

Chuditch Discovery and SundaGas' Plans

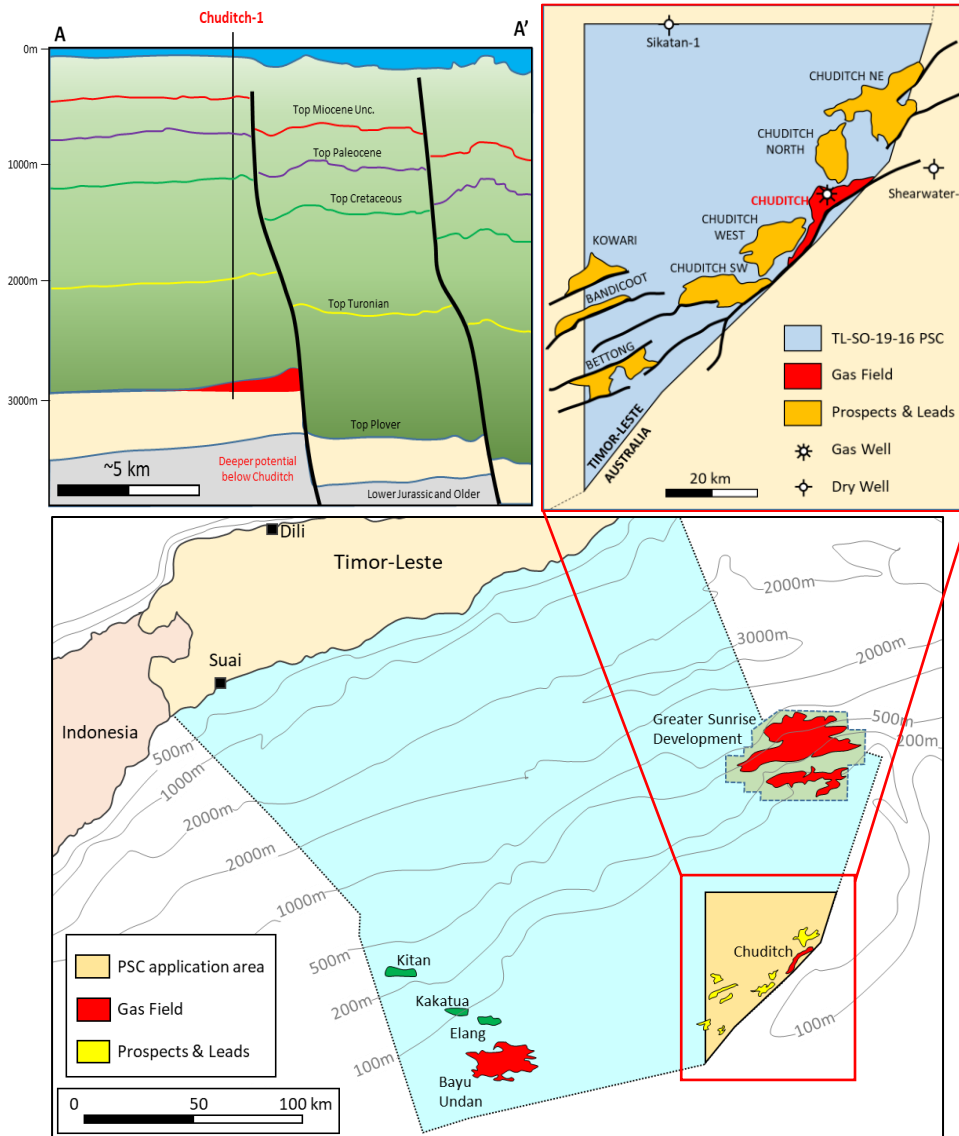
Colin Murray, VP Technical



Timor-Leste Online Conference
9 July 2020

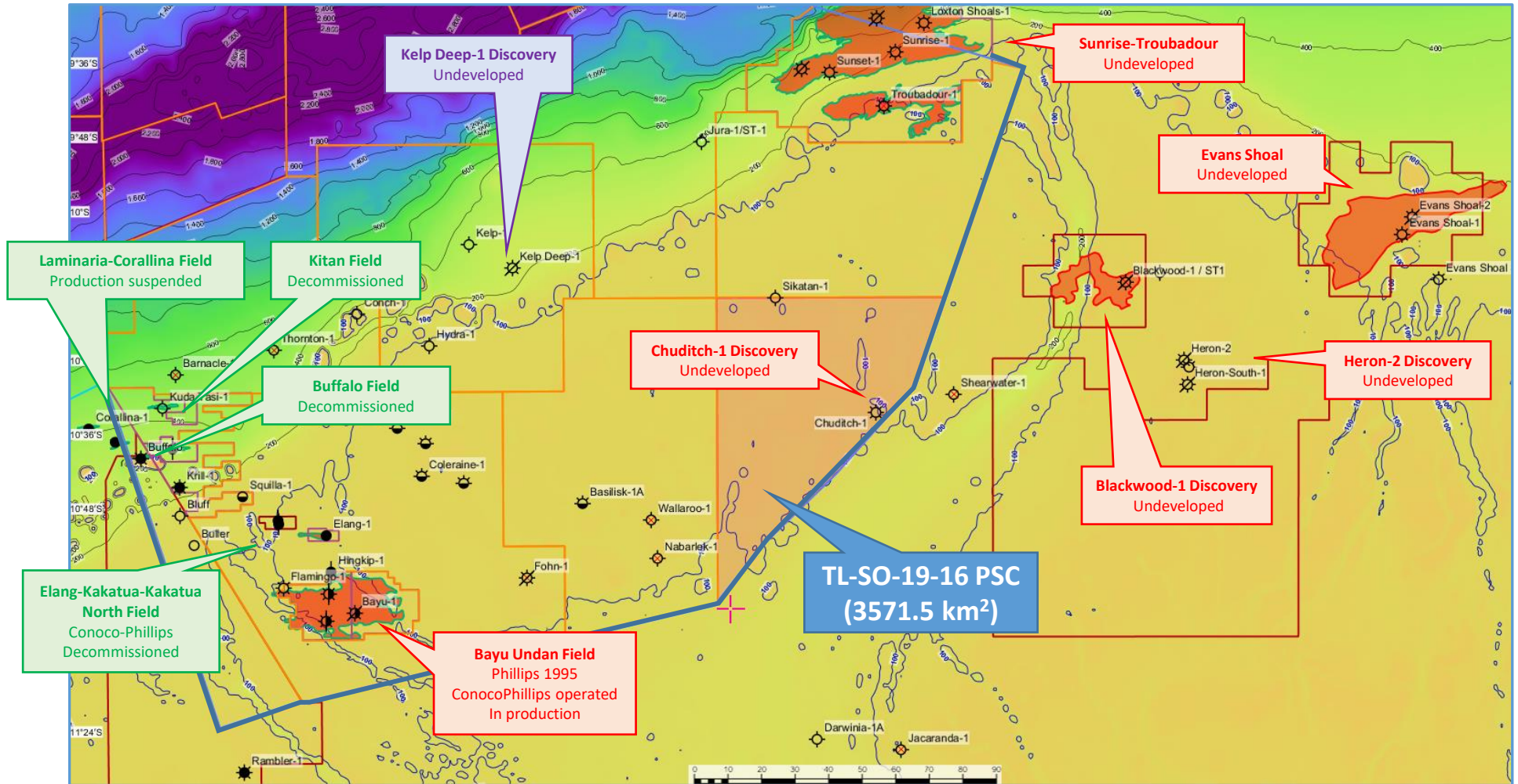
www.sundagas.com

TL-SO-19-16 PSC: Background and Overview

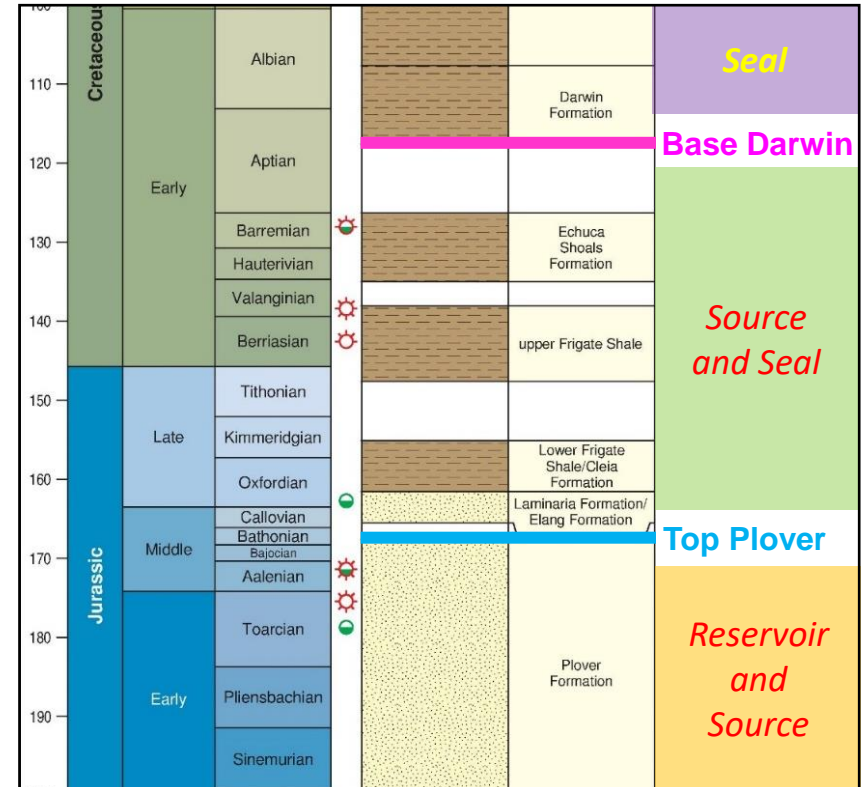
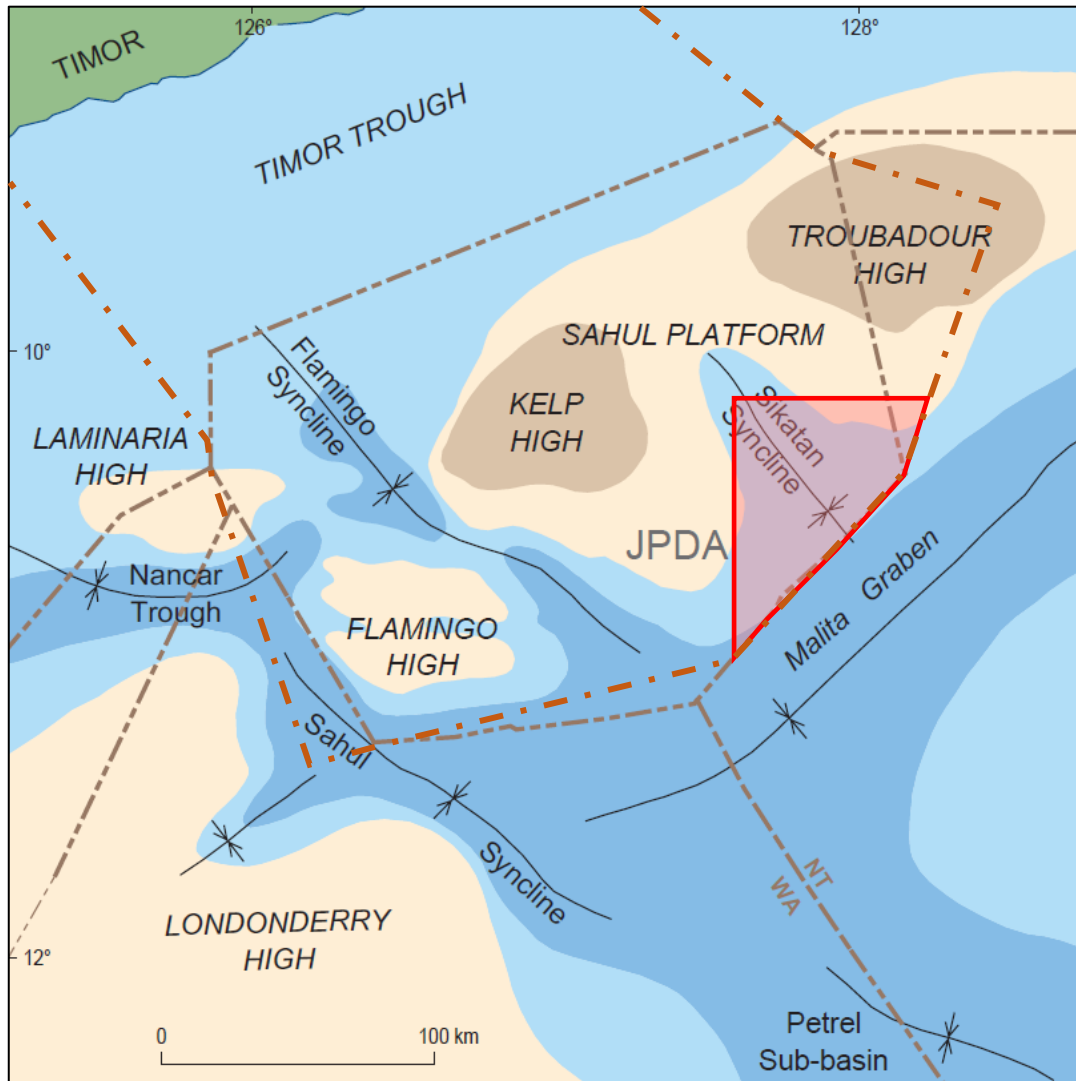


- SundaGas is a Singapore-based E&P company with interests and experience across SE Asia
- Investigating Timor-Leste opportunities over a long period and first applied for PSC in 2016
- TL-SO-19-16 PSC signed on 8 November 2019 and is the first new PSC offshore Timor-Leste following the new Maritime Boundary Agreement in August 2019
- SundaGas is operator with 75% WI, partner TIMOR GAP has 25% (with a carry to first gas)
- The PSC lies in water depths of 50-80m, east of Bayu-Undan and south of Greater Sunrise
- The Chuditch gas discovery was drilled by Shell in 1998 and is the key feature of interest

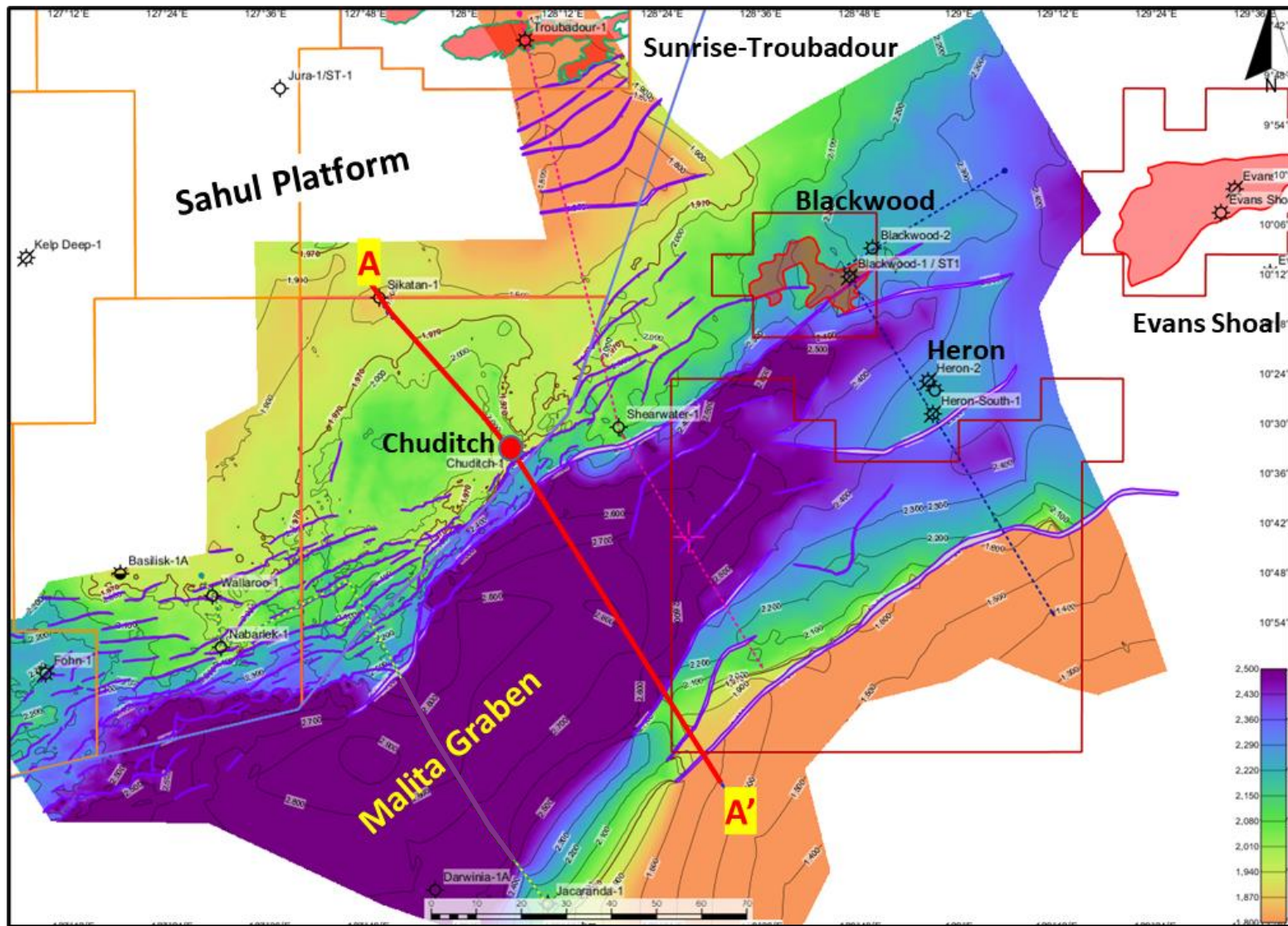
Timor Sea Bathymetry, Oil and Gas Fields



Structural Elements and Stratigraphy



Semi Regional Structure Map on Darwin Horizon (TWT)



Chuditch – Malita Graben Regional Composite Seismic Tie

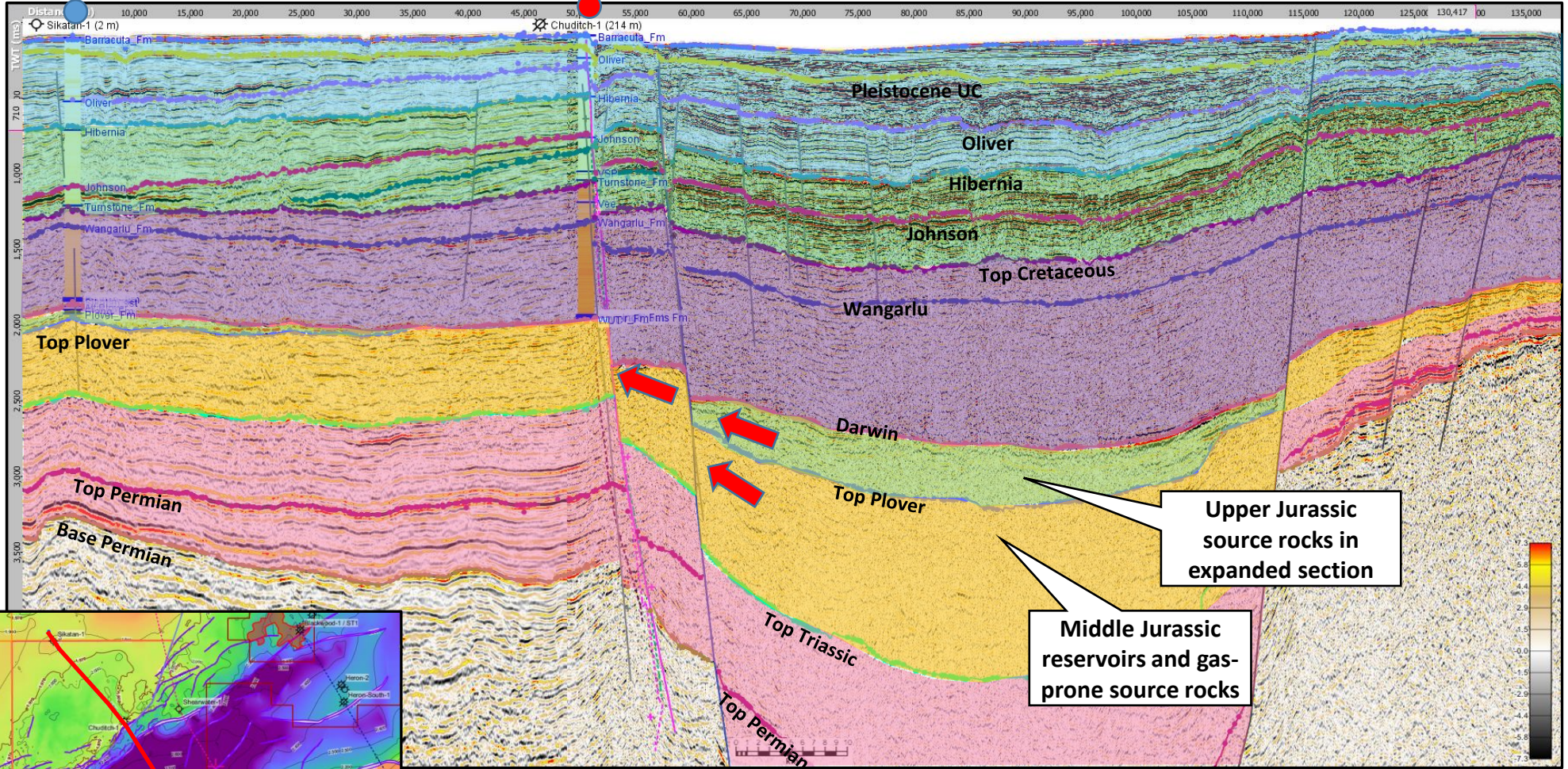


NW Sikatan-1

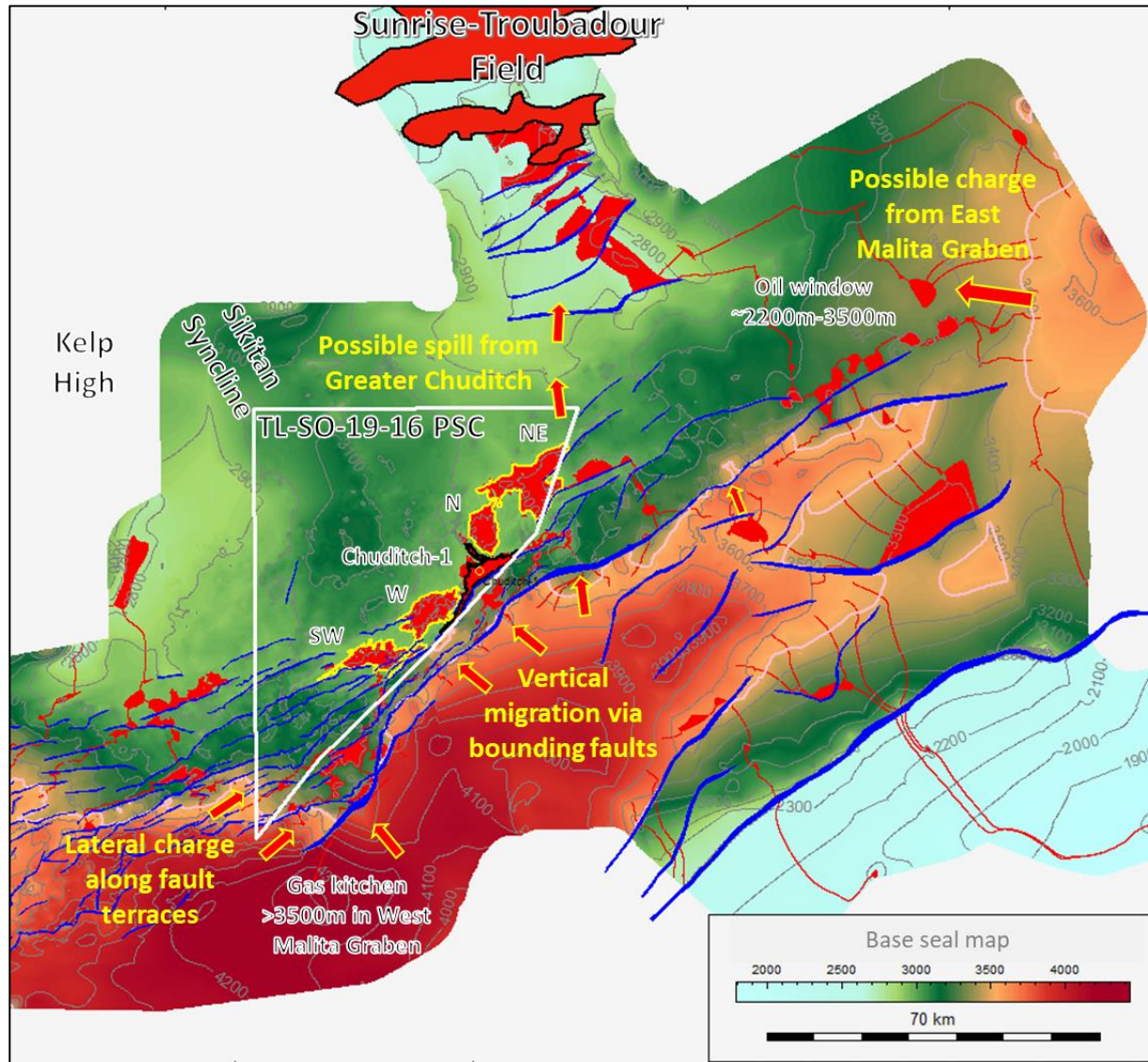
Chuditch-1

Malita Graben

SE



Chuditch Ideally Located for Significant Gas Charge

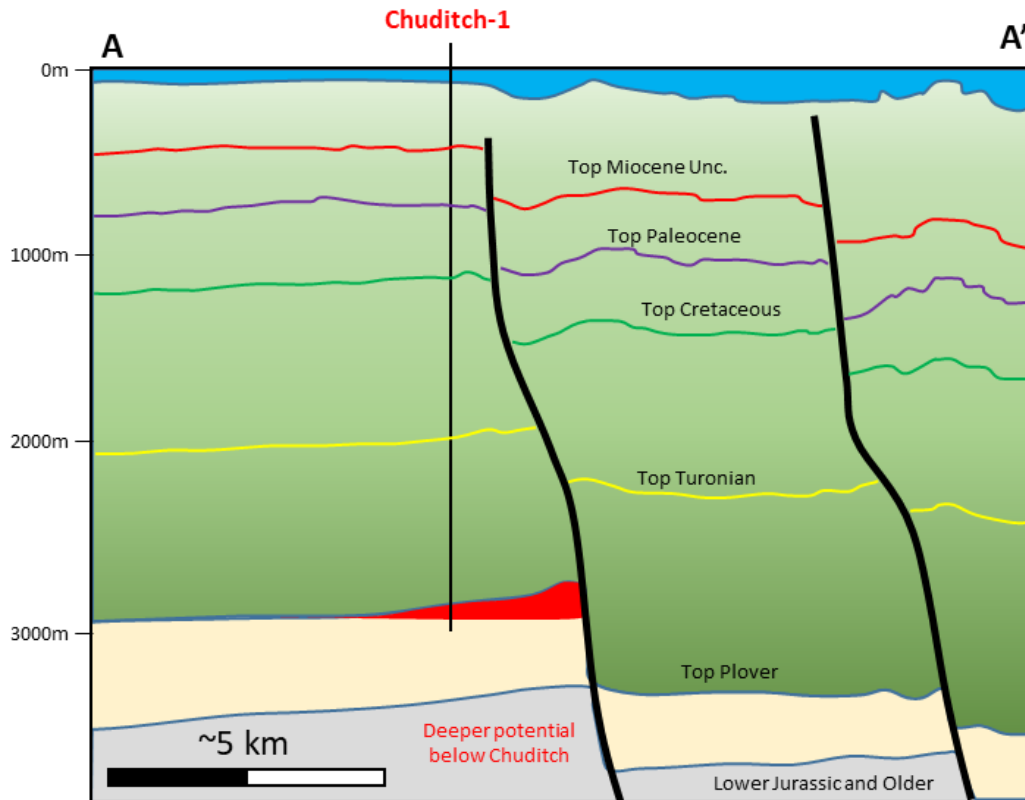


Modelled migration pathways illustrate likely Chuditch charge from adjacent Malita Graben and spill towards Sunrise-Troubadour

Notes

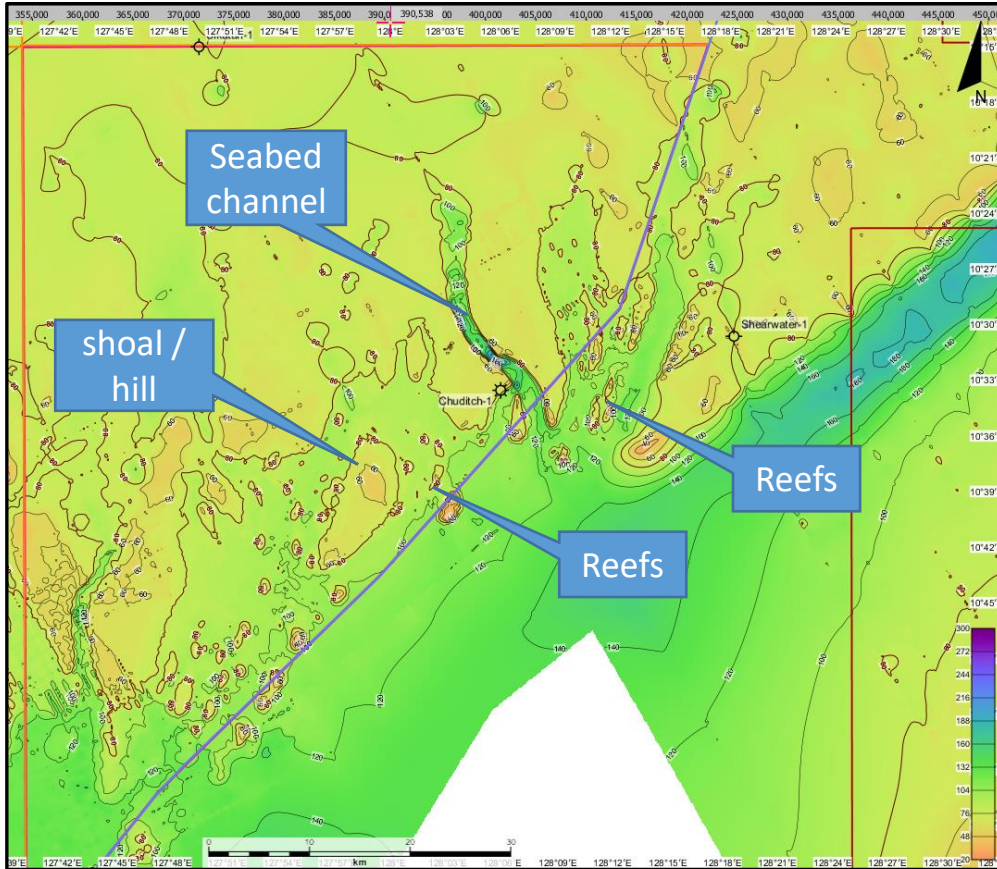
- 2D mapping extrapolated beyond mapped limits
- Simple depth conversion used time/depth relationship from sea level to base seal in Chuditch-1
- Gas expulsion window at vitrinite reflectance ~1.2 loosely defined by pink contour at ~3500m
- Provides a simple guide to present-day migration

The Chuditch-1 Discovery

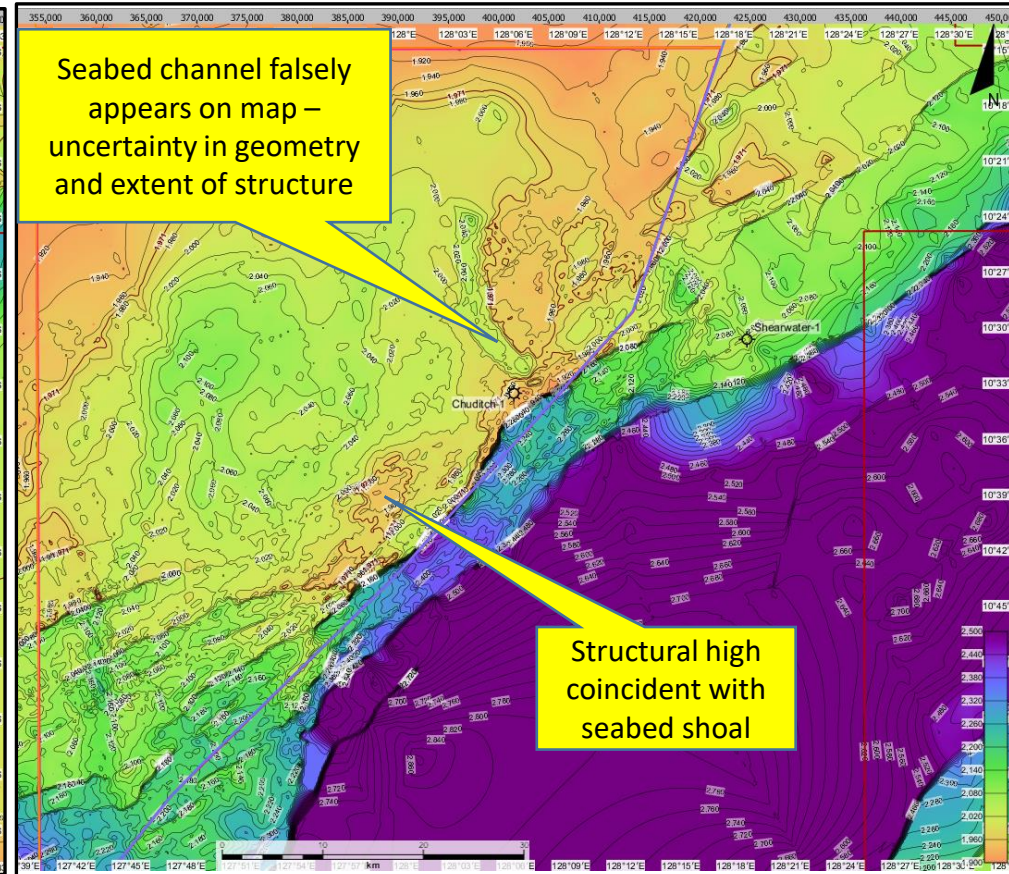


- Chuditch-1 drilled by Shell in 1998
 - 65m water depth, TD 3035m, well drilled in only 13 days
 - >25m gas encountered, considerably below mapped crest of structure
 - Good quality Jurassic Plover Formation reservoirs encountered
 - Best case discovered resource of ~700 Bcf
 - Significant uncertainty around mapping of Chuditch structure, which impacts expected resources and the location of future appraisal wells

Seabed features seen on Darwin TWT structure

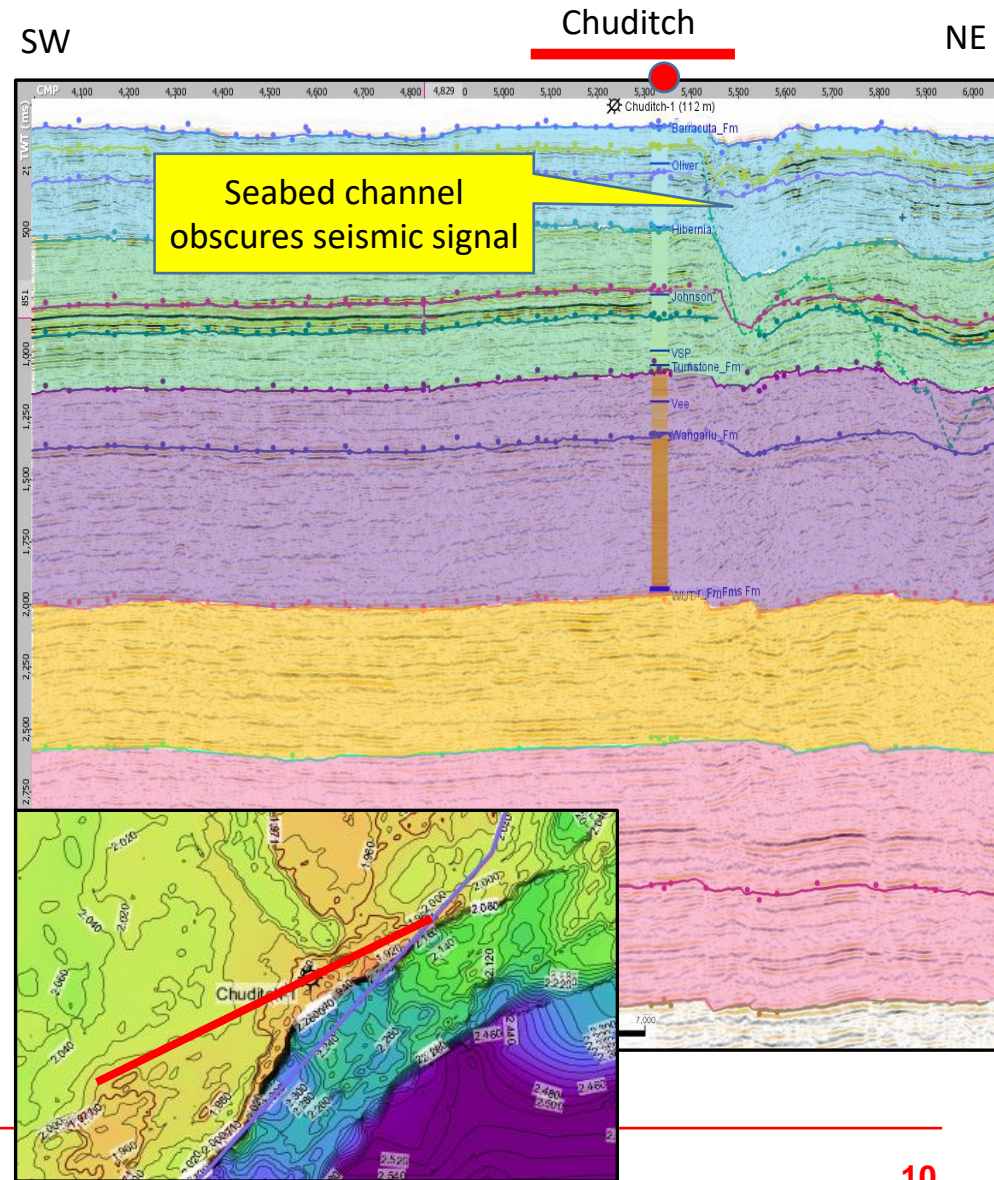
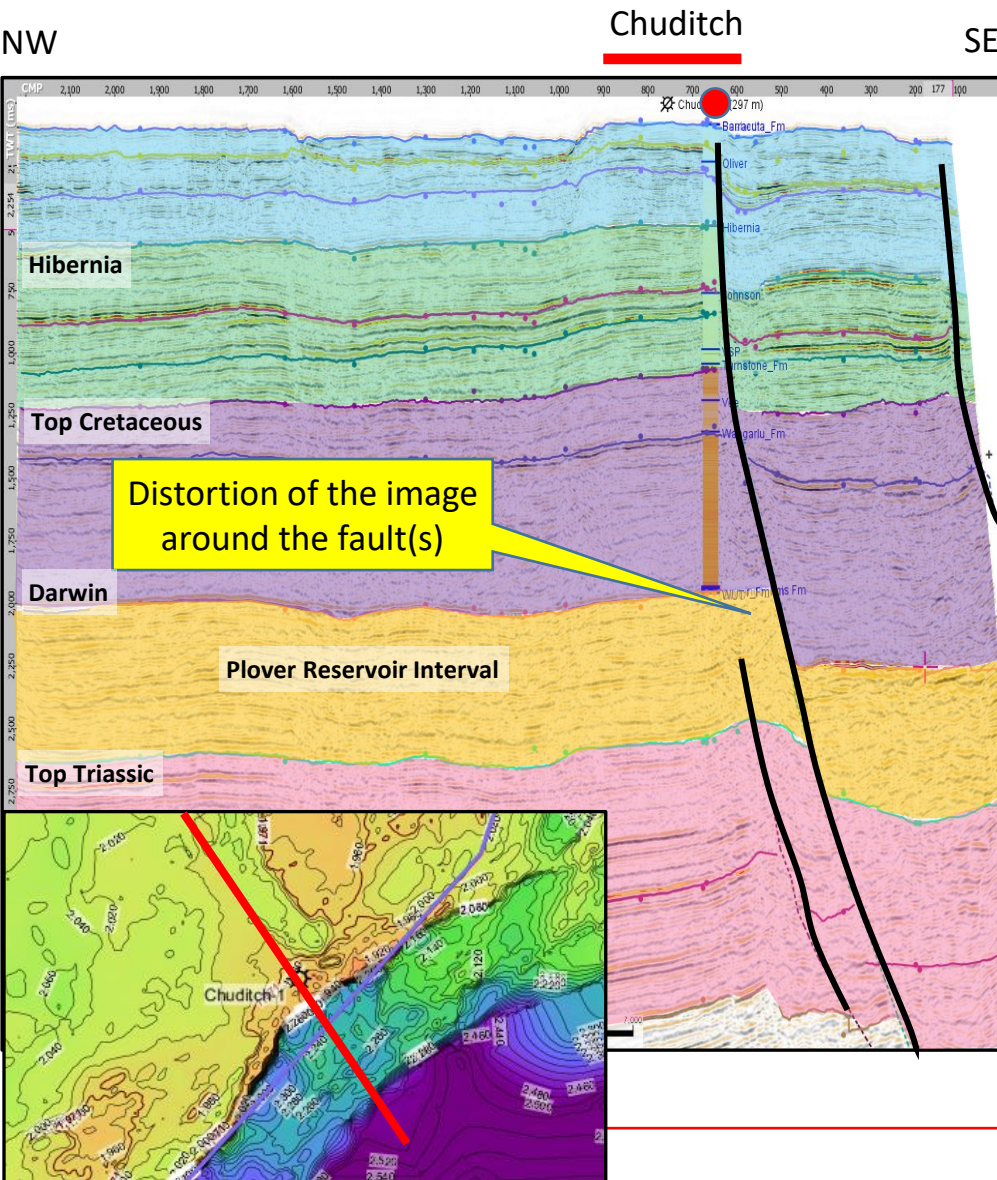


Seabed Bathymetry Map

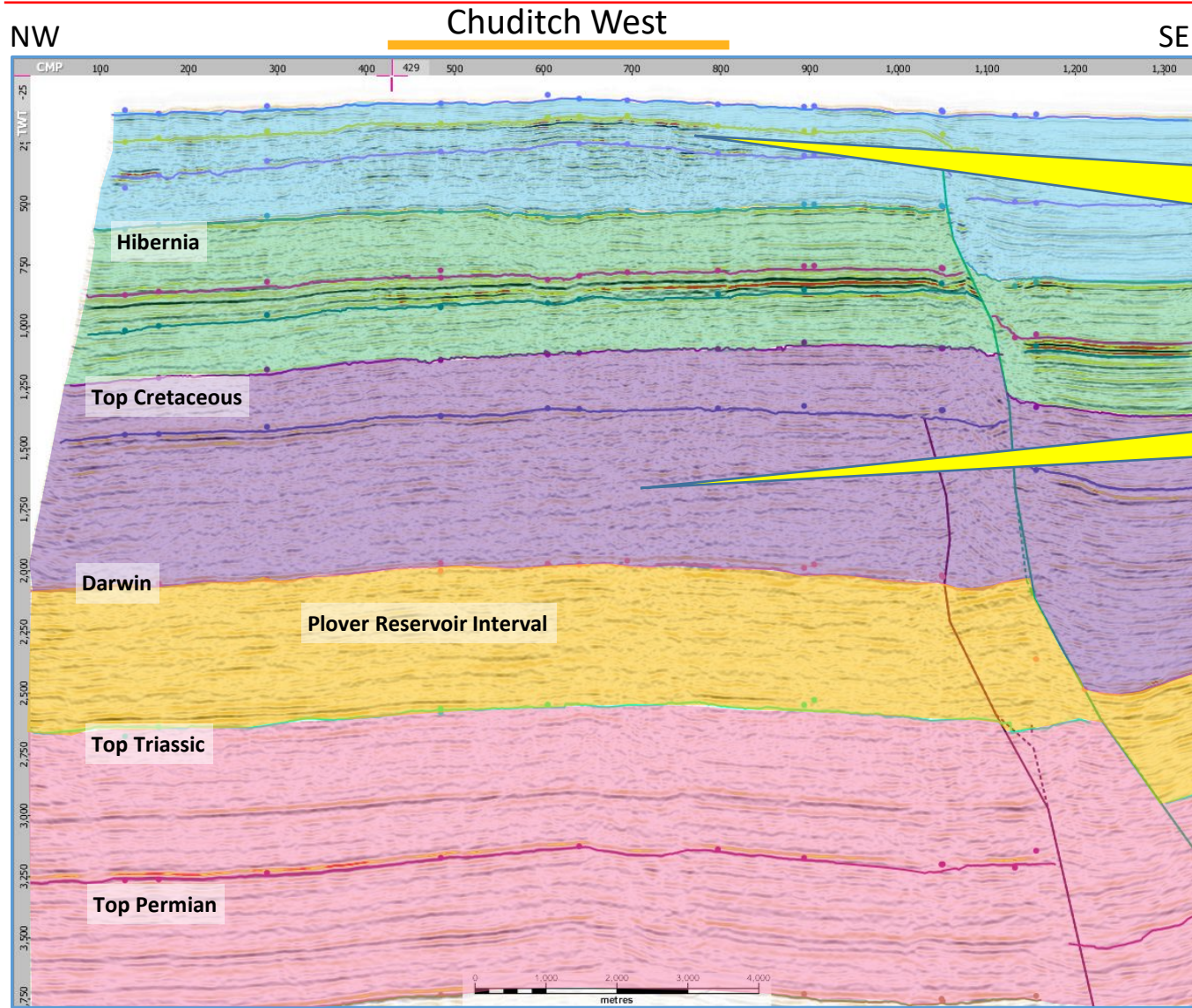


Darwin TWT Map

Seismic Illustration of Chuditch (Dip and Strike Lines)

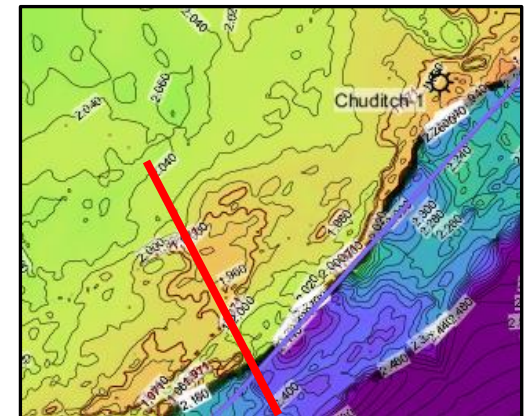


Seismic Illustration of Chuditch West

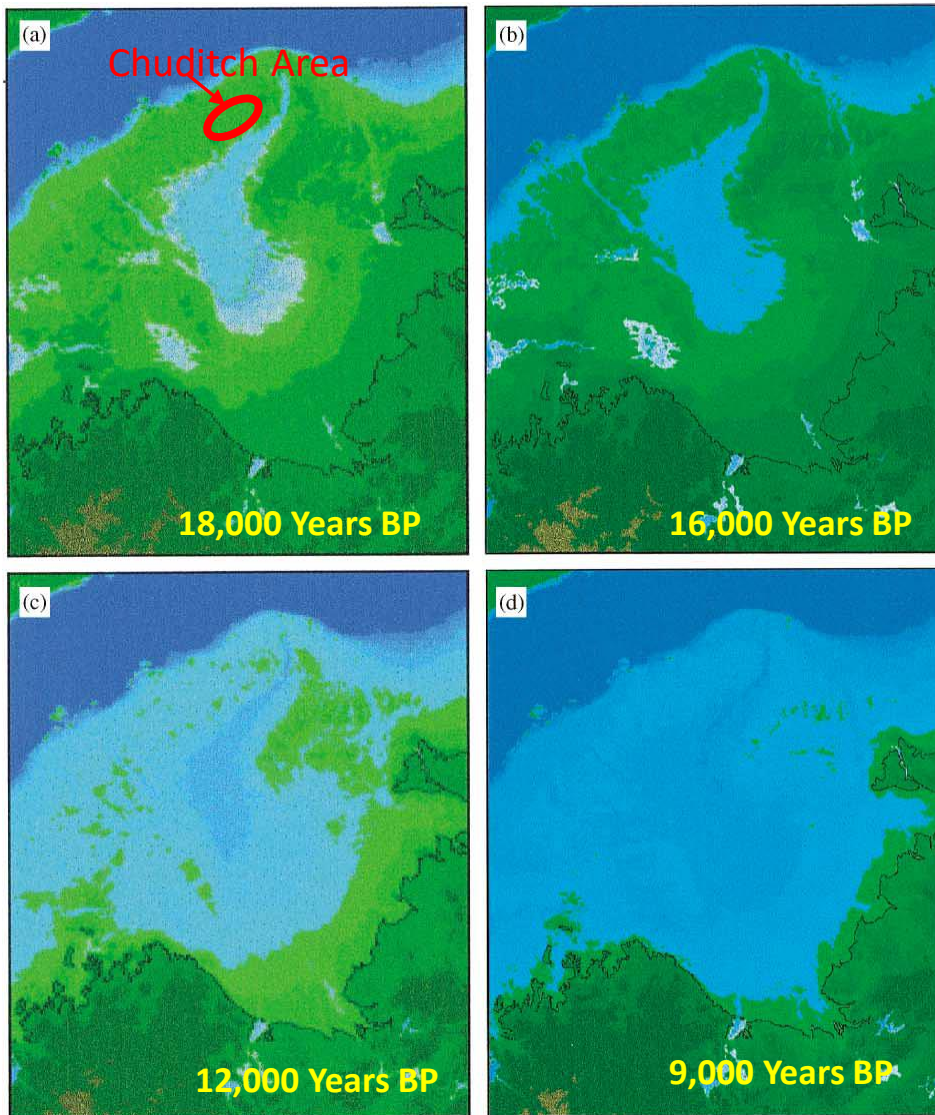


Seabed high and shallowly buried reefs reflected in deeper structure coincident with Chuditch West

Low relief closure at Chuditch West

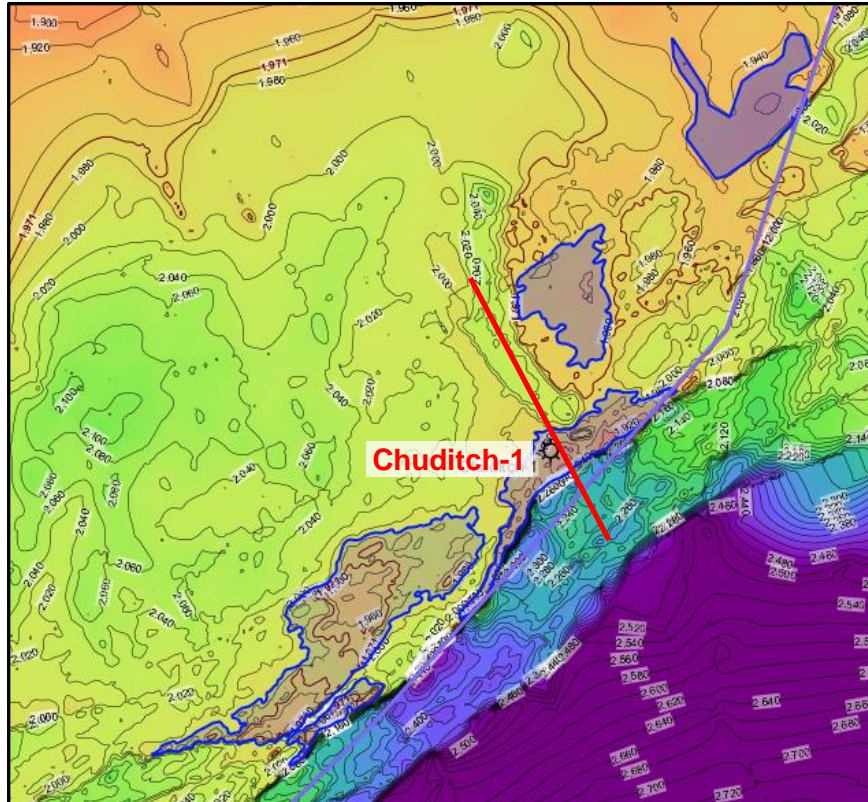


Geological Reason for Seabed Anomalies

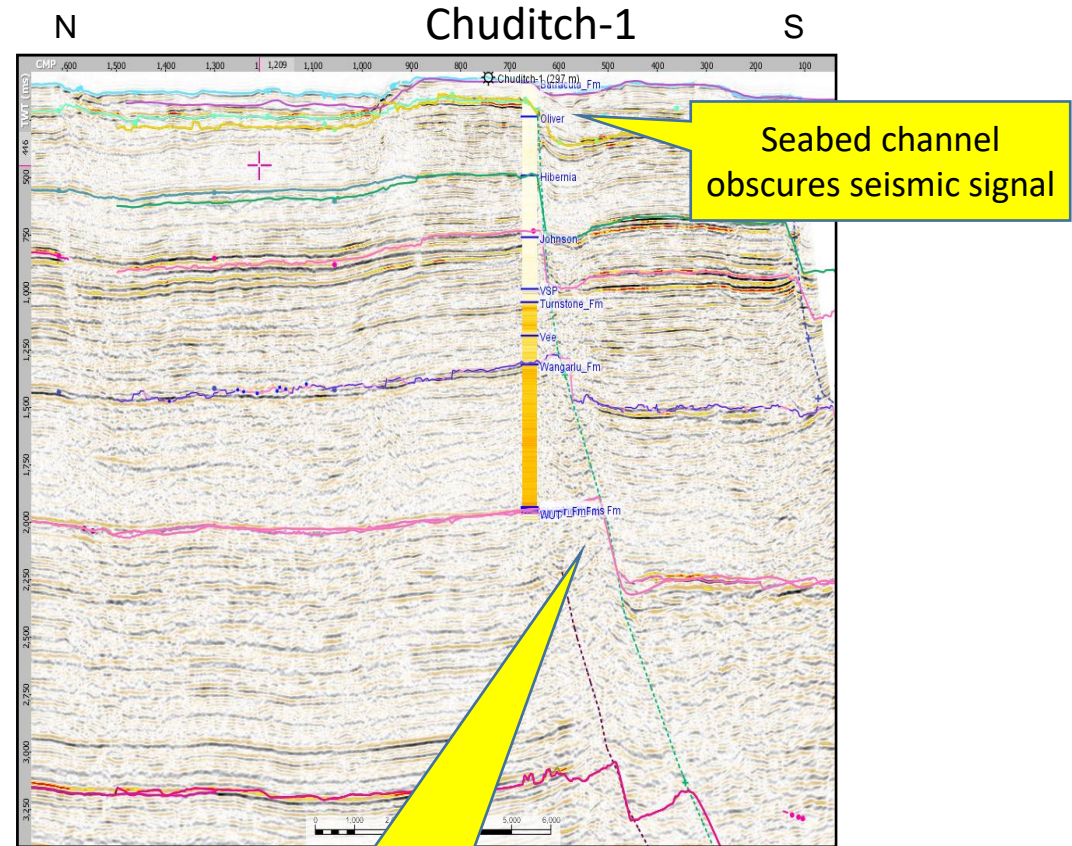


- During the last ice age, around 18,000 years ago, sea levels were up to 120m lower than today
- The Bonaparte Shelf was a land area with a large brackish lake occupying the central Bonaparte Depression.
- The Chuditch area lay on the north side of the lake – the channel was a river valley draining south east into the lake
- As sea levels rose, the Chuditch area became a shallow marine shelf with reef formation on the drowned landscape

Why do PSDM Depth Reprocessing? Chuditch Uncertainties from Seismic Imaging



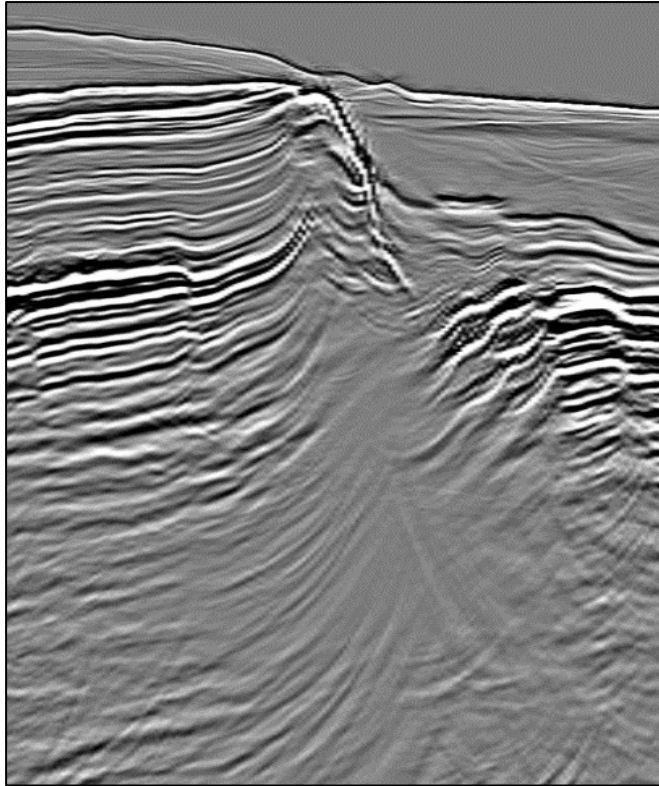
As a long narrow field set up by a key fault, mapping is subject to key uncertainties around structural shape and size



Distortion of seismic image around fault(s) produces uncertainty in mapping reservoir and gas zones

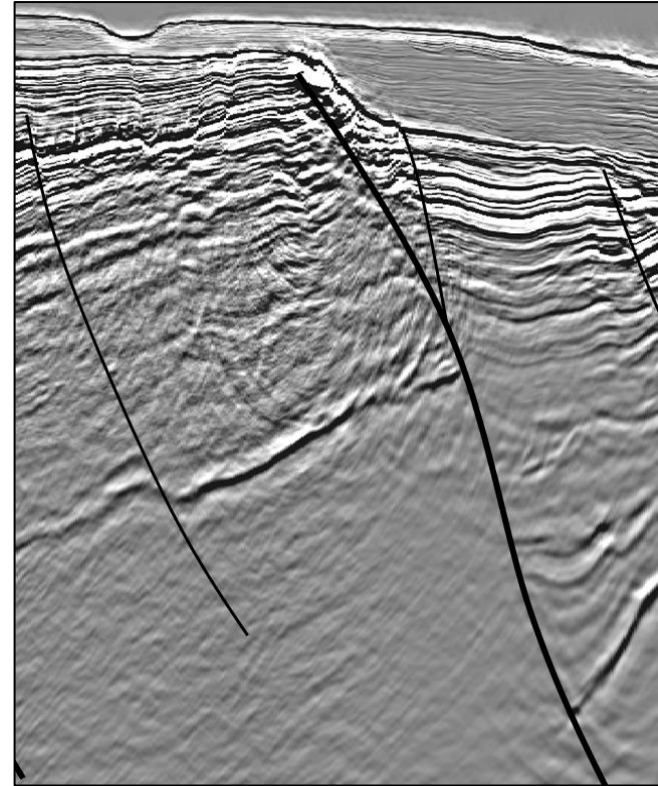
Why do PSDM Depth Reprocessing? Vietnam Case Study

Pre-PSDM Data



Very poor definition of fault and sequences close to fault

Final PSDM Data







Excellent definition of fault and sequences close to fault

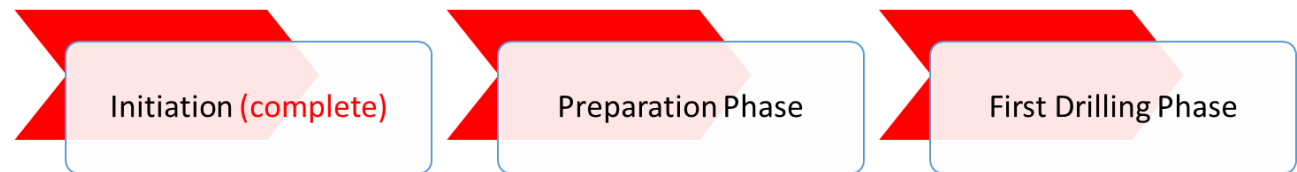
SundaGas Go Forward Plan



PSC Commitment Work Programme

Contract Years	Periods	Wells
1	Phase One Firm	800 km ² of 3D PSDM reprocessing 2,000 line km of 2D reprocessing
2		G&G studies
3	Phase One Contingent	 One Appraisal Well
4	Phase Two	 One Exploration Well
5		G&G studies Development scenario planning
6	Phase Three	 One Exploration or Appraisal Well
7		 One Exploration or Appraisal Well

- Work programme designed to extract most value from existing seismic, to ensure successful early appraisal and step-out drilling
- Likely to drill several wells back-to-back in first drilling campaign

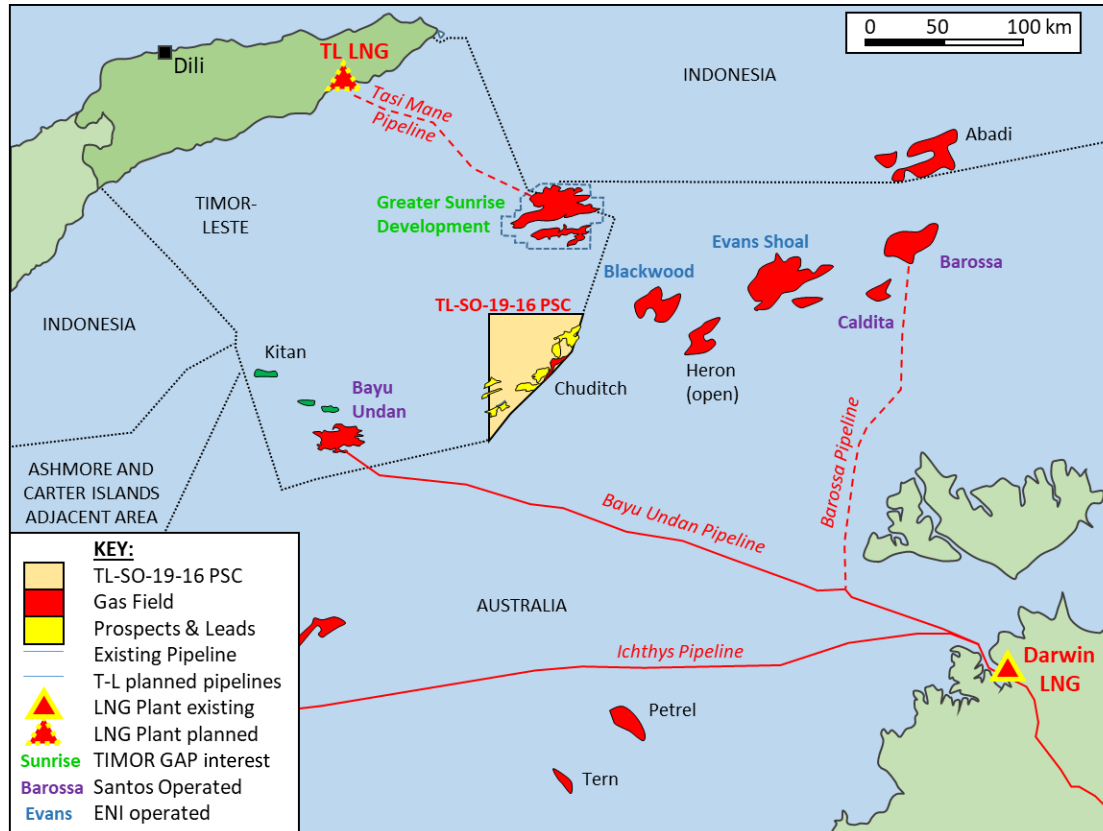


- ✓ Ratification of maritime boundary treaty (30 Aug 2019)
- ✓ Sign PSC (8 Nov 2019)
- ✓ Sign JOA (27 Nov 2019)
- ✓ PSC Effective (19 Dec 2019)
- ✓ Establish Dili office
- ✓ Preliminary technical review

- 3D PSDM seismic reprocessing
- 2D seismic reprocessing
- Initiate training plan
- Revised seismic interpretation
- Integrate all subsurface work
- Define drilling locations for appraisal and exploration
- Establish HSE plans / processes

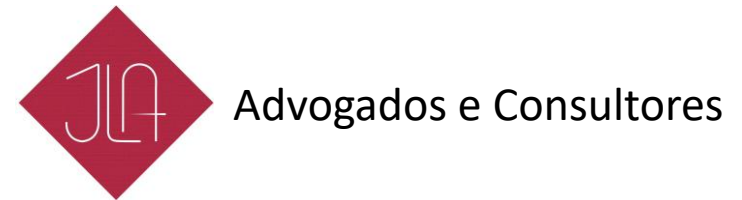
- Detailed Well planning and design
- Procurement
- Environmental and other regulatory approvals
- Site investigation
- **Spud appraisal and step-out exploration wells**

Timor Sea Gas Infrastructure and Commercial Context

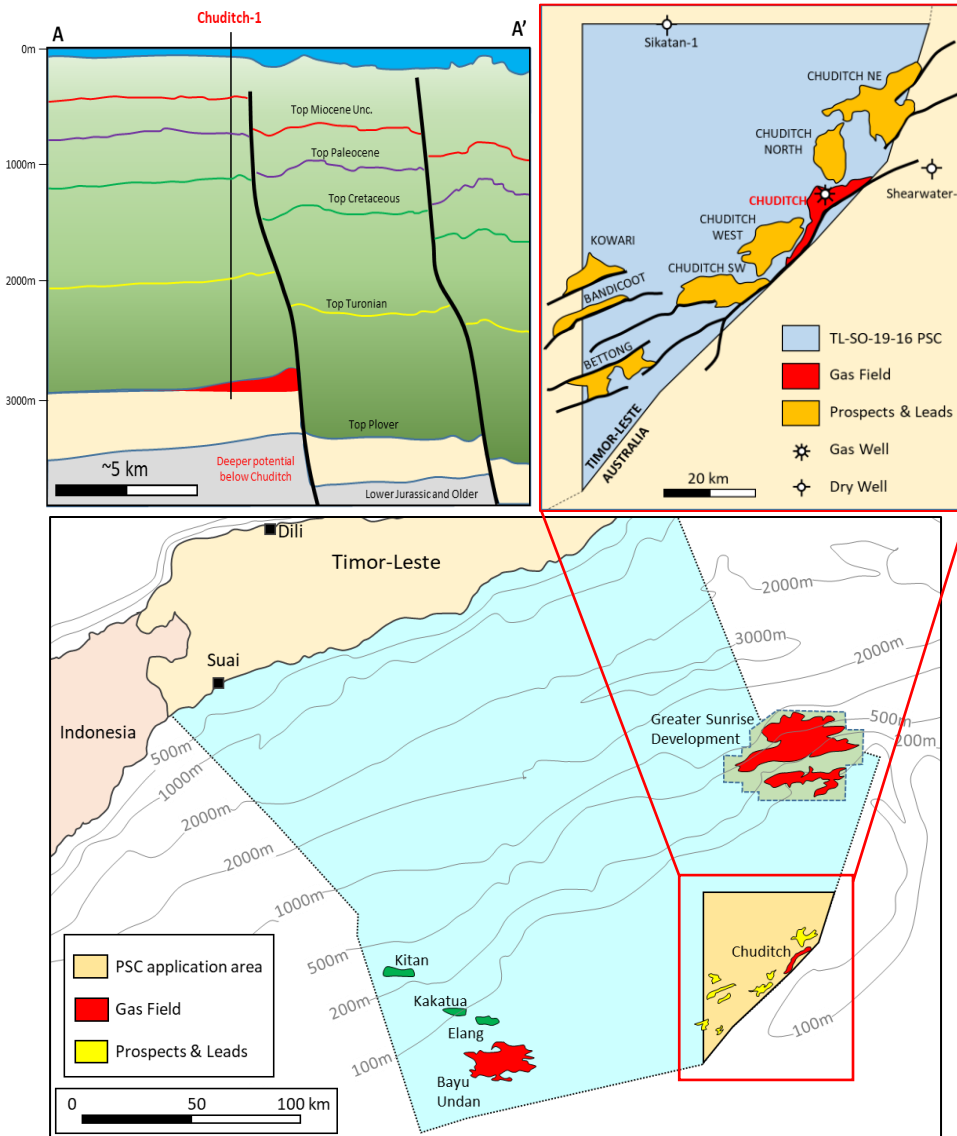


- Bayu Undan (BU) supplies gas to Darwin LNG, critical infrastructure for Timor-Leste
- TIMOR GAP acquired 56% of Sunrise and plans to develop Tasi Mane LNG
- Santos acquired BU and Barossa from ConocoPhillips and reportedly plans to extend BU field life
- Santos is onselling positions to SK E&S and Jera (Barossa)
- ENI reported to be selling Australian gas assets, including Blackwood and Evans Shoal, and stakes in Bayu Undan and Darwin LNG

Our Business Partners in Timor-Leste



TL-SO-19-16 PSC: Summary



- SundaGas sees exciting potential in the Chuditch gas discovery and its adjacent exploration features
- Initial works are planned to address key technical issue of subsurface imaging
- Drilling scheduled for 2022, subject to successful completion of 3D seismic reprocessing, will test this potential and hopefully move Chuditch gas towards development