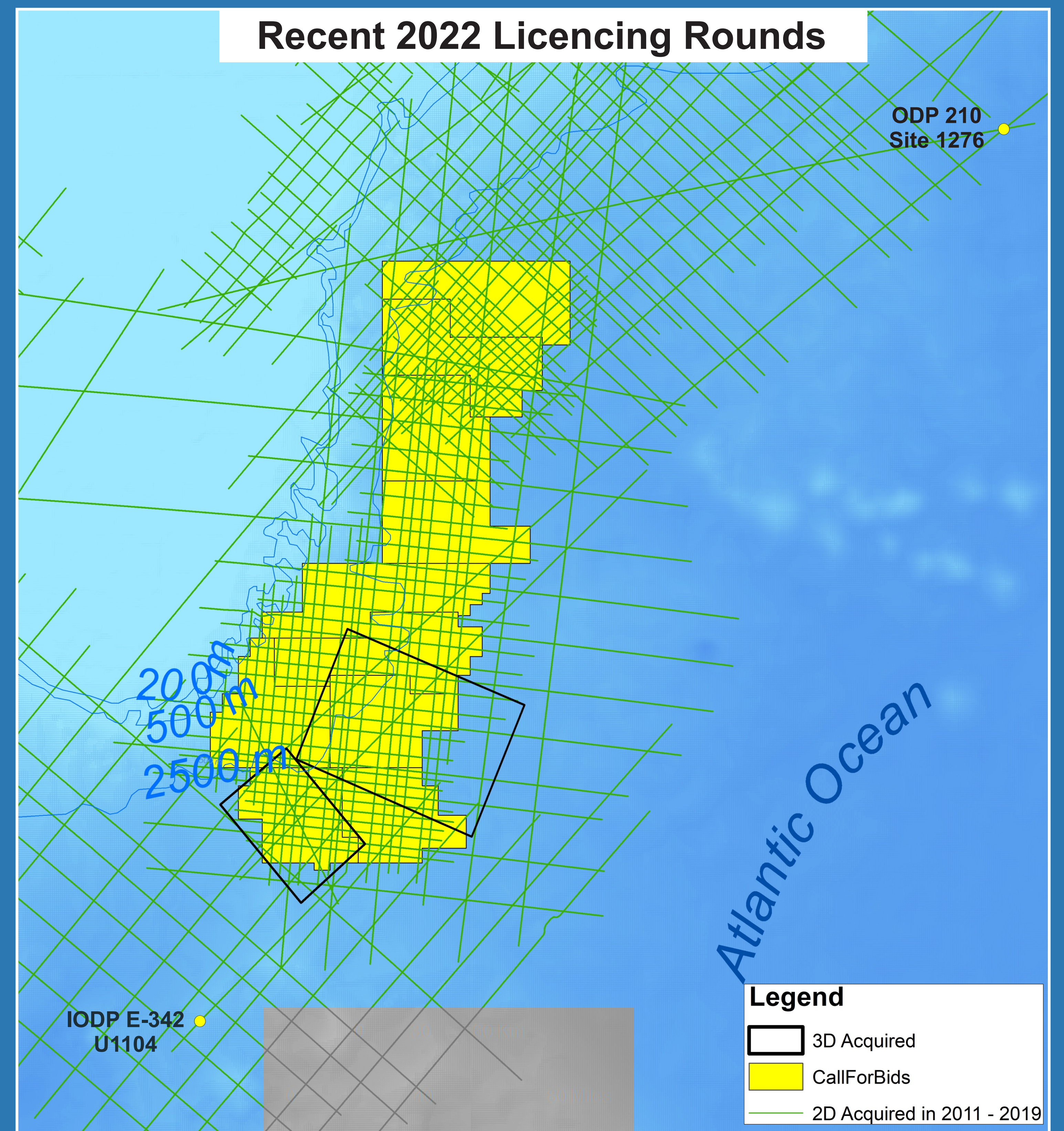
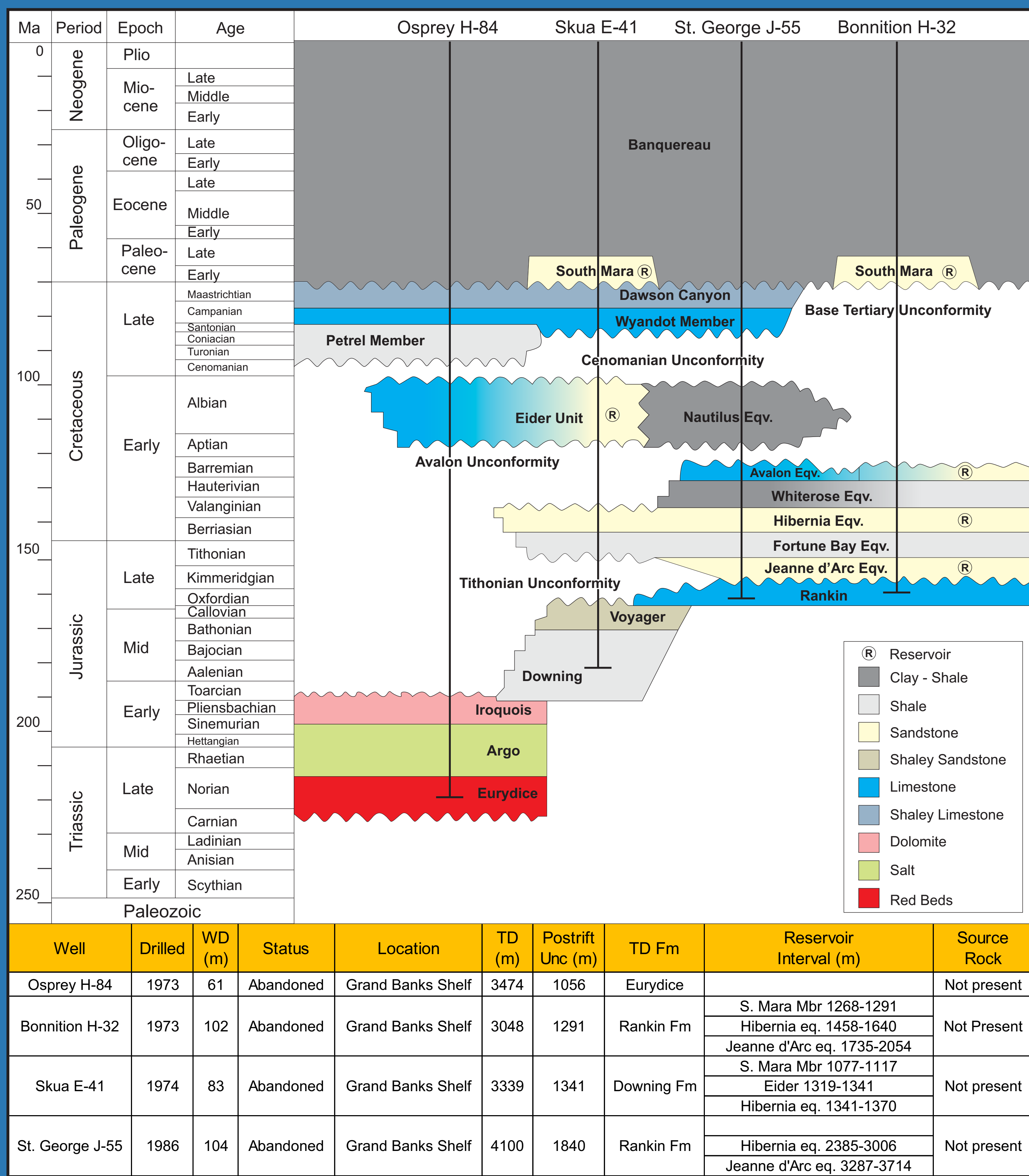


Newfoundland and Labrador Southeastern Call for Bids 2022

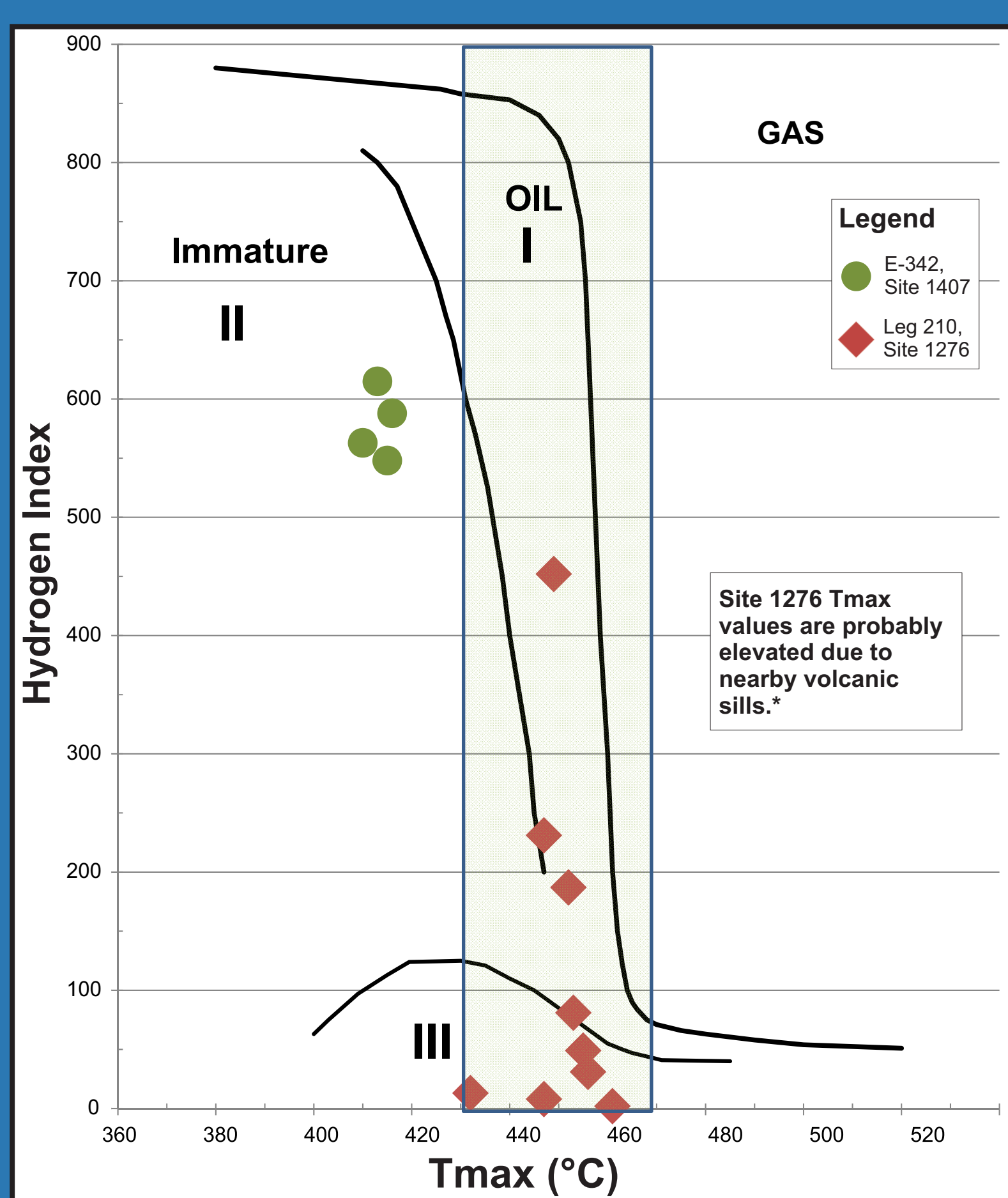
Carson Basin Seismic and Geology



From Enachescu (2013)

Possible Mid-Cretaceous Source: Oceanic Anoxic Event 2 Black Shale Horizons

Hydrogen Index vs. Tmax



Site	Spud Date	Total Depth (m)	Water Depth (m)	Sediment Age at TD	OAE 2 Depth (m)	OAE 2 Thickness (m)	OAE 2 TOC %	T _{max} (°C)
1276	July 16, 2003	1737	454m	113 Ma	1080	~15m	5-10% (good)	~450
U1407	July 7, 2012	309	307m	104 Ma	230	~10m	4-17% (v. good)	< 415 (immature)

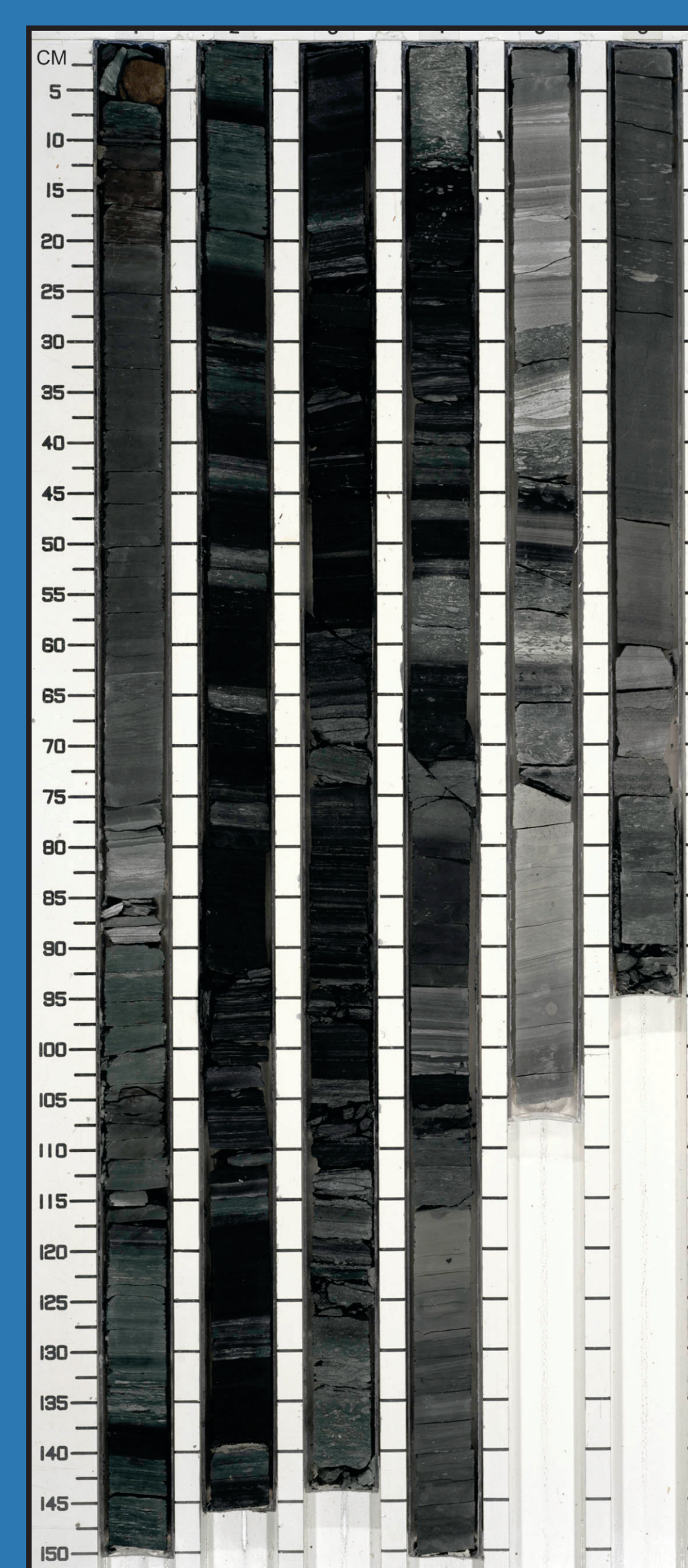
Data from Norris et al. (2014) and Tucholke et al. (2004)

Oceanic anoxic events (OAE) occur during periods of warm climate, having high levels of carbon dioxide (CO₂) and mean surface temperatures in excess of 25°C. By comparison, present day mean surface temperature is just 13°C.

OAE 2 was a widespread event in the Mid-Cretaceous (~92 Ma) lasting nearly half a million years. OAE 2 sediments are primary source rock in locations such as Columbia, Guyana, Trinidad, and Venezuela.

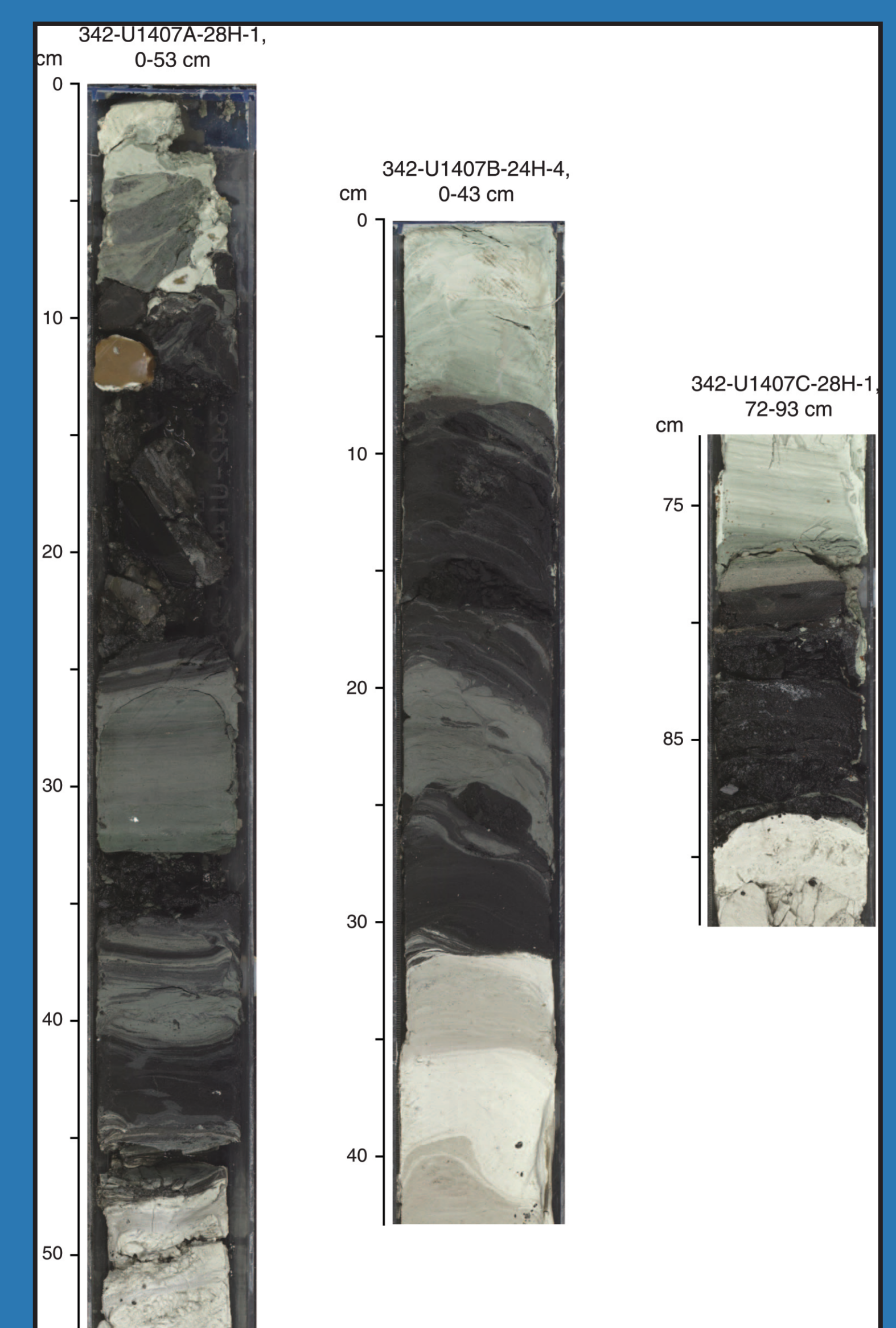
Site 1276 and 1407 are 600 kms apart and both contain rich, immature black shales. More mature Mid-Cretaceous source rock could be found in Newfoundland and Labrador's offshore basins.

ODP Leg 210 Site 1276



From Tucholke et al. (2004)

IODP Expedition 342 Site 1407



From Norris et al. (2014)

Representative Dip Line Crossing NL02-SEN

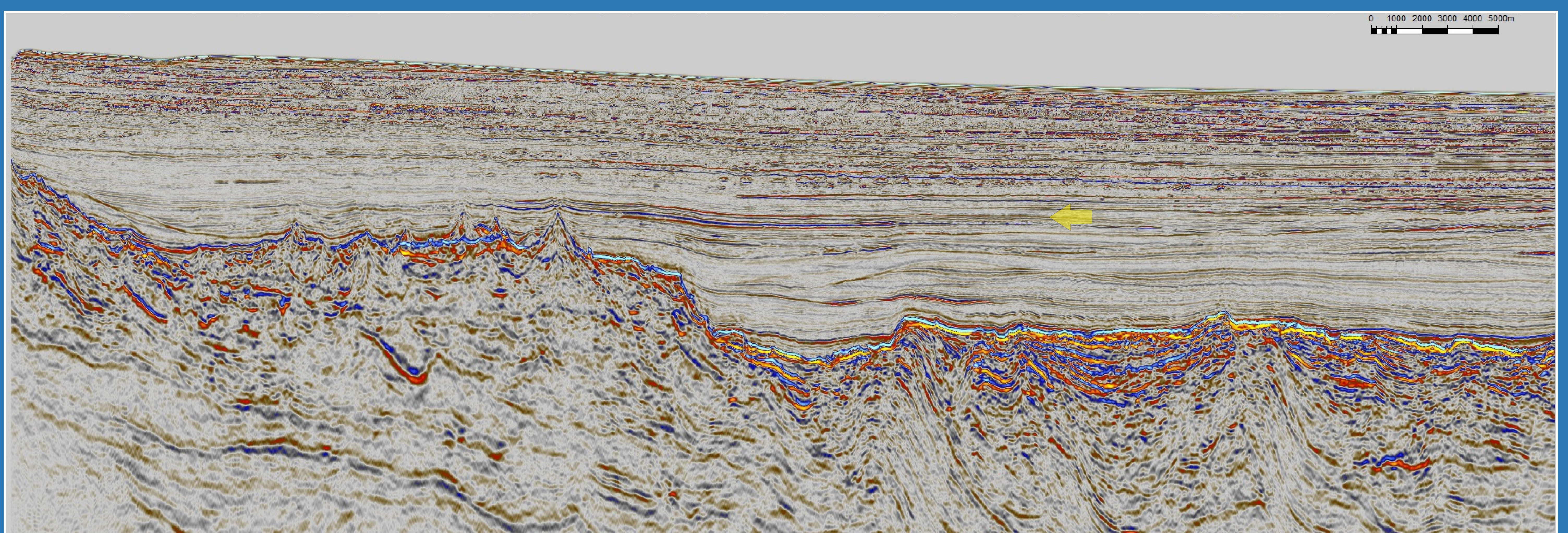


Image courtesy of OilCo Data from PGS

Calgary

London

St. John's

Houston

Newfoundland
&
Labrador