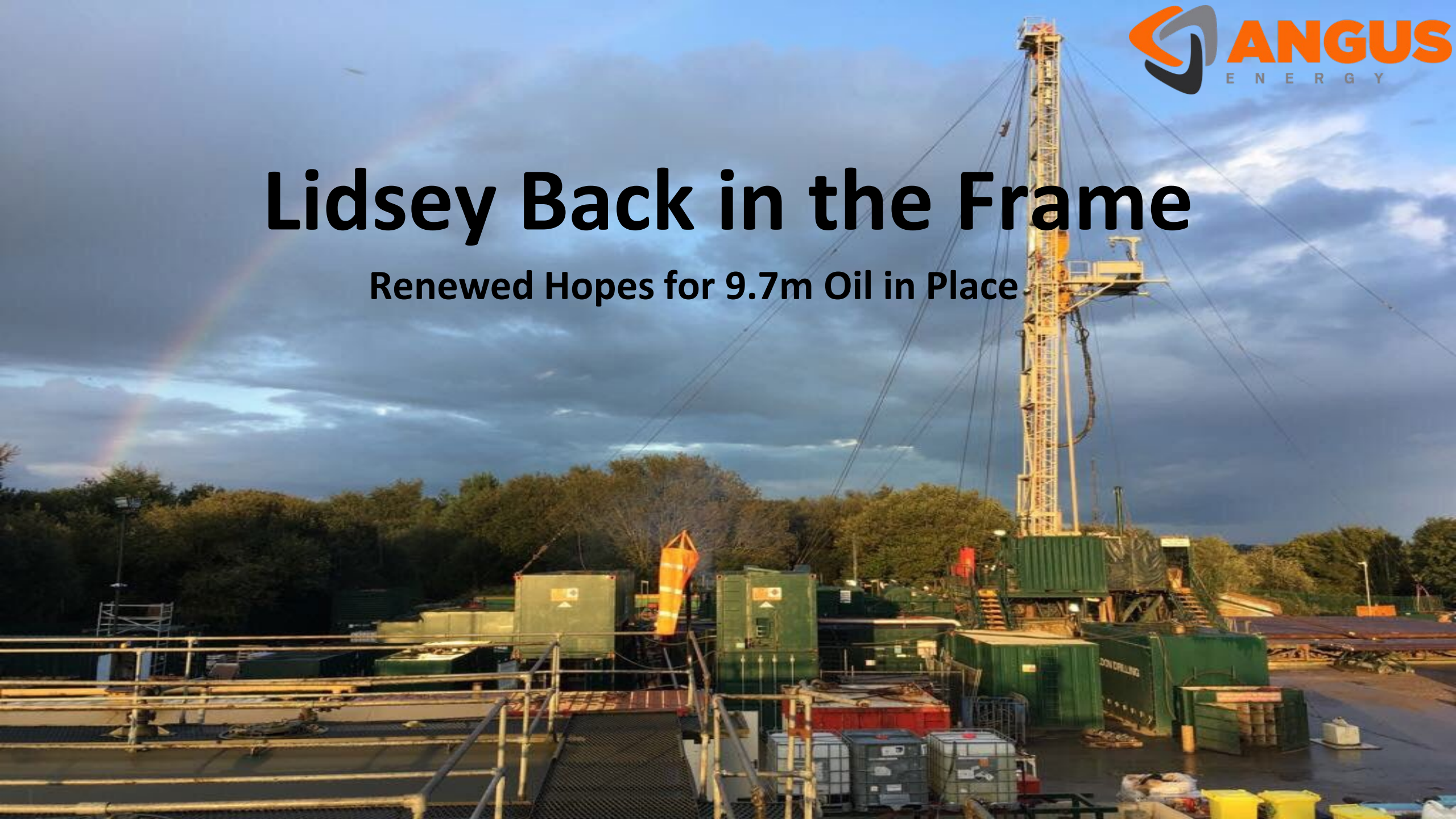


# Lidsey Back in the Frame

Renewed Hopes for 9.7m Oil in Place



# The Lidsey Field – Appliance of Science

- Lidsey Field is located just north of Bognor Regis addresses the Great Oolite formation – the focus of much UK oil production in the 1980s and 1990s. Estimated OIP was 9.7m bbls.
- Two wells: X1 drilled 1987 and X2 drilled 2017 – both disappointed, the latter coming in at just 40 barrels/day versus 250 barrels/day anticipated pre-IPO. Impact on Angus share price.
- Unlike the Kimmeridge at Brockham, no clear reason to believe the reservoir was not productive, so Angus set about to understand the low flow rates – see slides below.
- The result of the new depth mapping, reprocessing and seismic reinterpretation gives strong confidence that the structure is actually, by aerial extent, larger than previously thought.
- Acquisition of a new line (already budgeted) plus full reprocessing, detailed interpretation will identify a precise drilling target.
- Angus (80% interest) will proceed with partners (Brockham Capital 10% and Terrain Energy 10%) to explore farmout or other financing for a short sidetrack back to the crest of the structure.
- Planning and EA permitting requirements likely to be less onerous at this particular site.

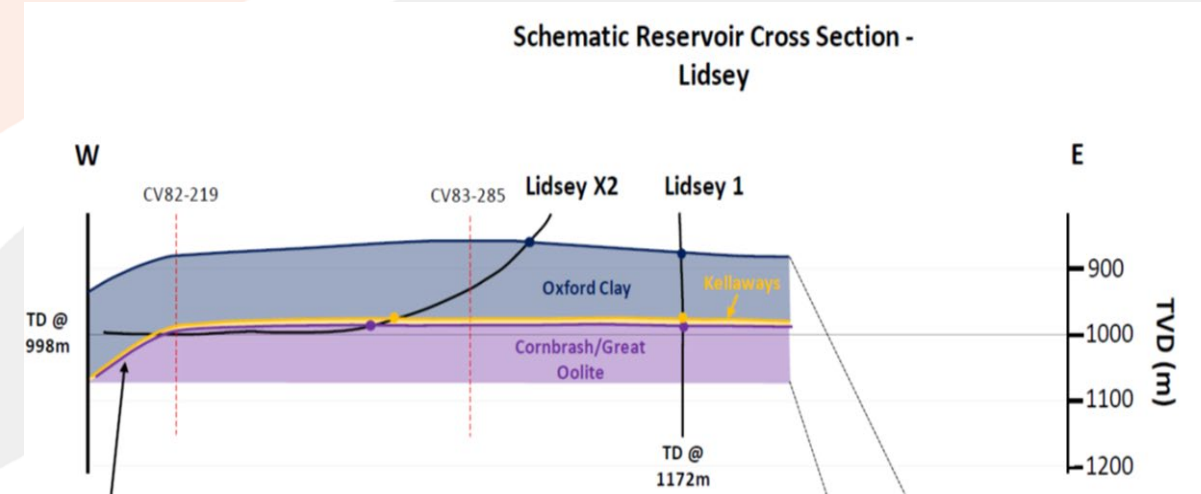
# The Lidsey Field (OIP: 9.7 m barrels)

- Lidsey Field is located just north of Bognor Regis. Two wells: X1 spudded in March 1987 by Carless and X2 spudded in September 2017 by Angus Energy.
- The field has been subject to multiple reports and field evaluations by a number of third party contractors, the last of which, Xodus, estimated 10.5million barrels on a P50 case of which 9.7 was in the licence block.
- Lidsey X1 underwent an extended well test (EWT) of the Great Oolite reservoir interval producing rates between 50 – 70 bopd, with a water cut between 30 and 40%. A further EWT conducted in 1991 produced at rates of 50 – 69 bopd with 45% water cut.
- Following several workovers in 2008 and 2013, this well produced oil up until 2015 when it was shut in. The rate decreased along a decline curve to ~450 per month before the well was shut in.

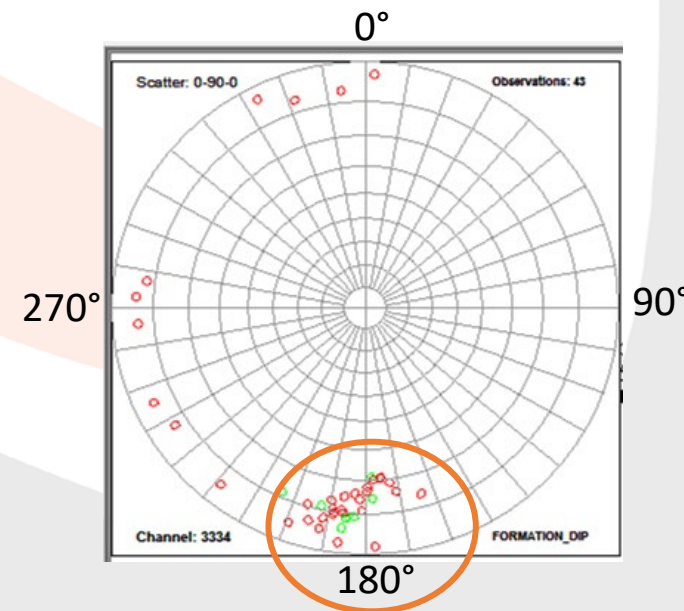


# Lidsey mapping problems

- Lidsey X2 was spudded in September 2017 and aimed to address the crest of the structure, but this time with a long horizontal section.
- In November 2017 the company announced flow rates of 40 bbl/day dry oil from X2 which were similar to initial rates from Lidsey 1 and significantly below expectations at IPO and partly responsible for a 2/3rds fall in the Company's share price.
- The oil rate from Lidsey X2 was expected to be much higher, upwards of ~250 BOPD. When the well was drilled, it was found that the mapped structure was flatter and dropped off on the western flank faster than anticipated (see cross section on the right).
- Petracoustics carried out analysis of dip data (angle of inclination of the target formation) from the X2 well. The dips have been interpreted off a new form of image log. The values are predominantly dipping to the S-SW, providing further evidence that the area of the reservoir X2 targeted was low on the southerly flank rather than on the crest of the structure. This resulted in Angus to begin to question the original geological mapping of the field's structure.



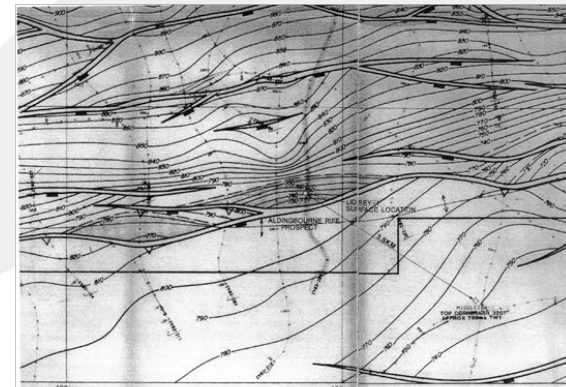
Reservoir dipping steeply to the west towards the end of horizontal section and well moving back up stratigraphy



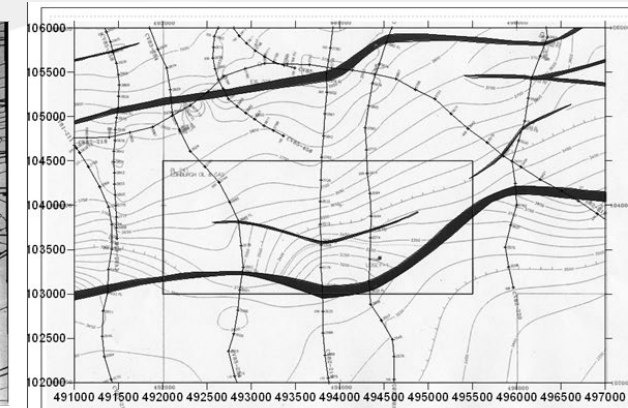
Stereonet of dip data from X2.  
In the reservoir, dips are of low angle <10° with azimuth between 180-280° (S-SW)

# Re-discovering the Field

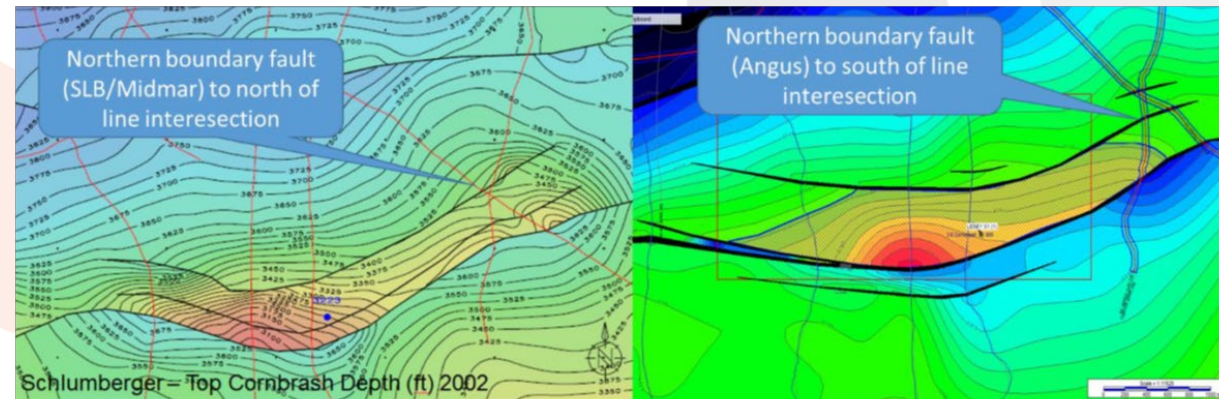
- A number of different maps have been produced over the years (four examples are shown), each showing the field as a tilted fault block with the crest of the structure in the South indicating a very clear and traditional structure to target – i.e. where X2 was drilled.
- As on the previous slide the drilling of X2 provided clear evidence that the original interpretation was incorrect
- The common factor between these maps is that they convert the seismic “two way time” (TWT, the time taken for the signal to bounce off the formation at the top of the reservoir and return) using a single value of signal speed.
- This was a simplification to facilitate the mapping even though sound passes through different rocks at different speeds.
- This resulted in a common error in all the previous maps.
- Angus set out to re define the field by remapping key horizons and carrying out a multi layered depth conversion to address the varying velocities through the subsurface.



Carless 1987



c. 2002



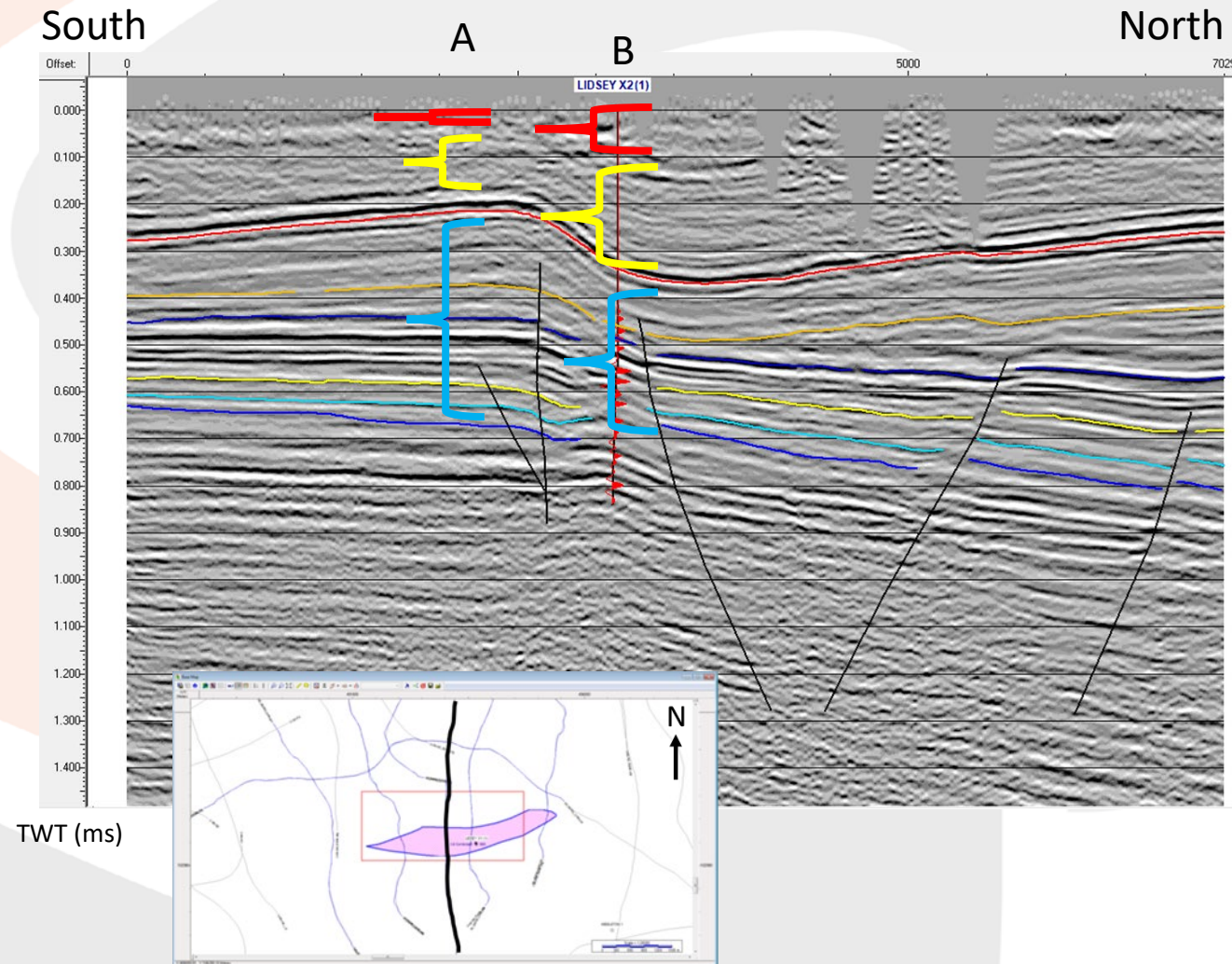
Midmar c.2008

Remap for Angus



# Why depth conversion makes a difference

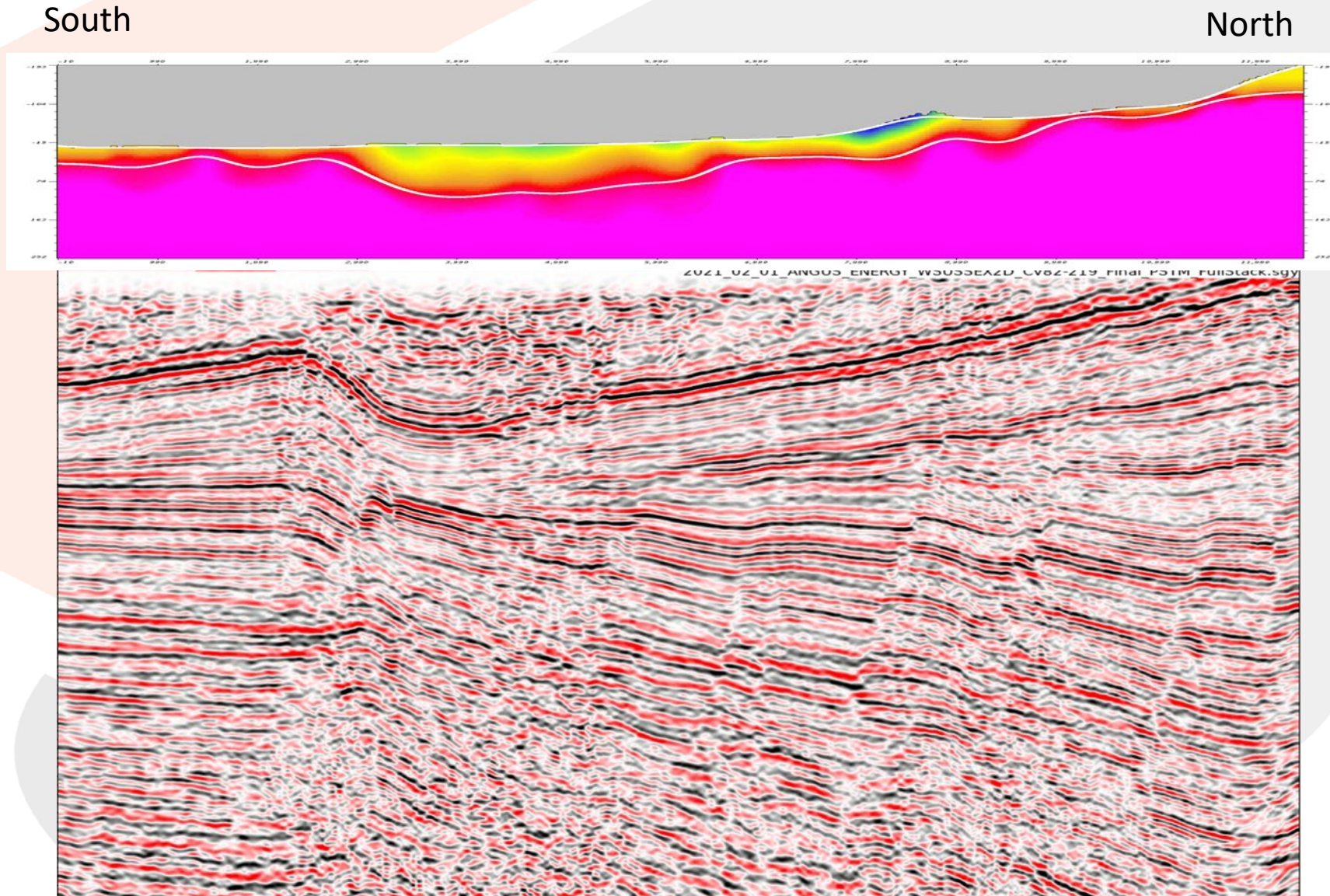
- We have superposed well data on one North-South Seismic line that shows different formations coloured in red (Tertiary), yellow (chalk) and blue (mixed, mostly clay) above the reservoir.
- At location B (North) the signal speed is considerably slowed down principally by the thicker Tertiary formation that is found there as oppose to further to the South position A.
- The old maps used a single uniform velocity that created a varying error in the mapping of the depth of the reservoir which makes the top of the reservoir appear highest near to the fault in the South.





# Careful use of the latest Technology

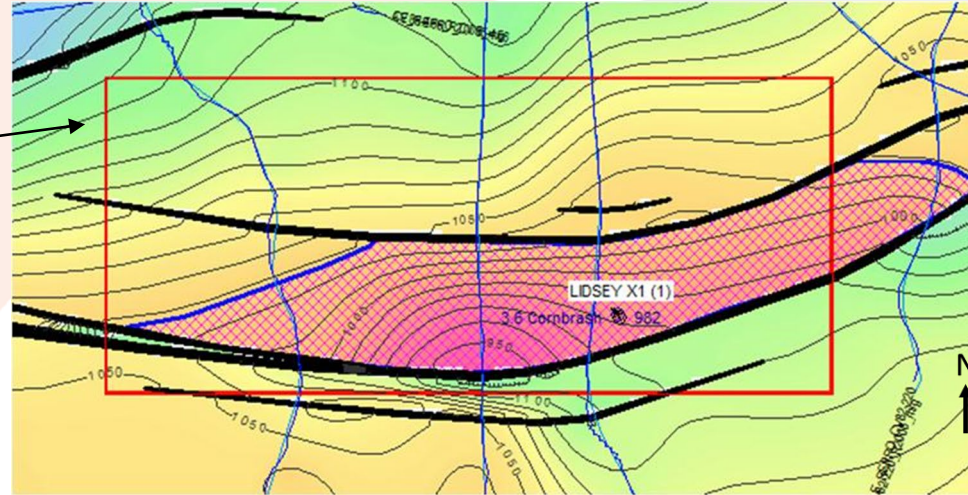
- A third party contractor carried out a trial reprocessing of one seismic line that shows that it is possible to enhance the image quality and also to analyse depth against velocity relationships.
- The lowest velocities are shown in green with increasing velocity through orange, red and with highest velocities in purple.
- The graph shows how the velocity changes significantly within the shallow layers of the subsurface supporting the idea that detailed velocity modelling needs to be carried out instead of using a uniform velocity from surface to reservoir as used in previous mapping methods.





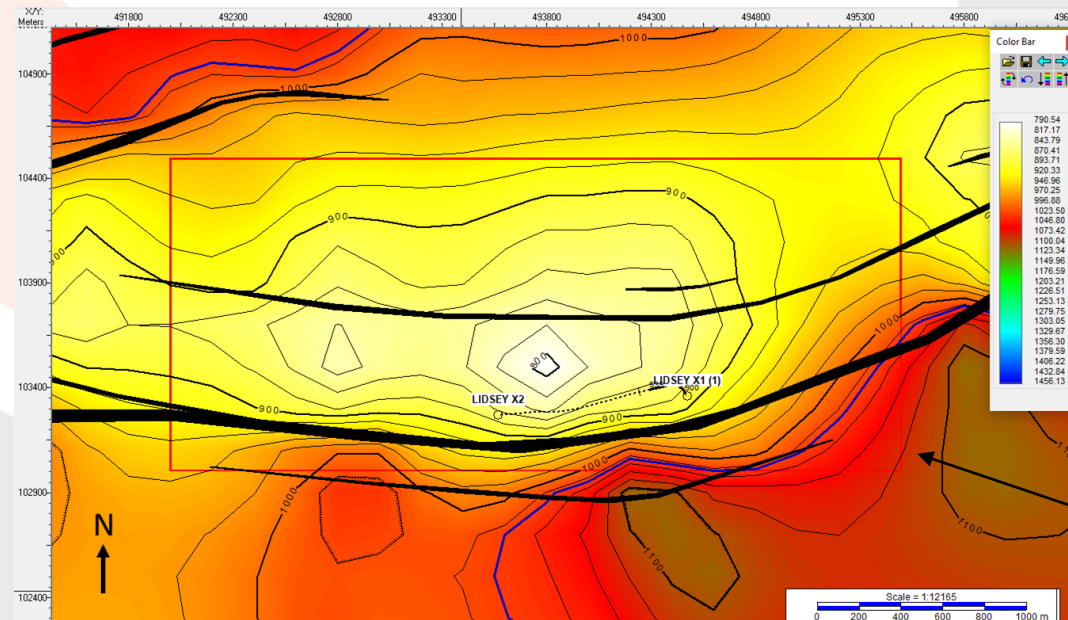
# Remapping

*Licence area  
annotated in red*



*Legacy Map*

- Angus staff carried out a multi-layered depth conversion correcting the original depth conversion and remapped the field.
- Substantially the results show that the top of the reservoir was deeper in the south than in the north and not rising up to the southern fault as had been thought.
- The new map shows a structure that is substantially larger and supports the data from the wells.



*New Map*

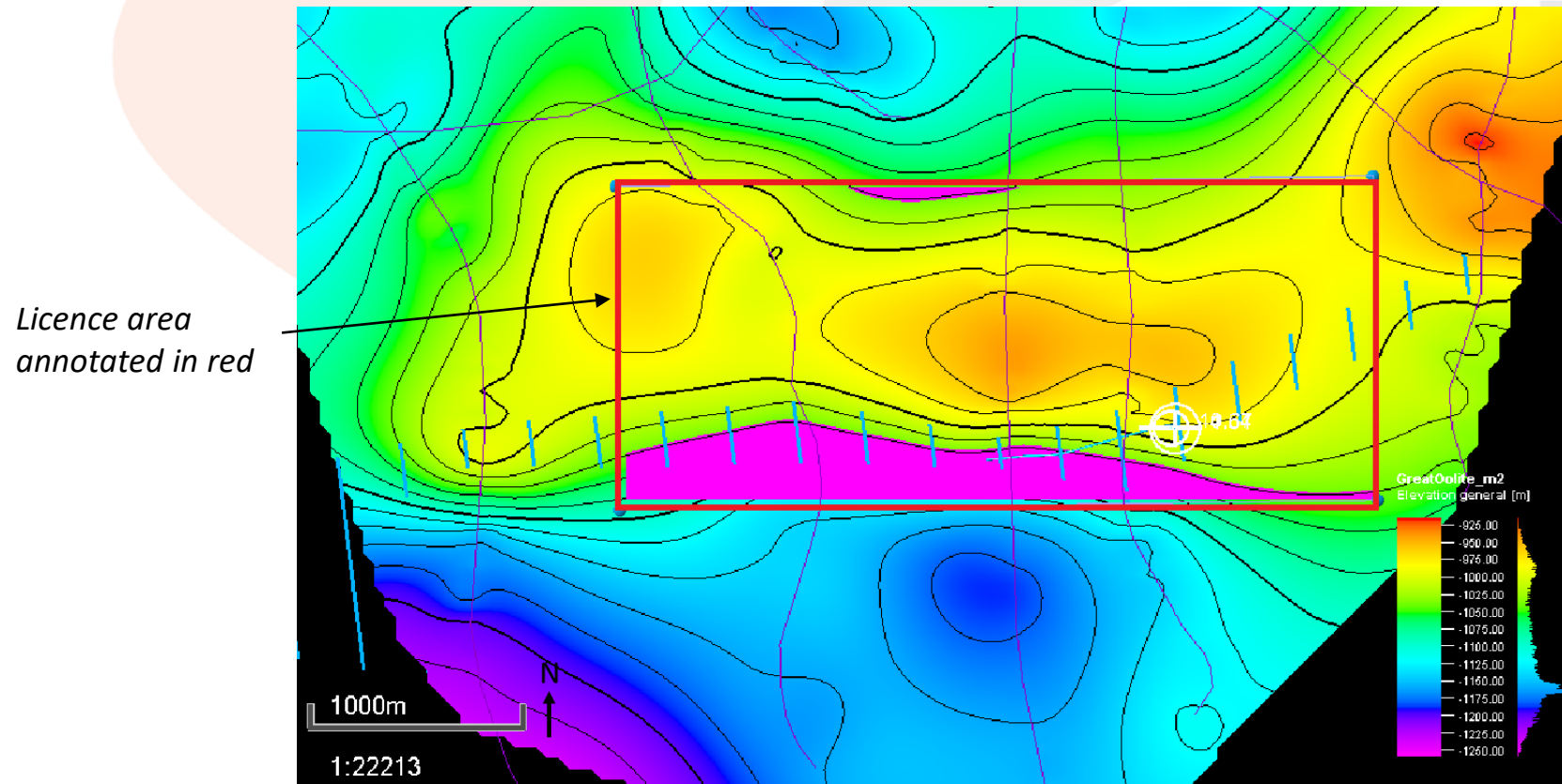
*Licence area  
annotated in red*

*Please note maps are of similar scale*



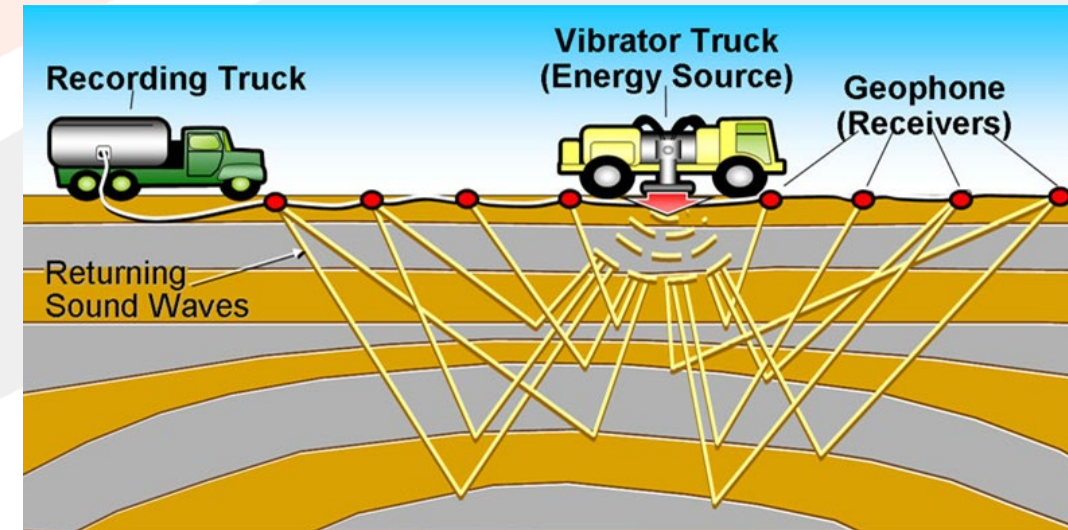
# Independent Mapping

- Angus contracted a consultant to remap the field using the same raw data.
- Her map is very similar to the latest Angus map adding further confidence



# What is Angus doing now?

- Angus have obtained provisional proposals for acquiring a critical new East-West Seismic Line which will improve the interpretation over the structure tying the main seismic lines together.
- Angus is planning to commission a revised Competent Persons Report confirming the remapping.
- We will also present to shareholders and potential new farminees a fully costed budget for a side-track of Lidsey X1 to address the revised reservoir.
- Make relevant approaches to OGA, WSCC and EA.



*Seismic acquisition schematic. Image sourced from "Learning Geology"*



*Free fall weight drop seismic source. Image sourced from GeoExpert AG*



# Planning, Permitting, Licencing

- Current Licence Partners are Brockham Capital (10% Carried Interest) and Terrain Energy (10%) with Angus having 80%.
- Licence issued in 1983 comes up for renewal by OGA on 1 December 2024.
- Existing West Sussex planning approval from 2018 to 2028 is for 2 wells and 24/7 production. We aim to side track Well 1 and reserve Well 2 for reservoir support, but further wells would require new applications.
- The site is in a very rural area, four hundred metres from the A29 and bordered by a Sewerage Plant and a Landfill Site. Further in the surround are seasonal caravan parks. Drilling would take place out of season.
- Environment Agency approval would be required but no long lead ecological survey is required and hydrogeology is unchanged.