



**UK Oil & Gas Plc**

**PEDL234**

**Relinquishment Report**

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**1) Licence Information**

Licence Number: PEDL234  
 Licence Round: 13<sup>th</sup> Onshore Licensing Round  
 Licence Start Date: 01/07/2008  
 Licence Type: Landward  
 Block Numbers: TQ02, TQ03, SU92  
 Licensees: UKOG GB Ltd (Licence Administrator): 100% Working Interest

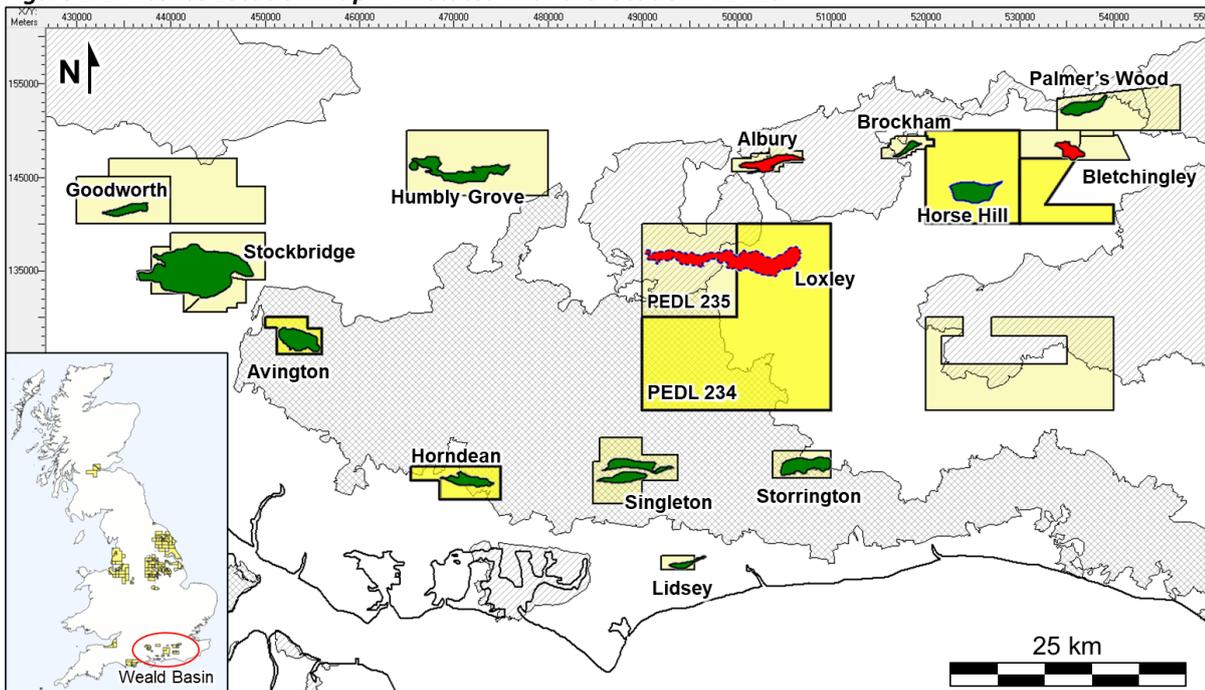
**2) Licence Synopsis**

The UK Onshore Licence PEDL234 is located in the Weald Basin of southern England. The primary prospectivity is the Portland Sandstone Discovery, located in PEDL234 & the adjacent PEDL235. PEDL234 also contains the Broadford Bridge-1/1z exploration well which was drilled in 2017 and tested the Kimmeridge Limestones.

Licence Status: On 22<sup>nd</sup> March 2024 the North Sea Transition Authority (NSTA) approved a Retention Area for PEDL234, expiring on 30<sup>th</sup> June 2029.

PEDL234 was relinquished in June 2025. The relinquishment decision was made due to financing and regulatory issues.

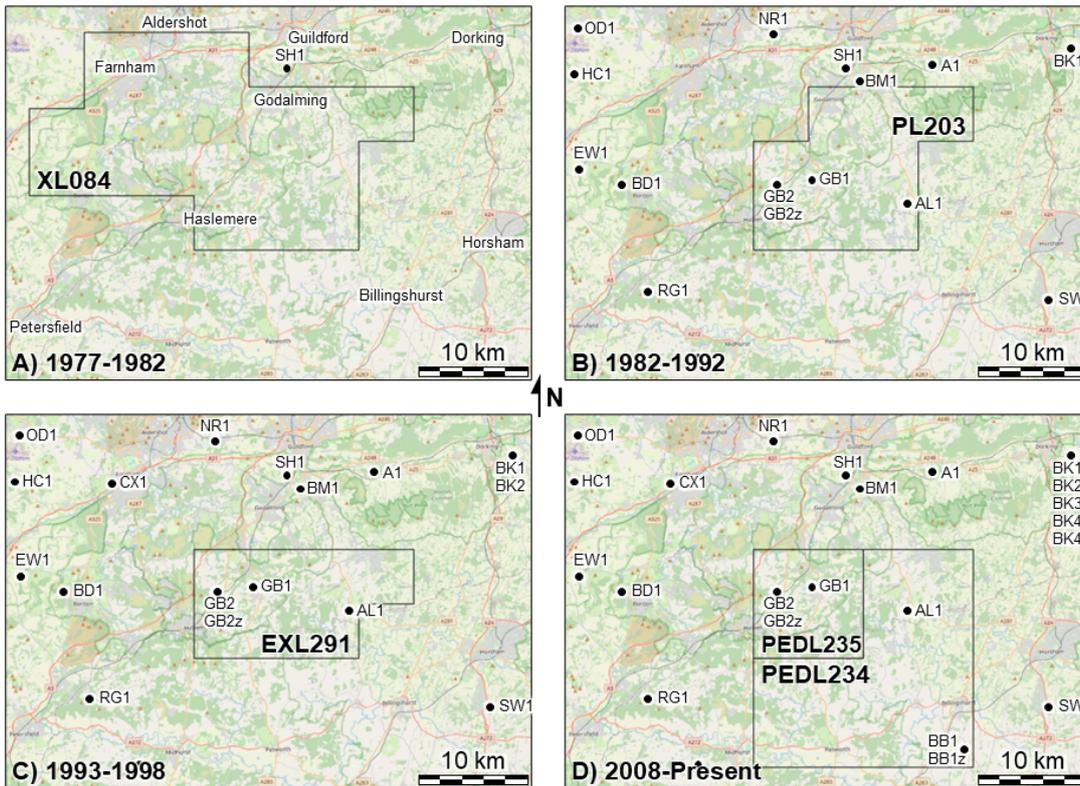
**Figure 2.1: Licence Location Map. Annotated with the location PEDL234**



**Additional Licence area history is provided below:**

- Conoco was awarded licence XL084 in 1977 (Figure 2.2a) and acquired seismic in 1979, 1980 and 1981. In 1982 XL084 converted to PL203 (see Figure 2.2b) leading to the GB-1 gas discovery, now referred to as the Loxley gas pool. 1987 Conoco sold their whole UK onshore licence holdings.
- Cairn Energy, who were the successful bidder for the Conoco licences, did no further drilling on the Loxley structure, nor did they proceed with any development plan. Cairn relinquished PL203 in 1992.
- In 1993 Eukan applied out of round for the Loxley gas pool and were awarded the acreage as EXL291 (Figure 2.2c). The company intended to develop the gas pool as a gas to wire project as they had done in the Midlands, however they were unable to gain the necessary planning approvals and the licence was relinquished.
- In 2008 as part of the 13th Onshore Licensing Round, Block TQ03 containing Alfold-1 was awarded to Magellan Petroleum and Celtique Energy as part of PEDL234 (Figure 2.2d). Block SU93 containing Godley Bridge-1, 2/2z was awarded to Star Energy as PEDL235.
- In 2010 Star Energy shot five more seismic lines over the western end of the anticline, since then there has been no further activity
- In 2017 UKOG’s subsidiary Kimmeridge Oil & Gas Ltd (now UKOG (234) Ltd) acquired Magellan’s and Celtique’s interests in PEDL234 and subsequently drilled Broadford Bridge-1/1z targeting the Kimmeridge Limestones, proven productive at Horse Hill-1. The wells were drilled to the south of the Loxley anticline (Figure 2.2d), from a pad constructed by the Magellan-Celtique partnership to test a deeper Triassic target.

**Figure 2.2: Licence area history 1977-Present**



**Notes:**

- A) XL084 (1977-1982) Shalford-1 well drilled in 1958 before the award of this licence.
- B) PL203 (1982-1992) bulk of the wells drilled in and around the licence area during this time period.
- C) EXL291 (1993-1998) no wells drilled in the licence area and only Coxbridge-1 and Brockham-2 drilled outside of the licence
- D) PEDL234 and PEDL 235 (2008 – Present) Broadford Bridge-1 & -1z drilled on the licence and Brockham-3, -4 & -4z drilled in the surrounding area

UKOG’s subsurface maps demonstrated that BB-1/1z tested a location with no apparent conventional structural closure present at top Kimmeridge level, indicating the oil was likely part of a continuous oil deposit. The Kimmeridge Limestone reservoir zones were tested in well BB-1z, recovering light oil to surface from

multiple test zones. Rates were considered uneconomic and the BB-1z well was suspended awaiting further study. A project to repurpose the BB-1/1z well and pad as the centre of a geothermal heat and agricultural greenhouse is currently under evaluation.

Following a successful appeal via a public inquiry against a planning refusal in November 2020 for the appraisal of the Loxley gas pool, UKOG was awarded full planning consent by the Secretary of State in June 2022. An Environment Agency permit was granted for the full Loxley programme in June 2020.

**3) Work Programme Summary**

The original PEDL234 licence commitments were superseded by a retention area work programme (Table 3.1), as amended on 22/03/2024.

**Table 3.1: PEDL234 Retention Area work programme**

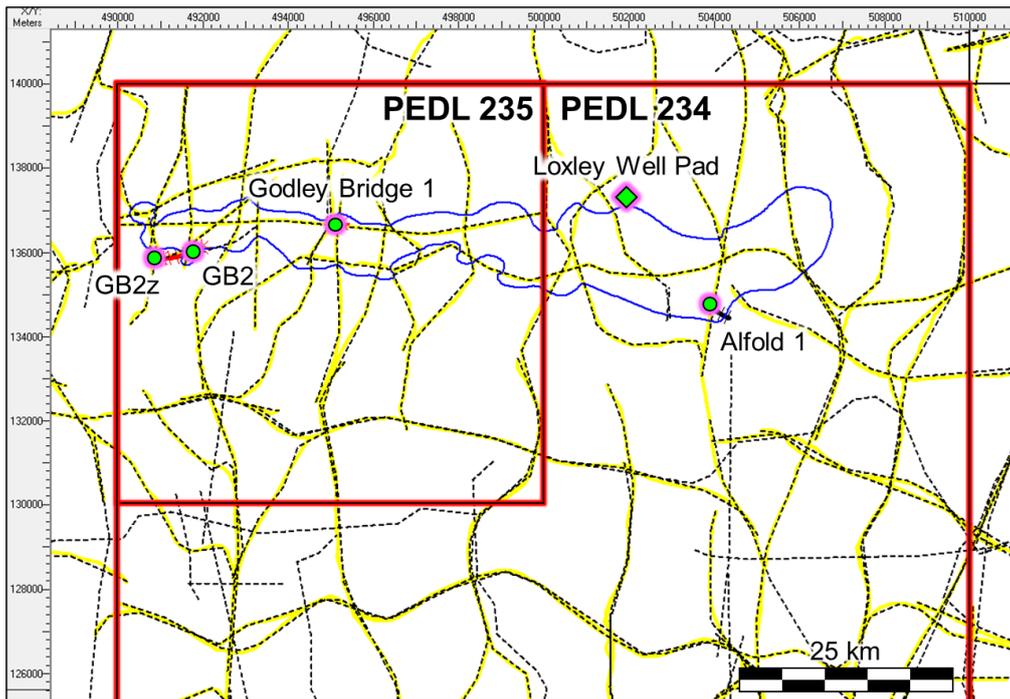
Due Date	Work Programme
30/06/2025	Drill and test Loxley-1 appraisal well to confirm the commercial viability of the Loxley gas pool
31/12/2026	If Loxley-1 confirms commercial viability, submit a Field Development Plan
31/12/2029	Within three years of the Field Development Plan submission, drill a Loxley-2 production well

**4) Database**

Figure 4.1 shows the current seismic database, the bulk of which was shot in the 1980’s by Conoco, who acquired an extensive N-S/E-W 2D grid over most of the Weald Basin. In 2010 Star Energy acquired five more lines over the western end of the Loxley structure. Line orientation is variable with average spacings of 2-3 km. Some lines have been reprocessed since the original acquisition, with a substantial improvement in data quality.

UKOG has purchased all existing 2D seismic over the Loxley structure (Figure 4.1). Lines absent from the overall UKOG database have been omitted due to poor data quality, such as old 1960’s Esso lines and Texaco lines from the 1970’s.

Figure 4.1: Loxley seismic coverage (UKOG held data in yellow)



UKOG has an extensive well database covering the entire Weald Basin, including:

- **Wells drilled within or defining the Loxley gas pool (Figure 4.1):**  
Godley Bridge-1, Godley Bridge-2, Godley Bridge-2z and Alfold-1
- **Well from producing Portland Sandstone fields:**  
Horse Hill-1, -2, -2z and Collendean Farm-1  
Brockham-1, Brockham-2, -2z, -2y, Brockham-3 and Brockham-4
- **Wells targeting the Kimmeridge Limestone play:**  
Horse Hill-1, Broadford Bridge-1, Broadford Bridge-1z, Balcombe-1, Balcombe-2, Balcombe-2z and Brockham-4z

Over 30 wells within the Weald Basin cored the Portland Sandstone. UKOG has data from 15 wells with modern routine core analysis (RCA) and logging suites, the remainder being drilled in the 1930's and 1950's where no logs or RCA were undertaken.

**5) Prospectivity Update & Further Work**

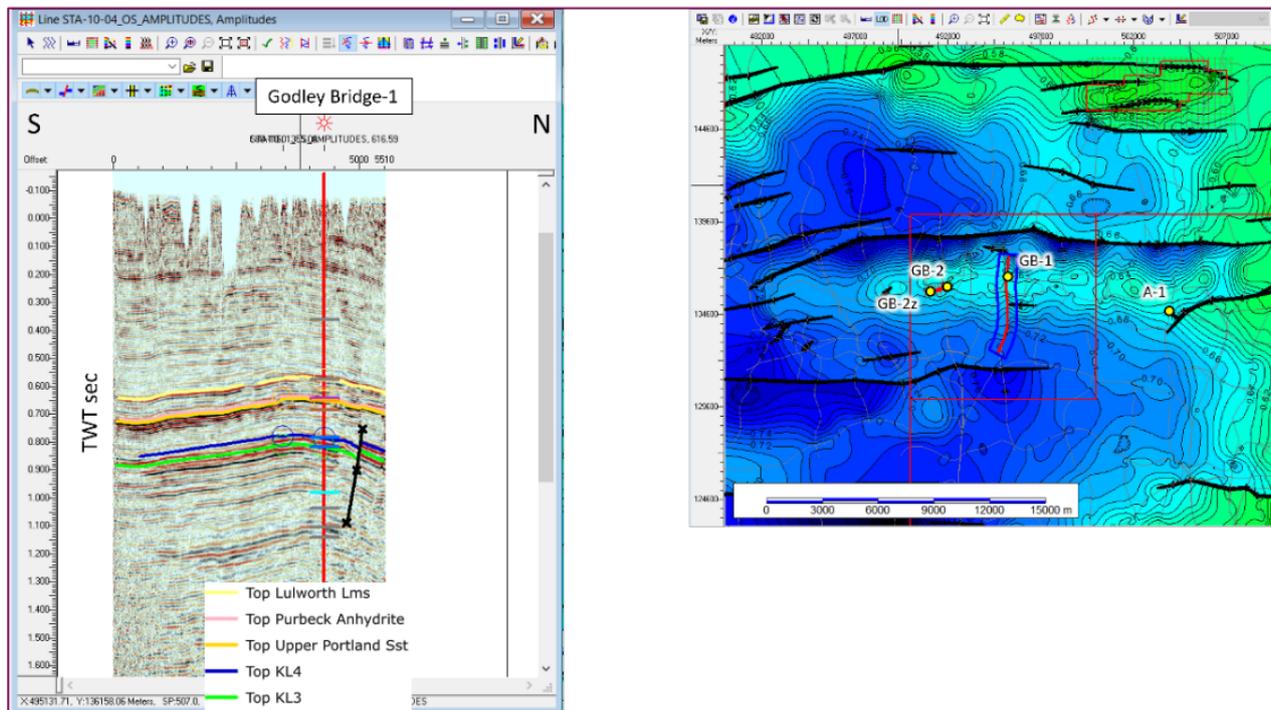
Magellan bid for PEDL234 to test a deeper Triassic target. This interval was penetrated by the Horse Hill-1 well but did not contain any hydrocarbons. UKOG therefore have never considered the Triassic a prospective target. The Kimmeridge Limestone reservoir zones were tested in well BB-1z, recovering light oil to surface from multiple test zones. Rates were considered uneconomic, however.

The main prospective target within PEDL234 is the Portland Sandstone gas discovery. RPS produced a Competent Person’s Report (CPR) for the Portland Sandstone Discovery located in PEDL234.

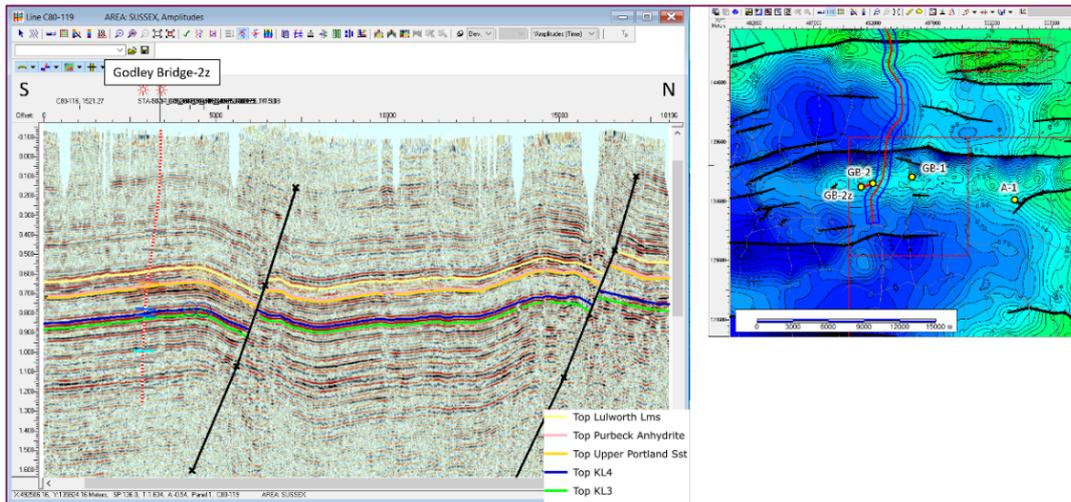
**Portland Discovery Seismic Well Tie:**

The position of the Top Portland sandstone can be inferred from the ties and can therefore be mapped on the 2D seismic database.

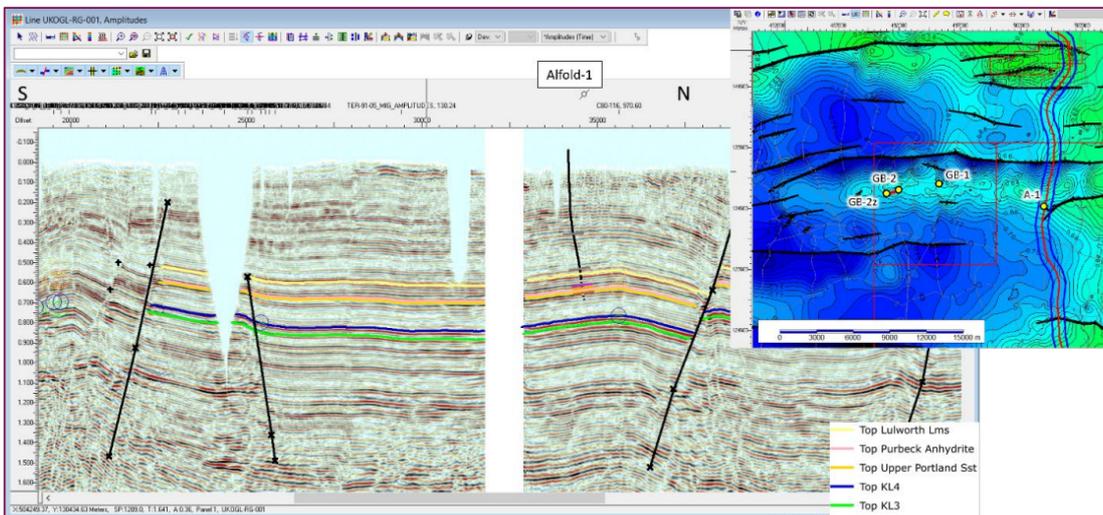
**Figure 5.1: Godley Bridge-1 Seismic Tie**



**Figure 5.2: Godley Bridge-2z Seismic Tie**

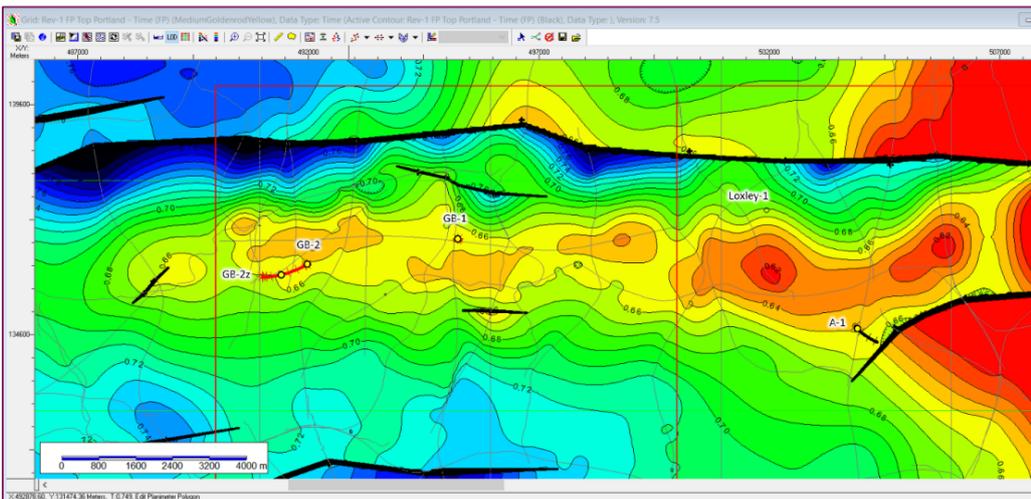


**Figure 5.3: Alfold-1 Seismic Tie**



The Top Upper Portland Sandstone was subsequently mapped across the seismic database to produce a TWT map (Figure 5.4).

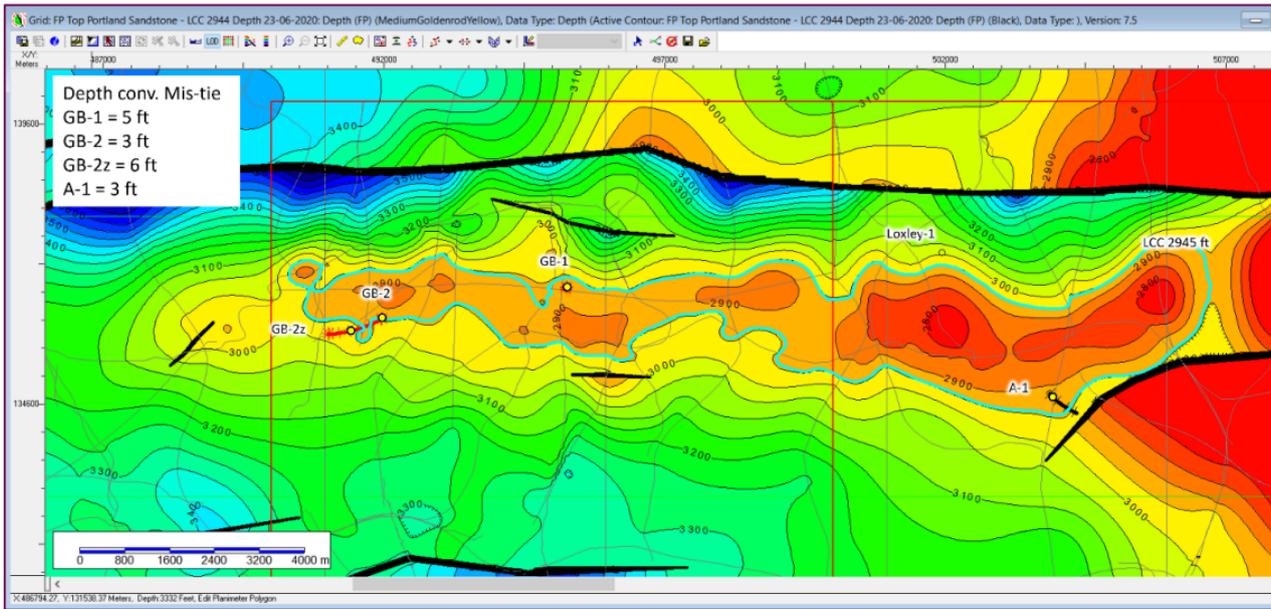
**Figure 5.4: Top Upper Portland Sandstone (TWT) Seconds**



**Depth Conversion:**

UKOG defined a VOK equation to depth convert the time data to depth, this equation was constructed using data from the Godley Bridge and Alfold wells, along with nearby wells from the Horse Hill field. A much larger regional data set from the lower cretaceous was also examined to ensure that the data fell within logical boundaries. Figure 5.5 shows the final Portland Sandstone structure map in depth.

**Figure 5.4: Top Upper Portland Sandstone Depth Structure Map (ftTVDSS)**



**Upper Portland Sandstone Volumetrics:**

Table 5.1 provides the volumetric estimate for the Upper Portland Sandstone. Petrophysical analysis of Godley Bridge-1 (GB-1), Godley Bridge-2Z (GB-2z) and Alfold-1 (Al-1) provided inputs for volumetric calculations. GB-1 RFT and DST results helped define the fluid properties and gas water contact.

**Table 5.1 GIIP across the Whole Structure and contained in the Structure that lies within PEDL234**

RPS GIIP (Bscf)	P90	P50	P10	Mean
<b>Whole Structure</b>	35	57	86	59
<b>PEDL234</b>	28	44	67	46
<b>PEDL235</b>	8	13	20	14

**6) Further technical work undertaken**

There have been several third-party technical studies carried out as listed below:

- **RPS:** Competent Person’s Report for Portland sandstone discovery located in PEDL 234 (onshore uk). Which provided a resource and associated economic value for the Loxley gas in PEDL234.
- **SGN (gas distribution company):** performed a capacity study for the Loxley gas accumulation. The purpose of this study was to determine the impact of a proposal to inject 34,500 scm/h of gas into the 450mm High Pressure (HP) Local Transmission System (LTS) at a site close to Cranleigh town.
- **IMB Net Zero:** produced a technical report to estimate Loxley initial facilities CAPEX estimate.
- **CNG services ltd:** feasibility study to identify an outline design and cost estimate for the compression site as well as the high pressure pipeline and tie in to the LTS.
- **Kappa:** performed an independent pressure transient analysis review report for GB-1 drill stem test, to estimate a new well production capacity. Generated conceptual Loxley Field development production profiles based on a 2-well development (base case).

**7) Resource and Risk Summary**

The RPS CPR for Loxley provides the below resource:

**Table 7.1 PEDL234 Contingent Resource**

**SUMMARY OF GAS CONTINGENT RESOURCES  
As of 20 February 2023  
BASE CASE PRICES AND COSTS**

	Full Field Gross Resources <sup>1</sup> (Bscf)			UKOG Net Entitlement Resources <sup>2</sup> (Bscf) PEDL234		
	1C	2C	3C	1C	2C	3C
	21.0	40.2	68.7	16.2	31.0	52.9

Notes:

<sup>1</sup> Gross Field Resources (100% basis) after economic limit test

<sup>2</sup> Companies net entitlement share of net field Resources after economic limit test

**Risks for the Loxley development as identified by RPS in the CPR include the following:**

1. The Loxley-1 well is intended to be the first of two development wells within the PEDL 234 licence. Although it will be designed and drilled as potential production well, it will still have an element of appraisal as it must first prove commercial flowrates are achievable which will depend on the height of the gas column and reservoir properties encountered. For this reason, the recoverable volumes predicted in the CPR are classified as Contingent Resources, Development Pending in accordance with the PRMS.
2. No other infrastructure is nearby to be used to treat the fluids and the facilities will be built on site with a 6.6 km pipeline to join this asset with the local low pressure gas pipeline system The pipeline route has not yet been permitted and remains a contingency to access the gas sales market.

3. Regulatory: even in the event of a successful Loxley well test, production planning consent and all relevant permits are required for the development to be produced long term. This poses a significant risk.

## **7) Conclusions**

There is remaining potential within the licence as demonstrated by the RPS CPR, however the fiscal and permitting landscape brings significant risk to the project. This, together with unsuccessful marketing of a Loxley farmout, are ultimately why UKOG has decided to relinquish the licence.

## **8) Clearance**

The NSTA is free to publish the Report and all 3<sup>rd</sup> party ownership rights (on any contained data and/or interpretations) have been considered and appropriately cleared for publication purposes.