EMPEROR ENERGY
LIMITED

27th January 2022

ASX Market Announcements
ASX Limited
20 Bridge Street
Sydney NSW 2000

AVO Analysis of Fully Processed PSDM Seismic Data delivers Strong Direct Hydrocarbon Indicators throughout Stacked Gas Sands across the Judith Gas Field

Key Points

- **Emperor maintains focus on achieving first gas sales from Judith Gas Field by 2027 or earlier**
- **AVO analysis with new, fully processed PSDM 3D Seismic Data has led to significantly enhanced seismic definition and Amplitude Versus Offset (AVO) response**
- **AVO results correlated against known gas sands in the Judith-1 and Kipper-1 wells provide an increased level of confidence in the use of AVO as a Direct Hydrocarbon Indicator (DHI) at Judith**
- **AVO DHI's extend across the Judith structure indicating multiple, stacked gas sands**
- **Extension of strong DHI's in Judith and underlying Longtom sands across the Judith South Block is encouraging and confirms the presence of substantial resource potential in this block**
- **Seismic data and AVO indicates potential extension of Kipper and Golden Beach sands across the Judith structure to the proposed Judith-2 wellsite. The Kipper and Golden Beach sands are the principal reservoirs at the Kipper Gas Field)**

1. Judith Gas Project Objective

Emperor Energy's key focus is the development of the Judith Gas Project located 40km offshore from the Orbost Gas Plant in the Gippsland Basin, Victoria (Figure 1). The project objective is to establish a sales gas capacity of 80TJ per day equivalent to 28PJ per year over a minimum production period of 15 years with the value of gas and condensate sales exceeding $A300M per year based on AEMO mid-range pricing forecasts.

Figure 2 shows a 3-dimensional structural image of the Greater Judith Structure defined by interpretation and mapping of the top of the Judith Gas Sand 1 using the latest PSDM seismic data.

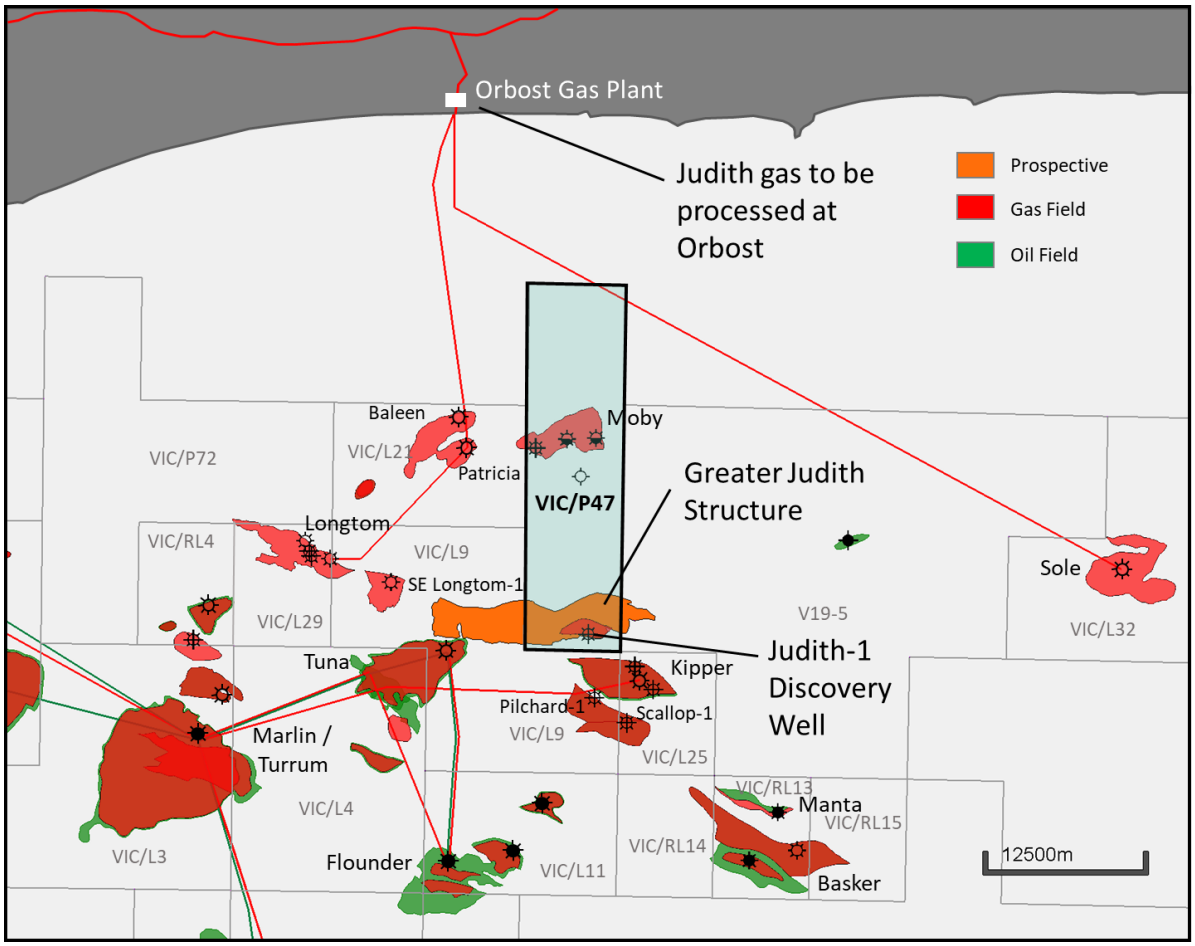

Figure 1: Judith Gas Field Location in Gippsland Basin and proximity to Orbost Gas Plant

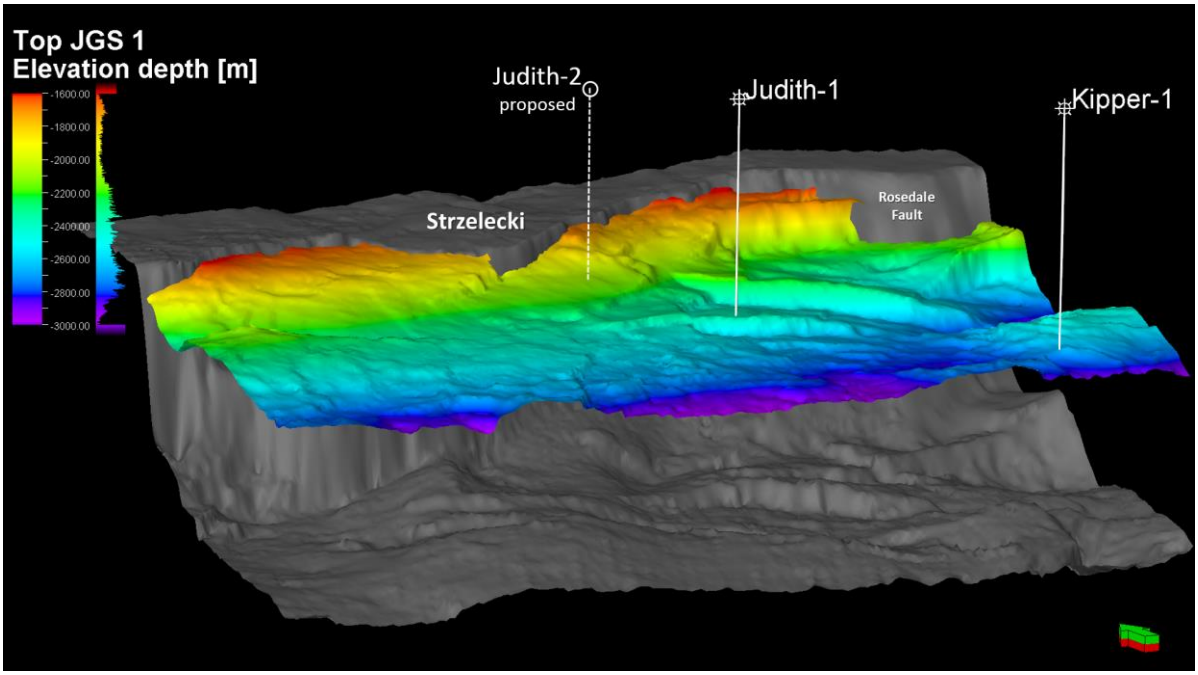

Figure 2: Structural Map of Judith Gas Field and structure showing top of the Judith Gas Sand 1

2. AVO Analysis Correlated against Judith-1 Well Log

Emperor Energy is pleased to advise of the very strong results achieved from recent Amplitude Versus Offset (AVO) analysis using the final, fully processed 3D PSDM seismic data received from international seismic acquisition company CGG in November 2021. This fully processed seismic data has provided the best clarity and definition of AVO response, used as a Direct Hydrocarbon Indicator (DHI), yet seen across the Judith structure and gas field.

AVO analysis compares the seismic amplitude response recorded from geophones located close to seismic signal source (Near gathers) with amplitude data from other geophones located at a greater distance away (Far gathers). The AVO computation allows a comparison in the variations of fluid properties present in the porous space of the target gas sands and provides a calculated geophysical interpretation of where the sand formations are gas charged or water filled. This can provide a good predictor for gas other than drilling. Signal strength and data quality is highest in flat-lying strata (e.g. around Judith-1) but both diminish in dipping beds and where the signal is diffracted by faults.

Figure 3 below shows how the AVO Shuey Fluid Factor response brightens within the horizons of the Judith Gas Sands defined by the Gamma Ray at Judith-1. This provides confidence in looking at the extension of AVO response across the Judith Structure as the AVO response is calibrated against the AVO response in gas sands at the Judith-1 well.

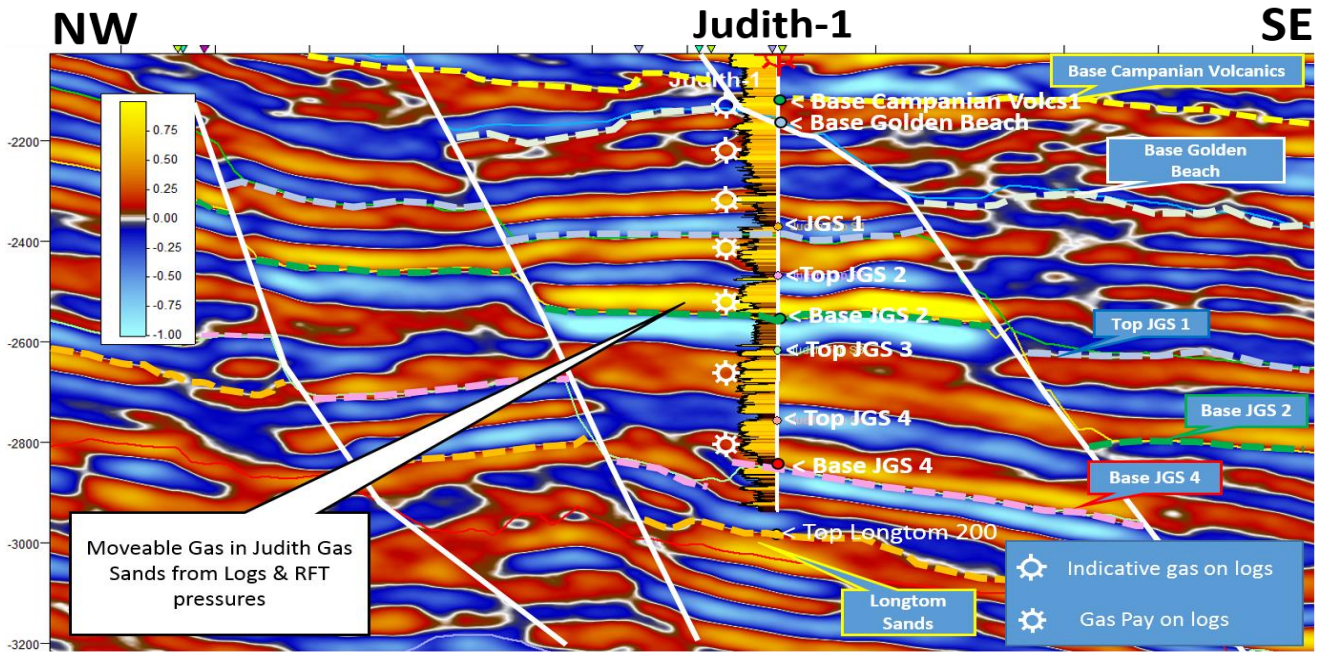

Figure 3: Detailed seismic section showing AVO Shuey Fluid Factor response in gas sands at Judith-1. The figure shows correlation between AVO seismic response (brightening from brown to orange) of the Judith Gas Sands where the presence of reservoir gas is indicated by mud log gas, well log evaluation and RFT pressure tests.

Also apparent in Figure 3 is the strong response of the Longtom Gas Sands below the TD of Judith-1. These sands provide an exploration target not previously intersected at Judith-1. Gas has been commercially produced from these sands at the nearby Longtom Gas Fields located 15km to the west (Figure 1).

3. AVO Response in the Judith Gas Sands 1 and 2

Results of the AVO analysis shown in Figures 4 and 5 indicate very strong AVO Shuey Fluid Factor response for the Judith Gas Sands 1 and 2. Similar strong responses are also observed in Judith Gas Sands 3 and 4.

In both cases, AVO analysis shows strong AVO Gas Indication (brightening to orange) extending across the Judith structure, up-dip from Judith-1 to the proposed Judith-2 wellsite.

The extent of the strong AVO response indicates interpreted gas extending over more than 500m of vertical relief across the Judith structure terminated by the Rosedale Fault to the north.

This is the strongest evidence to date supporting the 1.226 Tcf Unrisked Prospective Gas Resource estimate previously published for the Judith Gas Field (3D-GEO, July 2019).

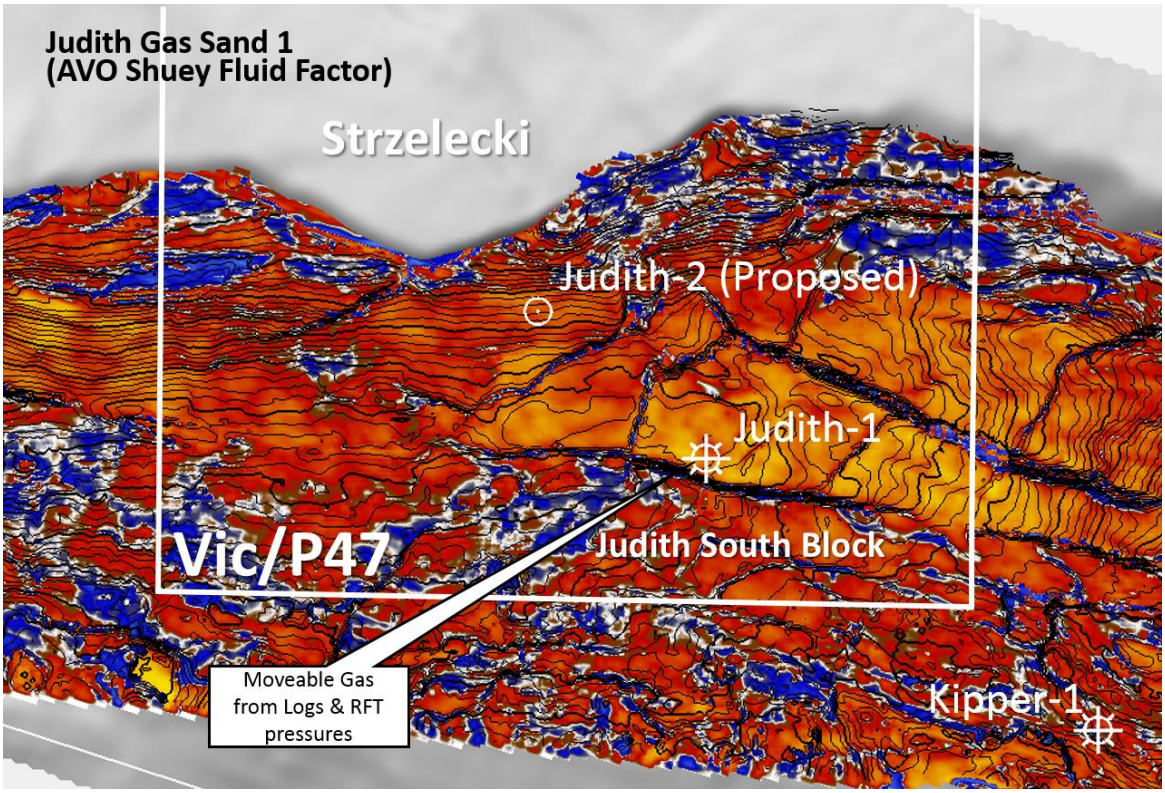

Figure 4: AVO Gas Indicator in the Judith Gas Sand 1. Areas brightening to orange show a strong AVO gas effect. (Emperor Energy Vic/P47 Permit Boundary shown as white line)

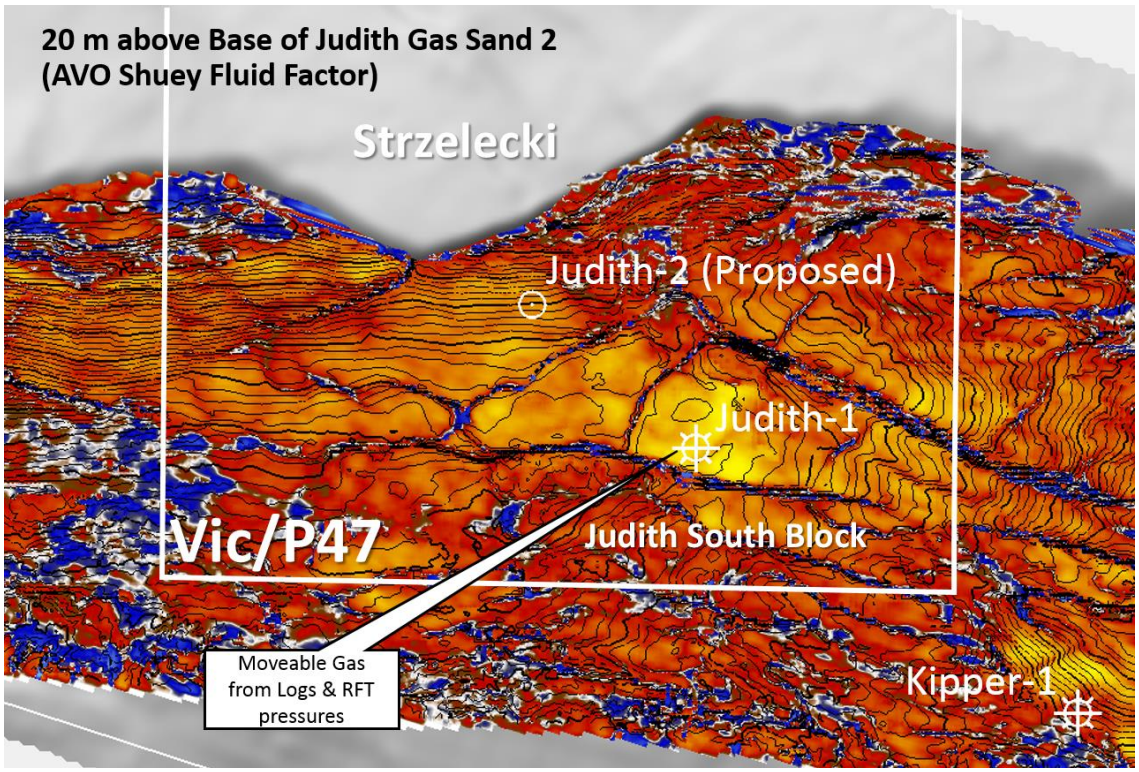

Figure 5: AVO Gas Indicator in the Judith Gas Sand 2. Areas brightening to orange show a strong AVO gas effect. (Emperor Energy VicP/47 Permit Boundary shown as white line)

4. AVO Response in the Longtom 200 Gas Sands

AVO evaluation of the Longtom 200 sand, like the Judith sands above, again shows strong AVO Fluid Factor response with gas indications extending across the Judith Structure (Figure 6). AVO response is particularly strong in the Judith South Block. The strong AVO response extends from the southern boundary of the permit area up-dip and across structural closure beyond the planned Judith-2 well location. This strong AVO gas response is evident over more than 500m of vertical relief, similar to the Judith Gas Sands 1 and 2.

The interpreted Longtom 200 gas sand and other Longtom sands are located beneath the Total Depth of the Judith-1 well. These sands have not been previously intersected in the Judith Structure however their presence is clearly visible on the new seismic data.

The Longtom Sands provide significant exploration upside potential for the planned Judith-2 well that is designed to intersect the Longtom 200 sands at a depth of approximately 3000m. Based on Seismic correlations this sand is the equivalent of the main gas producing sand at the Longtom Gas Field located 15km to the west of Judith.

The strong AVO response of the Longtom 200 Gas Sands in the south of the permit area indicates a potential upside to the resource estimate currently in place for this area.

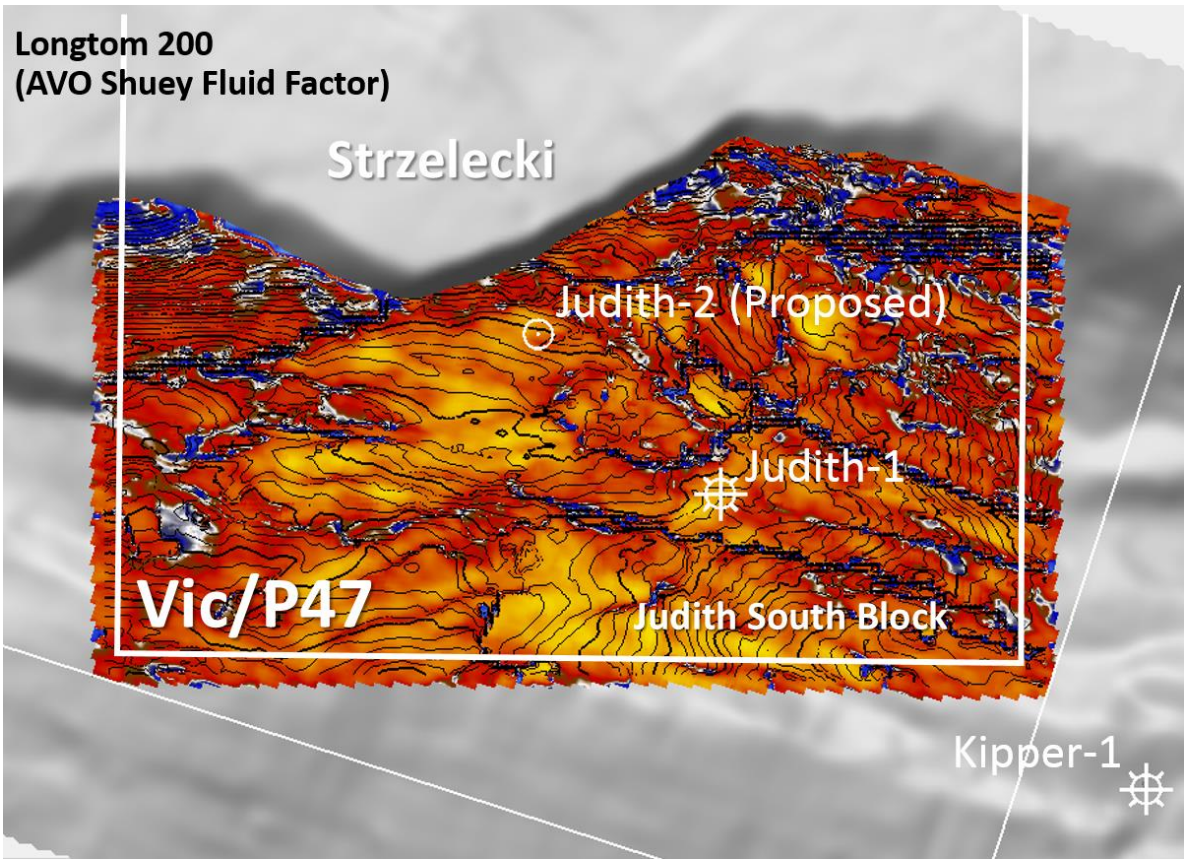

Figure 6: AVO Gas Indicator in the Longtom 200 Gas Sand. Areas brightening to orange show a strong AVO gas indicator. (Emperor Energy VicP/47 Permit Boundary shown as white line)

5. Kipper Sand and Golden Beach Formation Play

The fully processed seismic data allows for a significantly better seismic evaluation of the section above the Judith Gas Sands that has not been seen previously on the older vintage seismic.

This has resulted in identification of a Kipper and Golden Beach Reservoir Sand Play extending up-dip from the Kipper Gas Field across the Judith Structure and extending past the proposed Judith-2 wellsite where the interpreted thickness of these gas sands is approximately 200m. (Figure 7)

The top seal of this play is interpreted as the overlying Campanian Volcanics with the Rosedale Fault providing the up-dip lateral seal.

This newly identified play provides potential for a substantial resource addition. This potential is considered significant due to the known higher porosities and permeabilities of the Kipper and Golden Beach formations. Emperor Energy is now assessing AVO Response of these upper sands.

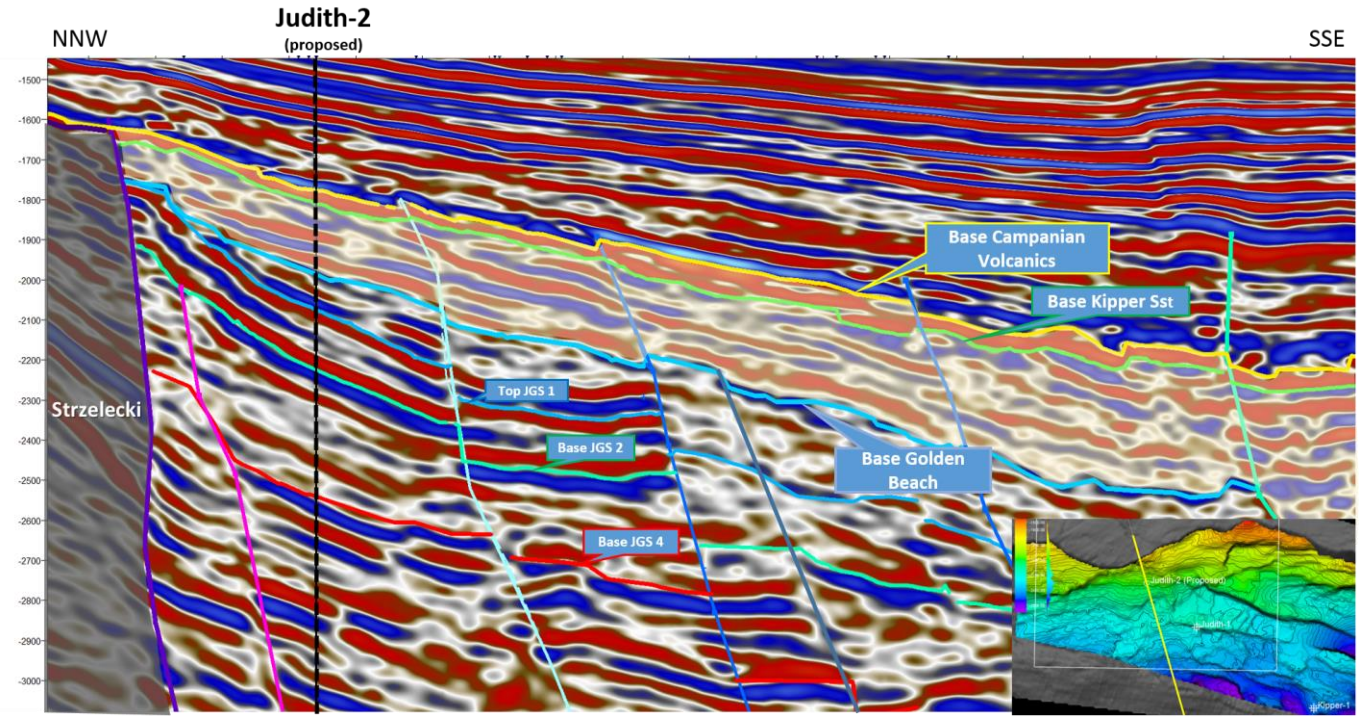

Figure 7: Seismic Section showing interpreted Kipper and Golden Beach Sands (yellow mask) overlying the Judith Gas Sands and extending up into the Judith Structure past the proposed Judith-2 wellsite

We thank shareholders and our team for their ongoing support and welcome any questions they may have.

This announcement has been authorised for release to the market by the Board of Directors of Emperor Energy Limited

Yours faithfully

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