Table 5.1: Proven and potential source rock intervals in the Sydney Basin.								
Unit (Fm. / Gp.)	Age	Source Rock	Depositional Environment	Cumulative Thickness (m)	Av TOC %	ОМ Туре	Original HI (mg/g)	Comments
				PENNSYLVA	NIAN			
Sydney Mines Fm. (Morien Gp.)	Westphalian D - Stephanian	shales	fluvial floodplain: lacustrine & coal swamp	15	55	III-IV	200	Source of gas, probably as CBM - resource potential previously assessed.
Sydney Mines Fm. (Morien Gp.)	Westphalian D - Stephanian	oil shales	as above	2	10	11-111	450	A number of thin intervals with about 2 m cumulative thickness (Gibling and Kalkreuth, 1991).
Sydney Mines Fm. (Morien Gp.)	Westphalian D - Stephanian	dull coals	as above	1	55	Ш	500	Probably less than 1 m thickness (Marchioni et al., 1994).
				MISSISSIPI	PIAN			
Windsor Group	Early Visean	carbonates, evaporites & shales	deep marine evaporitic	5?	3	II	450	Macumber Formation (basal Windsor) not yet observed in the Sydney Basin, but present elsewhere onshore Cape Breton Island. Thin high-TOC shaley and dolomitic intervals within overlying evaporites are known elsewhere but with lower HI than suggested. Liquid oil has been observed/recovered from borehole cores (McMahon et al., 1986).
Strathlorne Fm. (Horton Group)	Mid Tournasian	shales	lacustrine	>5 to 100+ (average 30 m)	5	1-111	500	Proven oil and gas source rock in the Maritimes Basin but not yet observed in the Sydney Basin. Thickness varies widely between different onshore subbasins. Varying proportions of Types I and II OM.
,				DEVONI	AN		ļ	
McAdams Lake Fm. (Guysborough Gp.)	Latest Emsian - Early Eifelian	shales	lacustrine	5	5	1-111	400	Historically mined as an oil shale (Smith & Naylor, 1990). Thickness based on NSDME #2 drillhole. HI estimated only (Fowler and Webb, 2017).

Source: Via M. Fowler. Modified after Summary Table based on report by Fowler and Webb, 2017: "Sydney Basin Petroleum Systems - Synthesis of Historical and New Geochemical Data", Applied Petroleum Technology (Canada) Ltd., 276 p. Annex to Offshore Energy Research Association "Sydney Basin - Play Fairway Analysis", 2017.