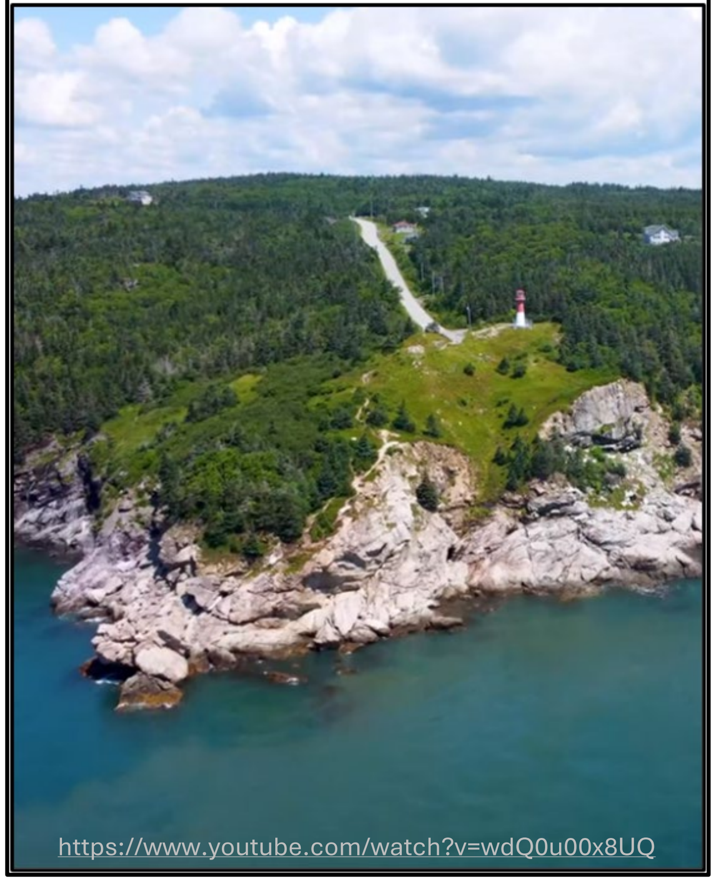
AGS Colloquium, February 6th & 7th 2026, Truro.

Quantitative assessment and risk analysis of Geologic Carbon Storage potential in the Triassic-Jurassic Fundy Subbasin

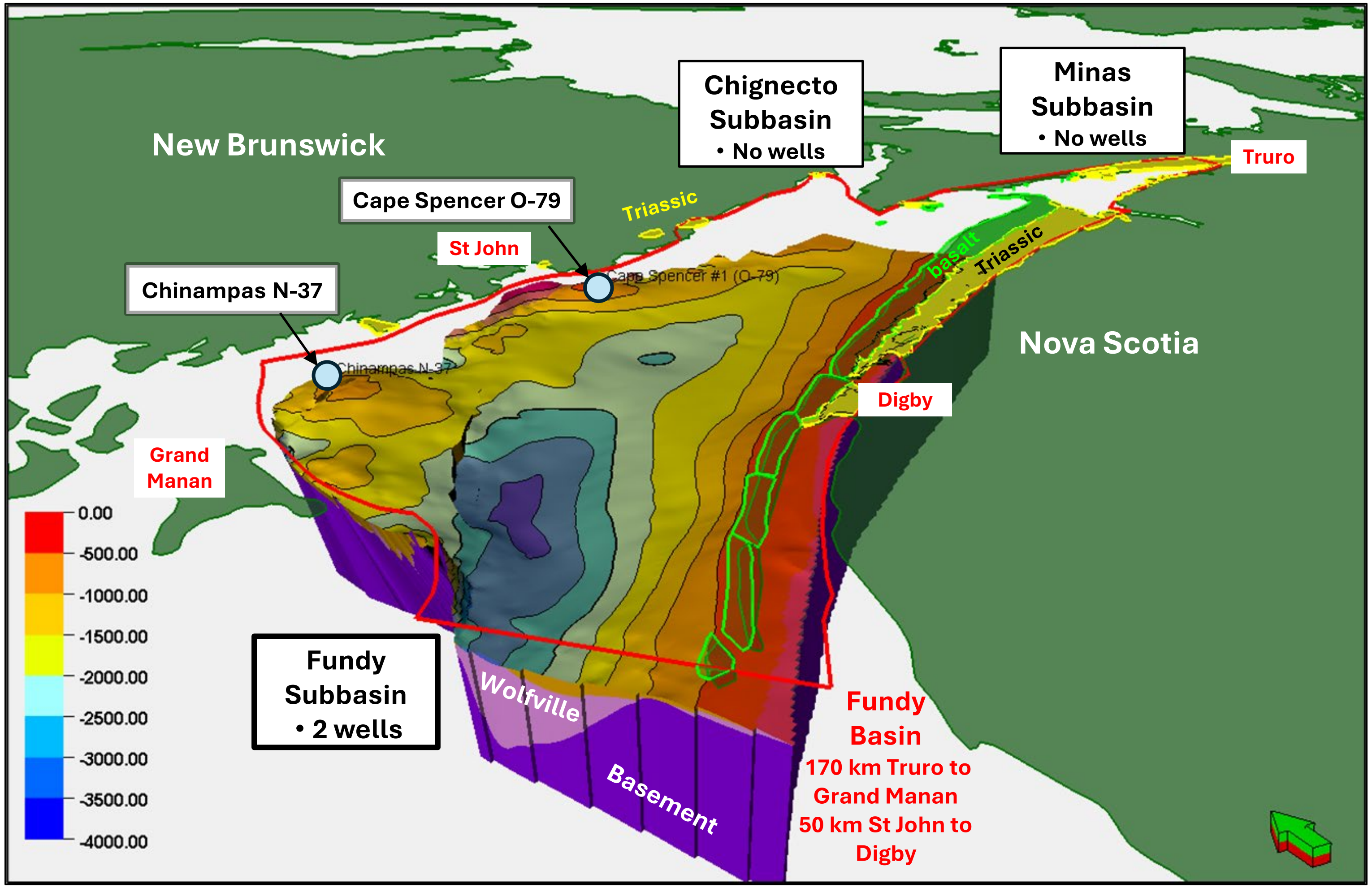
Bill Richards, Fraser Keppie, Helen Cen, Coady Roach, Grant Wach.

Cape Spencer

(Neoproterozoic granitic basement)



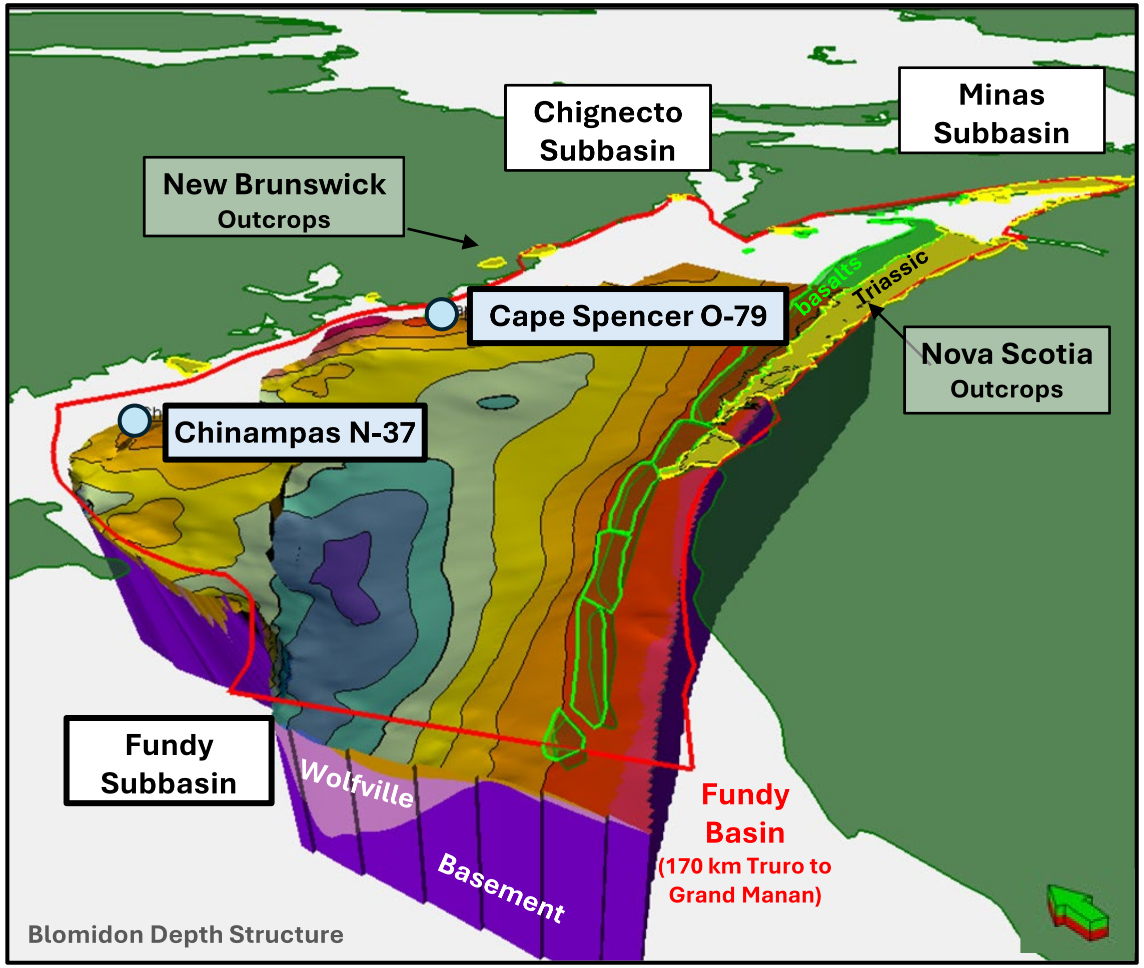
https://www.youtube.com/watch?v=wdQ0u00x8UQ



Outline & Key Points

- Motivation
  - ➢ Cape Spencer well indicates significant CCS potential proximal to onshore emissions sites (~ 300m effective porosity > 10%)
- Regional Overview & Data Base
- Workflow and Storage Capacity
  - ➢ Probabilistic Range: P90-P50-P10; 20 Mt - 1.4 Gt – 3 Gt
- Risk - Three key issues:
  1. Containment at faulted & fractured crests of anticlines
  2. Unacceptable pressure build-up in patchy saline aquifers
  3. Long-term leakage due to extensive fracturing
- Uncertainty / Chance of Success
- Analogues – USA & North Sea
  - ➢ Very important due to sparse well data at Fundy
- Scoping – Triassic basins offshore Atlantic Canada
- Forward Seismic Modeling
  - ➢ High probability of mapping porosity directly
- Conclusions
  - ➢ Significant small-scale potential BUT with significant risks
  - ➢ Recommend 3D seismic as the best way-forward

Perspective view of Fundy Subbasin

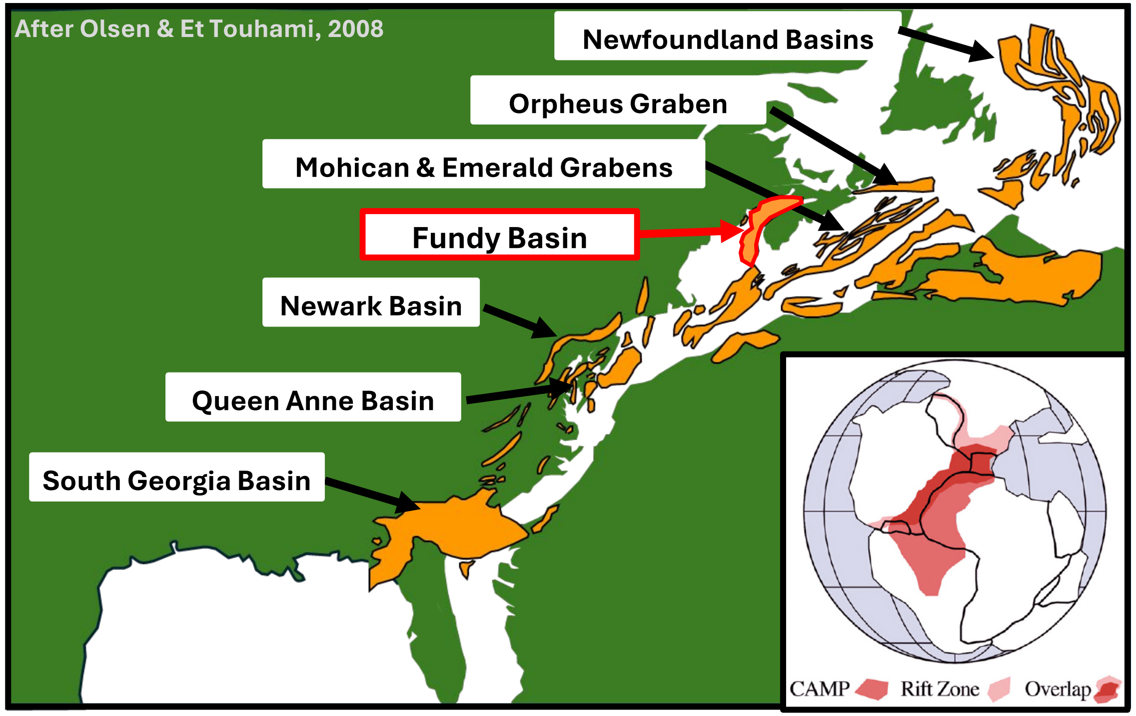


29 Mtpa = total emissions for NB, NS & PEI (CER, 2022)

Mt = 10^6 tonnes, Gt = 10^9 tonnes

Regional Overview

Newark Supergroup Rift Basins – Breakup of Pangea

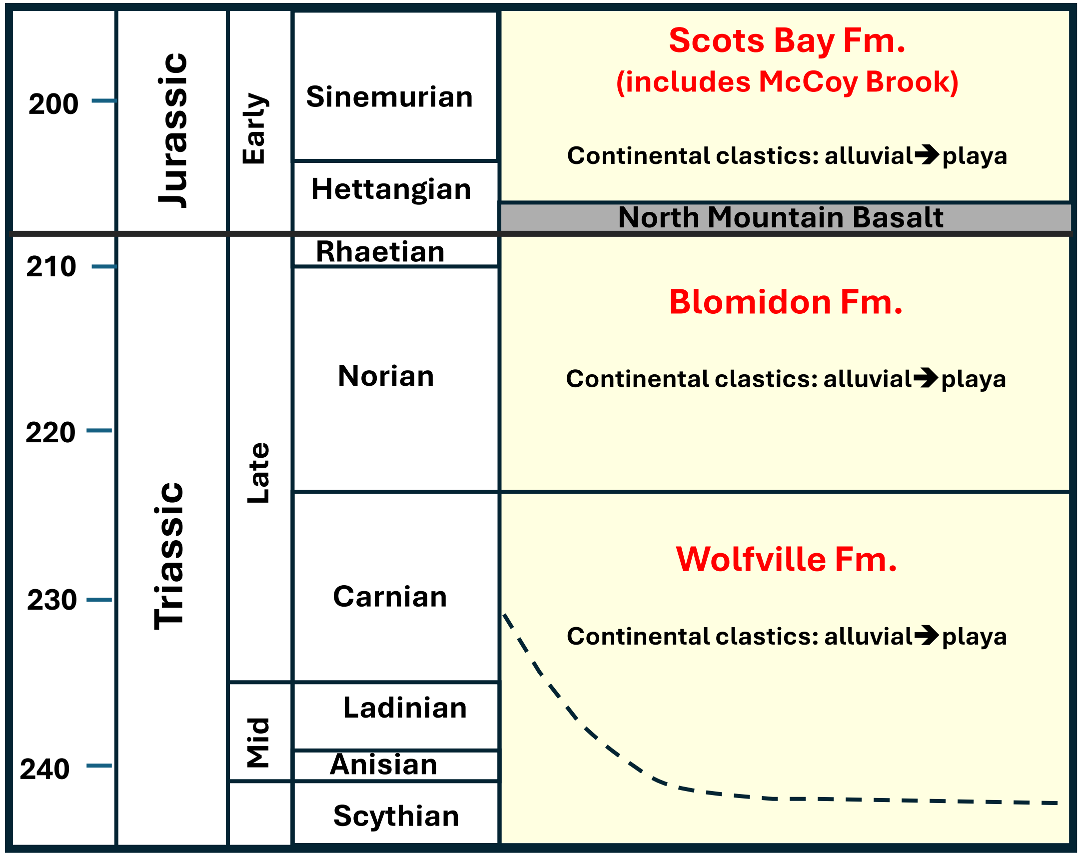


Triassic clastic penetrations & published storage resources

Study Area	km²	wells	Capacity	Source	Gross (m)	NTG	Porosity
Fundy Subbasin	9,326	2	0.1-1.4 -3 Gt	This study	0-3000	0.5-15%	10%-20%
NFL: Whale…Carson	54,000	7	-	Keen & Williams, 1990	0-500	0%	0%
Orpheus (Eurydice P-36)	9,000	3	-	GSC, 1991 Atlas	0-535	58%	10-25%
Mohican (Moheida P-15)	50,000	2	-	CNSOPB, 2018	430	11%	10-15%
Emerald (Sambro I-29)	25,000	1	-	CNSOPB, 2018	1590	86%	10-25%
USA: Newark (Stockton)	5,000	12	2 - 8- 30 Gt	Collins, 2017 & 2013	162-1440	20-80%	1-17%
USA: Queen Anne	6.332	2	3-12-32 Gt	KunleDare, 2024	0-1250	-	1-17%
USA: South Georgia	85,000	11	1.7- 390 Gt	Cao et al., 2021	450	20-76%	2-18%
UK: Silver Pit - Sole Pit	21,000	~420	5 - 15 Gt	Hollaway et al., 2006	50-350	45-95%	10-28%
Netherlands	-	-	3.9 Gt	van der Meer, 2009	-	-	-
German North Sea	22,000	20	0.9-2.6-5.5 Gt	Fuhrmann et al., 2024	50-200	-	-
Polish Lowlands	112,000	-	26.5 Gt	Tarkowski, 2009	200-1600	70%	15-30%
Morocco: Essaouira	11,858	-	265 Mt	GCCSI, 2024; Martinez,2022	-	-	-

Fundy Subbasin

- Three continental red bed formations separated by North Mountain Basalt – potential top seal.
- Modeled 4 “zones” + basement & seawater column



After Wade et al., 1996.

NMB now considered Triassic ~ 201.5 Ma (Kent et al., 2024)

Fundy Basin Tectonic Elements

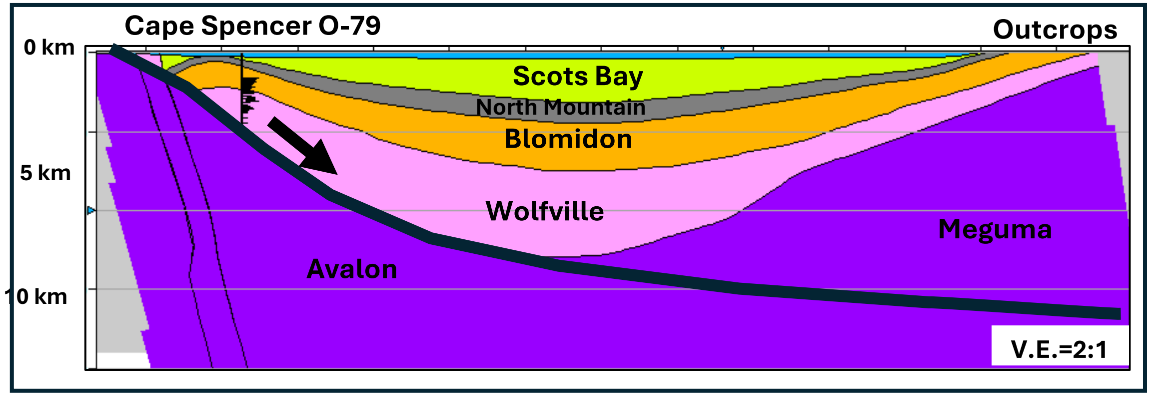
Fundy Basin

- Bounded by the Grand Manan-Headlands listric fault system that transitions to the Cobequid - Chedabucto strike-slip system on the north side of the Minas Subbasin

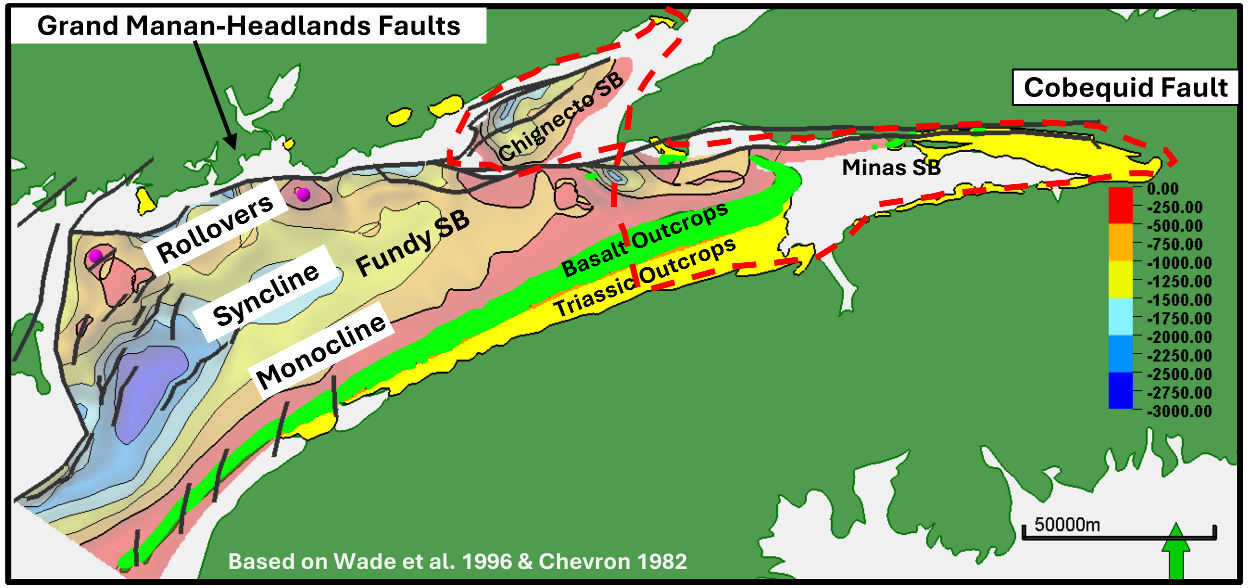
Fundy Subbasin

- Essentially a half-graben with three components:

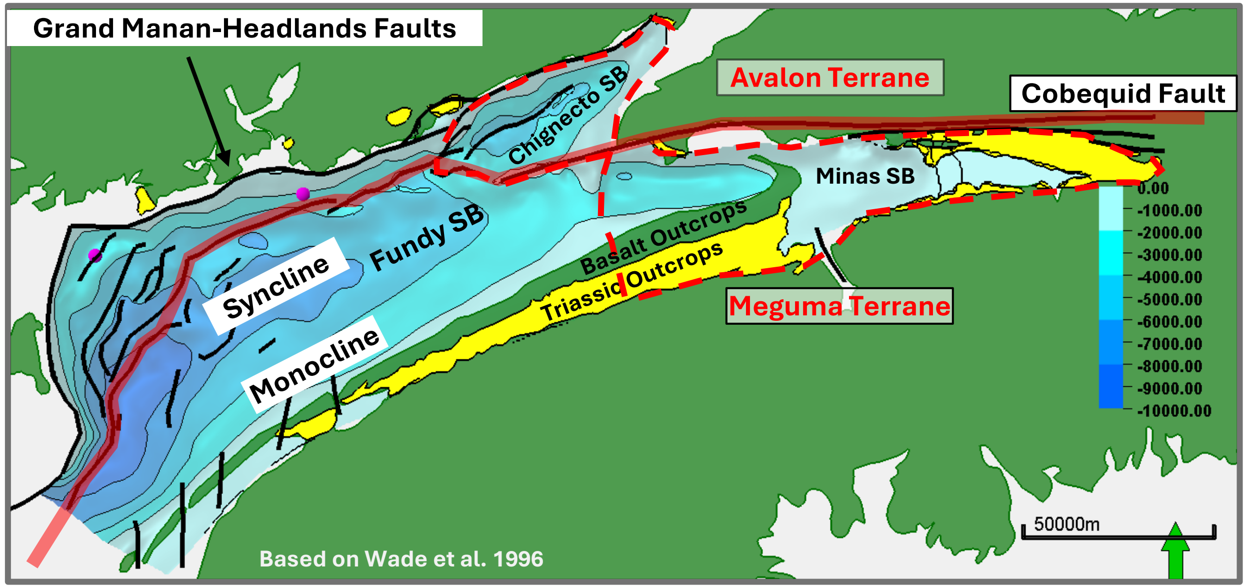
Rollover Anticline — Syncline — Monocline



Top North Mountain Basalt (metres)



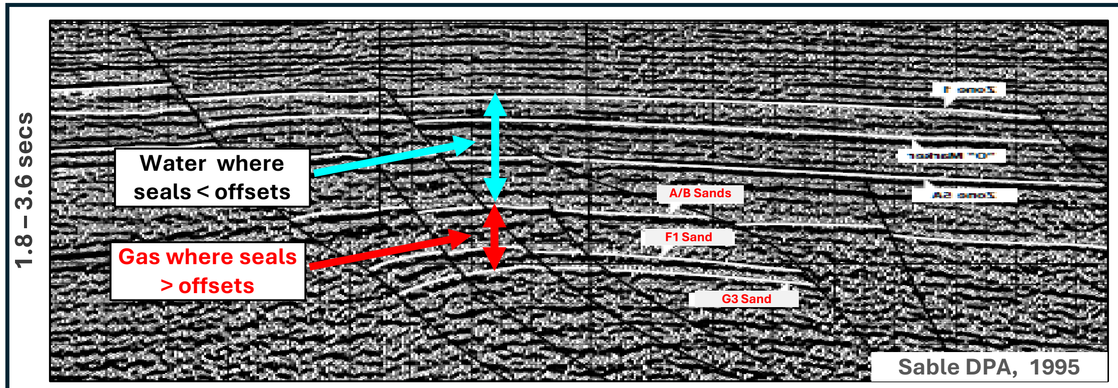
Base Mesozoic (metres)



Trap Effectiveness of Rollover Anticlines above Listric Faults

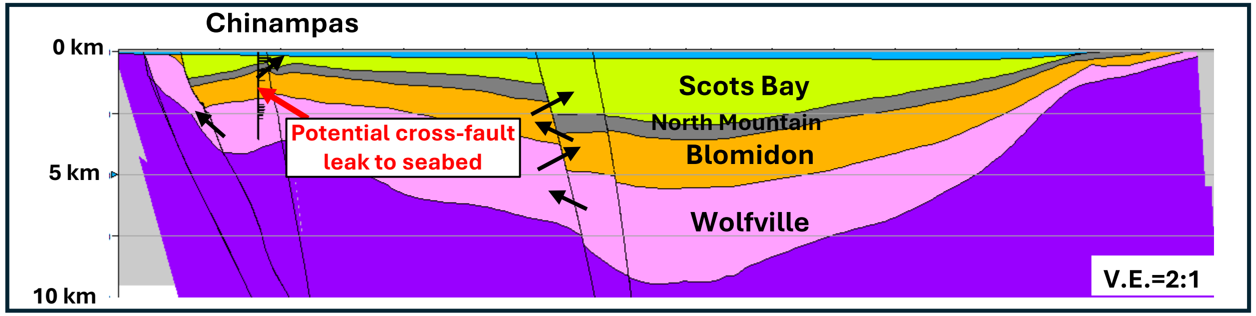
- Rollovers driven by geometry of the underlying fault
  - ➢ Well-known risk that cross-fault leakage due to extensional crestal faults reduces trap effectiveness
- Common in the geologic record at multiple scales

Thebaud Field Rollover Anticline Sable Subbasin

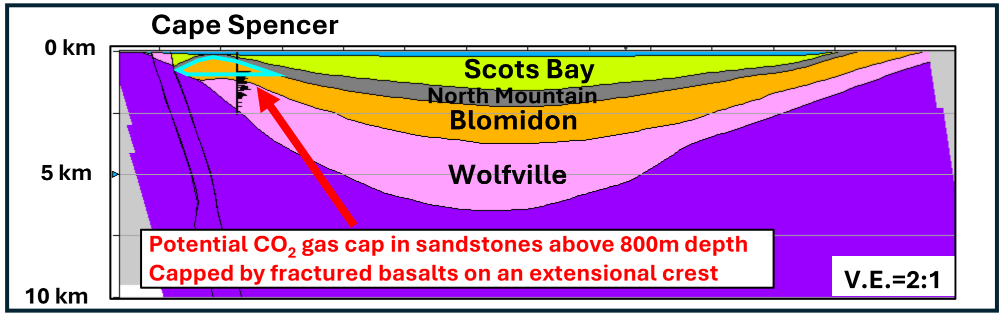


Chinampas Rollover Anticline – crestal faulting risk

(analogous to many Sable Subbasin fields e.g., Thebaud)



Cape Spencer Rollover – fractured basalt "seal" at seabed

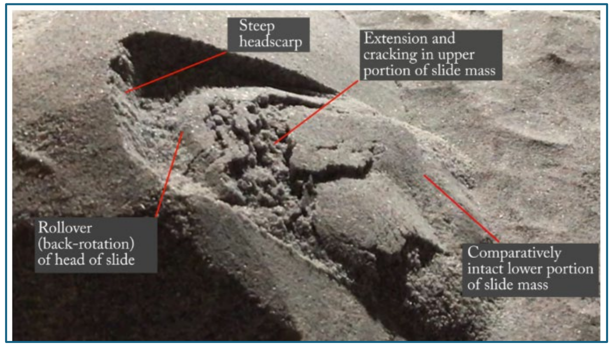


Modern Analogue

Cusco Landslide

(Peru)

& Sandbox Model

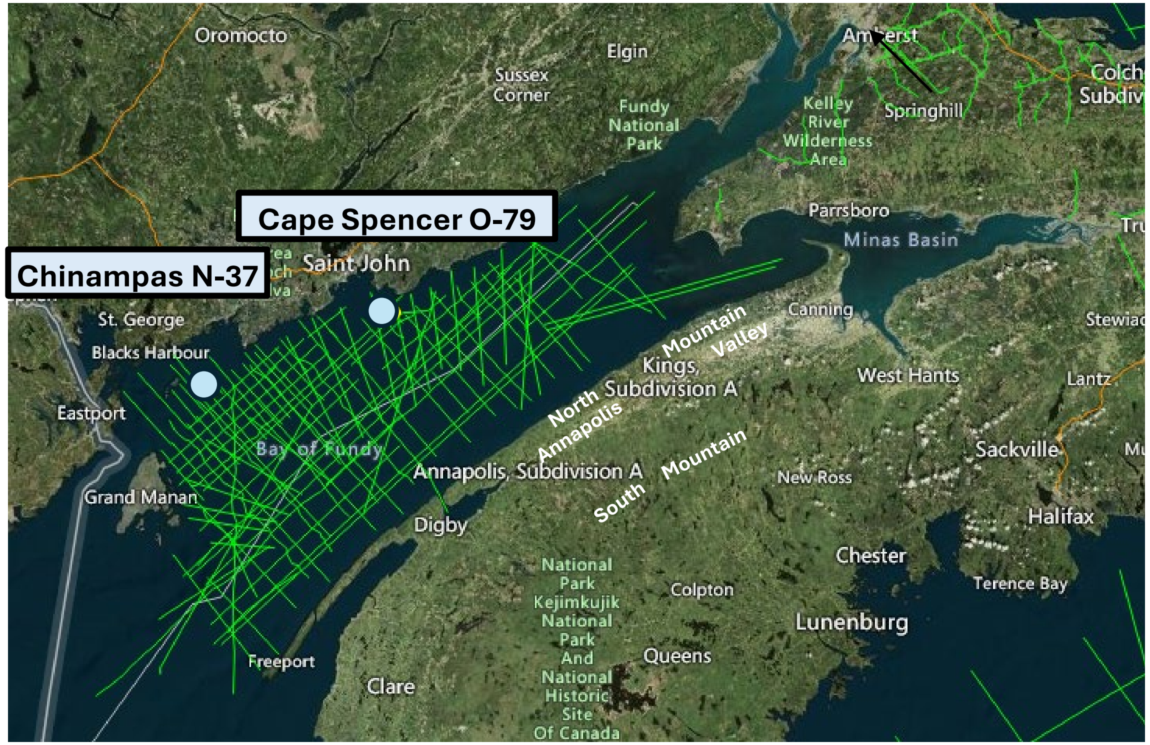


https://www.youtube.com/watch?v=wLDFqD3QAOQ

Data Base (CNSOER DMC & GSC) & Key Publications

Two wells and 1970s / 1980s 2D Seismic Data

https://cnsopbdigitaldata.ca & https://basin.marine-geo.canada.ca



- **Fundy: Structure & Aquifer Connectivity**
  - Mitchell, 1982. Time Seismic Contours on Top of North Mountain Basalt (Chevron)
  - Wade et al., 1996. The Triassic-Jurassic Fundy Basin, eastern Canada: regional setting, stratigraphy and hydrocarbon potential. (GSC / CNSOPB)
  - Rivard et al., 2012 (GSC). Canadian Groundwater Inventory: regional hydrogeological characterization of the Annapolis Valle Aquifers (GSC)
  - Withjack et al., 1995. Tectonic evolution of the Fundy rift basin, Canada: Evidence of extension and shortening during passive margin development .

- **Fundy: Facies Interpretations**
  - Wade et al., 1996. The Triassic-Jurassic Fundy Basin, eastern Canada: regional setting, stratigraphy and hydrocarbon potential. (GSC / CNSOPB)
  - Olsen & Touhami, 2008. Tropical to Subtropical Syntectonic Sedimentation in the Permian to Jurassic Fundy Rift Basin, Atlantic Canada, in Relation to the Moroccan Conjugate Margin. Conjugate Margins Conference Field Trip Guidebook
  - Leleu & Hartley, 2010. Controls on the stratigraphic development of the Triassic Fundy Basin, NS: implications for the tectonostratigraphic evolution of Triassic Atlantic rift basins

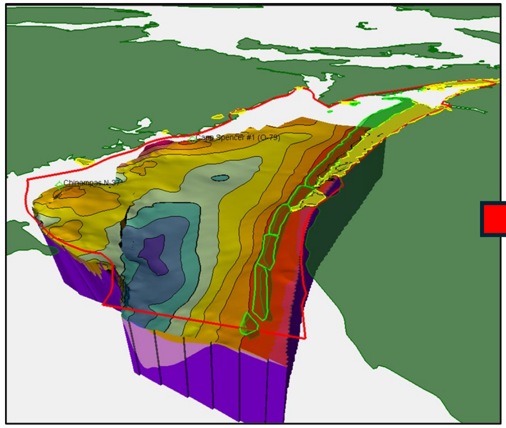
- **CCS: Fundy Basin**
  - Pothier et al., 2010. Reservoir and Seal Pairs: Carbon Sequestration in Atlantic Canada
  - Keighley and Maher, 2015. A preliminary assessment of carbon storage suitability in deep underground geological formations of New Brunswick, Canada.
  - Keighley, 2023. NEW BRUNSWICK PERSPECTIVE: CARBON STORAGE CAPACITY
  - Richards et al., 2023. CCS Potential on the Scotian Shelf.

- **CCS: Newark & South Georgia Basins (USA)**
  - Collins, 2017 (US DOE). CHARACTERIZATION OF THE TRIASSIC NEWARK BASIN OF NEW YORK AND NEW JERSEY FOR GEOLOGIC STORAGE OF CARBON DIOXIDE - FINAL REPORT
  - Cao et al., 2021. CO2 Storage Potential Reconnaissance of the Newly Identified Red Beds of Hazlehurst in the Southeastern United States
  - Zakharova et al., 2020. Reservoir and sealing properties of the Newark rift basin formations: Implications for carbon sequestration

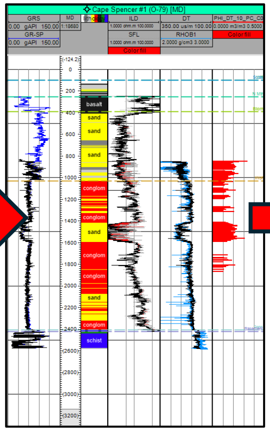
- **CCS: Silver Pit and Sole Pit Basins (UK)**
  - Brook et al., 1995. Gestco case study 2a-1: Storage Potential of the Bunter Sandstone in the UK sector of the southern North Sea and the adjacent onshore area of Eastern England
  - Hollingsworth et al., 2024. Impact of reservoir quality on the carbon storage potential of the Bunter Sandstone Formation, Southern North Sea
  - Gibson-Poole, et al., 2024. Site characterization of the Endurance CO2 store, Southern North Sea

Modeling Workflow

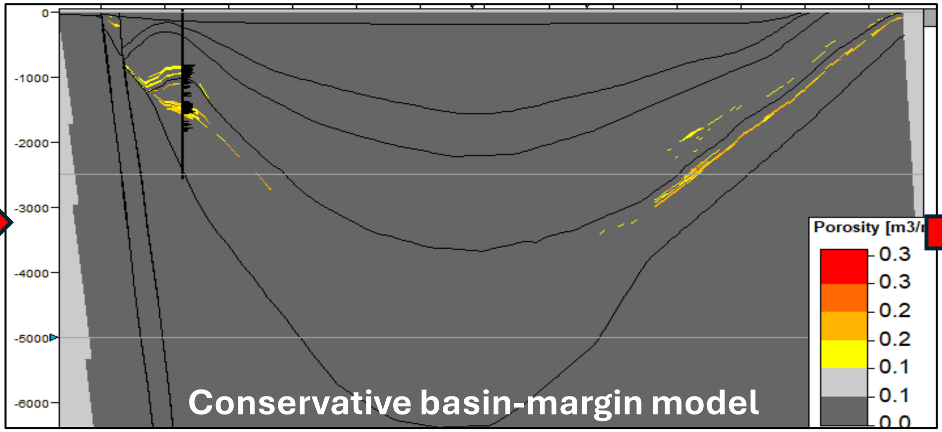
Structural Framework



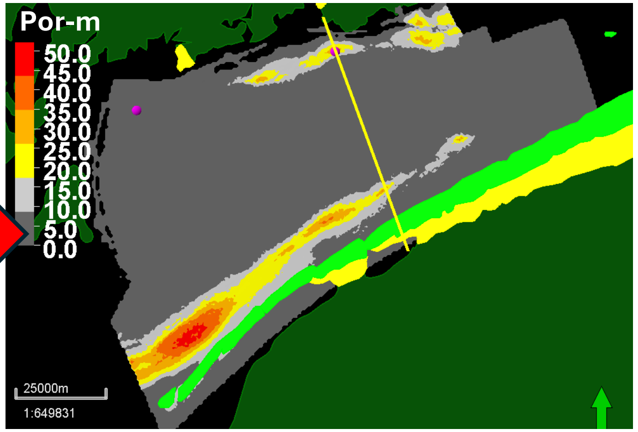
Log Analysis



Layering & Scale-up Sonic Porosity. Populate porosity.
(Sequential Gaussian Simulation. Cut off < 10%)



Calculate Pore Volume & Resource
(Density & Storage Efficiencies)



Storage Resource = Effective Pore Volume * Storage Efficiency Factor

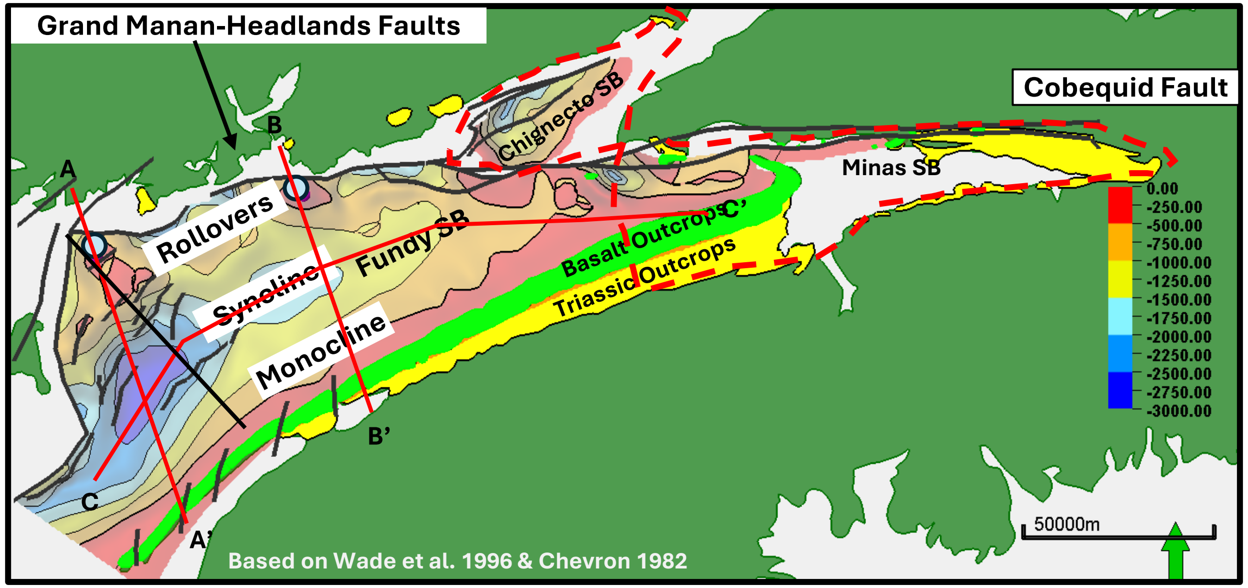
- ~1-3-5% in many published studies

Density of supercritical CO_2 ~ 0.7 gm / cc

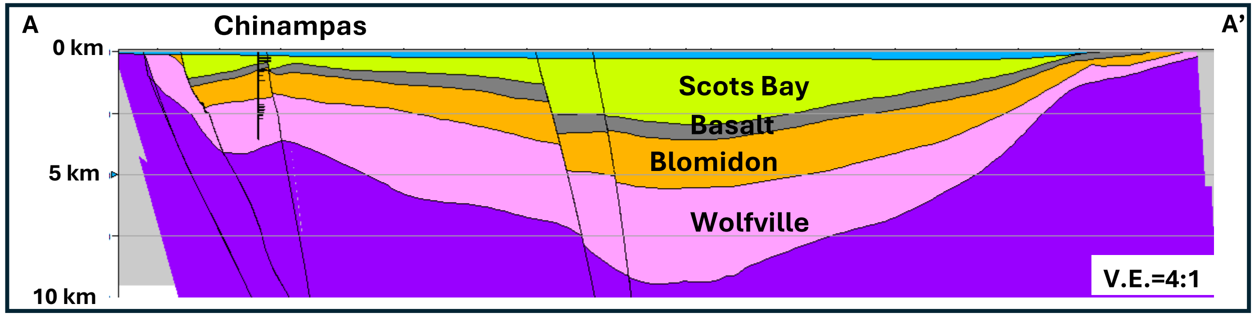
Workflow - Structural Framework

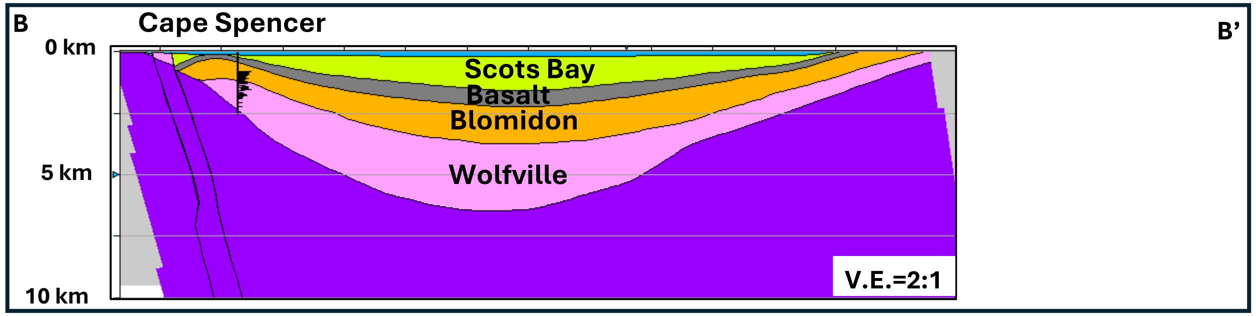
- Simplified from four publications
  - ➢ Top North Mountain Basalt (Chevron, 1982)
  - ➢ Top North Mountain Basalt Depth (Wade et al, 1996)
  - ➢ North Mountain Basalt Isopach (Wade et al, 1996)
  - ➢ Base Mesozoic Depth (Wade et al, 1996)

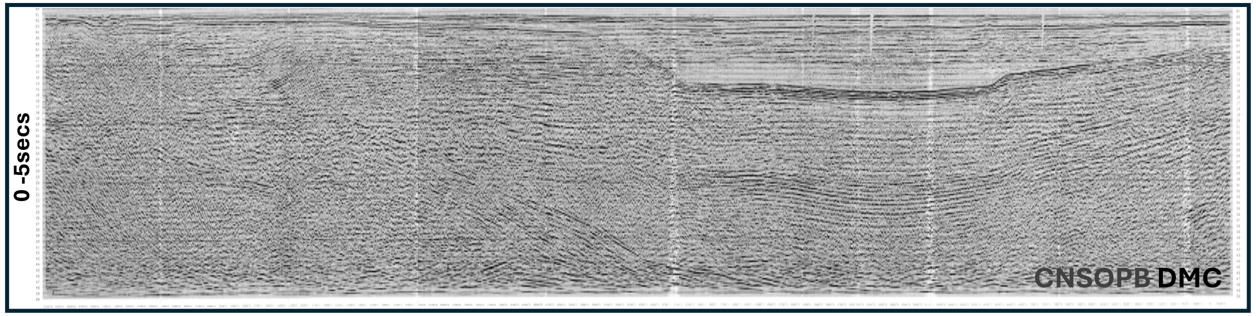
Top North Mountain Basalt (metres)

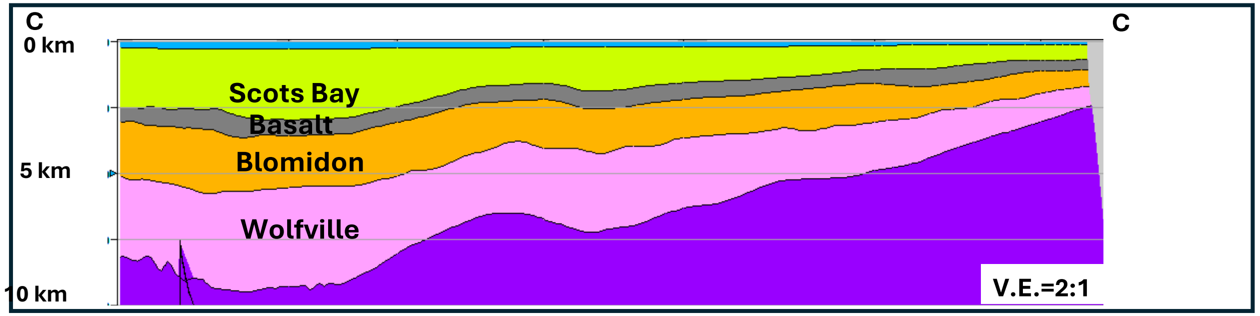


Representative Dip & Strike Lines & 2D Seismic Line





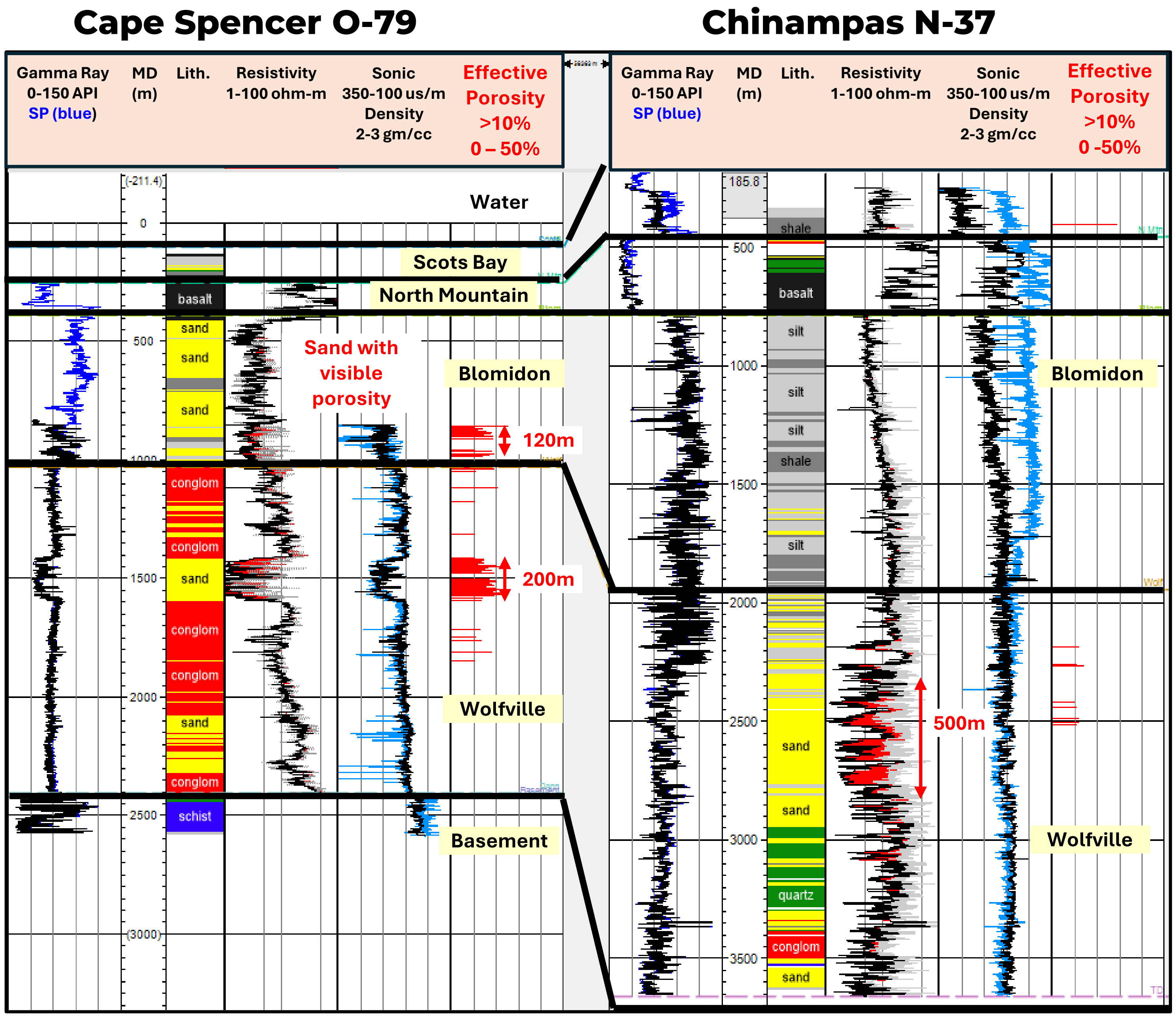




Workflow - Well Log Analysis

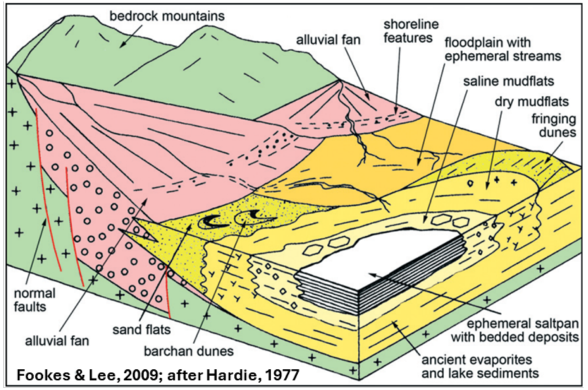
- **Lithology**
  - ➢ Lithology from well reports every 5-10m
- **Effective Porosity – Sonic porosity above 10%**
  - ➢ Captures most of permeability indicated by deep and shallow resistivity separation
  - ➢ Sonic porosity PHI=(DT-182)/(607-182)
  - ➢ Matrix 182 usec/m; Fluid 607 usec/m
  - ➢ Cut off GR>100 API; ILD > 7 ohm-m; PHI<10%
- **Net-to-Gross**
  - ➢ High in terms of Sand & Congl. / Gross Thickness
  - ➢ Low in terms of Effective Porosity / Gross Thickness
  - ➢ Problems are distribution of basinal silts and mudstones and diagenesis

	Top	Gross	Sand & Congl	NTG_1 Coarse / Gross)	Effective Porosity >10%	NTG_2 Eff Phi / Gross
	m	m	m	fraction	m	fraction
Chinampas Blomidon	786	1157	21	0.018	1.8	0.0016
Chinampas Wolfville	1943	1658	1052	0.635	31.6	0.0191
Cape Spencer Blomidon	389	641	490	0.765	91.6	0.1430
Cape Spencer Wolfville	1030	2016	1370	0.680	212.6	0.1055

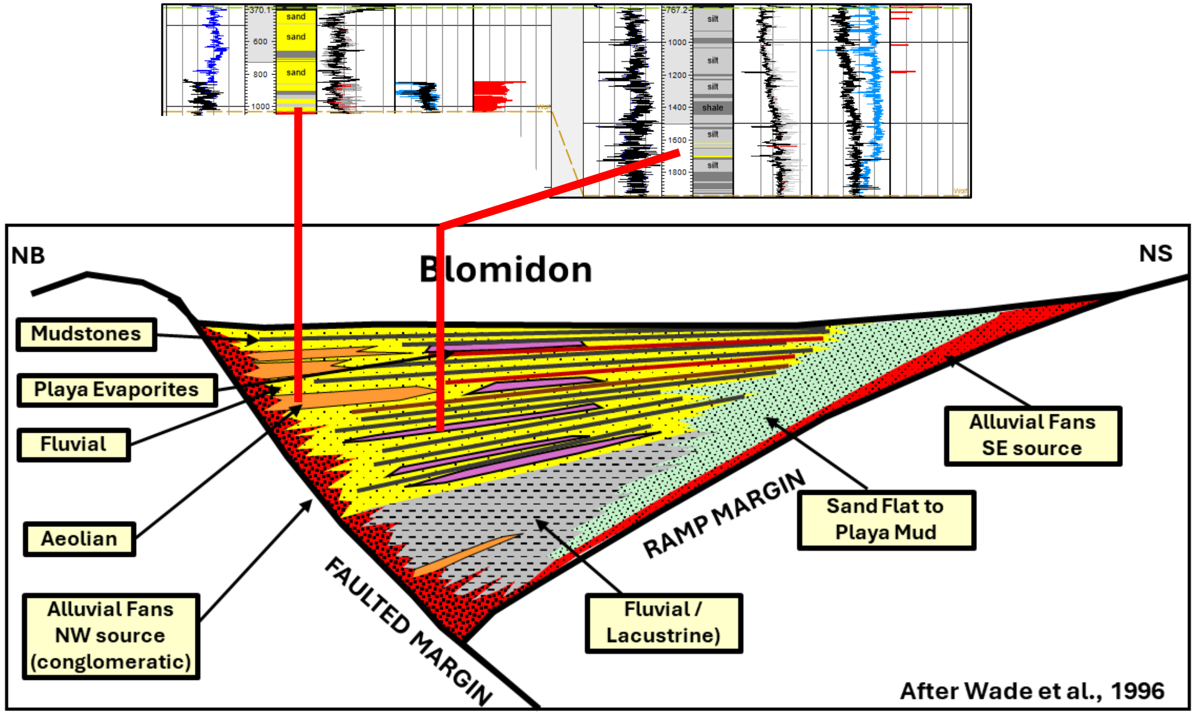


Workflow – Porosity, Facies & Diagenetic Modeling

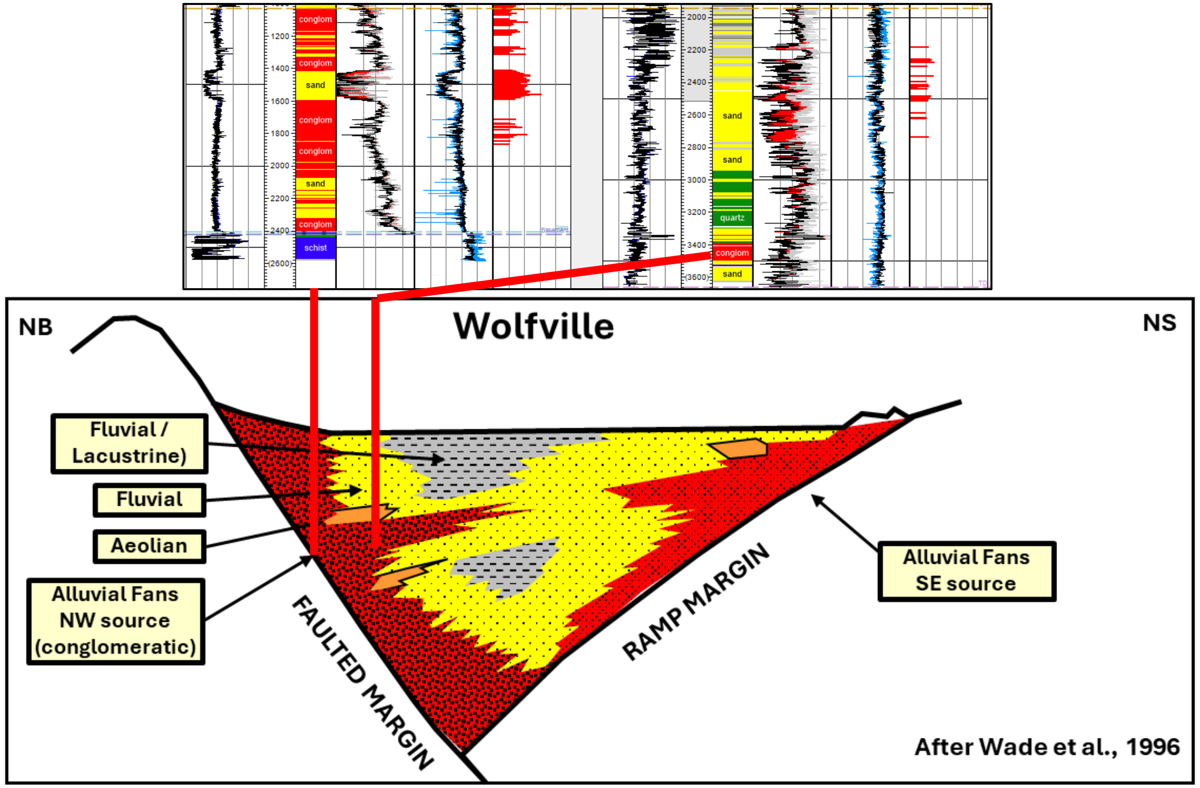
- At this stage elected to populate porosity directly
  - ➢ Experimented with geostatistical & deterministic pseudo-well approaches / scenarios
    - – Sequential Gaussian Simulation with varying variograms
- Numerous facies traverses in literature – but need 3D facies & diagenesis input to model
  - ➢ Alluvial ➔ Aeolian➔ Fluvial➔ Lacustrine ➔ Playa muds and evaporites
- Positions of basin-margin wells within facies belts are straightforward
  - ➢ Need data in basin centre



Cape Spencer O-79 Chinampas N-37



Cape Spencer O-79 Chinampas N-37



Results - Porosity-thickness maps with Storage Capacity

Models 1 & 2: propagated sonic porosities at wells with an asymmetric SW-NE trend

- Sequential Gaussian Simulation without further geologic input

Models 3 & 4: resource confined to flanks of basin

- Assume porosity preserved in fluvial facies near basin margins
- Model 3 uses a polygon on one flank – Model 4 uses pseudo-wells

0.7 gm/cc	0.50%	1.00%	3.00%	5.00%
1000-5000m	Storage Capacity			
> PHI 10%	Gt	Gt	Gt	Gt
Blomidon	0.12	0.24	0.73	1.22
Wolfville	0.17	0.34	1.02	1.70
Total	0.29	0.58	1.75	2.91
SGS 1500000km 500000km 20m 72°				

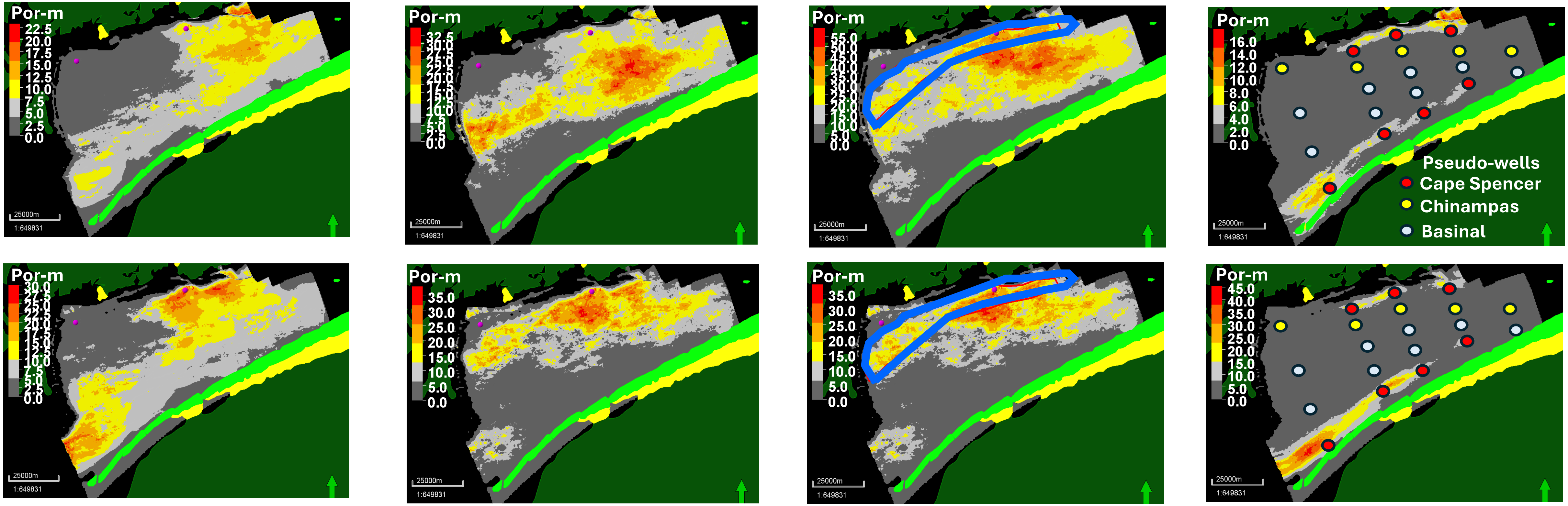
	0.50%	1.00%	3.00%	5.00%
	Storage Capacity			
> PHI 10%	Gt	Gt	Gt	Gt
Blomidon	0.21	0.43	1.29	2.15
Wolfville	0.18	0.37	1.10	1.83
Total	0.40	0.80	2.39	3.98
SGS 100000km 50000km 100m 72°				

	0.50%	1.00%	3.00%	5.00%
	Storage Capacity			
0%-MAX	Gt	Gt	Gt	Gt
Blomidon	0.02	0.05	0.14	0.24
Wolfville	0.06	0.11	0.33	0.55
Total	0.08	0.16	0.47	0.79
SGS 100000km 50000km 100m 72° BOUNDARY				

0.7 gm/cc	0.50%	1.00%	3.00%	5.00%
1000-5000m	Storage Capacity			
> PHI 10%	Gt	Gt	Gt	Gt
Blomidon	0.02	0.05	0.15	0.24
Wolfville	0.08	0.16	0.47	0.79
Total	0.10	0.21	0.62	1.03
P-wells Azi & trend SGS 1200000k 120000k 10m 10o				

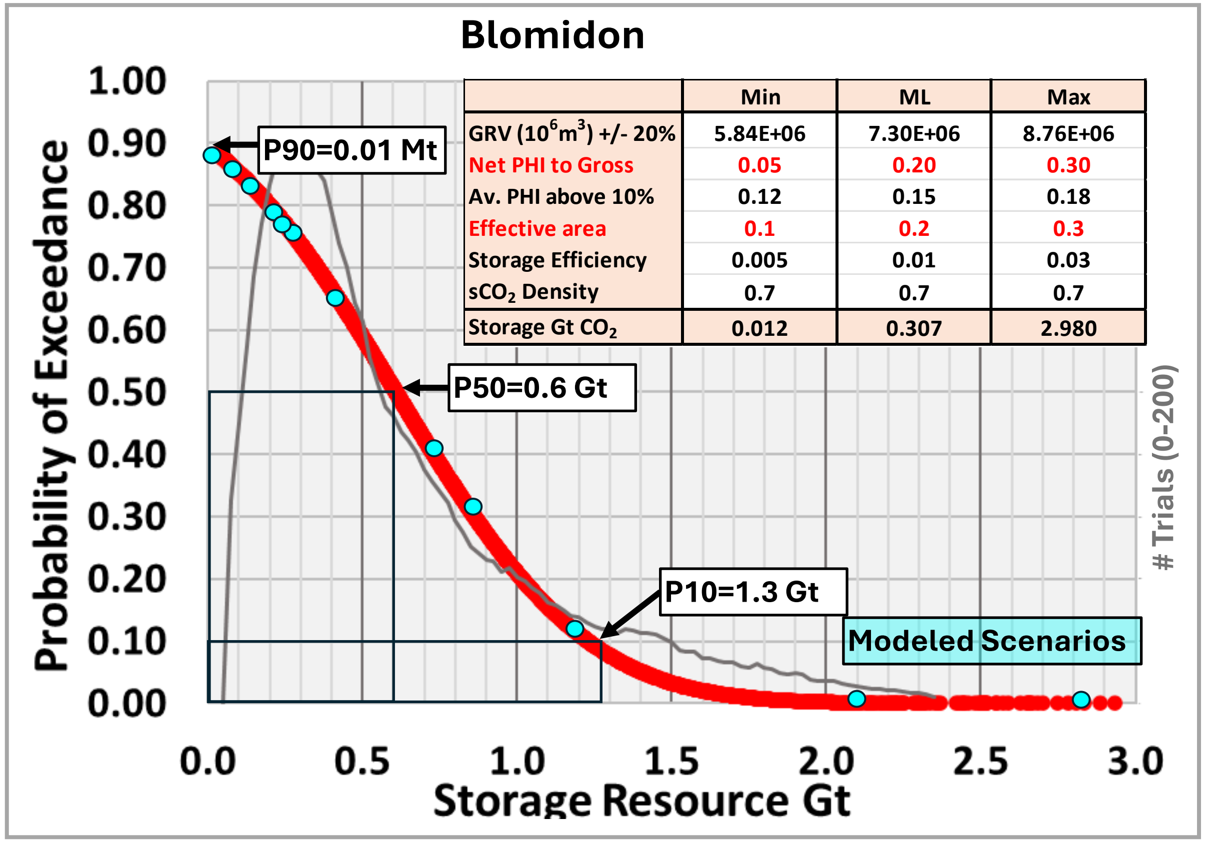
Blomidon

Wolfville

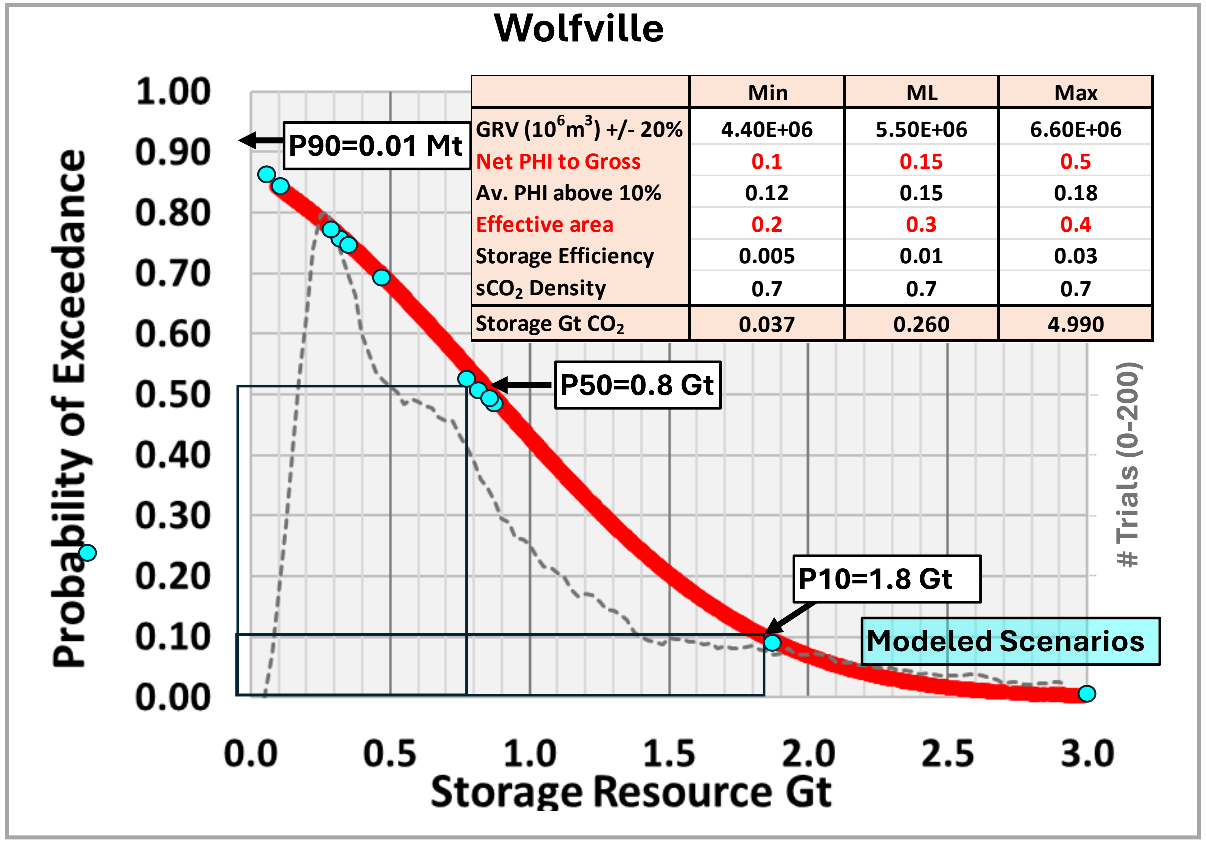


Results – Probabilistic Storage Estimates

- Input: Min., ML & Max. estimates of 6 parameters: GRV, NTG, PHI, Effective Area, Efficiency Factor, Density
  - 1000 to 4000m subsea
- Process: Monte Carlo simulation with 5000 trials
- Output: Probability Distribution Functions with deterministic scenarios plotted
- Cumulative Probability P10-P50-P90 = 20 Mt - 1.4 Gt – 3 Gt
  - Long "tails" allow for low probability upside to ? 10 Gt



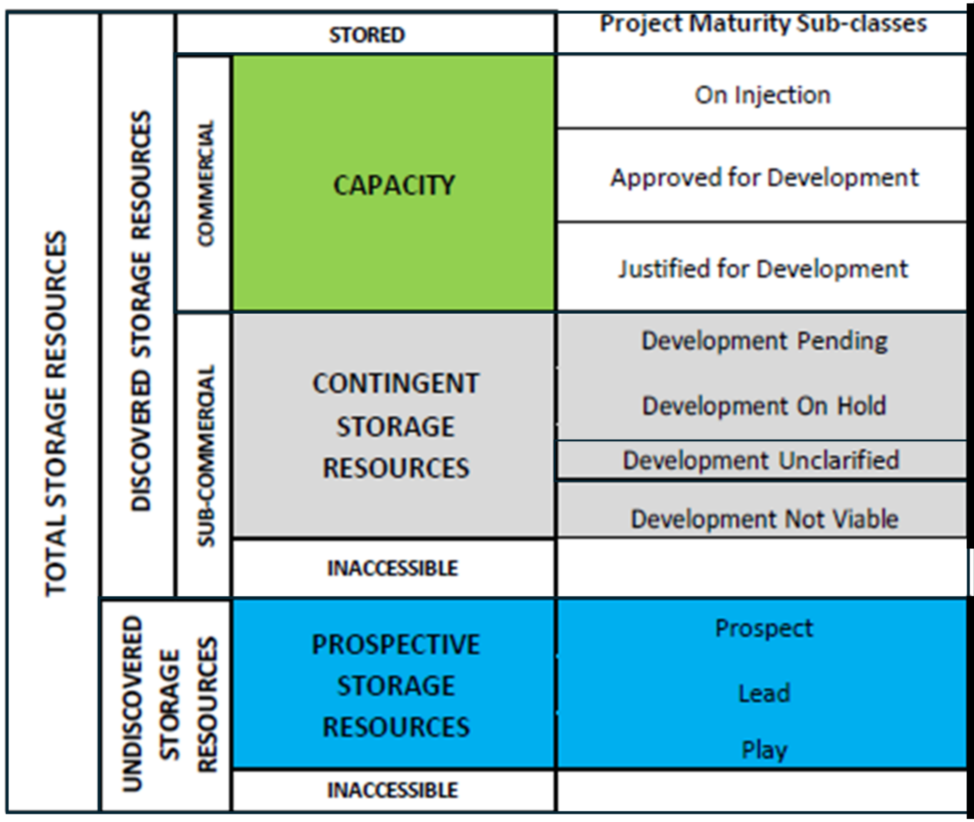
	Min	ML	Max
GRV ($10^6 m^3$) +/- 20%	5.84E+06	7.30E+06	8.76E+06
Net PHI to Gross	0.05	0.20	0.30
Av. PHI above 10%	0.12	0.15	0.18
Effective area	0.1	0.2	0.3
Storage Efficiency	0.005	0.01	0.03
sCO_2 Density	0.7	0.7	0.7
Storage Gt CO_2	0.012	0.307	2.980



	Min	ML	Max
GRV ($10^6 m^3$) +/- 20%	4.40E+06	5.50E+06	6.60E+06
Net PHI to Gross	0.1	0.15	0.5
Av. PHI above 10%	0.12	0.15	0.18
Effective area	0.2	0.3	0.4
Storage Efficiency	0.005	0.01	0.03
sCO_2 Density	0.7	0.7	0.7
Storage Gt CO_2	0.037	0.260	4.990

Results - Storage Capacity Classification (SPE SRMS)

- Society of Petroleum Engineers Storage Resource Management System (SPE SRMS, 2017)
- Classify Fundy as "Undiscovered Prospective Resources"
  - Level below Atlantic Margin Mesozoic Basins. Three levels below stored CO_2 at Deep Panuke
- Potentially add Fundy to OGCI CO_2 Storage Resource Catalogue*



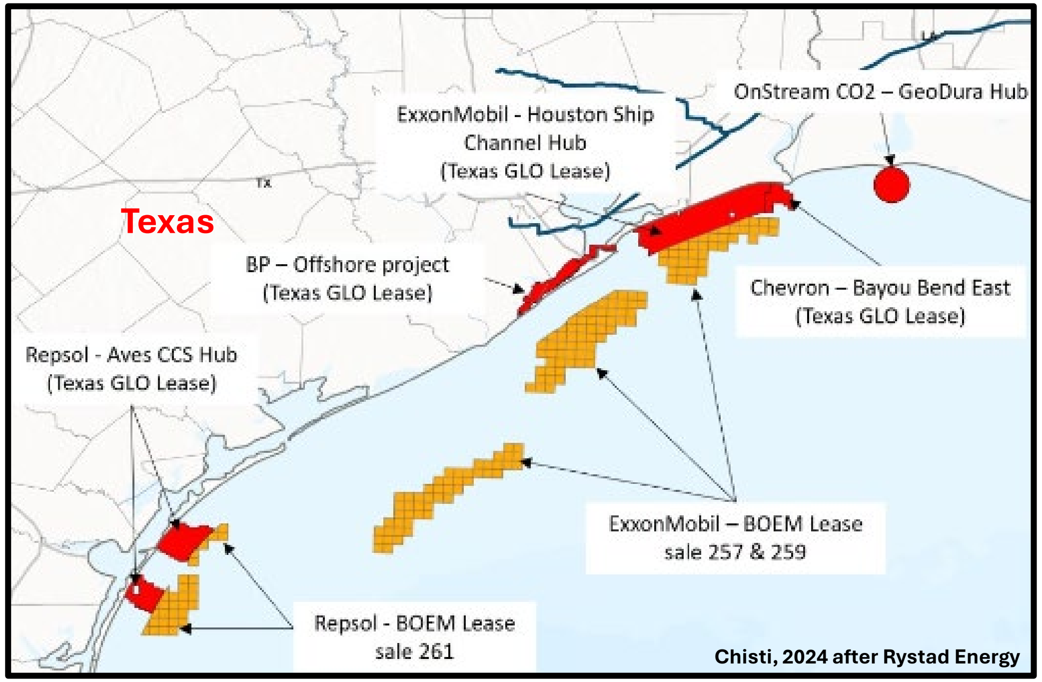
Panuke	Stored
North Sea Bunter	Discovered Commercially Accessible
Atlantic Margin Mesozoic Basins	Discovered Contingent Resources • Well-characterised geologically • Lack funding &/or regulations
Fundy Basin	Undiscovered Prospective Resources "Leads & Prospects"

*Oil & Gas Climate Initiative. ~ 14.,000 Gt inventoried. None in Atlantic Canada.

Uncertainty / Risking

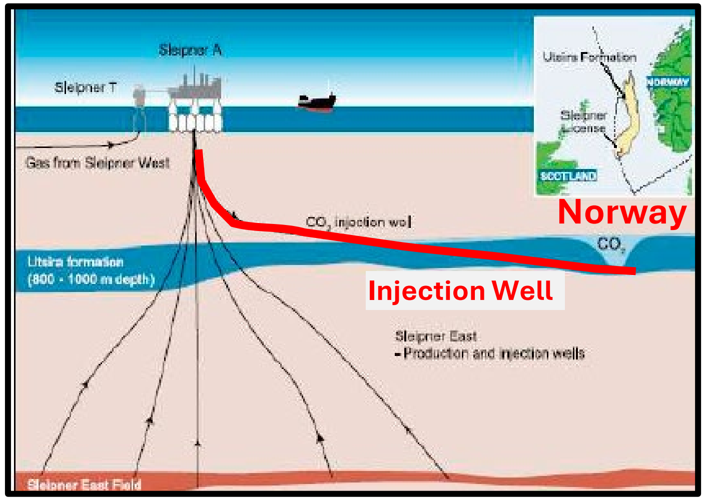
- **Risked play elements at 3 scales:**
  - ~ 20 Mt (1-3 wells): similar to operational projects
    e.g., Sleipner, Snohvit, Quest,
  - ~ 100 Mt (5-15 wells) similar to ongoing active projects
    e.g., Endurance, Aurora (Northern Lights), Porthos
  - ~ 1 Gt (50-150 wells) similar to planned projects
    e.g., Gulf of Mexico

Gulf of Mexico - Commercial & Planned CCS projects



https://www.linkedin.com/pulse/offshore-ccs-vs-onshore-navigating-north-americas-tahir-chisti-masc--okhhe/

Sleipner – Norwegian North Sea (1996 to 2026) ~ 1 Mtpa



Smith et al., 2011. Establishing & Maintaining the Integrity of Wells used for Sequestration of CO2.

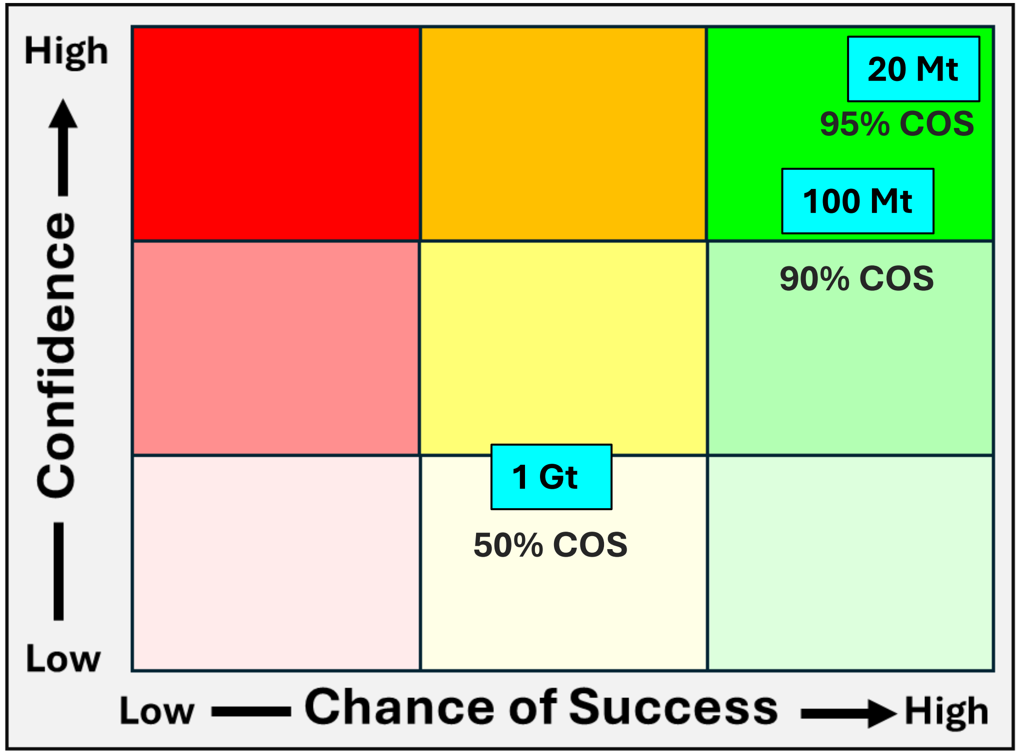
Endurance – Southern North Sea ~ 4 Mtpa initially

https://en.portnews.ru/news/371362/

Risking – Capacity (Effective Pore Volume)

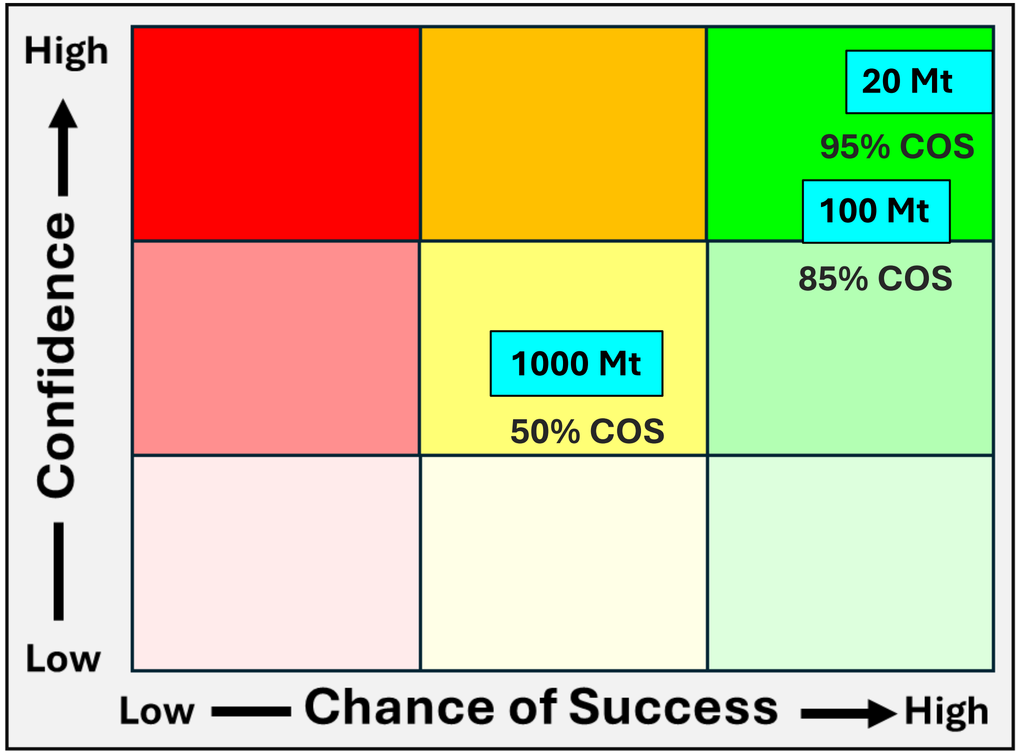
- Using “Risk-Adequacy Matrices” with “traffic-light colours”
  - Plot Chance of Success against Confidence

- High COS & Confidence in pore space around Cape Spencer well
  - Decreases at larger scale with many wells and larger project footprint

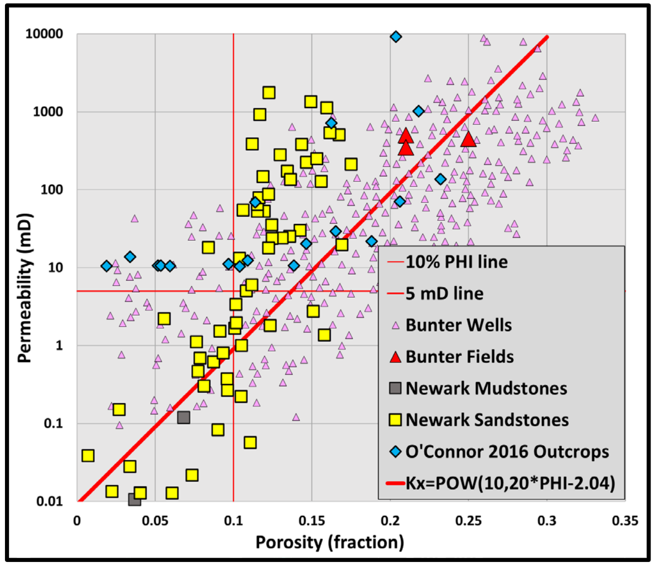


Risking – Injectivity (Near bore-hole permeability)

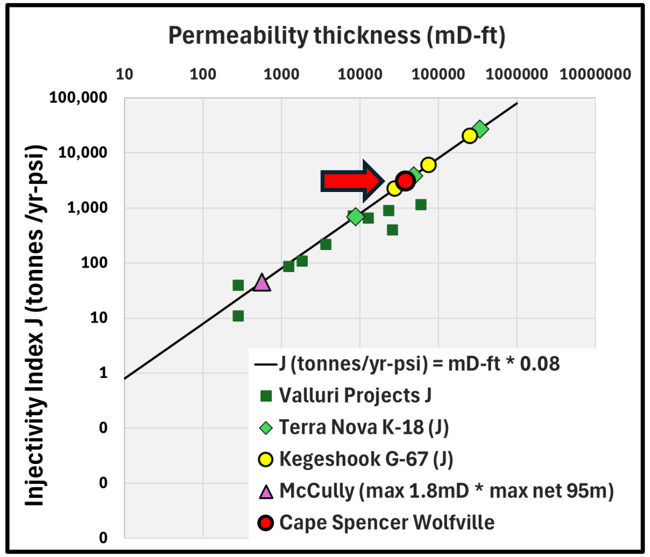
- Similar risking for injectivity
- Key parameters are Phi-K transform & injectivity index
  - Used Bunter Phi-K as Newark cores are too shallow (Zacharova, 2020)
  - Injectivity Index: J (tonnes / year-psi) = mD-ft * 0.08 (Valluri et al., 2020)
- Injectivity Index shows that ~200 m of good quality Wolfville at Cape Spencer compares favourably with existing and planned projects

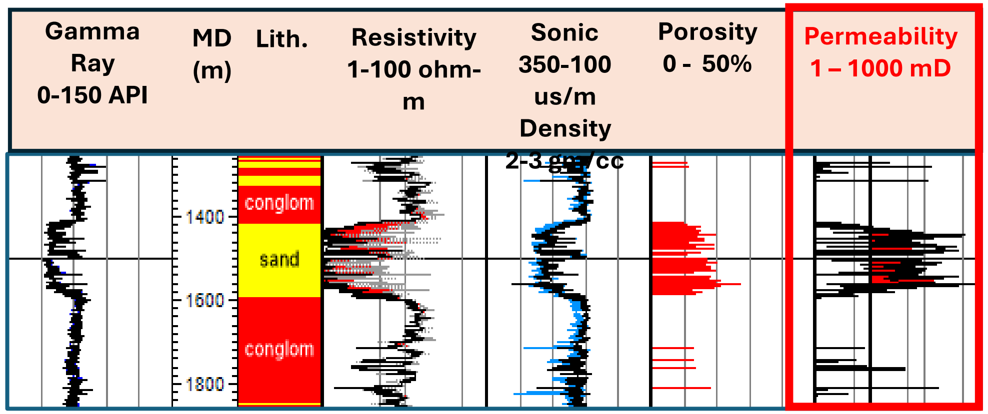


Phi-K Transform: Newark & Bunter



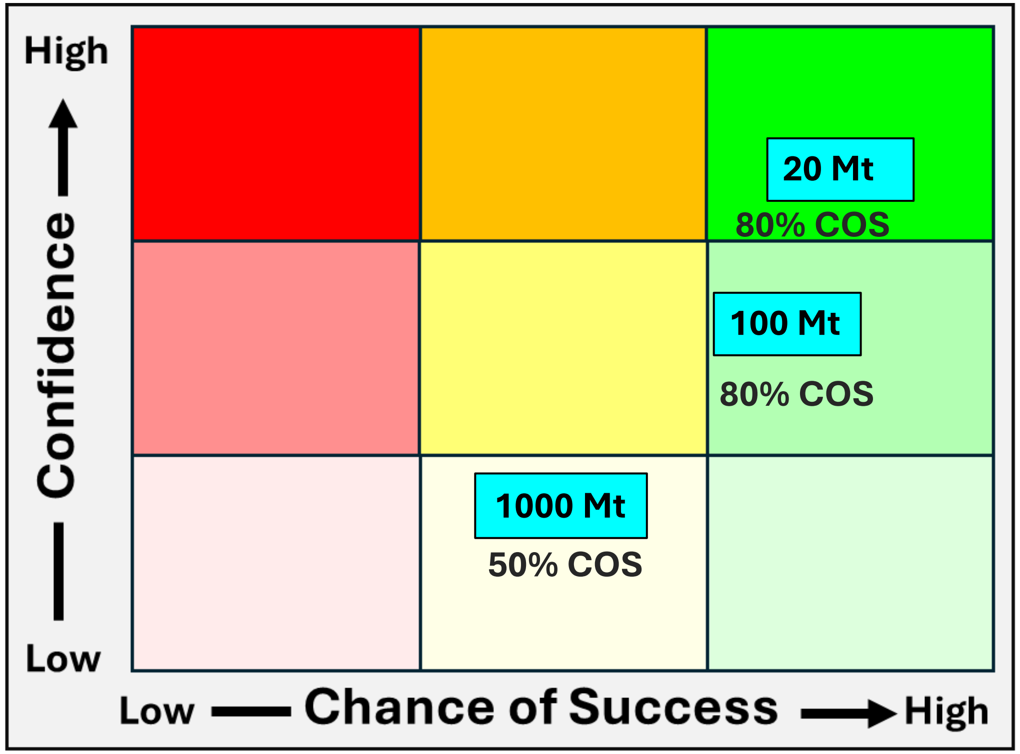
Injectivity Index vs Perm.-Feet



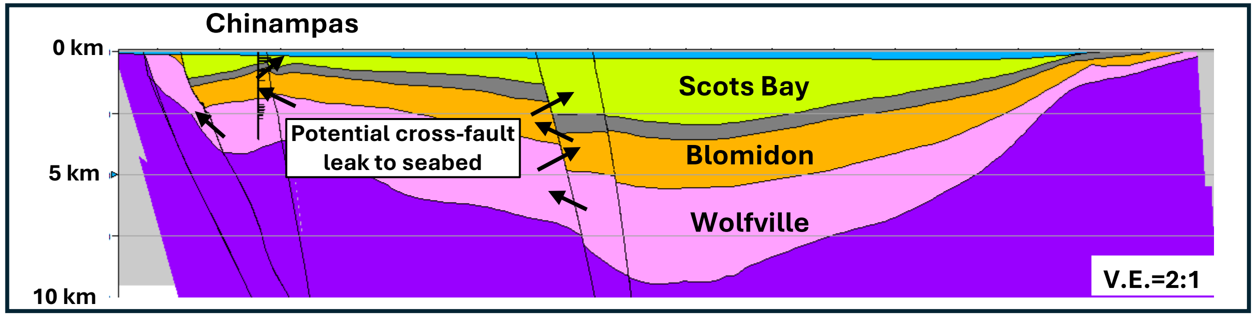


Risking – Containment (Regional topseal for unconfined aquifers)

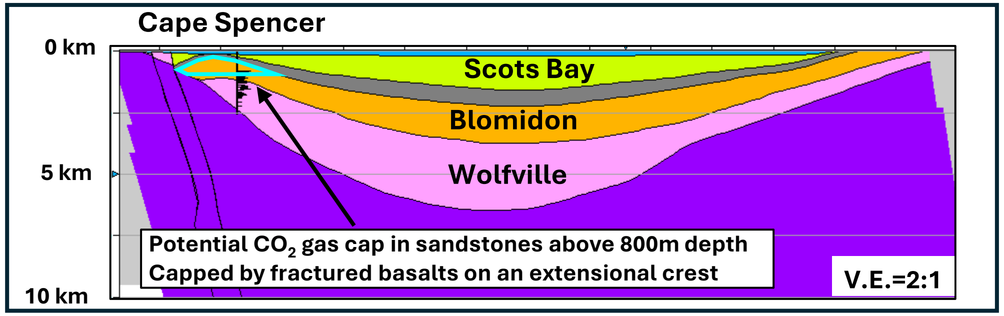
- Already described topseal risks at Chinampas and Cape Spencer
- Fundamental problem is lack of a definitive regional top seal
  - ➢ Fracturing is pervasive (Rivard, 2012 and Zhakarova, 2020),
  - ➢ Probably mostly cemented, but risk of open fractures
- Plausible that basalts are “self-healing”
  - ➢ But high-volume supercritical injection at Fundy is different from injection of large volumes of fizz-water in Icelandic projects
- Stress State: Faults in Stockton Fm. in Newark Basin at frictional limit
  - ➢ Wolfville equivalent (Zakharova et al., 2020)



Chinampas Rollover Anticline

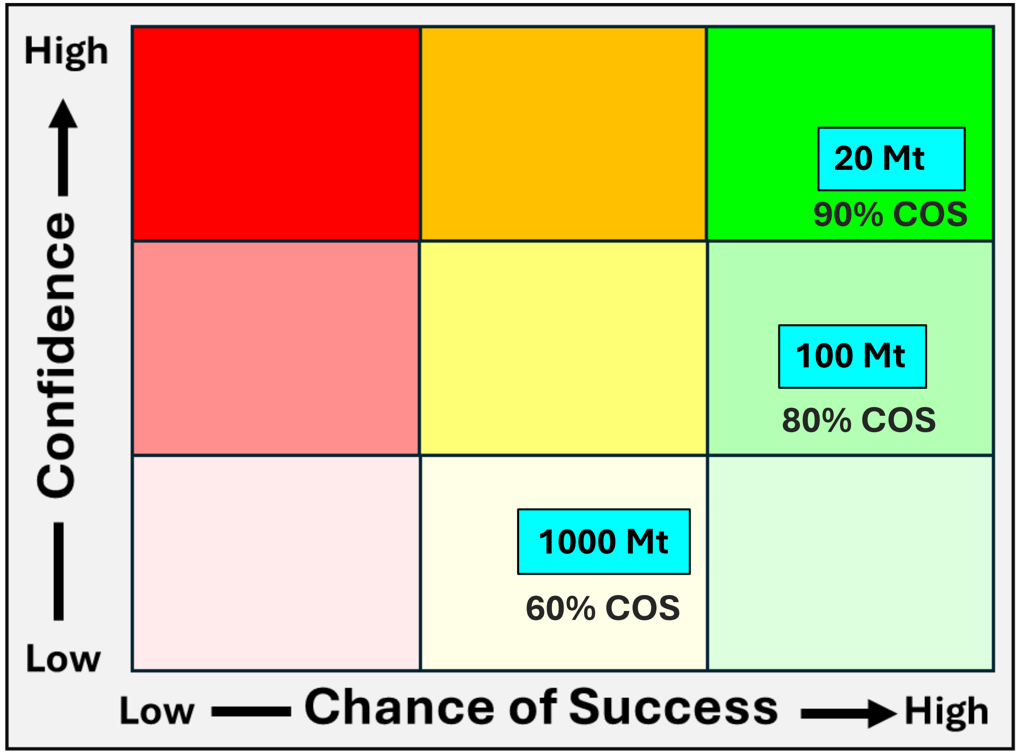


Cape Spencer Rollover Anticline



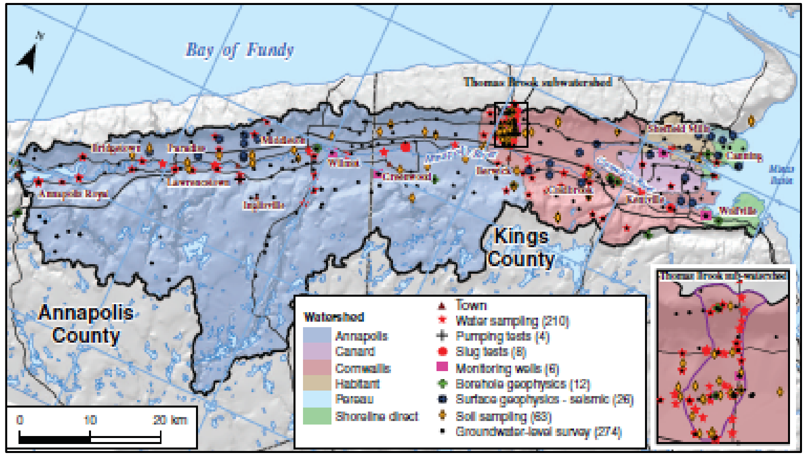
Risking – Pressure Space (Regional pressure & fluid connectivity)

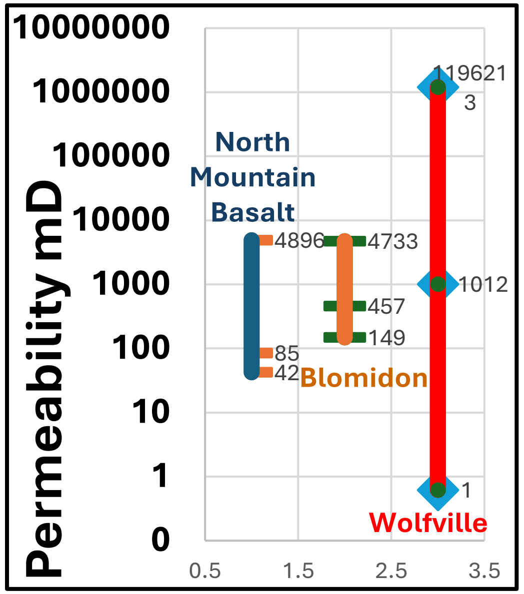
- **Three points:**
  1. Drilling mud-weights throughout Maritimes Basin indicate long – term pressure equilibration to hydrostatic due to fracturing
  2. Consistent with large-scale groundwater study in Annapolis Valley
  3. Consistent with interpretations in Newark Basin (Zakharova, 2020)
- **Not good news for long-term containment at high volumes**



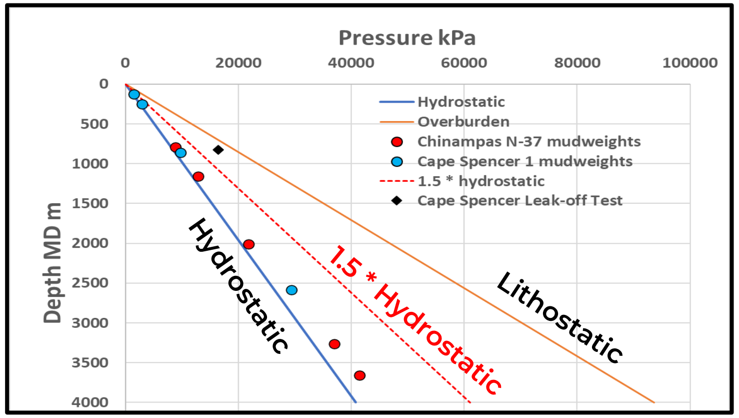
Groundwater Inventory & Permeability (Rivard et al., 2012)

12,891 well & borehole logs, 157 pump tests, 1,256 water samples, 7 gauging stations, 12 observation well hydrographs





Drilling Mud Weights Chinampas & Cape Spencer



Risking – Aggregate COS (Chance of Success)

Target	# wells			Target	Storage	COS	COS	COS	COS	COS
Mtpa	Min	ML	Max	Years	Mt	Capacity	Injectivity	Containment	Pressure Space	Aggregate
1	1	2	3	20	20	0.95	0.95	0.8	0.9	0.65
5	5	10	15	20	100	0.9	0.85	0.8	0.8	0.49
50	50	75	150	20	1000	0.5	0.5	0.5	0.6	0.08

- ~ 65 % COS for a 20 Mt project (1-3 wells)
- ~ 50 % COS for a 100 Mt (5-15 wells) project
- ~ 10 % COS for a 1 Gt project (50-150 wells)

- Often best to get multiple opinions on risking:

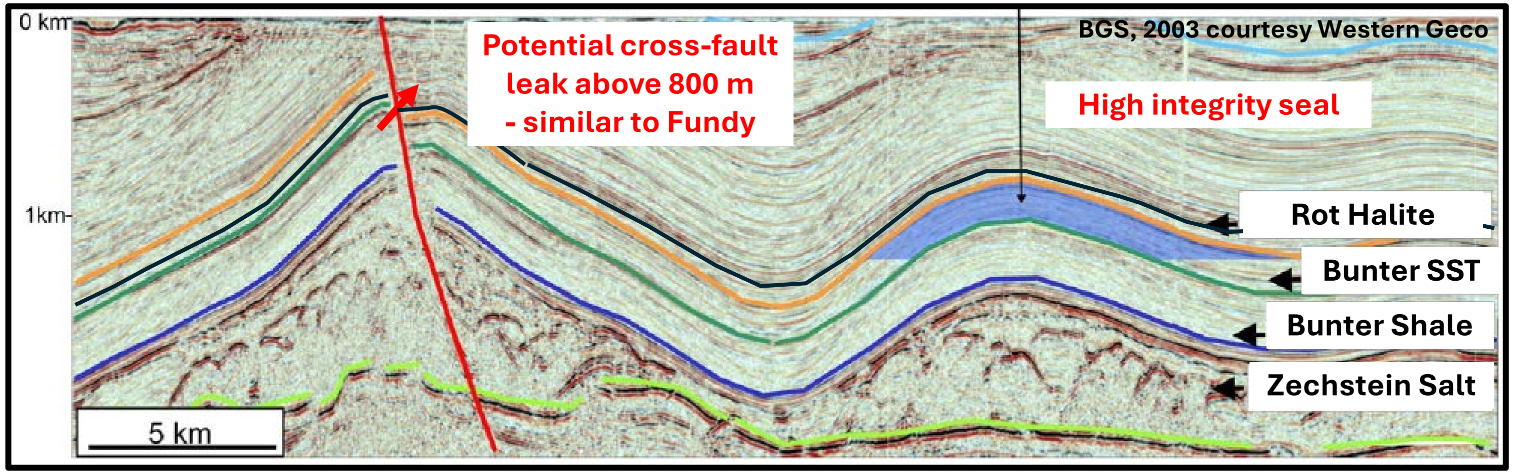
➢ "Risking Party" or "Wisdom of Crowds"

Analogue – Bunter Sandstone: UK Southern North Sea

Bunter sandstone in North Sea – BP, Equinor, Total: Endurance Project

- 5.7 Gt CO_2 in 3 licences. Drilling of 6-8 initial wells starting 2026. Initial 4 Mtpa.

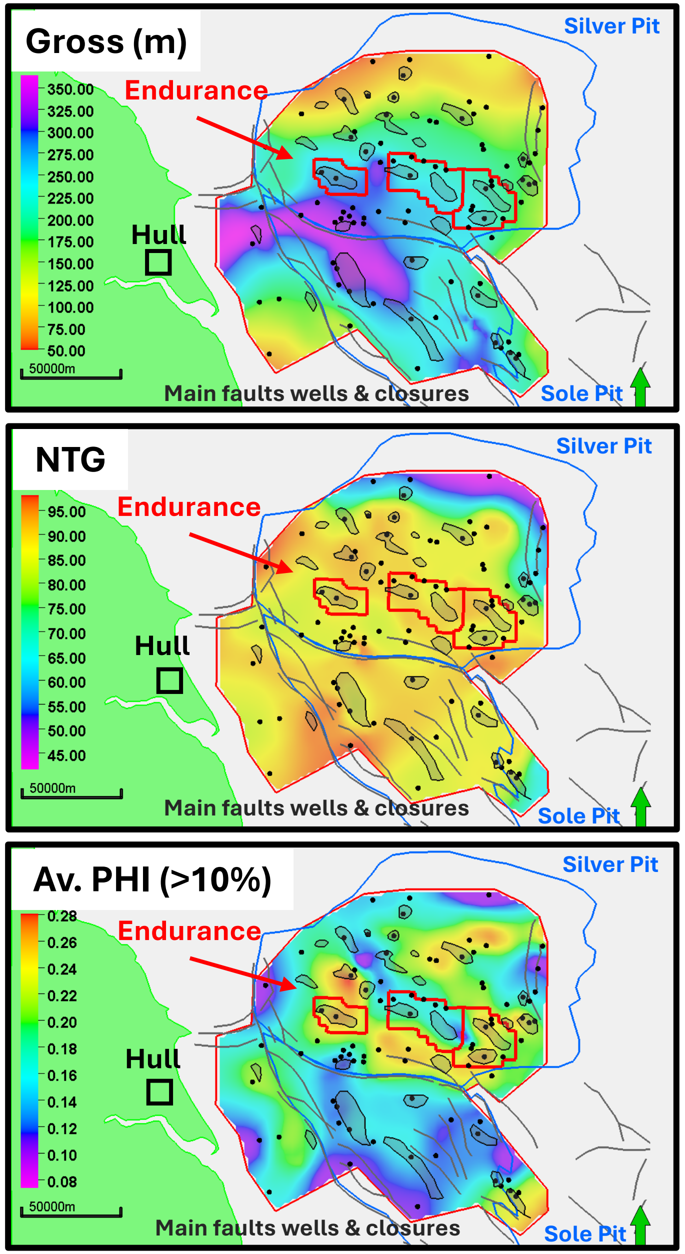
Bunter sandstone trapped by regional Rot Halite – cross-fault leak risk similar to Fundy



- Silver Pit / Sole Pit Basins ~ 2-3 x area of Fundy
- NTG & maximum porosity are better than Fundy
- **High quality Bunter is similar thickness to high quality interval at Cape Spencer well**

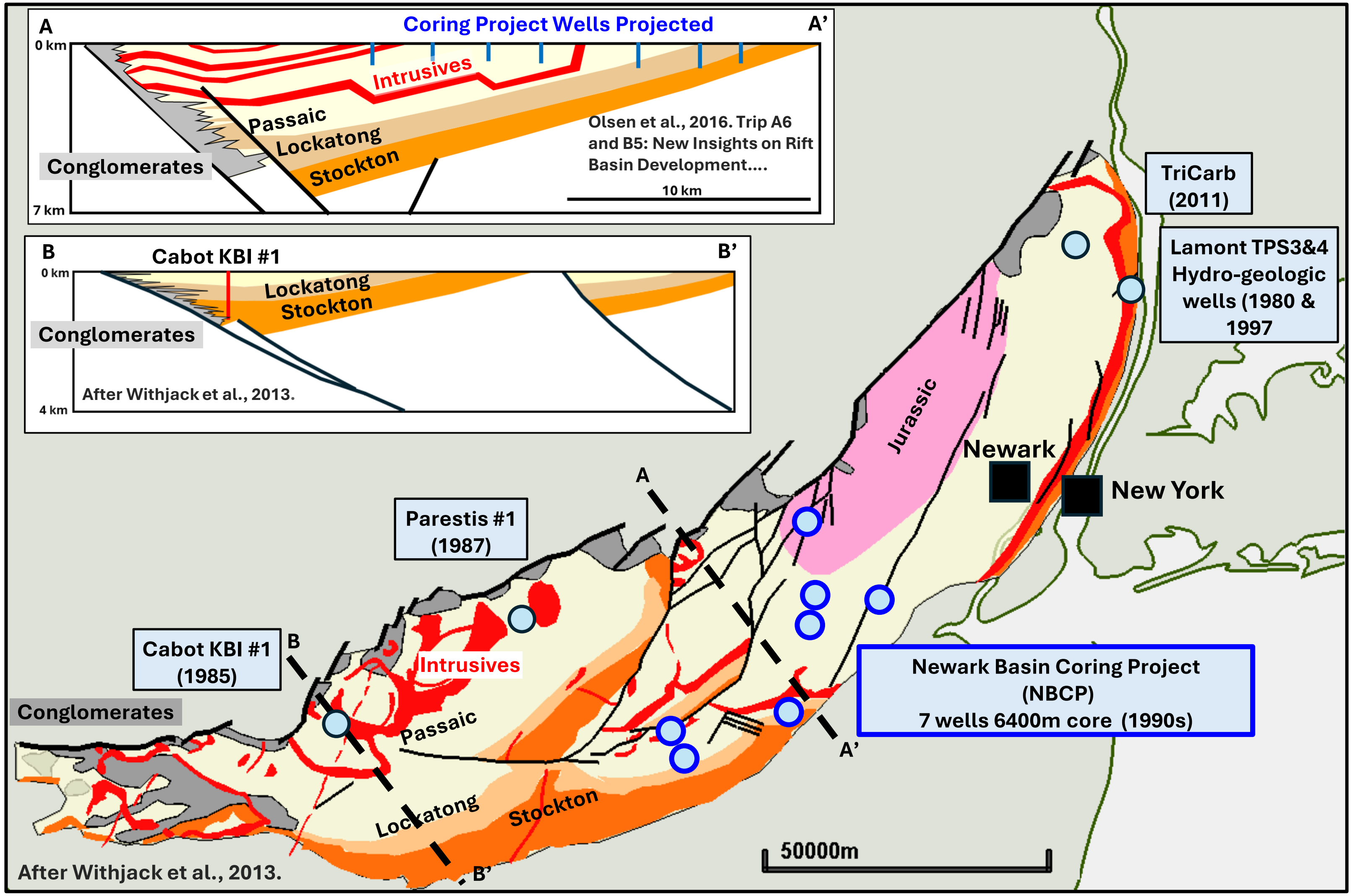
Study Area	km^2	wells	Capacity	Source	Gross (m)	NTG	Porosity
UK: Silver Pit - Sole Pit	21,000	~420	5 - 15 Gt	Hollaway et al., 2006	50-350	45-95%	10-28%
Fundy Subbasin	9,326	2	0.1-3 Gt	This study	0-3000	0.5-15%	10%-20%

Maps after Hollingsworth et al., 2023



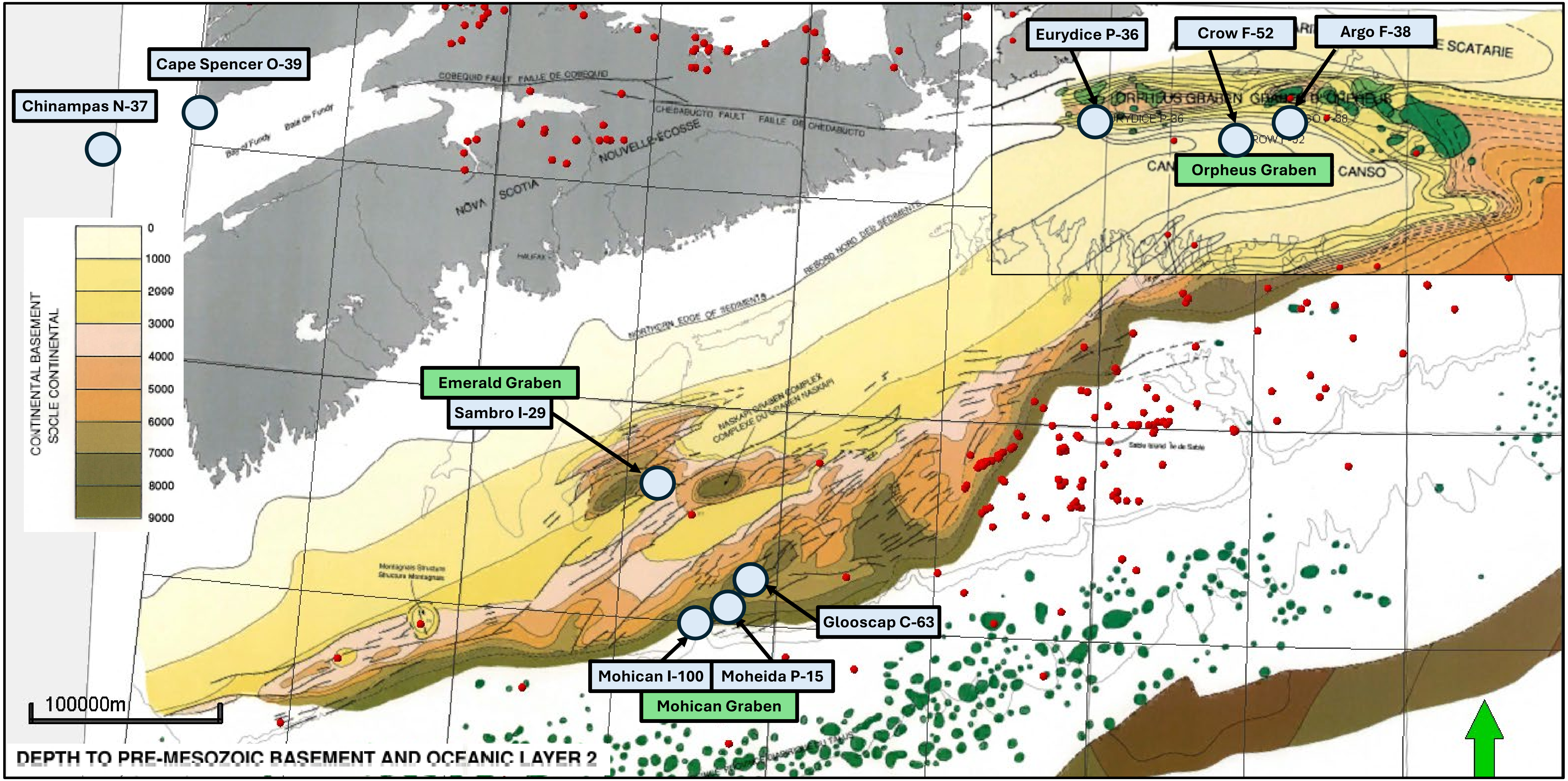
Analogue - Newark Basin Traverses & Surface Geology

- 12 wells
  - ➢ 2 exploration wells
  - ➢ 7 coring project wells – 6400m
  - ➢ TriCarb Well – CCS evaluation
  - ➢ 2 hydro-geologic wells on Lamont campus
- Similar Structure to Fundy
  - ➢ Rollovers – syncline – monocline – outcrops
  - ➢ Two rollovers drilled with gas shows
- Similar Stratigraphy to Fundy
  - ➢ Stockton ~ Lower Wolfville (fluvial)
  - ➢ Lockatong ~ Middle Wolfville (lacustrine)
  - ➢ Passaic ~ Upper Wolfville & Blomidon (lacustrine with occasional sands)
  - ➢ Much more development of lacustrine mudstones than interpreted at Fundy
    - – but lack basinal wells at Fundy
- Geomechanical risk identified
- Wide assessment range in Stockton Fm.



Study Area	km^2	wells	Capacity	Source	Gross (m)	NTG	Porosity
Fundy Subbasin	9,326	2	0.1-3 Gt	This study	0-3000	0.5-15%	10%-20%
USA: Newark (Stockton)	5,000	12	2 - 30 Gt	Collins, 2017 & 2013	162-1440	20-80%	1-17%

Scotian Shelf – Triassic Basins and Well Penetrations

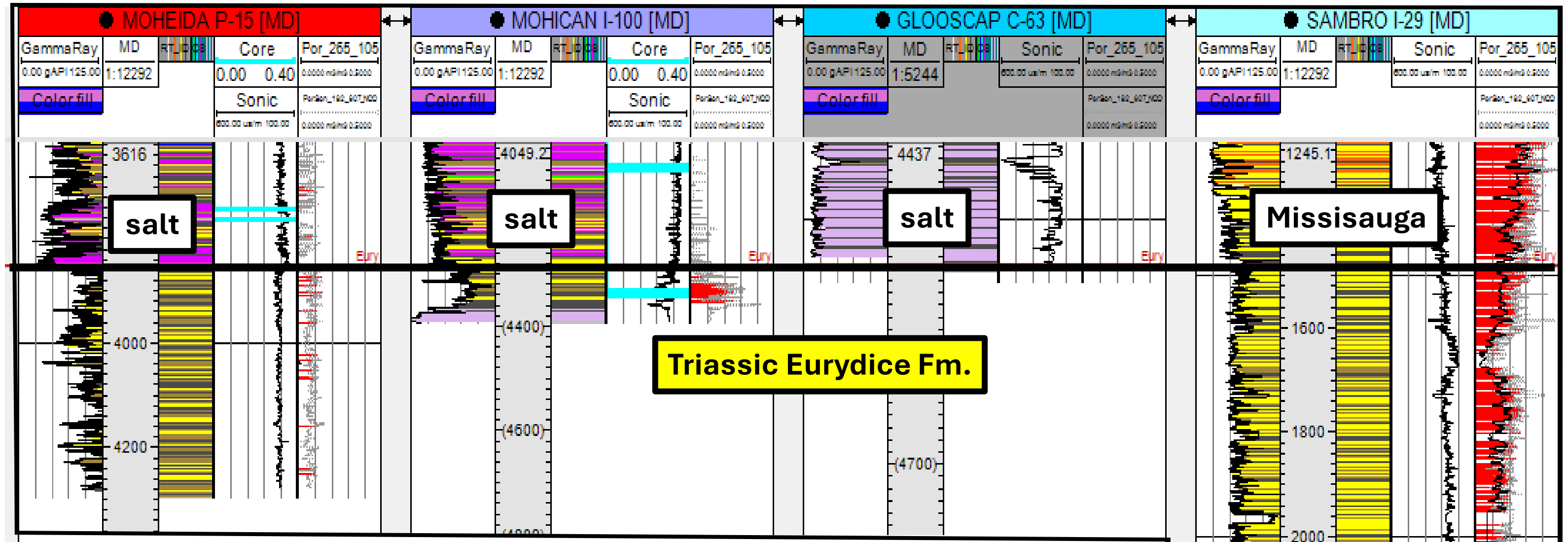


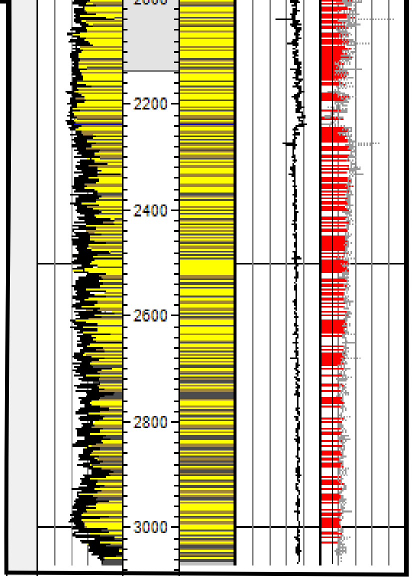
Atlantic Geoscience Centre, 1991. *East Coast Basin Atlas Series: Scotian Shelf.* Atlantic Geoscience Centre, Geological Survey of Canada

Southwestern Scotian Shelf - Emerald & Mohican Grabens

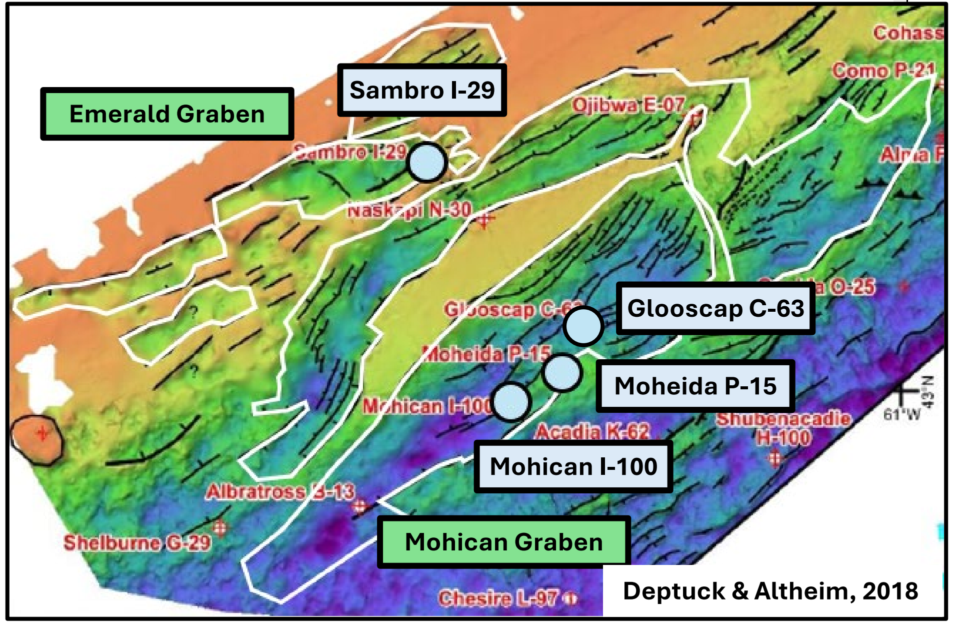
4 wells

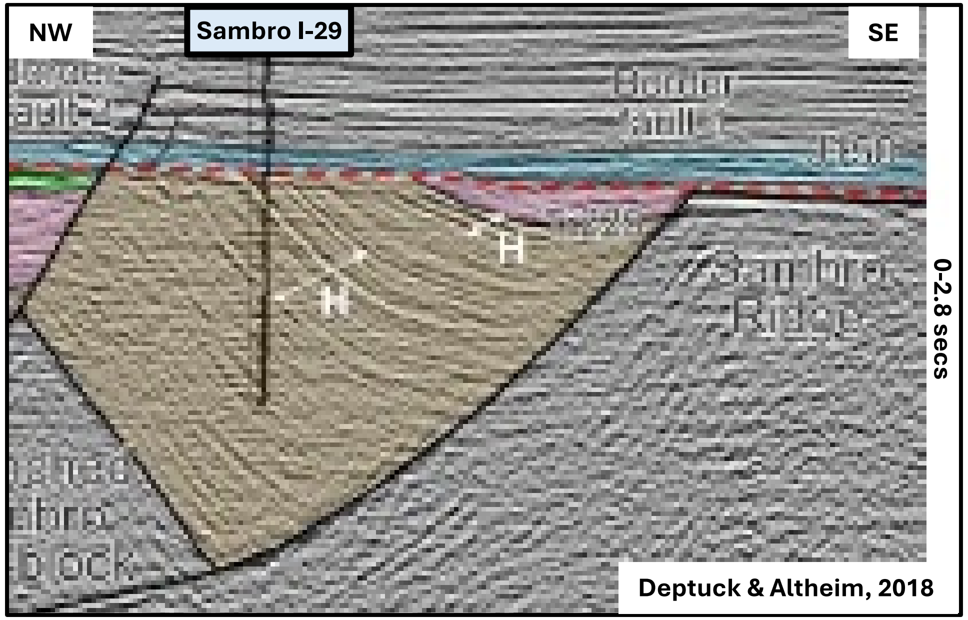
- Sambro I-29 has considerable potential – but why go below Missisauga saline aquifers which are much higher quality?
  - ~1500m Gross, 86% NTG, 10- 25% Phi
  - Porosity likely overestimated by sonic log in shaley sands
- Moheida P-15 looks poor quality
- Mohican & Glooscap minimal penetration





Sonic porosity high compared to density porosity (black) in shaley sands due to bound water



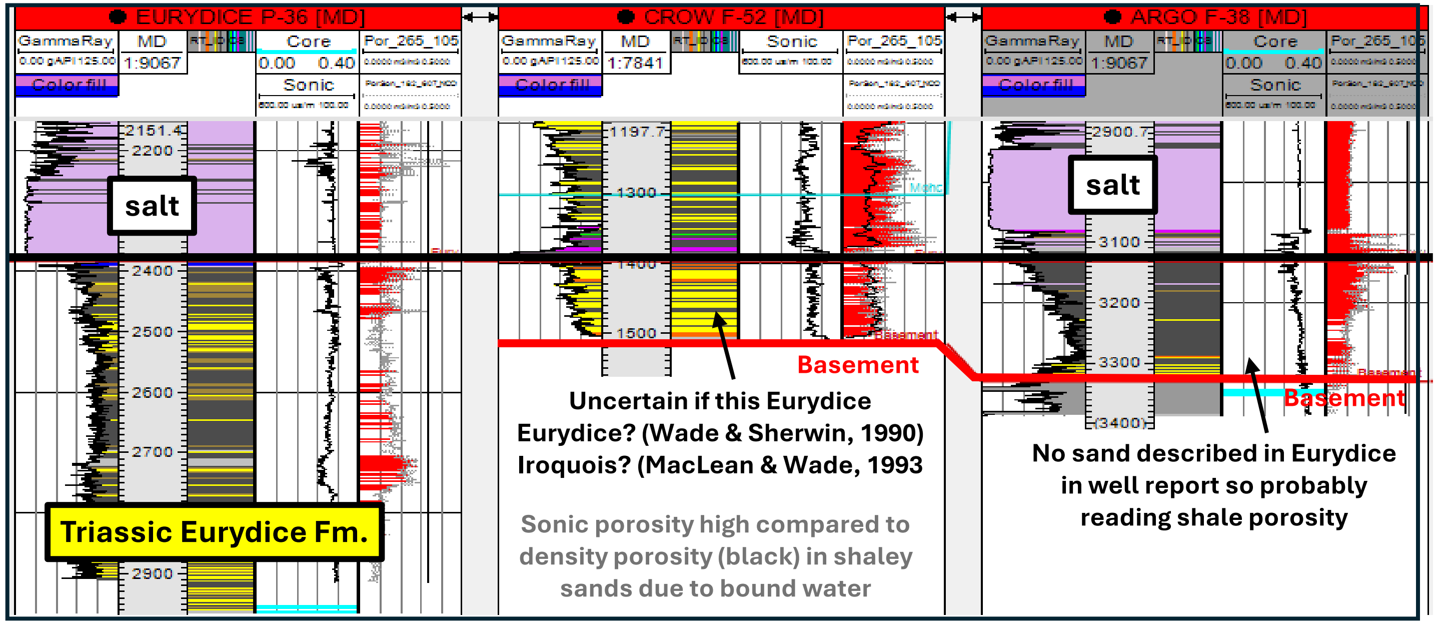


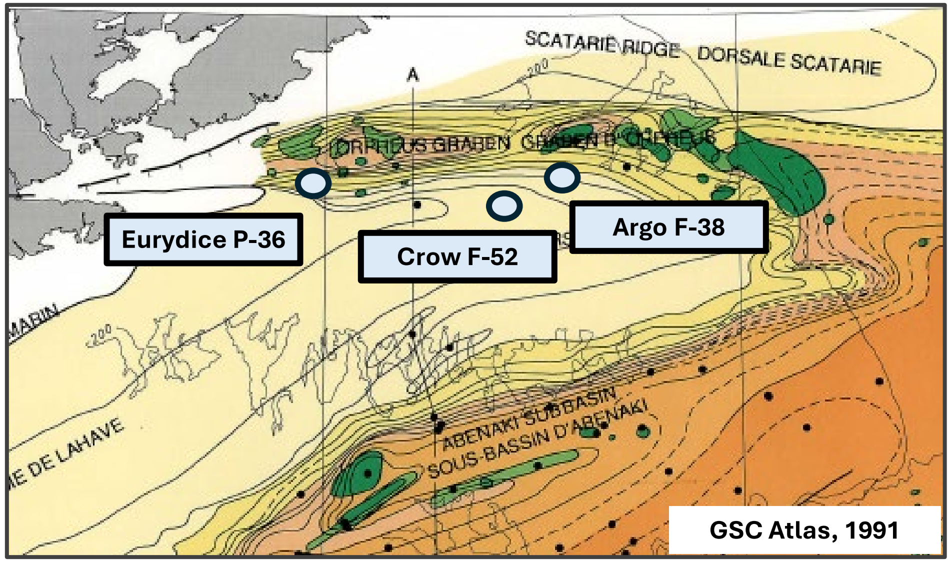
Deptuck and Altheim, 2018. *Rift basins of the central LaHave Platform, offshore Nova Scotia*. CNSOPB Open File Report, 2018-001MF

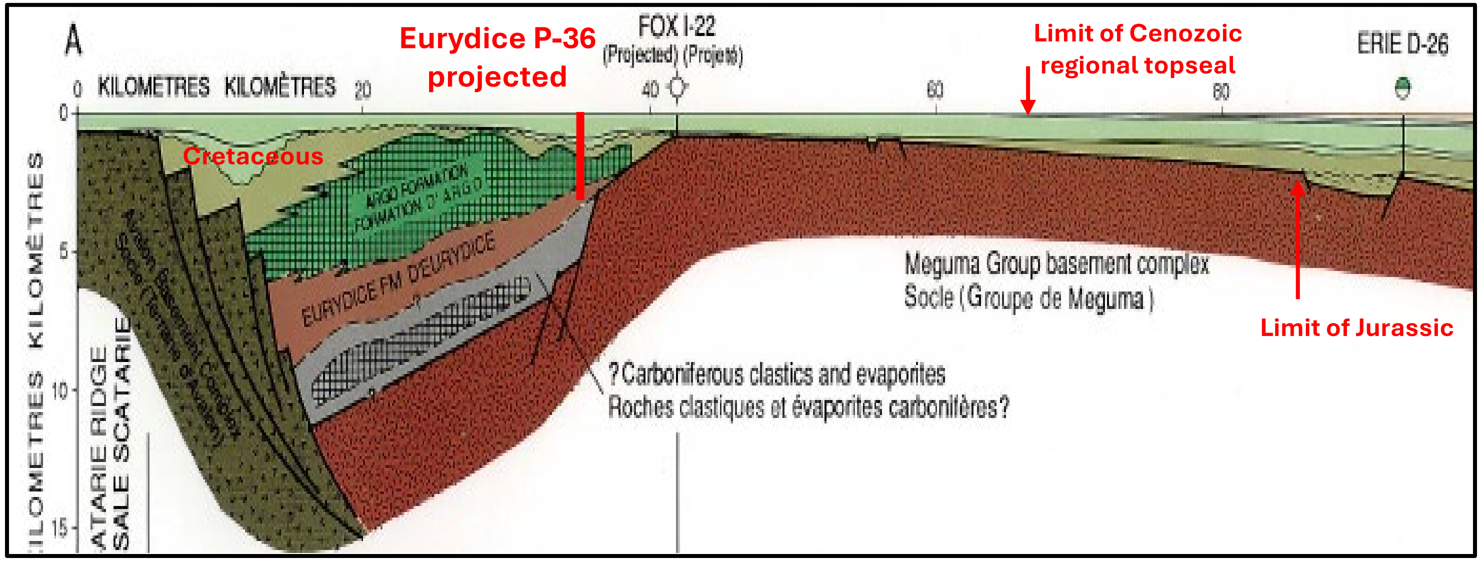
Northeastern Scotian Shelf - Orpheus Graben

3 wells

- Eurydice P-36 – significant lead
- But significant topseal risk without 3D seismic
  - ➢ 535m Gross, 58% NTG, 10-25% Phi
  - ➢ No formation pressures or 3D seismic to indicate if aquifer is isolated by salt from Cretaceous aquifers (no topseal)
- Crow F-52 probably is not Eurydice
- Argo F-38: no sand in well report in Eurydice





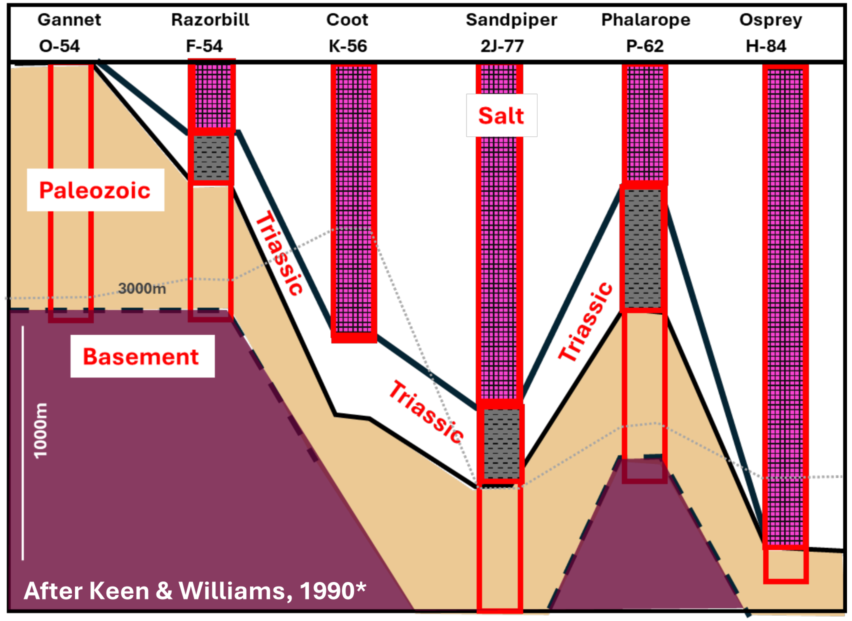


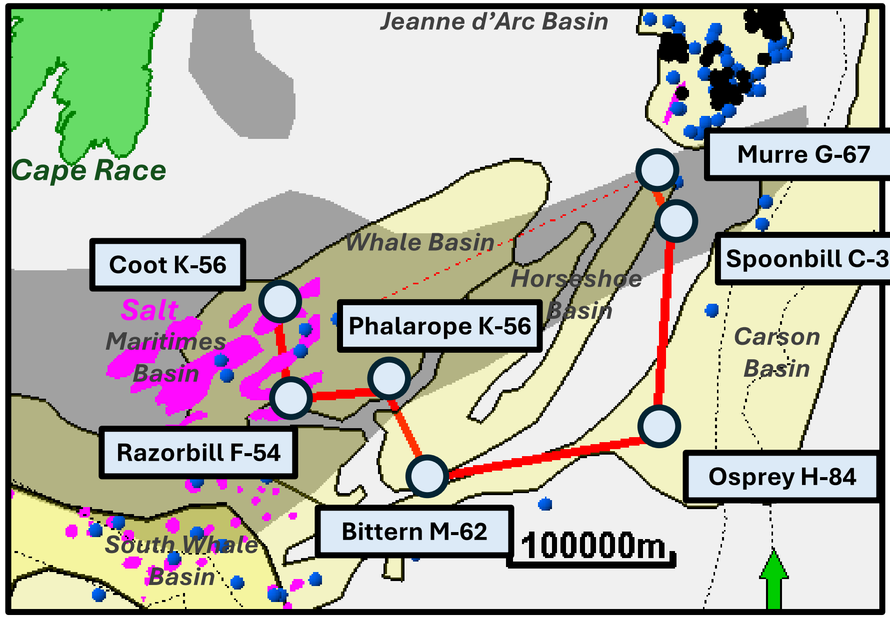
Atlantic Geoscience Centre, 1991. *East Coast Basin Atlas Series: Scotian Shelf.* Atlantic Geoscience Centre, Geological Survey of Canada

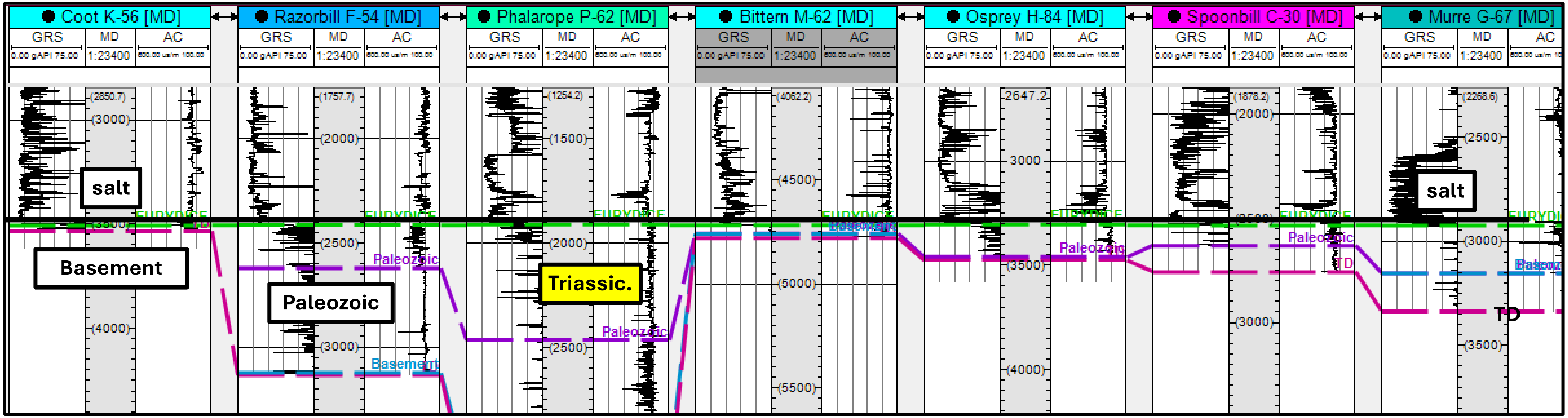
Southeast Newfoundland Basins: Whale – Horseshoe – Carson

8 wells

- 0 m net in 3 wells with full penetration of Triassic clastics
- Maximum ~ 500 m Gross





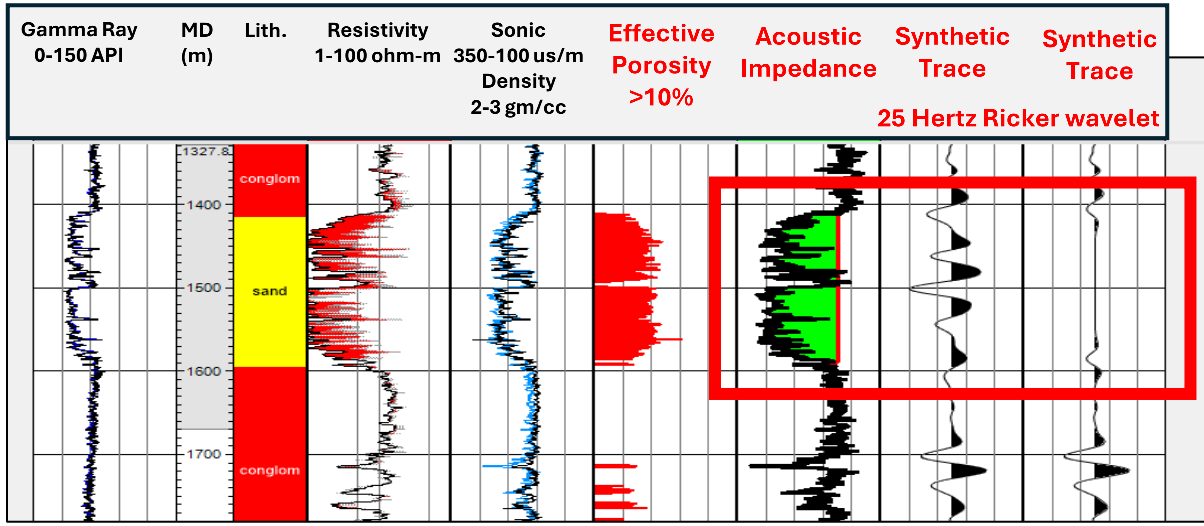


*Keen and Williams (Editors), 1990. Geology of the Continental Margin of Eastern Canada, Geological Survey of Canada

Seismic Forward Modeling – Supports 3D Seismic Mapping of Porosity

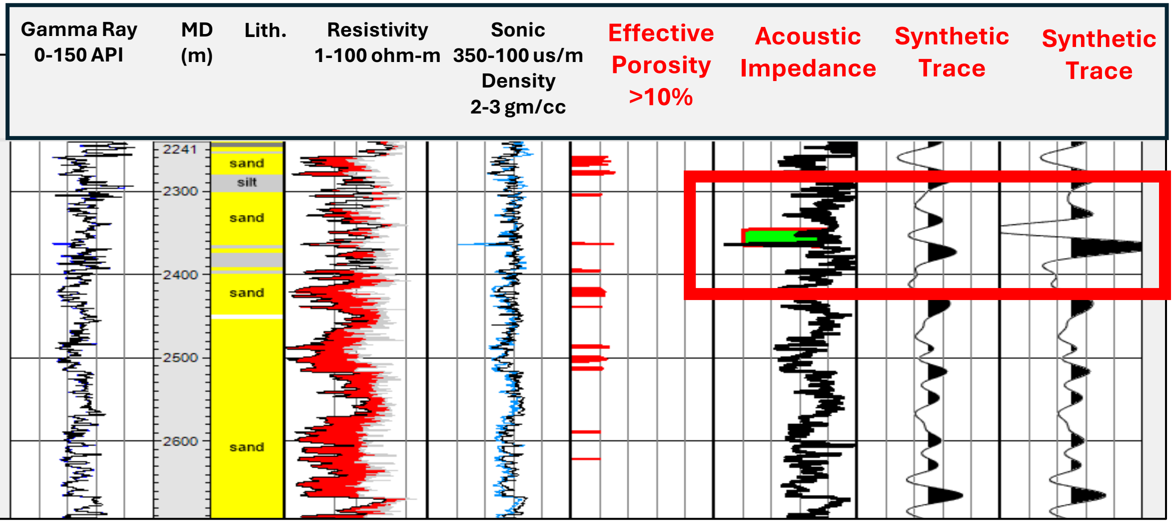
Cape Spencer

- Took out 180m of low impedance 20% porosity aquifer
- Obvious loss of 3 high amplitude cycles

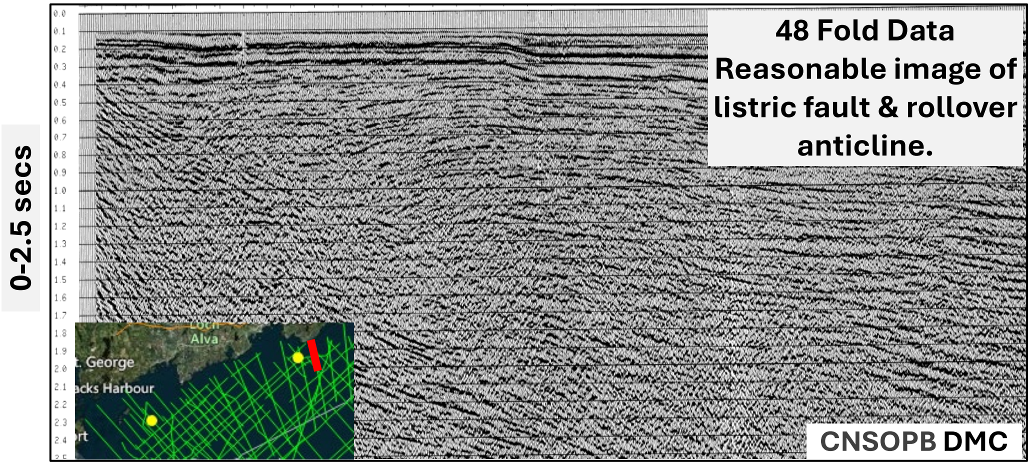


Chinampas

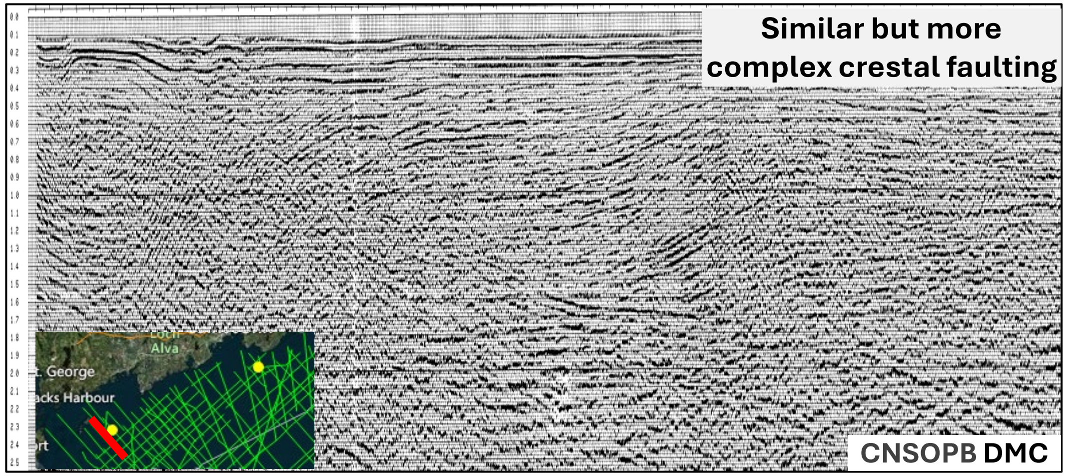
- Put in 20m of 20% porosity aquifer
- Obvious high amplitude reflection – near tuning thickness



Detail of 81-85-21H



Detail of BF 72



Conclusions & Recommended Further Work

- Good chance of sufficient pore volume near Cape Spencer well for a small project
- BUT significant containment and pressure space risks that increase with project size
- Best option for moving forward is 3D seismic data
  - Fundy Subbasin ~ 9000 km² (~$90million at $100,000/km²)
  - Similar area to Shelburne Survey on Scotian Slope ~ 12,000 km² (Shell, 2013)

- Recommend technical upgrades to expert level:
  - Petrophysics – in shaley sandstones
  - Facies and diagenesis – predictive mapping for geocellular modeling
  - Static Modeling Structure – varying crestal fault offsets & extend to Chignecto & Minas
  - Static Modeling Properties – addressing facies, diagenesis and fracture networks
  - Dynamic modeling – testing aquifer distribution scenarios and fault offset scenarios
  - Geomechanics – fracture integrity in North Mountain Basalt & fault stability
  - Further evaluation of Newark and South Georgia data

Cape Spencer

(Neoproterozoic granitic basement)

https://www.youtube.com/watch?v=wdQ0u00x8UQ