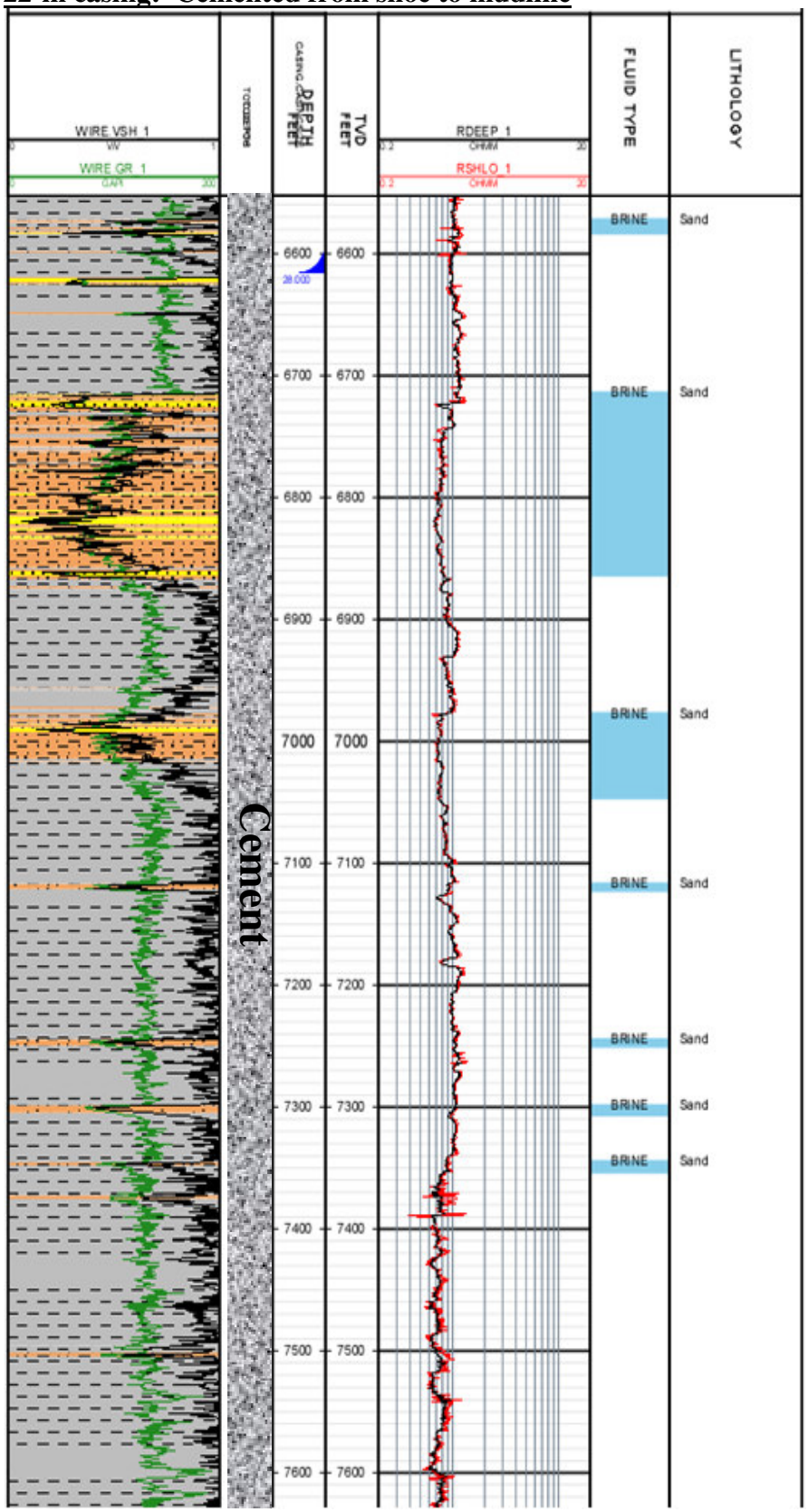
22-in casing: Cemented from shoe to mudline

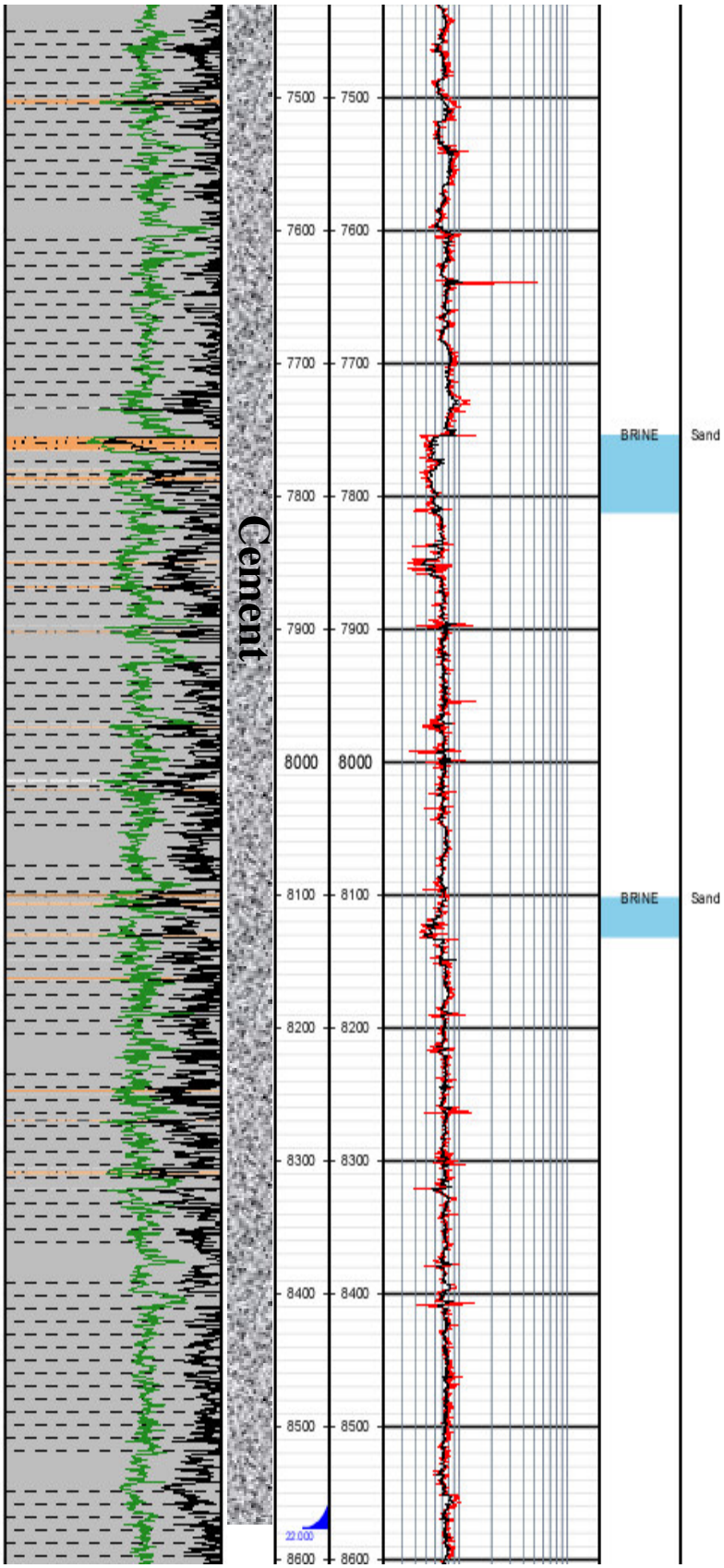


Tracks from left to right: Gamma Ray, cement, MD, TVD, Resistivity, Fluid, Lithology

28-in shoe at 6616' MD/TVD

Misc sands and silts, based on GR log response - no samples (riserless). Wet based on resistivity log response.

22" casing cemented to mudline. All covered.

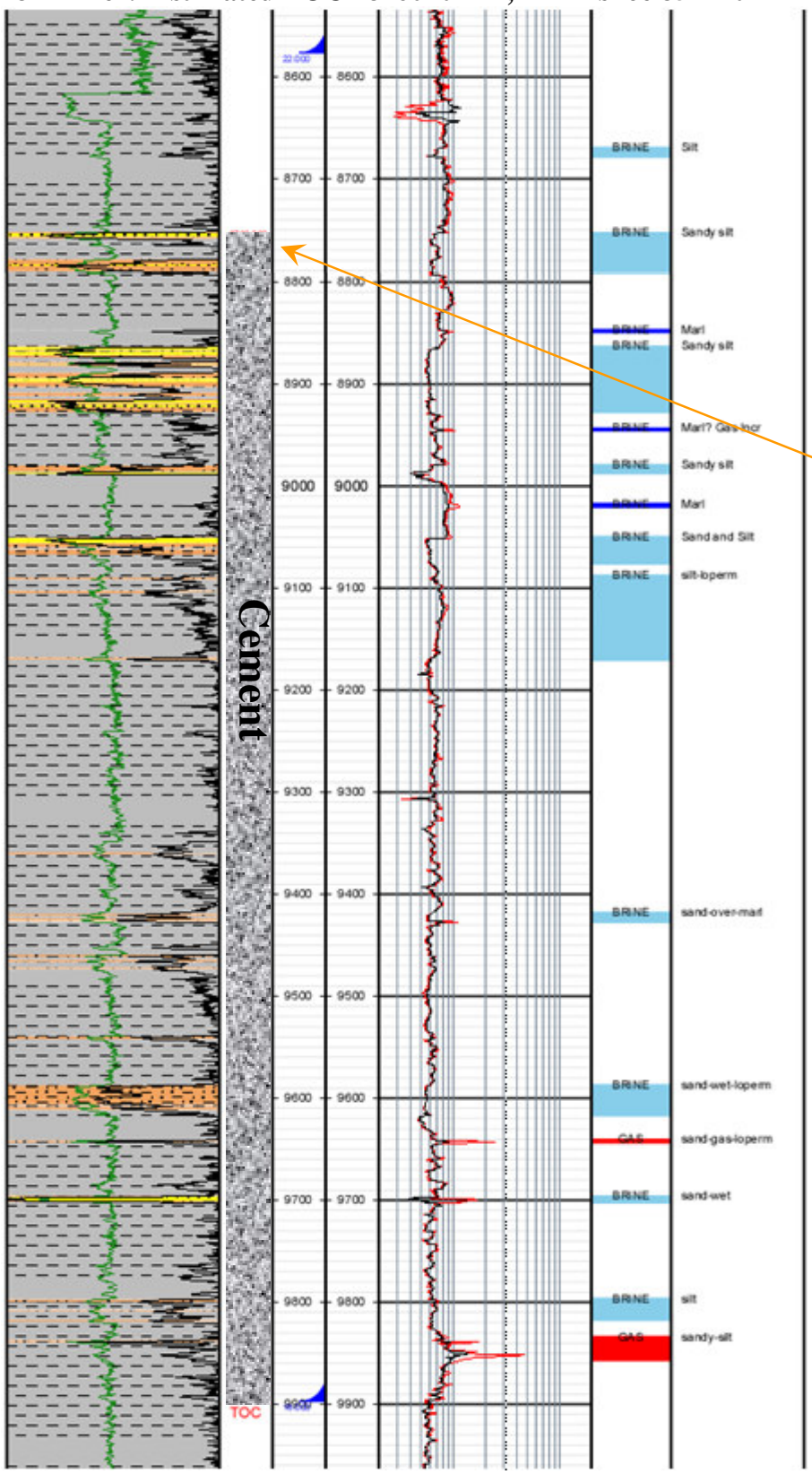


Minor sands and silts, based on GR log response - no samples (riserless). Wet based on resistivity log response.

22" casing cemented to mudline. All covered.

22-in shoe at 8577' MD/TVD

18-in liner: Estimated TOC ~8760 ft MD; 22-in shoe 8577 ft MD



22-in shoe at 8577' MD/TVD

8669' – 9171': Thin sands and silts, plus marl; wet based on resistivity

Briny silt above TOC.

No hydrocarbons exposed.

Top of cement behind 18": 8760', verified by CBL.

9417' – 9618': Thin silts and sands; wet based on resistivity

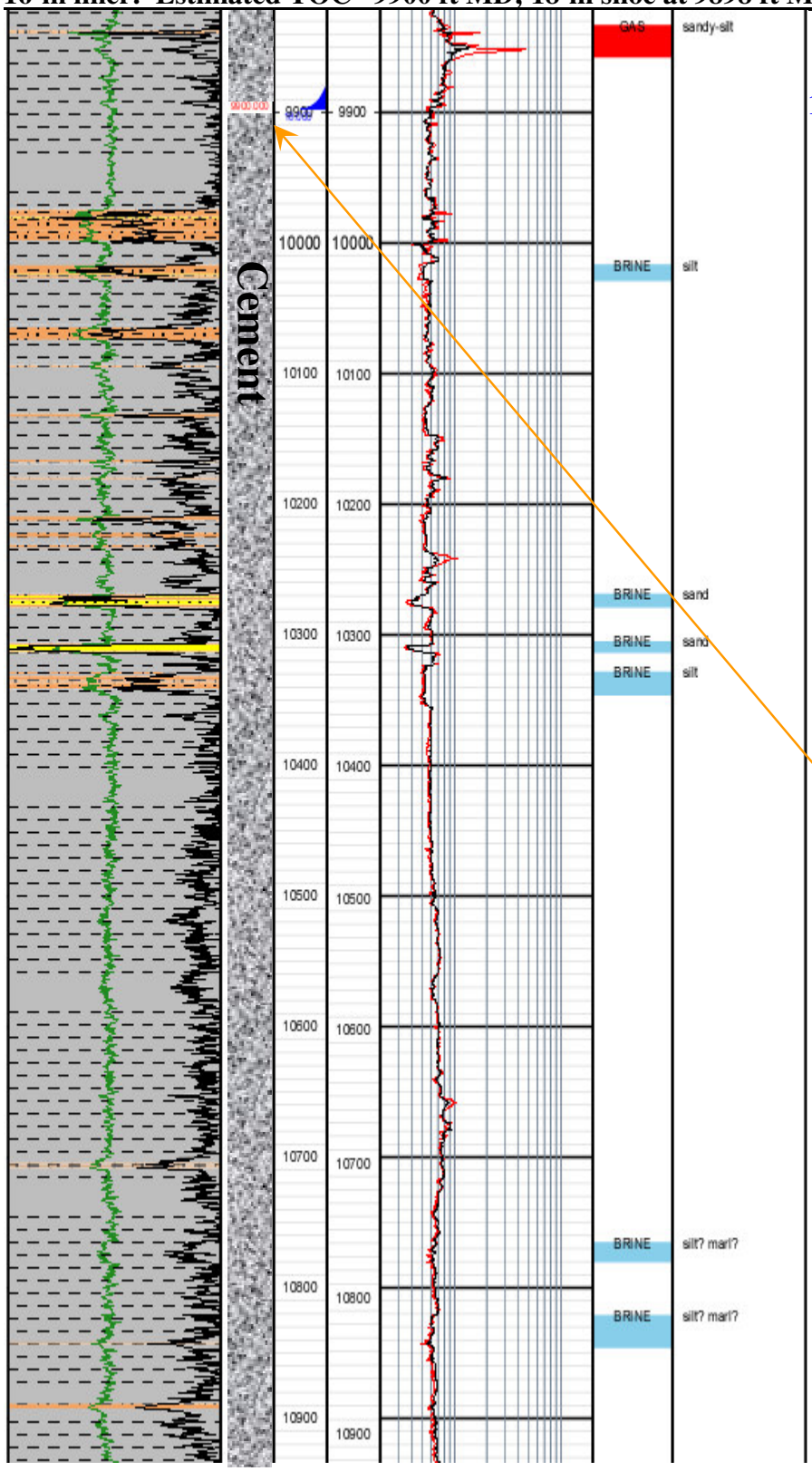
9640' – 9644': Thin sandy-silty zone with a weak gas response based on resistivity

9695' – 9818': Thin sands and silts; wet based on resistivity

9833' – 9858': Sandy-silty zone with a weak gas

18-in shoe

16-in liner: Estimated TOC ~9900 ft MD; 18-in shoe at 9898 ft MD



18-in shoe at 9898' MD/TVD

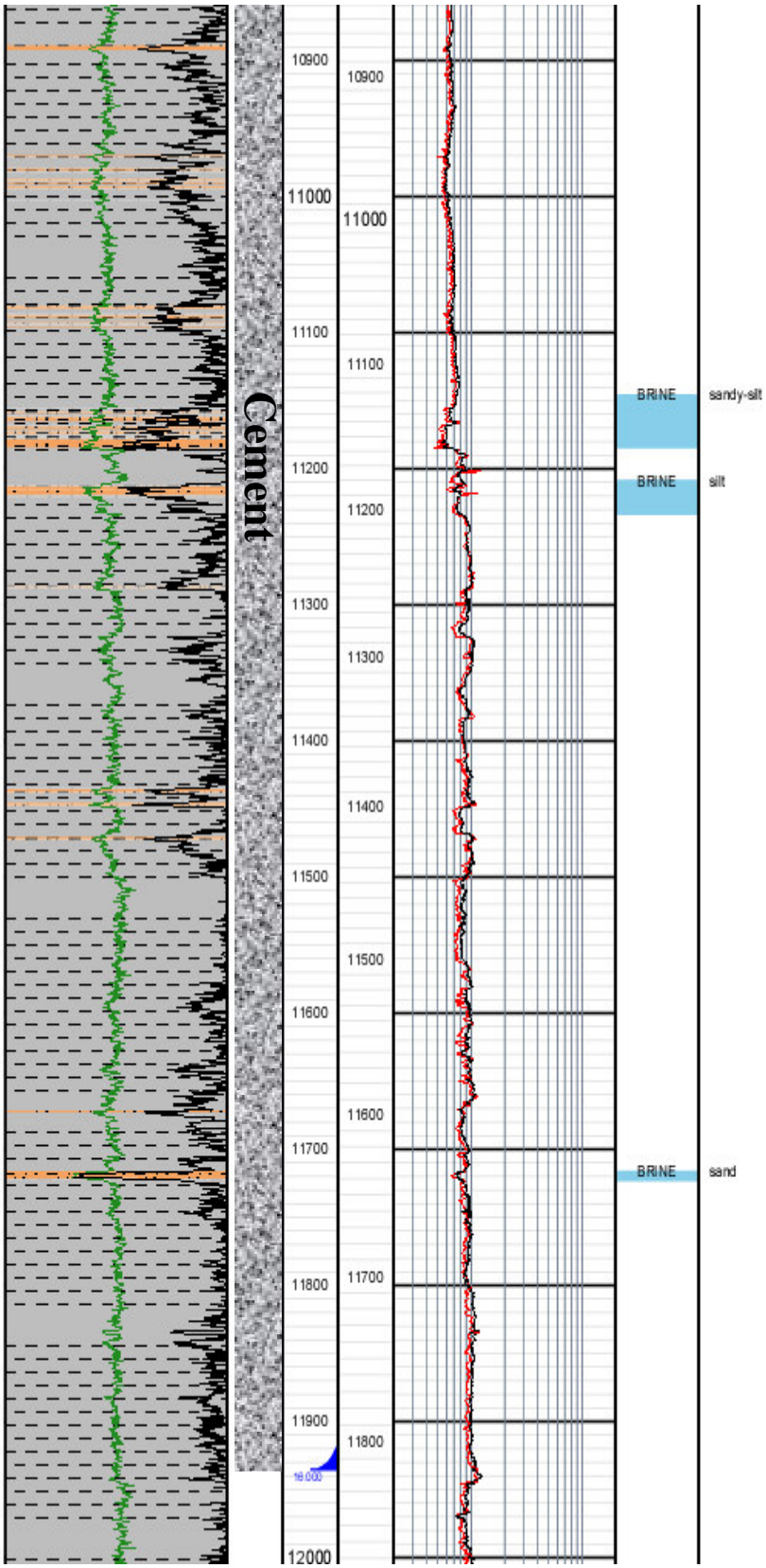
10,017' – 10,029': Thin wet silt, based on resistivity

10,269' – 10,346': Thin wet sand/silt layers, based on resistivity

TOC in 16" annulus: 9900' - estimated by lift pressure. Actual volume pumped is greater.

No hydrocarbon-bearing zones in entire interval.

10,765' – 10,846': Thin wet silt or marl, based on resistivity

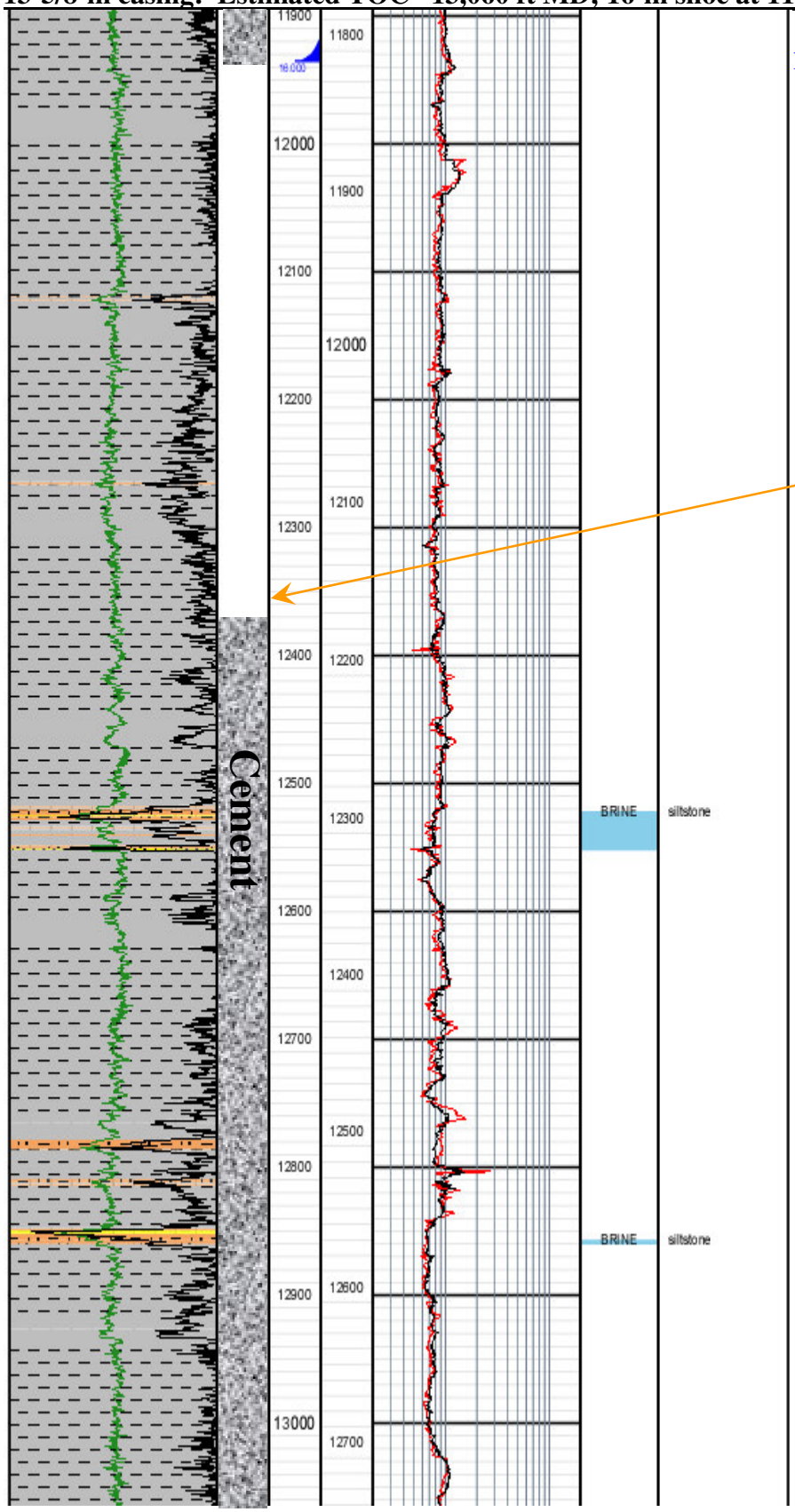


11,145′ – 11,234′: Thin wet sand/silt layers, based on resistivity

11,716′ – 11,723′: Thin wet sand, based on resistivity

16-in shoe

13-5/8-in casing: Estimated TOC ~13,060 ft MD; 16-in shoe at 11,939 ft MD



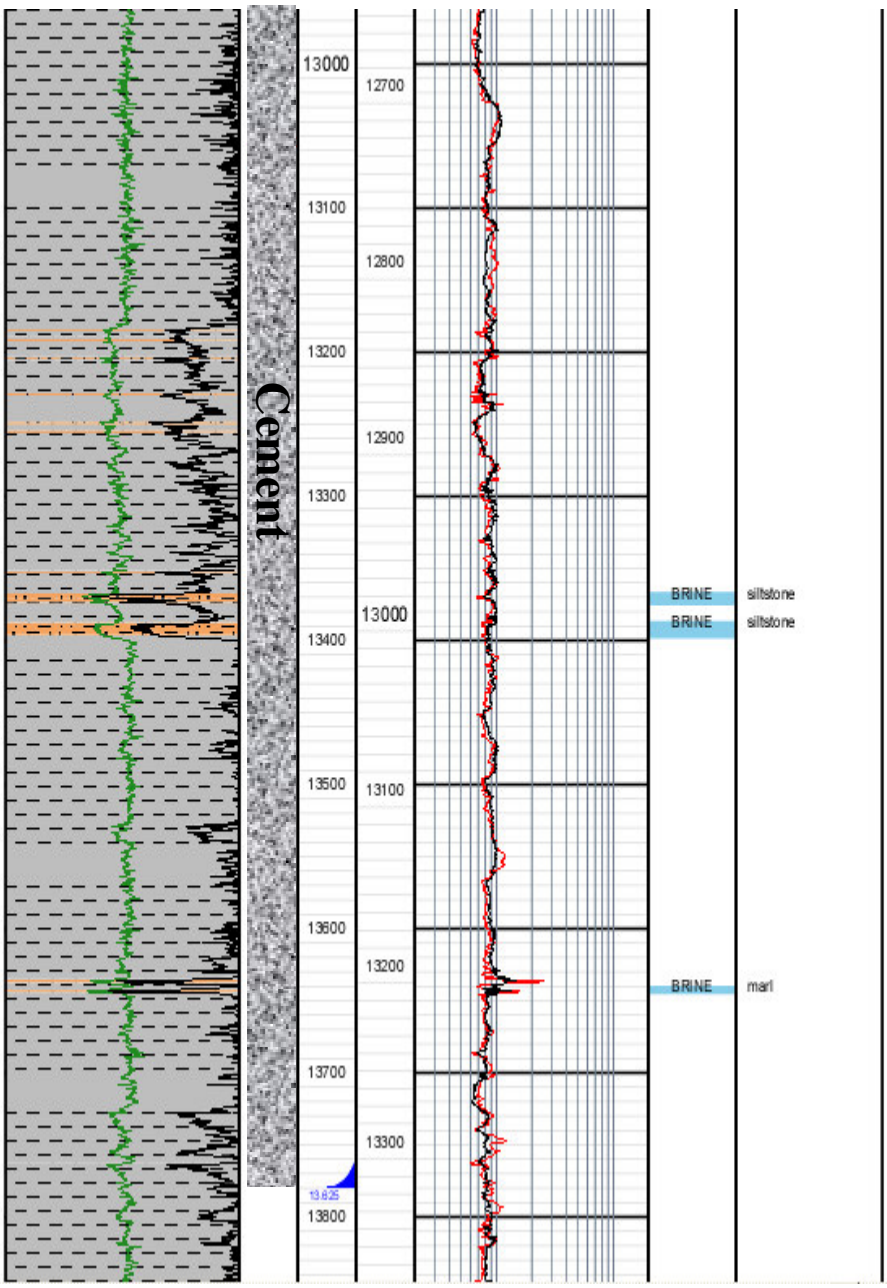
16-in shoe

No permeable zones above TOC

TOC behind 13 5/8": 12370' - verified by CBL

12,522' – 12,552': Thin wet silt layers, based on resistivity

12,857' – 12,860': Thin wet silt, based on resistivity

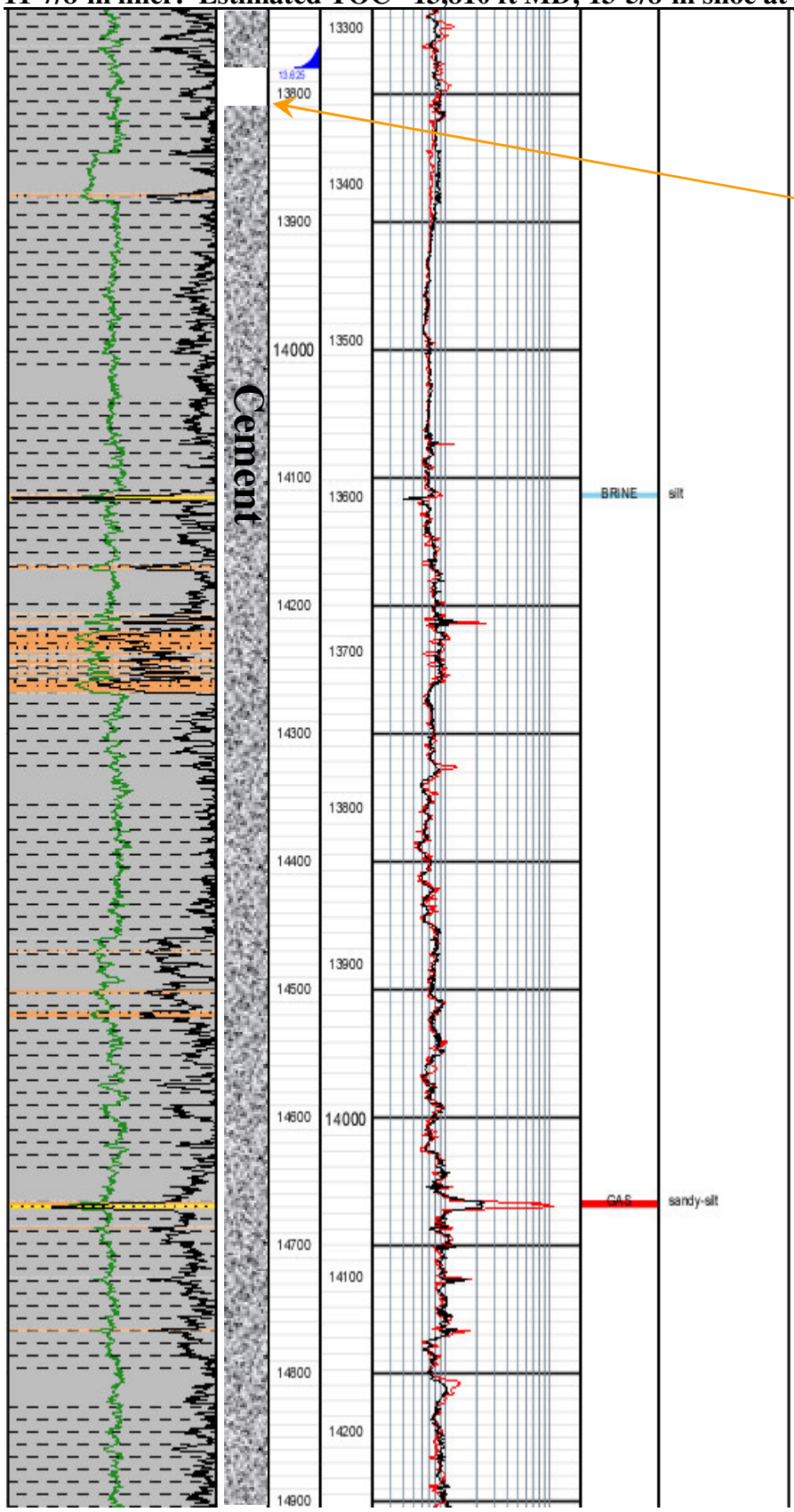


13,367′ – 13,398′: Thin wet silt layers, based on resistivity

13,640′ – 13,645′: Thin wet marl, based on resistivity

13-5/8-in shoe

11-7/8-in liner: Estimated TOC ~13,810 ft MD; 13-5/8-in shoe at 13,780 ft MD



13-5/8-in shoe

No permeable zones above TOC

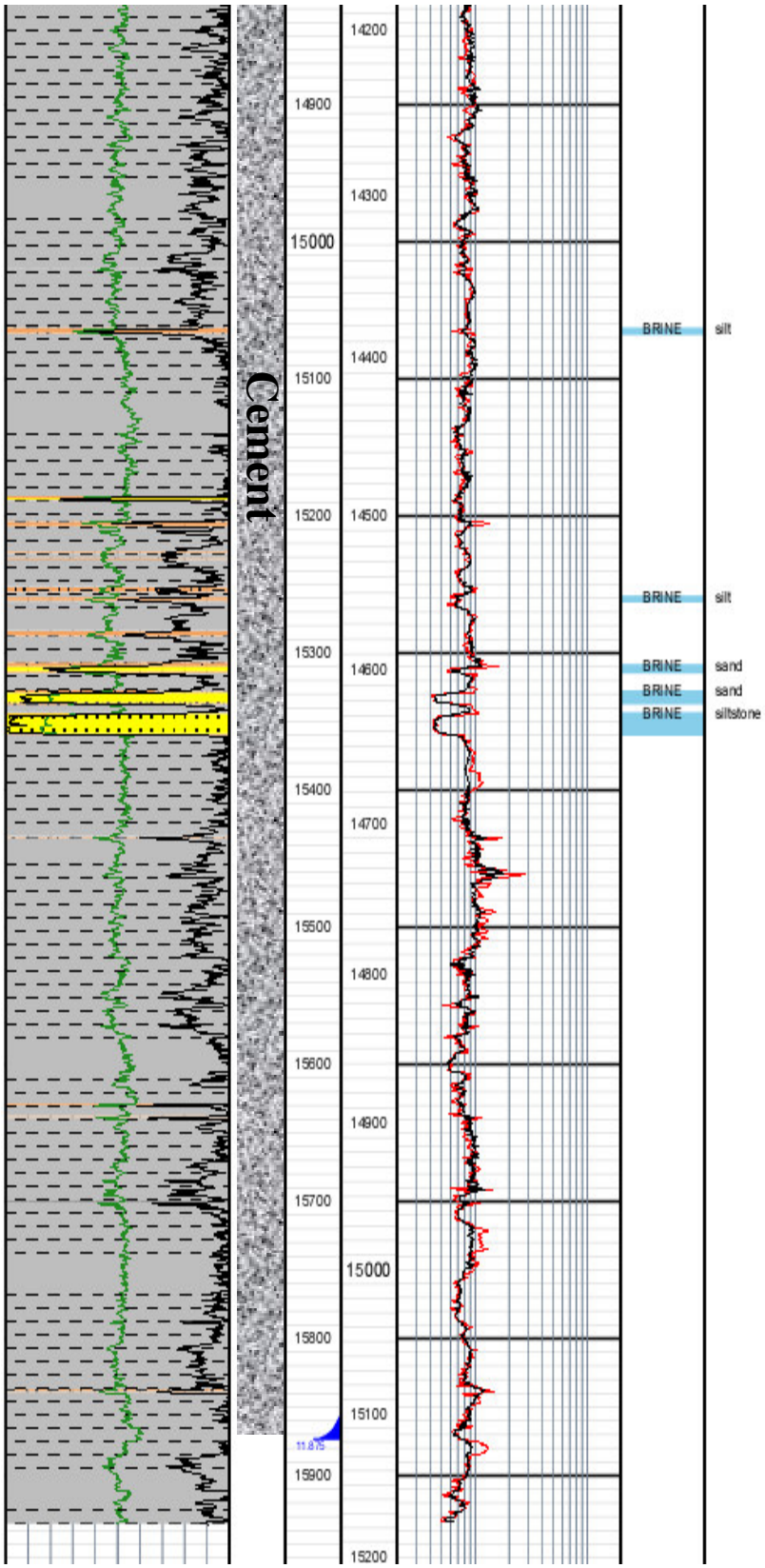
TOC behind 11 7/8": 13810'

All hydrocarbon zones covered by primary cement job - verified by CBL

14,112' – 14,115': Thin wet silt layer, based on resistivity

14,220' – 14,270': Wet marl zone, based on mudlogs and resistivity

14,665' – 14,670': Thin sandy-silty zone with a gas response based on resistivity



15,063′ – 15,068′: Thin wet silt layer, based on resistivity

15,258′ – 15,360′: Thin layers of wet silts and sands, based on resistivity

11-7/8-in shoe at 15874’ MD