

GRAND MESA

OPERATING COMPANY

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Grand Mesa Operating Co. #1-34 Fulsom
 Location: 664' FNL, 1980' FWL, Sec: 34-22S-5E Marion County Kansas
 License Number: 15-115-21495 Region: Wildcat
 Spud Date: 7/7/2015 Drilling Completed: 7/11/2015
 Surface Coordinates: Lat: 38.098308
 Long: -96.870194
 Bottom Hole Coordinates: Vertical hole
 Ground Elevation (ft): 1487 K.B. Elevation (ft): 1499
 Logged Interval (ft): Surf To: 2570 Total Depth (ft): 2570
 Formation: Kinderhookian at RTD
 Type of Drilling Fluid: Chemical

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Grand Mesa Operating Company
 Address: 1700 N. Waterfront Parkway, Bldg. 600
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GEOLOGIST

Name: Steven P. Carl
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COMMENTS

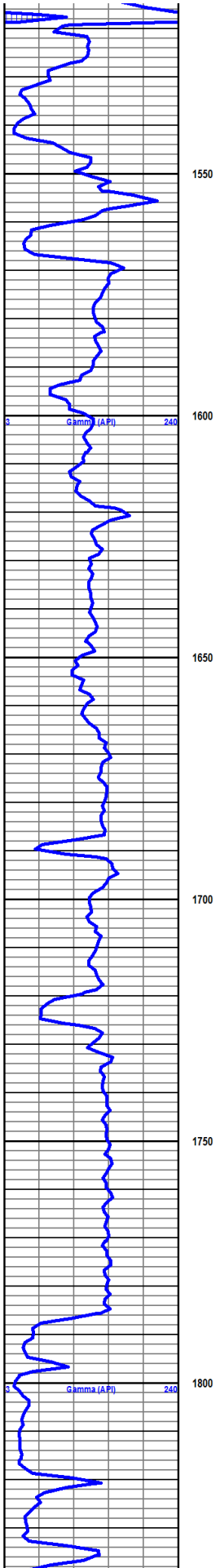
Contractor: Summit Drilling Rig #1
 Surface Casing: 8 5/8, 24# set at 227ft
 Production Casing: None
 Mud by: Fud Mud
 DST's by: Diamond Testing
 Logs by: Weatherford (DIL, CN-CD, ML, Sonic)
 Deviation Surveys: Several, greatest dev = 0.5deg

There were no shows of oil in this test. DST#1 was performed to test the reservoir properties of the Miss. The #1-34 Fulsom was plugged and abandoned.

FORMATION TOPS AND STRUCTURAL COMPARISON

FORMATION	LOG TOPS	
	Depth	Datum
Lansing	1787	-288
B/Lansing	1929	-430
Kansas City	2042	-543
Stark Shale	2131	-632
B/KC	2181	-682
Little Osage Shale	2377	-878
Mississippian	2427	-928
Gilmore City	None	
Kinderhook SH	2473	-974
VIOLA not pene		
RTD	2570	-1071
LTD	2571	-1072

Curve Track 1		Depth	Lithology	Sonic	Geological Descriptions	Remarks
Gamma (API)						
240		1500				



This well was drilled with a PDC Bit and averaged 10-15 minute Kelly's from surface to near TD. The rate of penetration was very rapid and was not reflective of changes in lithology from one stratigraphic unit to the next. I have imported and displayed the Gamma Ray curve in lieu of a ROP curve.

Samples Begin at 1600

SH-lt gry, silty, abund coalified plant frags, few pc LS-crm/tan, crs xln, no cup odr, ns

SH-as above, influx ss-gry, vln grn, w/l srt'd, brittle to semi-friable, no cup odr, ns.

Same

Same

Same, decrease in LS

Same

Mostly SS-lt gry, fn-m ed grn, w/l srt'd, sub round, fr int grn por, no cup odr, no fluor, ns.

SS as above, finer grained, still carrying abund plant frags.

Same

SS as above, influx med gry SH-waxy, soft, no cup odr, ns

SH-med gry, uniform, blocky, waxy, no cup odr, ns.

SH- as above, some LS.

SH-as above, influx LS-crm/tan, crs xln, foss-various, no cup odr, ns.

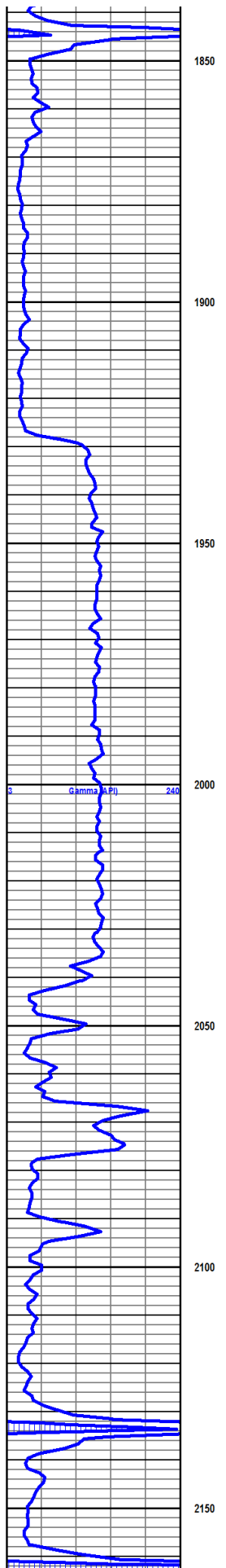
SH- as above, decrease LS.

Same.

Predom LS-lt gry, med-crs xln, chalky, mottled, ool in part, drk gry mineral inclusions throughout, pr-fr int xln por, no cup odr, ns.

LS-lt gry-wht, fn xln, mottled, chalky/soft, foss in part, uniform in part, few pc milky chert, nvp, no cup odr, ns.

LS-lt gry, crm, crs xln, mottled, sm foss, some chalky, no cup odr, ns.



1850 LS-lt tan, med xln, mottled in part, mostly uniform, some foss, nvp, no cup odr, ns

LS- as above

1900 LS-lt tan/crm, fn-med xln, chalky, foss in part, nvp, no cup odr, ns.

same, influx dark gry sh.

SH-med gry, silty, soft, muddy, sample water dirty gry

1950 Same

Same, no change, no cup odr.

2000 Same, no change.

2050 LS-gry/crm/lt tan, fn xln, dense, hard, mostly uniform, nvp, no cup odr, ns.

MUDSTN-gry/lt tan, v soft, no cup odr, ns.

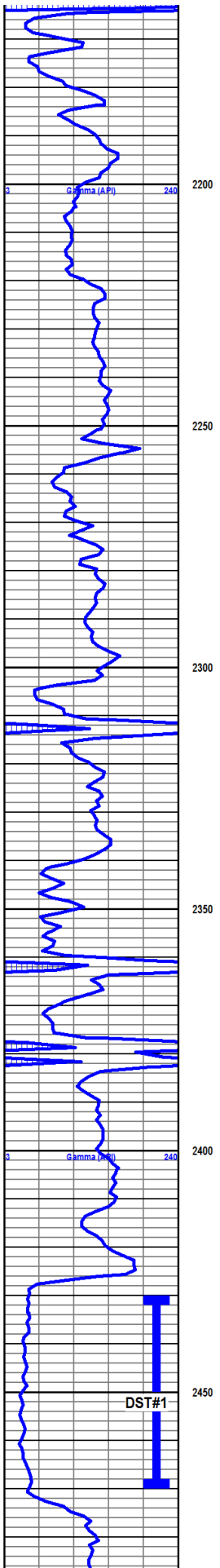
MUDSTN-much as above, some wht-chalky, no cup odr, ns.

2100 LS-gry/tan, crs xln, foss, sparry, few pcs SH-blk carb.

LS-gry/tan, crs xln, foss, sparry, few pcs SH-blk carb.

Mostly LS-gry/tan, fn xln, uniform, slty chalky, influx SH-black, carb, grainy, fissile

2150 LS-mostly lt tan, fn xln, mostly uniform, some foss, nvp, abund SH-black carb, no cup odr, ns



Same

SH/MUDS TN-med-lt gry, silty, soft, sticky, sandy in part-fn grn, friable clusters, abundant coalified plant frags.

SS-gry, m uddy, vfn grn, well sorted, dirty, friable clusters, abund black organic frags, no eff in 10% HCL, no cup odr, ns

SS-as above, greater percentage of mudstone'sh, dirty, gry, no cup odr, ns

SH-med-lt gry, soft, sticky, some sandy, decr ss clusters as above, abund black plant foss, no cup odr, ns

SH and SS clusters as above, few LS-med tan, fn xln, foss, dense, hard, nvp, no cup odr, ns.

Same, decr organic frags.

SH-med-drk gry, mostly uniform, waxy, some silty, sm LS-tan, lt gry, fn xln, foss, nvp, no cup odr, ns

same, few pcs SH-blk carb, blocky, grainy.

same, very muddy

SH-mostly med gry, some brn/m aroon, few ss clusters as above, less muddy/sticky than above, no cup odr, ns

SH-med gry, mostly uniform, blocky, some fiss, no cup odr, ns.

SH as above, LS-med tan, fn-crs xln, some uniform, some e foss, nvp, no cup odr, ns.

SH-blk carb, flood in 2370 smpl.

LS-med tan, fn-crs xln, sparry, rare foss, brittle nvp, no cup odr, ns.

LS- as above, still carrying abund SH-blk, carb, no cup odr, ns.

SH-predom med gry, uniform, some e brn, all silty, some black, decr LS from above, no cup odr, ns

SILTS TN-brn/gry/red, uniform, no cup odr, ns.

SILTS TN- as above, few pcs CONG-varicolored, no cup odr, ns.

SH/MUDS TN-med-drkgry, silty in part, some soft sticky, some firm, waxy, no cup odr, ns,

SS-drk gry, dirty, vfn grn, firm clust-semi-friable, weak to no eff in HCL, abund SH as above, no cup odr, no fluor, ns.

predom SS as above, dirty, fn grn semi-friable clusters, no cup odr, ns.

influx of CHERT-wht, milky, mostly sharp, 20% trip, fnt milky fluor in acetone, pr por, no cup odr, nsfo.

Flood CHERT-wht, milky, predom sharp, some trip, poor por, no cup odr, no fluor, nsfo.

CHERT mostly the same, rare vug por, rare very tiny spots of gilsonite, no cut. influx SH-drk gry/blk, fissile, no cup odr, no fluor, nsfo.

CHERT as above, no cup odr, rare poor por, no fluor, ns.

CHERT-wht/milky, predom sharp, few pcs trip with fr vug por, no cup odr, no fluor, ns.

CHERT as above, no cup odr, rare poor por, v rare blk gilsonite str, will not cut in acetone, no fluor, ns.

CHERT as above, mostly sharp, rare trip, no cup odr, no fluor, ns.

flood, SH-brn/lt gry/grn/maroon, no cup odr, ns

CIRC 2340ft
30mins

CIRC 2397
30mins

CIRC 2420
30mins

CIRC 2440
30mins

CIRC 2450
30mins

CIRC 2456
30mins

DST#1
2430-2468
15-15-15-15
REC: 32' Mud
SID.

