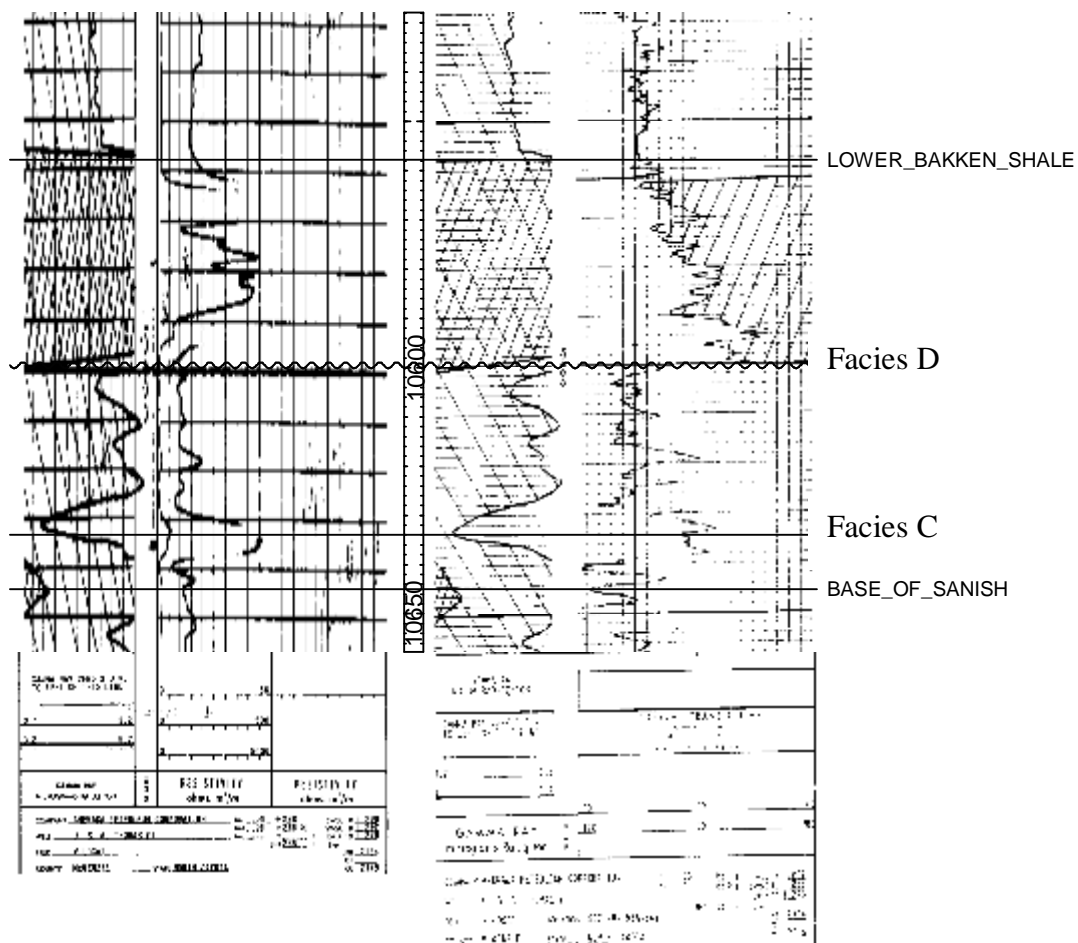


Appendix A.14 Core #14 USA Thomas #1 Core Descriptions 153N 94W Sec 18 Core to Log + 10'						
Depth (ft)	Composition	Primary Structures	Secondary Structures	Single Diagnostic Criteria	Additional Diagnostic Criteria	Facies
10,585' - 10,590.2'	Grayish black (N2) to dark black (N1) shale	Vague parallel-laminations, very thin, platy,				LBS
10,590.2' - 10,591'	Light green (5 G 8/1) to greenish gray (5 G 6/1) slightly dolomitic shale (10%) to very light gray silty dolomite (N8) (90%), 66-88μ, well-sorted, tightly packed	Parallel-laminations, cross-laminations, SSD,	Desiccation cracks, scour surfaces, energy decrease features, loading features, brecciation, Fluid Escape structures, potential algal features near 10,590.9'.	-Mud drapes -Uni- and bidirectional Reactivation surfaces -Bottom sets -Flame structures	-Herringbone x-bedding -Syneresis cracks	D
10,591' - 10,592'	Light green to greenish gray slightly dolomitic shale (20%) to very light gray silty dolomite (80%), 66-88μ, well-sorted, tightly packed	Parallel-laminations, cross-laminations, SSD,	Desiccation cracks, scour surfaces, energy decrease features, loading features, brecciation, tee-pee structure near 10,592.8.'?	-Mud drapes -Uni- and bidirectional Reactivation surfaces -Bottom sets -Flame structures	-Herringbone x-bedding -Flaser bedding -Syneresis cracks	D
10,592' - 10,593'	Light green to greenish gray slightly dolomitic shale (30%) to cream silty dolomite (70%), 66-88μ, well-sorted, tightly packed	Parallel-laminations, cross-laminations, SSD	Desiccation cracks, scour surfaces, energy decrease features, loading features, brecciation	-Mud drapes -Uni- and bidirectional Reactivation surfaces -Bottom sets -Flame structures	-Herringbone x-bedding -Flaser bedding -Syneresis cracks	D
10,593' - 10,599'	Light green to greenish gray slightly dolomitic shale (50%) to cream silty dolomite (50%), 66-88μ, well-sorted, tightly packed	Parallel-laminations, cross-laminations, SSD	Desiccation cracks, scour surfaces, energy decrease features, loading features, brecciation	-Mud drapes -Uni- and bidirectional Reactivation surfaces -Bottom sets -Flame structures	-Herringbone x-bedding -Flaser bedding -Syneresis cracks	D
10,599' - 10,604'	Light green to greenish gray slightly dolomitic shale (30%) to very light gray silty dolomite (70%), 66-88μ, well-sorted, tightly packed	Parallel-laminations, cross-laminations, SSD	Desiccation cracks, scour surfaces, energy decrease features, loading features, brecciation	-Mud drapes -Uni- and bidirectional Reactivation surfaces -Bottom sets -Flame structures	-Herringbone x-bedding -Flaser bedding -Syneresis cracks	D
10,604' - 10,607'	Light green to greenish gray slightly dolomitic	Parallel-laminations, cross-	Desiccation cracks, scour surfaces, energy	-Mud drapes -Uni- and bidirectional	-Herringbone x-bedding -Flaser bedding	D

	shale (50%) to very light gray silty dolomite (50%), 66-88 μ , well-sorted, tightly packed	laminations, SSD	decrease features, loading features, brecciation	Reactivation surfaces -Bottom sets -Flame structures	-Syneresis cracks	
10,607'-10,610.2'	Light green to greenish gray slightly dolomitic shale (30%) to very light gray silty dolomite (70%), 66-88 μ , well-sorted, tightly packed	Parallel-laminations, cross-laminations, SSD	Desiccation cracks, scour surfaces, energy decrease features, loading features, brecciation	-Mud drapes -Uni- and bidirectional Reactivation surfaces -Bottom sets -Flame structures	-Herringbone x-bedding -Flaser bedding -Syneresis cracks	D
10,610.2'-10,613'	Light green to greenish gray slightly dolomitic shale (50%) to very light gray silty dolomite (50%), 66-88 μ , well-sorted, tightly packed	Parallel-laminations, cross-laminations, SSD	Desiccation cracks, scour surfaces, energy decrease features, loading features, brecciation	-Mud drapes -Uni- and bidirectional Reactivation surfaces -Bottom sets -Flame structures	-Flaser bedding -Herringbone x-bedding	D
10,613-10,617'	MISSING CORE	MISSING CORE	MISSING CORE	MISSING CORE	MISSING CORE	MISSING CORE
10,617'-10,618'	Light green to greenish gray slightly dolomitic shale (50%) to cream silty dolomite (50%), 66-88 μ , well-sorted, tightly packed	Parallel-laminations, cross-laminations, SSD	Desiccation cracks, scour surfaces, energy decrease features, loading features, brecciation	-Mud drapes -Uni- and bidirectional Reactivation surfaces -Bottom sets -Flame structures	-Herringbone x-bedding -Flaser bedding -Syneresis cracks	D
10,618'-10,619.5'	Light green to greenish gray slightly dolomitic shale (70%) to cream silty dolomite (30%), 66-88 μ , well-sorted, tightly packed	Parallel-laminations, cross-laminations, SSD	Desiccation cracks, scour surfaces, energy decrease features, loading features, brecciation	-Mud drapes -Uni- and bidirectional Reactivation surfaces -Bottom sets -Flame structures	-Herringbone x-bedding -Flaser bedding -Syneresis cracks	D
10,619.5'-10,620.5'	Cream silty dolomite to gray/green slightly dolomitic shale, 66-88 μ , well-sorted, tightly packed	Massive cross-laminations, SSD and parallel lamination in silty dolomite clasts	Highly deformed bedding, high amounts of brecciation	-Mud drapes		D
10,620.5'-10,621'	Light green to greenish gray slightly dolomitic shale (50%) to cream silty dolomite (50%), 66-88 μ , well-sorted, tightly packed	Parallel-laminations, cross-laminations, SSD	Desiccation cracks, scour surfaces, energy decrease features, loading features, brecciation	-Mud drapes -Uni- and bidirectional Reactivation surfaces -Bottom sets -Flame structures	-Herringbone x-bedding -Flaser bedding -Syneresis cracks	D
10,621'-10,622'	Light green to greenish gray slightly dolomitic shale (20%) to cream silty dolomite (80%), 66-88 μ , well-sorted, tightly	Parallel-laminations, cross-laminations, SSD	Desiccation cracks, scour surfaces, energy decrease features, loading features, brecciation	-Mud drapes -Uni- and bidirectional Reactivation surfaces -Bottom sets -Flame structures	-Herringbone x-bedding -Flaser bedding -Syneresis cracks	D

	packed					
10,622' 10,623'	Light green to greenish gray slightly dolomitic shale (60%) to cream silty dolomite (40%), 66-88μ, well-sorted, tightly packed	Parallel-laminations, cross-laminations, SSD	Desiccation cracks, scour surfaces, energy decrease features, loading features, brecciation	-Mud drapes -Uni- and bidirectional Reactivation surfaces -Bottom sets -Flame structures	-Flaser bedding	D
10,623' 10,624.2'	Light green to greenish gray slightly dolomitic shale (10%) to cream silty dolomite (90%), 66-88μ, well-sorted, tightly packed	Parallel-laminations, cross-laminations, SSD	Desiccation cracks, scour surfaces, energy decrease features, loading features, brecciation	-Mud drapes -Uni- and bidirectional Reactivation surfaces -Bottom sets -Flame structures	-Herringbone x-bedding -Flaser bedding -Syneresis cracks	D
10,624.2' 10,628.7'	Light green (5 G 8/1) to greenish gray (5 G 6/1) shale and very light gray (N8) to medium gray (N5) silty dolomite	Massive cross-laminations, SSD and parallel lamination in silty dolomite clasts	Highly deformed bedding, high amounts of brecciation	-Mud drapes		C
10,628.7' 10,635'	Dark greenish-gray (5 GY 4/1) to medium dark gray (N4) silty dolomite	Massive, rip-up clasts of varying size.	Vague. Pyrite			B



Described Cored Interval: 10,585' – 10,635'.