

RNS Final Report

Enerplus Resources

Weyburn 7-66-3-10-8C

Scott Lashbrook, Reservoir Navigation Engineer

Todd Wilcox, Reservoir Navigation Engineer

Jonathan.Lashbrook@BakerHughes.com

Todd.Wilcox@BakerHughes.com

February 5, 2020

Copyright 2019 Baker Hughes Company LLC. All rights reserved. The information contained in this document is company confidential and proprietary property of Baker Hughes and its affiliates. It is to be used only for the benefit of Baker Hughes and may not be distributed, transmitted, reproduced, altered, or used for any purpose without the express written consent of Baker Hughes.

Well Information and TSD Plot

Customer: Enerplus Resources

Well: Weyburn 7-66-3-10-8C

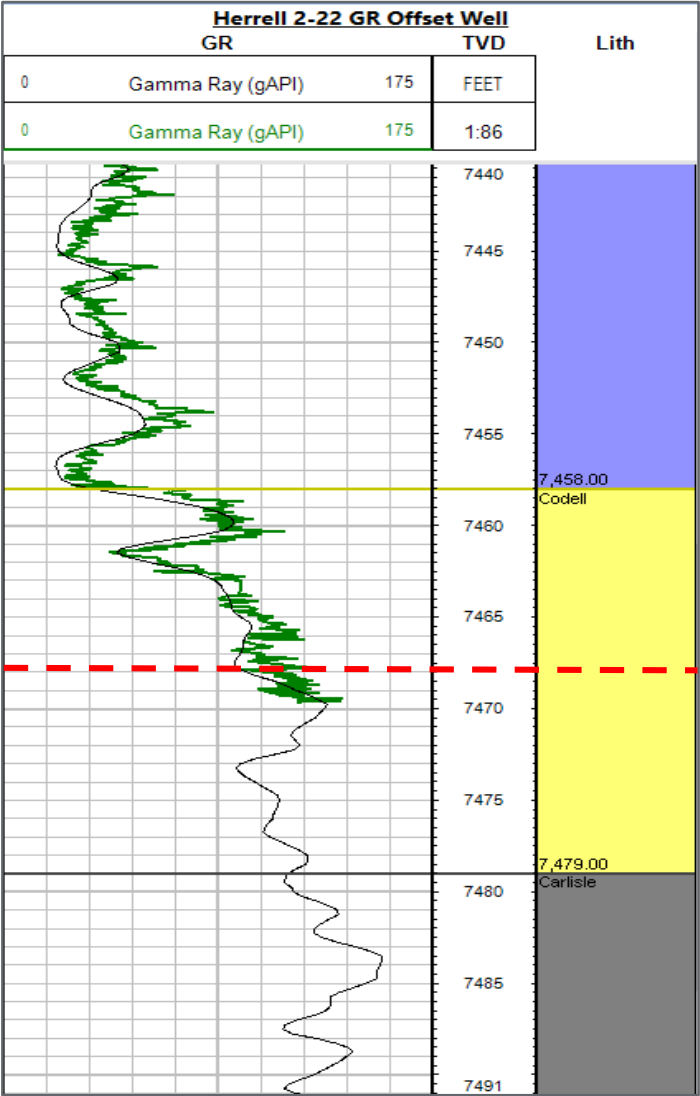
Rig: Cyclone 37

Formation: Codell

Location: Weld County, Colorado

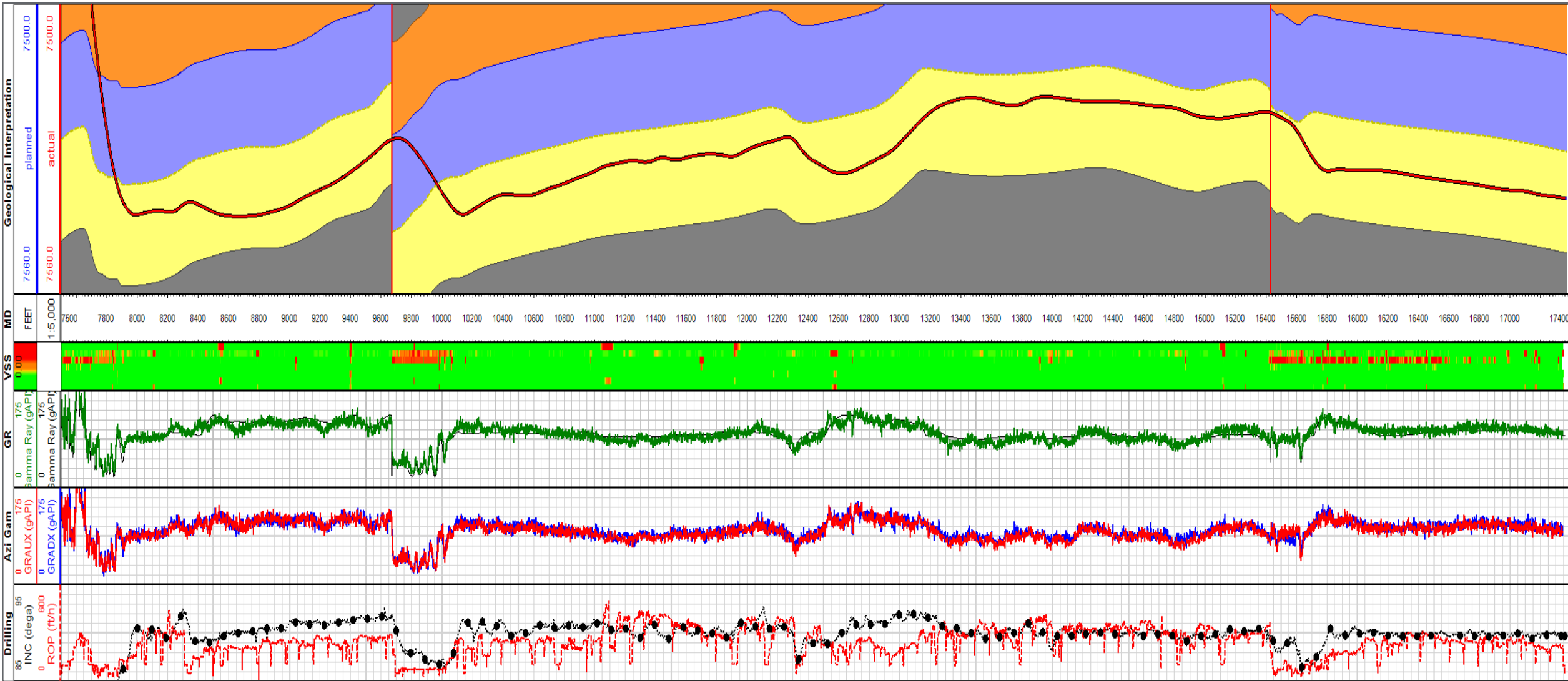
Final Stratigraphic Position

~10 ft. below the Codell Top

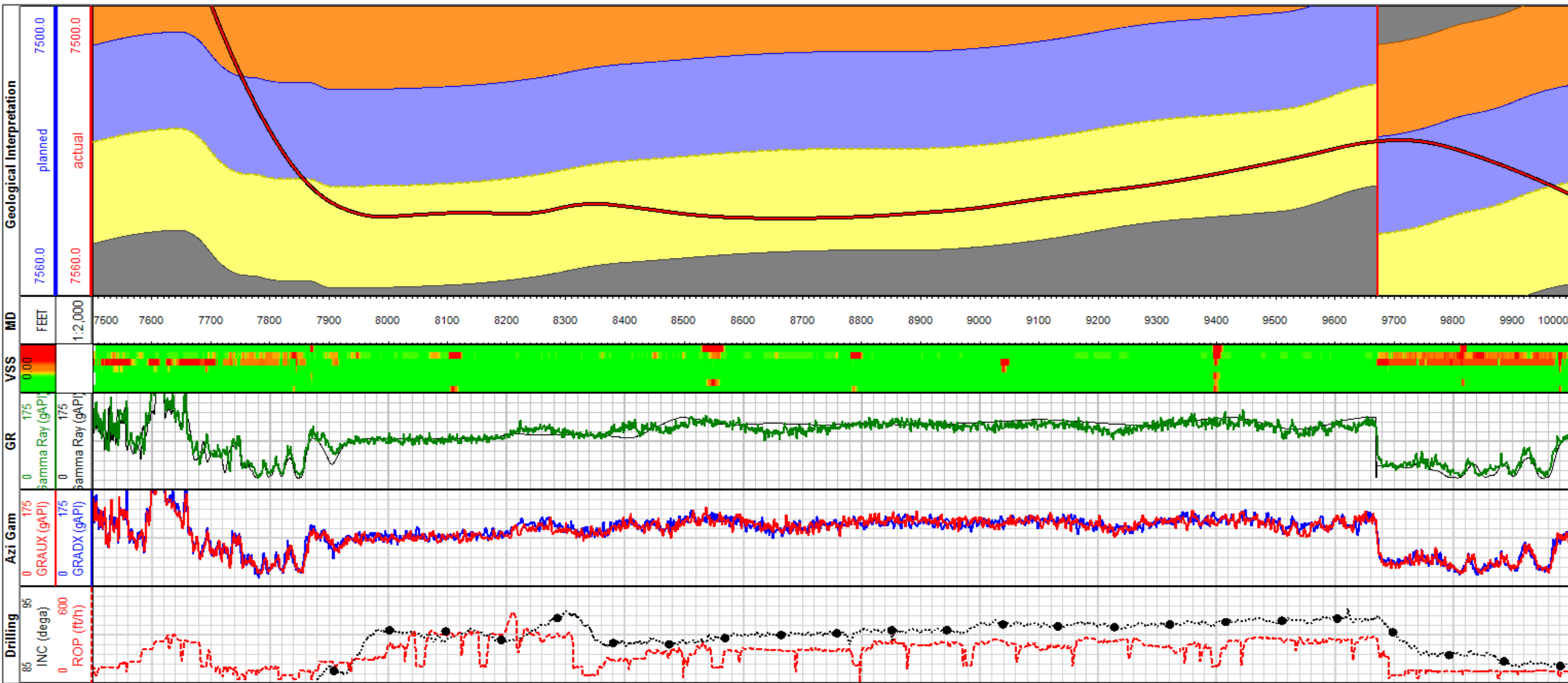


Position at Well TD

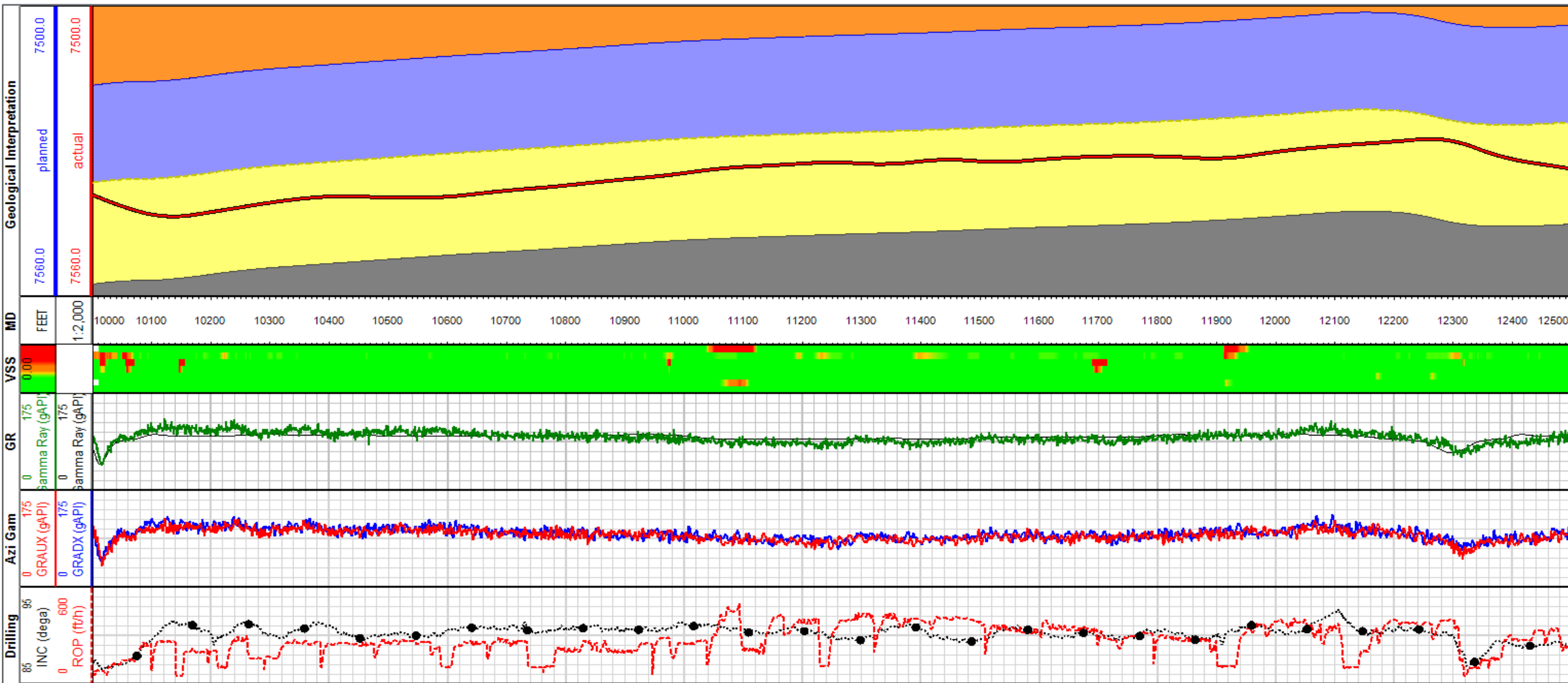
Weyburn 7-66-3-10-8C Post-Well Interpretation



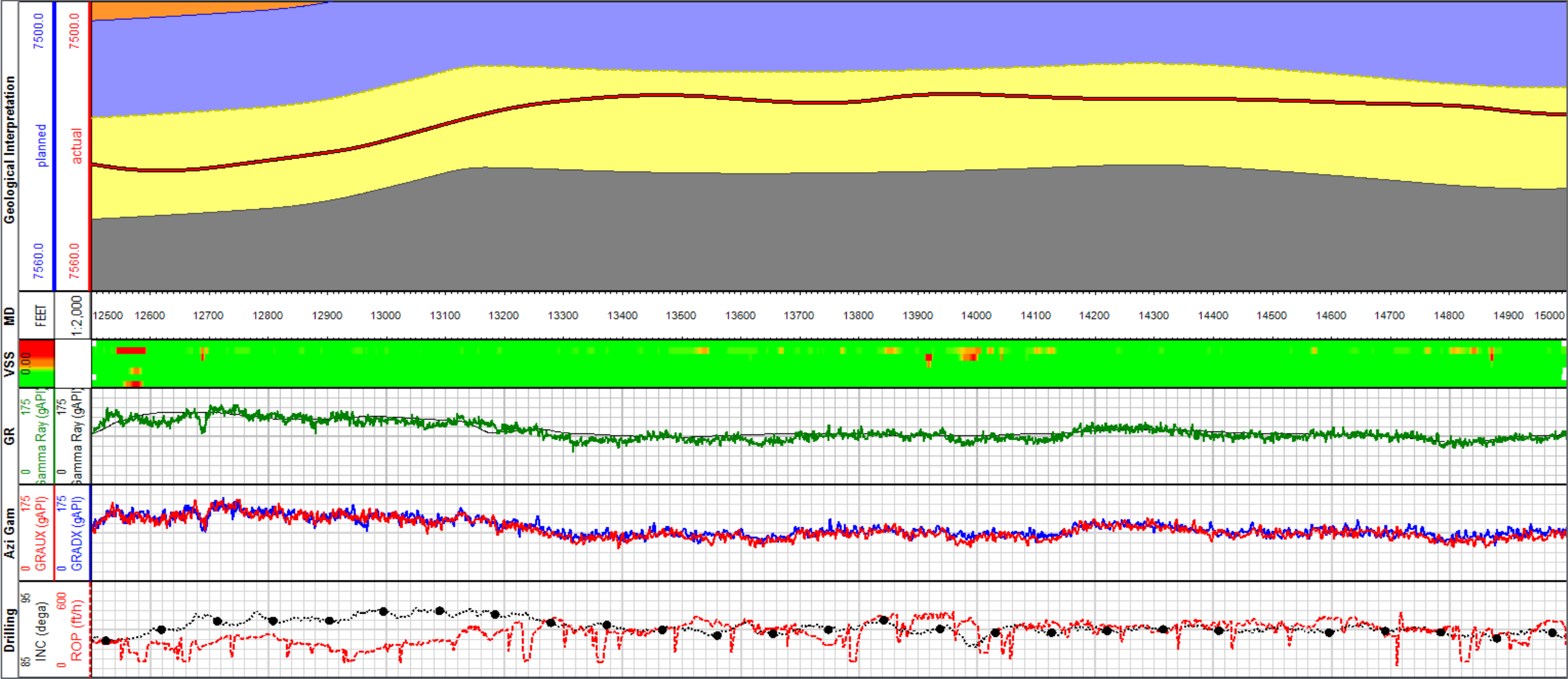
RNS Interpretation 7,500 – 10,000 ft. MD



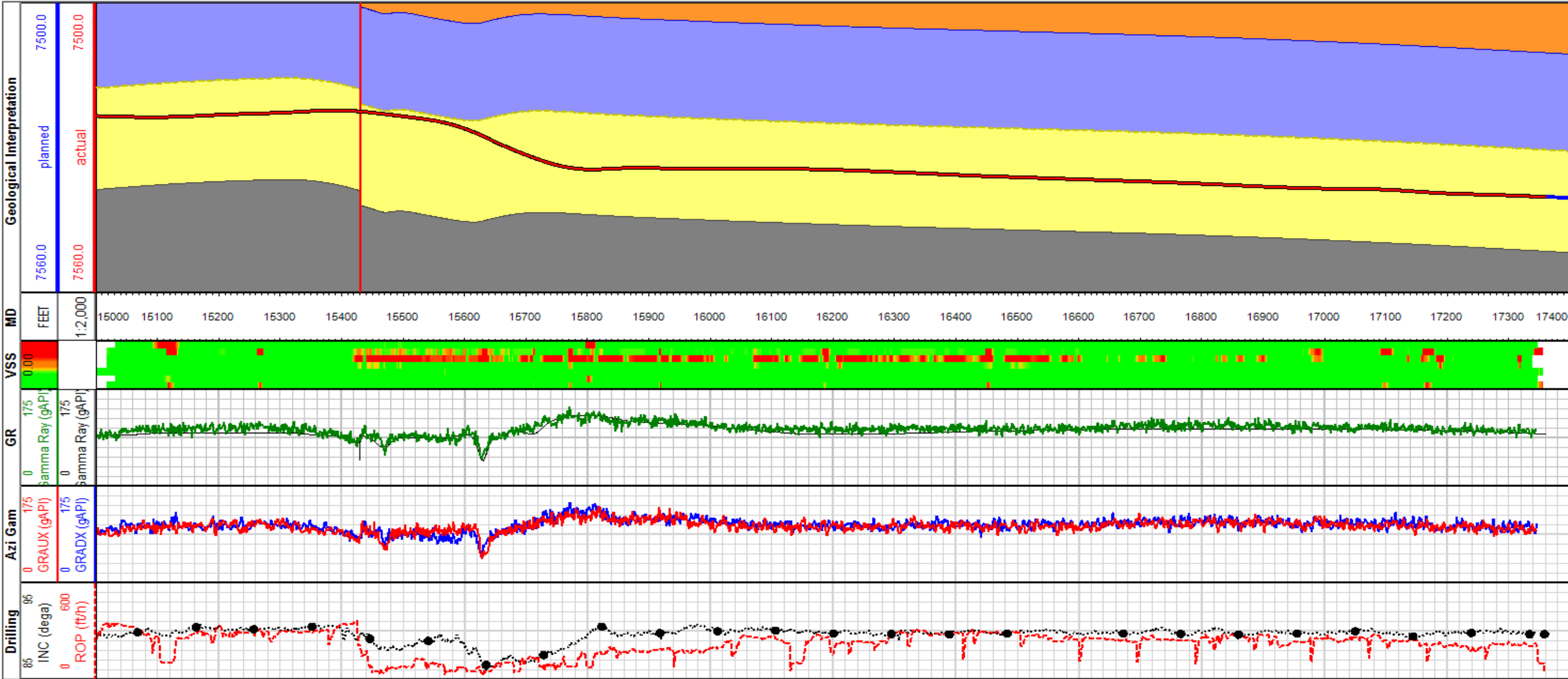
RNS Interpretation 10,000 – 12,500 ft. MD



RNS Interpretation 12,500 – 15,000 ft. MD



RNS Interpretation 15,000 – 17,358 ft. MD (TD)



RNS Well Summary

Percent in Formation

Footage drilled since entering the Codell: 9,500 ft. (7,858 ft. MD – 17,358 ft. MD)

Footage and percentage of lateral drilled in the Codell: 9,294 ft. or 97.8%

Footage and percentage of lateral drilled in the Ft. Hays: 206 ft. or 2.2%

Steering Changes and Remarks

Reservoir Navigation Services (RNS) were utilized for steering recommendations during the curve and lateral portion of the well. All steering decisions were made and communicated to the rig by Enerplus Resources Geology or Baker Hughes RNS.

The curve followed Plan Rev-B.0. The landing point was lowered incrementally to 7545' TVD. The well was landed 6' below the Codell top. Target inclination after landing was 90.0°.

The wellbore navigated within the Codell until crossing a 31 ft. DT fault at 9,671 ft. MD. The fault placed the wellbore at the top of the Ft. Hays. Inclination was decreased to 87° to move down section to the target zone.

The Codell was re-entered at 9,967 ft. MD. Inclination was increased to match formation dip after moving below the clean streak near the top of the Codell.

The wellbore navigated within the Codell with minor target inclination changes until it crossed a 3 ft. DT fault at 15,430 ft. MD.

After the fault, drilling performance decreased with the wellbore position between the Ft. Hays and the clean streak 4 ft. below the Codell top. Inclination was lowered to 87° to push down section through the clean streak.

After moving down section, the target inclination was increased to match formation dip.

The well reached TD at 17,358 ft. MD with a final stratigraphic position of 10' below the Codell top.

Baker Hughes 