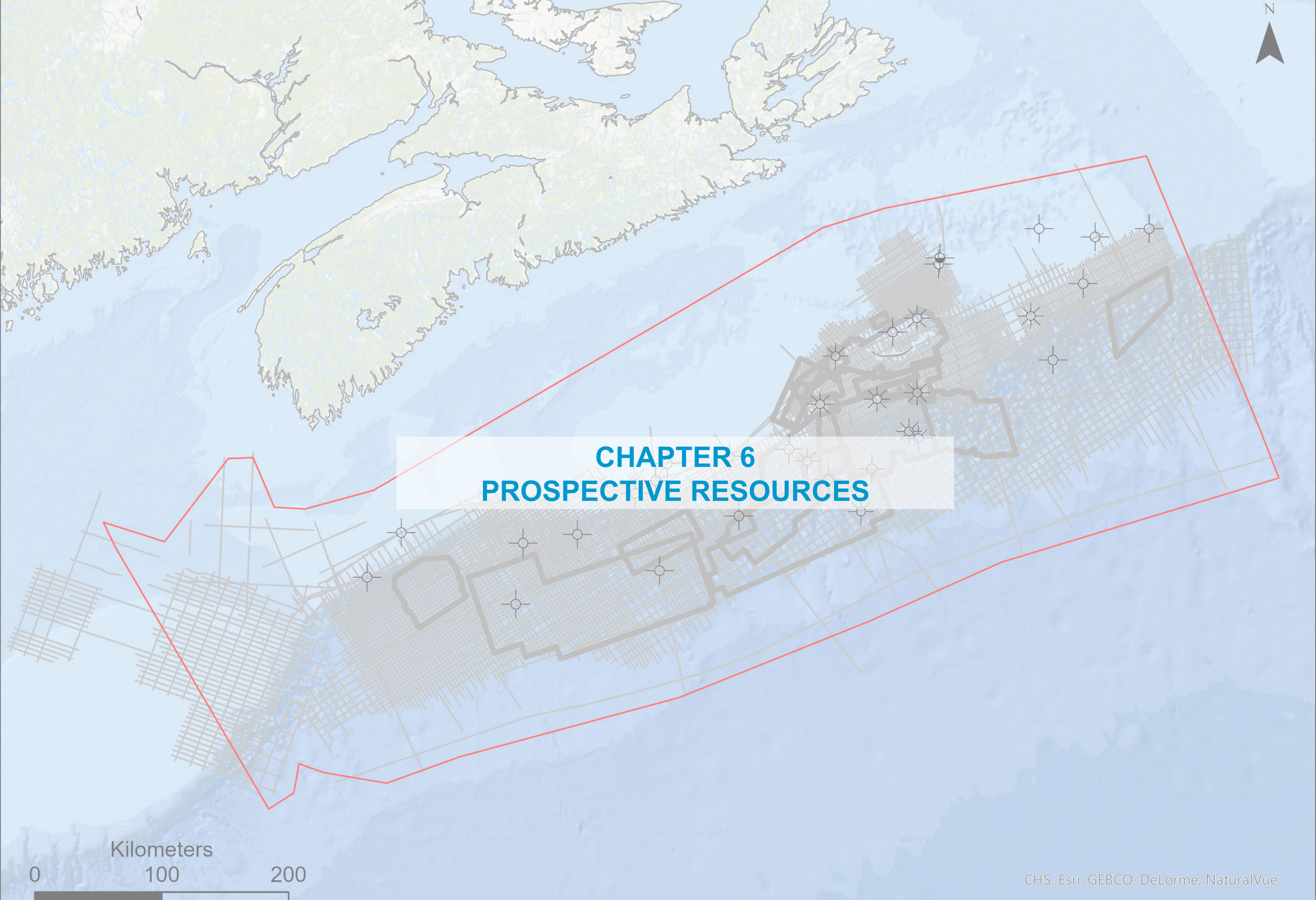
CHAPTER 6
PROSPECTIVE RESOURCES



Nova Scotia Deep Water Potential

The estimation of the resource potential was done in three stages (Figure 1) that included: (1) a whole basin Yet to Find (YTF) calculation, (2) a collaborative ranking of 25 candidate leads assembled from previous public reports and select structures identified during seismic mapping, and (3) conventional volumetrics calculated for 10 top ranked leads.

(Stage 1) A Scotian Basin Yet To Find (YTF) was calculated at ~32 Bboe (in place and unrisked) using a 3D petroleum systems model (Beicip-Franlab's TEMIS; Figure 1, Stage 1).

(Stage 2) Stonehouse, Belleisle, Thorburn, Piscatiqui, Oakfield, Weymouth Deep, Seawolf, Liscomb East, Brooklyn, and Berwick named leads were prioritized after a collaborative ranking exercise (Figure 1, Stage 2). A score was applied for candidate leads based on trap, charge, seal, and reservoir to assist in selecting 10 leads for volumetric calculations with emphasis on Sable and Central Slope areas.

(Stage 3) Each of the top ten ranked leads have volumes > 250 MMboe (in place) based on a conventional volumetrics approach with lead GCOS in the range 10-25%. The top 5 leads have volumes exceeding 1 Bboe in place (Figure 1, Stage 3).

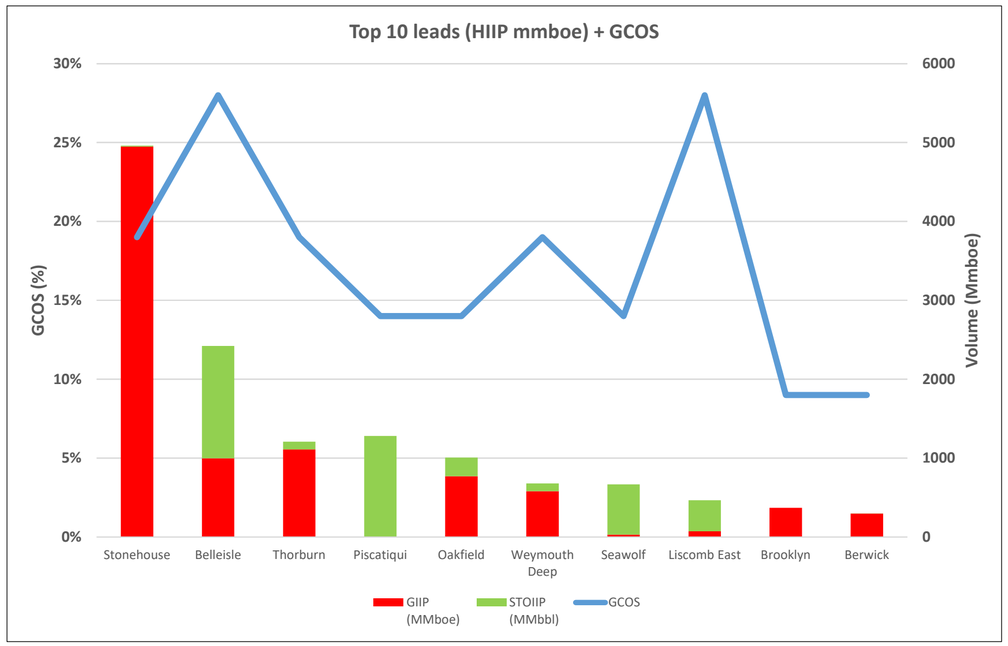


Figure 2: Top 10 leads hydrocarbon in place (unrisked) and geologic chance of success

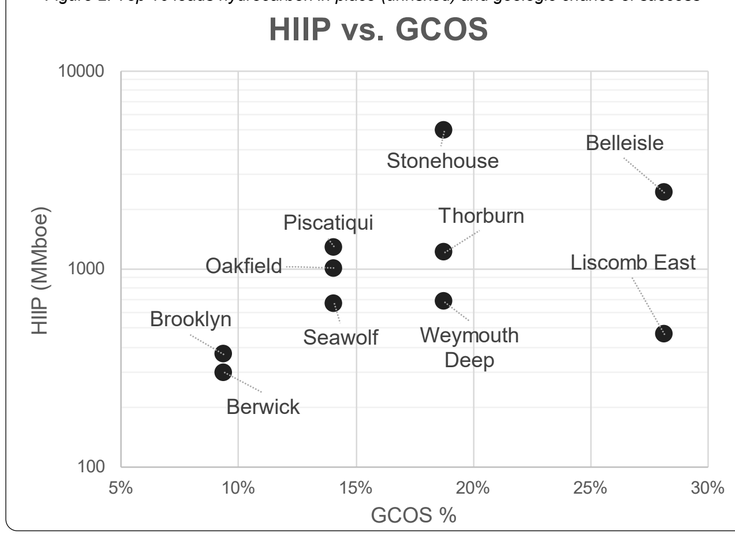
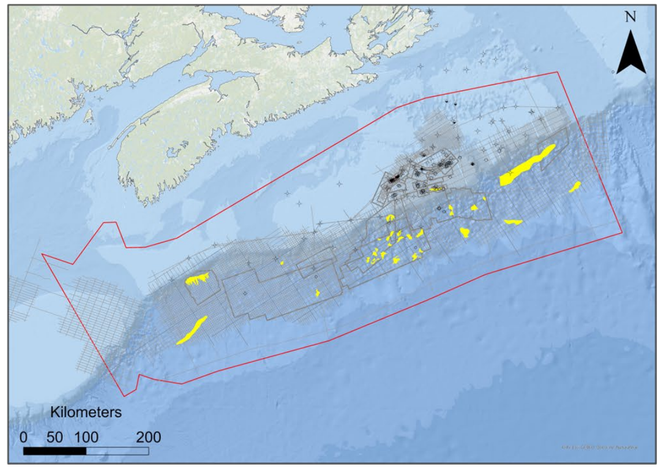


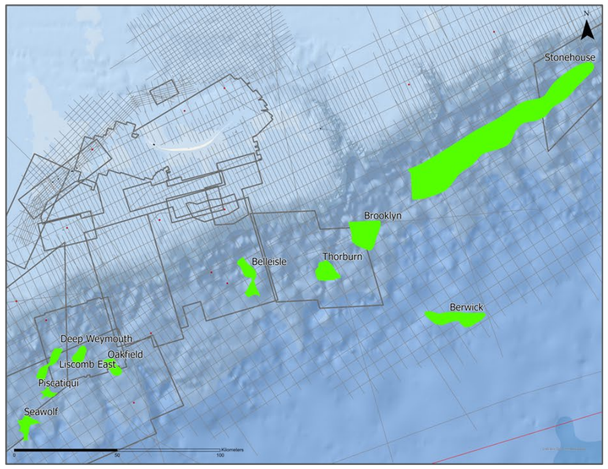
Figure 3: Top 10 leads hydrocarbon in place (unrisked) versus geologic chance of success

Deepwater Lead Mapping



Stage 1: After calculating total YTF, potential deepwater leads selected through rigorous seismic interpretation and geologic understanding

Top 10 Lead Selection



Stage 2: All tiers of leads were screened on the basis of individual scale (likely volume), satellite upside and present day water depth (a proxy for economic value). They were then ranked using the geologic criterion outlined on PL. 6.3.

Top 10 Lead Evaluation

Lead Name	Trap Style	STOIIP (MMbbl)	Oil Prospective Resources (MMbbl)	GIIP (Bcf)	Gas Prospective Resources (Bcf)	GIIP + STOIPP (MMboe)
Stonehouse	Anticline	13	10	37113	27795	**4961**
Belleisle	Trap against salt	1424	536	7485	5600	**2422**
Thorburn	Anticline	99	39	8323	6235	**1209**
Piscatiqui	Trap against salt	1281	322	0.15	0.11	**1281**
Oakfield	Stratigraphic trap	235	80	5778	4317	**1005**
Weymouth Deep	Anticline	99	39	4350	3246	**679**
Seawolf	Trap against salt	639	147	216	161	**668**
Liscomb East	Anticline	393	156	540	107	**465**
Brooklyn	Trap against salt	0	0	2764	2061	**369**
Berwick	Anticline	1	1	2232	1672	**299**

Stage 3A: Volumes of each of the 10 leads were then estimated, as detailed on PL. 6.4, and probabilistically modeled to get minimum, most likely, and maximum values.

Geologic Chance of Success Calculation

Lead Name	Trap Style	Trap Risk	Charge Risk	Reservoir Risk	GCOS
Liscomb East	Anticline	0.75	0.50	0.75	**28%**
Belleisle	Trap against salt	0.50	0.75	0.75	**28%**
Weymouth Deep	Anticline	0.75	0.50	0.50	**19%**
Oakfield	Stratigraphic trap	0.25	0.75	0.75	**14%**
Thorburn	Anticline	0.50	0.50	0.75	**19%**
Stonehouse	Anticline	0.50	0.75	0.50	**19%**
Piscatiqui	Trap against salt	0.25	0.75	0.75	**14%**
Seawolf	Trap against salt	0.25	0.75	0.75	**14%**
Berwick	Anticline	0.50	0.25	0.75	**9%**
Brooklyn	Trap against salt	0.25	0.50	0.75	**9%**

Stage 3B: The geologic chance of success (GCOS) was then calculated, outlined on PL. 6.5, using similar criterion to lead ranking.

Figure 1: Outline of the three stages of resource estimation

Yet to Find

HC Volumes (in place)

in reservoir condition (Graph Mm^3) and in standard condition (Bbl, Tcf)

most likely scenario

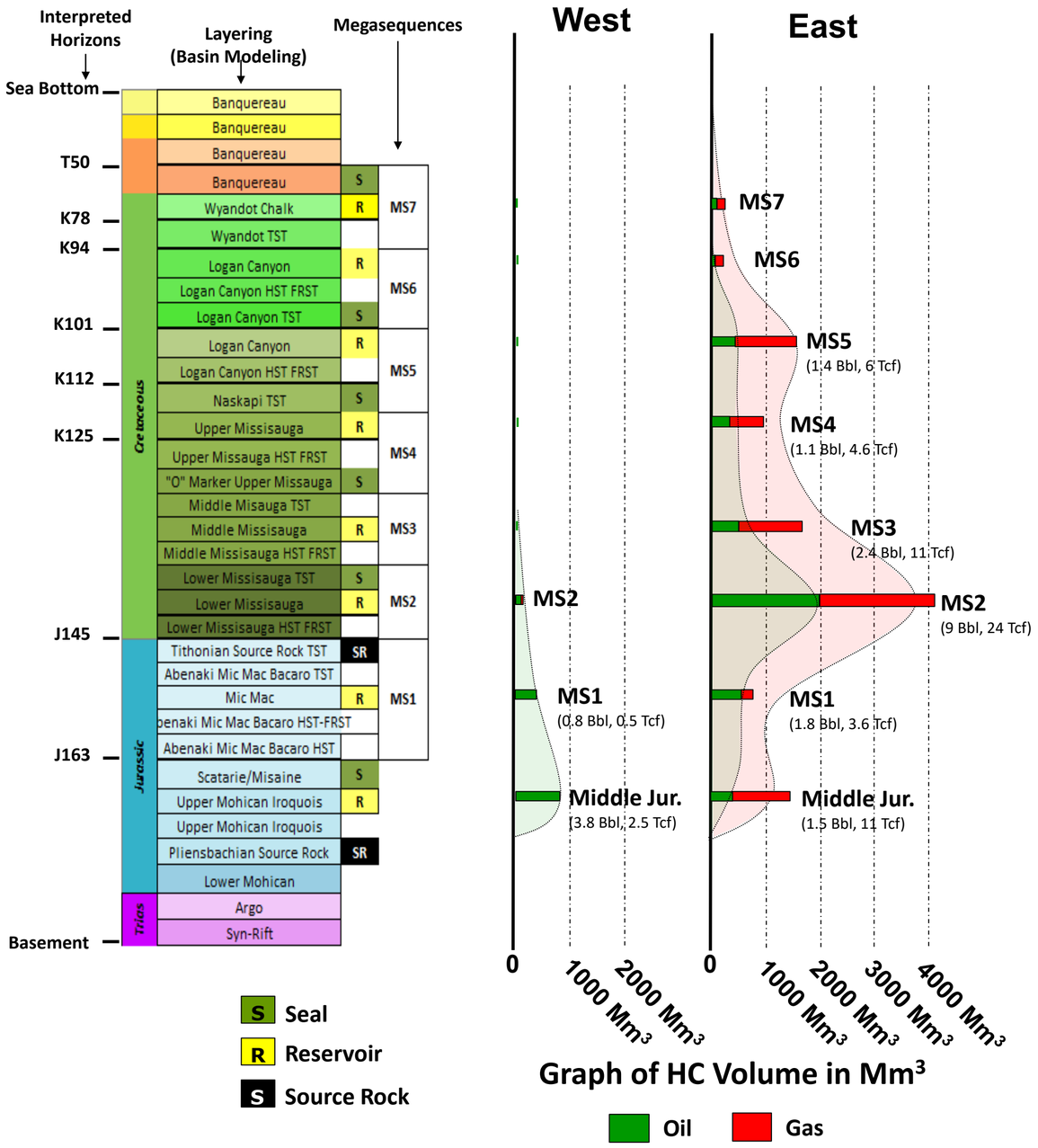
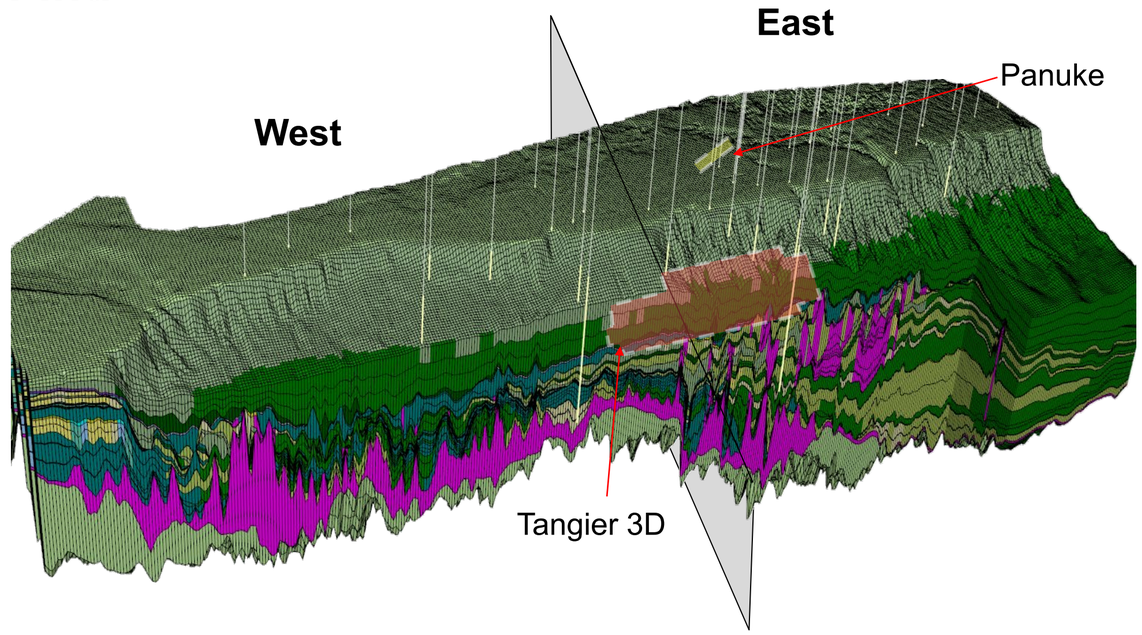


Figure 4: Yet to Find graph showing hydrocarbon volumes per plays



Scotian Basin hydrocarbon potential likely varies from east to west based on the different histories and sediment volumes delivered by the Sable delta system in the east and the Shelburne delta system in the west.

(East) A large turbiditic system (Mississauga Formation) overlays the mature Tithonian source rock in the east. Pliensbachian source rock may be an additional contributor to charge although maturation timing risk is higher than for the Tithonian source rock. Gas and condensate dominates in this depocenter surrounded by condensate to oil such as Panuke (yellow) in the shelf (proven) and Tangier blocks (red) in the slope. Megasequences MS2 and MS3 appear to be the main target for exploration at play level with respectively 9 Bbl and 24 Tcf for MS2 and 2.4 Bbl and 11 Tcf for MS3 supported by source rock proximity and an efficient cap rock (“O” marker) above MS3. Faults, fractures and diapirs may provide efficient vertical conduits to feed in hydrocarbon to the megasequence above.

(West) A moderate turbiditic system of Middle Jurassic age (Upper Mohican, Micmac Formations) overlies the Pleinsbachian source rock in the west. Tithonian source rock may be an additional contributor to charge although maturation risk and reservoir risks may be higher. Oil is inferred to be the dominant phase in the west based on petroleum systems modeling with timing of Pliensbachian source rock generation positive for charge (late Tertiary) supporting direct migration to reservoirs and limiting risks due to migration loss and avoiding the critical moment (no tectonic events expected after hydrocarbon generation). Vertical migration may be limited to the margins of diapirs due to hydrocarbon generation timing and efficient sealing capacities.

Yet To Find in place calculations for P10 (High Case), P50 (Most Likely) and P90 (Low Case) cases are summarized in the table below for.the entire study area for total oil (Bbl), total gas (Tcf) and total Oil and Gas (Bbloe). Volumes result from a range of 3D petroleum system models using various values of net reservoir thickness, source rock scenarios, hydrocarbon saturation cut-offs and hydrocarbon mass cut-offs in reservoir cells. The probability distribution was estimated using a Monte Carlo approach.

Total	Total Oil (Bbl)	Total Gas (Tcf)	Total Oil & Gas (Bbloe)
P90 Low Case	19.3	47.4	25.8
P50 Most Likely	22.6	64.6	31.5
P10 High Case	49.2	148.4	69.6

Figure 5: Yet to Find table; hydrocarbon volumes in place at Standard Condition for the entire study area P10, P50 and P90

Workflow for the selection of the 10 leads

A subset of 10 leads was selected for more detailed individual assessment.

Deepwater leads were initially identified by CNSOPB and Beicip-Franlab (Figure 6), then each lead was then screened on the basis of scores, estimating; (1) a score for the hydrocarbon charge (source rock efficiency and timing of migration), trap (closure and lateral seal) and reservoir presence.

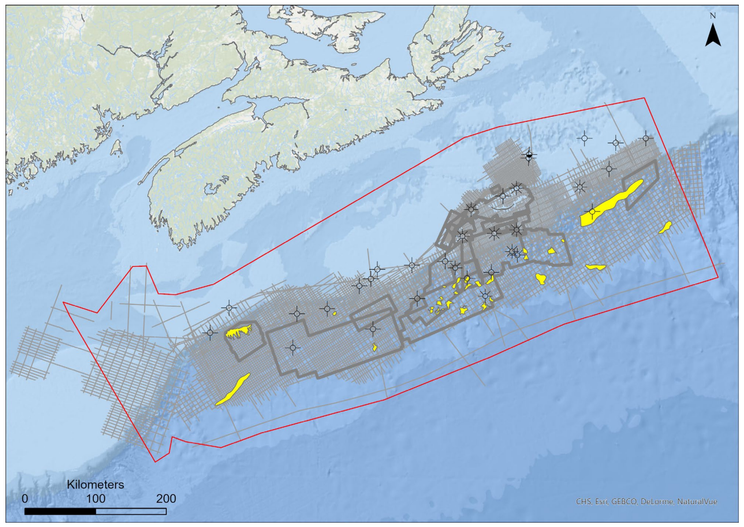


Figure 6: Location map of the identified leads

Leads score and ranking

The final score combines the individual scores: [Trap] x [Charge] x [Seal] x [Reservoir]. The score is relative, ranging from 2 to 8, for the 10 top ranked leads then selected for further evaluation.

Closure Area and Water Depth are not considered in the score but can be used for ranking leads afterwards. The geographic location is also not considered as a criterion.

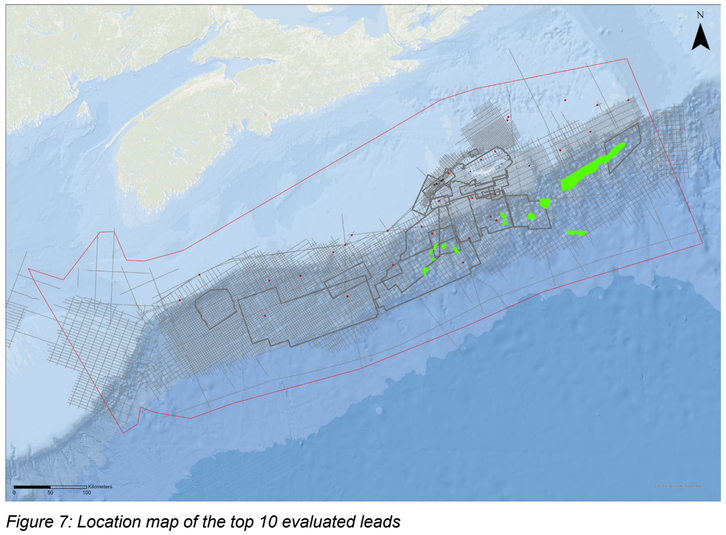


Figure 7: Location map of the top 10 evaluated leads

Input parameters for volumetrics computation

For the 10 selected leads and prospects, hydrocarbon (HC) volumes in place were estimated with the following formula:

HCIIP = GRV x NTG x PHIE x SHC x (1/FVF)

Minimum, most likely and maximum values was estimated for each of the individual parameter in above formula.

Uncertainties on Gross Rock Volumes (GRV)

GRV minimum, most likely and maximum values were computed (visualized in Figure 8) from:

- The depth structure grid of the top reference horizon and the minimum, most likely and maximum closures were delivered by the CNSOPB.
- Average gross thickness above the most likely closure interpreting the top and base of each lead and converting them in depth with the reference velocity model.

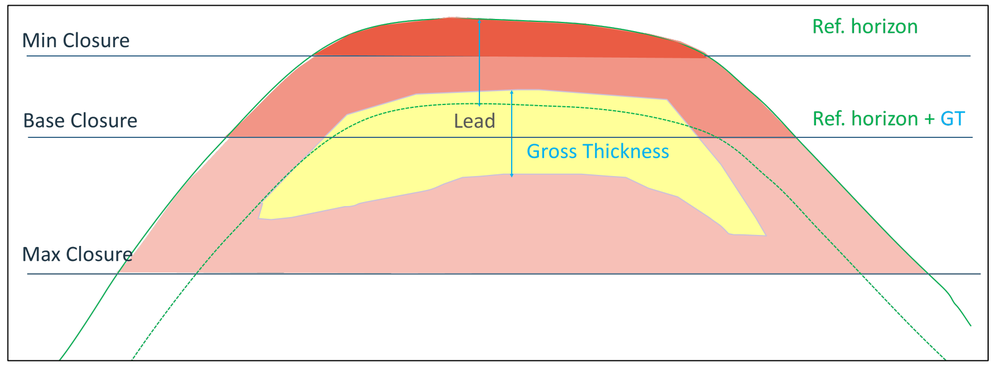


Figure 8: Schematic of Gross Rock Volume calculation

Uncertainties on the other parameters for volumetrics computation

- Net sand thickness to Gross thickness ratio (NTG) minimum, most likely and maximum values were computed from Net minimum, most likely and maximum values estimated from the Petroleum system Model and Average gross thickness as described above.
- Minimum effective porosity PHIE = 12%, most likely PHIE = 18% and maximum PHIE = 22% as agreed with CNSOPB.
- Minimum hydrocarbon saturation Shc = 50%, most likely Shc = 60% and maximum Shc = 70% as agreed with CNSOPB.
- The ratio (Oil m3 /Gas m3) was estimated for each lead from the petroleum system model
- The most likely Formation Volume Factor (FVF), namely 1/Bo for oil and 1/Bg for gas were estimated from the petroleum system model. 98 % of the most likely FVF value was considered as the minimum value and 102% of the most likely FVF value was considered as the minimum value.
- Recovery factors minimum, most likely and maximum values were computed for oil and gas as follows:
    - Gas minimum recovery factor RF = 65%, most likely RF = 75% and maximum RF = 85% as agreed with CNSOPB
    - Oil minimum RF = 15%, most likely RF = 20% and maximum RF = 25% as agreed with CNSOPB

Volumetrics computation results

Volumes in place of oil (STOIIP) and gas (GIIP) and prospective resources of oil and gas were computed for each of the 10 selected leads (Figure 9). Monte-Carlo simulation was then run to establish the distribution of the volume in place and compute the P90, P50 and P10 deciles of the distribution. Then minimum, most likely, and maximum values of recovery factor were also applied to compute through Monte-Carlo simulation the prospective resources distribution for each lead or prospect and compute its deciles.

This process will be carried out according to the SPE Petroleum Resources Management System (PRMS).

An example of volume in place and prospective resources is presented in the table hereafter for one of the 10 selected leads, namely Belleisle.

The input parameters and the results related to gas are displayed in red whereas the input parameters and the results for oil are displayed in green.

Parameter	Min/P90	Most likely/P50	Max/P10
Apex of structure (mbsl)		-5140	
Closure depth (mbsl)	-5155	-5605	-6140
Closure area (sq.km)	2	65	141
Slab GRV (MMm3)	837	30356	65754
GRV (MMm3)	**1138**	**16142**	**67655**
N/G	22%	39%	56%
PHIE	12%	18%	22%
Shc	50%	60%	70%
1/Bo	0.52	0.53	0.54
RF Oil	15%	20%	25%
1/Bg	350	357	364
RF Gas	65%	75%	85%
bbl/m3		6.28981	
cf / m3		35.31467	
STOIIP (MMbbl)	**589**	**1398**	**2843**
Prospective Resources (MMbbl)	**222**	**529**	**1086**
GIIP (Bcf)	**3095**	**7351**	**14989**
Prospective Resources (Bcf)	**2344**	**5499**	**11306**

Volumetrics computation results

Volumes in place of oil (STOIIP) and gas (GIIP) and prospective resources of oil and gas were computed for each of the 10 selected leads displayed on the figure below and with the input parameters presenter to the left of this plate.

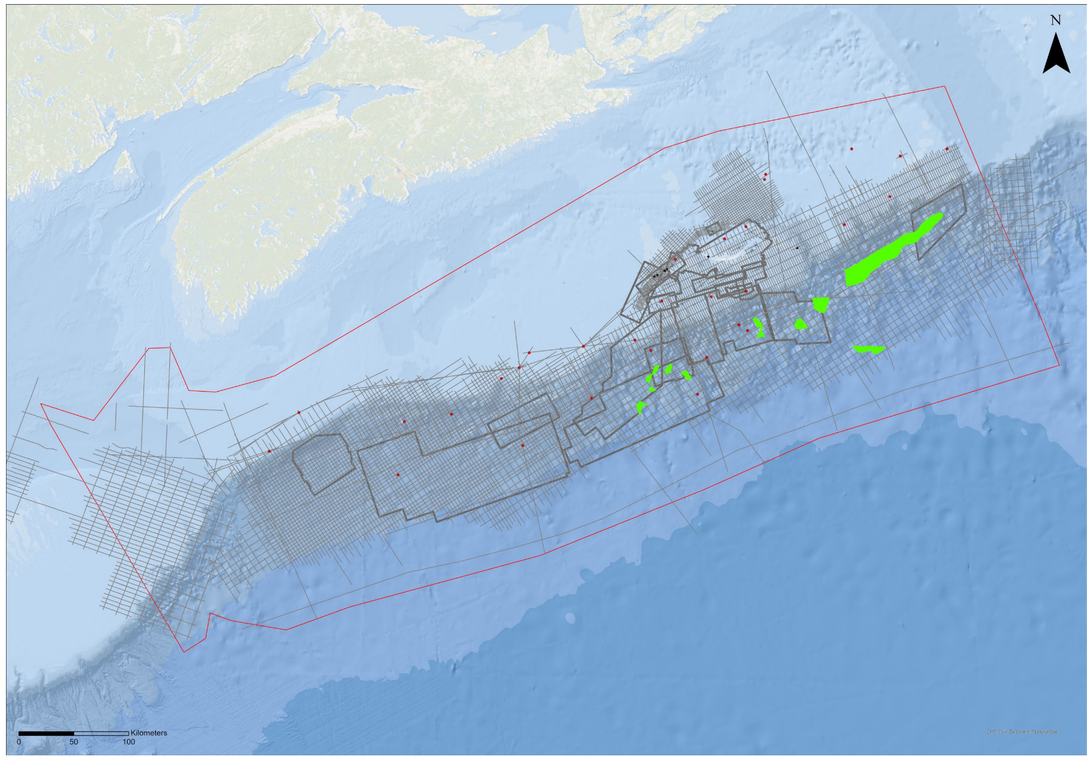


Figure 9: Top 10 evaluated leads

The table below shows the lead volumes for the selected top 10 leads, indicating for each one gas & liquids. This table is sorted by size in Mmboe assuming that one barrel of oil is standardized to have the same amount of energy content as 7,500 cubic feet of natural gas as estimated with the petroleum system model on the 10 selected leads.

Lead Name	Trap Style	STOIIP (MMbbl)	Oil Prospective Resources (MMbbl)	GIIP (Bcf)	Gas Prospective Resources (Bcf)	GIIP + STOIPP (MMboe)
Stonehouse	Anticline	13	10	37113	27795	**4961**
Belleisle	Trap against salt	1424	536	7485	5600	**2422**
Thorburn	Anticline	99	39	8323	6235	**1209**
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Brooklyn	Trap against salt	0	0	2764	2061	**369**
Berwick	Anticline	1	1	2232	1672	**299**

Workflow for the evaluation of the GCOS of the 10 leads

The geological chance of success (GCOS) has been estimated for the 10 selected leads by multiplying the chance of success (COS) for the charge, the seal and the reservoir, assuming these individual chances of success are independent of each other.

- GCOS = Trap COS x Charge COS x Reservoir COS

Note that the individual risk parameters in this risking model are a combination of play and prospect risk; i.e. each risk (e.g. for reservoir) takes into account the likelihood of the play element being present in the play area (as guided by the relevant CRS map in Chapter 5) and the chance for reservoir to be found in the individual trap. Hence, the GCOS defined by the above formula expresses the total COS for an individual leads. GCOS, in combination with volume estimates, helps to rank the selected leads against each other.

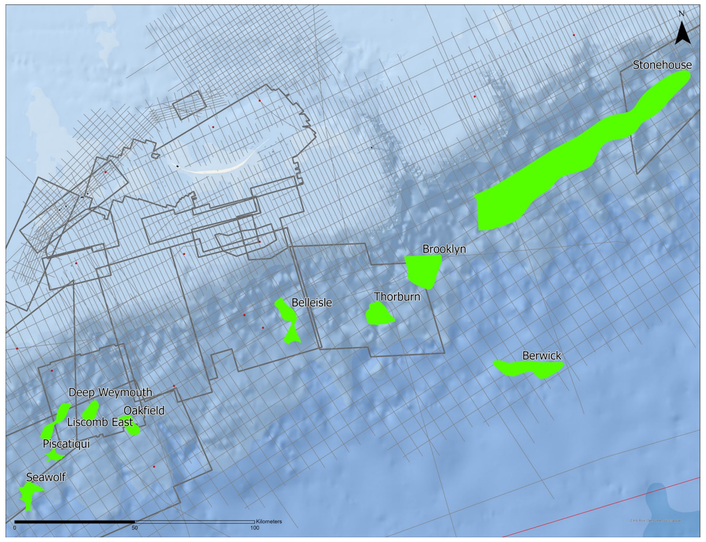


Figure 10: Top 10 evaluated leads

Methodology to evaluate COS for the trap

Traps are assumed to be a combination of closure, lateral seal and vertical seal. The 3 following types of traps were considered for the ranking:

- Anticline (3 or 4-way-deep closure): Reliability is considered the highest
- Trap against salt: Reliability is moderate due to time to depth conversion uncertainties on the trap
- Stratigraphic trap: Reliability is moderate because trap is subtle

Vertical sealing capacity is based on GDE maps and geological knowledge (well and seismic data). The ranking of Seal parameter is defined as follows:

Ranking of Trap is carried out as follows:

- Closure:
  - Anticline: high confidence / low uncertainty => COS is 0.75
  - Trap against salt: moderate confidence / moderate uncertainty => COS is 0.5
  - Stratigraphic trap: moderate confidence / moderate uncertainty => COS is 0.5
- Lateral seal:
  - If the lateral seal layer is proven (facies juxtaposition or pinch out), then confidence is high, and COS is 0.75.
  - If the lateral seal is likely, but there is possible leakage through salt weld, fault of juxtaposed carrier beds, then confidence is moderate, and COS is 0.5.
  - If lack of integrity is proven or highly suspected, then confidence is low, and COS is 0.25.
- Vertical seal:
  - If the vertical seal layer is proven (facies and thickness), not faulted, not close to the surface (at any time of trap history), then confidence is high, and COS is 0.75.
  - If the vertical seal is proven, but there is possible leakage (e.g., faulted overburden, permeable facies, limited thickness or burial, significant erosion), then confidence is moderate, and COS is 0.5.
  - If lack of integrity is evidenced, then confidence is low, and scores is 0.25.

COS Trap is estimated taking into consideration the confidence for the closure and the confidence for the lateral seal and the confidence for the vertical seal :

Trap COS:

- Formula: Trap COS = [Closure x Lateral seal x Vertical seal] / 0.75^2
- Score 0.75: Trap is likely, high confidence level
- Score 0.50: Trap is possible, moderate confidence level
- Score 0.25: Trap is unlikely, low confidence level

Methodology to evaluate COS for the hydrocarbon charge

COS for the Hydrocarbon charge is based on CCRS maps for both source rocks Tithonian and Pliensbachian (*Chapter 4: THERMAL AND PRESSURE MODEL, Figure 27 and 29*). It includes:

- A COS based on source rock presence
- A COS based on source rock maturity
- A COS based on Timing (hydrocarbon generation timing)

The selected leads, above the Tithonian source rock, sum the CCRS maps for both source rock Tithonian and Pliensbachian (Chapter 5: COMMON RISK SEGMENT (CRS) maps and YTF, PL. 3)

Hydrocarbon Charge COS:

- Score 0.75: HC Charge is likely, high confidence level
- Score 0.50: HC Charge is possible, moderate confidence level
- Score 0.25: HC Charge is unlikely, low confidence level

Methodology to evaluate COS for the reservoir

Reservoir element is evaluated based on GDE maps, seismic attribute extractions and regional knowledge with the following assumptions and results:

COS for the reservoir is estimated taking into consideration the confidence in the reservoir facies presence prediction with a variable COS and the reservoir effectiveness which is likely (low risk) for the 10 leads under evaluation.

COS for the reservoir:

- Reservoir facies is likely, COS is 0.75.
- Reservoir facies is possible, scores is 0.5.
- Reservoir facies is unlikely, scores is 025.

Leads score and ranking

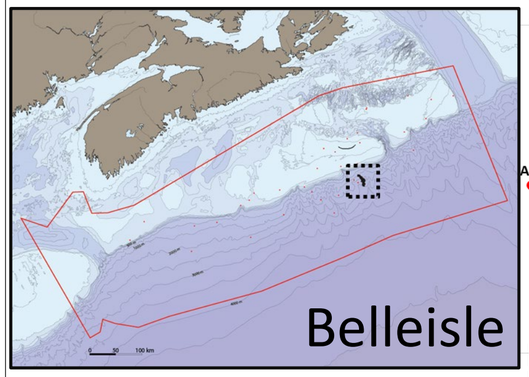
The GCOS combines the individual COS: [Trap] x [Charge] x [Reservoir]. The score is relative, ranging from 9% to 28%. for the 10 top ranked leads then selected for further evaluation. This is a purely technical ranking based on the chance of finding trapped hydrocarbons. It does not include any economic considerations.

Lead Name	Trap Style	Trap Risk	Charge Risk	Reservoir Risk	GCOS
Liscomb East	Anticline	0.75	0.50	0.75	**28%**
Belleisle	Trap against salt	0.50	0.75	0.75	**28%**
Weymouth Deep	Anticline	0.75	0.50	0.50	**19%**
Oakfield	Stratigraphic trap	0.25	0.75	0.75	**14%**
Thorburn	Anticline	0.50	0.50	0.75	**19%**
Stonehouse	Anticline	0.50	0.75	0.50	**19%**
Piscatiqui	Trap against salt	0.25	0.75	0.75	**14%**
Seawolf	Trap against salt	0.25	0.75	0.75	**14%**
Berwick	Anticline	0.50	0.25	0.75	**9%**
Brooklyn	Trap against salt	0.25	0.50	0.75	**9%**

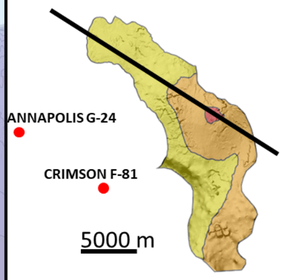
Prospective Resources

Scotian Basin Integration Atlas 2023 – CANADA – June 2023

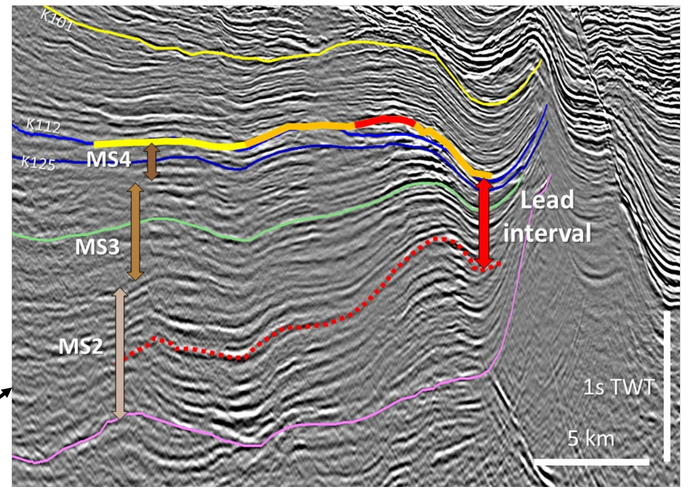
Stratigraphy and facies

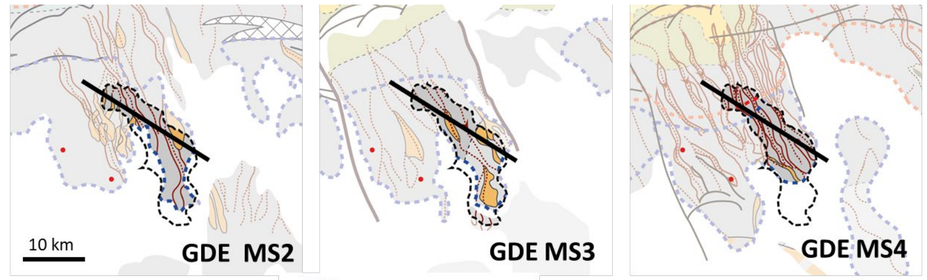


Reference Horizon K125
- Min = ~4 way dip closure
- ML = limit of salt dependency
- MAX = limit of mapped closure



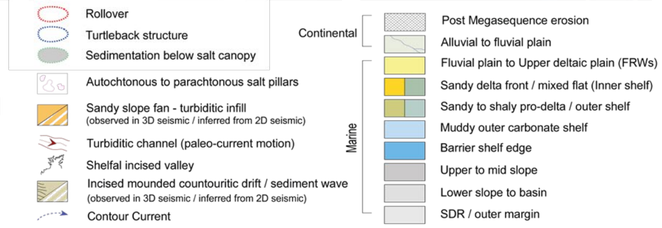
Minimum closure
Most likely closure
Maximum closure



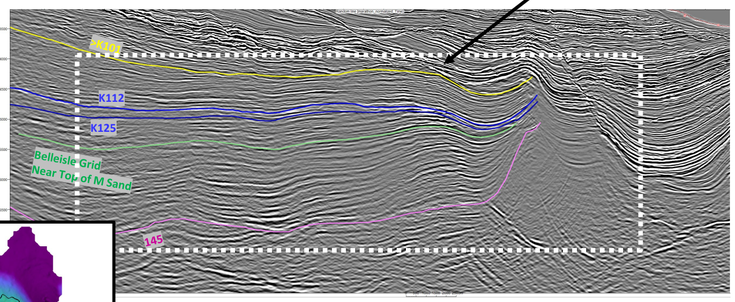


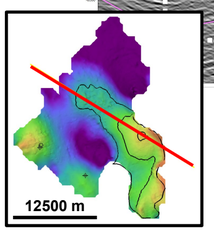
Text

Seal: MS4 late lowstand



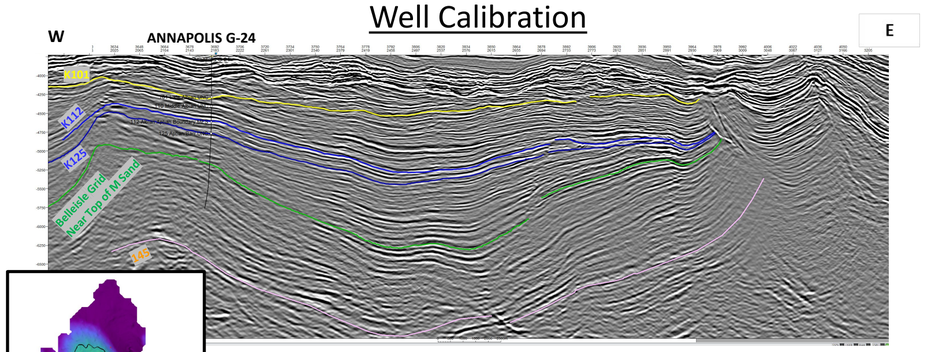
NW-SE seismic line

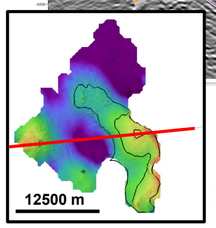




Belleisle
Depth Map

Well Calibration

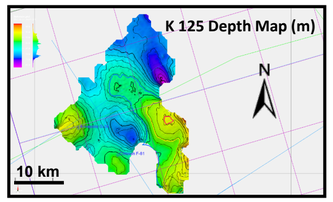




Belleisle
Depth Map

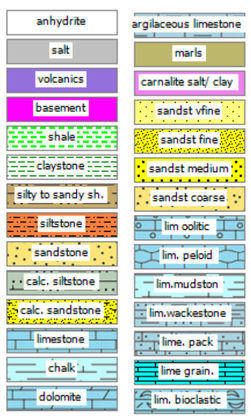
Volumes

Parameter	Min/P90	Most likely/P50	Max/P10
Apex of structure (mbsl)		-5140	
Closure depth (mbsl)	-5155	-5605	-6140
Closure area (sq.km)	2	65	141
Slab GRV (MMm3)	837	30356	65754
GRV (MMm3)	**1138**	**16142**	**67655**

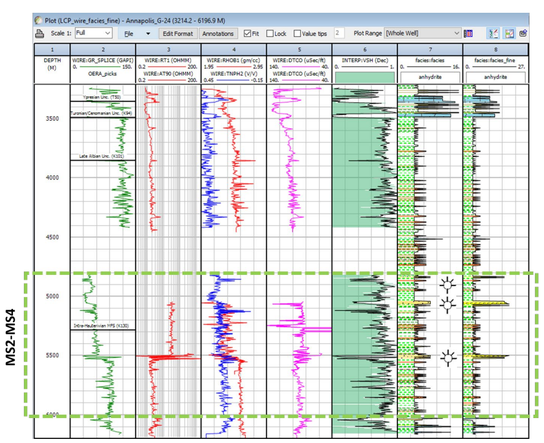


Approx. WD: 1950 m
Estimated TD: -5140 mbsl

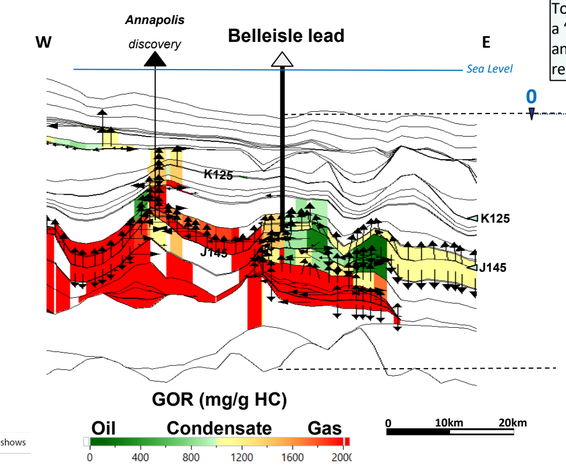
Petrophysics



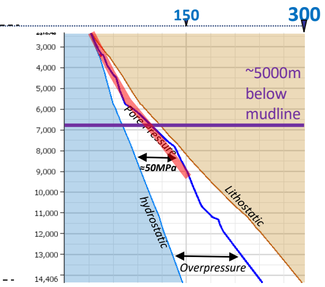
Example Well Annapolis-G24



Basin modeling results



This is salt dependent trap (play type).
Aquifer pressure is near approx. fracture closure pressure (red line).
Top seal failure risk (>50% trap COS) may require a "protected trap" where pressure is released at an updip "blown trap", assuming sufficient reservoir presence & connectivity



Pore Pressure (MPa) from Basin modeling at Bellisle lead location

Resources

Volumetrics

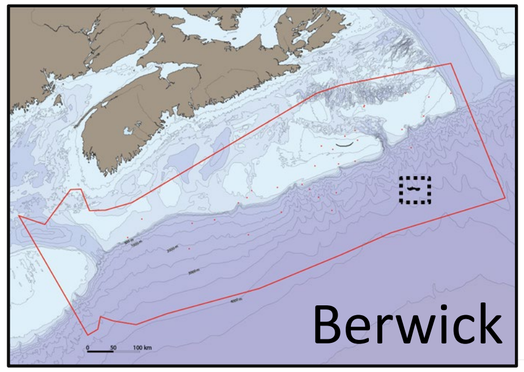
Parameter	Min/P90	Most likely/P50	Max/P10
Apex of structure (mbsl)		-5140	
Closure depth (mbsl)	-5155	-5605	-6140
Closure area (sq.km)	2	65	141
Slab GRV (MMm3)	837	30356	65754
GRV (MMm3)	**1138**	**16142**	**67655**
N/G	22%	39%	56%
PHIE	12%	18%	22%
Sg	50%	60%	70%
1/Bo	0.52	0.53	0.54
RF Oil	15%	20%	25%
1/Bg	350	357	364
RF Gas	65%	75%	85%
bbl/m3		6.28981	
cf / m3		35.31467	
STOIIP (MMbbl)	582	1424	2896
Prospective Resources (MMbbl)	215	536	1095
GIIP (Bcf)	3043	7485	15213
Prospective Resources (Bcf)	2270	5600	11369

Geological Risks

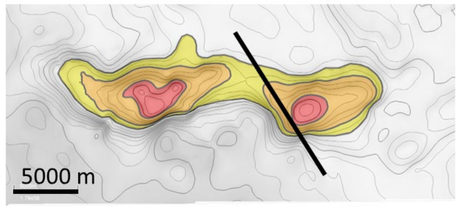
Lead Name	Trap Risk	Charge Risk	Reservoir Risk	GCOS
Belleisle	0.50	0.75	0.75	**28%**

P50 GIIP: 7485 Bcf & P50 STOIIP: 1424 MMstb unrisked

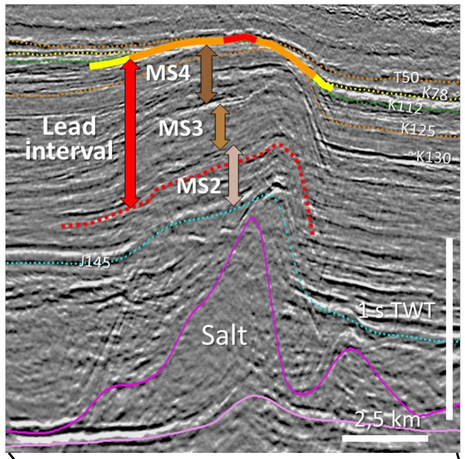
Stratigraphy and facies

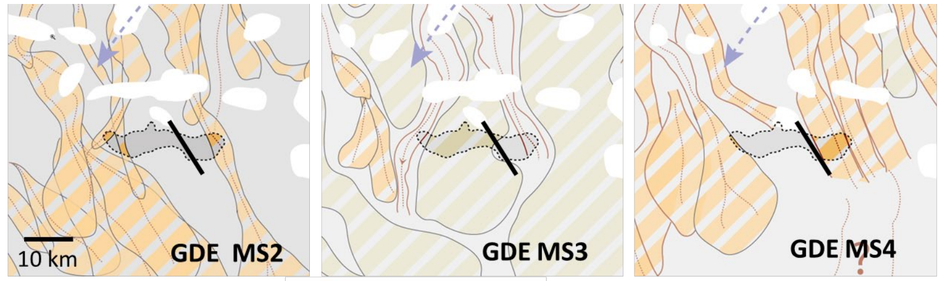


Reference Horizon K125
- Min = crestal closures
- ML = separate dip closures
- MAX = combined dip closures

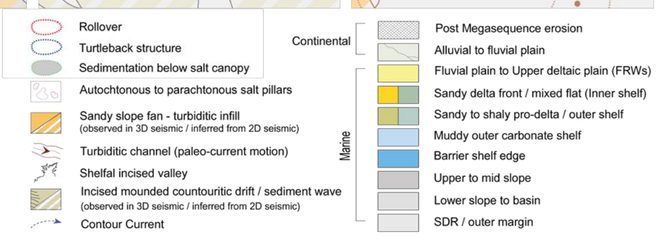


NW SE

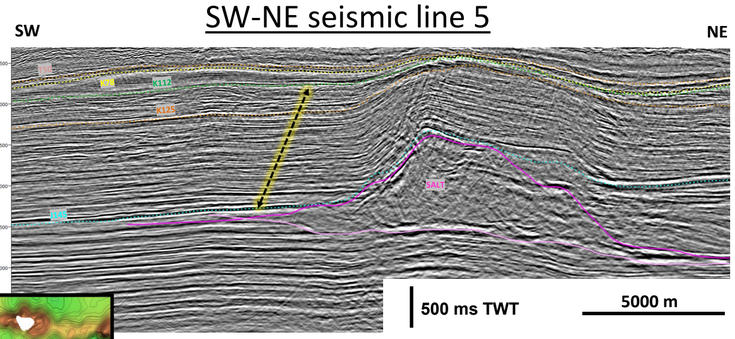


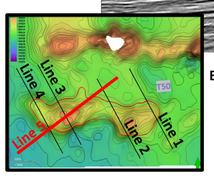


Seal: TST above MS4



SW-NE seismic line 5

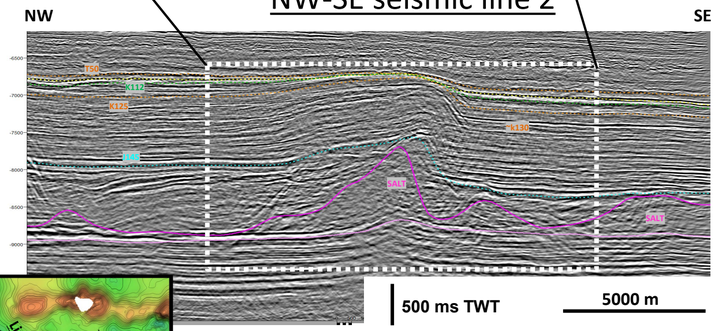


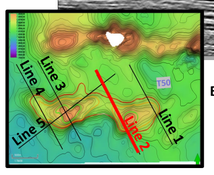


Berwick Depth Map
5630 m
5830 m
5930 m

Berwick: Salt-cored fold (four-way dip closure) containing inverted Lower Cretaceous turbidite sheet sands and channels.

NW-SE seismic line 2

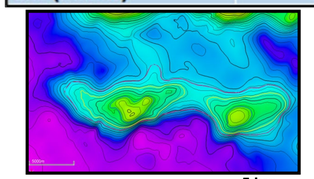




Berwick Depth Map
5630 m
5830 m
5930 m

Volumes

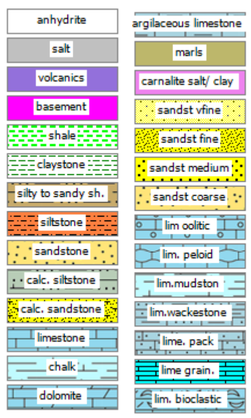
Parameters	Min/P90	Most likely/P50	Max/P10
Apex of structure (mbsl)		-5495	
Closure depth (mbsl)	-5630	-5830	-5930
Closure area (sq.km)	13	59	100
Slab GRV (MMm3)	4407	19671	33395
GRV (MMm3)	**819**	**7516**	**15148**



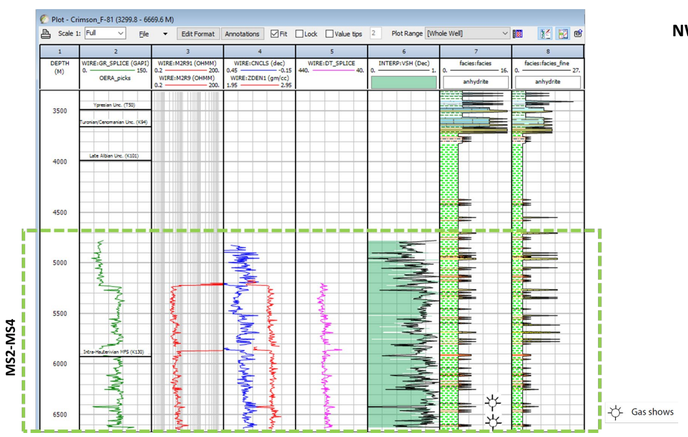
K 125 Depth Map (m)

Approx. WD: 3300 m
Estimated TD: -5495 mbsl

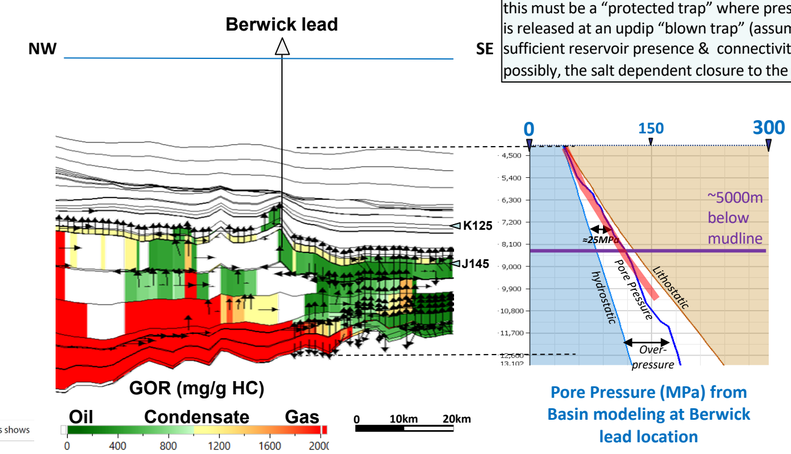
Petrophysics



Well analog Crimson-F81



Basin modeling results



Pore Pressure (MPa) from Basin modeling at Berwick lead location

This is 4-way dip closed trap with two culminations (play type).
Aquifer pressure is near approx. fracture closure pressure (red line).
To mitigate top seal failure risk (>50% trap COS) this must be a "protected trap" where pressure is released at an updip "blown trap" (assuming sufficient reservoir presence & connectivity) - possibly, the salt dependent closure to the north.

Resources

Volumetrics

Parameters	Min/P90	Most likely/P50	Max/P10
Apex of structure (mbsl)		-5495	
Closure depth (mbsl)	-5630	-5830	-5930
Closure area (sq.km)	13	59	100
Slab GRV (MMm3)	4407	19671	33395
GRV (MMm3)	**819**	**7516**	**15148**
N/G	14%	27%	40%
PHIE	12%	18%	22%
Sg	50%	60%	70%
1/Bo	0.26	0.26	0.27
RF Oil	15%	20%	25%
1/Bg	297	303	309
RF Gas	65%	75%	85%
bbl/m3		6.28981	
cf / m3		35.31467	
STOIIP (MMbbl)	0	1	1
Prospective Resources (MMbbl)	0	1	1
GIIP (Bcf)	1064	2232	3817
Prospective Resources (Bcf)	794	1672	2871

Geological Risks

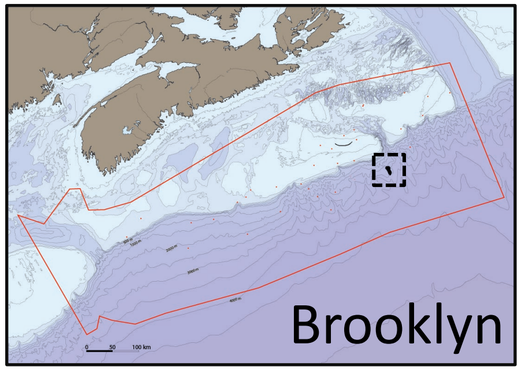
Lead Name	Trap Risk	Charge Risk	Reservoir Risk	GCOS
Berwick	0.50	0.25	0.75	9%

P50 GIIP: 2232 Bcf unrisked

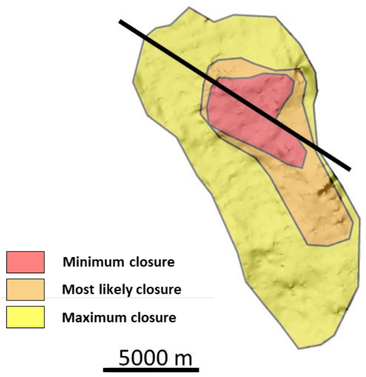
Prospective Resources

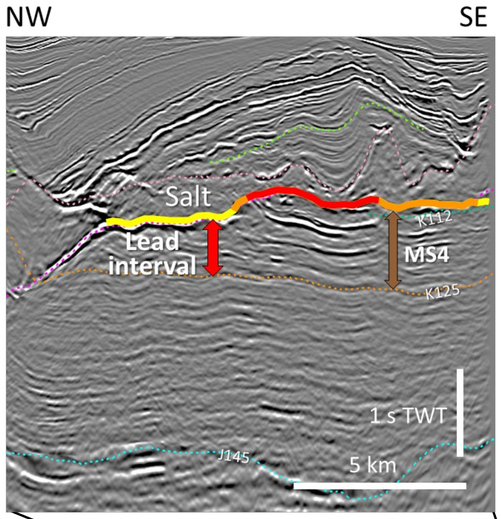
Scotian Basin Integration Atlas 2023 – CANADA – June 2023

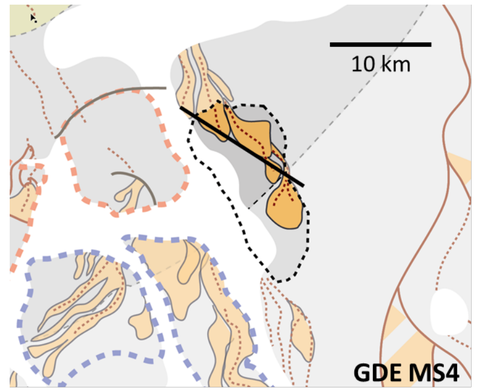
Stratigraphy and facies



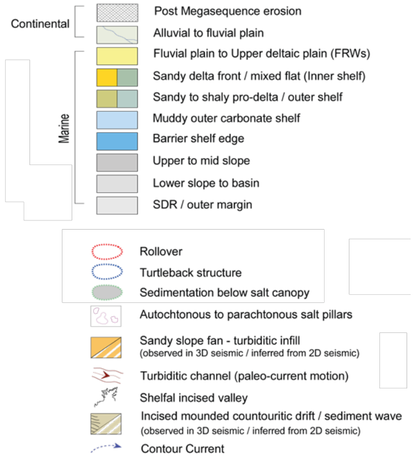
Reference Horizon Base salt
- Min = crestal closure
- ML = dip closure
- MAX = limit of salt topseal



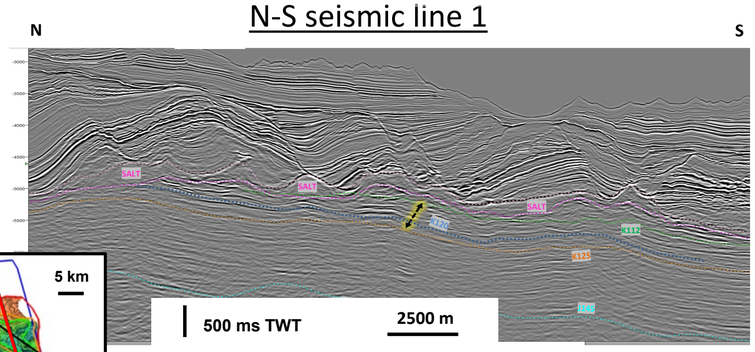




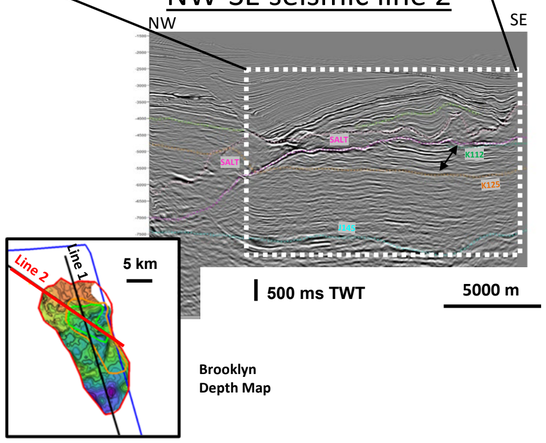
Seal: Base Salt canopy



N-S seismic line 1



NW-SE seismic line 2

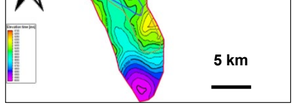


Brooklyn: Sub-salt cut-off trap requiring three-way closure against base of the allochthonous salt sheet.

This is 4-way dip closed trap where reservoirs terminate against base salt (play type).
Aquifer pressure is near approx. fracture closure pressure (red line).
Top seal failure risk (>25% trap COS) may require a "protected trap" where pressure is released at an updip "blown trap" (assuming sufficient reservoir presence & connectivity).

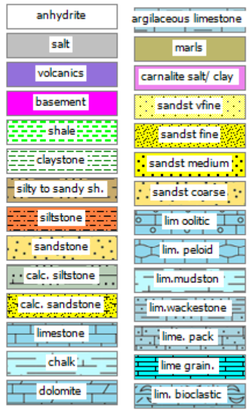
Volumes

Parameter	Min/P90	Most likely/P50	Max/P10
Apex of structure (mbsl)		-4420	
Closure depth (mbsl)		-5400	
Closure area (sq.km)	15	36	113
Slab GRV (MMm3)	4367	35476	110945
GRV (MMm3)	**2871**	**7193**	**24724**

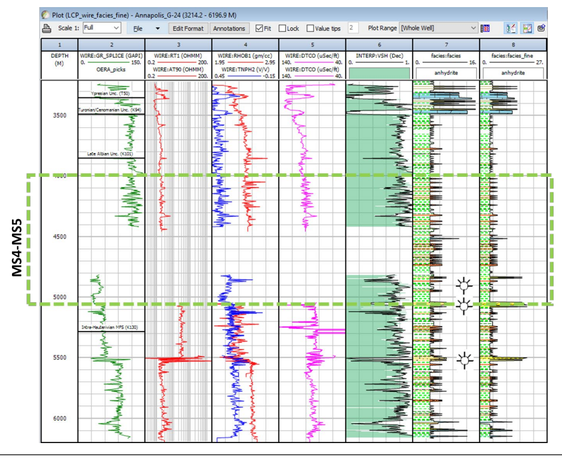


Approx. WD: 1900 m
Estimated TD: -4420 mbsl

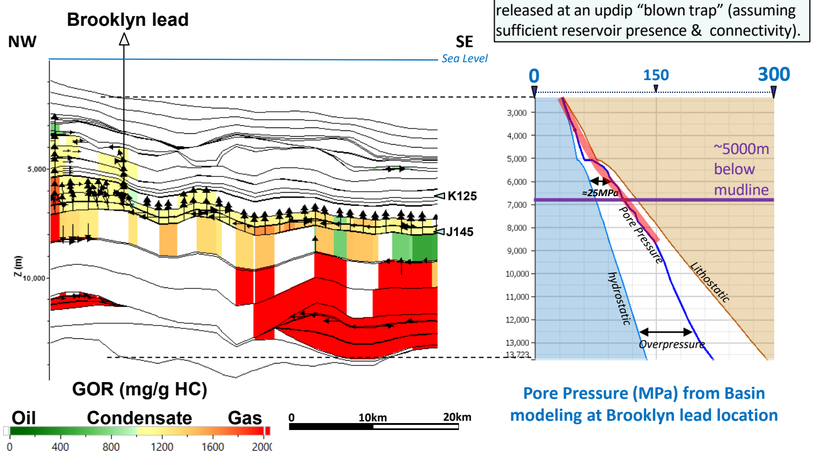
Petrophysics



Well analog: Annapolis-G24



Basin modeling results



Pore Pressure (MPa) from Basin modeling at Brooklyn lead location

Resources

Volumetrics

Parameter	Min/P90	Most likely/P50	Max/P10
Apex of structure (mbsl)		-4420	
Closure depth (mbsl)		-5400	
Closure area (sq.km)	15	36	113
Slab GRV (MMm3)	4367	35476	110945
GRV (MMm3)	**2871**	**7193**	**24724**
N/G	10%	10%	11%
PHIE	12%	18%	87%
Shc	50%	60%	70%
1/Bo	0.49	0.50	0.51
RF Oil	15%	20%	25%
1/Bg	327	333	340
RF Gas	65%	75%	85%
bbl/m3		6.28981	
cf / m3		35.31467	
STOIIP (MMbbl)	0	0	0
Prospective Resources (MMbbl)	0	0	0
GIIP (Bcf)	1179	2764	6057
Prospective Resources (Bcf)	883	2061	4528

Geological Risks

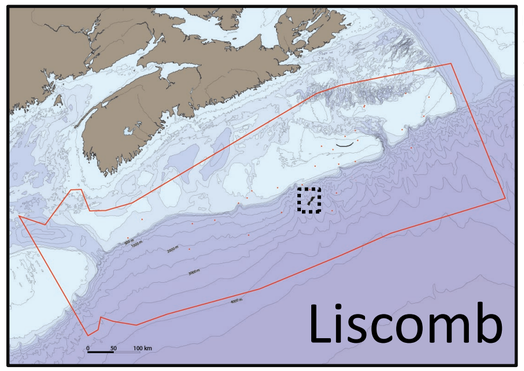
Lead Name	Trap Risk	Charge Risk	Reservoir Risk	GCOS
Brooklyn	0.25	0.50	0.75	9%

P50 GIIP: 2764 Bcf unrisked

Prospective Resources

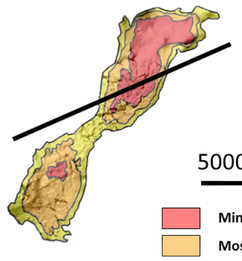
Scotian Basin Integration Atlas 2023 – CANADA – June 2023

Stratigraphy and facies



Newburn H-23

Reference Horizon K125
- Mi n= crestal closures
- ML = separate dip closures
- MAX = combined dip closures

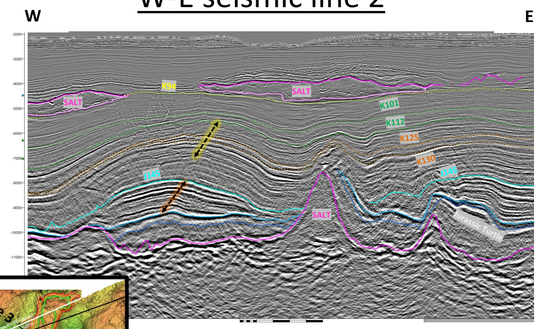


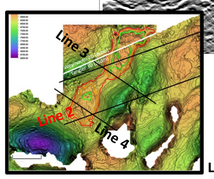
Weymouth A-45

5000 m

Minimum closure
Most likely closure
Maximum closure

W-E seismic line 2





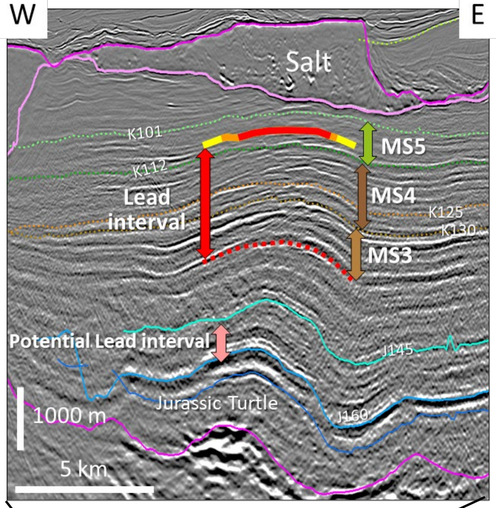
1000 m Tvdss 5000 m

Liscomb Depth Map

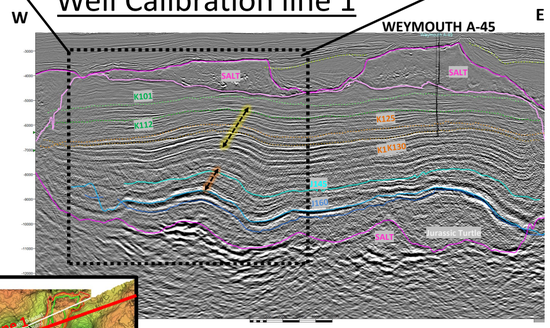
5000 m

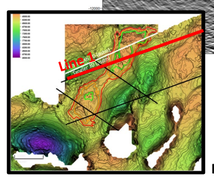
6025 m
6125 m
6200 m

Liscomb: Elongate subsalt (below canopy) four-way dip closure above Jurassic turtle.



Well Calibration line 1



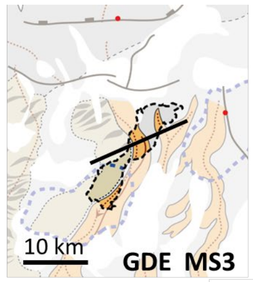


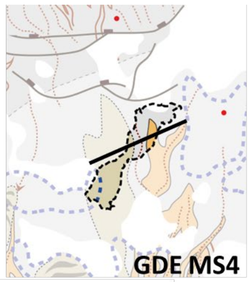
1000 m Tvdss 5000 m

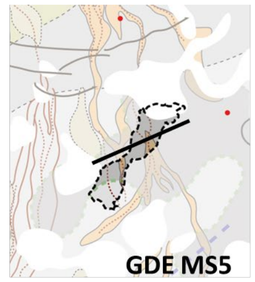
Liscomb Depth Map

5000 m

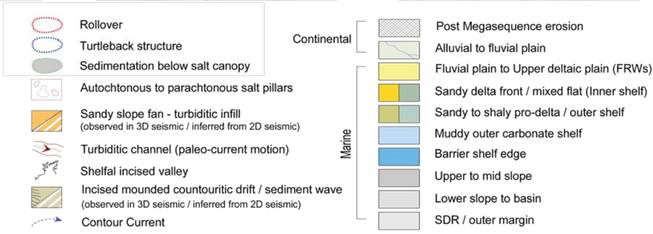
6025 m
6125 m
6200 m





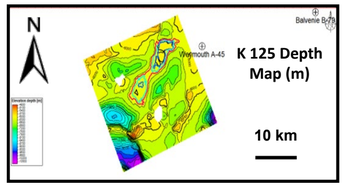


Seal: MS5 late lowstand



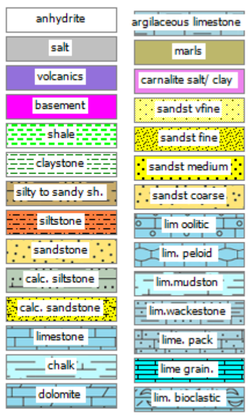
Volumes

Parameter	Min/P90	Most likely/P50	Max/P10
Apex of structure (mbsl)		-5860	
Closure depth (mbsl)	-6025	-6125	-6200
Closure area (sq.km)	18	46	68
Slab GRV (MMm3)	4866	12137	17891
GRV (MMm3)	**1256**	**4640**	**8935**

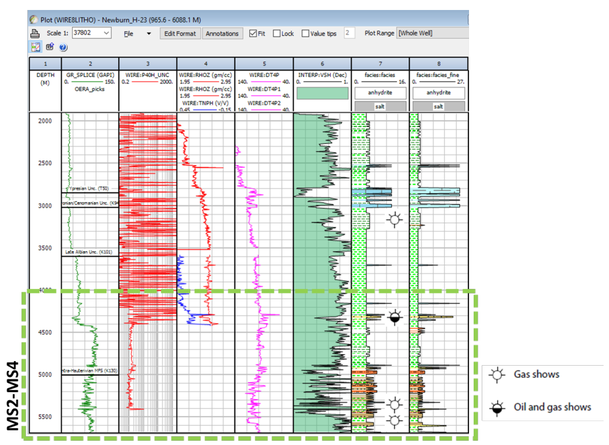


Approx. WD: 1850 m
Estimated TD: -5860 mbsl

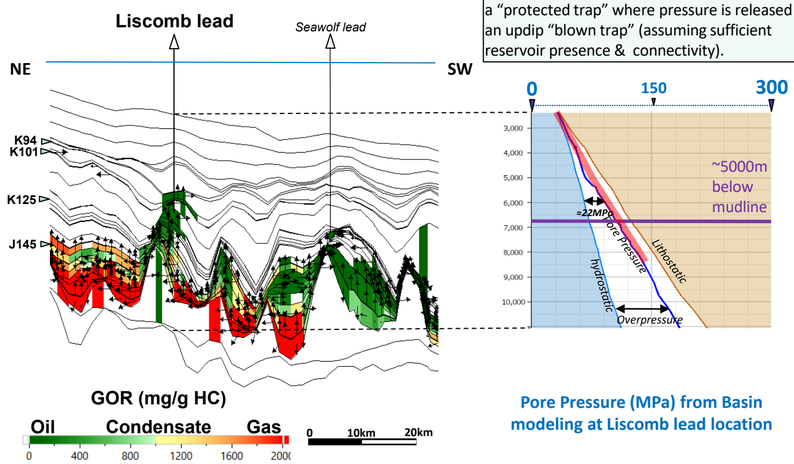
Petrophysics



Well analog: Newburn-H23



Basin modeling results



This is a subsalt 4-way dip closed trap with two culminations (play type).
Aquifer pressure is near approx. fracture closure pressure (red line).
Top seal failure risk (>75% trap COS) may require a "protected trap" where pressure is released at an updip "blown trap" (assuming sufficient reservoir presence & connectivity).

Pore Pressure (MPa) from Basin modeling at Liscomb lead location

Resources

Volumetrics

Parameter	Min/P90	Most likely/P50	Max/P10
Apex of structure (mbsl)		-5860	
Closure depth (mbsl)	-6025	-6125	-6200
Closure area (sq.km)	18	46	68
Slab GRV (MMm3)	4866	12137	17891
GRV (MMm3)	**1256**	**4640**	**8935**
N/G	29%	34%	40%
PHIE	12%	18%	22%
Sg	50%	60%	70%
1/Bo	0.49	0.50	0.51
RF Oil	15%	20%	25%
1/Bg	327	333	340
RF Gas	65%	75%	85%
bbl/m3		6.28981	
cf / m3		35.31467	
STOIIP (MMbbl)	220	393	603
Prospective Resources (MMbbl)	87	156	245
GIIP (Bcf)	302	540	831
Prospective Resources (Bcf)	59	107	168

Geological Risks

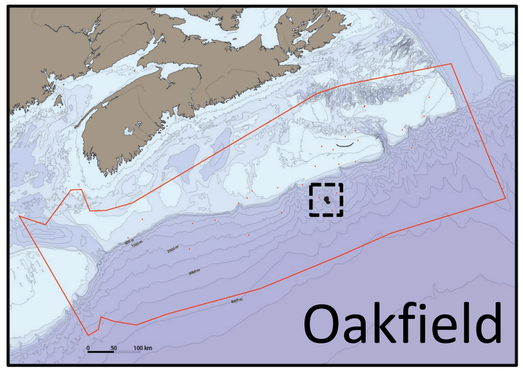
Lead Name	Trap Risk	Charge Risk	Reservoir Risk	GCOS
Liscomb East	0.75	0.50	0.75	28%

P50 GIIP 540 Bcf & P50 STOIIP: 393 MMstb unrisked

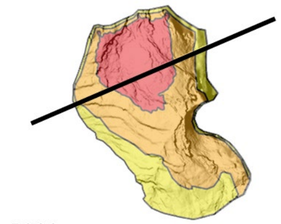
Prospective Resources

Scotian Basin Integration Atlas 2023 – CANADA – June 2023

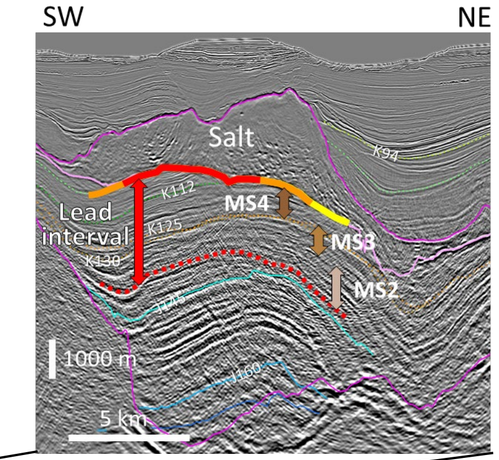
Stratigraphy and facies

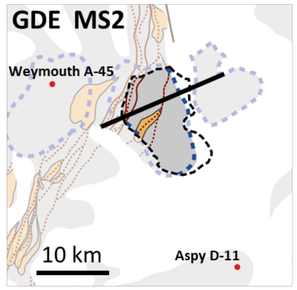


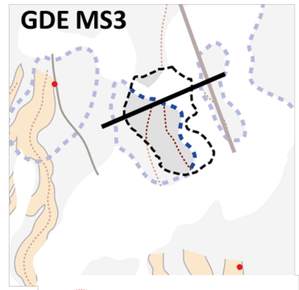
Reference Horizon Base Salt / K125
- Min = crestal salt dependent closure
- ML = + dip closure to south
- MAX = further dip closure to south

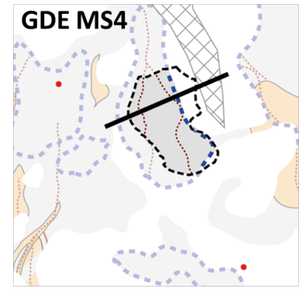


Minimum closure
Most likely closure
Maximum closure







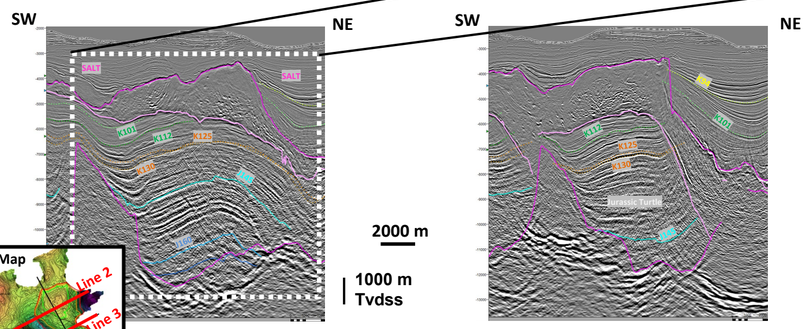


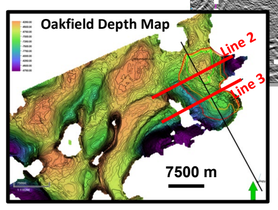
Seal: Salt Canopy

Rollover
Turtleback structure
Sedimentation below salt canopy
Autochtonous to parachtonous salt pillars
Sandy slope fan - turbiditic infill (observed in 3D seismic / inferred from 2D seismic)
Turbiditic channel (paleo-current motion)
Shelfal incised valley
Incised mounded countouritic drift / sediment wave (observed in 3D seismic / inferred from 2D seismic)
Contour Current

Continental
Post Megasequence erosion
Alluvial to fluvial plain
Fluvial plain to Upper deltaic plain (FRWs)
Marine
Sandy delta front / mixed flat (Inner shelf)
Sandy to shaly pro-delta / outer shelf
Muddy outer carbonate shelf
Barrier shelf edge
Upper to mid slope
Lower slope to basin
SDR / outer margin

SW-NE seismic line 2 and 3

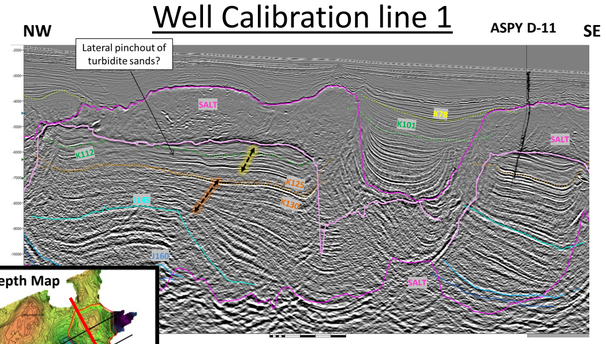


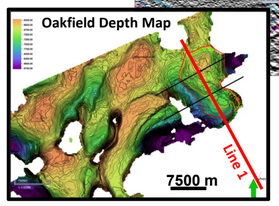


6750 m simple closure
7300 m
7750 m } Requires strat trap and closure against salt stem

Oakfield: Subsalt (below canopy) four-way dip closure (min.) above a Jurassic turtle, with potential up-dip stratigraphic trap and closure against salt stem.

Well Calibration line 1

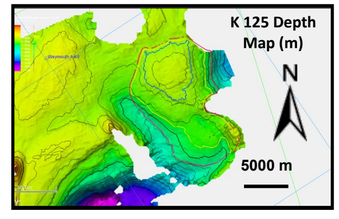




6750 m simple closure
7300 m
7750 m } Requires strat trap and closure against salt stem

Volumes

Parameter	Min/P90	Most likely/P50	Max/P10
Apex of structure (mbsl)		-6460	
Closure depth (mbsl)	-6750	-7300	-7750
Closure area (sq.km)	27	81	113
Slab GRV (MMm3)	22569	68112	94699
GRV (MMm3)	3956	26013	43505



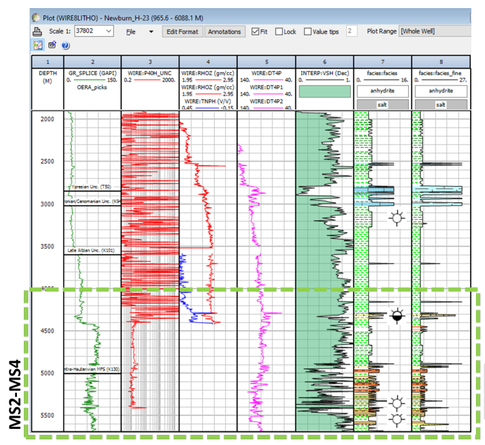
Approx. WD: 2100 m
Estimated TD: -6460 mbsl

This is a subsalt canopy dependent closure with additional dip closure to the south (play type).
Aquifer pressure is near approx. fracture closure pressure (red line).
Top seal failure risk (>25% trap COS) may require a "protected trap" where pressure is released at an updip "blown trap" (assuming sufficient reservoir presence & connectivity).

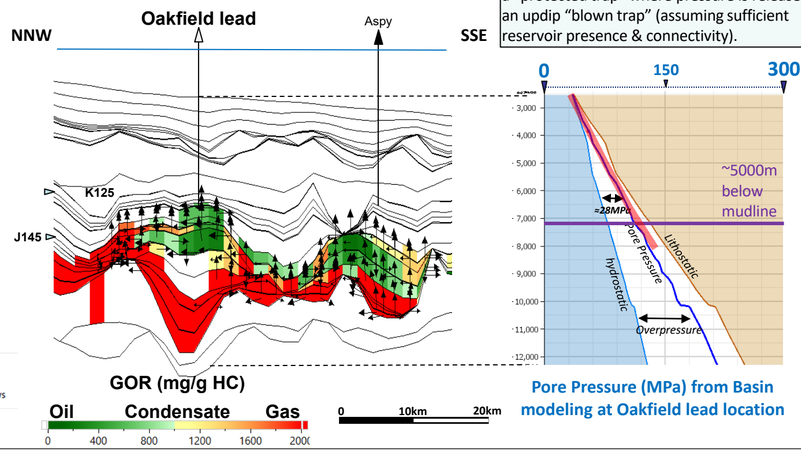
Petrophysics

anhydrite
salt
volcanics
basement
shale
claystone
silty to sandy sh.
siltstone
sandstone
calc. siltstone
calc. sandstone
limestone
chalk
dolomite
argilaceous limestone
marls
carnalite salt/ clay
sandst vfine
sandst fine
sandst medium
sandst coarse
lim oolitic
lim. peloid
lim.mudston
lim.wackestone
lime. pack
lime grain.
lim. bioclastic

Well analog: Newburn-H23



Basin modeling results



Pore Pressure (MPa) from Basin modeling at Oakfield lead location

Resources

Volumetrics

Parameter	Min/P90	Most likely/P50	Max/P10
Apex of structure (mbsl)		-6460	
Closure depth (mbsl)	-6750	-7300	-7750
Closure area (sq.km)	27	81	113
Slab GRV (MMm3)	22569	68112	94699
GRV (MMm3)	3956	26013	43505
N/G	14%	18%	27%
PHIE	12%	18%	22%
Sg	50%	60%	70%
1/Bo	0.58	0.59	0.60
RF Oil	15%	20%	25%
1/Bg	377	385	392
RF Gas	65%	75%	85%
bbl/m3		6.28981	
cf / m3		35.31467	
STOIIP (MMbbl)	120	235	366
Prospective Resources (MMbbl)	40	80	127
GIIP (Bcf)	2974	5778	8978
Prospective Resources (Bcf)	2226	4317	6812

Geological Risks

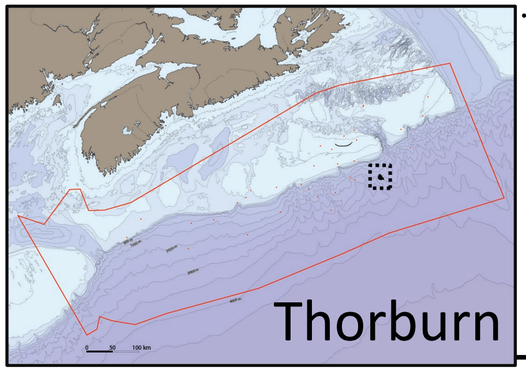
Lead Name	Trap Risk	Charge Risk	Reservoir Risk	GCOS
Oakfield	0.25	0.75	0.75	14%

P50 GIIP: 5778 Bcf & P50 OIIP: 235 MMbbl unrisked

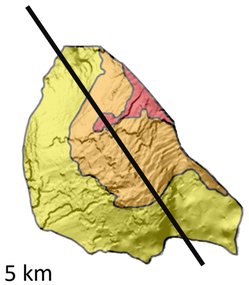
Prospective Resources

Scotian Basin Integration Atlas 2023 – CANADA – June 2023

Stratigraphy and facies

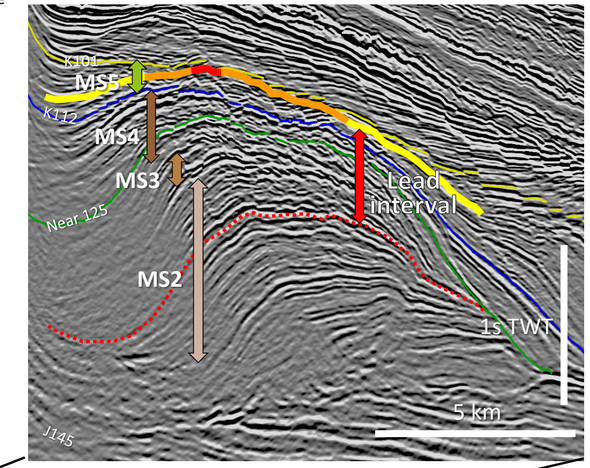


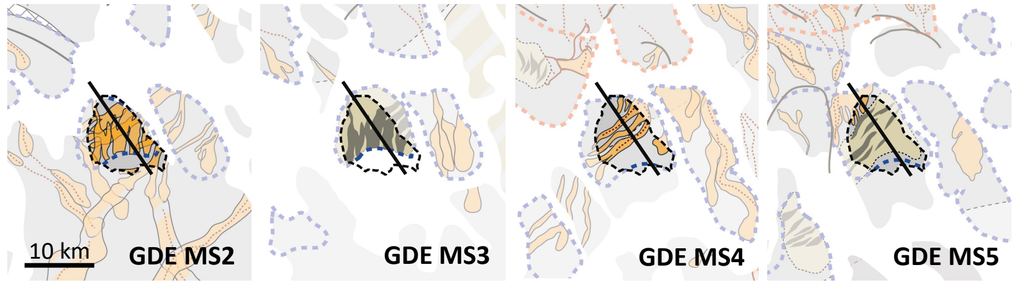
Reference Top MS5
- Min = crestal salt dependent closure
- ML = salt dependent closure
- MAX = salt dependent closure



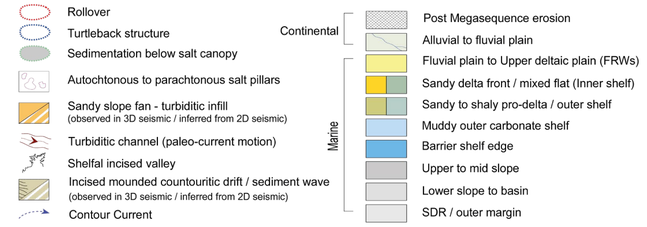
Minimum closure
Most likely closure
Maximum closure

NW SE



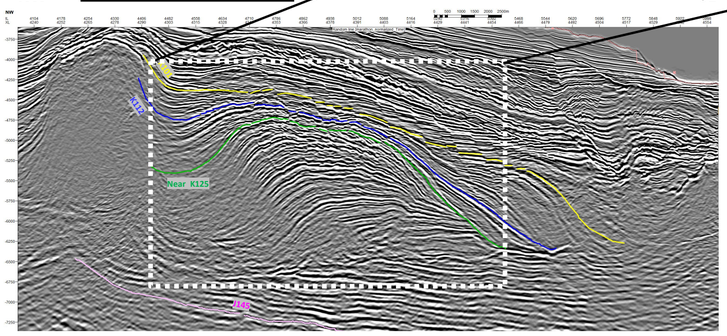


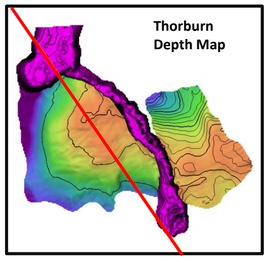
Seal: MS5 late lowstand

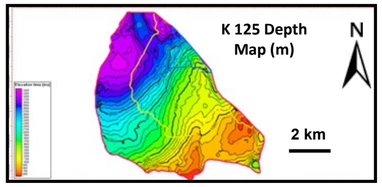


N-S seismic line

NW SE





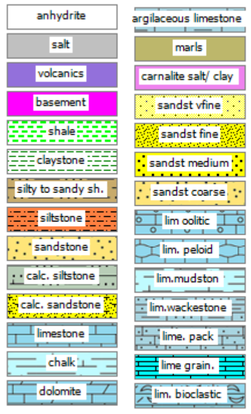


Volumes

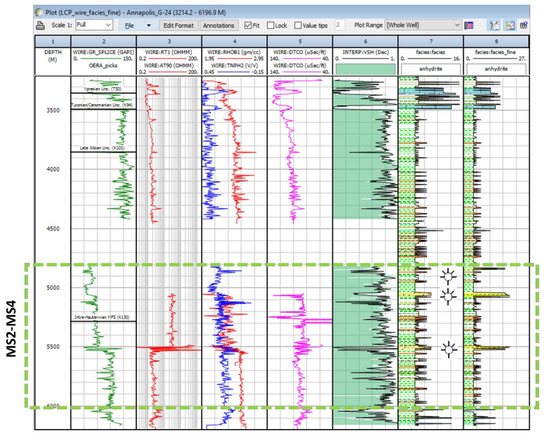
Parameter	Min/P90	Most likely/P50	Max/P10
Apex of structure (mbsl)		-4100	
Closure depth (mbsl)	-4300	-4600	-5500
Closure area (sq.km)	4	31	80
Slab GRV (MMm3)	1835	15626	40199
GRV (MMm3)	**220**	**5346**	**56330**

Approx. WD: 2060 m
Estimated TD: -4140 mbsl

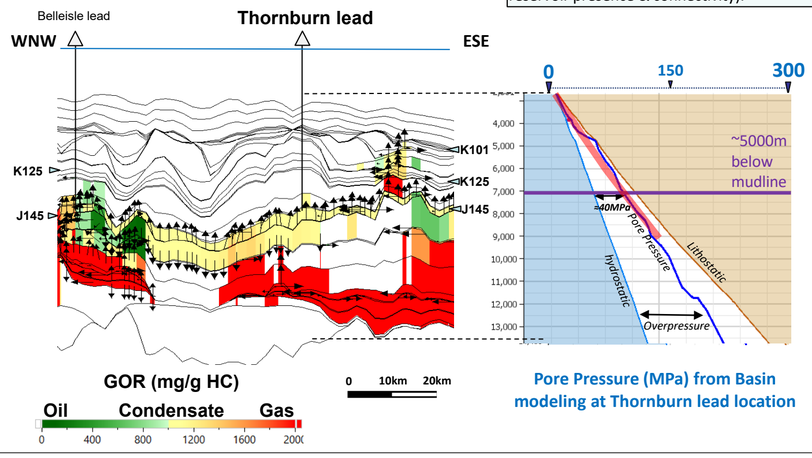
Petrophysics



Well analog: Annapolis-G24



Basin modeling results



Pore Pressure (MPa) from Basin modeling at Thornburn lead location

This is a combination trap: two-way dip closed, two- way salt dependent (play type).
Aquifer pressure is near approx. fracture closure pressure (red line.)
Top seal failure risk (>50% trap COS) may require a "protected trap" where pressure is released at an updip "blown trap" (assuming sufficient reservoir presence & connectivity).

Resources

Volumetrics

Parameter	Min/P90	Most likely/P50	Max/P10
Apex of structure (mbsl)		-4100	
Closure depth (mbsl)	-4300	-4600	-5500
Closure area (sq.km)	4	31	80
Slab GRV (MMm3)	1835	15626	40199
GRV (MMm3)	**220**	**5346**	**56330**
N/G	28%	38%	48%
PHIE	12%	18%	22%
Shc	50%	60%	70%
1/Bo	0.490	0.500	0.510
RF Oil	15%	20%	25%
1/Bg	338	345	352
RF Gas	65%	75%	85%
bbl/m3		6.28981	
cf / m3		35.31467	
STOIIP (MMbbl)	**30**	**99**	**217**
Prospective Resources (MMb	**12**	**39**	**87**
GIIP (Bcf)	**2533**	**8323**	**18272**
Prospective Resources (Bcf)	**1900**	**6235**	**13658**

Geological Risks

Lead Name	Trap Risk	Charge Risk	Reservoir Risk	GCOS
Thorburn	0.50	0.50	0.75	**19%**

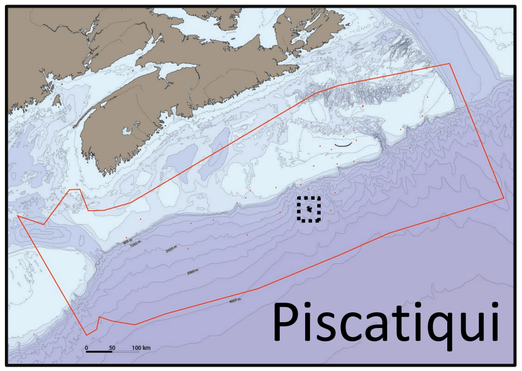
P50 GIIP: 8323 Bcf & P50 OIIP: 99 MMstb unrisked

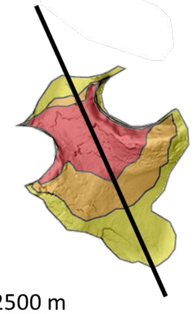
Prospective Resources

Scotian Basin Integration Atlas 2023 – CANADA – June 2023

Stratigraphy and facies

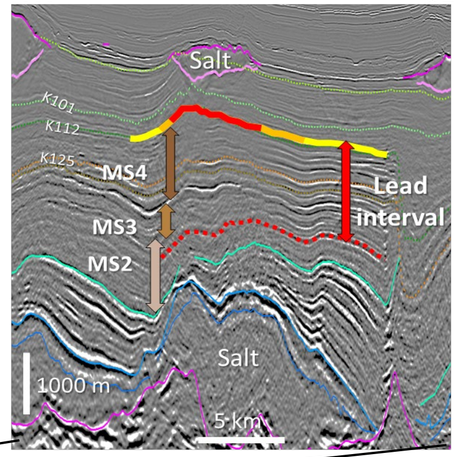
Reference Top K125
- Min = crestal salt dependent closure
- ML = salt dependent closure
- MAX = salt dependent closure

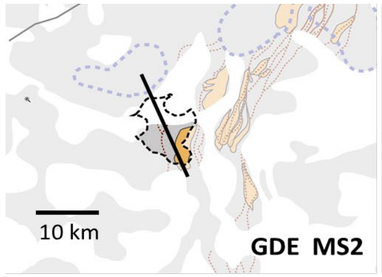


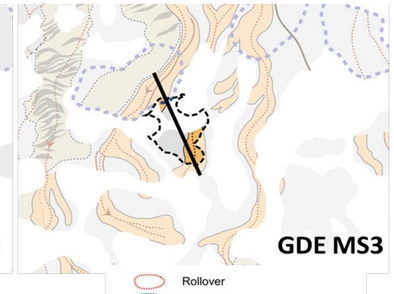


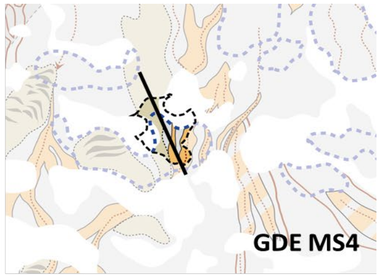
Minimum closure
Most likely closure
Maximum closure

NW SE









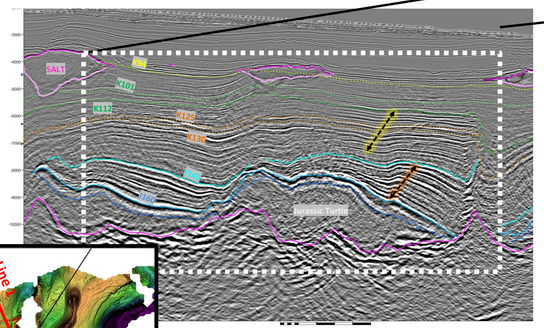
Seal: MS4 late lowstand

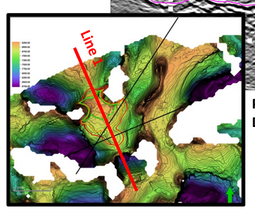
Rollover
Turtleback structure
Sedimentation below salt canopy
Autochtonous to parachtonous salt pillars
Sandy slope fan - turbiditic infill (observed in 3D seismic / inferred from 2D seismic)
Turbiditic channel (paleo-current motion)
Shelfal incised valley
Incised mounded countouritic drift / sediment wave (observed in 3D seismic / inferred from 2D seismic)
Contour Current

Continental
Post Megasequence erosion
Alluvial to fluvial plain
Fluvial plain to Upper deltaic plain (FRWs)
Marine
Sandy delta front / mixed flat (Inner shelf)
Sandy to shaly pro-delta / outer shelf
Muddy outer carbonate shelf
Barrier shelf edge
Upper to mid slope
Lower slope to basin
SDR / outer margin

NW-SE seismic line 1

SW NE





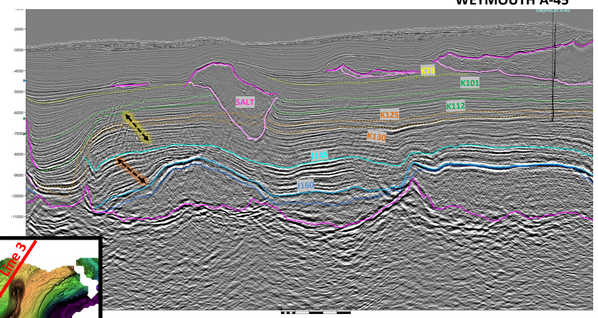
Piscatiqui Depth Map
6500 m
6700 m
6800 m

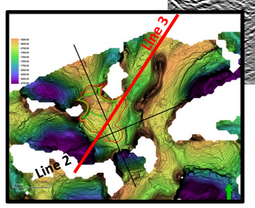
1000 m Tvdss
5000 m
7500 m
Contour Interval 50 m

Piscatiqui: Combination trap; saddle fold above Jurassic turtle, requiring three-way closure again salt stocks.

Well Calibration line 3

SW NE





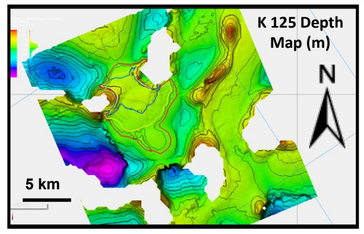
Piscatiqui Depth Map
6500 m
6700 m
6800 m

1000 m Tvdss
5000 m
7500 m
Contour Interval 50 m

This is a combination trap: two-way dip closed, two- way salt dependent (play type).
Aquifer pressure is near approx. fracture closure pressure (red line.)
Top seal failure risk (>25% trap COS) may require a "protected trap" where pressure is released at an updip "blown trap" (assuming sufficient reservoir presence & connectivity).

Volumes

Parameter	Min/P90	Most likely/P50	Max/P10
Apex of structure (mbsl)		-6460	
Closure depth (mbsl)	-6500	-6700	-6800
Closure area (sq.km)	20	39	65
Slab GRV (MMm3)	4848	9467	15706
GRV (MMm3)	**2448**	**8663**	**14174**



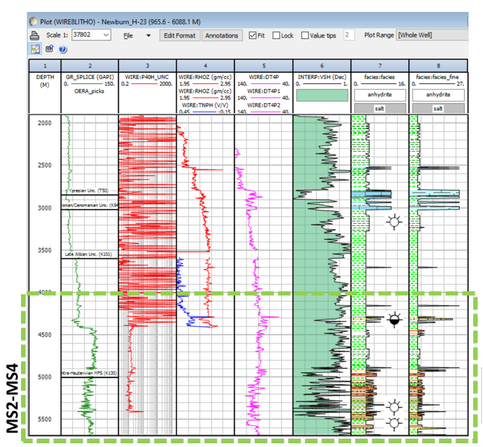
Approx. WD: 2400 m
Estimated TD: -6460 mbsl

Petrophysics

anhydrite
salt
volcanics
basement
shale
claystone
silty to sandy sh.
siltstone
sandstone
calc. siltstone
calc. sandstone
limestone
chalk
dolomite

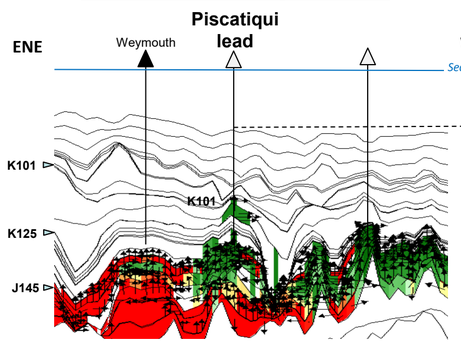
argilaceous limestone
marls
carnalite salt/ clay
sandst vfine
sandst fine
sandst medium
sandst coarse
lim oolitic
lim. peloid
lim.mudston
lim.wackestone
lime. pack
lime grain.
lim. bioclastic

Well analog: Newburn-H23



Gas shows
Oil and gas shows

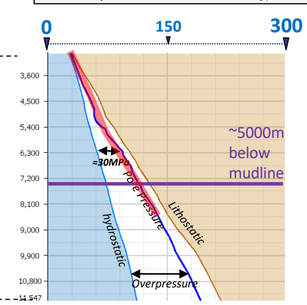
Basin modeling results



Poor GOR **at lead location**, especially due to the hydrocarbon charge from Tithonian and the Pliensbachian in the oil window)

GOR (mg/g HC)
Oil Condensate Gas
0 400 800 1200 1600 2000

0 10km 20km



Pore Pressure (MPa) from Basin modeling at Piscatiqui lead location

Resources

Volumetrics

Parameter	Min/P90	Most likely/P50	Max/P10
Apex of structure (mbsl)		-6460	
Closure depth (mbsl)	-6500	-6700	-6800
Closure area (sq.km)	20	39	65
Slab GRV (MMm3)	4848	9467	15706
GRV (MMm3)	**2448**	**8663**	**14174**
N/G	25%	30%	36%
PHIE	12%	18%	22%
Shc	50%	60%	70%
1/Bo	0.71	0.72	0.74
RF Oil	15%	20%	25%
1/Bg	363	370	378
RF Gas	65%	75%	85%
bbl/m3		6.28981	
cf / m3		35.31467	
STOIIP (MMbbl)	**844**	**1281**	**2946**
Prospective Resources (MMbbl)	**188**	**322**	**481**
GIIP (Bcf)	**0.10**	**0.15**	**0.34**
Prospective Resources (Bcf)	**0.07**	**0.11**	**0.26**

Geological Risks

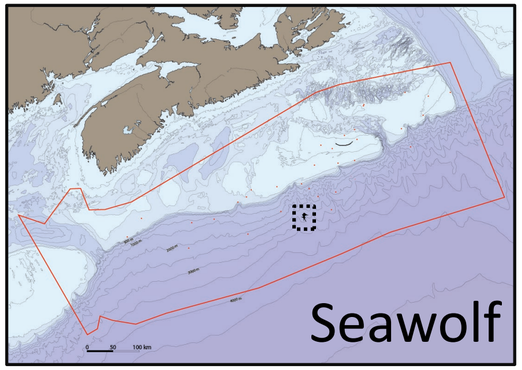
Lead Name	Trap Risk	Charge Risk	Reservoir Risk	GCOS
Piscatiqui	0.25	0.75	0.75	**14%**

P50 STOIIP: 1281 MMstb unrisked

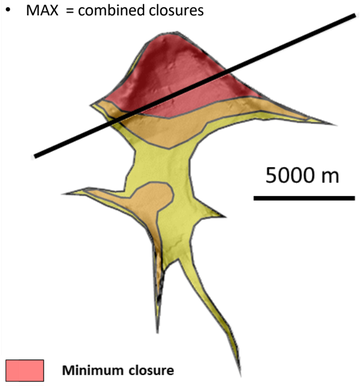
Prospective Resources

Scotian Basin Integration Atlas 2023 – CANADA – June 2023

Stratigraphy and facies

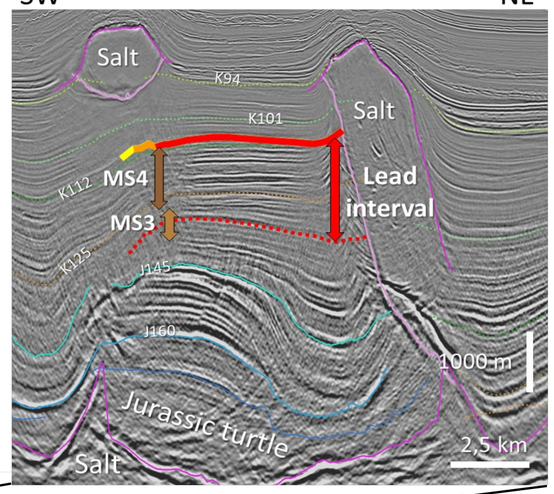


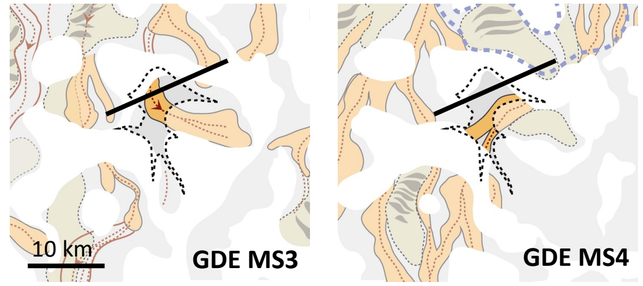
Reference Top K125
- Min = crestal salt & dip dependent closure
- ML = 2 salt & dip dependent closures
- MAX = combined closures



Minimum closure
Most likely closure
Maximum closure

SW NE





Seal: MS4 late lowstand

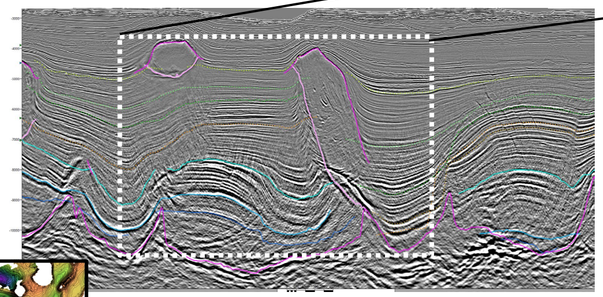
Rollover
Turtleback structure
Sedimentation below salt canopy
Autochtonous to parachtonous salt pillars
Sandy slope fan - turbiditic infill
(observed in 3D seismic / inferred from 2D seismic)
Turbiditic channel (paleo-current motion)
Shelfal incised valley
Incised mounded countouritic drift / sediment wave
(observed in 3D seismic / inferred from 2D seismic)
Contour Current

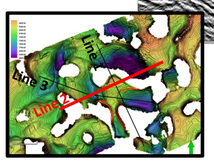
Continental
Post Megasequence erosion
Alluvial to fluvial plain
Fluvial plain to Upper deltaic plain (FRWs)

Marine
Sandy delta front / mixed flat (Inner shelf)
Sandy to shaly pro-delta / outer shelf
Muddy outer carbonate shelf
Barrier shelf edge
Upper to mid slope
Lower slope to basin
SDR / outer margin

SW-NE seismic line 2

NW SE





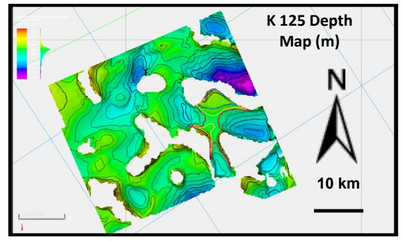
Seawolf
Depth Map

6300 m
6500 m
6600 m

1000 m Tvdss 2500 m

7500 m Contour Interval 50 m

Seawolf: Combination trap; saddle fold between salt diapirs, requiring three-way closure against salt.



Volumes

Parameter	Min/P90	Most likely/P50	Max/P10
Apex of structure (mbsl)		-6025	
Closure depth (mbsl)	-6300	-6500	-6600
Closure area (sq.km)	20	39	65
Slab GRV (MMm3)	9596	18737	31085
GRV (MMm3)	**4271**	**9821**	**14232**

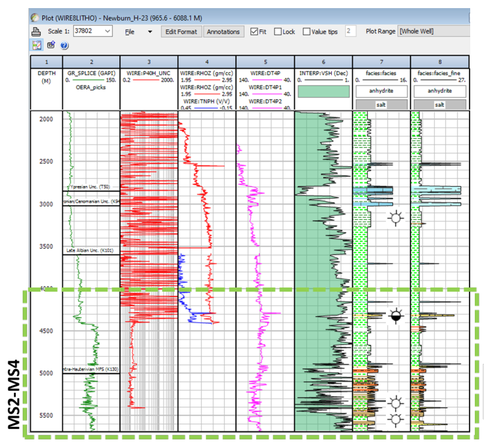
Approx. WD: 2600 m
Estimated TD: -6025 mbsl

Petrophysics

anhydrite
salt
volcanics
basement
shale
claystone
silty to sandy sh.
siltstone
sandstone
calc. siltstone
calc. sandstone
limestone
chalk
dolomite

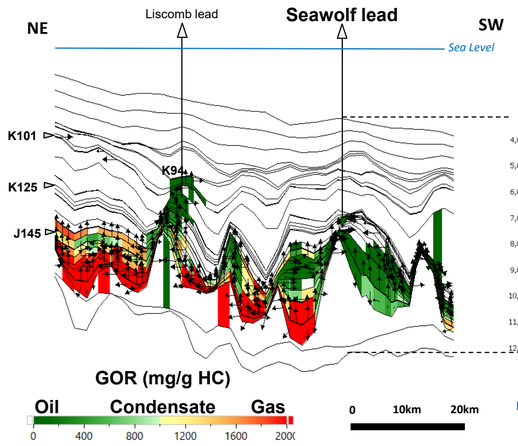
argilaceous limestone
marls
carnalite salt/ clay
sandst vfine
sandst fine
sandst medium
sandst coarse
lim oolitic
lim. peloid
lim.mudston
lim.wackestone
lime. pack
lime grain.
lim. bioclastic

Well analog: Newburn-H23

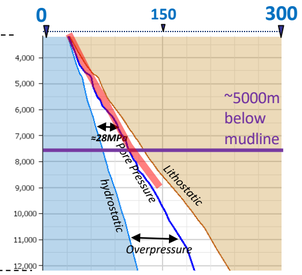


Gas shows
Oil and gas shows

Basin modeling results



This is a combination trap of salt and dip dependent closures with two culminations (play type).
Aquifer pressure is near approx. fracture closure pressure (red line).
Top seal failure risk (>25% trap COS) may require a "protected trap" where pressure is released at an updip "blown trap" (assuming sufficient reservoir presence & connectivity).



Pore Pressure (MPa) from Basin modeling at Seawolf lead location

Resources

Volumetrics

Parameter	Min/P90	Most likely/P50	Max/P10
Apex of structure (mbsl)		-6025	
Closure depth (mbsl)	-6300	-6500	-6600
Closure area (sq.km)	20	39	65
Slab GRV (MMm3)	9596	18737	31085
GRV (MMm3)	**4271**	**9821**	**14232**
N/G	7%	15%	22%
PHIE	12%	18%	22%
Sg	50%	60%	70%
1/Bo	0.84	0.86	0.88
RF Oil	15%	20%	25%
1/Bg	288	294	300
RF Gas	65%	75%	85%
bbl/m3		6.28981	
cf / m3		35.31467	
STOIIP (MMbbl)	**381**	**639**	**965**
Prospective Resources (MMbbl)	**86**	**147**	**226**
GIIP (Bcf)	**129**	**216**	**327**
Prospective Resources (Bcf)	**96**	**161**	**245**

Geological Risks

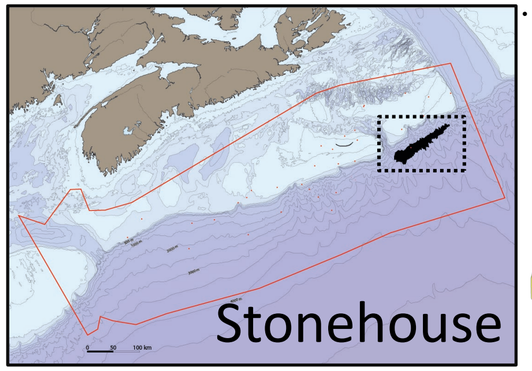
Lead Name	Trap Risk	Charge Risk	Reservoir Risk	GCOS
Seawolf	0.25	0.75	0.75	**14%**

P50 GIIP: 216 Bcf & P50 STOIIP: 639 MMstb unrisked

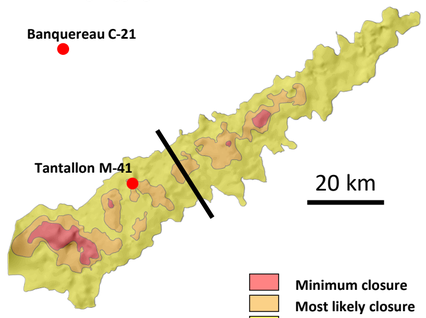
Prospective Resources

Scotian Basin Integration Atlas 2023 – CANADA – June 2023

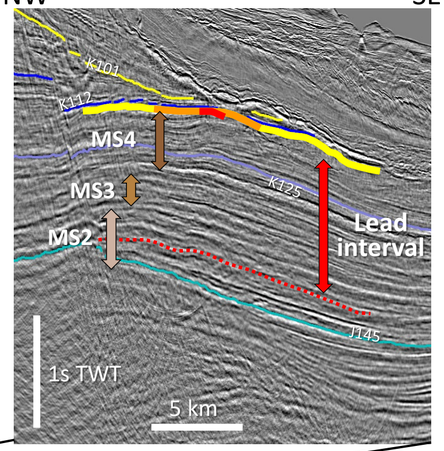
Stratigraphy and facies

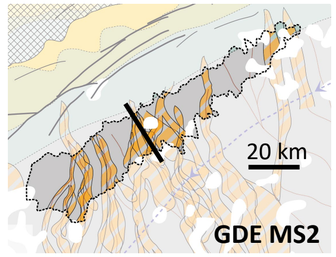


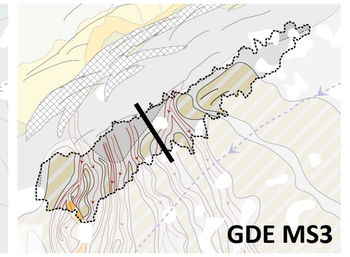
Reference Top K125
- Min= crestal 4-way dip closures
- ML= multiple 4-way dip closures
- MAX = large aggregate closure

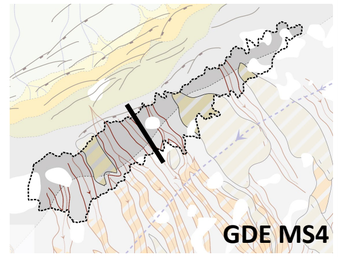


NW SE



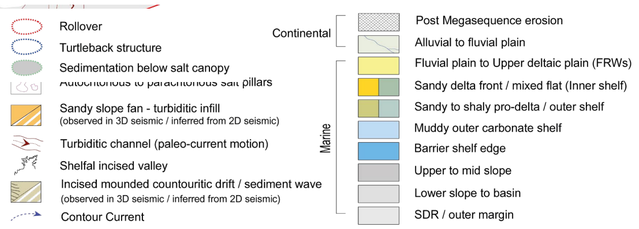






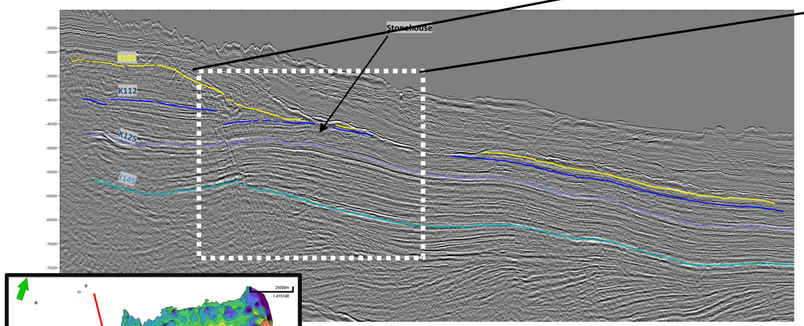
Caution: reservoir facies present in a limited part of the lead area

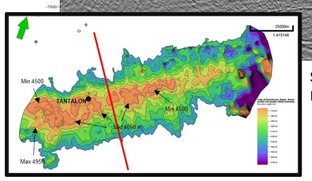
Seal: MS4 late lowstand



N-S seismic line

N S



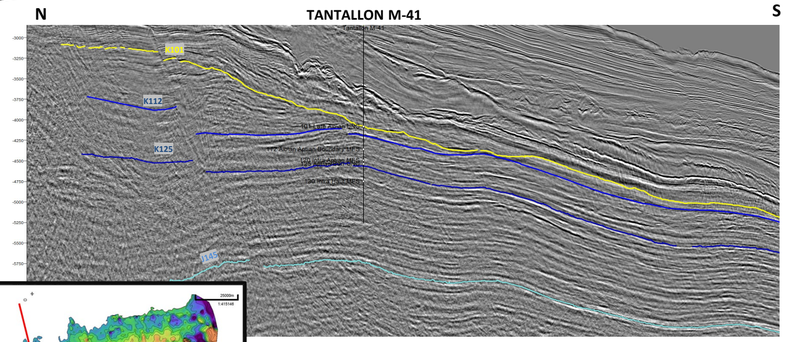


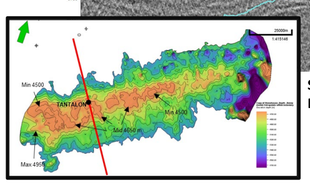
Stonehouse_ Depth Map | 500 ms TWT | 5000 m

25000 m Contour Interval 150 m

Well Calibration line

N TANTALON M-41 S



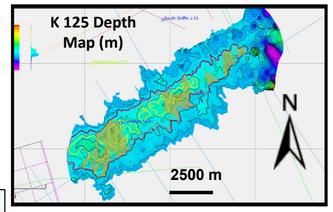


Stonehouse_ Depth Map | 250 ms TWT | 5000 m

25000 m Contour Interval 150 m

Volumes

Parameter	Min/P90	Most likely/P50	Max/P10
Apex of structure (mbsl)		-4420	
Closure depth (mbsl)	-4500	-4650	-4950
Closure area (sq.km)	22	244	977
Slab GRV (MMm3)	5060	56120	224710
GRV (MMm3)	**1048**	**15419**	**198239**

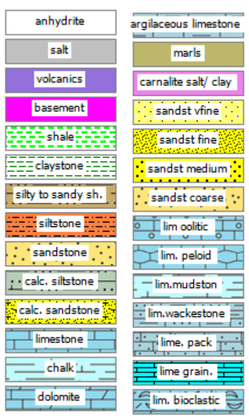


NB: Total Volume of 37 tcf GIIP represents the sum of a number of channel clusters as shown in the map above.

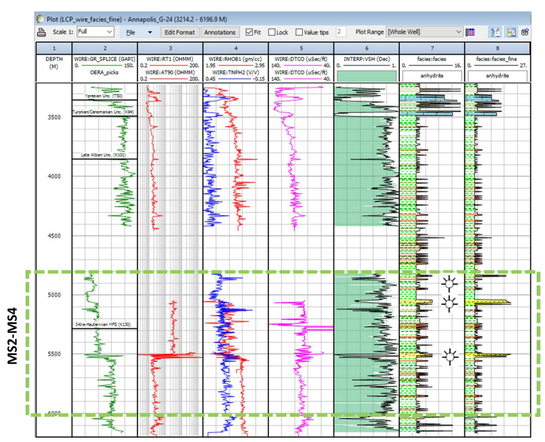
Approx. WD: 1200 m
Estimated TD: -4420 mbsl

This is a large 4-way dip closure adjacent to a large listric fault and can viewed as a rollover anticline at the distal margin of the Sable Island Delta (play type).
Aquifer pressure is near hydrostatic pressure from mud weights in the Tantallon well (wet – or possibly residual hydrocarbons). This structure may contain multiple accumulations of varying size, dependent on reservoir and fault distribution.

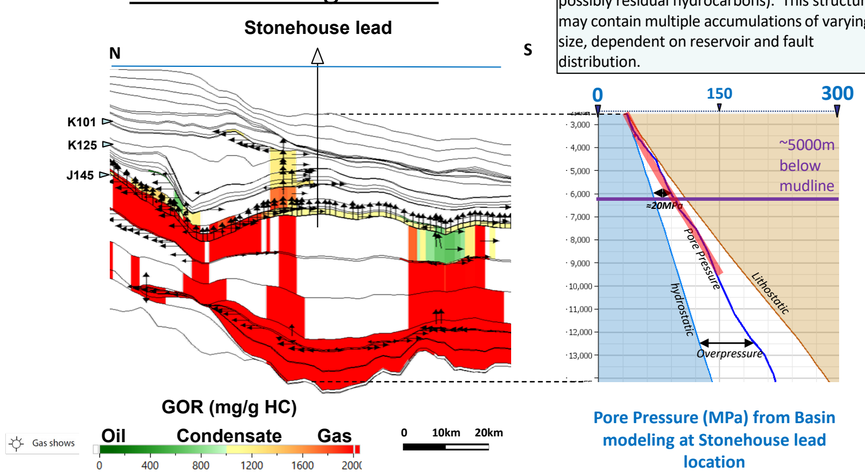
Petrophysics



Well analog Annapolis-G24



Basin modeling results



Pore Pressure (MPa) from Basin modeling at Stonehouse lead location

Resources

Volumetrics

Parameter	Min/P90	Most likely/P50	Max/P10
Apex of structure (mbsl)		-4420	
Closure depth (mbsl)	-4500	-4650	-4950
Closure area (sq.km)	22	244	977
Slab GRV (MMm3)	5060	56120	224710
GRV (MMm3)	**1048**	**15419**	**198239**
N/G	39%	55%	70%
PHIE	12%	18%	22%
Shc	50%	60%	70%
1/Bo	0.258	0.263	0.268
RF Oil	15%	20%	25%
1/Bg	288	294	300
RF Gas	65%	75%	85%
bbl/m3		6.28981	
cf / m3		35.31467	
STOIIP (MMbbl)	**4**	**13**	**29**
Prospective Resources (MMbbl)	**3**	**10**	**22**
GIIP (Bcf)	**10673**	**37113**	**82902**
Prospective Resources (Bcf)	**8002**	**27795**	**62255**

Geological Risks

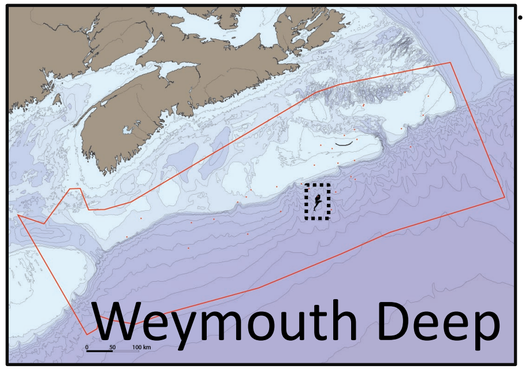
Lead Name	Trap Risk	Charge Risk	Reservoir Risk	GCOS
Stonehouse	0.50	0.75	0.50	**19%**

P50 GIIP: 37 Tcf unrisked

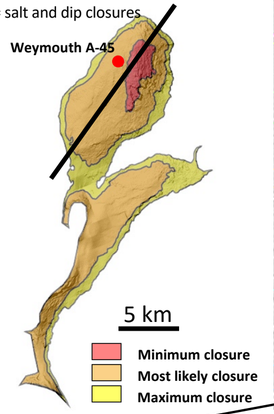
Prospective Resources

Scotian Basin Integration Atlas 2023 – CANADA – June 2023

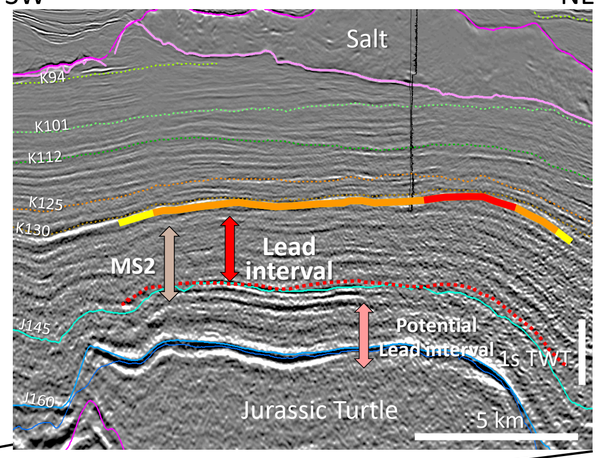
Stratigraphy and facies

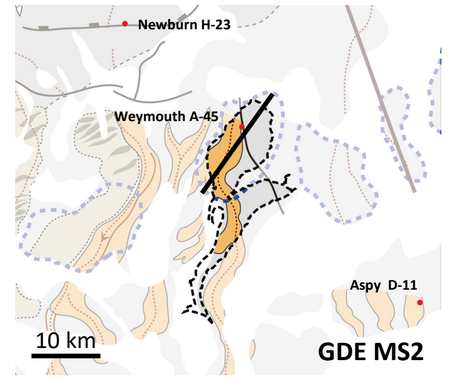


Reference Horizon K125
- Min = crestal closures
- ML = one dip closure, one combined
- MAX = salt and dip closures

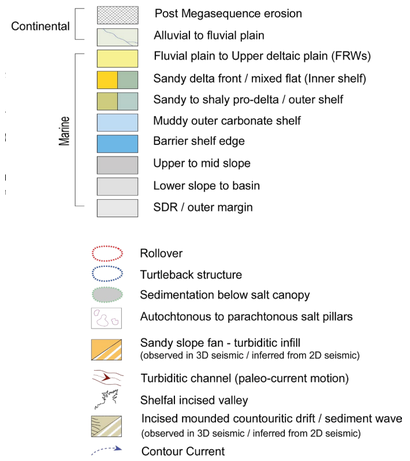


SW NE



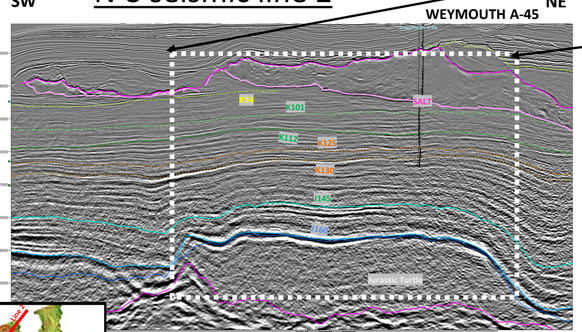


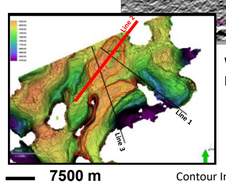
Seal: MS3 TST (K130)



N-S seismic line 2

SW NE





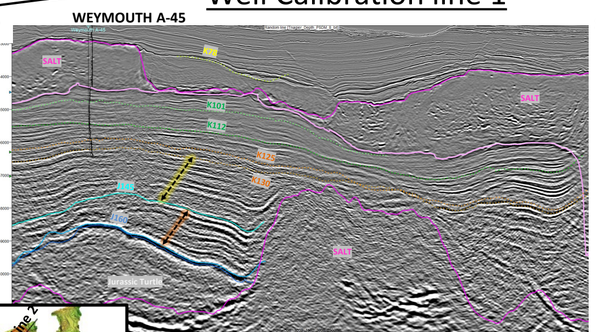
Weymouth Deep Depth Map | 1000 m Tvdss | 5000 m

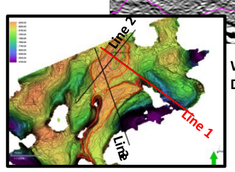
6200 m
6400 m
6500 m

7500 m Contour Interval 50 m

Well Calibration line 1

NW SE





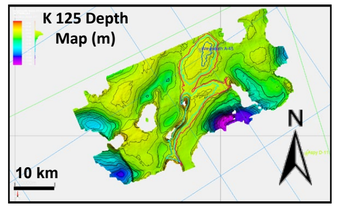
Weymouth Deep Depth Map | 1000 m Tvdss | 2500 m

6200 m
6400 m
6500 m

7500 m Contour Interval 50 m

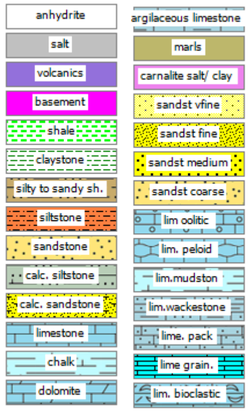
Volumes

Parameter	Min/P90	Most Likely/P50	Max/P10
Apex of structure (mbsl)		-6120	
Closure depth (mbsl)	-6200	-6400	-6500
Closure area (sq.km)	8	103	146
Slab GRV (MMm3)	2268	28864	40758
GRV (MMm3)	**1851**	**10381**	**25585**

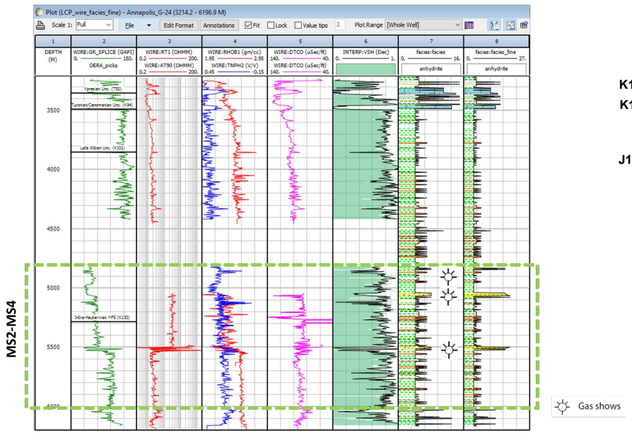


Approx. WD: 1700 m
Estimated TD: -6120 mbsl

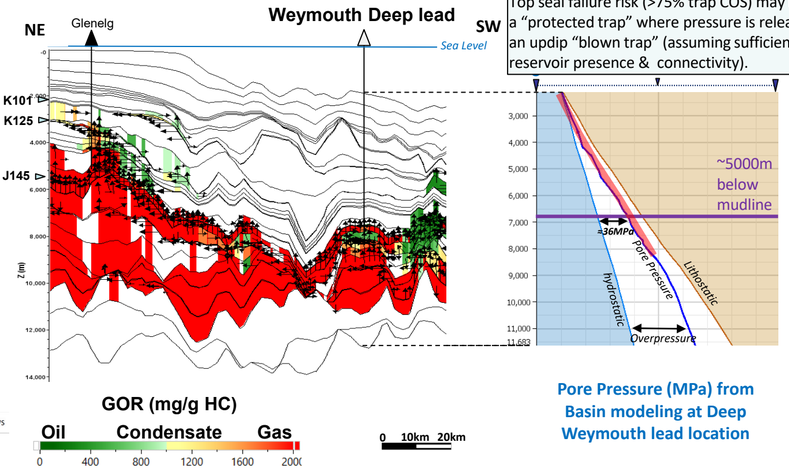
Petrophysics



Well analog: Annapolis-G24



Basin modeling results



Pore Pressure (MPa) from Basin modeling at Deep Weymouth lead location

This is a subsalt trap with two culminations, one 4-way dip closed, one salt and dip dependant (play type).
Aquifer pressure is near approx. fracture closure pressure (red line).
Top seal failure risk (>75% trap COS) may require a "protected trap" where pressure is released at an updip "blown trap" (assuming sufficient reservoir presence & connectivity).

Resources

Volumetrics

Parameter	Min/P90	Most Likely/P50	Max/P10
Apex of structure (mbsl)		-6120	
Closure depth (mbsl)	-6200	-6400	-6500
Closure area (sq.km)	8	103	146
Slab GRV (MMm3)	2268	28864	40758
GRV (MMm3)	**1851**	**10381**	**25585**
N/G	22%	31%	38%
PHIE	12%	18%	22%
Shc	50%	60%	70%
1/Bo	0.598	0.610	0.622
RF Oil	15%	20%	25%
1/Bg	392	400	408
RF Gas	65%	75%	85%
bbl/m3		6.28981	
cf / m3		35.31467	
STOIIP (MMbbl)	**30**	**99**	**217**
Prospective Resources (MMbbl)	**12**	**39**	**87**
GIIP (Bcf)	**2168**	**4350**	**7399**
Prospective Resources (Bcf)	**1618**	**3246**	**5595**

Geological Risks

Lead Name	Trap Risk	Charge Risk	Reservoir Risk	GCOS
Weymouth Deep	0.75	0.50	0.50	**19%**

P50 GIIP: 4350 Bcf & P50 OIIP: 99 MMbbl unrisked