

The Montney-Doig Boundary: from log to core to biostratigraphy

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Summary

For the last few years we have been focused on the development of our Montney (Early Triassic) Tupper and Tupper West tight gas fields in NE BC. As development has progressed from our Tupper Field to our Groundbirch assets, we identified that the 'type wells' for the Montney-Doig Formational boundary were not representative for the western part of the Peace River Embayment (PRE) where we identified additional stratigraphic units, and shallower water facies, that were not present in the 'type logs'. In the east the boundary is a clear, erosional unconformity, however, in the west the boundary is much more transitional-conformable and suggests more continuous deposition between the Montney and Doig Phosphate Formations (Figure 1).

To test this idea, we collected 40 core samples for conodont biostratigraphy from a transect from the AB/BC border to the western part of the PRE, which allowed us to integrate the limited amount of published data (Davies et al., 1997) from west central Alberta with the more extensive dataset from Williston Lake and the outcrops along the thrust front (e.g. Zonneveld et al., 2010, Orchard and Zonneveld, 2009).

In this core presentation we will look at a E-W transect of cores that were cut across the Doig Phosphate-Upper Montney contact to evaluate the changing nature of the contact, the changes in depositional environment of the Montney, and the constraints posed by conodont biostratigraphy to the age of this boundary from the AB/BC border to the western part of the PRE

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References

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