

Recognition of Brackish-Water Settings: Incised Valley Fills and Embayment Complexes

There are 9 cored intervals taken from various Cretaceous units of the Western Interior Seaway. Units include the McMurray Fm, Glauconite Fm, Ellerslie Mbr, Viking Fm, and Paddy Mbr. This exercise will run 2 weeks in length.

This week (Oct. 30, 2015), undergraduates and graduates will break into groups of two. You will study the 5 wells on display and take general notes on the facies types encountered. Your group will then select 2 wells to log. Construct a litholog for each of the intervals, and provide a short write-up of the main facies types, what they tell you about depositional conditions, and how these conditions combine to yield particular depositional environments. What result(s) do you get from the *WAVE* Knowledgebase when you input the observations? The write-up for this week's lab will be due at the start of next week's lab (Nov. 06).

Next week (Nov. 06, 2015), your group will evaluate 4 new cored wells, characterize the main facies types as you did the previous week, and select 2 cored wells to log and fully describe. The write-up for the second week's lab is due at the start of the Nov. 10 lab period.

Pay careful attention to the character of the facies in the different wells. What result(s) do you get from the *WAVE* Knowledgebase when you input the observations? What do the sedimentology and ichnology tell you about depositional conditions? How do the wells from the first week compare to those of the second week?

Week 1

08-08-38-18W4 Halkirk – Glauconite Fm
16-10-20-15W4 Countess – Lower Mannville Group
09-24-14-17W4 Countess – Glauconite Fm
06-25-19-17W4 Countess – Glauconite Fm
07-23-96-12W4 Horizon – McMurray Fm (Core 3-10) 39.1-60.35m

Week 2

14-14-35-18W5 Ricinus – Ellerslie Member (Core 3)
14-23-42-08W5 Willesden Green – Ellerslie Member (Core 4)
14-23-42-08W5 Willesden Green – Viking Fm (Core 1-3)
04-13-72-08W6 Wembly – Paddy Member