



Helios Energy Ltd  
21 November 2022

## Presidio Project Update

### Successful Well Testing Results

Helios Energy Ltd (ASX Codes: HE8) (**Helios** or **Company**) is pleased to provide an update on recent well testing activities:

- The testing of Presidio 52#1 well.
- The testing of Quinn Creek 141#1 well.
- The testing of Presidio 141#2 well.
- Connection of the Quinn Creek 141#1 well to production facilities.

### Presidio 52#1 Testing

The Presidio 52#1 well has been successfully drilled to a total depth (**TD**) of 8,806 feet. During drilling, the Presidio 52#1 well encountered the lower bench of the Ojinaga Formation (primary target) and the Eagle Ford Shale Formation (secondary target) as well as two older (deeper) Cretaceous units, being the Buda and Georgetown Formations (both secondary targets).

The lower bench of the Ojinaga Formation was encountered at the depth of 6,632 feet and is 793 feet thick. Helios has successfully tested and produced oil from all three wells (namely, Presidio 141#2, Quinn Creek 141#1 and Quinn Mesa 113) it has drilled which have penetrated the Ojinaga Formation. The oil analysis shows that the oil in the Ojinaga Formation is sourced from the Eagle Ford Shale Formation.

The Eagle Ford Shale was encountered at a depth of 7,425 feet and is 836 feet thick with the deepest 235 feet also referred to as the Boquillas Formation.

A workover rig was recently used by Helios to conventionally test (without fracking) the lower Boquillas Formation in the Presidio 52#1 well (which is equivalent to the lower Eagle Ford Formation in Karnes County, Texas).

When originally drilling the well, significant wet shows were recorded in the lower Boquillas section with gas measurements of up to 10,000 units and a gas composition of 25% C2 (ethane) to C4 (butane). Natural fractures, high rock brittleness and a relatively high Total Organic Composition (**TOC**) were also noted.

Using the workover rig, Helios perforated a 20 feet section from 8,190 feet to 8,210 feet in the lower Boquillas Formation, which is located immediately above the Buda Formation.

ASX Code: HE8

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Although the test results indicated low permeability the well naturally flowed gas and oil at modest rates without being fracked. This is important as it establishes another potentially productive interval for lateral drilling in the future.



*Above picture is of gas being flared during testing of Presidio 52#1*



### **Recent Testing of Quinn Creek 141#1 Well**

The discovery well in the Presidio Project, Quinn Creek 141#1, was recently re-entered utilizing a workover rig. During the recent re-entry, the bridge plug at 4,350 feet was unseated and the well flowed oil and gas naturally to the pits. The well initially flowed wet gas at an estimated rate exceeding 1,000 MCF per day. However, there was no oil and gas separator nor meter installed to measure the rate accurately.

Quinn Creek 141#1 is now shut in with production tubing run in the well. Various artificial lift applications are being investigated to optimize sustainable production. The well continues to build up pressure while being shut in.

### **Background to Quinn Creek 141#1 Well**

In late June 2018, Helios successfully completed a one stage frack in the vertical Quinn Creek 141#1 well to test oil and gas shows and log indications between 4,744 and 4,880 feet (a 136 foot interval) in the lower bench of the Ojinaga Formation.

The frack of the lower bench of the Ojinaga Formation in the Quinn Creek 141#1 well resulted in the successful injection of approximately 212,000 pounds of frack sand (approximately 1,500 pounds of frack sand per foot) and approximately 10,000 barrels of slick water (approximately 75 barrels of slick water per foot).

On 19 July 2018, Helios reported that the well flowed 260 barrels of oil and 1,345 barrels of completion fluid in 168 hours (7 days). Gas was also produced at 456 mcf per day on a 34/64ths of one inch choke. The well was shut in in October 2018.

### **Presidio 141#2 Testing**

The Presidio 141#2 well required maintenance after mechanical issues downhole disrupted production efforts. After re-entering the well, the damaged artificial lift pump was removed and upon swabbing out 23 barrels of fluid, the well began unassisted flow at a gas rate of 626 MCF per day and 74 barrels of oil were recovered in the first 24 hours.

Presidio 141#2 is currently shut in as various artificial lift applications are being investigated to optimize sustainable production. The well continues to build up pressure while being shut in. Recent production has been intermittent due to the artificial lift pumping issues.



*Above picture is of gas being flared during testing of Presidio 141#2*

## **Production Facilities Installed**

Permanent production facilities have been installed at the well site location of the Presidio 141#2 well consisting of a 3-phase separator, two 500 barrel oil tanks, two 500 barrel water tanks, and a flare stack.

The Quinn Creek 141#1 well has also been piped into and connected to flow to the shared field production facilities located at the Presidio 141#2 location.





*The above photo is of the permanent production facilities which have been installed at the well site location of the Presidio 141#2 well.*

## Commerciality and Monetization of Gas

With increasing natural gas prices, Helios is focused on phased in gas commercialization along with oil production sales. Helios' evaluation indicates a large wet gas resource that provides significant additional upside opportunity to the Presidio Project which was initially considered primarily an oil province.

Several technologies are being reviewed for a potential pilot project, including utilizing the gas for electricity generation for field use and for local commercial gas sales after stripping out the liquids for sale. Other options being evaluated include connecting the field to the Trans Pecos Gas pipeline located approximately 40 miles to the east, and the feasibility of utilizing modular small scale LNG plants in the field.

## Near Term Operations

Helios has now drilled four wells including one 1,400 foot horizontal well in the Presidio Project. Production facilities have been installed on the Presidio 141#2 location and trucked oil sales have begun. The drilling, fracture stimulating and the completing of the wells in a very remote region of Texas has demonstrated Helios' operating capabilities.



#### 4 Stage Vertical Frack of the Presidio 52#1 Well

Helios has completed the design of the frack job for the Presidio 52#1 well. Helios will undertake a 4 stage vertical frack across a 1,623 feet interval in the Presidio 521#1 well, which is the distance between the commencement of the lower bench of the Ojinaga Formation at 6,632 feet and the cessation of casing at 8,255 feet at the bottom of the Eagle Ford Shale.

The frack job has been specifically designed to reflect the highly naturally fractured intervals existing within this vertical interval of 1,623 feet. It is planned to co-mingle production from the 4 fracked intervals after completion of the frack job.

Very heavy rainfall over the past 8 weeks has disrupted field operations in the Presidio Project. Over the past month, Helios has worked on finalizing the location preparation, re-grading and re-forming the main location road, filling the frack water reservoir and completing all other necessary preparations for the completion of the Presidio 52#1 well with the most important of those being scheduling a fracking crew.

The inclement weather and the necessary weather-related repairs to roads required Helios to delay its 4 stage fracture stimulation program for Presidio 52#1 until late 2022. Scheduling a frack crew and related equipment is proving to be challenging due to the increased demand for fracking personnel and equipment in the region. Helios is in the process of securing bids for a frack crew to conduct the 4 stage frack a multi-stage in late 2022.

For further information, please contact:

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