

CORE LOG

U. S. GEOLOGICAL SURVEY

DRILL HOLE USGS CH 78-11
 LOCATION SW1/4, SE1/4, sec. 7, T. 4 S., R. 100 W. ELEVATION ~7,890' TOTAL DEPTH 202.3'
 DATE BEGUN 7/28/78 DATE COMPLETED 7/29/78 DRILLER McCabe LOGGED BY Kurt Hollöcher
 CASING 20' of 4" pulled REMARKS: Air and water circulation was maintained throughout drilling.

FROM	TO	THICK- NESS	LITHOLOGIC DESCRIPTION	
20.0'	35.9'		Dark-brown to gray very lean oil shale, abundant clay, shrinks and cracks on drying. Thinly bedded with some turbation. Slightly calcareous. Rare ostracods.	20.0'-33.4' D #1 KH
			Tuff 0.2' thick at 20.8'-21.0'	Δ' = 0
			Tuff 0.3' thick at 25.3'-25.6' with interbedded shale	34.4'-47.2' D #2
			Tuff 0.2' thick at 28.2'-28.4'	34.4'-47.6' KH
			Tuff 0.1' thick at 33.3'	Δ' = +0.4'
35.9'	45.1'		Gray to dark brown lean to moderately rich oil shale with abundant ostracods in discrete beds and intermixed, generally thinly bedded with little turbation.	
			Very calcareous.	
			Ostrocod limestone 1.0' thick at 36.2'-37.2' minor shale	
			Ostrocod limestone 0.2' thick at 37.4'-37.6'	
45.1'	101.5'		Gray to dark brown lean to moderately rich oil shale with some ostracods with impure or dolomitic limestone beds, thinly bedded with little turbation.	
			Slickensides common. Generally calcareous. Stromatolites and conglomeritic textures common in dolomites.	
			Dolomite (?) 0.4' thick at 46.1'-46.5' with minor shale ostracods	
			Dolomite (?) 0.2' thick at 46.8'-47.0' with minor shale ostracods	

Drill hole

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 CASING REMARKS:

FROM	TO	THICK- NESS	LITHOLOGIC DESCRIPTION	
			Dolomite, conglomeritic 0.4' thick at 47.7'-48/1'	47.2'-63.3' D
			Dolomite, conglomeritic 0.4' thick at 49.9'-50.3'	47.6'-62.8' KH
			Dolomite, 0.1' thick at 53.7'	Δ' = -0.5'
			Dolomite, 0.2' thick at 59.1'-54.3'	
			Dolomite, 0.1' thick at 56.5'	
			Dolomite, ostrocods 0.9' thick at 57.0'-57.9'	with minor shale
			Dolomite, ostrocods 0.2' thick at 61.4'-61.6'	with minor shale
			Dolomite, 0.1' thick at 62.4'	63.3'-79.4' D
			Tuff 0.1' thick at 62.9'	62.8'-79.5' KH
			Tuff 0.1' thick at 63.6'	Δ' = +0.1'
			Dolomite 0.1' thick at 64.3'	
			Dolomite 0.2' thick at 64.6'-64.8'	
			Dolomite, ostrocods 0.2' thick at 65.0'-65.2'	
			Dolomite 0.1' thick at 66.6'	
			Dolomite, ostrocods 0.3' thick at 66.7'-67.0'	with minor shale
			Dolomite, ostrocods 0.3' thick at 67.2'-67.5'	with minor shale
			Limestone, ostrocods 0.2' thick at 67.9'-68.1'	with minor shale
			Dolomite 0.15' thick at 69.55'-69.70'	with minor shale
			Dolomite 0.1' thick at 70.2'	with minor shale
			Dolomite, ostrocods 0.3' thick at 70.8'-71.1'	with minor shale
			Dolomite, ostrocods 0.2' thick at 71.8'-72.0'	
			Dolomite, 0.3' thick at 74.0'-74.3'	with minor shale
			Dolomite, ostrocods 0.1' thick at 75.2'	with minor shale
			Dolomite, ostrocods 0.3' thick at 78.1'-78.4'	

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TOTAL DEPTH 202.3'

FROM	TO	THICK- NESS	LITHOLOGIC DESCRIPTION	
			Dolomite 0.3' thick at 82.5'-82.8'	79.4'-93.4' D
			Dolomite oolites (pisoliths?) and ostrocods with calcite	79.5'-91.9' KH
			cement 0.4' thick at 86.3'-86.7'	Δ' = -1.5'
			Dolomite 0.2' thick at 90.9'-91.1'	
			Dolomite 0.2' thick at 91.2'-91.4' with minor shale	93.4'-107.2' D
			Dolomite 0.1' thick at 94.0'	91.9'-107.3' KH
			Dolomite w/Stromatolites 0.3' thick at 97.0'-97.3' with minor shale	Δ' = +0.1'
			Dolomite 0.15' thick at 97.5'-97.65' with minor shale	
			Dolomite w/Stromatolites (?) 0.4' thick at 100.6'-101.0' with minor shale	
			Dolomite w/Stromatolites 0.1' thick at 101.2' with minor shale	
101.5'	117.4'		Similar to preceeding interval 45.1' to 101.5', but oil shale is dark gray and brown to nearly black and rich. Smells of H ₂ S as well as oil. Calcareous.	
			Dolomite, stromatolites 0.4' thick at 101.7'-101.1' with minor shale	
			Dolomite, stromatolites 0.1' thick at 103.6' with minor shale	
			Dolomite, stromatolites 0.4' thick at 104.0'-104.4' auto conglomerate	
			Dolomite, stromatolites (?) 0.1' thick at 104.8' auto conglomerate	
			Dolomite 0.2' thick at 107.0'-107.2'	117.2'-122.4' D
			Dolomite 0.2' thick at 109.7'-109.9'	107.3'-118.9' KH
				Δ' = -3.5'

Drill Hole #7

