

# INVESTOR UPDATE

December 2023

ORCADIAN  
ENERGY



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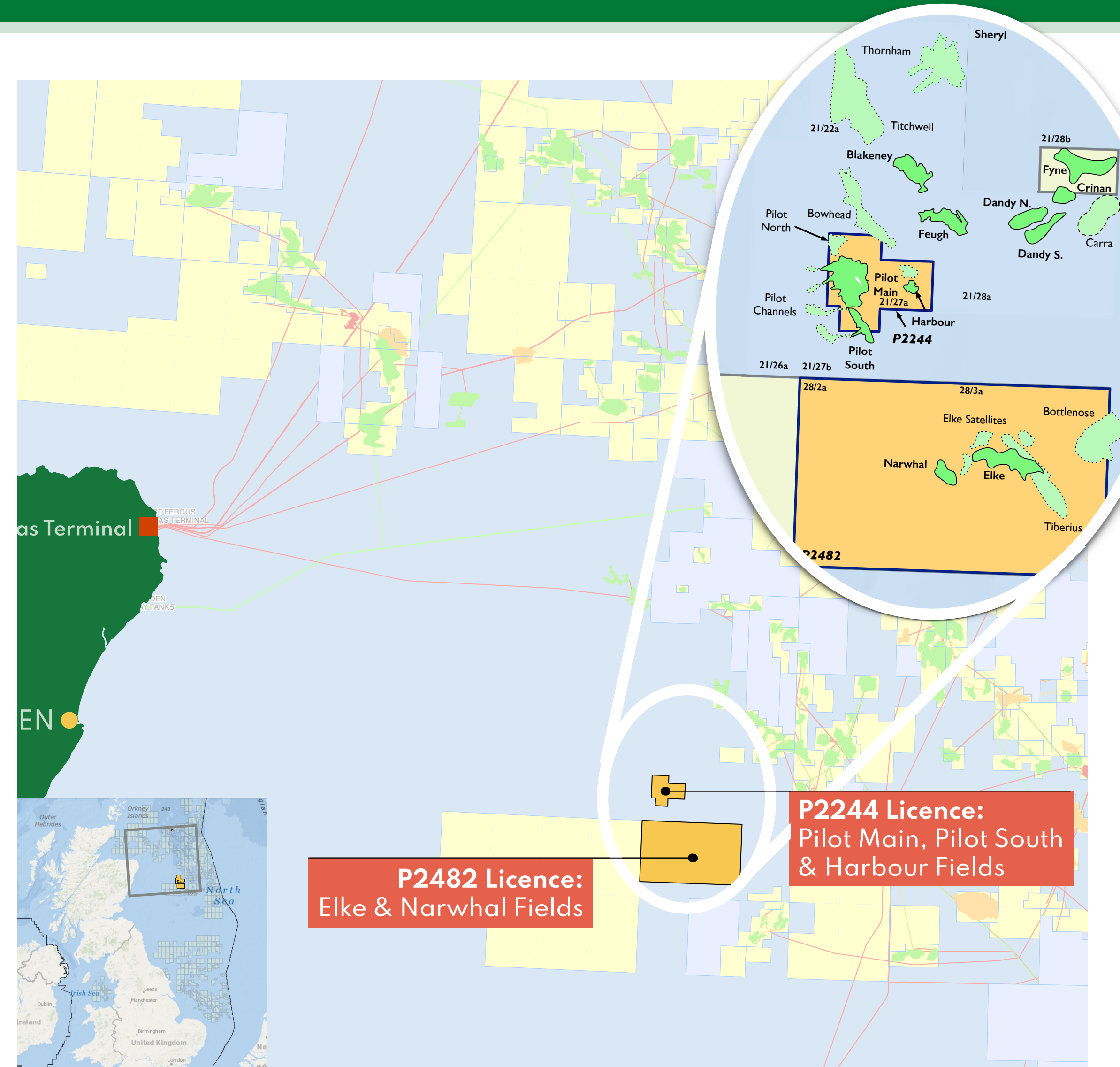
Each distributor is responsible for undertaking its own target market assessment in respect of the Shares and determining appropriate distribution channels.

## Objective to deliver a high return for investors

- Fully finance the polymer flood project for Pilot, multi-strand approach:
  - Seek farm-in partners and project investors
  - Structure a contractor alliance to deliver the project
  - Engage with financing partners, lenders, infrastructure investors
- Secure discovered resources at low cost and to transform those resources into reserves and onto production
  - 33rd round presented good opportunities

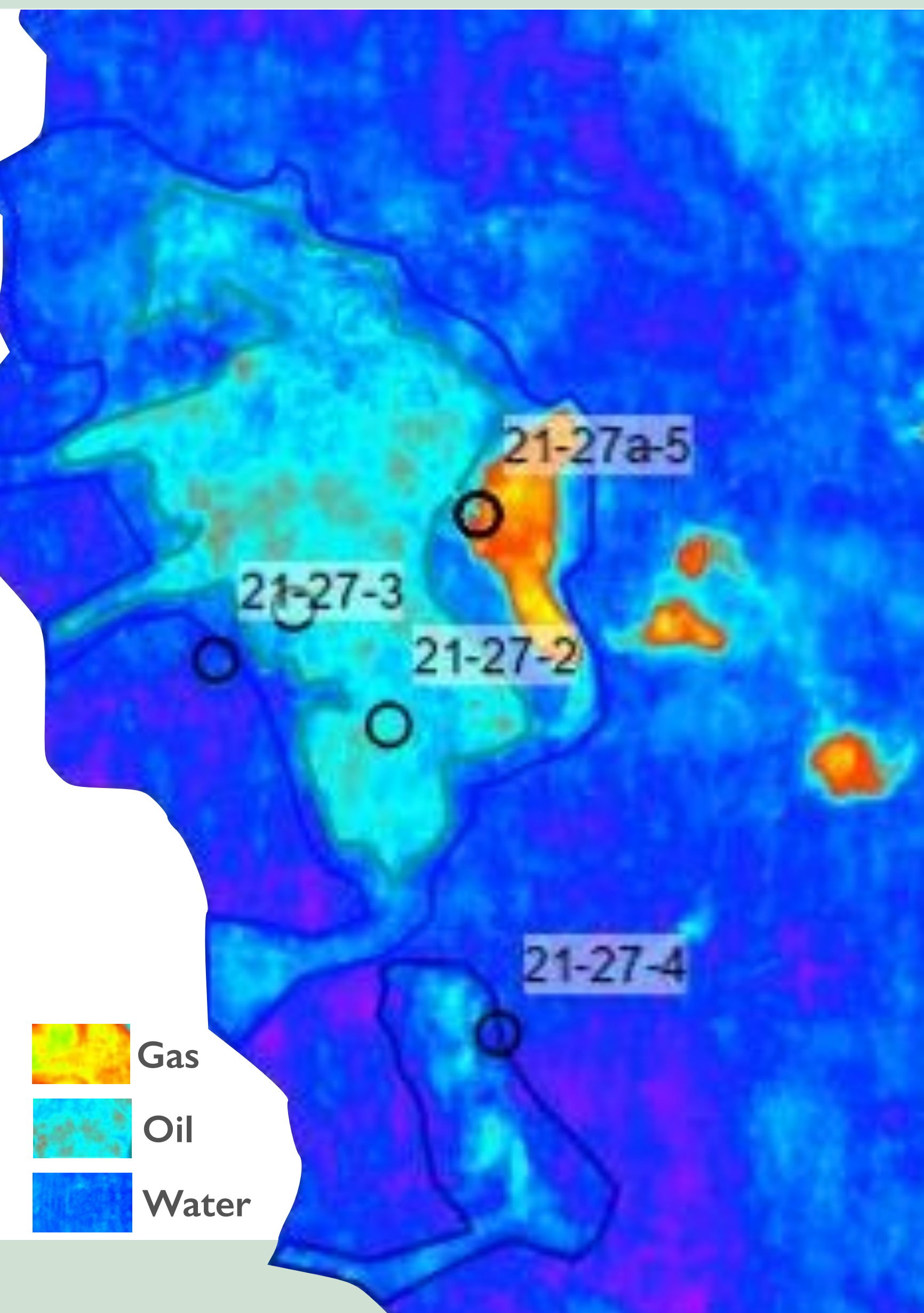


- **Farm-out deal for the Pilot field signed with Ping Petroleum UK plc**
- Pilot oilfield has a substantial audited reserve: 79 MMbbl 2P (proven & probable, Sproule)
- Pilot field is a well appraised and development-ready project, based on a polymer flood, using an FPSO, a mixture of subsea and platform wells and a floating wind turbine
- 53 MMbbl of contingent resources in Elke and Narwhal
- Elke satellite exploration and appraisal targets contain over 50 MMbbl with chance of success from 64% to 87%
- Significant low-risk prospectivity identified to North of Pilot based on TGS rEEI attribute work, out-of-round licence process request jointly lodged with NSTA
- 33rd Round application results awaited



Pilot	Parameter	Units
Oil water contact	2724	feet
Oil column	>100	feet
Gross sand thickness	50-60	feet
Net to gross ratio	0.95	fraction
Porosity	0.34	fraction
Water saturation	< 0.10	fraction
Permeability	2 to 8	Darcies
Oil gravity	12° - 17°	API
Oil viscosity	c. 400	cP
Gas-Oil ratio	80	scf/bbl
Reservoir Temp.	31	°C
Salinity	72,000	ppm

- Pilot Main discovered by Fina in 1989, fields appraised by 5 wells, plus 2 sidetracks/horizontals, Pilot South discovered in 1990; two 3D surveys
- Six wells were cored, three wells were tested including a relatively short horizontal well that tested at rates over 1,800 bopd
- Oil in place (STOIIP) of 263mmbbls; polymer flood delivers **79mmbbls of proven and probable reserves**
- **Ithaca has enjoyed “consistent success [applying polymer flood] across the Captain field”**



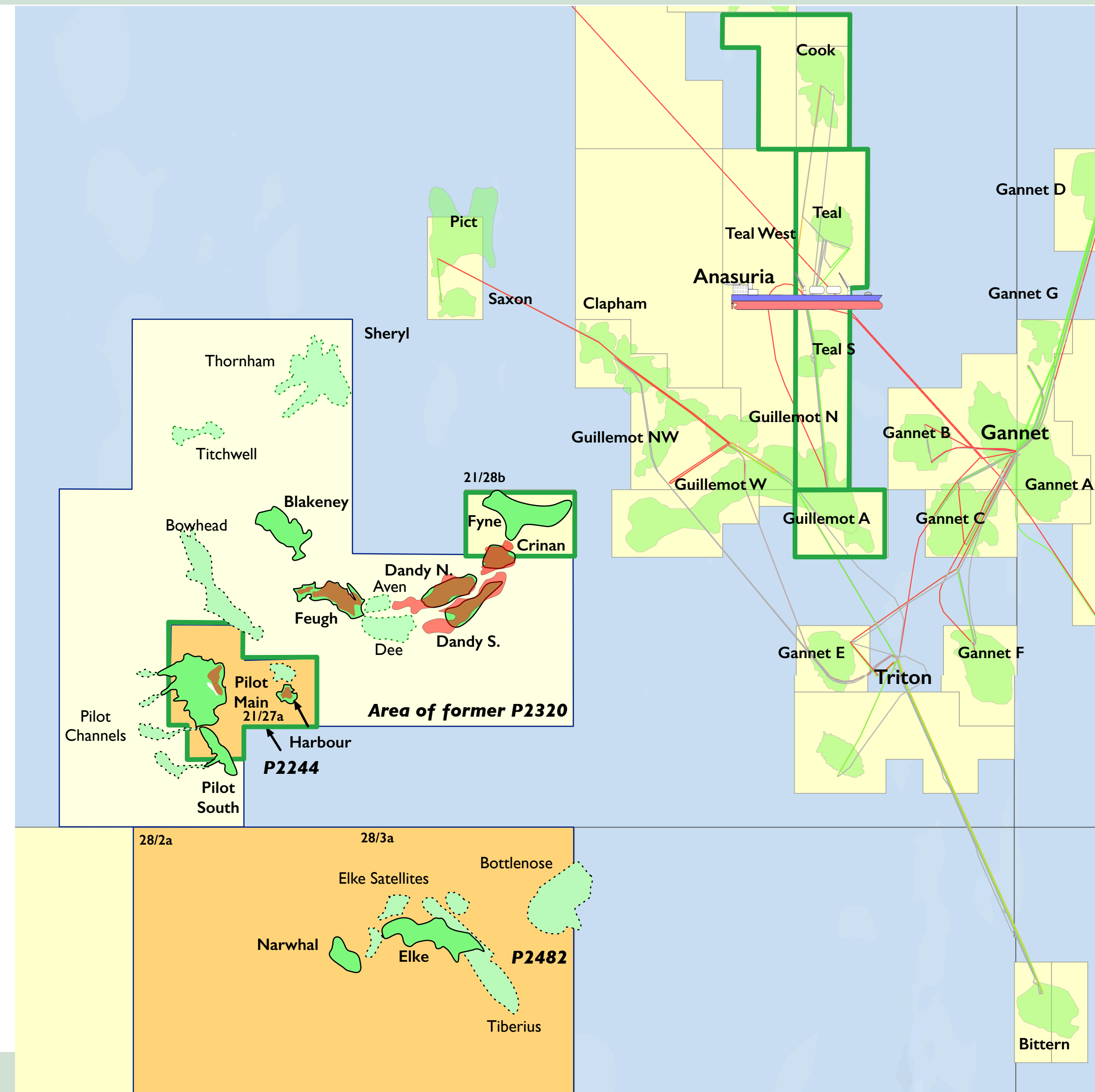
- **Binding Sale and Purchase Agreement with conditions precedent signed with Ping Petroleum UK plc\***
- **On completion of the deal:**
  - Orcadian will have an 18.75% carried interest to first oil, and will retain 14.6 MMbbl of 2P reserves in Pilot, fully carried to first oil, carry terms to be detailed in the JOA
  - NSTA offered a two-year licence extension subject to completion of the deal with Ping
  - Pilot project well advanced and will deliver on the NSTA's Net Zero agenda and Government's Energy Security goals
  - Have requested an out-of-round process to re-apply for former area of P2320 in Joint Bidding arrangement
  - CP's include completion of commercial and legal due diligence; execution of the JOA; approval of the transaction (and variations to the existing agreements in place, where appropriate) from the NSTA, Shell, TGS ASA, and DNeX, Ping's parent company board



# Ping Petroleum

*Focused on shallow water offshore production and development opportunities in the North Sea and in Malaysia.*

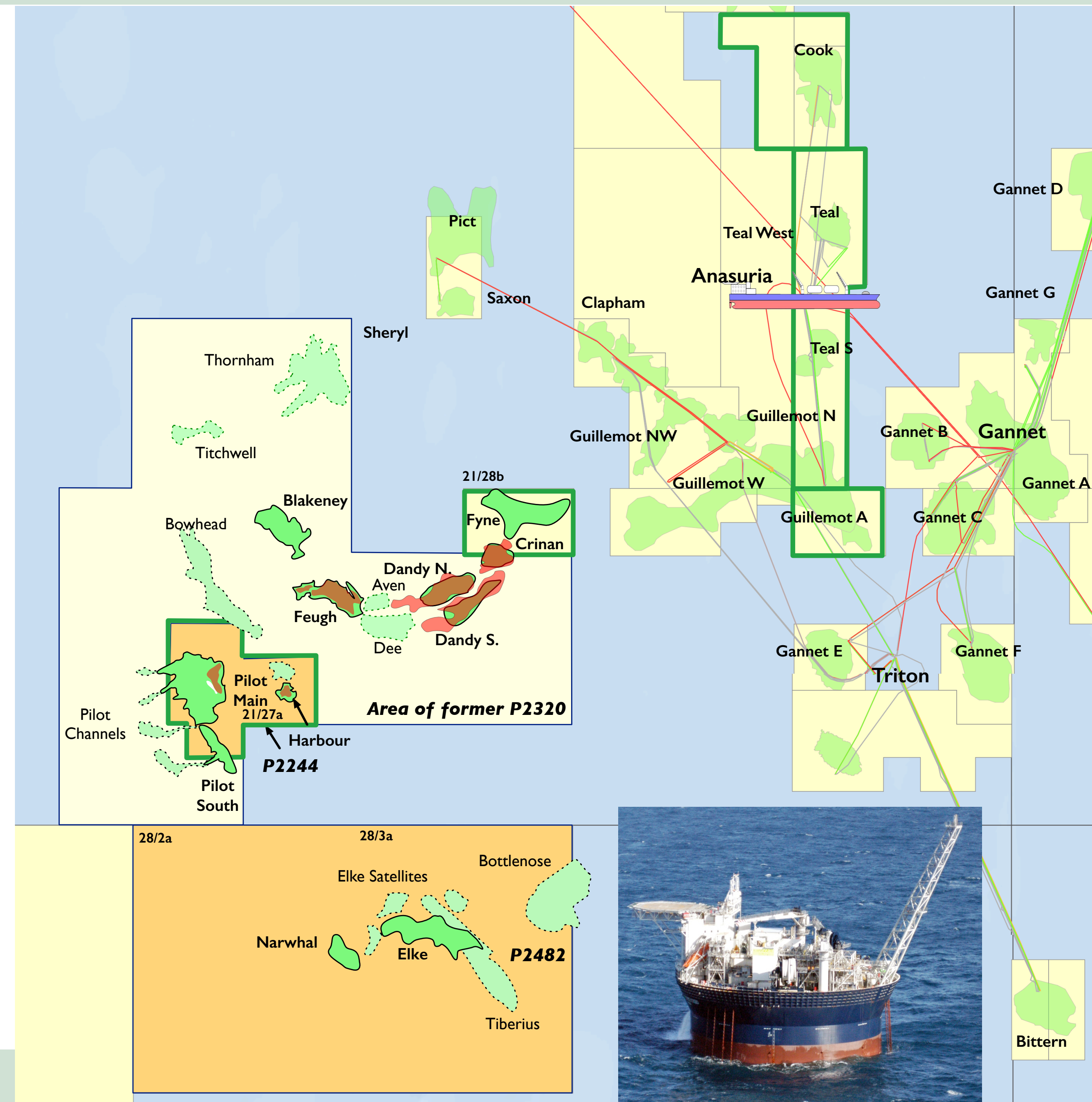
- 50% owner, alongside Hibiscus Petroleum, of the Anasuria complex which was acquired from Shell and Esso in 2015
- Operator of the Avalon development
- Purchased Sevan Hummingbird now named Excalibur



# Ping Petroleum

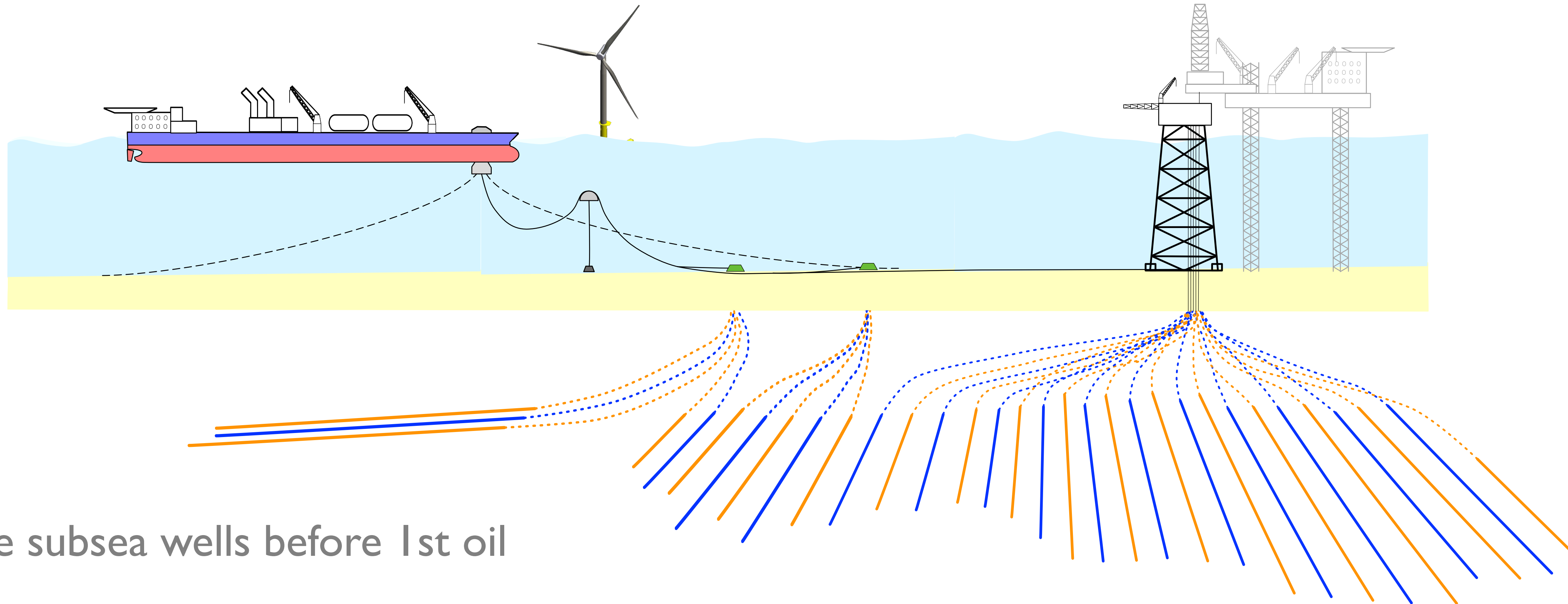
*Focused on shallow water offshore production and development opportunities in the North Sea and in Malaysia.*

- 50% owner, alongside Hibiscus Petroleum, of the Anasuria complex which was acquired from Shell and Esso in 2015
- Operator of the Avalon development
- Purchased Sevan Hummingbird now named Excalibur
- Stakes in three Malaysian PSCs
- 90% subsidiary of DNeX a Malaysian listed conglomerate



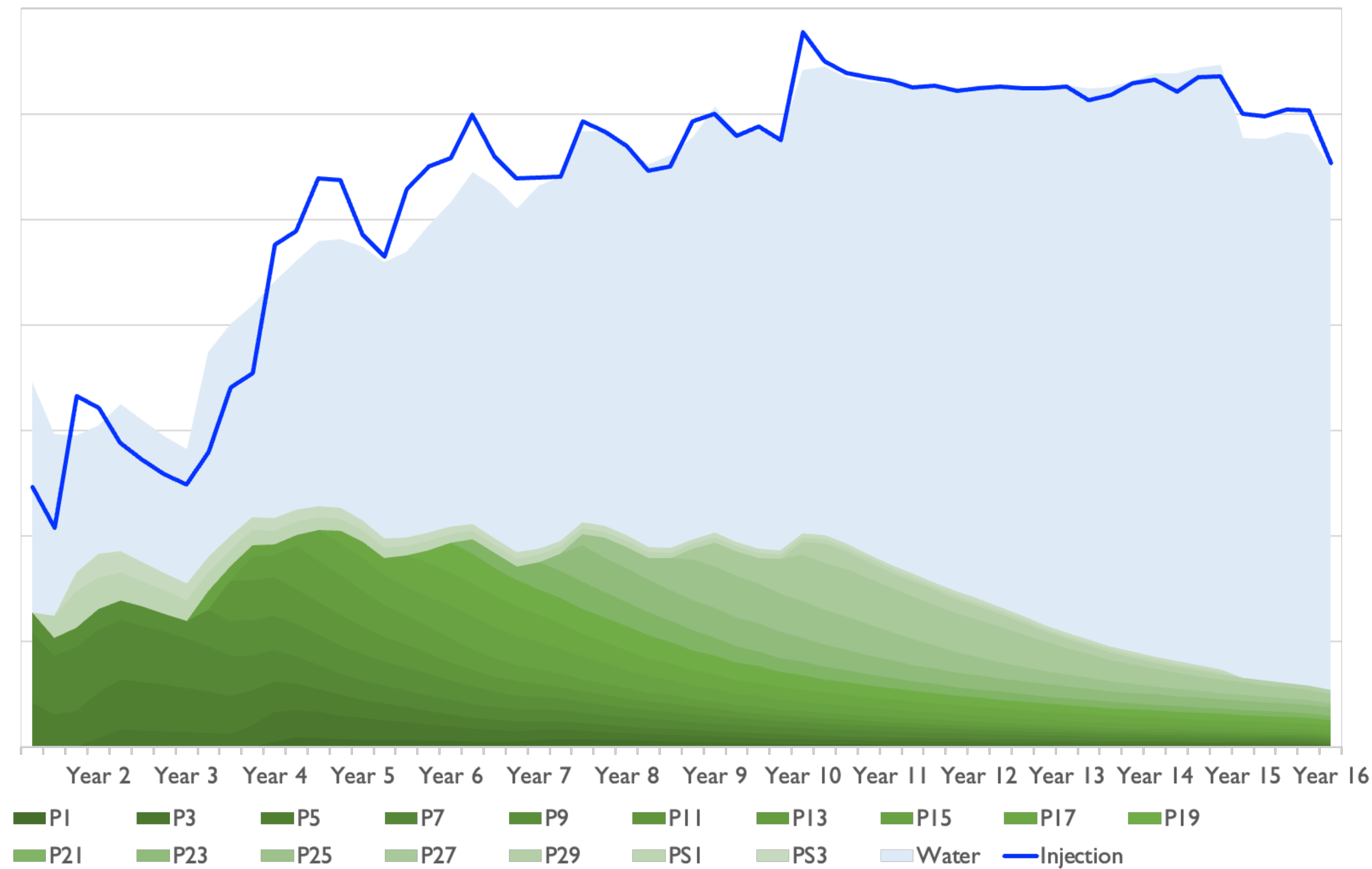


# Pilot field phased development plan, subsea wells with platform wells in second phase

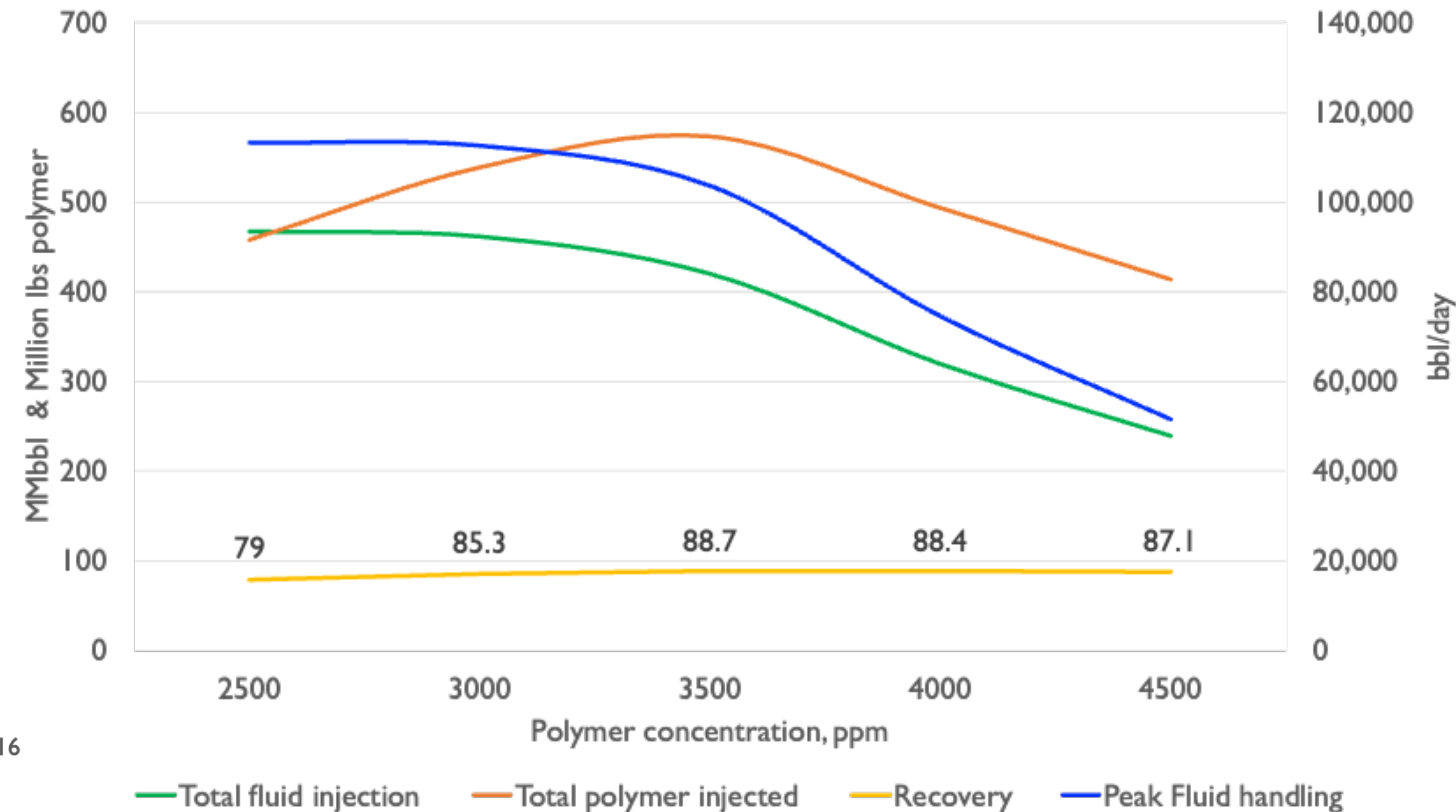


- Five subsea wells before 1st oil
- Five further subsea wells after 1st oil
- Twenty-two platform wells to complete development

# Pilot field potential production



Pilot phased development - effect of increasing polymer concentration

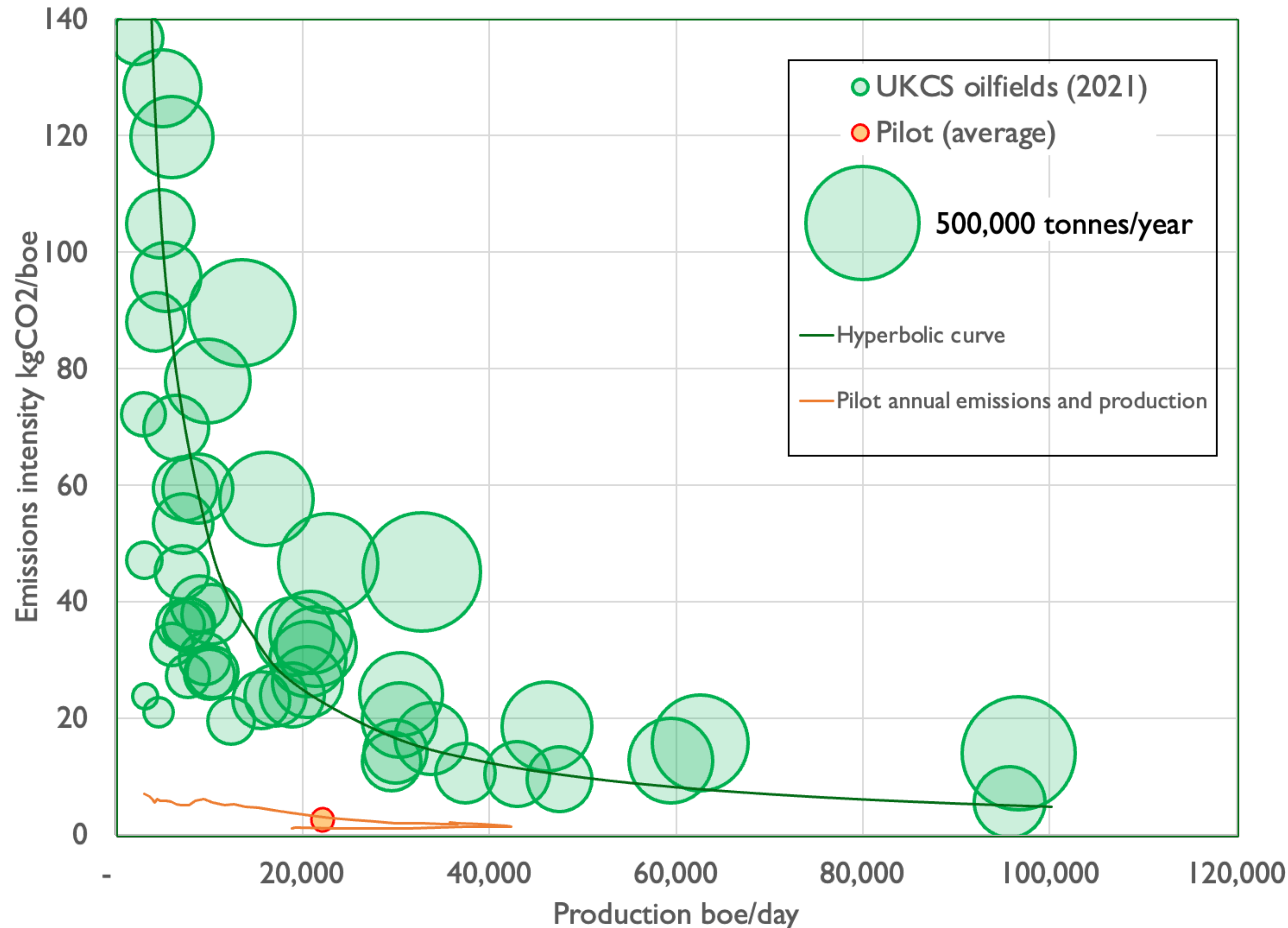


- Potential production profile from Pilot based on modified development plan
- Revised drilling schedule and facility capacities

- Potential to significantly reduce fluid handling requirements on the FPSO by injecting more viscous water than previously assumed
- Creates opportunity to optimise development with a lower capacity FPSO

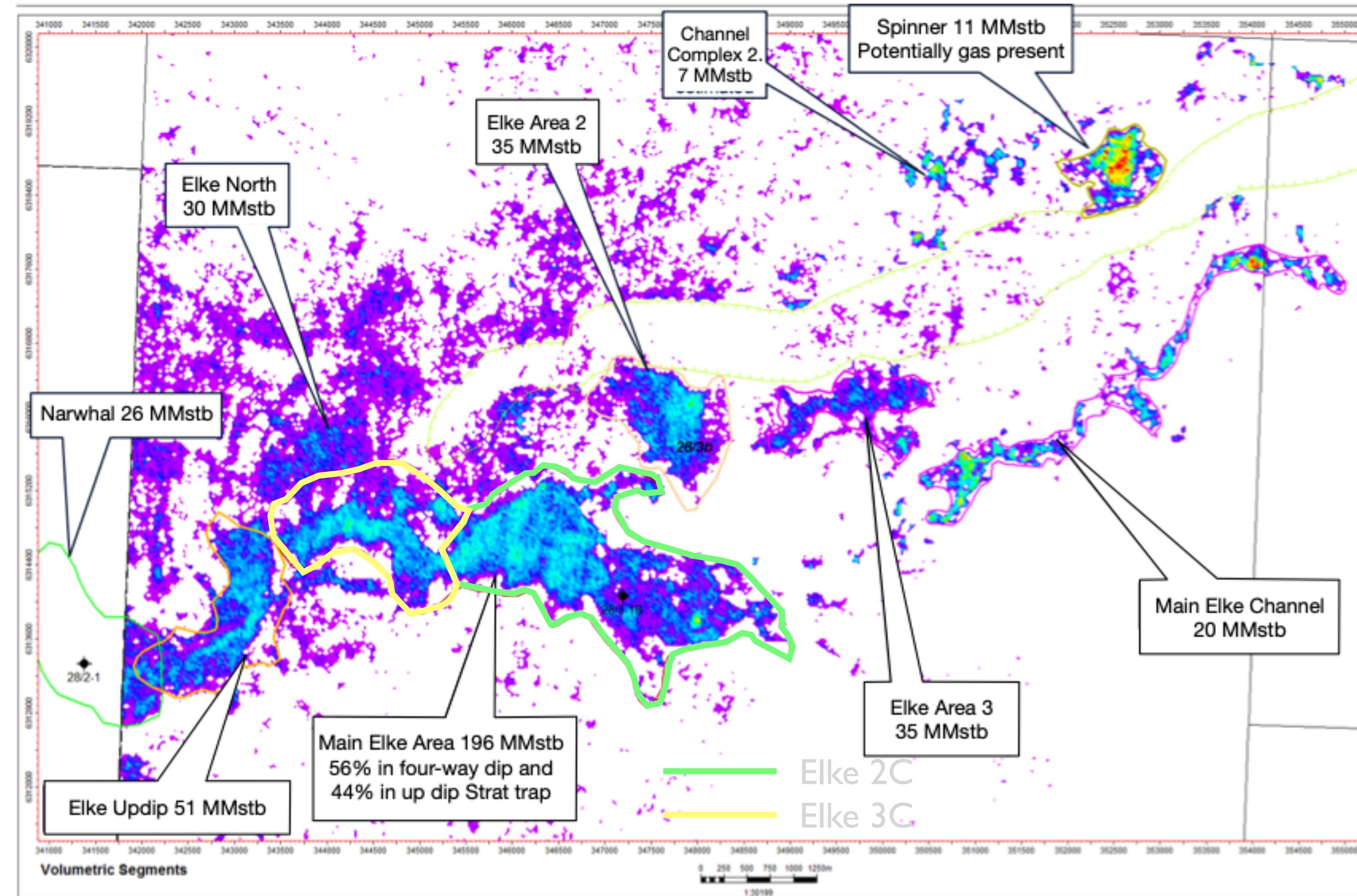
# New oil developments can have dramatically lower emissions than mature fields

- Data collected by the North Sea Transition Authority for emissions intensity, CO<sub>2</sub>, CH<sub>4</sub>, SO<sub>x</sub> and NO<sub>x</sub> in CO<sub>2eq</sub> terms, per barrel of oil equivalent produced in 2021
- This dataset demonstrates how emissions intensity increases as oil production declines and fields mature
- New developments with innovative technologies can have dramatically lower emissions intensity
- Refreshing the portfolio of producing fields can significantly reduce UKCS emissions



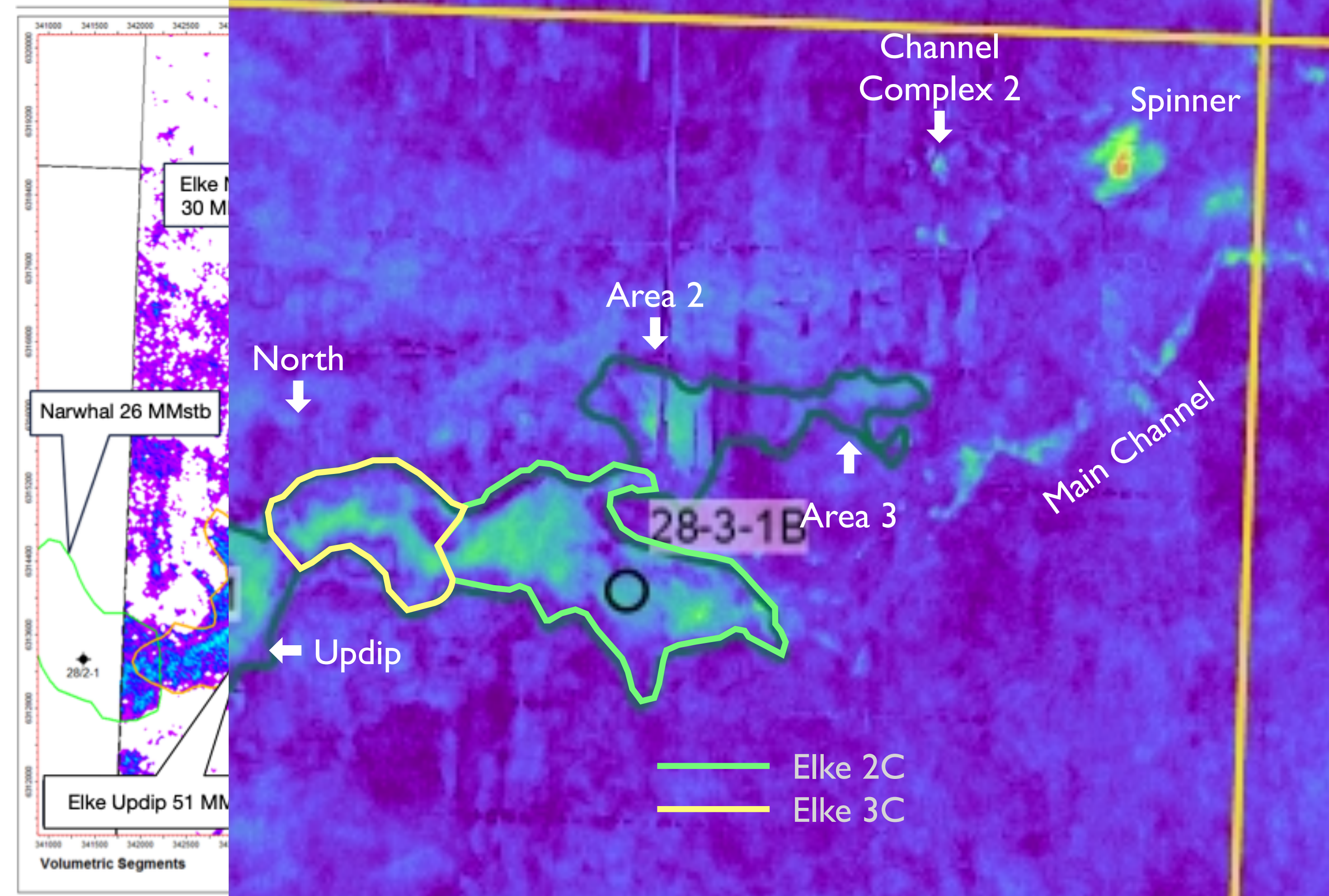
# Elke, Narwhal & Prospective satellites

	Pool	P50 2U resource	GCoS	rEEI
2C	Narwhal	9	100%	
	Elke 2C	44	100%	
3C	Elke 3C polygon	23	~90%	
Prospective Resources	Elke Updip	18	87%	
	Elke Area 2	12	64%	
	Elke North	11	66%	
	Elke Area 3	14	64%	
	Main Elke Channel	7	64%	
	Spinner	4	38%	
	Channel Complex 2	3	10%	

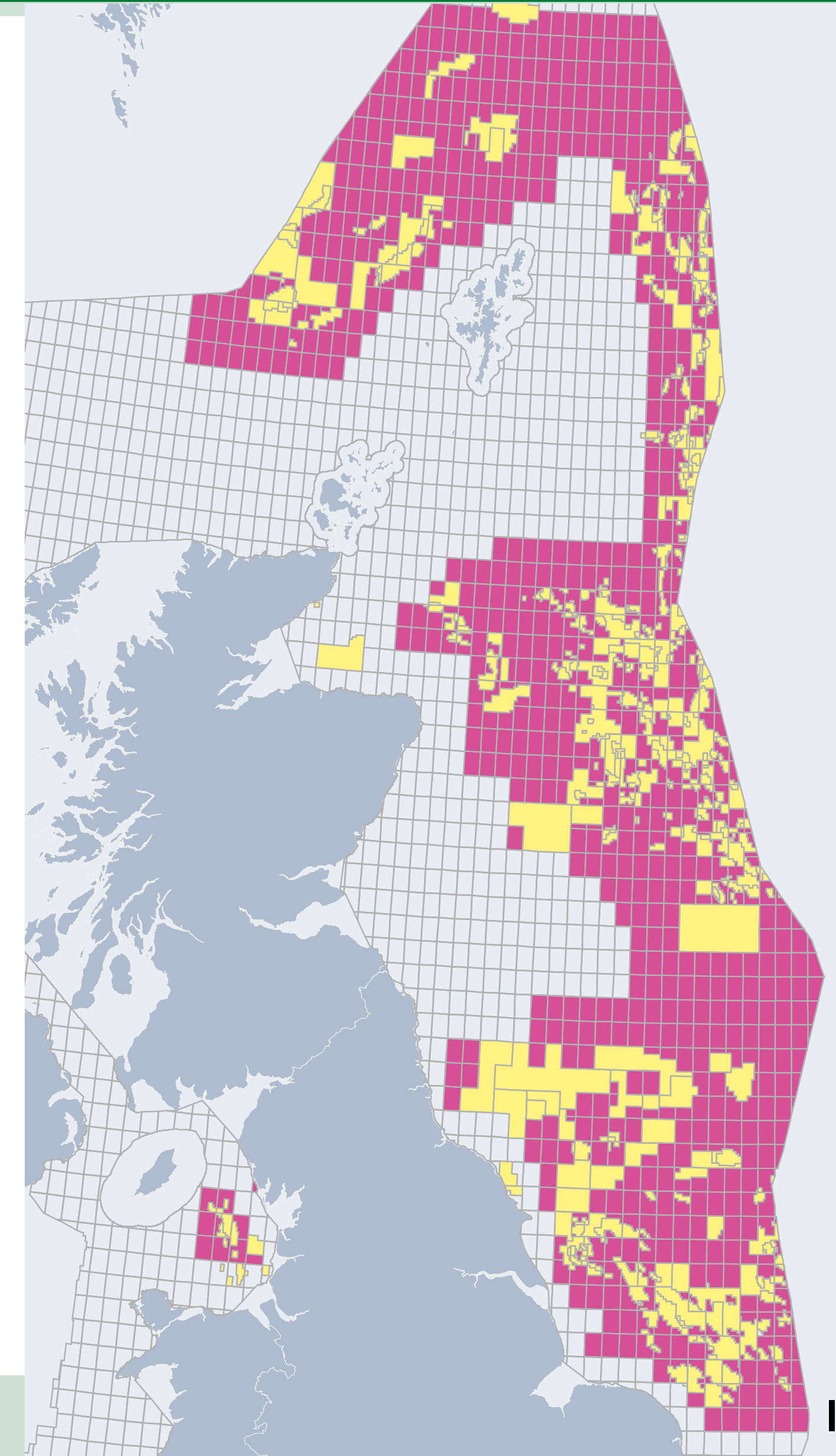


# Elke, Narwhal & Prospective satellites

	Pool	2C/2U resource	GCoS	rEEI
2C	Narwhal	9	100%	
	Elke 2C	44	100%	✓
3C	Elke 3C polygon	23	~90%	✓
	Elke Updip	18	87%	✓
	Elke Area 2	12	64%	✓
	Elke North	11	66%	✗
	Elke Area 3	14	64%	?
	Main Elke Channel	7	64%	✓
	Spinner	4	38%	✓
	Channel Complex 2	3	10%	?
	<b>Total rEEI supported</b>	<b>106</b>		



- NSTA announced 115 bids across 258 blocks or part-blocks, bids come in from 76 different companies
- Orcadian has participated in the 33rd Round making three licence applications, two in partnership with other companies and one on its own
- One application builds upon Orcadian's viscous oil experience
- Two applications are focussed on gas opportunities, including a potential gas-to-wire project, with integrated carbon capture, which could deliver baseload electricity with minimal emissions
- Net to Orcadian the total P50 sales gas resource applied for amounts to 114 bcf in a discovery, 153 bcf in a near drill-ready prospect, and 377 bcf in leads and less mature prospects



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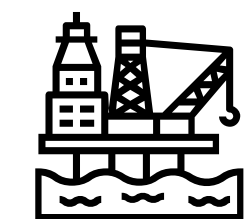
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# ORCADIAN ENERGY PLC

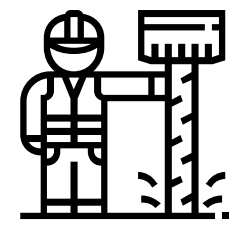
# E&P COMPANY WITH A LOW-COST PRODUCING ASSET (OPEX:USD19/BOE)

- PING is an independent E&P<sup>1</sup> company which focused on shallow water offshore production and development opportunities in North Sea<sup>2</sup> and Malaysia
- PING is a Bermuda incorporated company, 90% owned by a Malaysian listed company
- The company's core asset is known as Anasuria Cluster which was acquired from Shell and ExxonMobil in 2016

## Overview of PING



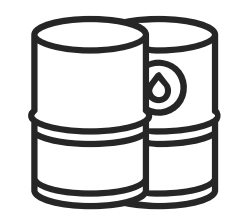
4 producing asset fields  
All within Anasuria Cluster



5 development projects in the next 5 years  
Planned for facility optimization and infills within Anasuria Cluster



A Low-Cost Oil Producer  
Production cost per barrel stood at USD19 per barrel of oil equivalent as of June '23



~26.7 MMboe  
Total 2P reserves<sup>3</sup>

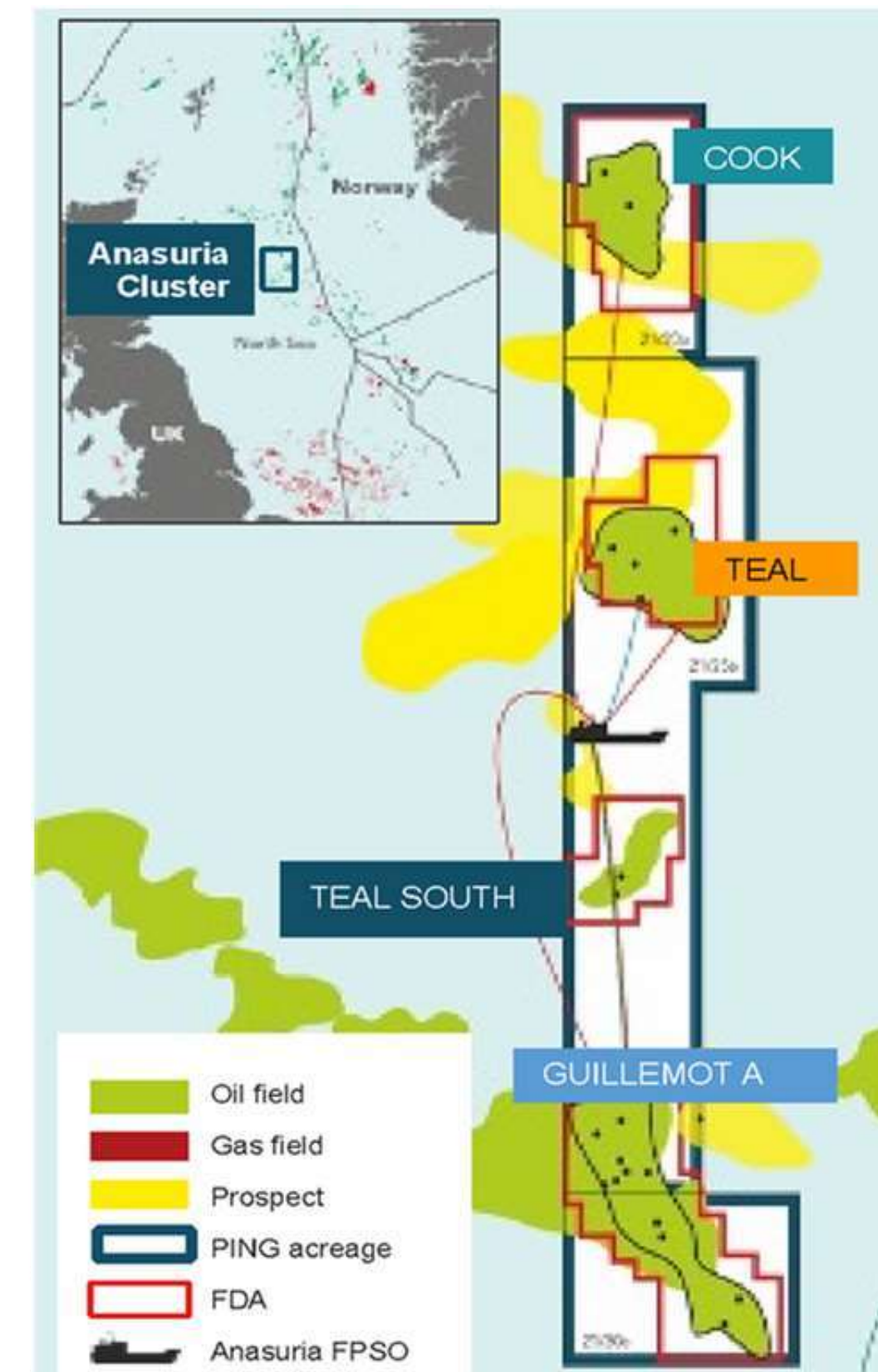


~3.5x  
2023E-26E production growth based on 2P reserves from producing fields and Avalon development



Above USD 320m  
Total Operating cashflow from 2023 – 2026<sup>4</sup>

## Portfolio Map



Notes: MMboe: Millions barrels of oil equivalent, Mboepd: Thousand barrels of oil equivalent per day

1. Exploration and Production (E&P) is the upstream segment of the oil and gas industry, which includes the search, exploration, drilling and extraction phases. The E&P is the earliest portion of the oil and gas production process

2. North Sea is a sea of the Atlantic Ocean between Great Britain, Norway, Denmark, Germany, Netherlands, Belgium and France

3. Based on THREE60 Energy Competent Person's Report as of 31.03.2023

4. USD 75/bbl brent oil price 2H 2023, USD 70/bbl in 2024 and USD 65/bbl thereafter and onwards; and GBP 0.4/therm sales gas price in 2H 2023, GBP/USD FX rate at 1.25



# ANASURIA CLUSTER: MATERIAL REMAINING POTENTIAL

Multiple low-risk / high return opportunities identified to drive production and cash flow growth

## Vast set of profitable opportunities

### Facility optimisation

- » Continuous work ongoing to further optimise infrastructure utilisation and maximise field recovery and value of ~2.4 MMboe net 2P reserves

### Infill drilling - Well intervention

- » Significant proven resource base to be developed through infill drilling
- » Cook P1 well intervention and water injector

#### Guillemot A:

- » Planned, but not sanctioned infill drilling program - three infill wells targeting 5.0 MMboe net 2P reserves

#### Teal + Teal South:

- » Planned, but not sanctioned infill drilling program - two infill wells targeting 5.8 MMboe net 2P reserves

#### Cook:

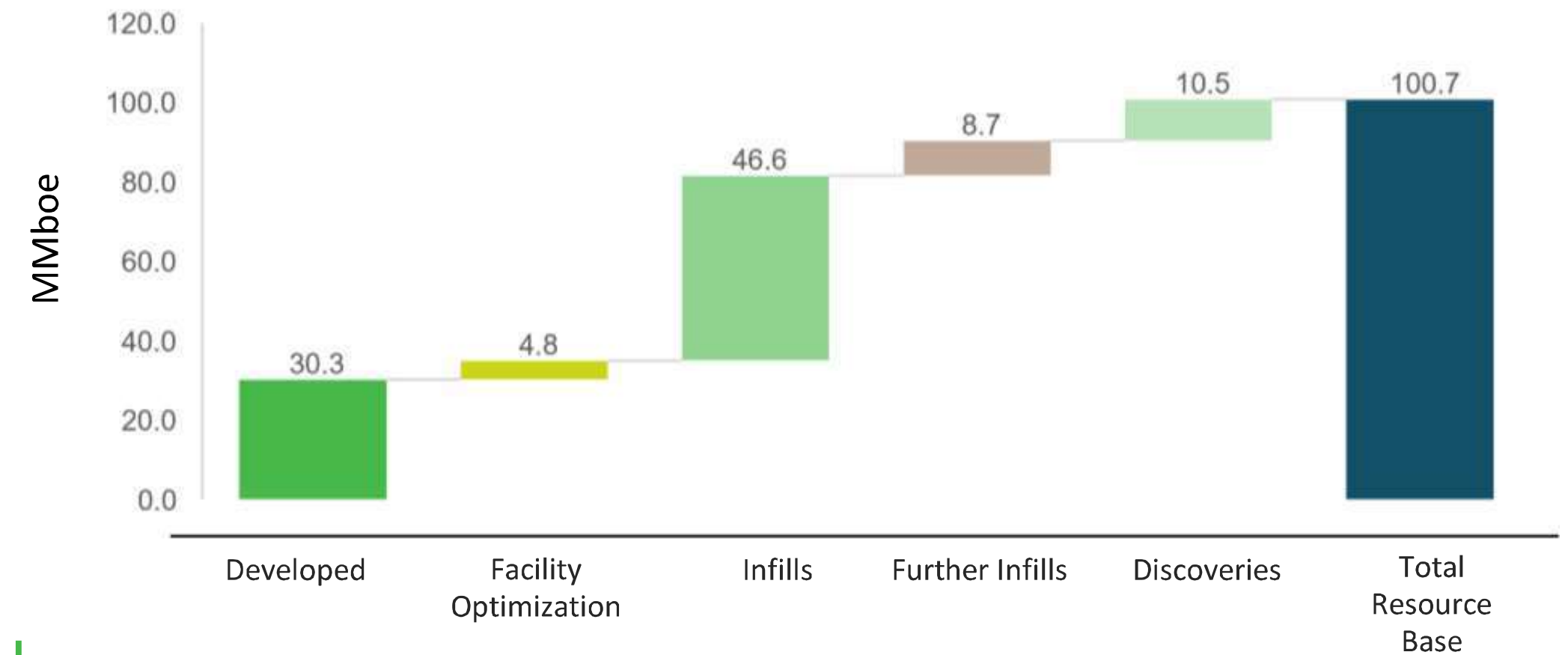
- » Planned, but not sanctioned infill drilling program - one infill well targeting 4.8 MMboe net 2P reserves

- » Further identified infill targets: 5 wells – 5.0 MMboe net 2C resources

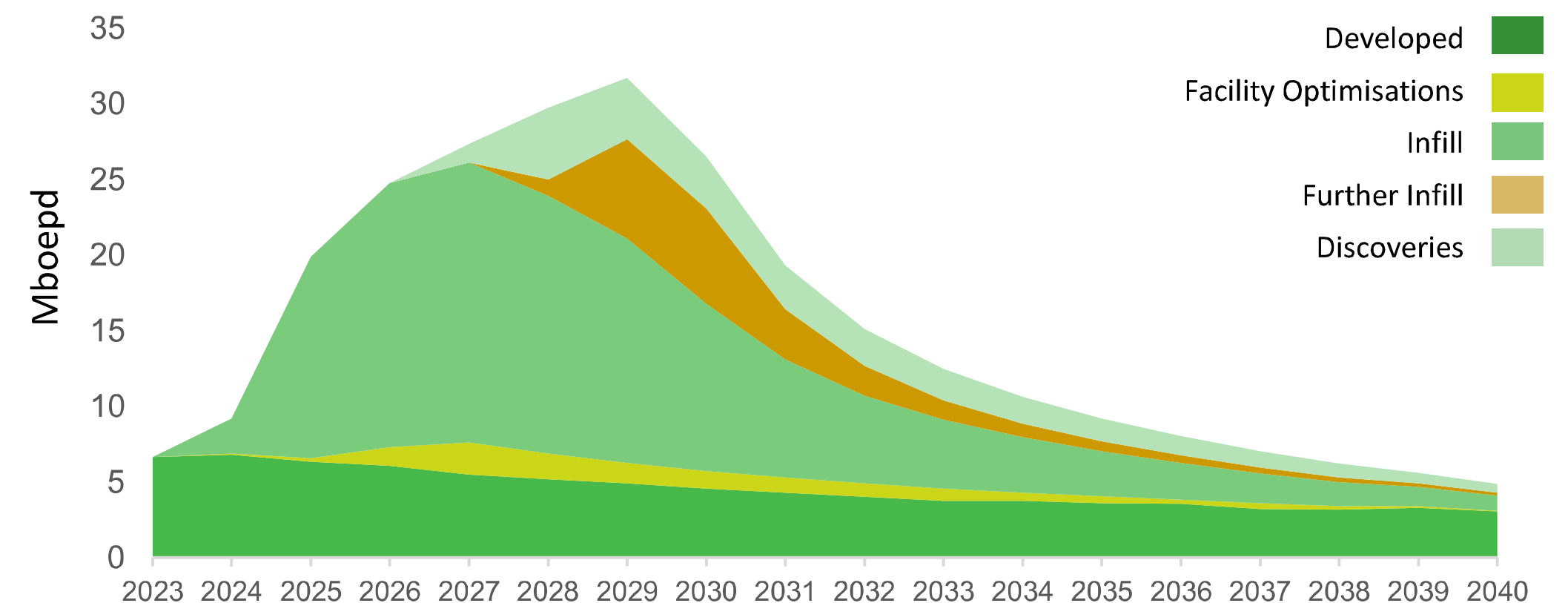
### New development (Kite)

- » Single well targeting 5.3 MMboe net 2C reserves

## Anasuria Cluster resource base<sup>1</sup> (gross)



## Anasuria Cluster area production<sup>1,2</sup> (gross)



1. Resource base estimates based on THREE60 CPR as of 31.03.2023.

# EXCALIBUR FPSO: PING'S SEVAN FPSO



## Excalibur FPSO

- » The Excalibur (formerly Sevan Hummingbird) is the best fit-for-purpose, re-used FPSO for the Avalon development, having recently completed production operations on the Chestnut field. Both marine & topsides inspection has been completed and no major issues were found.
- » The vessel maintained 96% operational efficiency over the last 14 months of production and a 3rd party inspection has verified the vessel is in good condition. The vessel is currently warm-stacked in Port of Nigg, UK.
- » The FPSO was purchased and fully settled in cash.
- » The vessel can process up to 30,000 barrels of oil per day and 50,000 barrels of total liquid. The storage tanks can hold up to 270,000 barrels of oil.
- » Other specifications;
  1. Hull constructed in China, Topsides in Europe, Integration in Rotterdam
  2. Delivered in 2007. Put into operations in 2008
  3. Hull diameter 60m, 7 riser slots, 12 mooring lines
  4. Personnel on Board Capacity: 47
  5. Process deck area: 3,825 m<sup>2</sup> Main deck area: 3,450 m<sup>2</sup>

## Sevan Concept & Technical Specs

- » Excalibur, built in 2007/2008 with a 25 year design life, is a Sevan Concept FPSO which has a cylindrical shape; different to a ship-shape FPSO like Anasuria
- » The principal benefit of the Sevan concept is that the FPSO is geo-stationary with fewer complex moving parts than a conventional FPSO (eg, swivels).
- » The hull faces the environment with the same shape in every direction, thus no weathervaning
- » No thrusters or heading control vessels are required and lower pitch/roll motions leads to reduced fatigue and stresses, extending the design life
- » Potential for OPEX savings with reduced maintenance and manning