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**ROCK-EVAL/TOC DATA FROM THE LOWER
JURASSIC "NORDEGG MEMBER", AND THE
LOWER AND MIDDLE TRIASSIC DOIG AND
MONTNEY FORMATIONS, WESTERN
CANADA SEDIMENTARY BASIN,
ALBERTA AND BRITISH COLUMBIA**

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ROCK-EVAL/TOC DATA FROM THE LOWER JURASSIC "NORDEGG MEMBER" AND FROM THE
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This Open File Report contains raw data from Rock-Eval type analysis of core samples from wells located within the Western Canada Sedimentary Basin (WCSB) in northwestern Alberta and northeastern British Columbia. The sample database includes 297 "Nordegg" samples from 44 cores, 148 Doig samples from 30 cores and 95 Montney samples from 23 cores. All samples were run in duplicate. There has been no attempt to remove spurious results. For example, some samples show high Production Index values, suggesting that these samples are stained by migrated hydrocarbons. The values for Tmax, Hydrogen Index (HI) and Oxygen Index (OI) are affected by staining. Other samples have low Total Organic Carbon (TOC) contents and S2 values, which result in unreliable Tmax and HI values. HI versus OI cross-plots for these data, as well as descriptions and geologic setting of each unit, are provided in Riediger et al. (1990a;b).

Standard rock samples were run with the core samples, to ensure that the analytical conditions remained consistent. Standard samples were run at the beginning of each set, every fifteenth sample during the analyses, and at the end of each sample set. Two different standards were used in the course of the study, and average values and standard deviations for each

are provided below.

STANDARD A; n=58

	<u>S1</u>	<u>S2</u>	<u>S3</u>	<u>Tmax</u>	<u>TOC</u>
Average	0.16	3.59	0.77	429	2.22
Standard Deviation	0.02	0.33	0.19	2	0.14

STANDARD B; n=44

	<u>S1</u>	<u>S2</u>	<u>S3</u>	<u>Tmax</u>	<u>TOC</u>
Average	0.30	3.65	0.65	432	1.51
Standard Deviation	0.04	0.36	0.12	2	0.07

The majority of the samples were collected by the author, however the database also includes samples from Stasiuk et al. (1988), and samples donated by Jim Barclay (ISPG, Calgary) and Stokes-Campbell Geoconsulting, Ltd. (Calgary).

The column headings in the table include the following:

Tmax, S1, S2, S3-Standard Rock-Eval parameters (Espitalié et al., 1977; 1985)

PI=Production Index = $S1/(S1+S2)$

TOC=Total Organic Carbon

HI=Hydrogen Index = $(S2/TOC) \times 100$

OI=Oxygen Index = $(S3/TOC) \times 100$

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