

# Lansdowne

oil & gas

## Atlantic Ireland: North Celtic Sea Basin – Potential in Deeper Targets

November  
2013



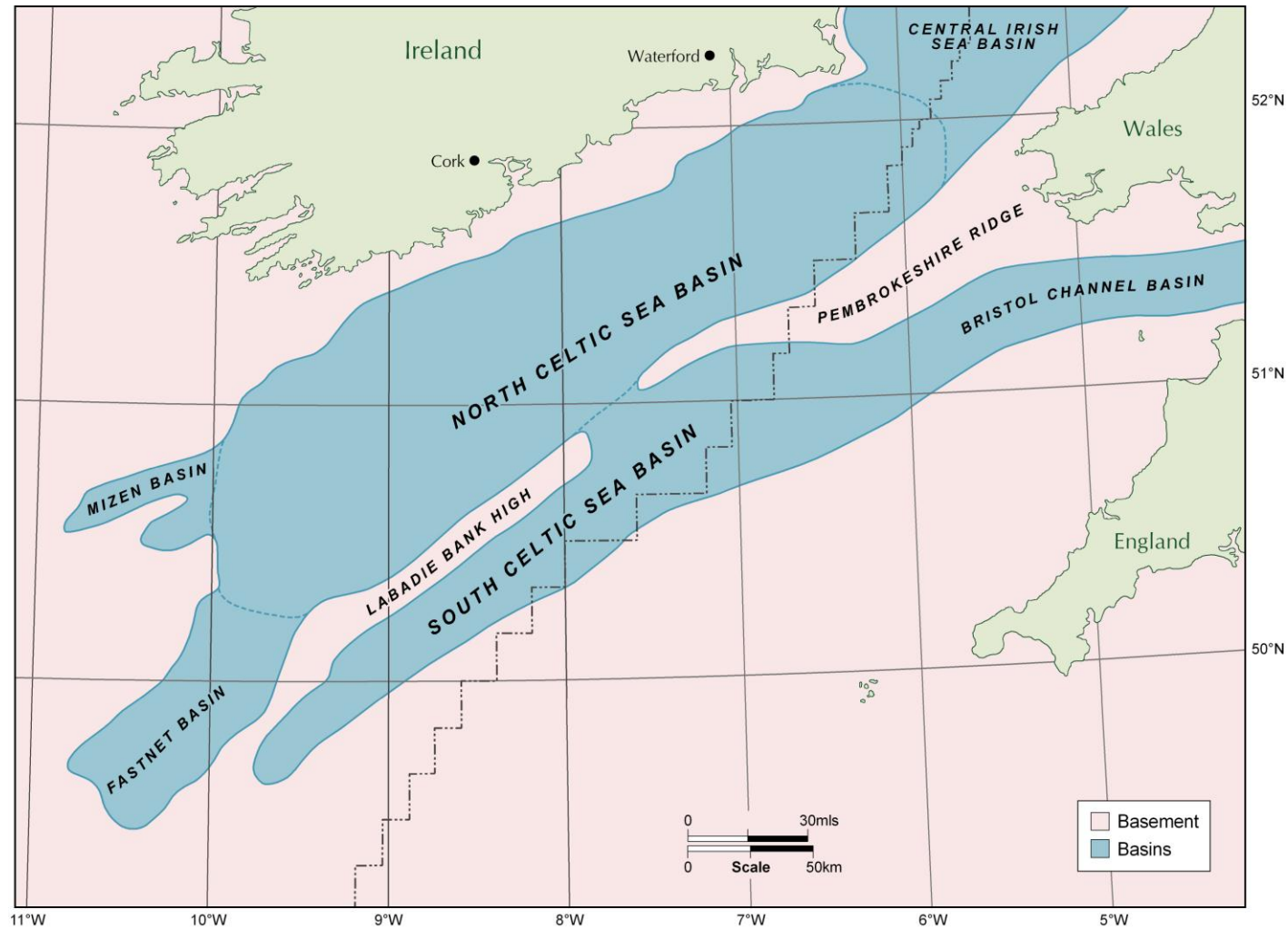
# Disclaimer

These presentation materials (the “Presentation Materials”) do not constitute or form any part of any offer or invitation or inducement to sell or issue or purchase or subscribe for any shares in Lansdowne Oil & Gas plc (“Lansdowne”) nor shall they or any part of them, or the fact of their distribution, form the basis of, or be relied on in connection with, any contract with Lansdowne, or any other person, relating to any Lansdowne securities. Any decision regarding any proposed purchase of shares in Lansdowne must be made solely on the basis of the information issued by Lansdowne at the relevant time. Past performance cannot be relied upon as a guide to future performance. The Presentation Materials are not intended to be distributed or passed on, directly or indirectly, to any other class of persons. They are being supplied to you solely for your information and may not be reproduced, forwarded to any other person or published, in whole or in part, for any other purpose. In particular they, directly or indirectly, must not be distributed to persons in the United States of America, its territories or possessions or Australia or Canada or Japan or the Republic of Ireland or South Africa. Any such distribution could result in a violation of law in those territories.

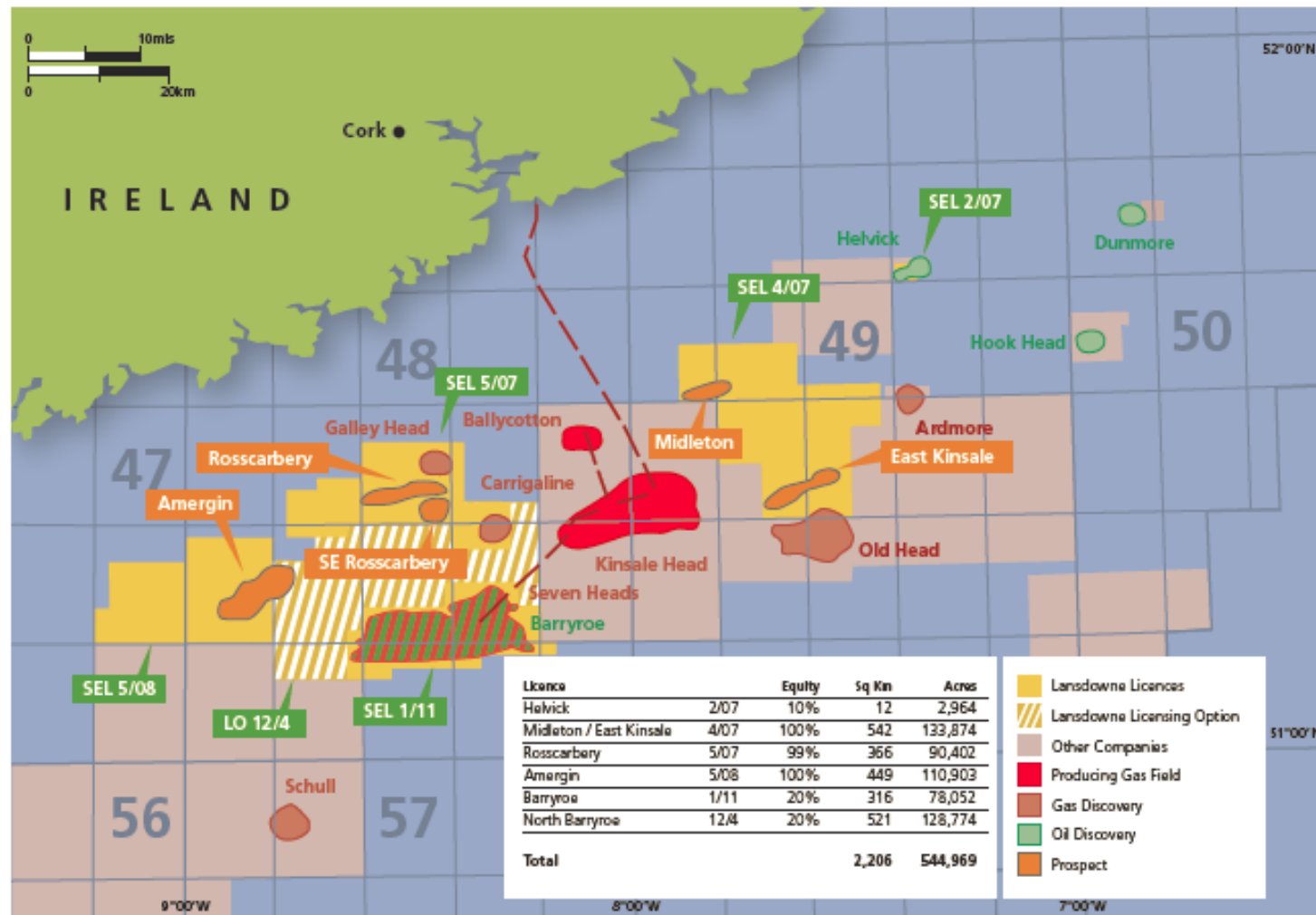
The Presentation Materials do not constitute or form part of a prospectus prepared in accordance with the Prospectus Rules (being the rules produced and implemented by the Financial Conduct Authority (“FCA”) by virtue of the Prospectus Rules Instrument 2005) and have not been approved as a prospectus by the FCA (as the competent authority in the UK). The Presentation Materials do not contain any offer of transferable securities to the public as such expression is defined in section 102(b) FSMA or otherwise and do not constitute or form part of any offer or invitation to subscribe for, underwrite or purchase Lansdowne securities nor shall they, or any part of them, form the basis of, or be relied upon in connection with, any contract with Lansdowne relating to any Lansdowne securities.

No reliance may be placed for any purpose whatsoever on the information contained in the Presentation Materials or on the completeness, accuracy or fairness of such information and/or opinions expressed herein. No representation or warranty, express or implied, is made or given by or on behalf of Lansdowne or any of its directors, officers, partners, employees or advisers as to the accuracy or the completeness of the information or opinions contained herein and no responsibility or liability is accepted by any of them for any such information or opinions or for any errors or omissions.

# North Celtic Sea Basin Definition

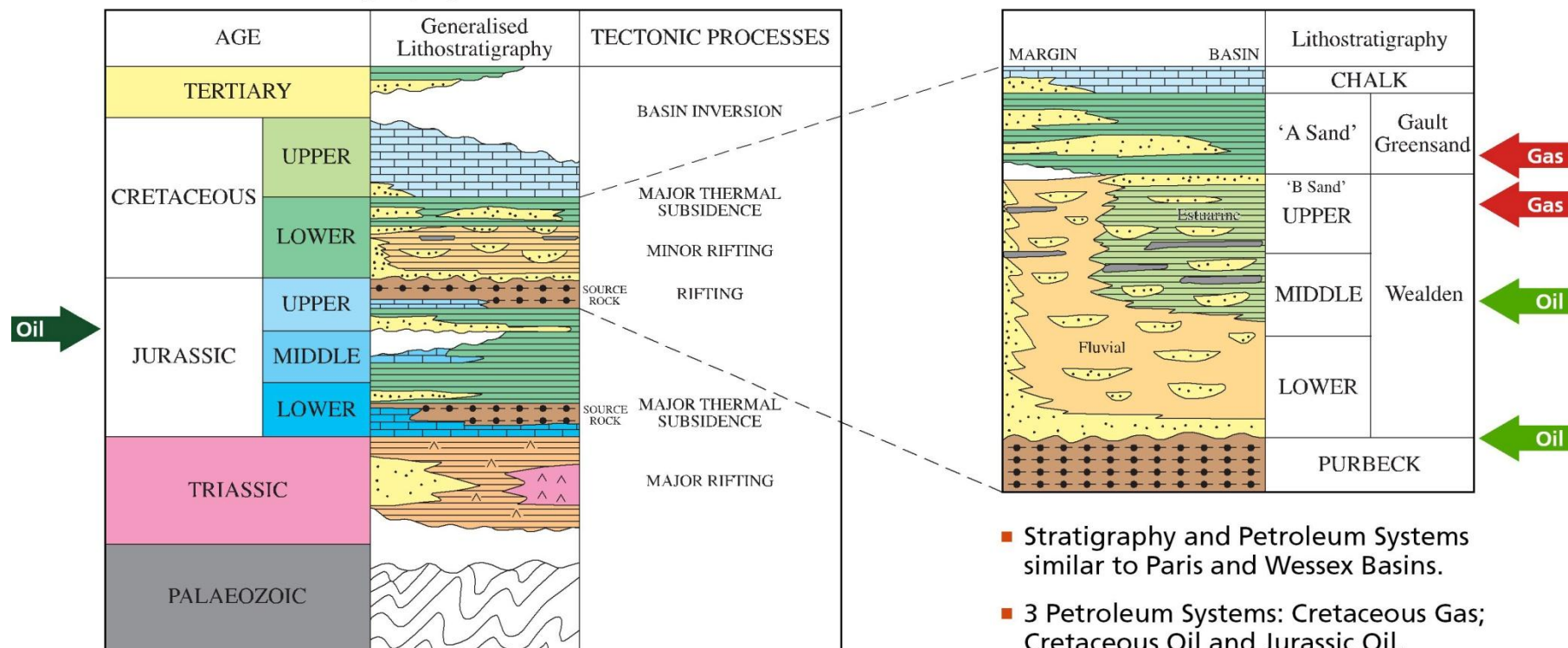


# Lansdowne – Celtic Sea Licences




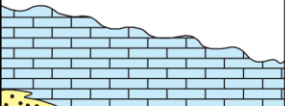
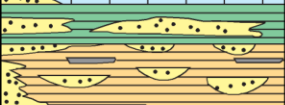
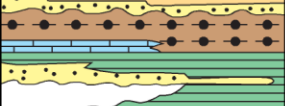
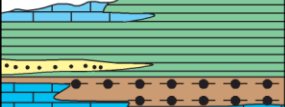



# Celtic Sea Petroleum Systems

Celtic Sea – Stratigraphy



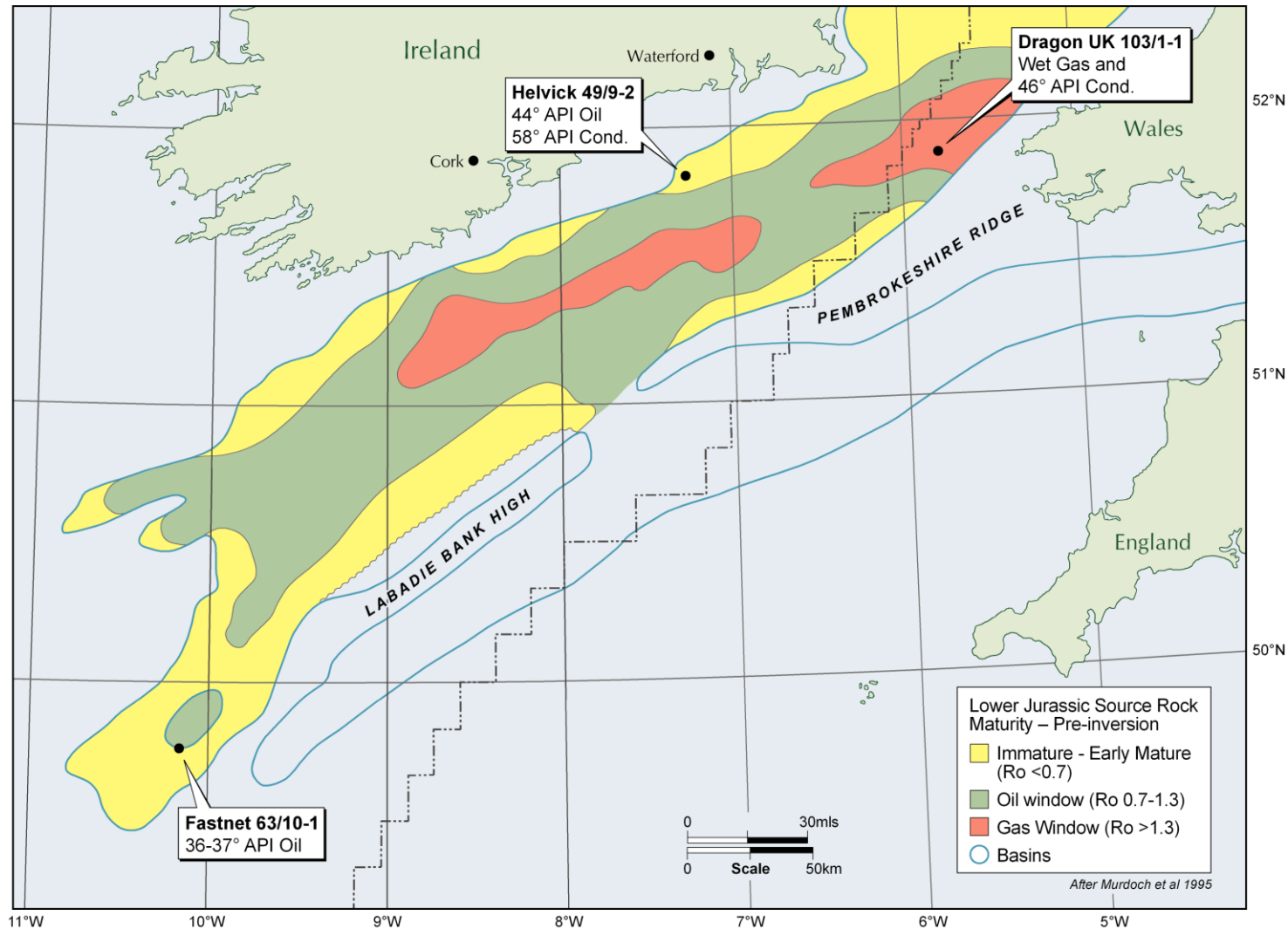
After Shannon (1991), Rowell (1995) and O'Sullivan (2001)

# Stratigraphy and Source Rocks

Age		Generalised Lithostratigraphy	Source Rocks	Hydrocarbon Type	Discoveries
TERTIARY					
CRETACEOUS	Upper				
	Lower		Wealden Coals	Biogenic dry gas	Kinsale Head, Ballycotton, Seven Heads Galley Head, Carrigaline, Old Head, Schull
JURASSIC	Upper		Purbeck – Kimmeridgian Lacustrine Shales	Waxy oil	Barryroe, Hook Head, Baltimore, Nemo, 49/9-4
	Middle				
	Lower		Lower Jurassic (Liassic) Marine Shales	"Normal" low wax oil and wet gas / condensate	Helvick Dragon
TRIASSIC					
PALAEOZOIC					

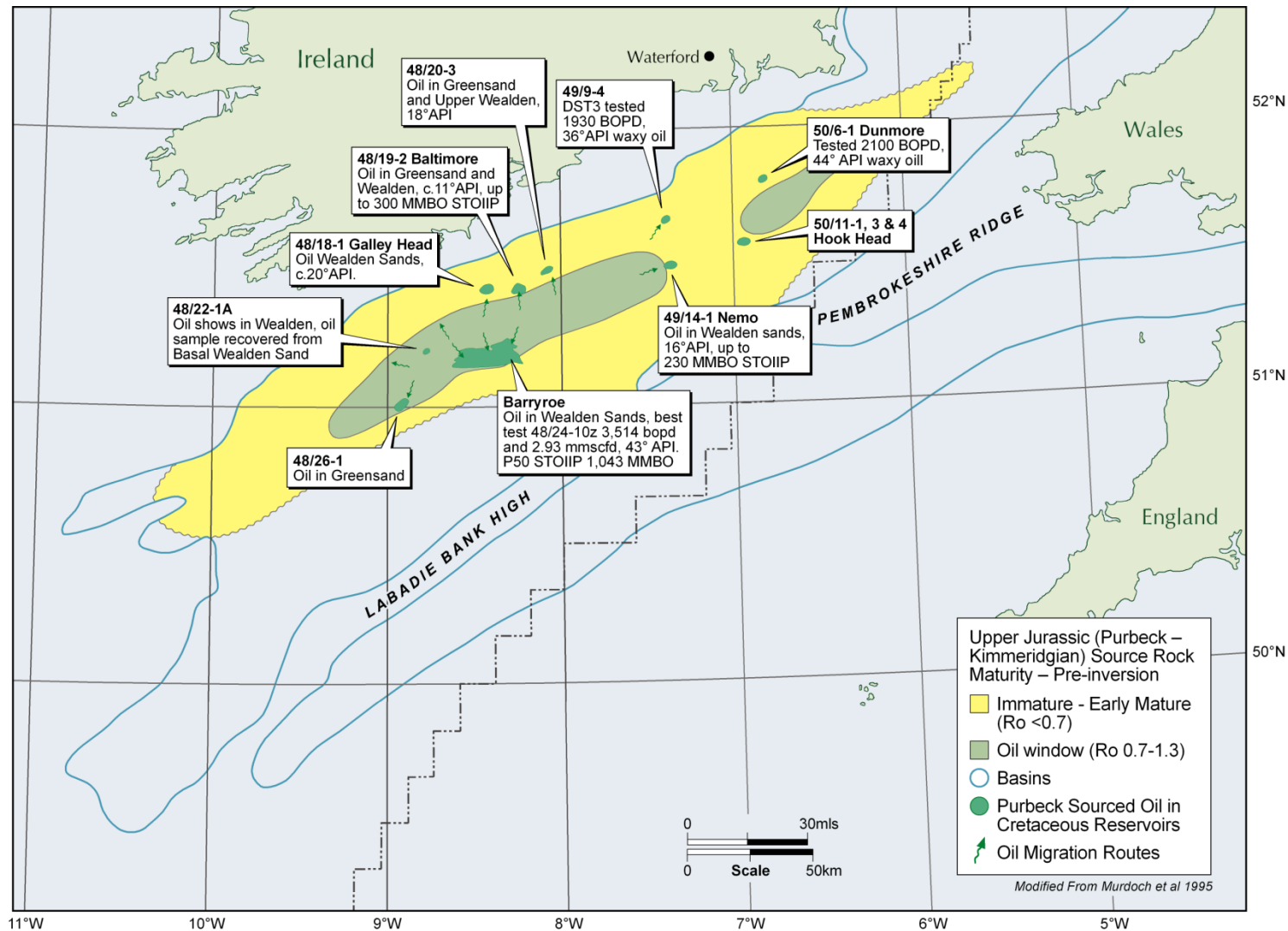
After Shannon (1991), Rowell (1995) and O'Sullivan (2001)

# Lower Jurassic Source rocks



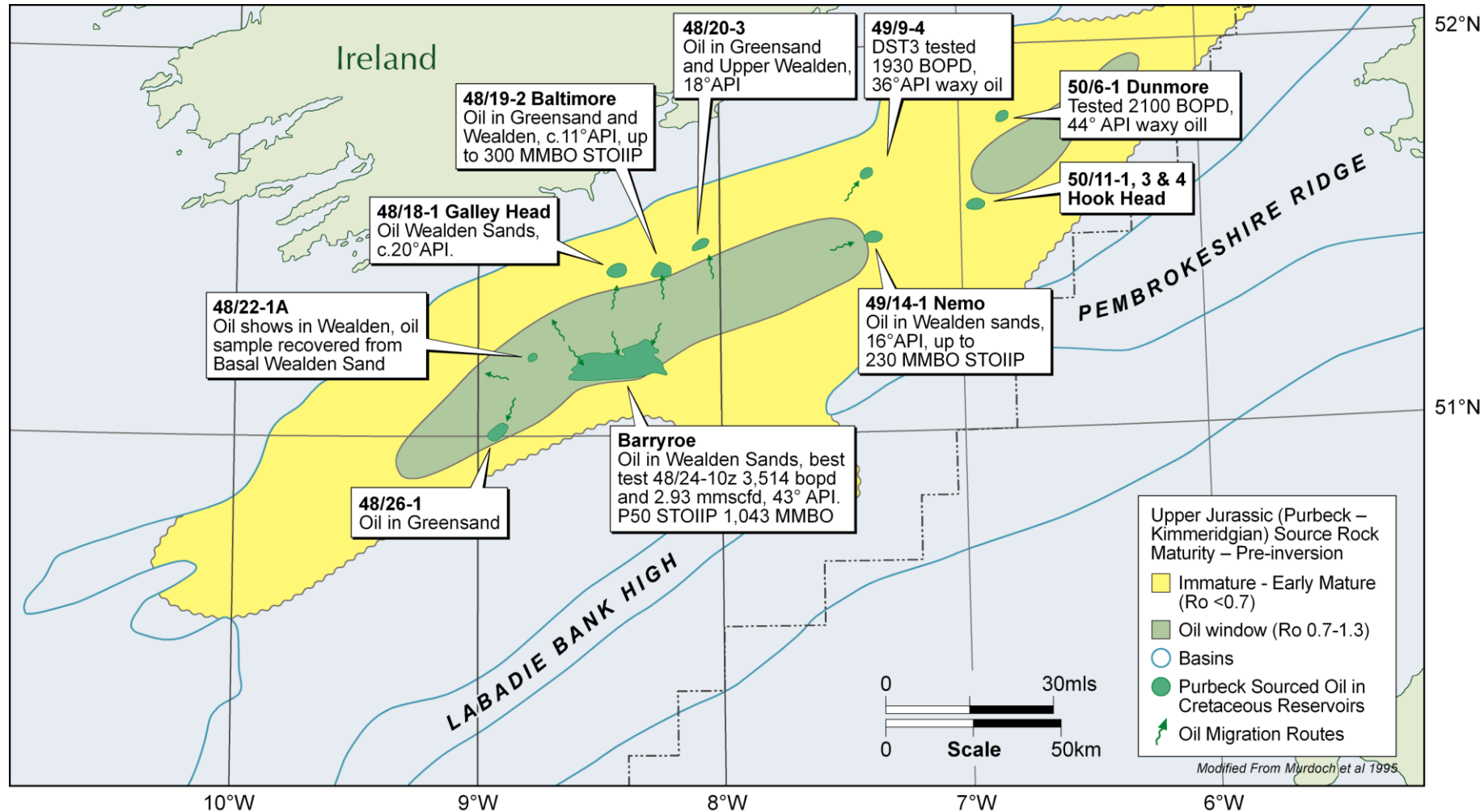


# Upper Jurassic Source Rocks

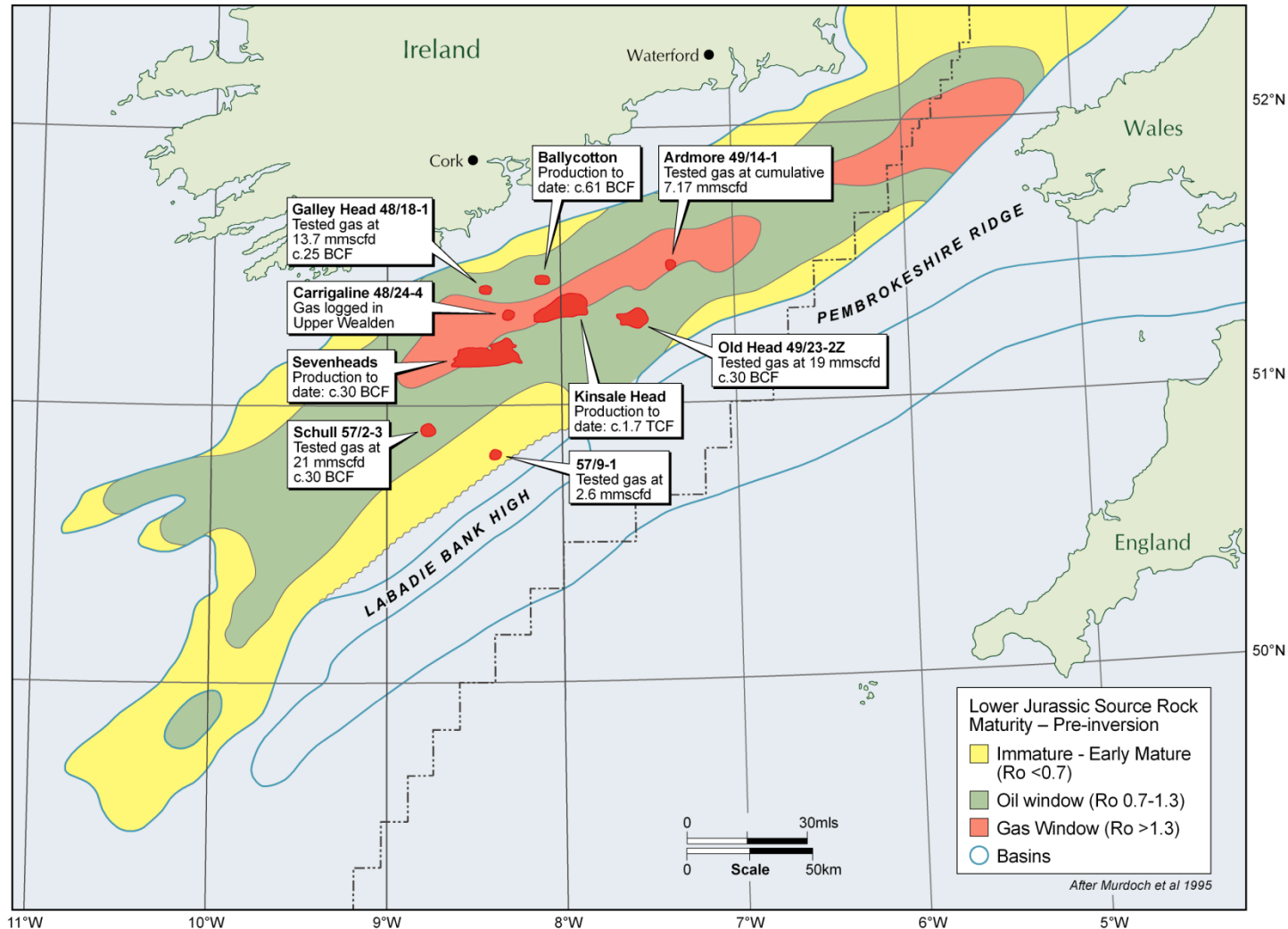












# Upper Jurassic Source Rocks



# Cretaceous Gas Play

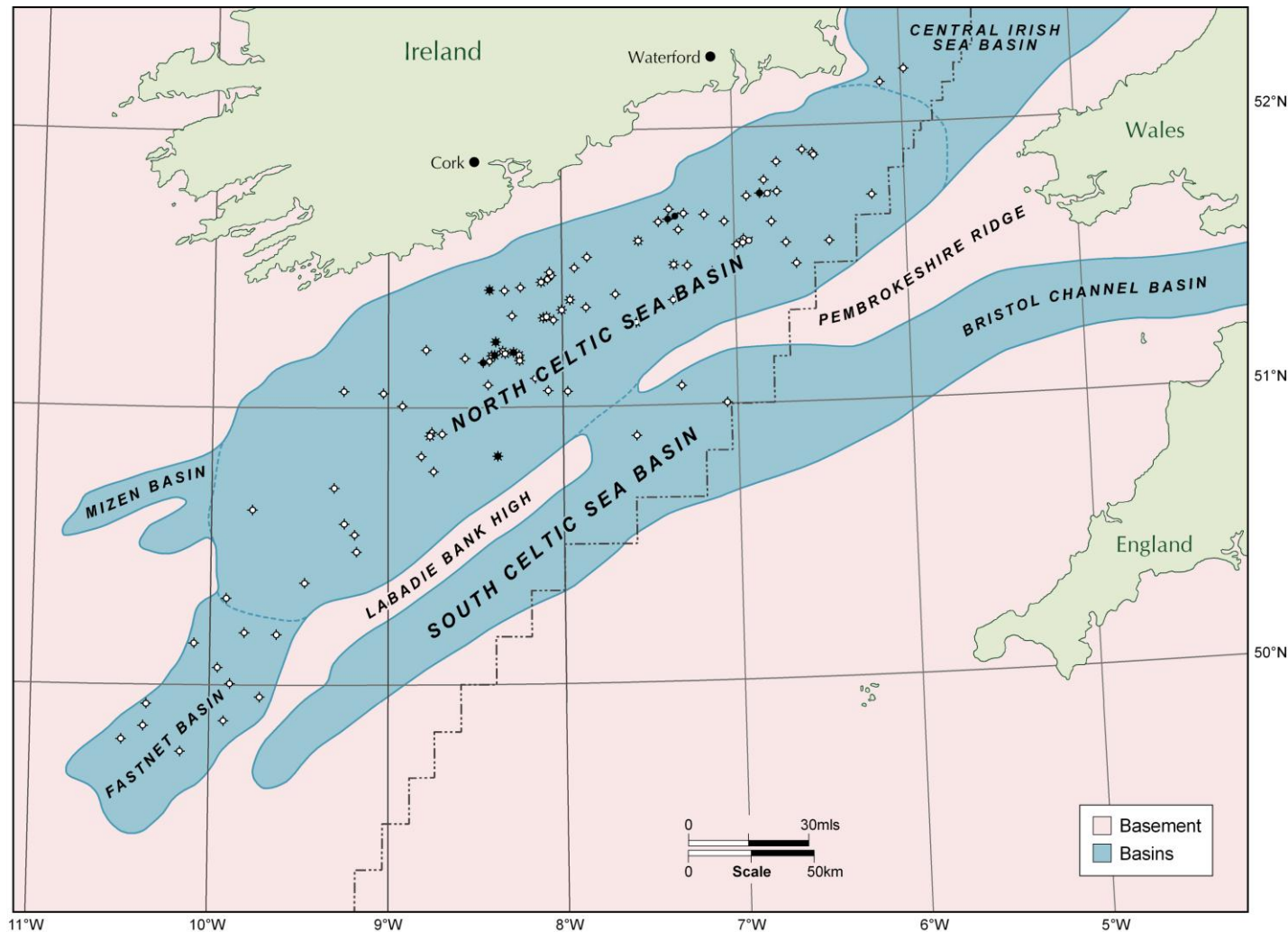


# Stratigraphy and Reservoir Rocks

Age		Generalised Lithostratigraphy	Reservoir Rocks	Depositional Environment	Discoveries
TERTIARY					
CRETACEOUS	Upper		Greensand	Shallow Marine sheetsands	Kinsale Head, Ballycotton, Galley Head
	Lower		Wealden Sands	Deltaic to fluvial sands	Seven Heads, Camigaline, Old Head, Schull Barryroe, Hook Head, Baltimore, Nemo
JURASSIC	Upper		Oxfordian Sands and Bathonian Limestone	Marine shoreface – fluvial Shallow marine oolites	Helvick, Dunmore, Dragon
	Middle		Sinemurian Sands	Shallow marine deltaic and offshore bar sands	63/10-1
	Lower				
TRIASSIC			Triassic Sands Sherwood Sandstone Equivalent	Fluvial braidplain	
PALAEOZOIC					

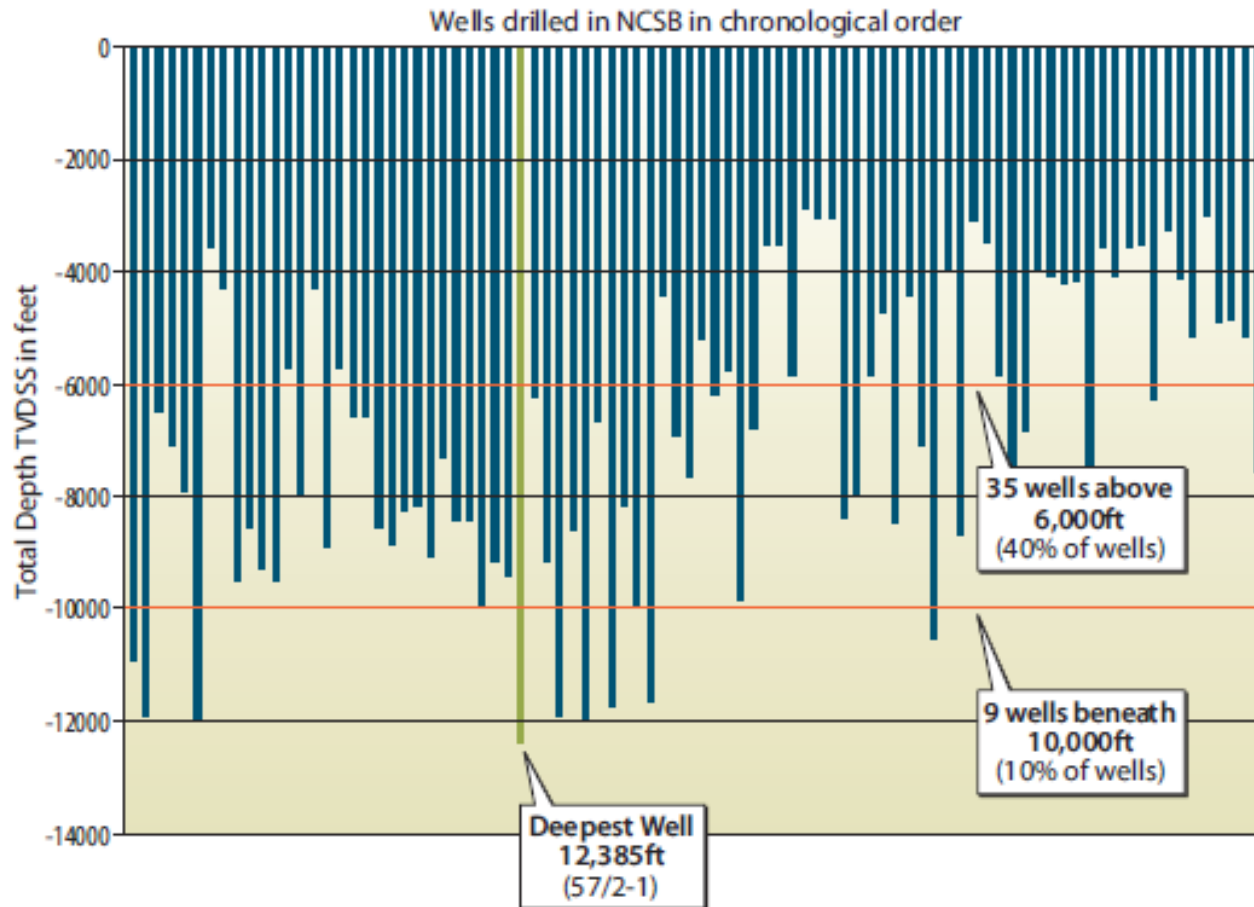
*After Shannon (1991), Rowell (1995) and O'Sullivan (2001)*

# North Celtic Sea Basin - Wells

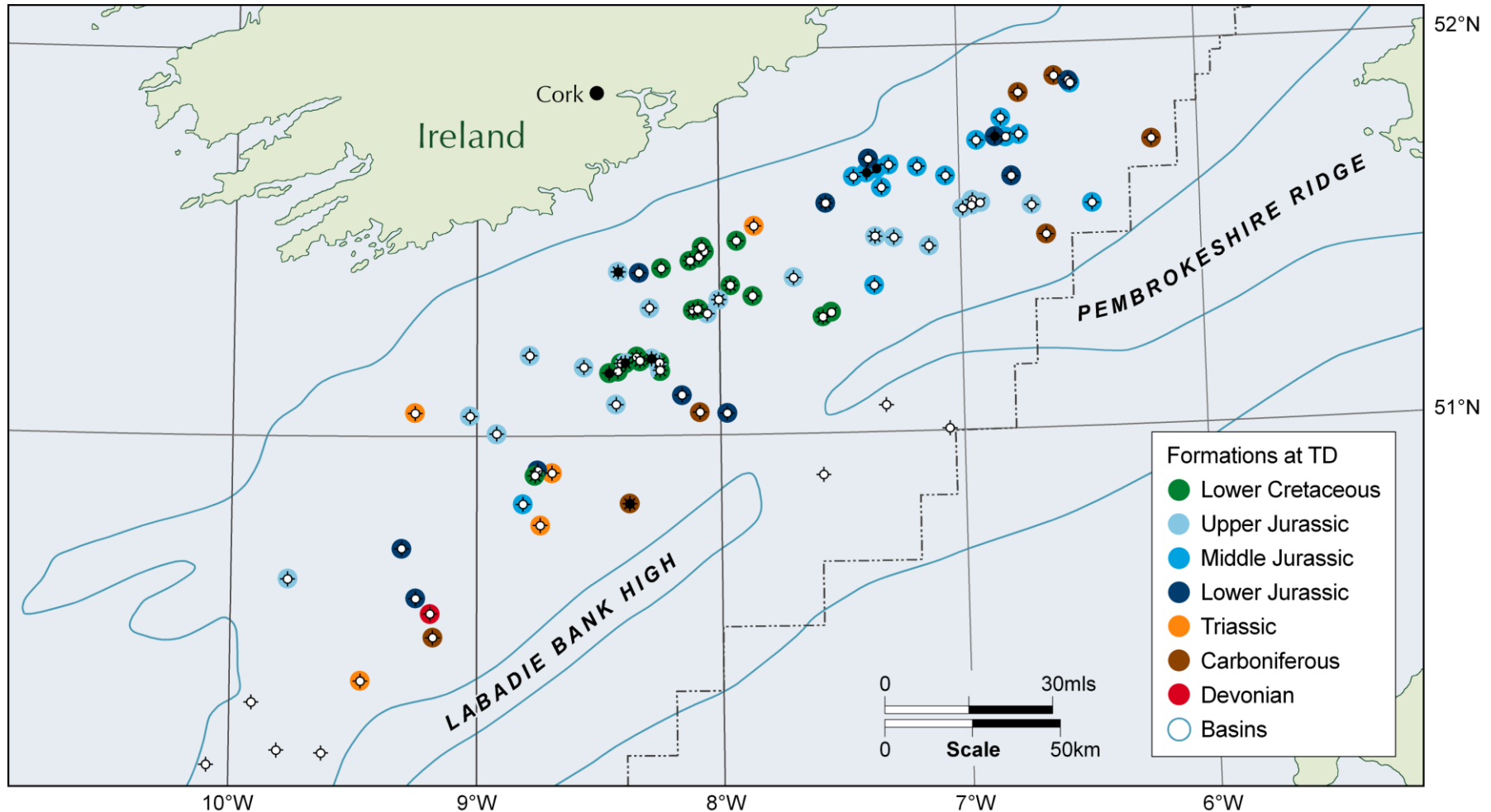


# Drilling Depths

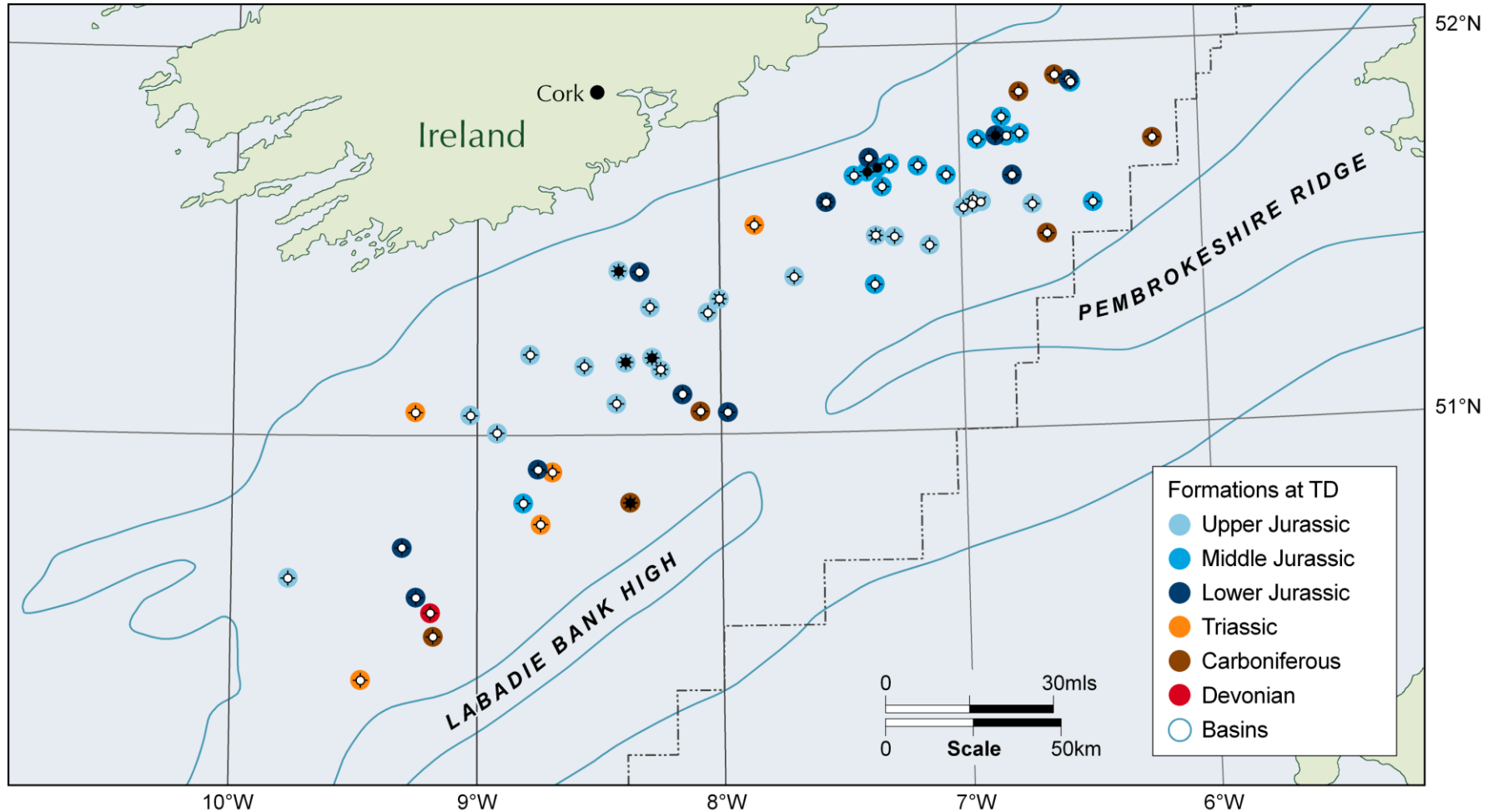
## North Celtic Sea Basin – Drilling Depths



# Formation at Total Depth (TD)

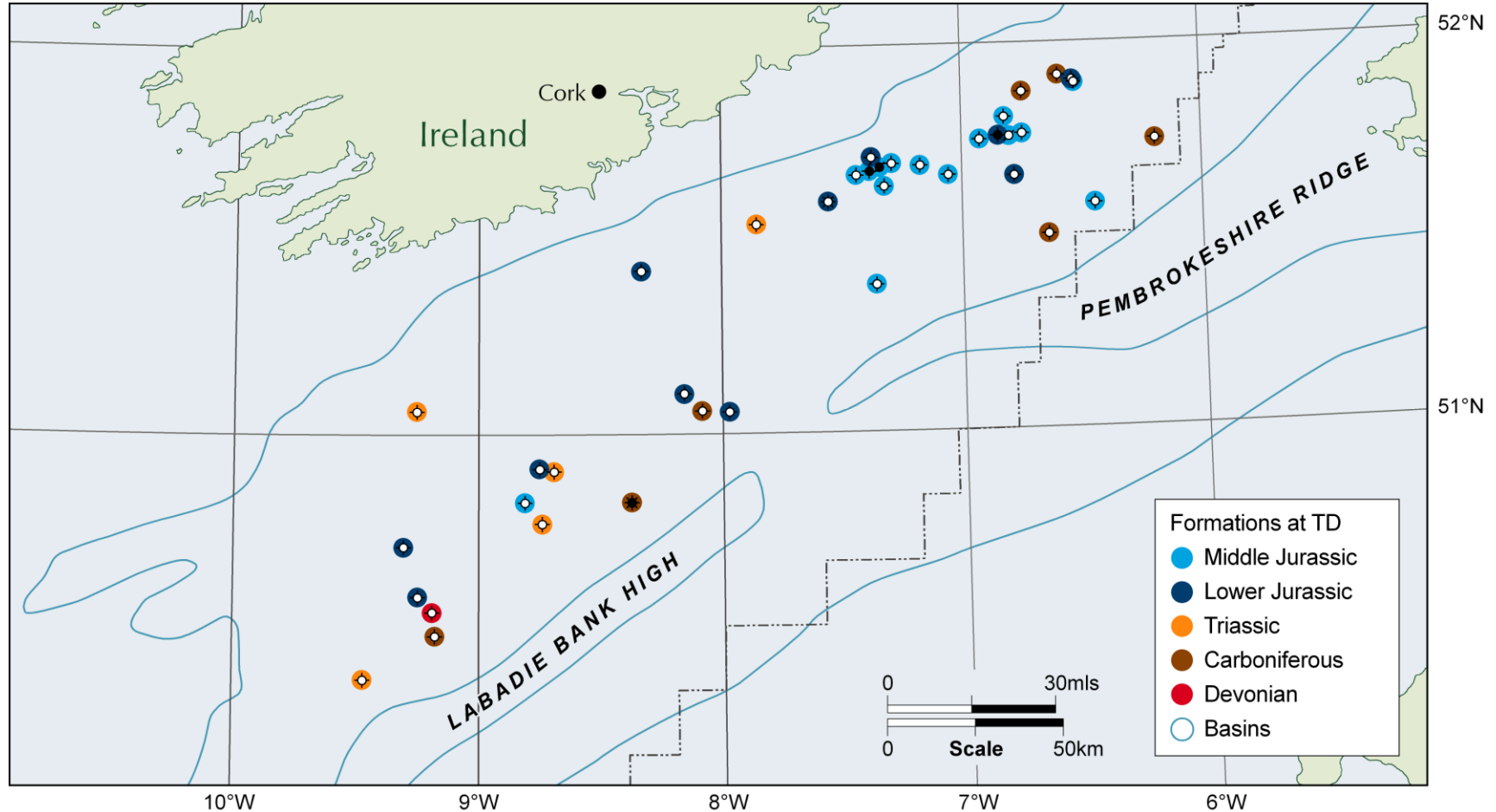


# Formation at TD, excluding wells that TD in the Cretaceous

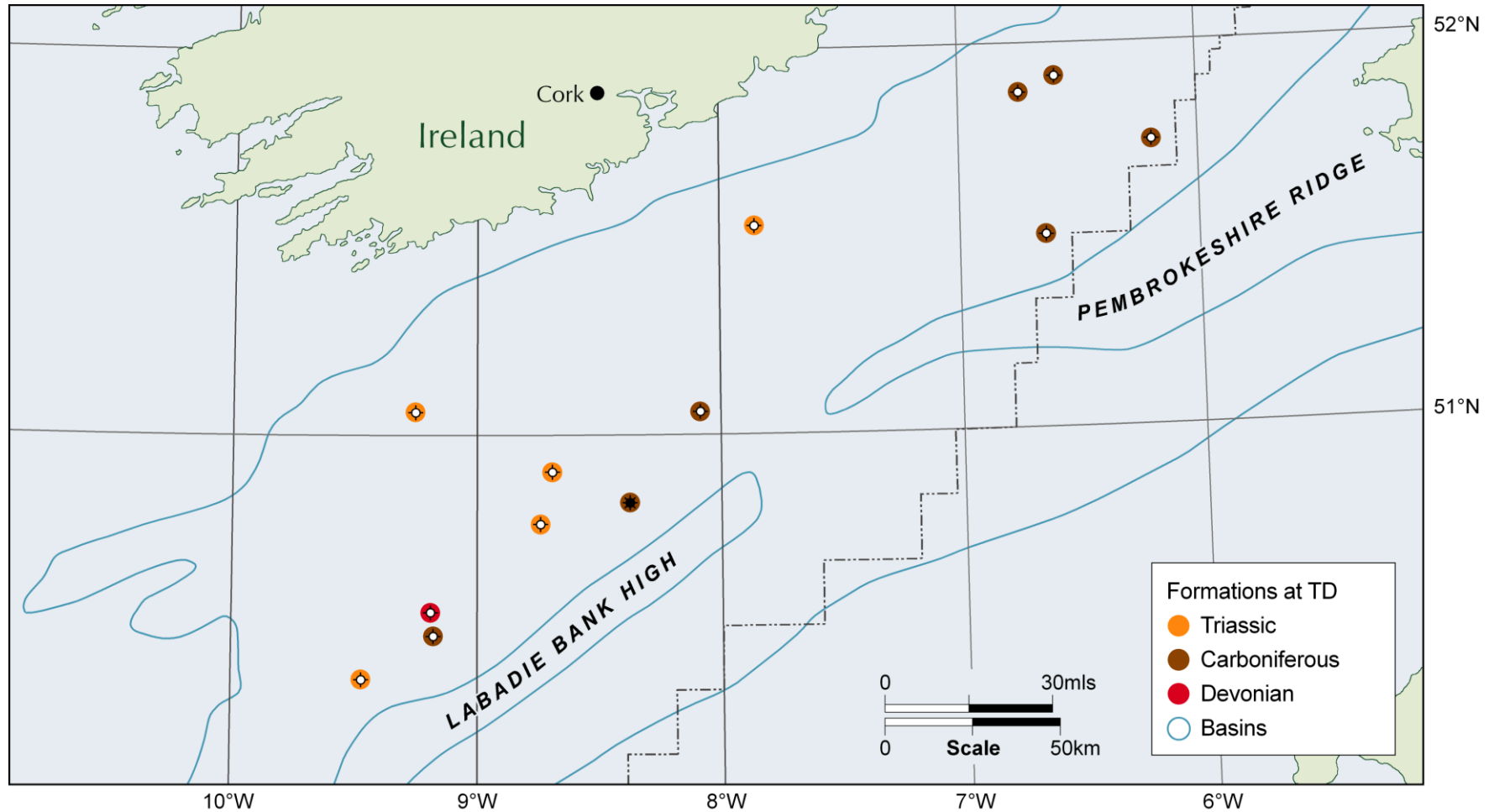




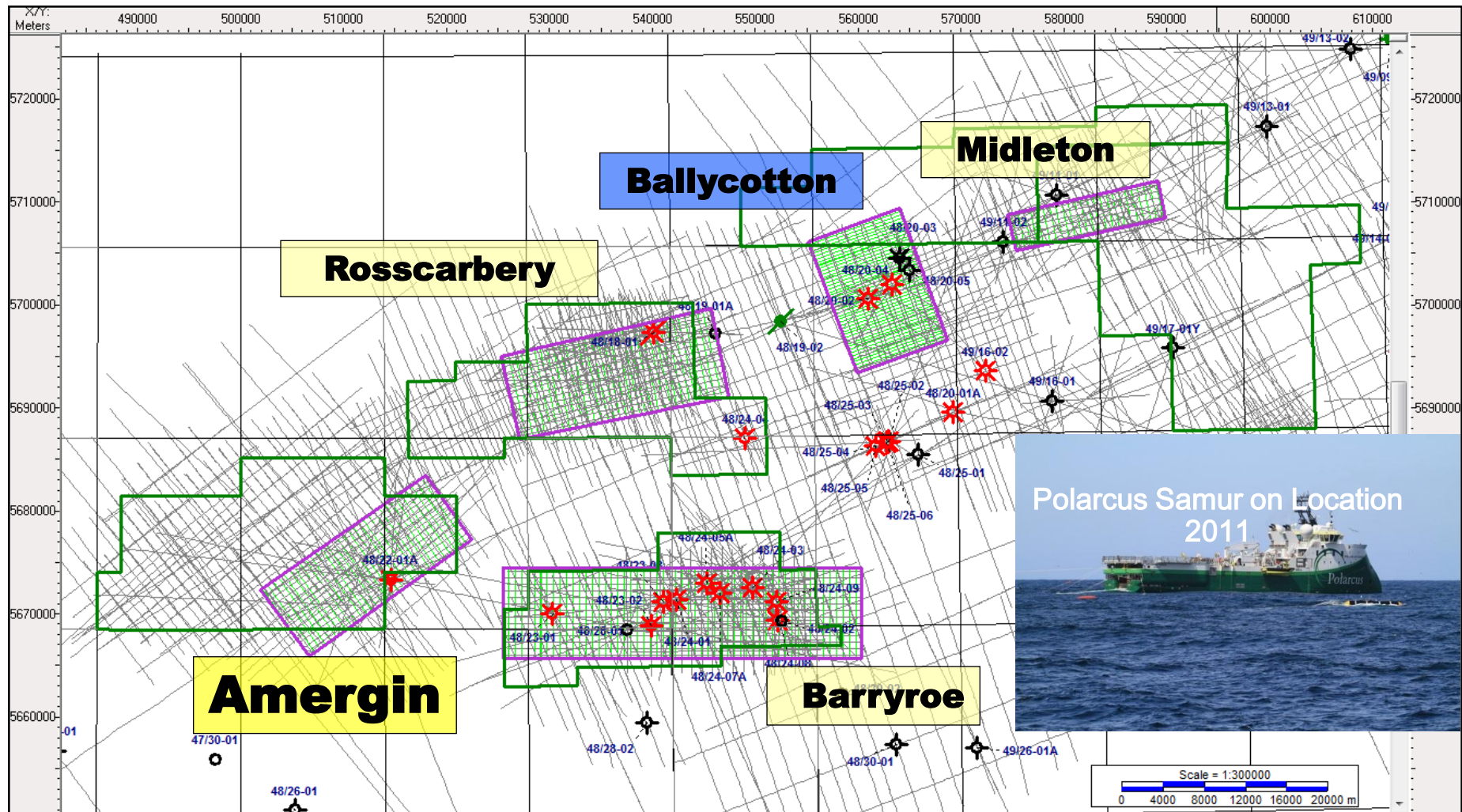
# Formation at TD, excluding wells that TD in the Cretaceous and Upper Jurassic



# Formation at Total Depth, Triassic and older

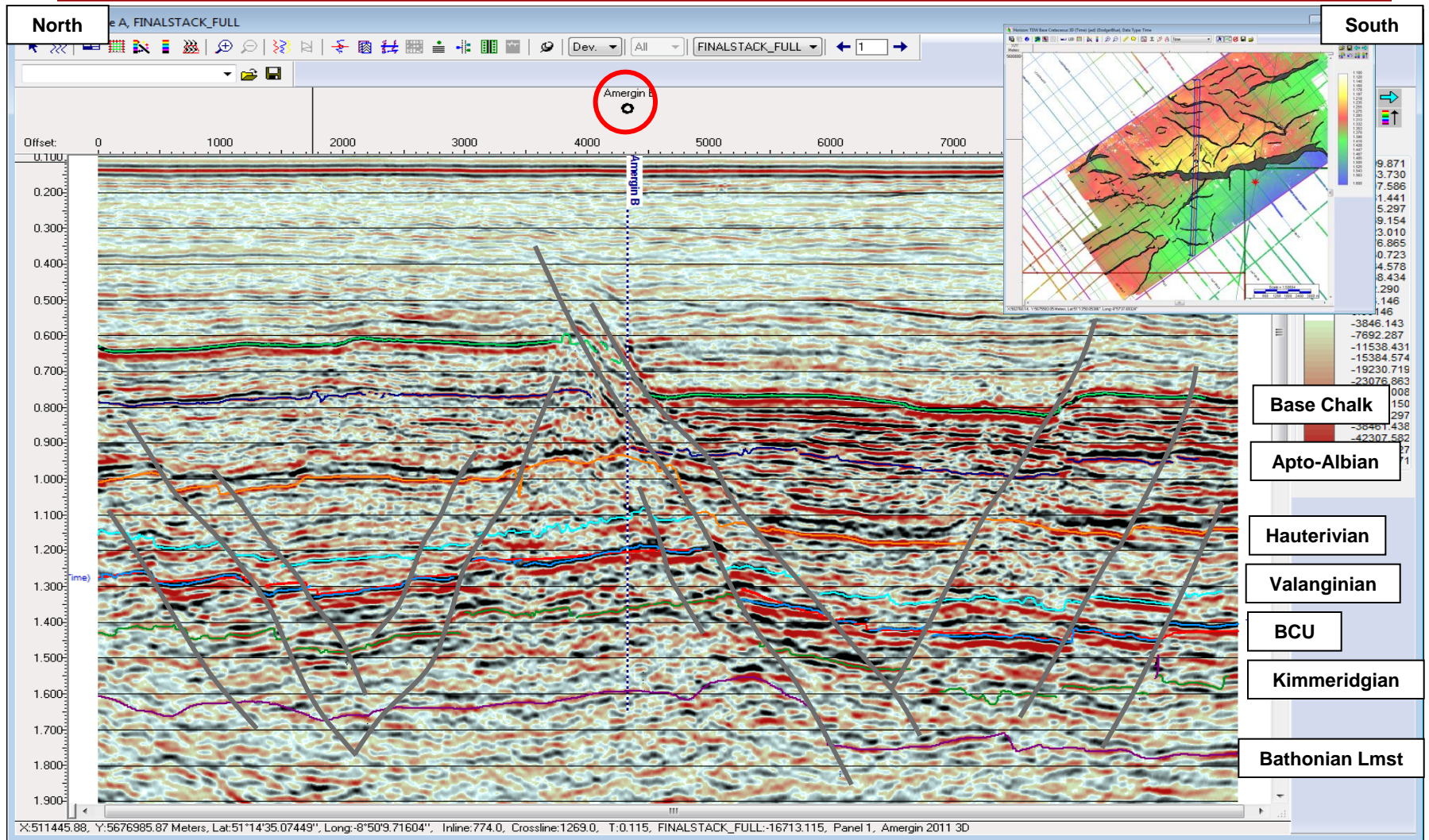


# Lansdowne 3D Seismic – Amergin





# Amergin



**Lansdowne**  
oil & gas

# Deeper Targets

---

- Source rocks are present in the Lower Jurassic and mature for hydrocarbon generation over a wide area of the NCSB
- A working petroleum system has been proven
- Deeper reservoir targets in the Lower Jurassic and Triassic are under-explored
- Large fault block structures are imaged clearly on recent 3D seismic

# Lansdowne

oil & gas

## Atlantic Ireland: North Celtic Sea Basin – Potential in Deeper Targets

November  
2013

