Formation contained a sandstone interval of approximately 60 feet with 18% to 20% porosity with fair to moderate oil shows.

The middle bench of the Ojinaga Formation is approximately 564 feet thick. During drilling oil and gas shows increased from fair to moderate to good and then to excellent with accompanying oil fluorescence, oil cut and residual fluorescence. Analysis of wet gas ratios indicate light oil.

Wireline logs and drilling cuttings indicate that the lower bench of the Ojinaga Formation is 359 feet thick and is highly naturally fractured. Good to excellent, continuous oil shows were observed throughout the entire drilling of this 359 feet thick interval.

## Eagle Ford Shale Formation

Wireline logs and drilling cuttings indicate that the Eagle Ford Shale Formation is approximately 590 feet thick. Fair to good oil shows were observed whilst drilling through two intervals of 190 feet and 70 feet.

### 220 Feet Thick Primary Target Zone within the Lower Bench of the Ojinaga Formation

Wireline logs and drilling cuttings indicate that the primary target zone within the lower bench of the Ojinaga Formation is approximately 220 feet thick. Excellent and continuous oil and gas shows were observed throughout the entire drilling of this 220 feet primary target zone.

This primary target zone of 220 feet has uniform rock characteristics. It is predominantly black shale with micro laminations of siltstone and fine carbonates and is highly naturally fractured.

### Multi-Stage Fracking of the 1,400 Feet Horizontal Portion of the Presidio 141#2 well

The vertical section of the Presidio 141#2 well has now been plugged back and a 1,400 feet lateral leg is being drilled to the west towards the Quinn Creek 141 discovery well entirely within the 220 feet zone of the best oil shows and highest natural fracturing that occurs within this 359 feet lower bench of the Ojinaga Formation.

The horizontal portion of the well was steered based on 2D and 3D seismic data and the data from the 2 existing wells (Quinn Creek 141 and Quinn Mesa 113) drilled by Helios.

After the Presidio 141#2 well has been cased (including the 1,400 feet lateral portion of the well), the Presidio 141#2 well will await a multi-stage fracking of the 1,400 feet lateral portion of the well.

The final design of the multi-stage fracking program will be selected once the logs and rotary cores have been fully analyzed in conjunction with hydraulic fracturing stimulation experts over the next few weeks.

For personal use only



### **Oil Discovery in the Ojinaga Shale Formation**

Helios successfully completed a one stage frack in the vertical Quinn Creek 141 well to test oil shows and log indications between 4,744 and 4,880 feet in the lower Ojinaga Formation. The Company has previously reported to ASX that the Quinn Creek 141 well flowed 260 barrels of oil and 1,345 barrels of completion fluid in 168 hours (7 days).

The oil produced is good quality, mature, 39 degrees API gravity light oil similar in composition to Eagle Ford oils.

Gas was also produced at 456 mcf per day on a 34/64ths of one-inch choke. As the well cleaned up and the percentage of completion fluid recovery rose, a steadily increasing oil cut was observed. Total load recovery (until the lower interval was shut in) was approximately 35% (3,509 barrels of completion fluid out of 10,187 barrels of completion fluid injected).

### **Easily Mapped with 2D & 3D Seismic**

The lower bench of the Ojinaga Formation shows well on both 2D & 3D seismic and is easily mapped.

### **Presidio Oil Project – Infrastructure**

Access to the Presidio 141#2 well location is provided by a 25 mile unsealed, formed road constructed by Helios that branches off the sealed US-90 highway which carries heavy truck and passenger vehicle traffic.

The Presidio 141#2 well location has access to ample supplies of fresh water provided by local water wells drilled into shallow water aquifers.

The El Paso Oil Refinery located in El Paso, Texas has a processing capacity of 135,000 barrels of oil per day and is located 170 miles from the Presidio Oil Project. Crude oil is sold there by truck delivery. The Presidio Oil Project is located 250 miles (or 5 hours by truck) from Midland, Texas which is the epicenter of the Permian Basin oil industry.

All rigs, supplies and services required for the Presidio Oil Project are sourced from Midland, Texas. Oil production in the Permian Basin is approximately 3,800,000 bopd.

For personal use only

Stratigraphy of the Presidio Oil Project located in Presidio County, Texas, USA

Gulf Coast		Presidio Oil Project Subsurface
Series	Division or Group	
Gulf Cretaceous	Austin	San Carlos (Olmos)
		Austin Chalk age equivalent formation (called the Ojinaga)
	Eagle Ford	Upper Eagle Ford Shale
		Boquillas
Comanche Cretaceous	Washita	Buda
		Eagle Mt SS
		George Town
	Fredericksburg	Kiamichi
		Edwards
Trinity	Glen Rose	
		Hosston/Travis Peak

Presidio Oil Project – 70%WI

Helios must drill 3 wells to earn a 70% WI in the initial 6,400 acres (4,480 net acres) which comprise the Presidio Oil Project and a 70% WI in each of these 3 wells. Helios to date has drilled 2 of those 3 wells, being the Quinn Creek 141 vertical well and the Quinn Mesa 113 vertical well. Helios has been granted an until 30 June 2019 to drill the third well. Once the Presidio 141#2 well has been completed, Helios will have earned a 70%WI in the 3 wells and the initial 6,400 acres (4,480 net acres) which comprise the Presidio Oil Project.

For personal use only



Helios Energy Ltd

26 April 2019

For further information, please contact:

**Richard He**  
**Managing Director**

**Competent Person's Statement**

*The information in this ASX announcement is based on information compiled or reviewed by Eldar Hasanov. Mr Hasanov is a qualified petroleum geologist with over 21 years of experience in the USA, Russia, Azerbaijan, Kazakhstan, the Middle East, Turkey, Indonesia and other international areas involving technical, operational and executive aspects of petroleum exploration and production, in both onshore and offshore environments. He has extensive experience in petroleum exploration, appraisal and reserve and resource estimation, as well as in identifying and evaluating new oil and gas ventures. Mr Hasanov has a Masters degree in Petroleum Geology. He is a member of the American Association of Petroleum Geologists.*

For personal use only