



**EMPEROR ENERGY**  
LIMITED

6 September 2022

ASX Market Announcements  
ASX Limited  
20 Bridge Street  
Sydney NSW 2000

### **Presentation for RIU Goodoil and Gas Energy Conference, Perth**

Emperor Energy Ltd (Emperor or the Company) (ASX: EMP) is pleased to advise that the Company is presenting at the RIU Goodoil and Gas Energy Conference, being held at the Hyatt Regency Hotel, Perth Tuesday 6 September 2022. A copy of the presentation is attached to this announcement.

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

Yours faithfully

**Carl Dumbrell**  
**Company Secretary**

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# Judith Gas Project Australian Gas Appraisal Potential for 80 MMSCFD

Earn equity in a 1.8 TCF\* project by funding Judith-2 well

RIU Good Oil and Gas Conference Presentation  
6<sup>th</sup> September 2022

\*1.8 TCF P50 Prospective Recoverable Resource (unrisked, arithmetic addition)

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- The information in this document will be subject to completion, verification and amendment, and should not be relied upon as a complete and accurate representation of any matters that a potential investor should consider in evaluating Emperor Energy Limited. Assumed in-the ground values of un-risked prospective potential resources assets as stated in text (ignoring finding and development costs). No assumption of either commercial success or development is either implied with their adoption by either the Company and its directors and representatives in the application of these indicative values to its assets.
- Information on the Reserves and Resources on the Company's operated assets in this release are based on an independent evaluations conducted by 3D-Geo Pty Ltd (3D-Geo). 3D-Geo is a independent geoscience consultancy specialising in petroleum. The technical work was undertaken by a team of geoscientists and petrophysicists and is based on open-file seismic and well data and data supplied by EMP. The technical assessment was performed primarily by, or under the supervision of Keven Asquith, Director 3D-Geo.
- The technical information quoted has been compiled and / or assessed by Mr. Geoff Geary who is a professional geologist (Bachelor Science – Geology) with over 35 years standing and who is a Member of Petroleum Exploration Society of Australia. Mr. Geary has consented to the inclusion in this announcement of the matters based on the information in the form and context in which they originally appear – investors should at all times refer to appropriate ASX Releases.
- Investment in Emperor Energy Limited is regarded as speculative and this presentation includes certain forward looking statements that have been based on current expectations about future acts, events and circumstances. These forward-looking statements are, however, subject to risks, uncertainties and assumptions that could cause those acts, events and circumstances to differ materially from the expectations described in such forward looking statements. These factors include, among other things, commercial and other risks associated with estimation of potential hydrocarbon resources, the meeting of objectives and other investment considerations, as well as other matters not yet known to the Company or not currently considered material by the Company.
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# Introducing Emperor Energy Team



A team of experienced E&P and corporate professionals



**Phil McNamara**  
*Director*

- 37 years in the resource industry
- Former CEO and Managing Director of Amour Energy (ASX:AJQ)
- Former Managing Director Waratah Coal



**Carl Dumbrell**  
*Director*

- Chartered Accountant, Australia, England & Wales
- EMP Company Secretary
- Executive Director of Herencia Resources PLC (AIM:HER)
- Chairman Kennedy Foundation



**Nigel Harvey**  
*Director*

- Former investment banker with JP Morgan and Macquarie
- Chairman of mid size not for profit organisation
- AFSL licence holder



**Malcolm King**  
*Project & BD Consultant*

- ~30 years' experience in upstream oil & gas and power with Shell
- Former Head of Commercial and New Ventures for Senex Energy (ASX:SXY)
- Wellsite geologist for Shell Judith-1 Gas Discovery (1989)



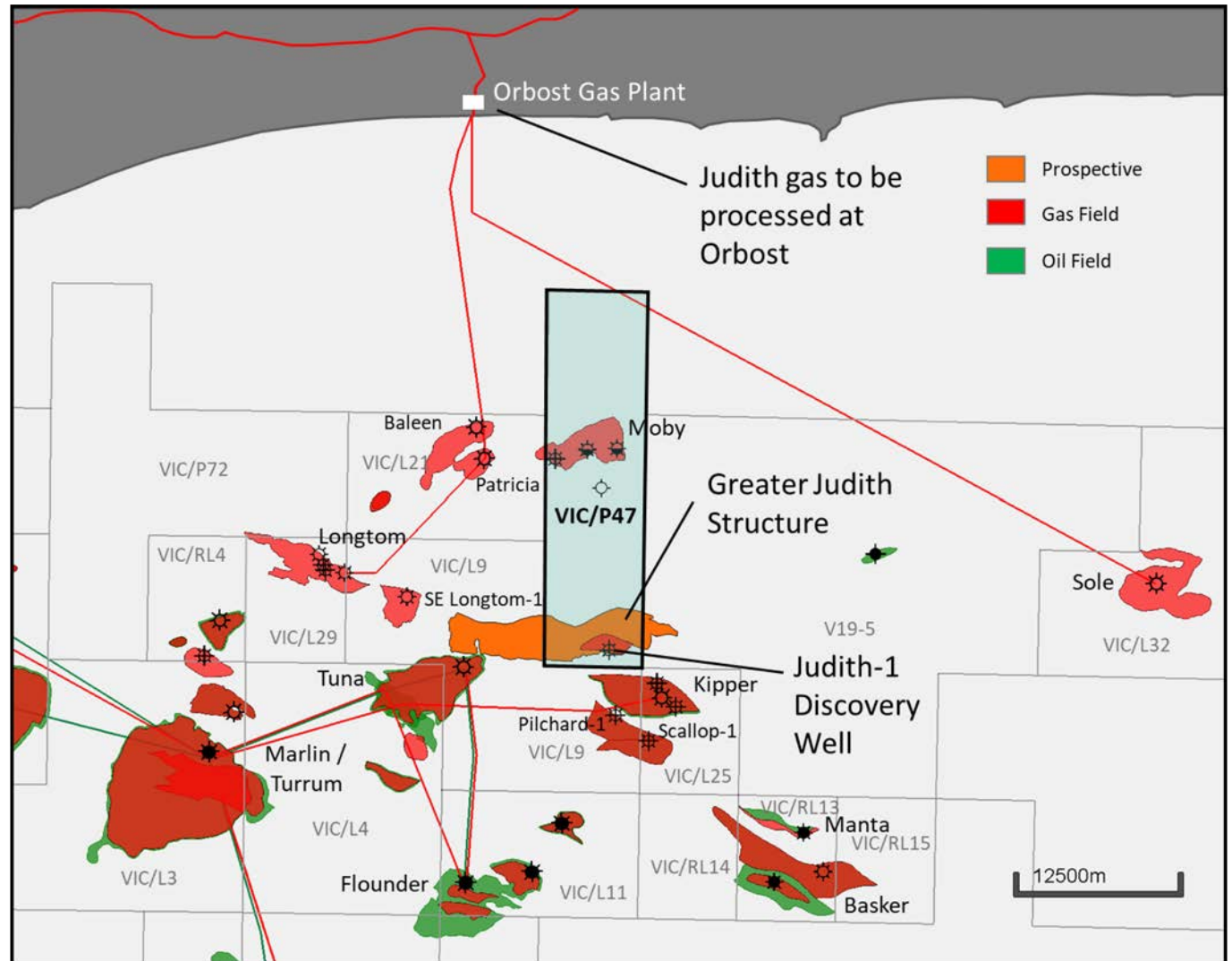
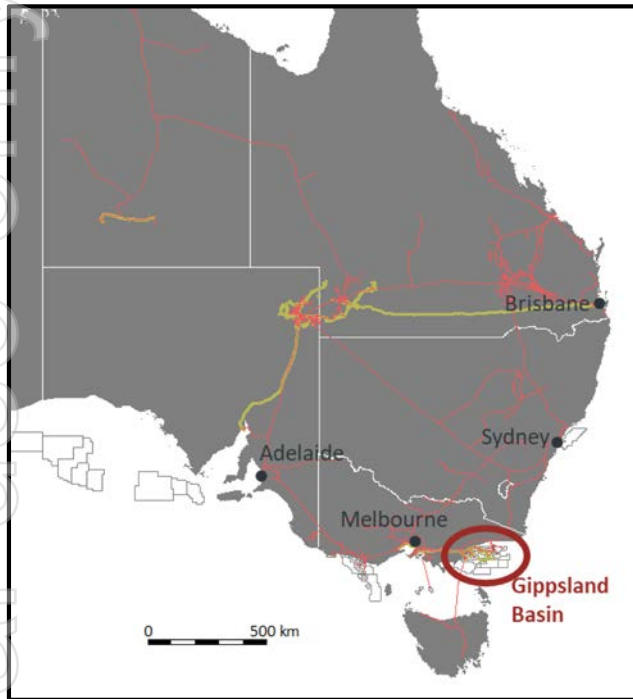
**Geoff Geary**  
*Geological Consultant*

- Over 35 years experience in the petroleum industry
- Extensive experience in the Bass Strait with Exxon



# Gippsland Basin, 40km offshore

New pipeline to shore at Orbest would provide access to East Coast domestic gas market





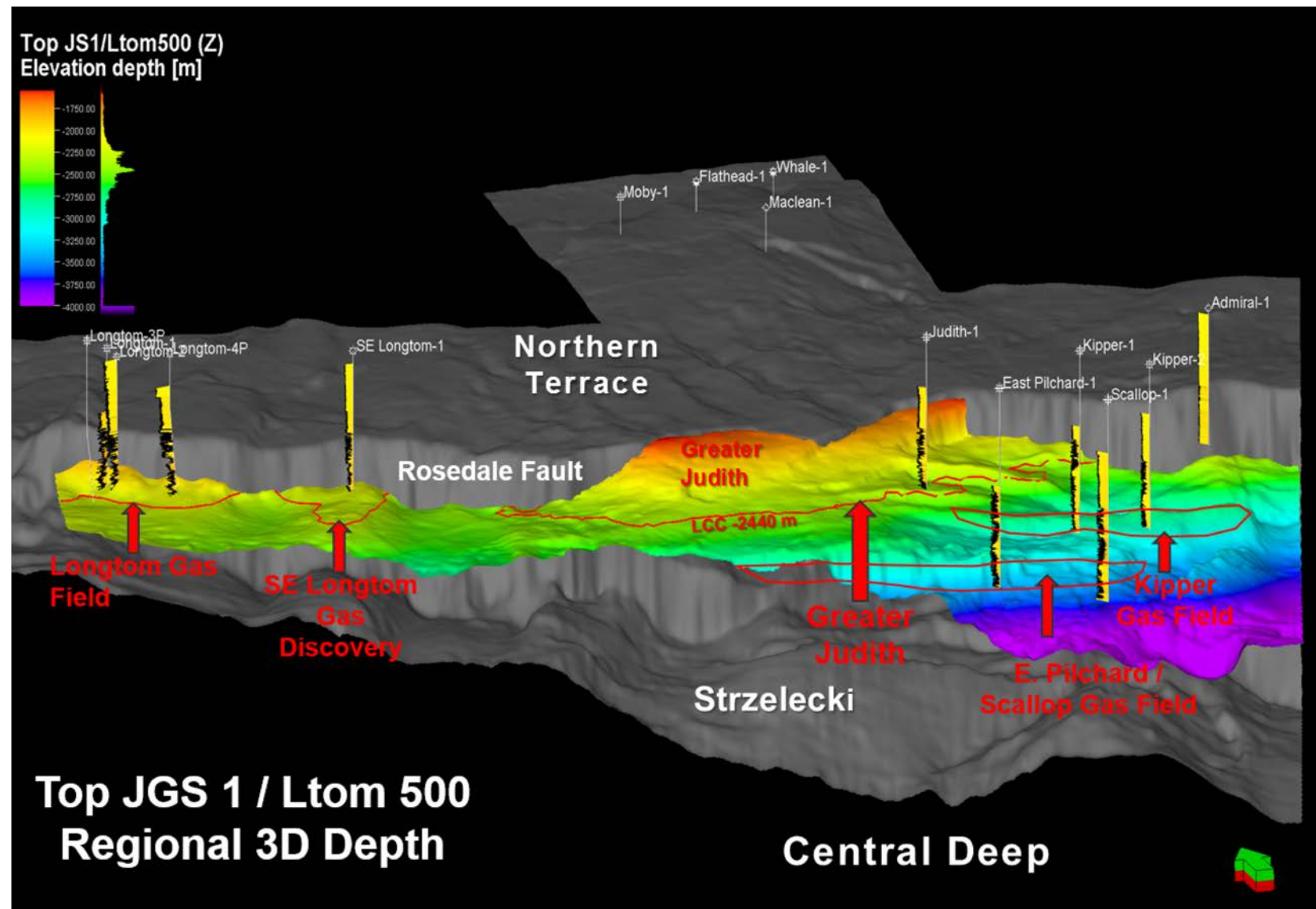
# Vic/P47 Structural Configuration

The shallowest Judith reservoir (JGS1) was interpreted to Longtom and correlated with the Longtom 500 Gas Sand

Strong influence of east to west directed compression on structuring – anticlinal development and sometimes inversion of normal faults.

Seal and reservoir cycles can be interpreted and mapped regionally on seismic.

All Admiral Formation reservoir fields involve structural closures against the regionally extensive Rosedale Fault.



# Judith Gas Field - Project Overview

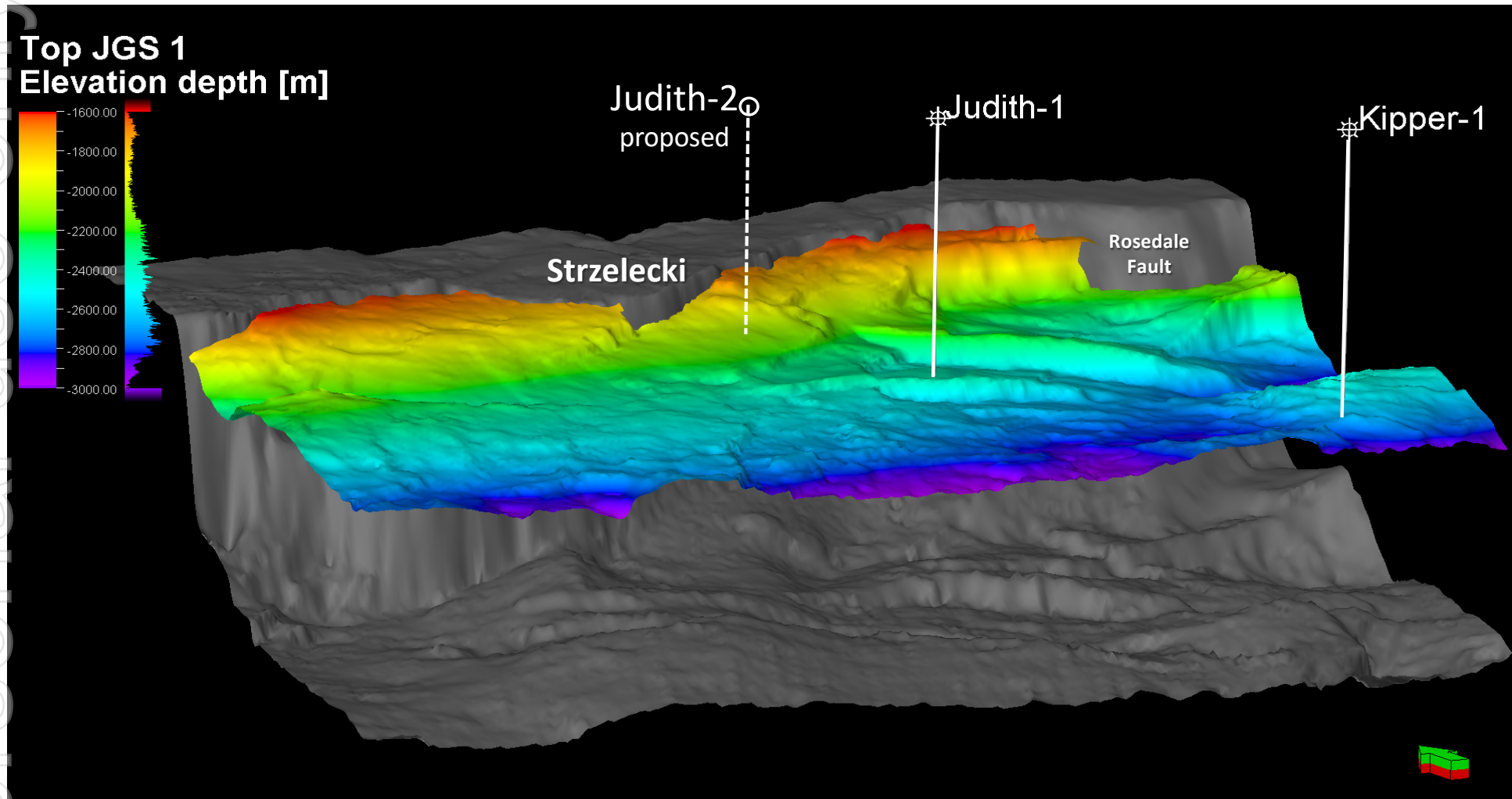
- **1.8 TCF P50 Prospective Recoverable Resource**
  - 1.2 TCF in Judith and Longtom Gas Sands
  - 622 BCF in overlying Kipper & Golden Beach Gas Sands
- **150 BCF 2C Contingent Resource around Judith-1 Well**
- Project de-risked by:
  - Judith-1 discovery well
  - **New PSDM 3D seismic with positive AVO response**
- Judith is on trend and directly analogous to the Longtom and SE Longtom gas fields;
  - Longtom-3 (H) flowed 75 MMSCFD
- Clear path to 80 MMSCFD plateau production over 25 years with Pre-FEED completed
- Judith-2 Appraisal Well to be drilled in 2023 to define reserves
- Judith Gas Project well positioned to sell into the supply constrained Eastern Domestic Gas Market



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# Mapping – New PSDM 3D Seismic

Top JGS 1 over Greater Judith – Depth of 2350m at Judith-1





# Emperor owns 100% of VIC/P47

**Permit is in good standing, with Judith appraisal well due August 2023**

- **Ownership:** Emperor owns 100% of 203 km<sup>2</sup> VIC/P47, which covers the Judith-1 gas discovery

Year	Start Date	End Date	Activity Description	Indicative Expenditure (AUD)	Complete?
1-3	23/02/2018	22/08/2023	Geotechnical studies including detailed resource assessment, preliminary reservoir engineering, target selection and well planning	\$400,000	✓
			Purchase of 45 km <sup>2</sup> of multi-client 3D seismic from CGG - comprising all available MC3D full-fold coverage in VIC/P47*	\$580,000	✓
			Interpretation and mapping of newly purchased 45 km <sup>2</sup> of Multi Client 3D seismic data*	\$150,000	✓
			Confirmation of drilling target/s and detailed well planning and preparation	\$1,300,000	In progress
			Drill one well	\$35,000,000	
4	23/08/2023	22/08/2024	Post-well evaluation studies	\$500,000	
5	23/08/2024	22/08/2025	Geotechnical studies including commerciality assessment	\$300,000	

\*Purchased 37 km<sup>2</sup> within VIC/P47 (Area 1) and 46 km<sup>2</sup> outside the permit (Area 2) – minor work program variation in progress with NOPTA.

\*\*The wellhead value of production will be calculated as the sales value of all production less the post-wellhead costs relating to the production.

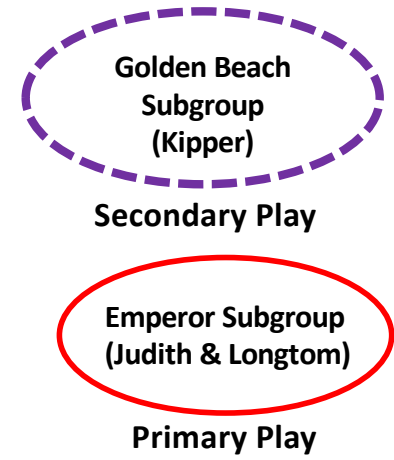
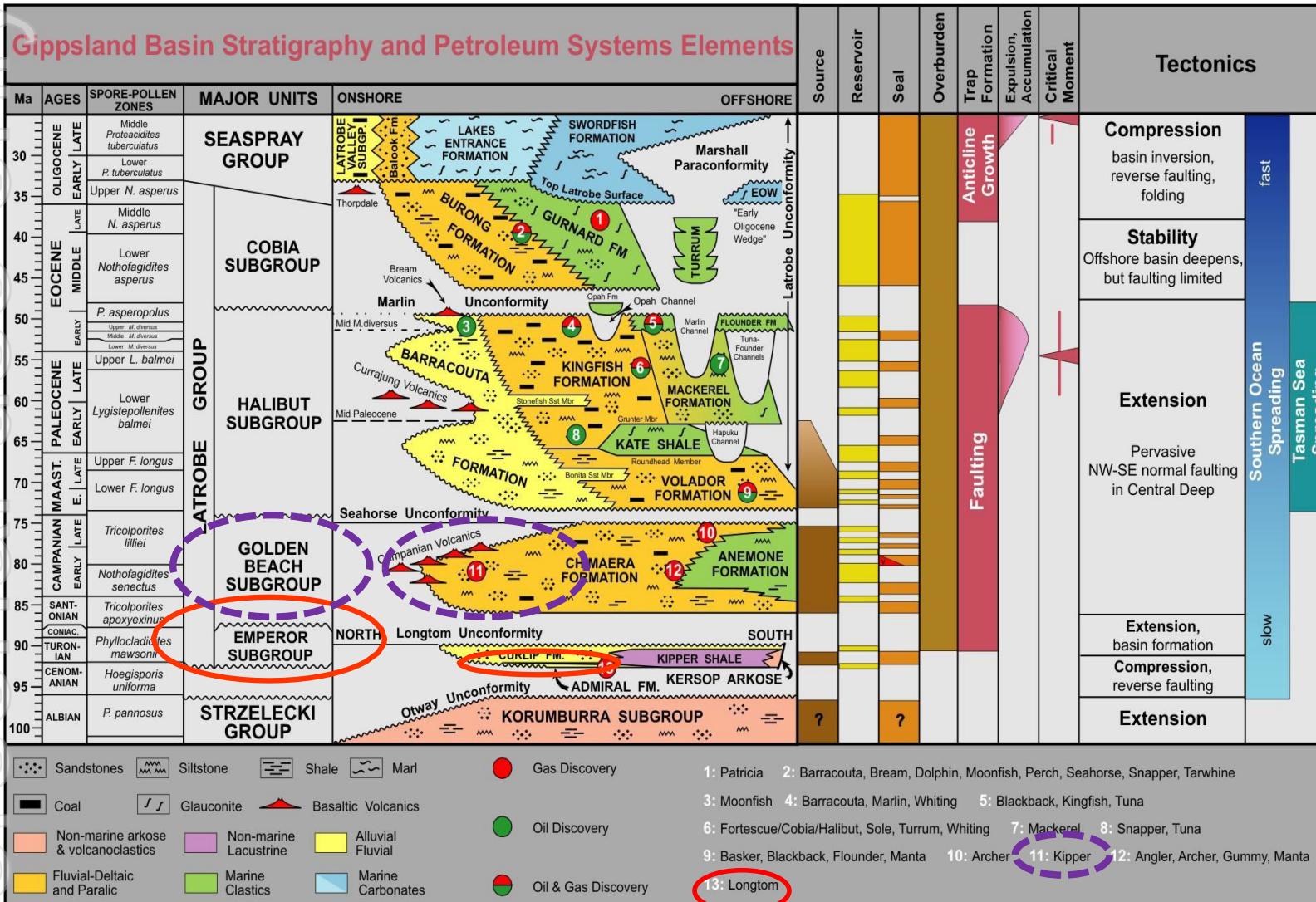
Permit Life: VIC/P47 exploration permits extends to August 2025 before renewal or conversion to a production licence or if required, a retention lease.



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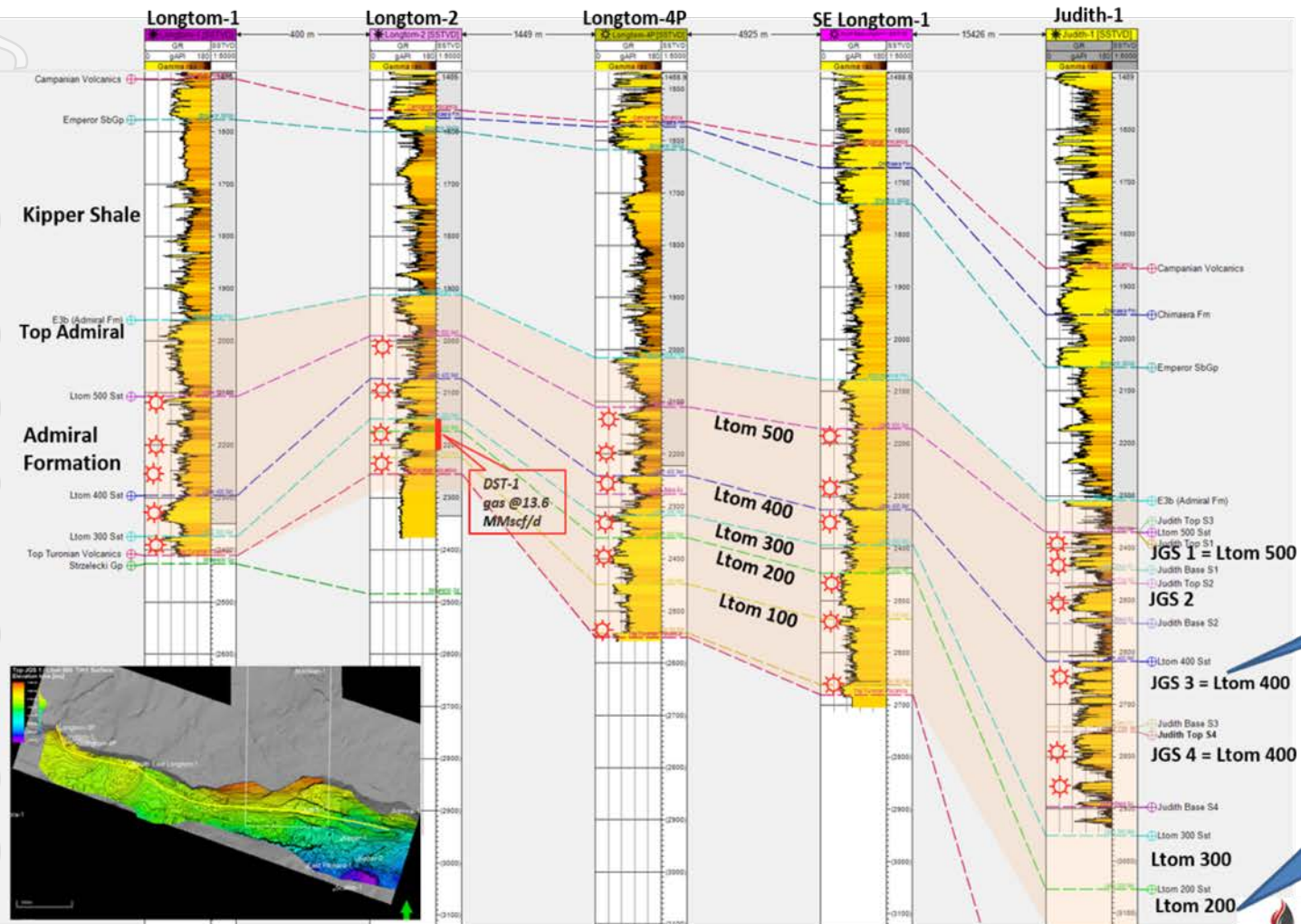
# Gippsland Basin Stratigraphy

- Judith and Longtom gas reservoirs – early rift fluvio-lacustrine Cenomanian sediments of the Emperor Subgroup
- Kipper and Golden Beach Subgroup reservoirs – a secondary, developing play extending from Kipper Gas Field



# Judith reservoir much thicker than Longtom

1,170m Judith-1 gross thickness versus ~550m at Longtom-4: expect highly productive vertical wells



Much thicker development of fluvial sandstone intervals between lacustrine shales at Judith-1 compared to Longtom wells

Ltom 200 not penetrated at Judith-1 but seismic suggests thicker development and higher nett/gross sand this and underlying Ltom sequences as for overlying Judith sands

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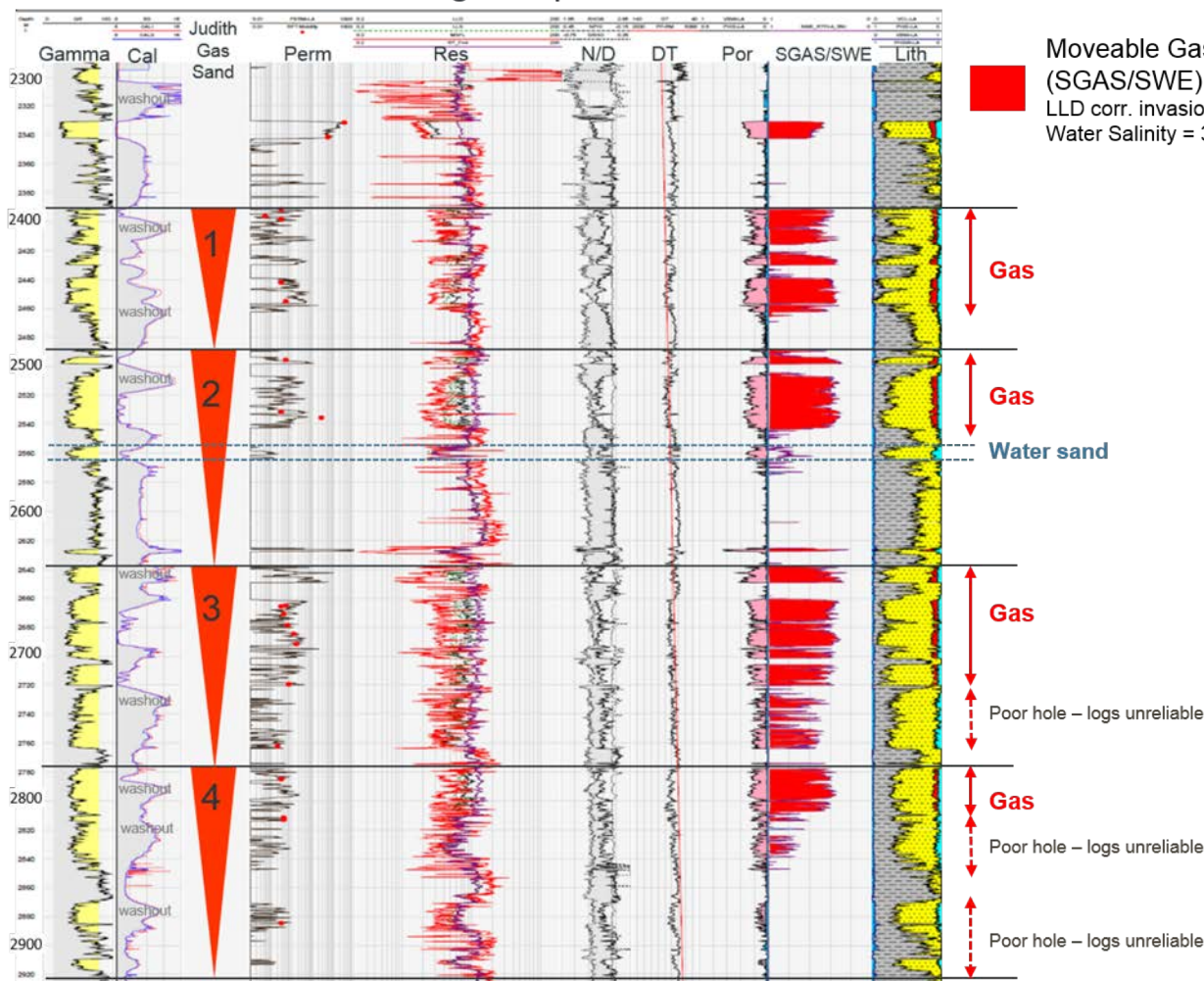
# Judith-1 Wireline Log Interpretation

## Judith Gas Sands

Judith-1 Log Interpretation

### Judith-1

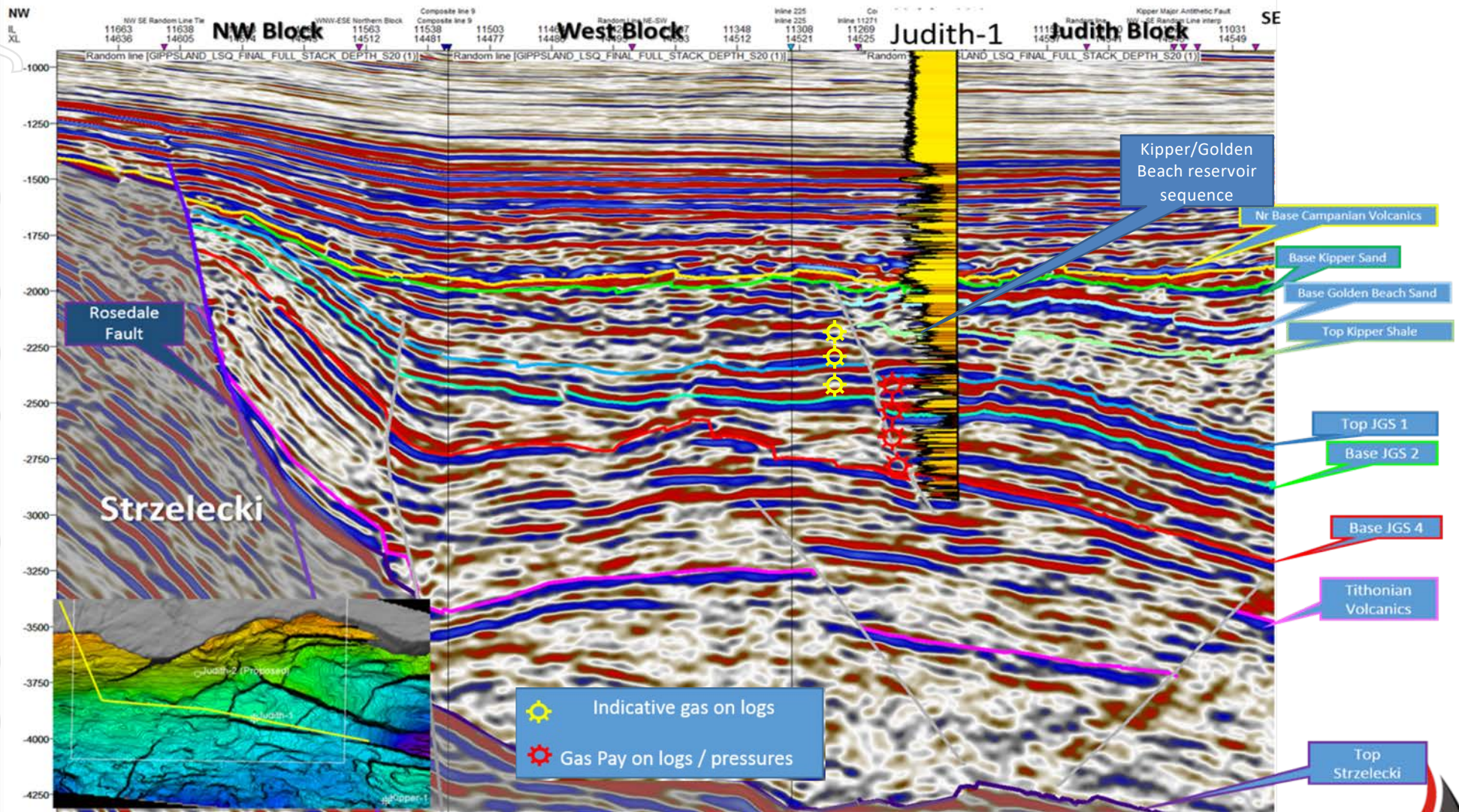
- Gross column: 543 m
- Net sandstone reservoir: 234 m
- Net gas reservoir (gas sands): 162 m
- Average Porosity in reservoirs: 10.2 – 13.6%
- Average Gas Saturations for reservoir sands vary depending upon extent of Mud Filtrate Invasion into reservoir and Formation Water Salinity:  
i.e. JGS-2 SGAS = 38.5 – 60.4%





# Data Quality: New Seismic PSDM Interpretation

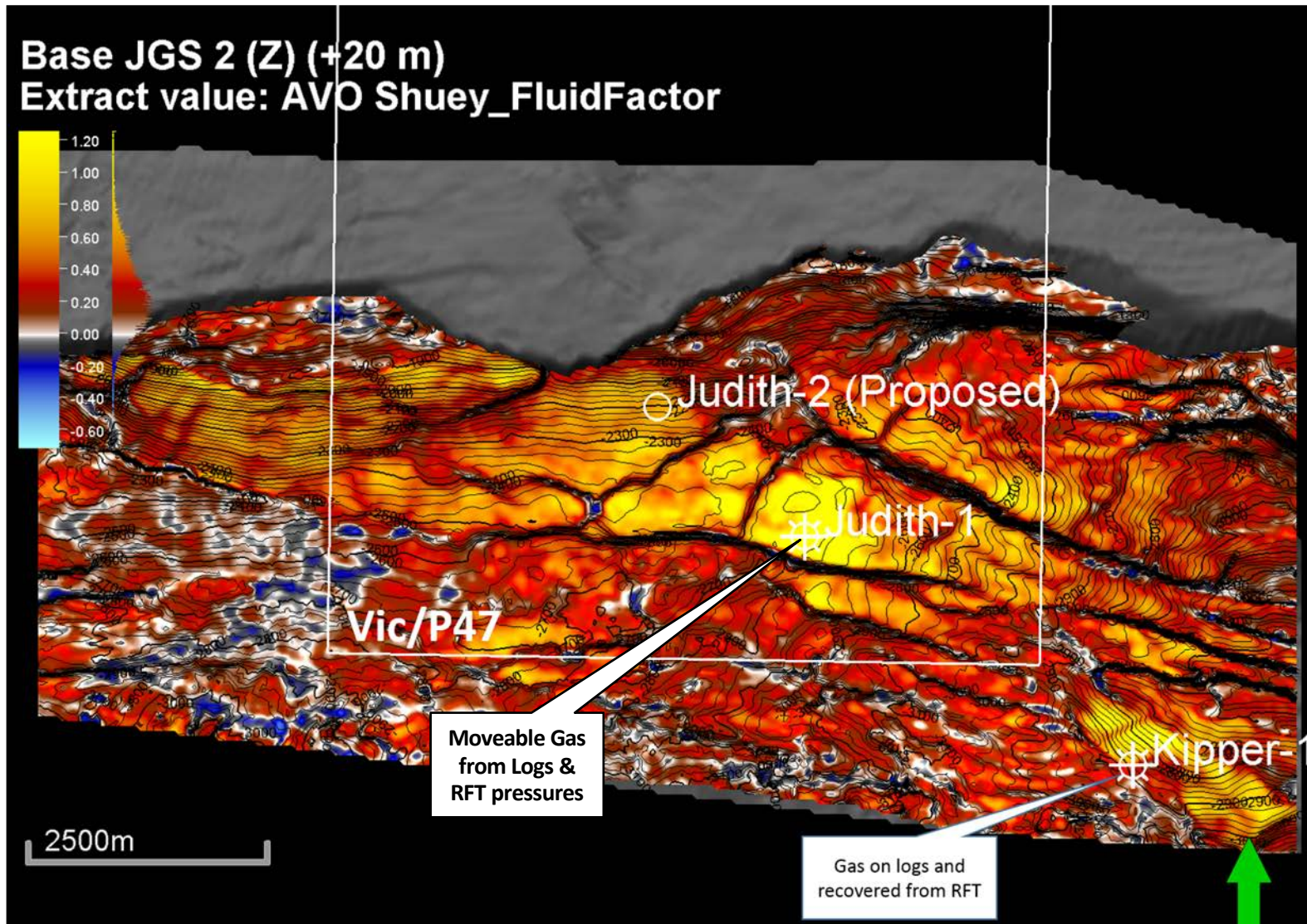
## Composite Seismic Strike Line





# Judith Gas Sand 2 AVO – Shuey Fluid Factor

Gas sands light up on AVO

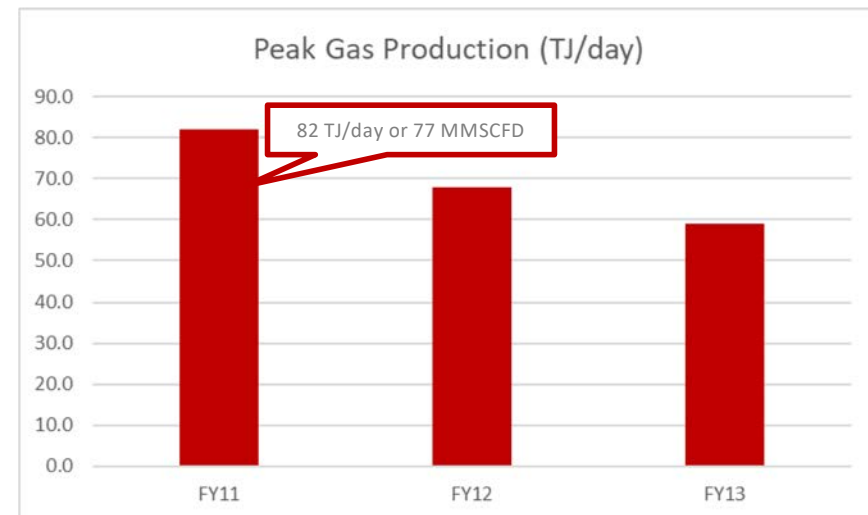




# Longtom demonstrates high flow rates from Emperor sands

## Increases positive likelihood of high flow rates from Judith-2

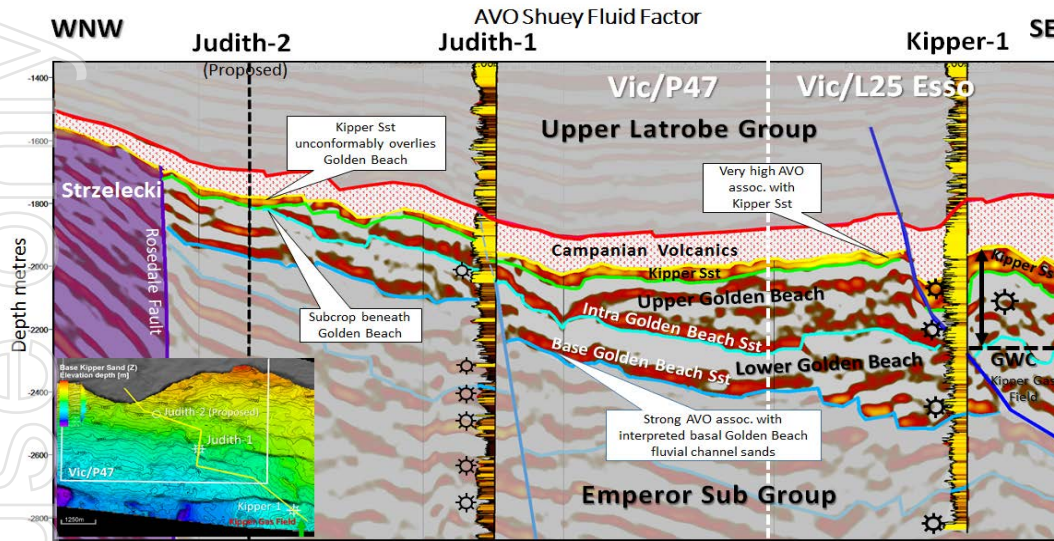
- 2006 Longtom-3 flow tested 75 MMSCFD
- Peak Longtom production flowrates were 56-77 MMSCFD from 2 wells
- Loss of communications with subsea wells led to Longtom field shutdown in early 2014
- Restart prevented by subsequent loss of access to processing infrastructure due to change of control event



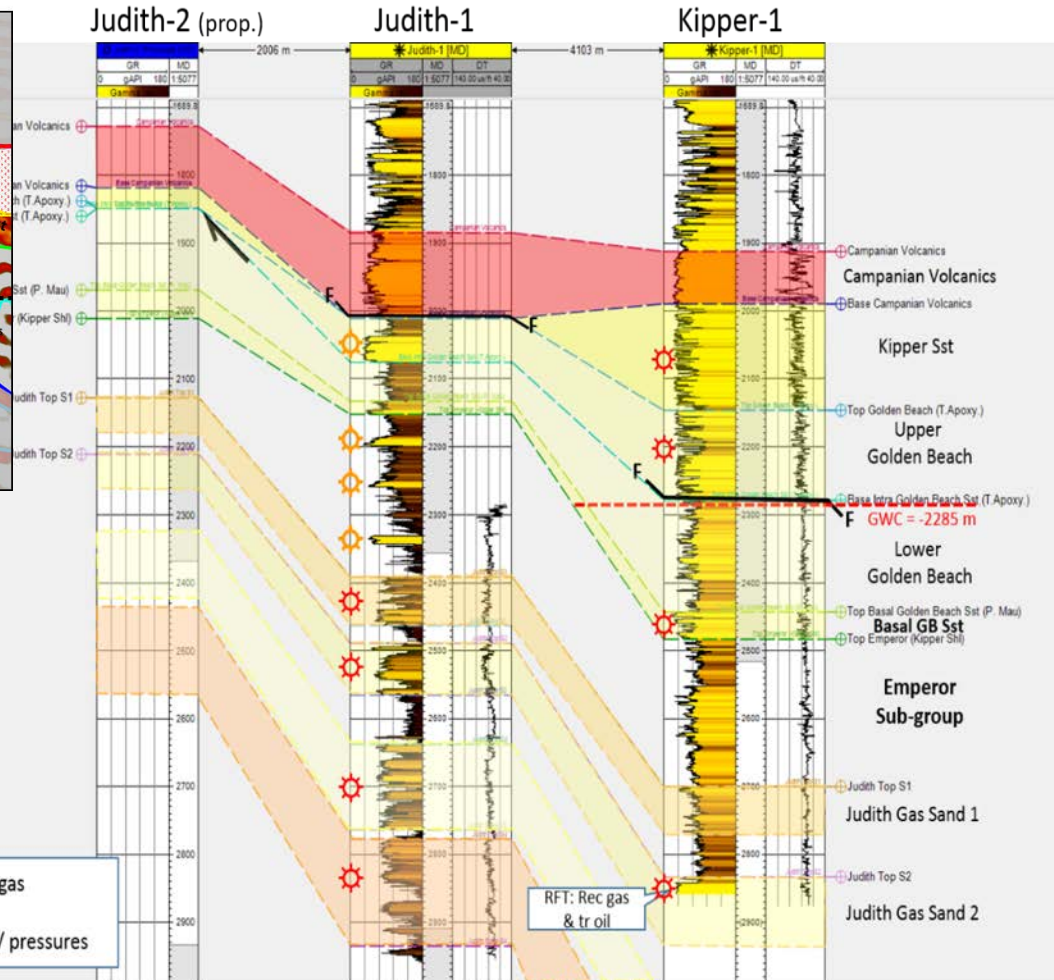
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# Kipper and Golden Beach Sands AVO well correlation

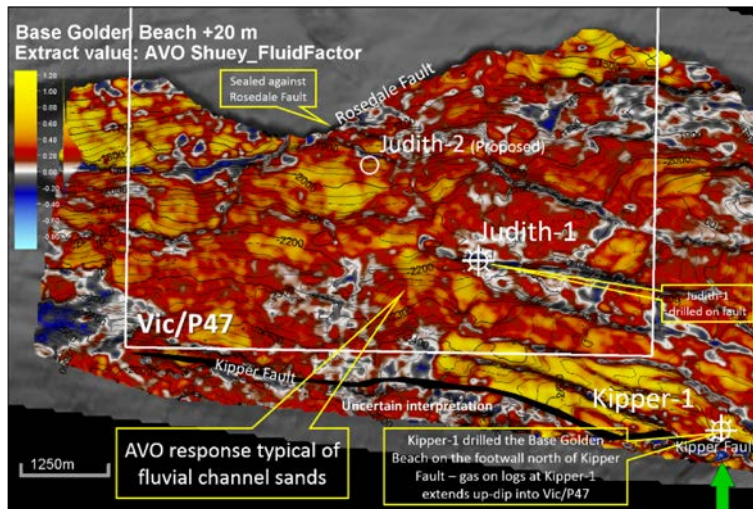
Kipper-1 – Judith-1 seismic section showing AVO Shuey Fluid Factor effect



Well Cross-section – Kipper & Golden Beach reservoir sequences



AVO Shuey: Base Golden Beach Sandstone



- Indicative gas
- Gas Pay on logs / pressures





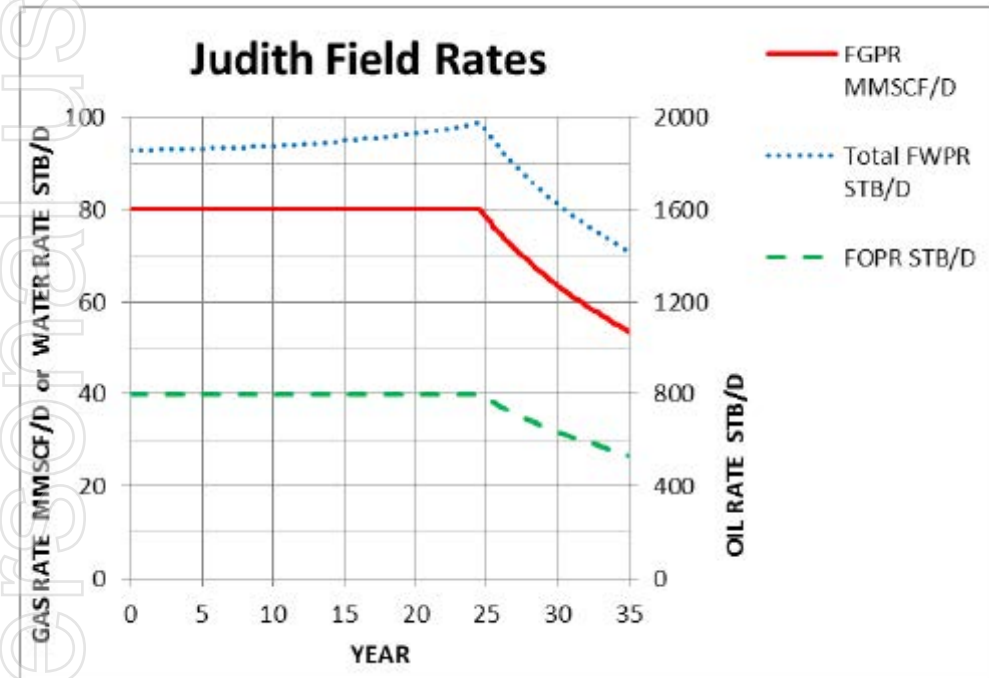
# Five wells produce at 80 MMSCFD for 25 years

**Five well, 80 MMSCFD case produces 730 BCF over 25 years at conservative 33% RF using isolated blocks model**

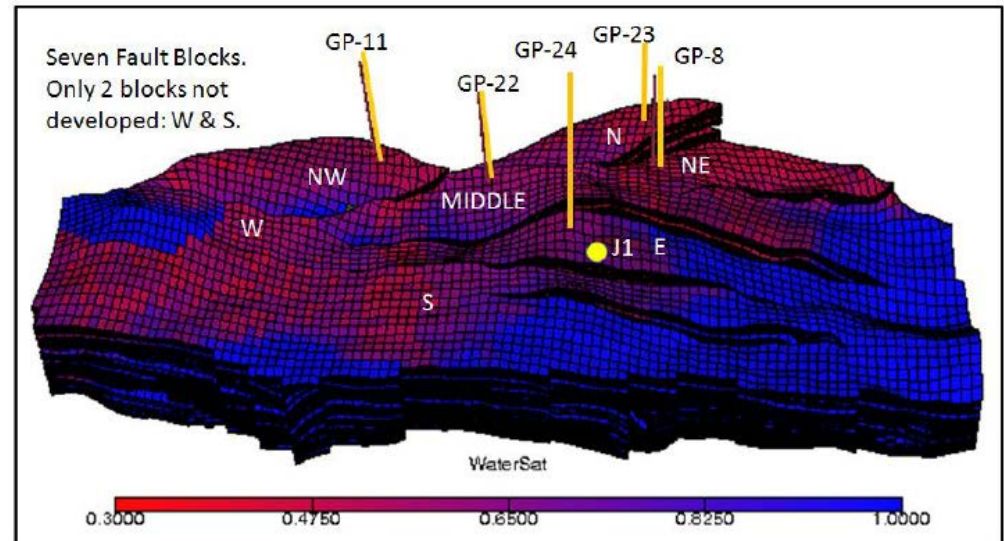
Each well in 2020 3D-GEO dynamic model update:

- Conservatively assumed to produce at 20-30 MMSCFD
- initially produces at 45-50 MMSCFD against a flowing tubing head pressure of 1015 psia (analogous Longtom-3 well flowed 75 MMSCFD).
- Chokes gradually opened to produce 80 MMSCFD target gas rate as reservoir pressure declines
- A fifth well may be required in Y15 to maintain gas pressure delivery at Orbost and for plateau extension
- 730 BCF produced over 25 years from Judith and Longtom sands only

Five Well Production Forecast (water, gas, oil)



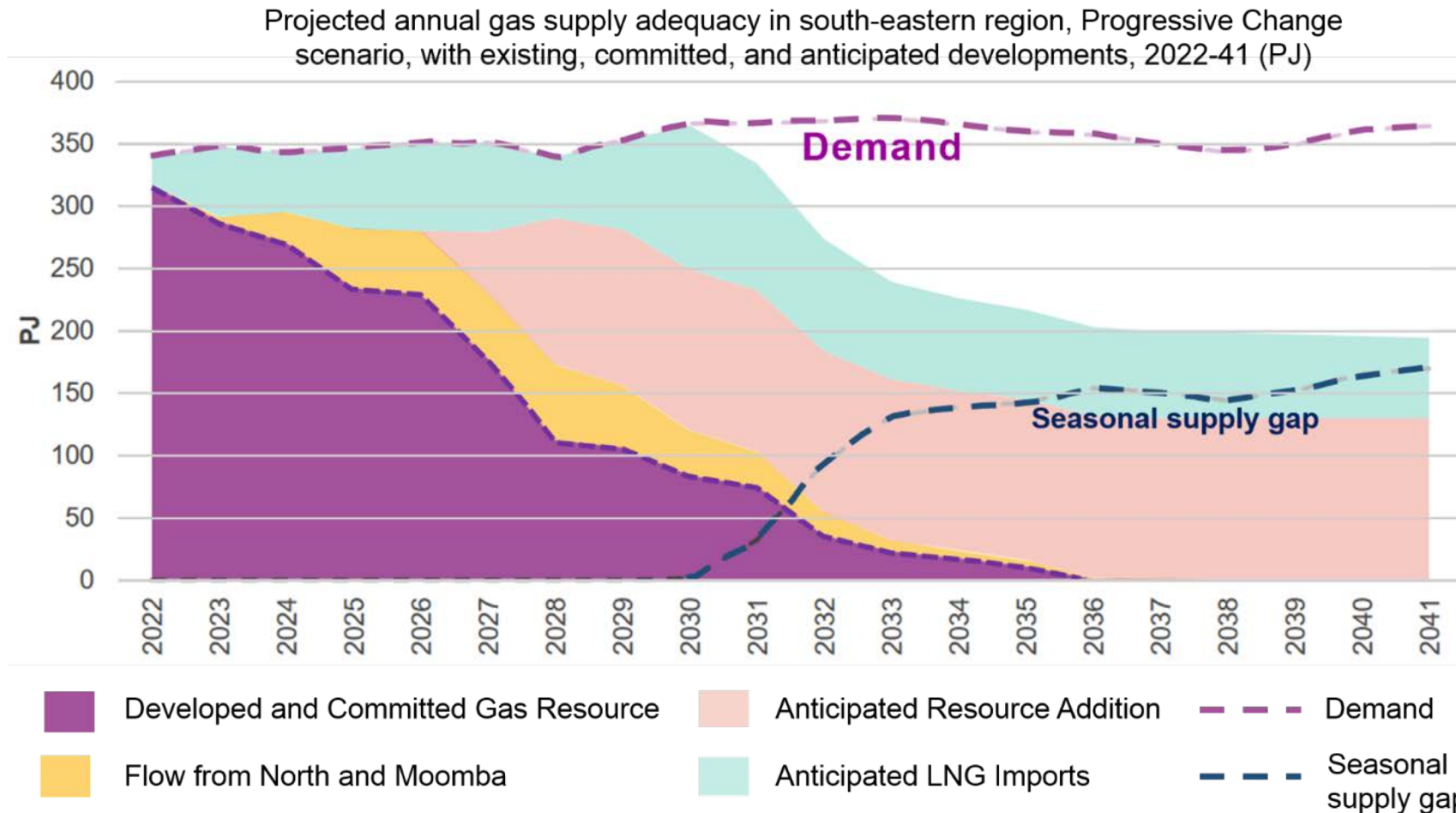
Dynamic model grid showing well locations



# Judith well positioned to be a significant new gas supply into a tightening east coast gas market

The Australian Eastern States Domestic Gas Market continues to be supply constrained, whilst gas production continues to decline, creating mid to long term pressure on gas prices

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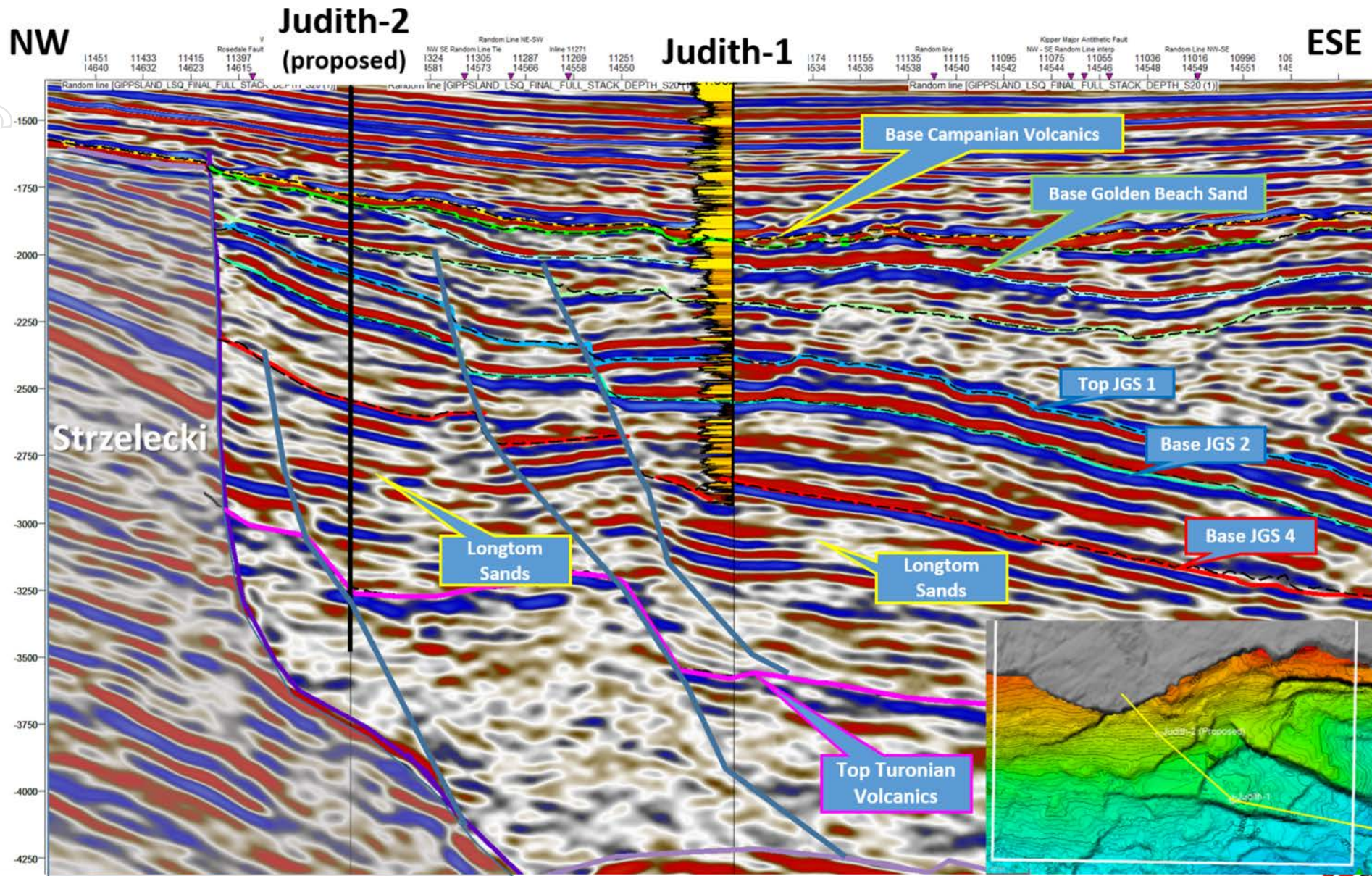


From: AEMO 2022. Gas Statement of Opportunities For eastern and south-eastern Australia, March 2022





# Judith-2 Appraisal Well Proposed Location



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# Judith-2 Appraisal Well

## Judith-2 appraisal well objectives:

### 1. Prove up more contingent resource

- a) Drilling of Judith-2 in the Central Block is expected to access and improve Contingent Resource by 333 BCF P50. When combined with existing 150 BCF P50 Contingent Resource from Judith-1 summing to 483 BCF > ~ 200 BCF MEFS threshold for a standalone development

### 2. Demonstrate reservoir producibility at this location via DST

### 3. Explore/test for the underlying Longtom 200 sands (below TD of original Judith-1)

- a) Longtom 200 sands, the principal producing sand of the Longtom Gas Field

### 4. Appraise/evaluate the Kipper / Golden Beach Sands (*recent additional objective*)

- MEFS: minimum economic field size
- Well management to be from well engineering and design through to supervision and execution. It will also manage the well health and safety and regulatory aspects.
- It is envisaged that AGR will be the wells management partner for the development wells.
- Opportunities exist to reduce well costs including rig of opportunity

## Dry hole well cost (including well test planning), from rig EOIs, of US\$25m (semi-sub)

- Semi-sub or jack-up rig (70m water depth)
- 2023 planned spud

## AGR is Emperor's Wells Management Partner

- AGR has started Judith-2 well permitting process and will be responsible for well design, contracting and operations
- AGR has delivered over 550 well projects across six continents and has recorded zero loss time incidents.





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