Discovering Hidden Value

Cairn Energy PLC's Ireland Entry as Part of a North Atlantic Conjugate Margin Exploration Strategy

Atlantic Ireland 2013 Conference - Dr Steve Laux, November 11th, 2013

Disclaimer

These materials contain forward-looking statements regarding Cairn, our corporate plans, future financial condition, future results of operations, future business plans and strategies. All such forward-looking statements are based on our management's assumptions and beliefs in the light of information available to them at this time.

These forward-looking statements are, by their nature, subject to significant risks and uncertainties and actual results, performance and achievements may be materially different from those expressed in such statements. Factors that may cause actual results, performance or achievements to differ from expectations include, but are not limited to, regulatory changes, future levels of industry product supply, demand and pricing, weather and weather related impacts, wars and acts of terrorism, development and use of technology, acts of competitors and other changes to business conditions.

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Acknowledgements

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Presentation Format

- Cairn's North Atlantic Margin acreage position and exploration strategy
- Why we entered Ireland
- Our current Ireland acreage position
- Our forward work plan

Cairn North Atlantic Margin Exploration Strategy

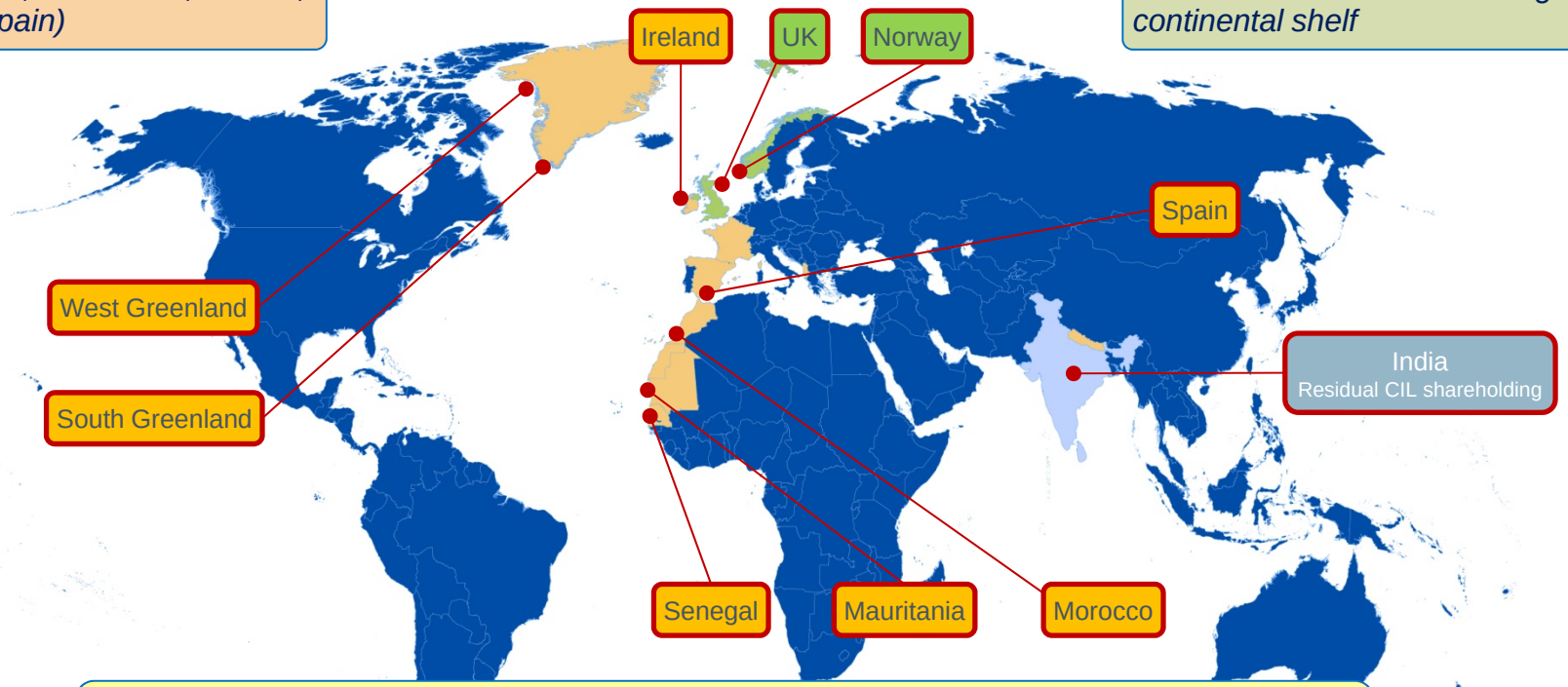
To seek hidden value through transformational exploration potential

Frontier Basin Exploration

Frontier and potentially high impact exploration plays of the Atlantic Margin (Senegal, Morocco, Greenland, Ireland, Mauritania and Spain)

Mature Basin Exploration

New plays and prospectivity close to existing pre-development projects in the UK North Sea and Norwegian continental shelf

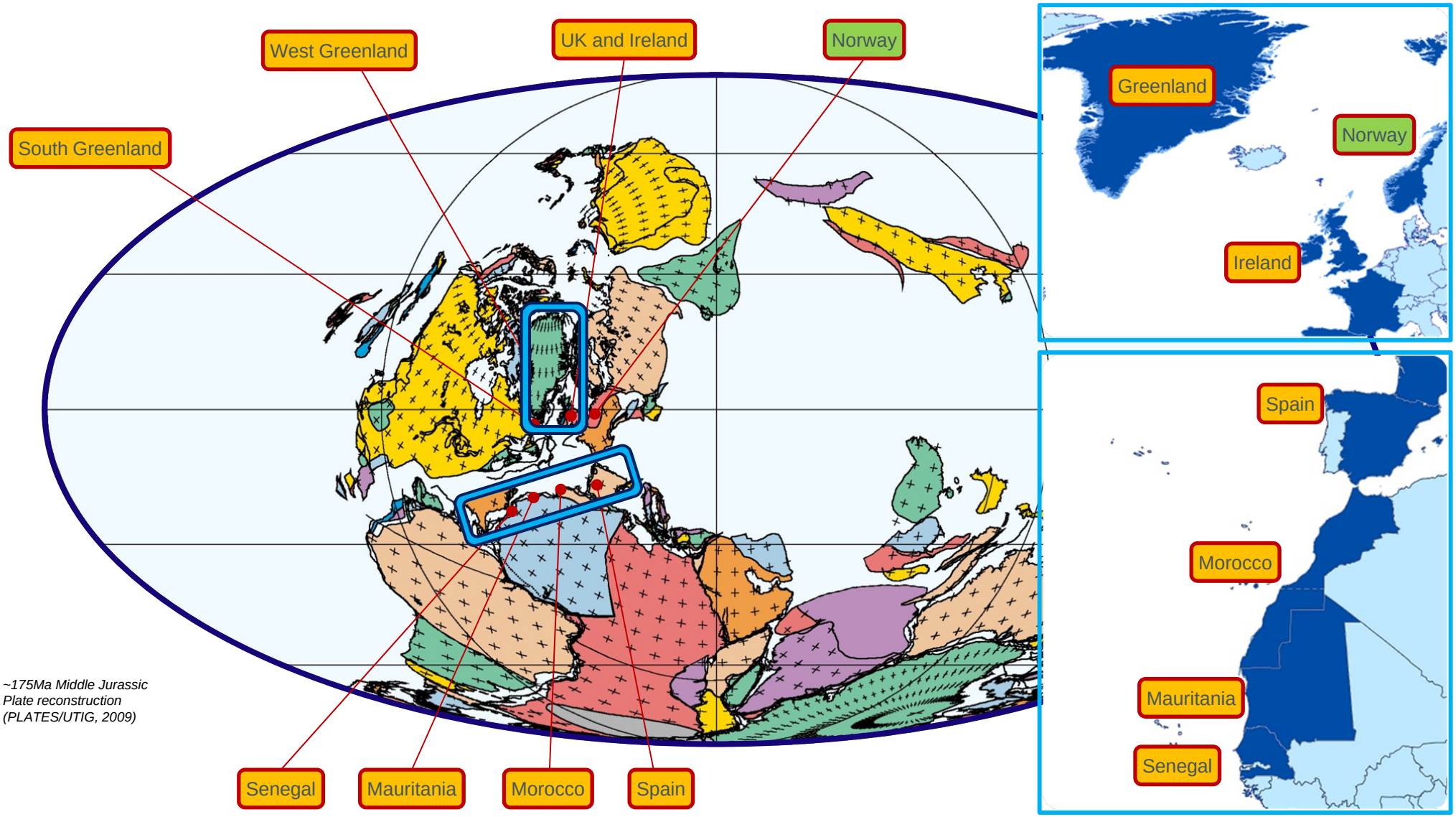


Growing Prospect and Lead inventory to provide sustainable exploration activity into the future

North Atlantic Margin acreage position of 135,000 km2 in 8 countries
Currently 62 prospects and 144 leads
Near-term exploration drilling programme targets top ~10% of prospects

Geological Focus

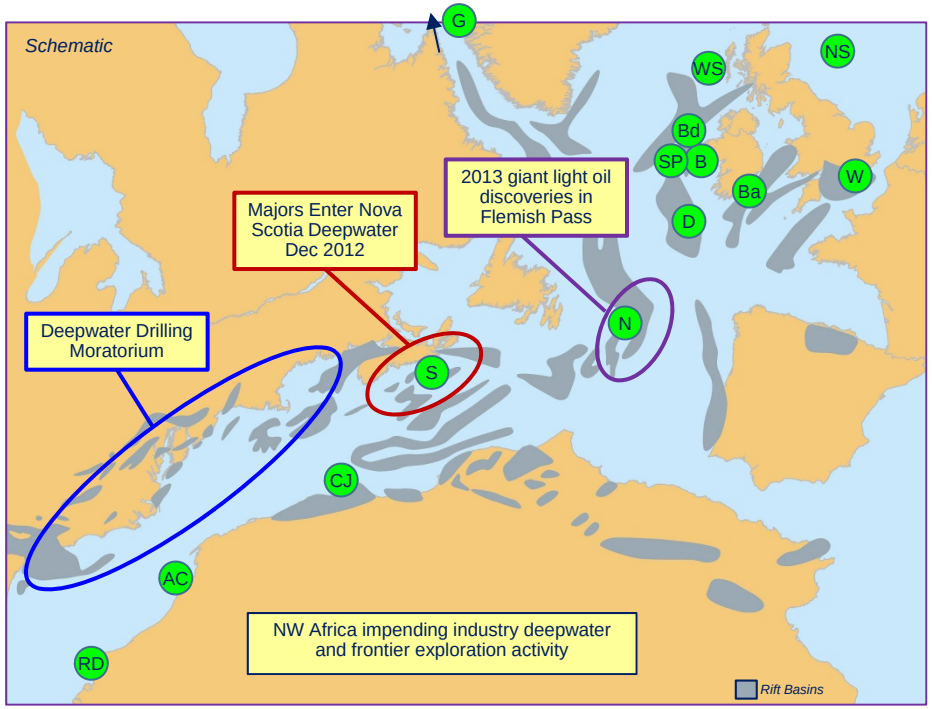
North Atlantic Margin – Play fairways associated with super-continental break-up



~175Ma Middle Jurassic Plate reconstruction (PLATES/UTIG, 2009)

Frontier Exploration North Atlantic Margin

Different Geographies Similar Geology



Key proven oil data points:

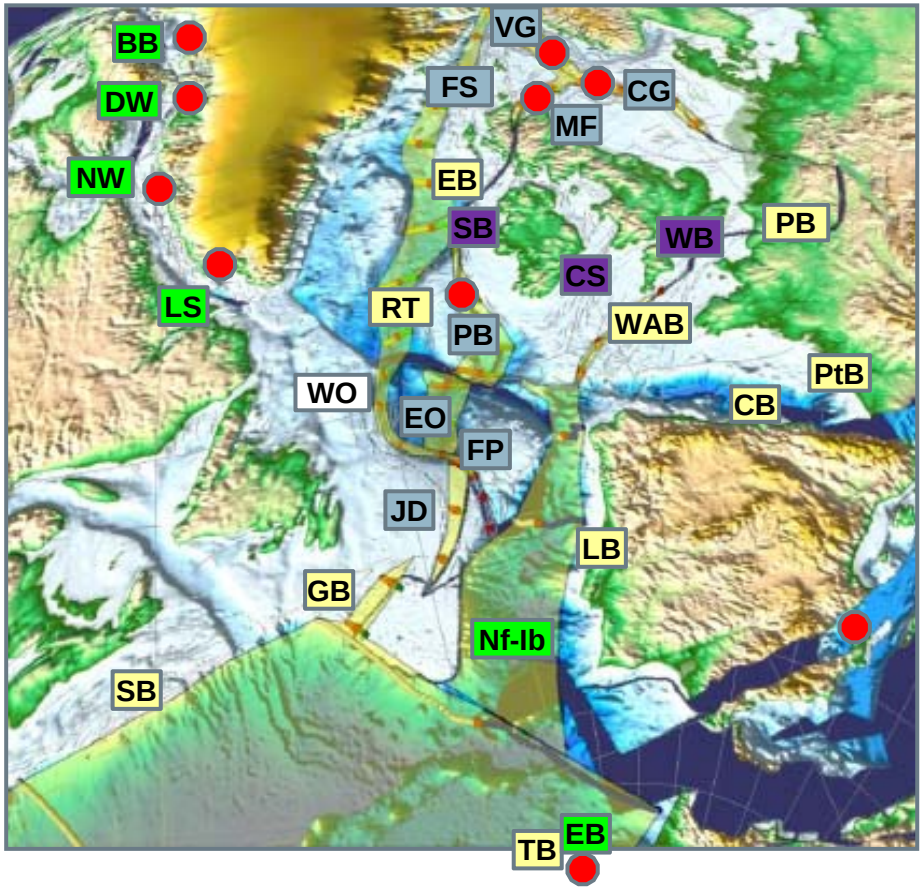
- CJ — *Cap Juby (Morocco)*
- AC — *Aigrette-1 / Chinguetti (Mauritania)*
- RD — *Rufisque dome (Senegal)*
- SP — *Spanish Point (Porcupine, Ireland)*
- B — *Burren (Porcupine, Ireland)*
- S — *Dunquin (Porcupine, Ireland)*
- Bd — *Bandon (Slyne, Ireland)*
- Ba — *Barryroe (Celtic Sea, Ireland)*
- N — *Newfoundland oil province*
- G — *Cairn Alpha well, Disko Bay*
- WS — *West of Shetland*
- NS — *North Sea*
- W — *Wytch Farm*

- True frontier province with proven Jurassic and Cretaceous oil prone source rocks in incipient rift and restricted marine basin settings
- Key proven data points indicate oil potential
- Deep-water margin off the US east coast has had a drilling moratorium since 1982 and remains unexplored
- Multiple industry players are becoming increasingly active along accessible frontier parts of the north Atlantic Margin (NW Africa, Canada, Ireland and Greenland)
- The majors entered deep-water Canada off the coast of Nova Scotia in Dec 2012
- New giant oil province opened up in Flemish Pass basin, offshore Newfoundland

Cairn has secured a growing acreage footprint along the North Atlantic margin using its knowledge and operational edge

Mesozoic Basins and Source Rocks of North Atlantic Margin

Late Jurassic plate reconstruction (after Skogseid 2010)

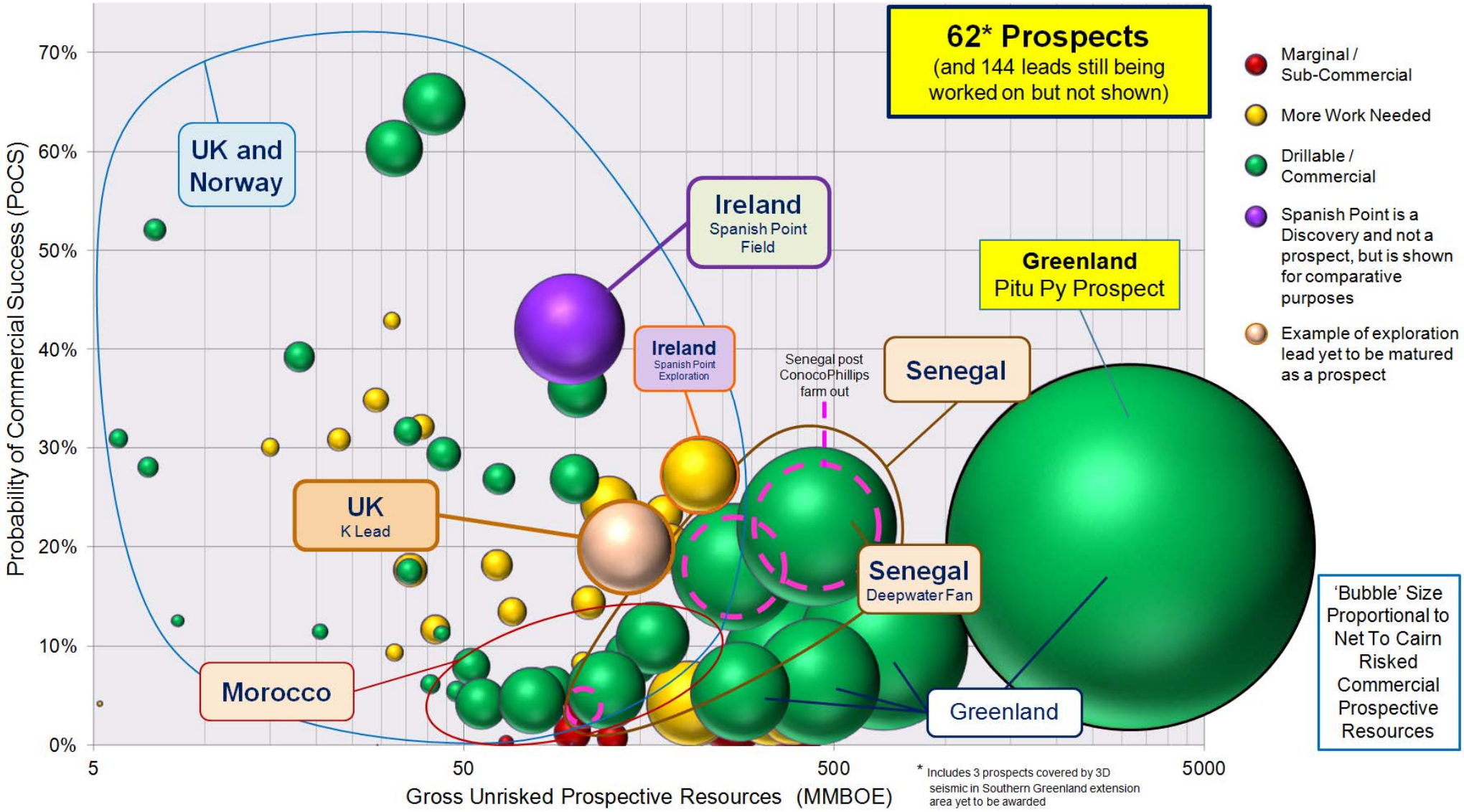


Basin	Source rocks	Basin	Source rocks
RT	Mid Cretaceous	CS	Early and Late Jurassic
PB	Late Jurassic	EB	Early Jurassic
●	Cairn acreage		

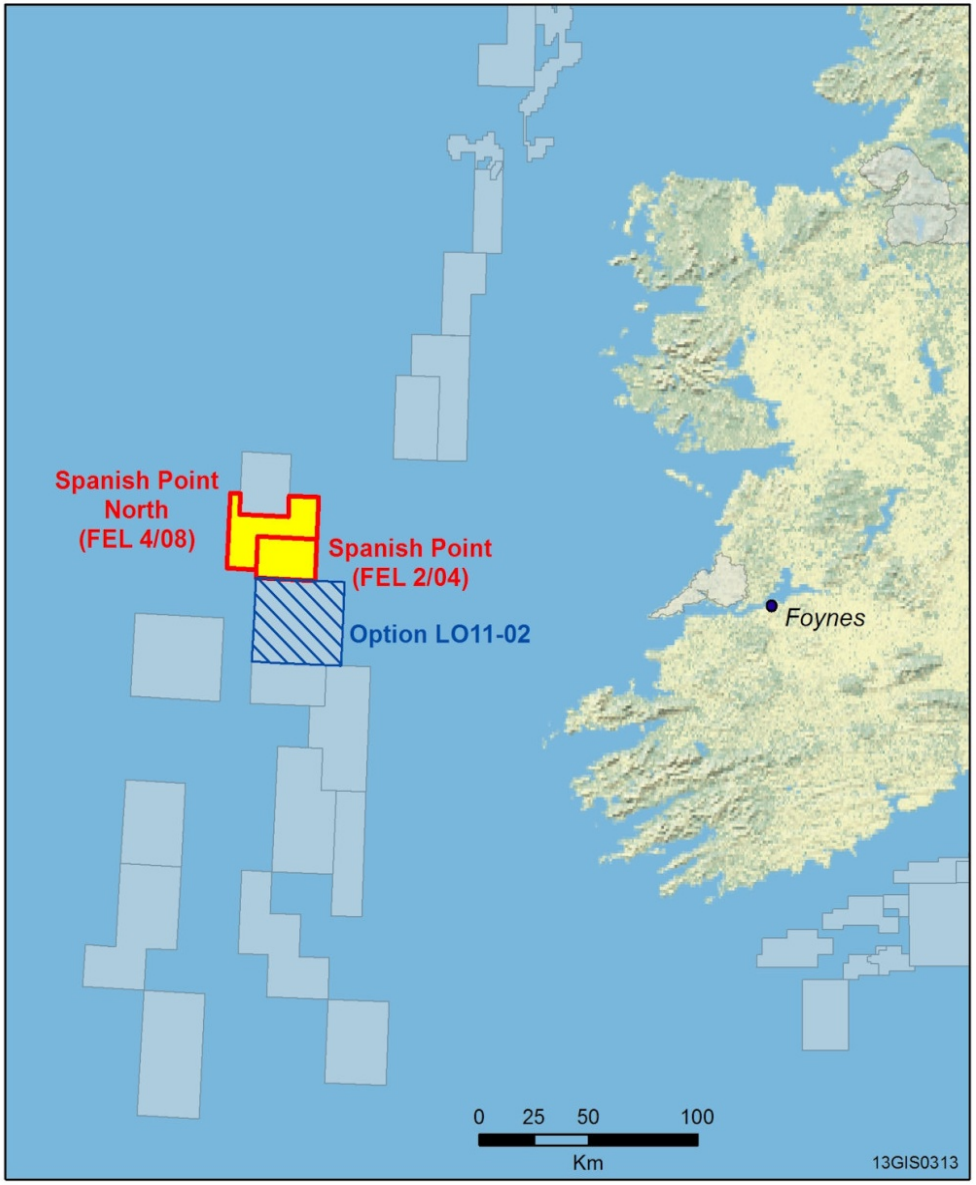
- Diachronous geological processes along margin
- Three working petroleum source rock systems
  - Early Jurassic
  - Late Jurassic
  - Middle Cretaceous
    - Rift related
    - Upwelling
- Cairn acreage covers all three systems

June 30th Snapshot of Prospect Inventory

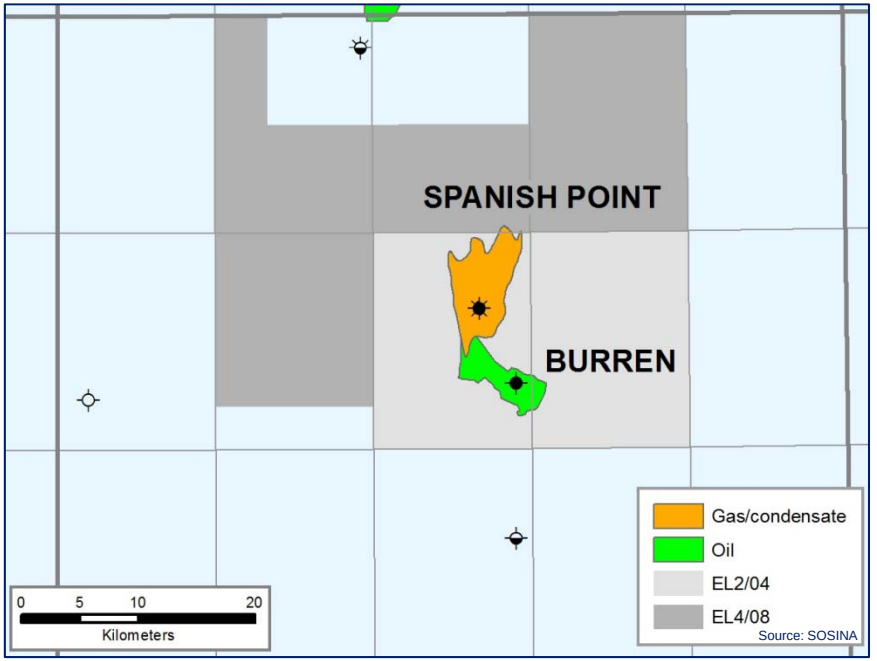
PoCS vs. Gross Unrisked - Prospects



Cairn Ireland Acreage Position

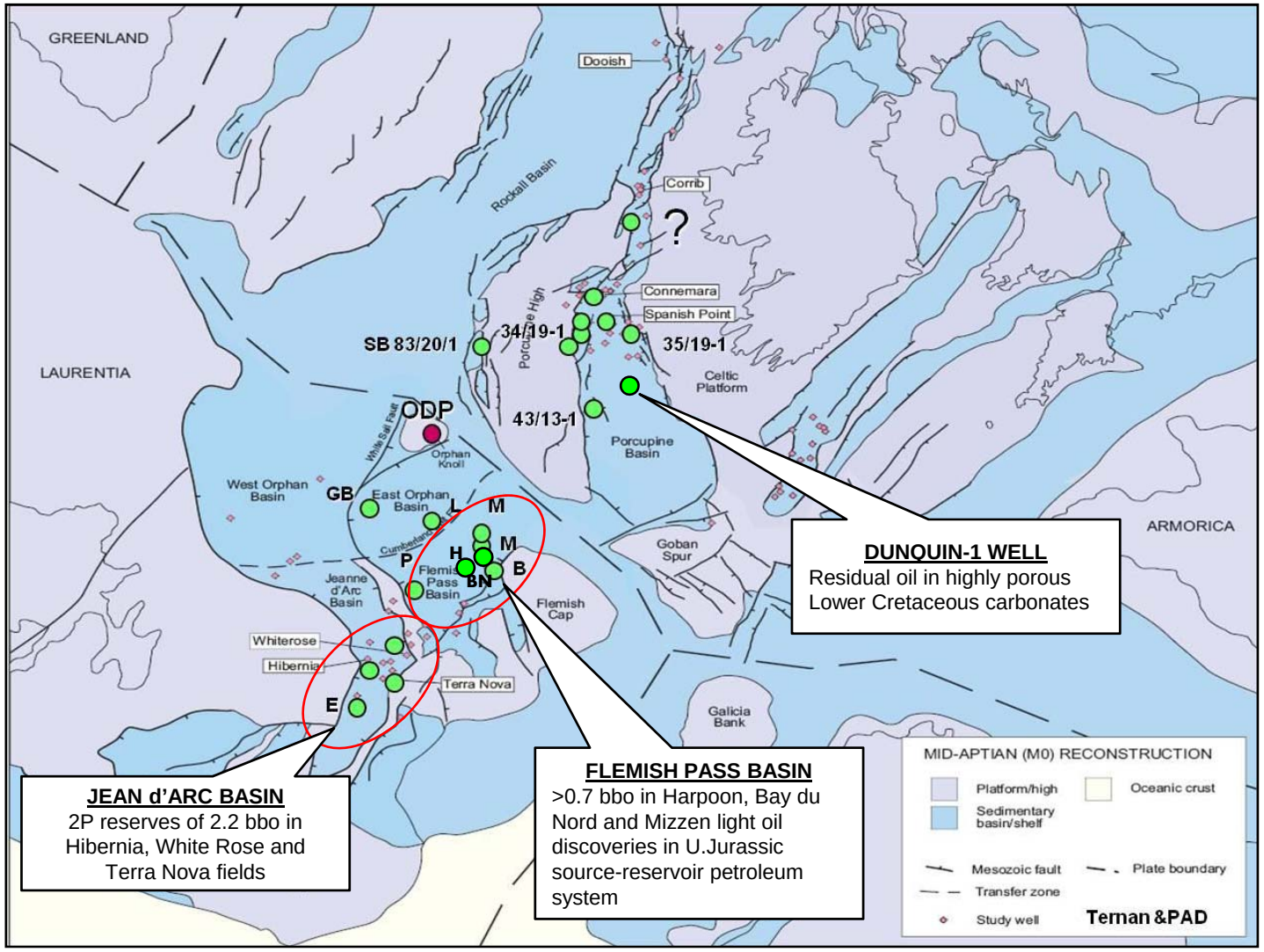


- Cairn has a total acreage position of 2,753 km^2 comprising FEL's 2/04 and 4/08 and LO 11/2
- Blocks are located 200 km off the west coast of County Clare
- FEL 2/04 includes the unappraised Spanish Point gas condensate and Burren oil discoveries



Porcupine Basin and Flemish Pass Conjugate Margin

120 ma plate reconstruction



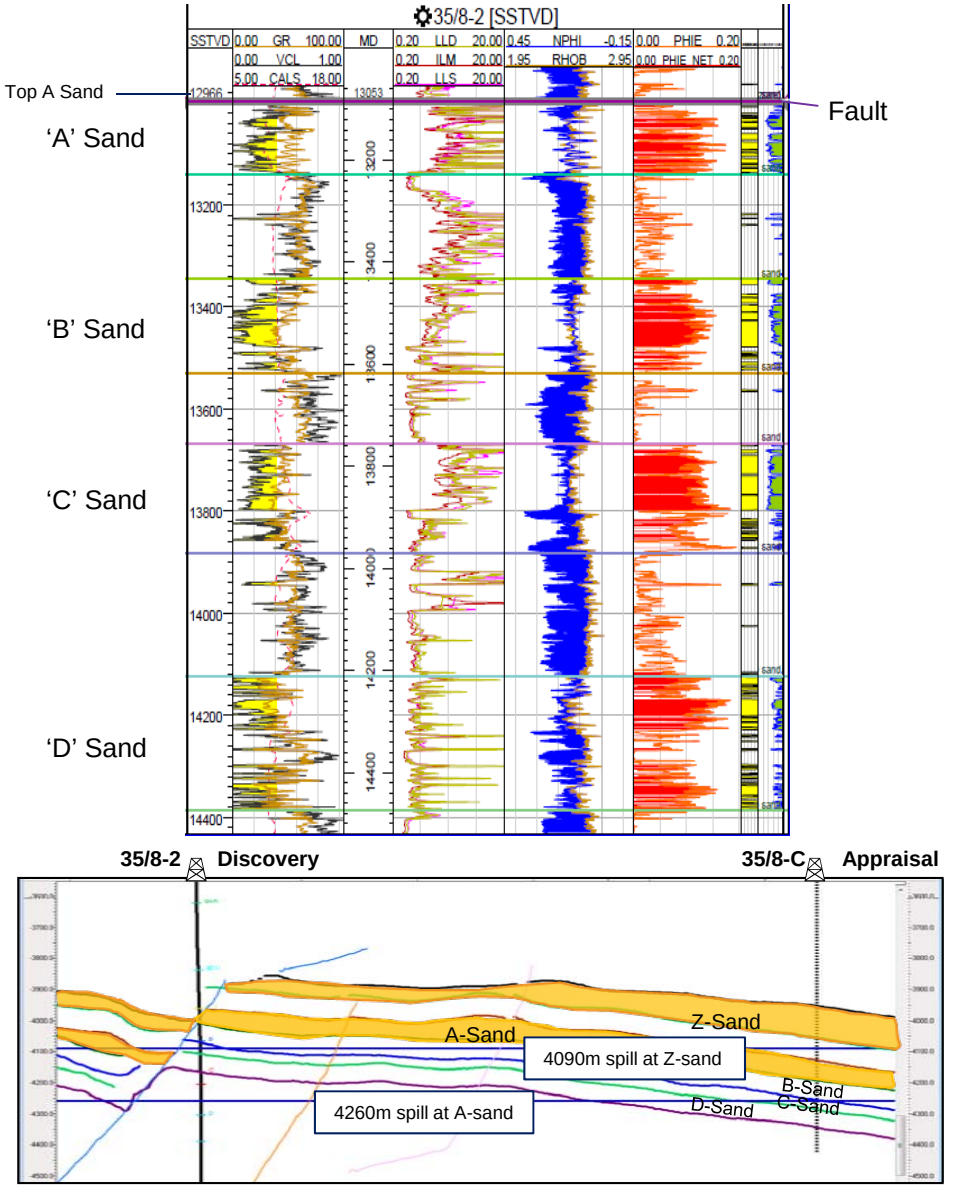
- Can the recent exploration success in the Flemish Pass basin be replicated in the Porcupine Basin conjugate margin?

- Wells with or charged by U.Jurassic marine oil prone source rocks

Spanish Point 35/8-2 Discovery Well

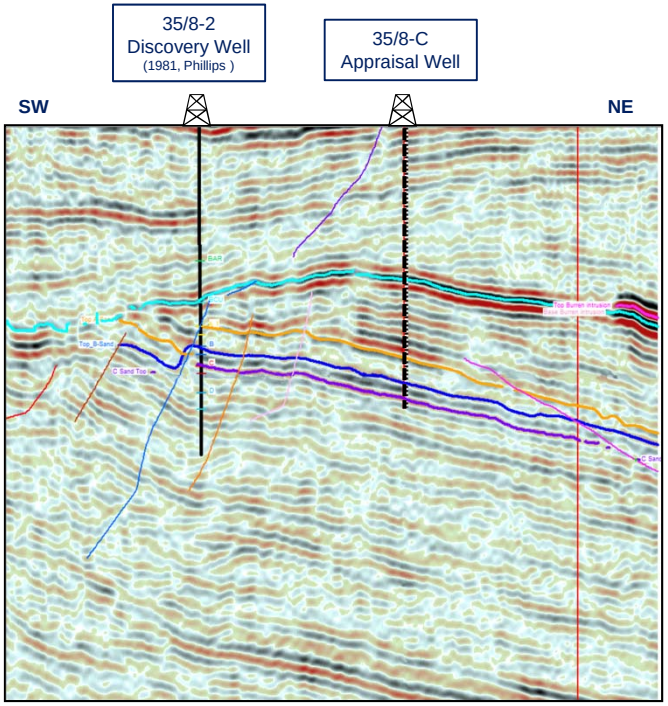
- 35/8-2: Spanish Point discovery well 1981
- Encountered Upper Jurassic submarine fan units at ~4000m depth on crest of mapped structure close to a significant fault.
  - 4 sand intervals A-D
  - Possibility of additional Z sand (faulted out in well)
- Well tested at 4.85mmscf/d + 925bcpd from A-Sand
  - Permeability ~2mD average; Porosity ~10% ave; 15% max:
  - Reservoir fluid believed to be retrograde condensate –no downhole samples
  - Initial reservoir pressure ~10500 psi
  - Condensate yield ~192bc/mmscf; GOR ~5200scf/stb
- Drilling induced Skin factor damage: +18
- Zero skin unstimulated flow potential estimated at

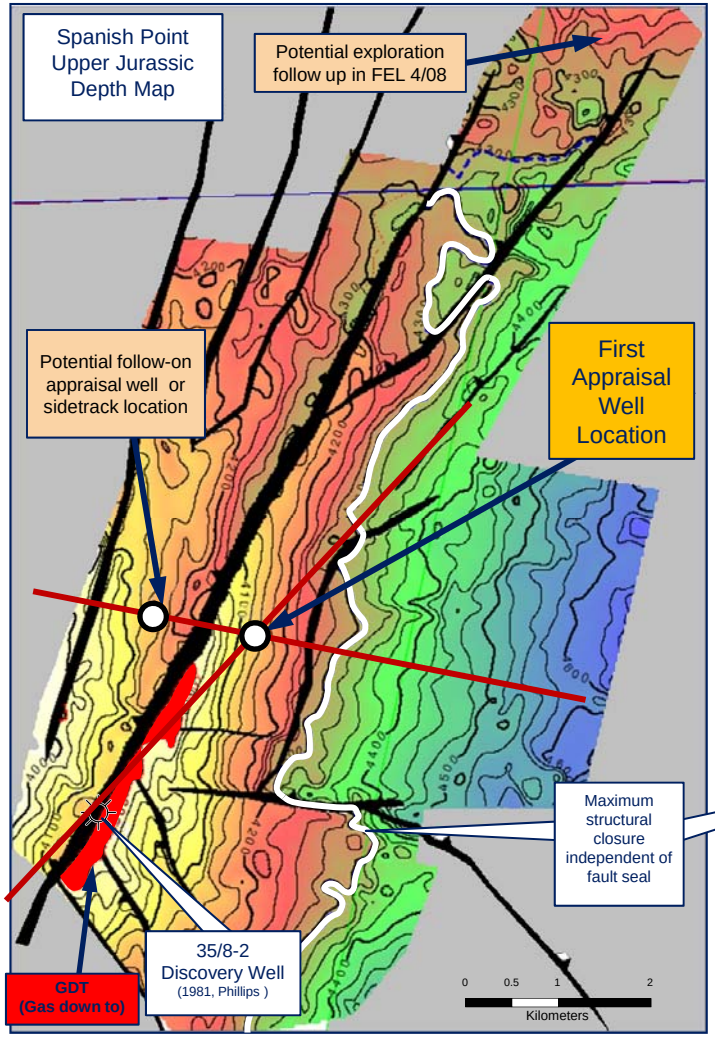
  15 mmscfd + 3000 bcpd
- 7 cores totalling 404ft in A, B and C sands
- **Appraisal well planned for Q2 2014**



Spanish Point 35/8-C Appraisal Well

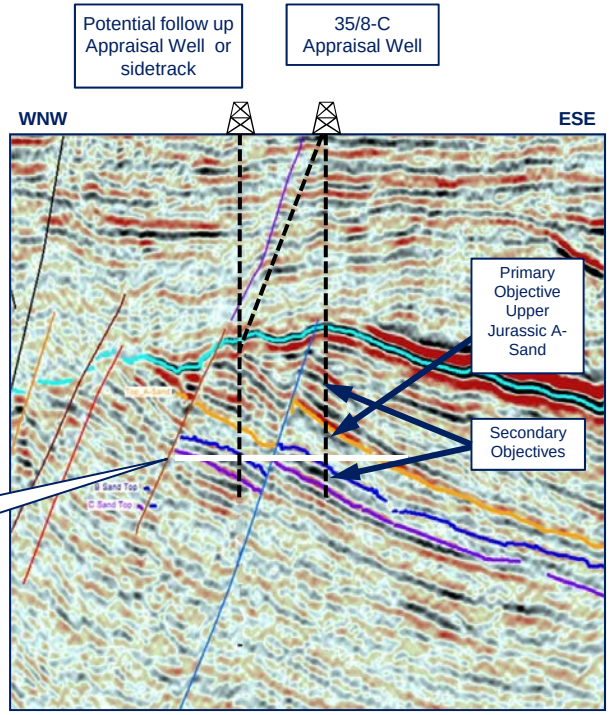
- 1981 Discovery now covered by ~300km^2 3D PSDM seismic
- Appraisal well is 2.5 km to NE of and 140m downflank of discovery well
- Main objective is U. Jurassic “A” sand
- Secondary objectives are deeper “B” and “C” sands and potential shallower “Z” sand(s) not intersected in discovery well due to fault cutout
- Potential follow on appraisal well or sidetrack to test adjacent fault block





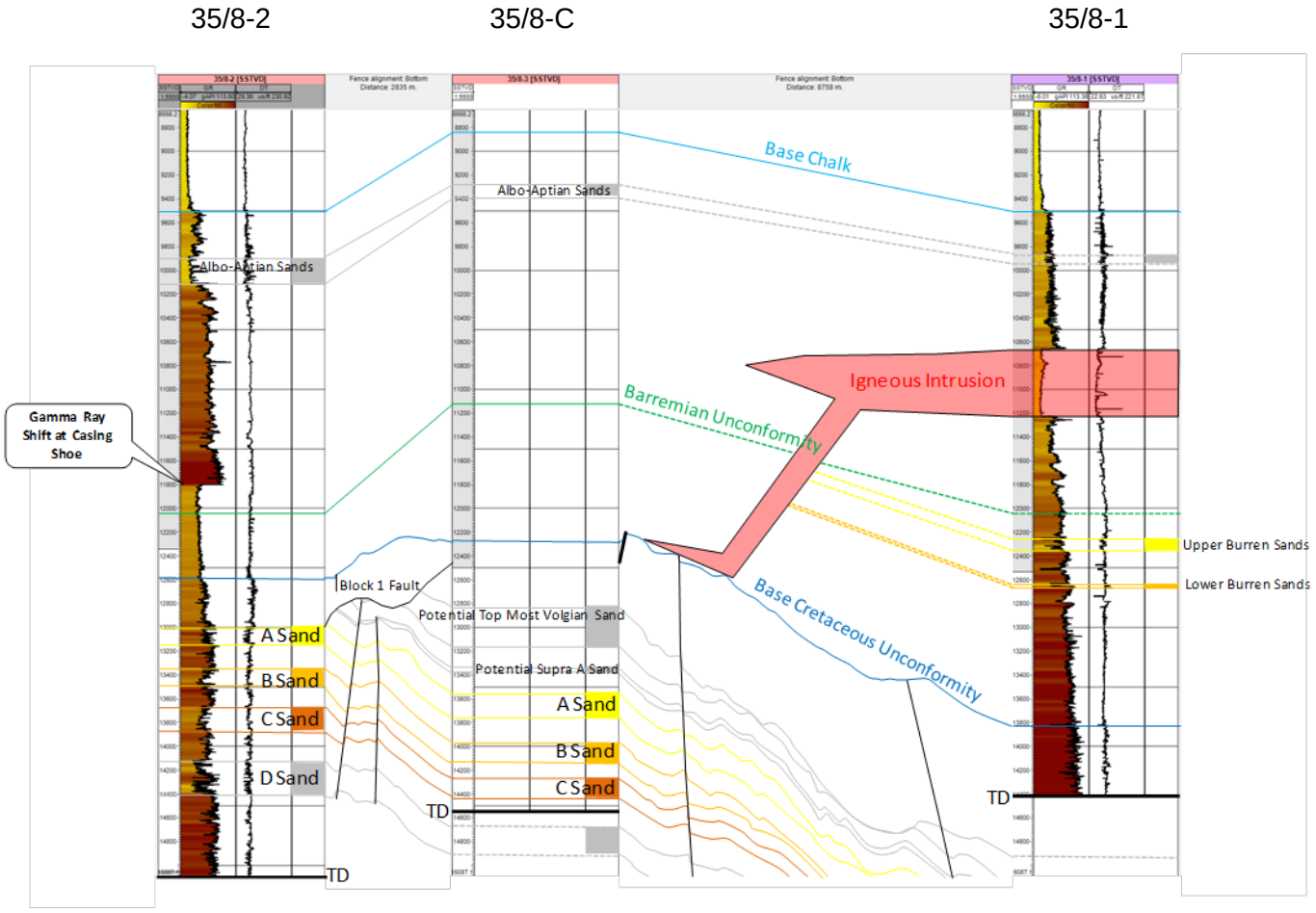
Independent CPR* (Competent Persons Report)			
	1C	2C	3C
Gas Reserves	**210 Bcf**	**415 Bcf**	**862 Bcf**
Condensate Reserves	**15.4 mmbbls**	**35.6 mmbbls**	**53.7 mmbbls**

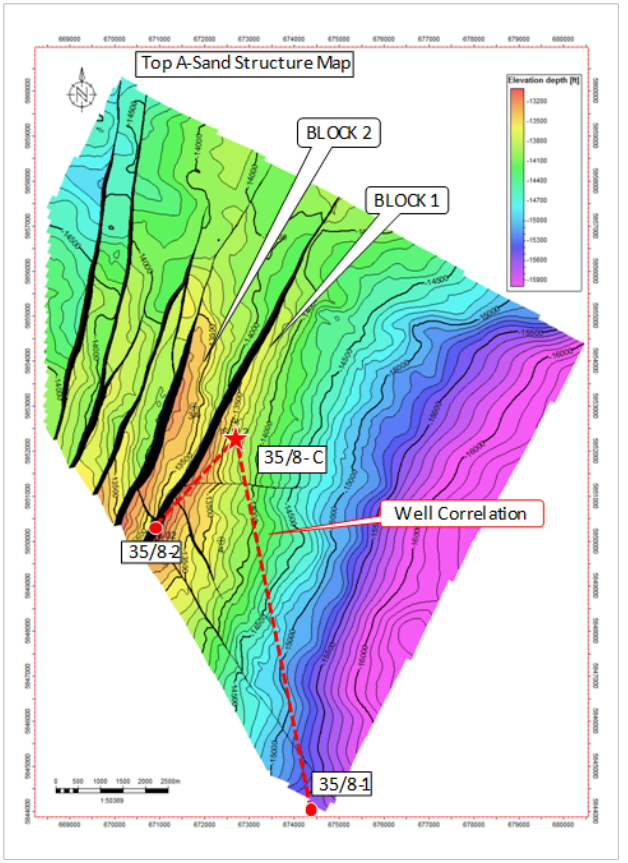
* Numbers confirmed by Chevron & Statoil Regional Report 1997



Spanish Point 35/8-C Appraisal Well

Appraisal well will also test upflank pinchout potential of Lower Cretaceous sands in the 35/8-1 Burren light oil discovery





Blackford Dolphin Rig

- Rig type:
  Aker H-3 Upgraded deep water semi-submersible
- Year of construction:
  1974, rebuilt 2007-2008
- Type of Positioning system:
  (8) Anchors (pre-laid mooring system)
- Arrives in Belfast from Brazil end November for 70-120 day refit
- Drills well in UK North Sea Q1-Q2 2014
- Expected early Q2 2014 spud of Spanish Point appraisal well 35/8-C
- Expected 79 day drilling operation
- Rig departs for North Sea Q3 2014

Logistical Support for Drilling Operations

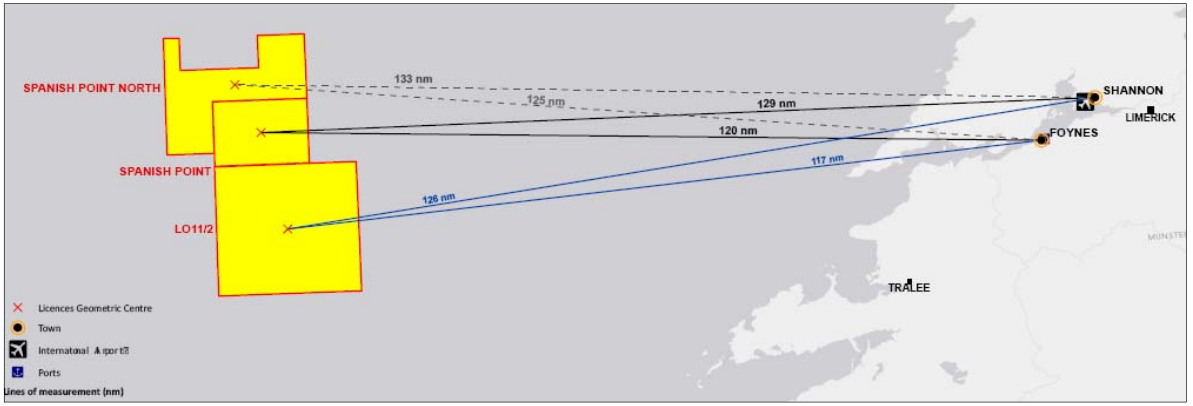
- **The Shannon Estuary is well set up for O&G support**
- **Cairn has selected Shannon as it's rig crew mobilisation point and Foynes as it's marine hub**

Foynes Port

- Open 24/7 with good links to larger centres in Ireland, UK & EU
- Break bulk specialist with excellent mobile cranes
- Numerous covered and open laydown areas
- Inver Refinery able to supply fuel via pipeline to all vessels
- Mullock & Sons established agents used to handling delicate, high value equipment

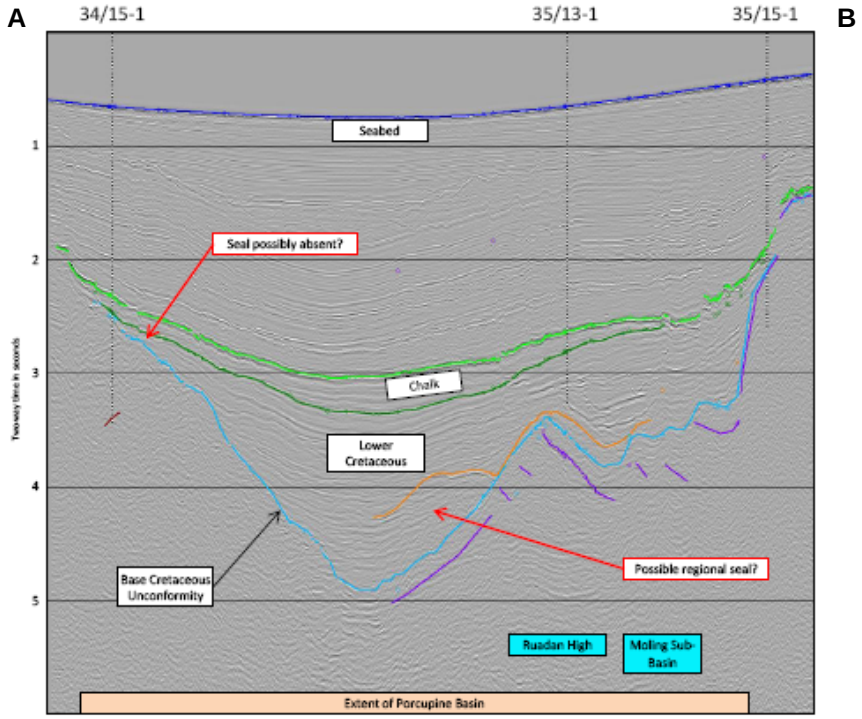
Shannon Airport

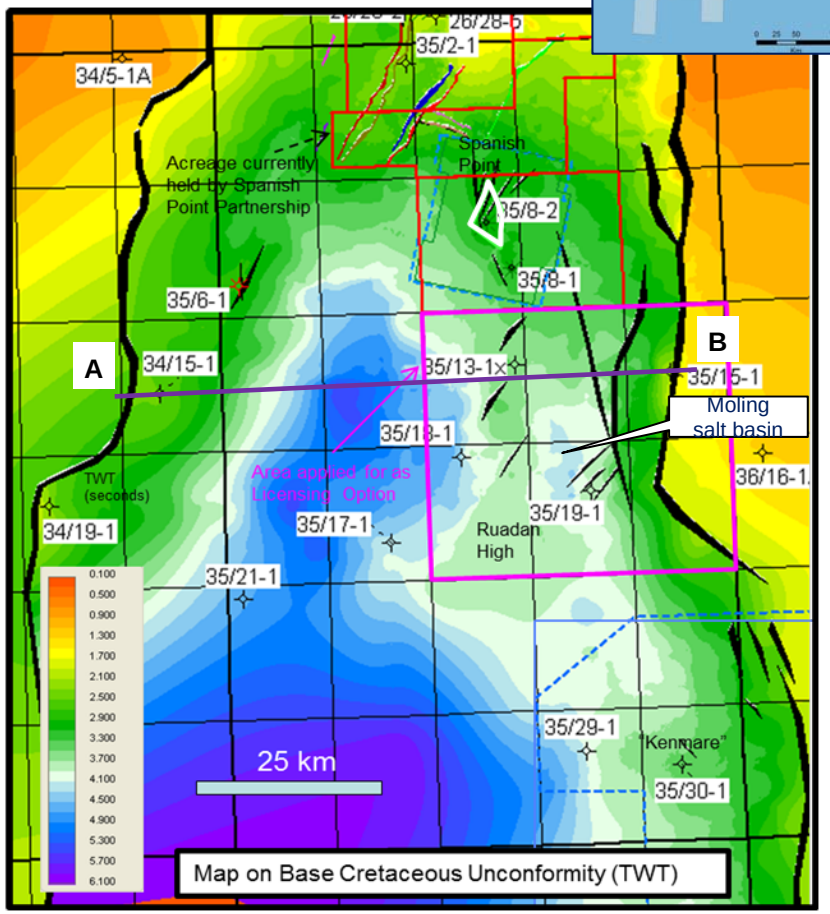
- Ireland's largest runway
- CHC's Search and Rescue facility
- Good international links with USA, UK and EU



Cairn Ireland Block LO 11/2

- Covers the Ruadan High and adjacent East Porcupine basin and Moling salt basin
- Sparse, poor quality 2D seismic database
- Existing wells have not penetrated into the U. Jurassic sand section intersected in the 35/8-2 well
- 500 km^2 3D seismic planned in 2014 to address prospectivity of Jurassic fault blocks and Cretaceous fan sand plays, subject to conversion to a FEL



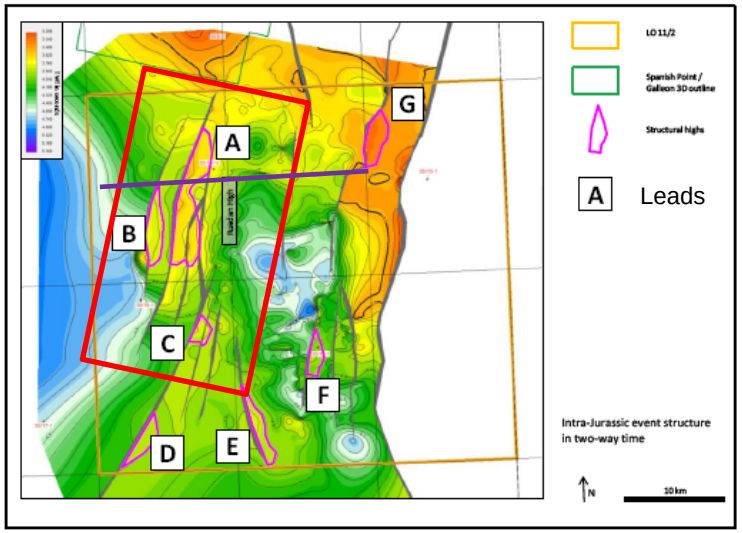


Block LO 11/2 Prospectivity

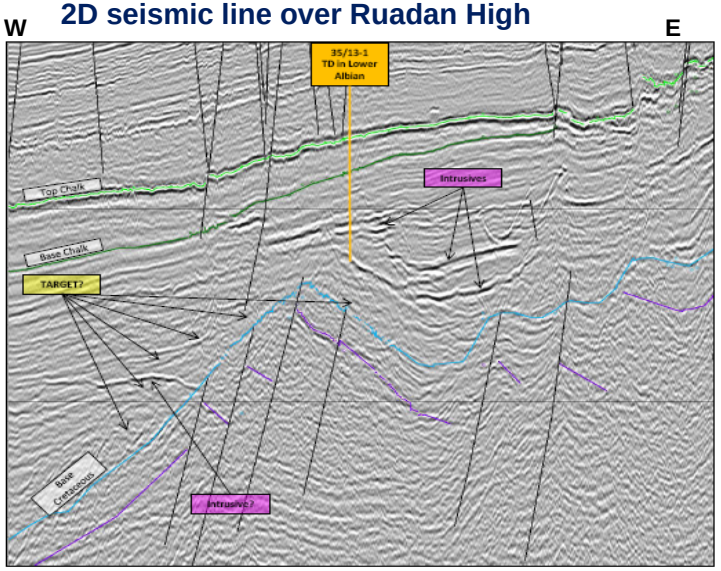
3D seismic will target

- Late Jurassic and Cretaceous structural highs
- Cretaceous embayments on both sides of the Ruadan High with potential for strat traps

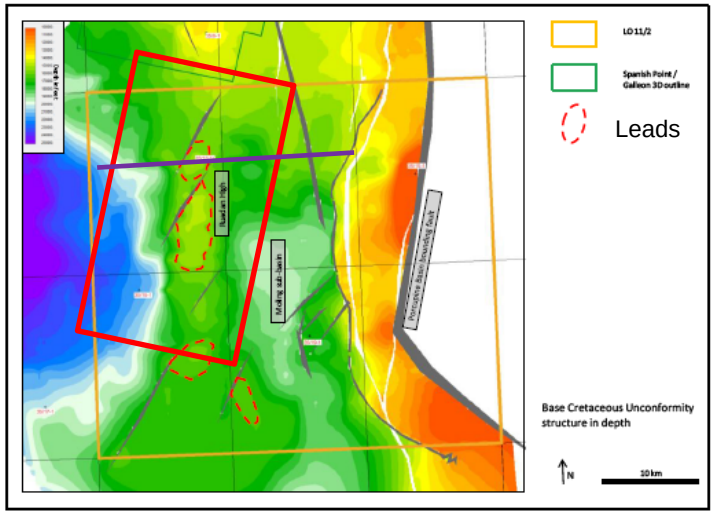
Intra-Jurassic TWT structure map



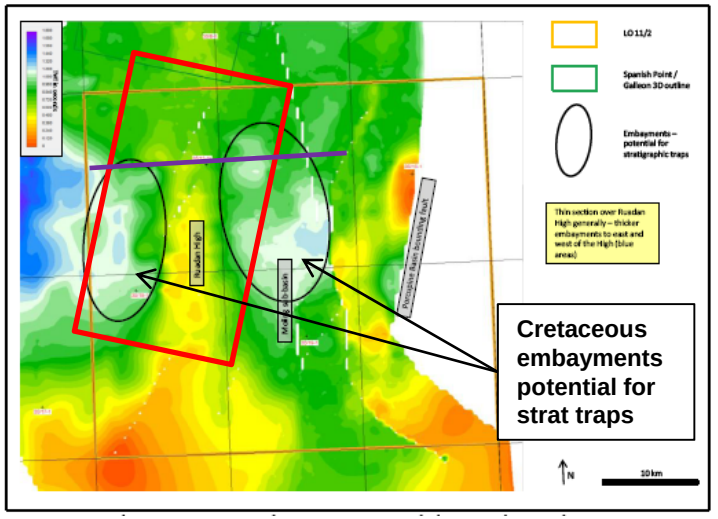
2D seismic line over Ruadan High



Base Cretaceous unconformity depth structure map



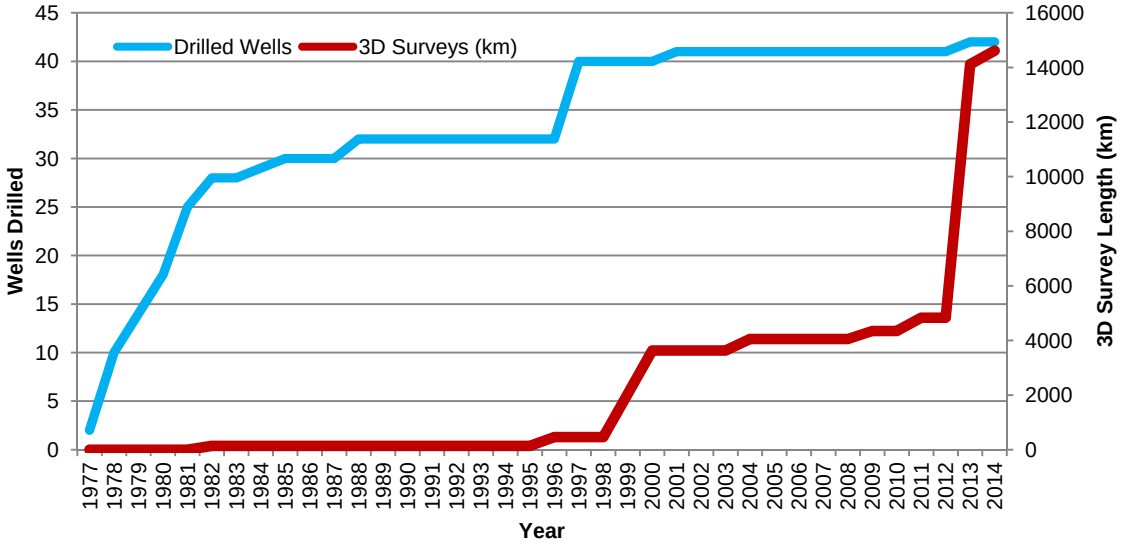
Lower Cretaceous isochron

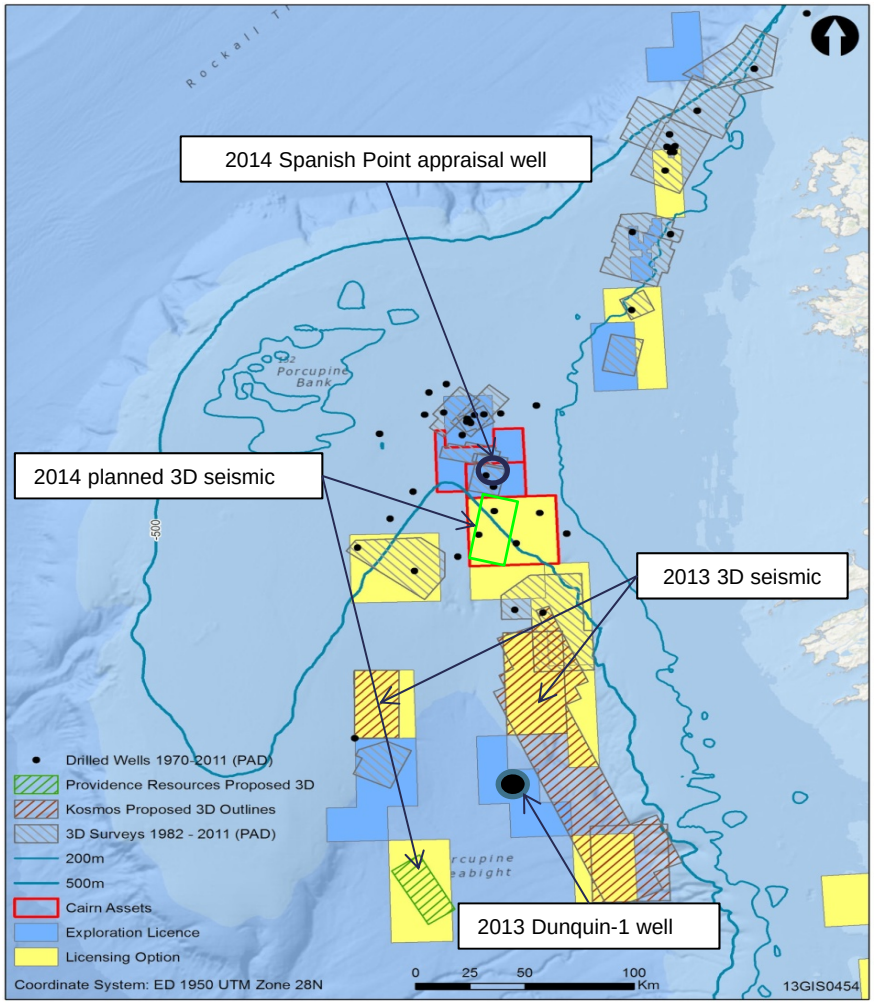


Proposed 3D seismic survey

Porcupine Basin Exploration Activities

- High level of farm-in activity in 2013
- Encouraging results from Dunquin-1 well
- 3D seismic surveys acquired and planned over a large part of the east and west flanks of the Porcupine Basin
- Increase in exploration drilling activities





GO RAIBH MAITH AGHAIBH

THANK YOU