ASX ANNOUNCEMENT

ASX : **EXR**

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DAYDREAM-2 LABORATORY RESULTS

HIGHLIGHTS

- Preliminary petrgraphical results on samples from deep permeable zone completed
- Clay rims identified that have preserved porosity in highly pressured deep zone
- Analogies with high productivity deep Permian section of the Perth Basin

Elixir Energy Limited ("Elixir" or the "Company") is pleased to provide an update on preliminary laboratory results recently received in connection with its Daydream-2 appraisal well in its 100% owned Grandis Gas Project (ATP 2044), located in the Taroom Trough of the Bowen Basin, Queensland.

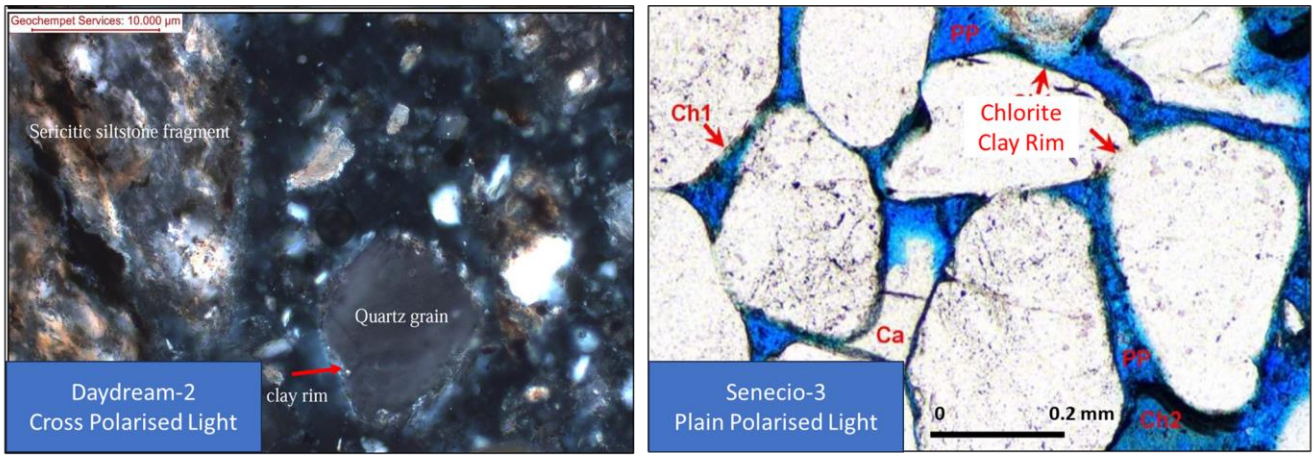
On 18 January 2024, Elixir announced petrophysical log information detailing the permeable sands in Daydream-2 intersected between 4,200 and 4,220 metres, from which gas flowed without stimulation. Elixir is pleased to provide further laboratory derived information about these permeable zones.

Petrographical analysis of cuttings samples from the sand interval shown on the log below have identified clay coatings (rims) around individual quartz grains. It is interpreted that these clay rims assist in the preservation of primary porosity at these depths by reducing the post depositional cementation. Without such features, sandstones at such depths typically cannot flow without stimulation, which results in higher costs and reduced recoveries per well.

It is Elixir's understanding that this is the first time that these clay rims, which are also recognised in the relatively recently discovered highly productive deep Permian sections of the Perth Basin, have been identified in Queensland at depths below 4,200 metres where primary porosities are preserved above 12%. Again, this has great significance for the Grandis Gas Project, where previous low-side cut-offs of the gas contingent resource were limited to 4,200 metres.

It is Elixir's preliminary geological theory that this clay rim coating affect arises due to the location of the sandstones on a transient marine/shoreline border in Permian times.

Below is a photomicrograph of a quartz grain interpreted to be from Sand 3 in the Daydream-2 permeable zone. The clay rim coating is clearly shown encapsulating the quartz grain and inhibiting the post depositional cementation. For comparison, an AWE published photomicrograph on Senecio-3 (the Waitsia discovery well) is also shown. Whilst the grainsize is larger in scale, the similar clay rim is clearly noted. This sand grain at Senecio-3 is at a depth 3,177 metres.



Sample 5; 4212 – 4215m; Res Pressure: 9400 psia

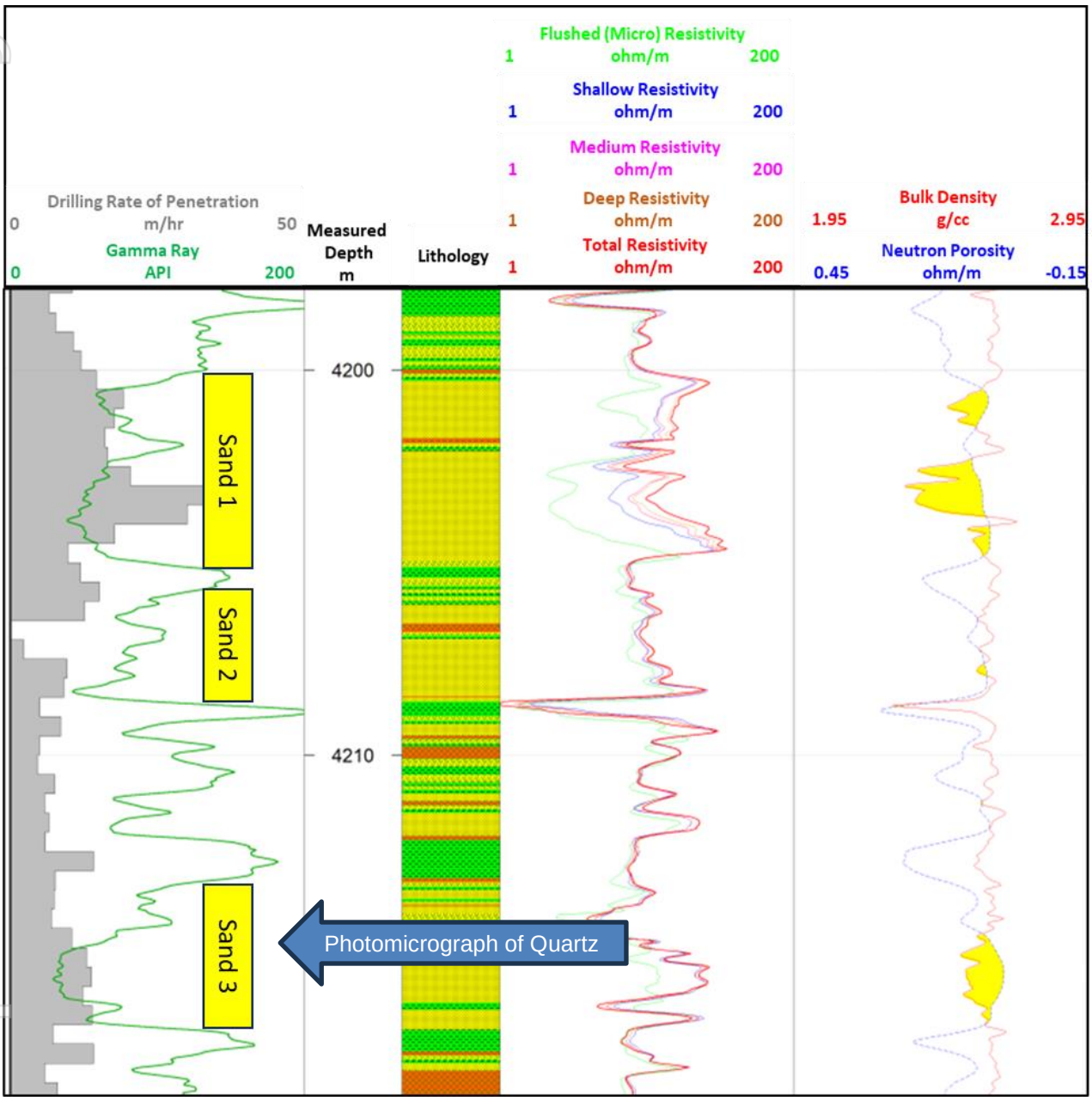
Plate 64; 3176.5m; Res Pressure: 5032 psia. Source: AWE Limited

Daydream-2 (Taroom Trough) and Senecio-3 (Perth Basin) Clay Rims Comparison

Whilst the depth of the Waitsia reservoir at the Senecio-3 location is more than 1,000 metres shallower than the permeable zone in Daydream-2, the reservoir pressure in the latter has now been determined to be 9,400 psia - which is 80% higher than the former. All things being equal, higher pressures mean a materially higher ultimate gas recovery per well and hence more favourable economics.

Diagnostic Fracture Injection Testing (DFIT) and stimulation simulation of the deep permeable zone, in addition to the overlying coals and tighter sand zones, will commence fairly soon. The extent of the Daydream-2 permeable zone in ATP 2044 – and across the broader Taroom Trough – is currently unknown. Evaluating this possible extent will be a key feature of Elixir's - and likely other Operators' – programs in the future. This will be in addition to de-risking the thick pervasive, gas-charged and over-pressured tight sandstone and coal formations.

The DFTI and stimulation program will follow once a coil tubing unit has cleaned out the Daydream-2 cased hole and replaced the heavy suspension fluid mud with a clean completion fluid.



Daydream-2 Petrophysical Logs over the Lower Lorelle Sandstone highlighting location of Photomicrograph

Elixir's Managing Director, Mr Neil Young, said: *"These preliminary laboratory results are enormously encouraging, as they provide a strong and positive explanation as to why an unexpected permeable zone was encountered at great depths in Daydream-2. In the Perth Basin in Australia (and in certain parts of the onshore USA), clay rims on deep sands have been proven to maintain unexpectedly high porosities at depth and have led to the opening up of new and highly productive plays. And this only adds to, rather than replaces, the initial primary focus of this well – the appraisal of the very extensive unconventional reservoirs in the Taroom Trough – which to date has exceeded pre-drill expectations. The confirmation of material over-pressure in particular bodes very well for future development economics."*

By authority of the Board:
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