

**AURORA EXPLORATION (UK) LIMITED**  
**SECOND PERIOD**  
**RELINQUISHMENT REPORT**  
**LICENCE PEDL 069**

**Date February 2012**

## Section 1 - Header

Licence:	PEDL 069	
Licence Round	9th	
Licence Type	Petroleum Exploration and Development	
OS Blocks	SU43 (part) SU 53(part)	
Licensees:	Aurora Exploration (UK) Limited	28.34% (Operator)
	Egdon Resources Avington Limited	33.33%
	Egdon Resources U.K. Limited	33.33%
	Northern Petroleum (GB) Limited	5.00%
Work Programme:	Obtain 400km 2D seismic data and reprocess 140km	

## **Section 2 – Synopsis**

PEDL069, located to the northeast of Winchester (Figure 1) has undergone final voluntary relinquishment. This report provides a summary of work conducted on the licence and the remaining prospectivity of the acreage.

PEDL 069 was originally awarded, effective 8<sup>th</sup> September 2000, following the Ninth Landward Licensing Round to a Sterling Resources (UK) Limited-operated group with partners YCI Resources Limited and Egdon Resource U.K. Limited. The licence originally covered the following Ordnance Survey blocks ST93, SU03, SU13, SU23, SU33(part) SU43(part) and SU53. The original licence covered 615km<sup>2</sup>.

A partial relinquishment took place effective 8<sup>th</sup> September 2002, in which the westernmost portion of the licence (ST93, SU03 and the western half of SU13) was relinquished, reducing the area to 364.8km<sup>2</sup>.

A further relinquishment (down to 60.5km<sup>2</sup>) reduced the licence area to the final configuration comprising the southern half of block SU53 and a small part of block S43 to the southeast of the Stockbridge production area.

A final voluntary relinquishment of the licence was made in May 2011 ahead of the end of the second period to facilitate the inclusion of the acreage in the 14<sup>th</sup> Landward Licensing Round.

## **Section 3 – Exploration Activities**

The original licence commitment was to obtain 400 km of existing 2D seismic data and to reprocess 140 km. A total of 618 km of 2D seismic was obtained and 260 km underwent post-stack reprocessing, thereby fulfilling the above commitment.

In addition to the above reprocessing, seismic interpretation and mapping of all key seismic horizons and a full prospectivity review of the licence area were conducted by Sterling Resources ahead of the initial partial relinquishment, the results of this work being included in the initial relinquishment report.

The main area of prospectivity recognised in this initial work was a mapped extension of the Avington structure into block SU53.

Following the subsequent drilling of the Avington-2, 2z and Avington-3, 3z wells by the PEDL070 group, further 2D seismic data over the Avington field was acquired in 2006. This data, acquired jointly by the PEDL069 and PEDL070 groups comprised 38.2 line km, 10 km of which lie in PEDL069. The Avington seismic data was further reprocessed in 2011.

The existing seismic database is shown in Figure 2.

## **Section 4 – Prospectivity Analysis**

The main prospectivity in the acreage is contained within the regionally important Great Oolite play in which Middle Jurassic (Bathonian) oolitic limestone reservoirs of the Great Oolite Formation are sealed by the overlying Forest Marble and Oxford Clay Formations. Oil is sourced from Liassic shales which are oil generative in the deeper parts of the Weald Basin to the east of PEDL069. The stratigraphy of the area is summarised in Figure 3.

More specifically, the only mapped closure at Great Oolite level within PEDL069 is a possible extension of the oil accumulation (Avington North) encountered by the Avington-1 well drilled, to the south of the block, in 1987 (Figure 4).

The Avington North structure is located on the footwall of an original down-to-the-south fault. The producing Avington field is a separate structure (Avington South) located within a hangingwall inversion structure associated with the reactivation of this fault in the Tertiary.

Avington-1 encountered oil within the Great Oolite and overlying Cornbrash Formations with a recorded ODT of -3908 ft (1191m) TVDSS.

The crest of the Avington North structure is mapped at ~1135m TVDSS within PEDL070 and this block remains the most likely location of any future Avington North appraisal well.

Considerable uncertainty remains as to the effective OWC of the Avington North structure given both the low permeability nature of the reservoir and the complex inversion history of the structure. It should be noted that the recorded ODT in Avington-1 lies below the currently mapped closure. A number of studies both regional and field specific have been conducted in an attempt to resolve this issue.

## **Section 5 – Reserves Summary**

Given the uncertainty over the extension of the Avington North structure in PEDL069, ahead of any definitive results on the depth of the OWC from appraisal drilling in PEDL070, no separate on-block resource calculations have been calculated for the Avington North extension in PEDL069.

## Section 6 – Maps and Figures

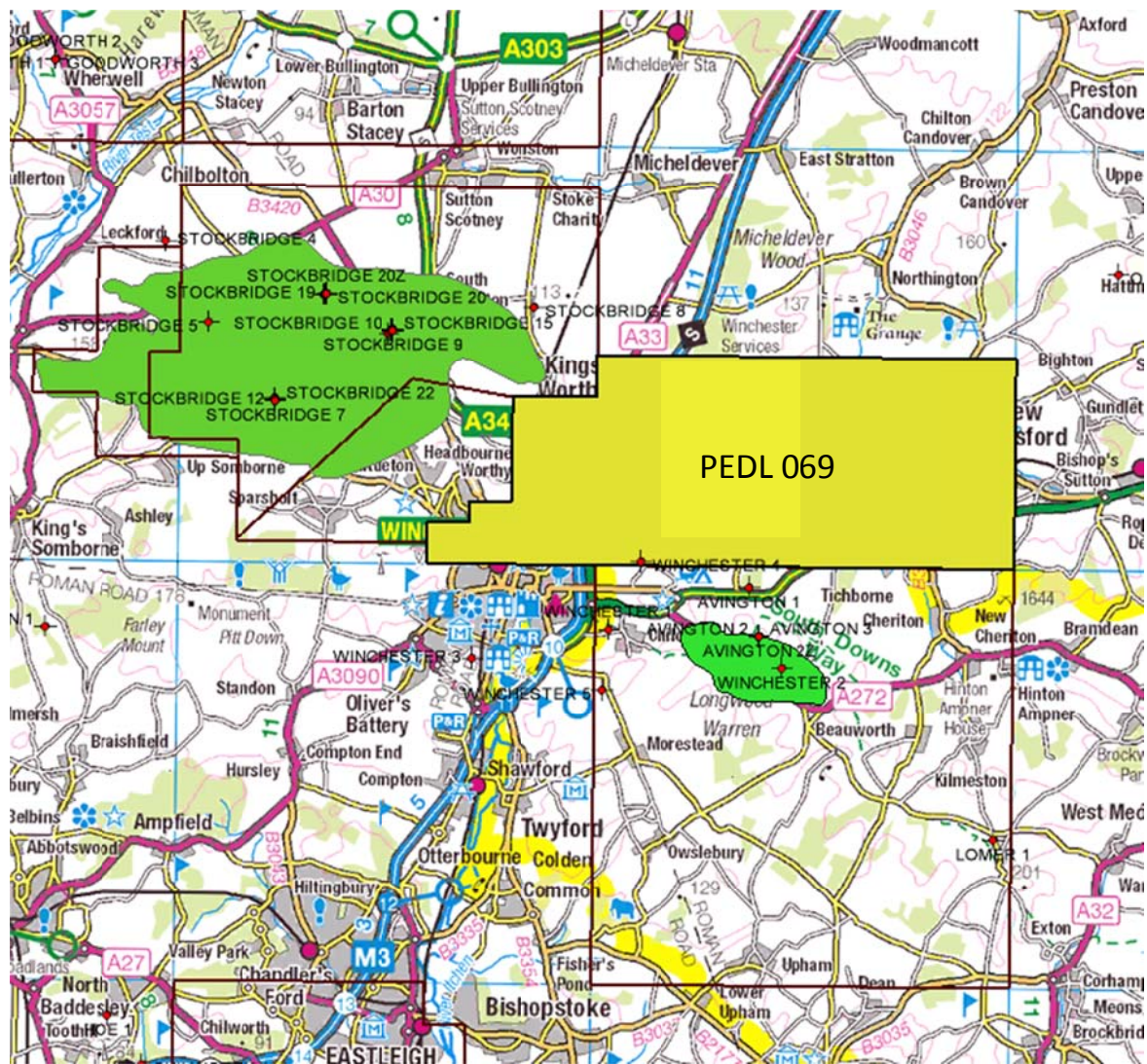


Figure 1 Location Map

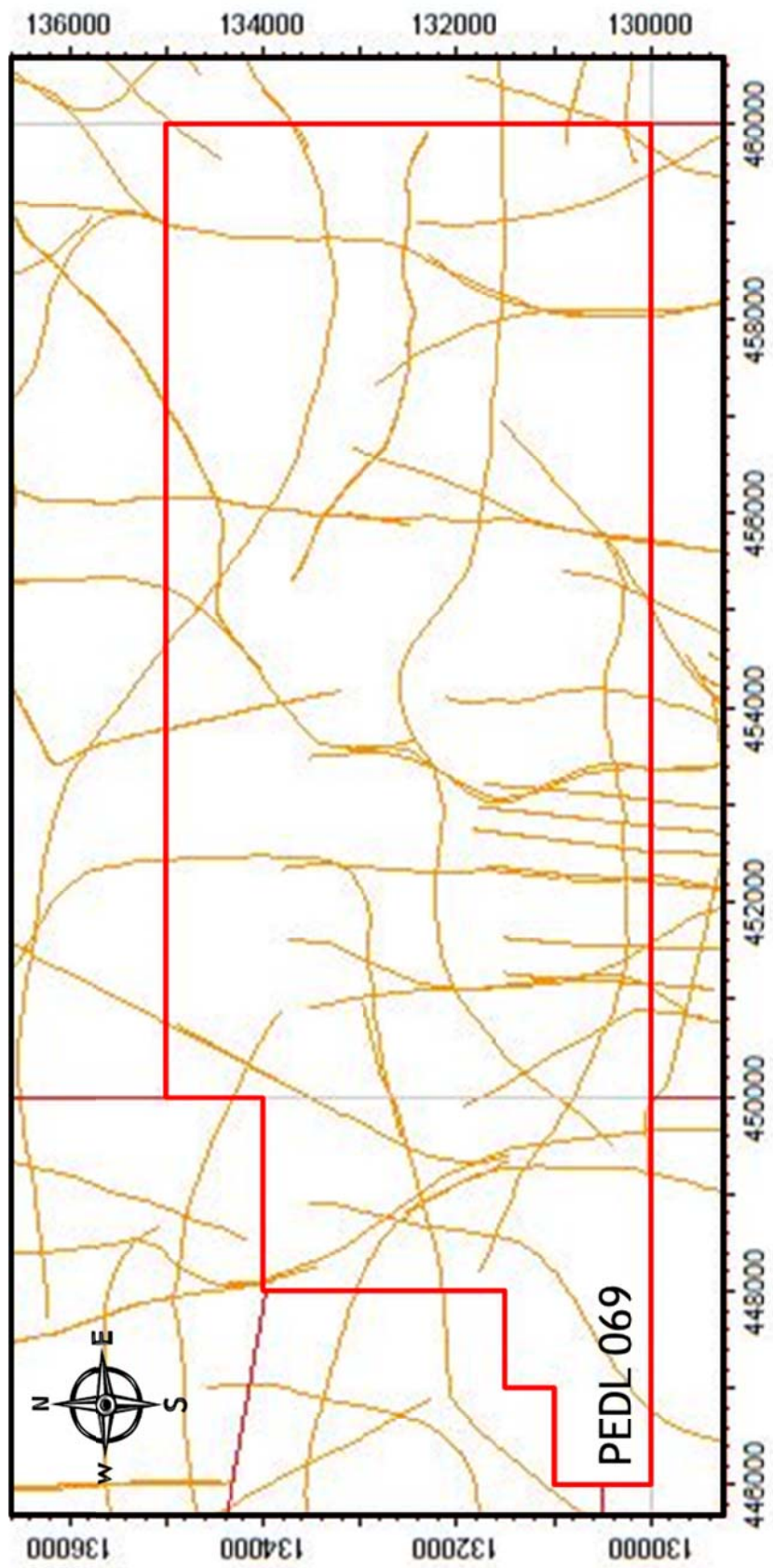


Figure 2 Seismic Database



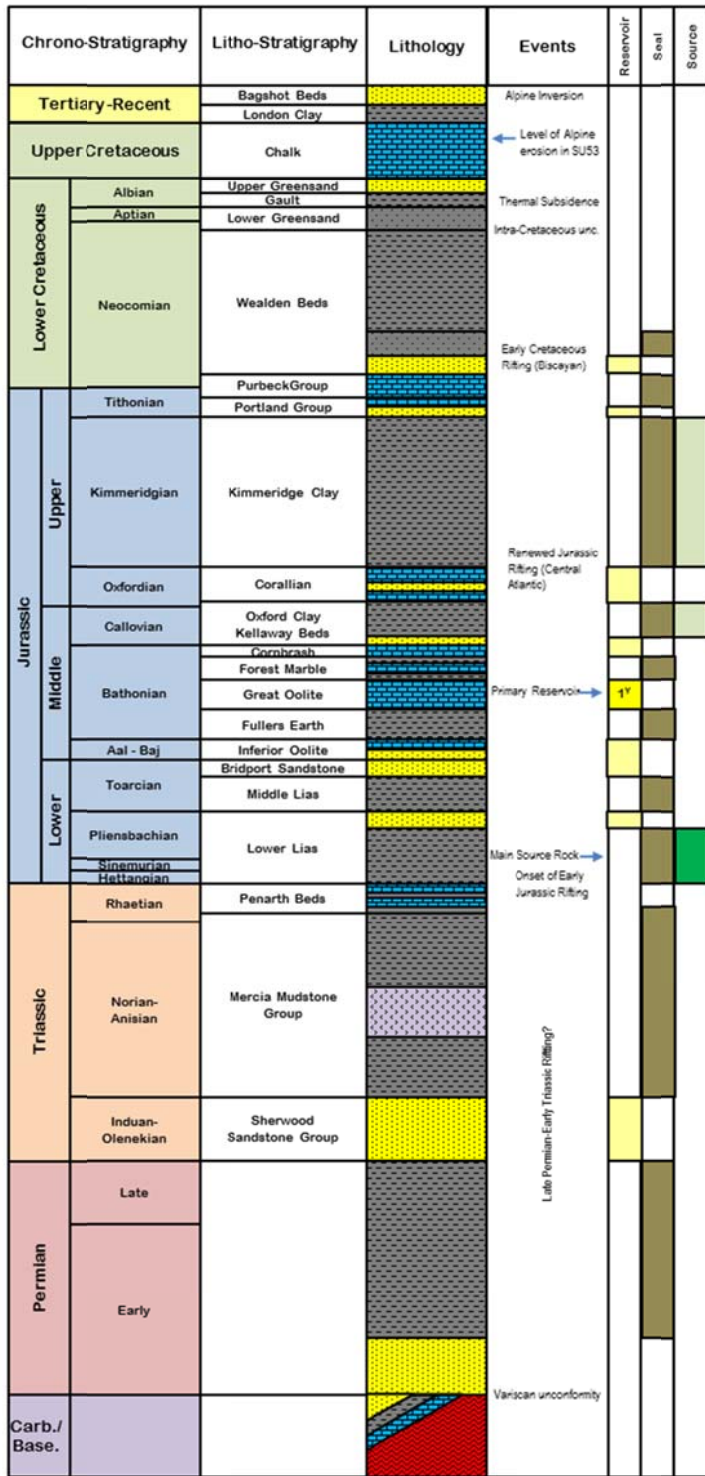


Figure 3 Stratigraphy

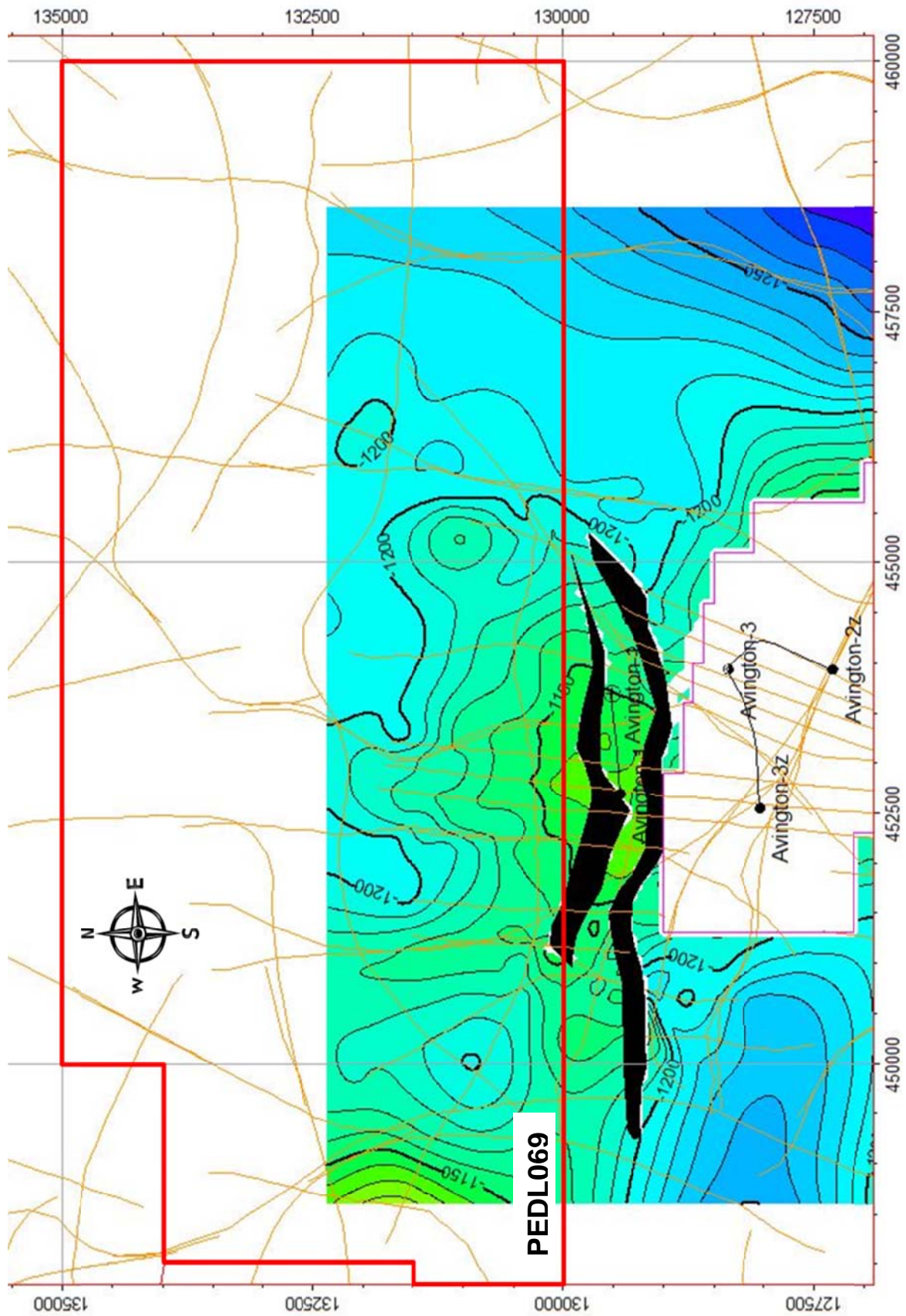


Figure 4 Top Cornbrash Depth Structure (m)

- showing extension of Avington North Structure into PEDL069



## **Section 7 – Clearance**

Aurora Petroleum Limited, on behalf of the PEDL069 group, gives permission for the publication of this report and confirms that all 3<sup>rd</sup> Party ownership rights have been considered. The group requests that the report not be made public until after the date on which DECC requires companies to have submitted their bids for the 14<sup>th</sup> Landward Licensing Round.