



MUSTANG
ENERGY CORPORATION

Scale 1:240 Imperial

Well Name: M.R. ALLEN #17
Surface Location: SE SE NW S22 T11S R19W
Bottom Location:
API: 15-051-26951
License Number: 33922
Spud Date: 5/15/2019 Time: 2:45 PM
Region: ELLIS COUNTY Time: 5:10 PM
Drilling Completed: 5/23/2019
Surface Coordinates: 2310' FNL & 2310' FWL
Bottom Hole Coordinates:
Ground Elevation: 1980.00ft
K.B. Elevation: 1988.00ft
Logged Interval: 2800.00ft To: 3590.00ft
Total Depth: 3590.00ft
Formation: ARBUCKLE
Drilling Fluid Type: CHEMICAL- PAC

OPERATOR

Company: MUSTANG ENERGY CORPORATION
Address: PO BOX 1121

Contact Geologist: ROD BRIN
Contact Phone Nbr: 785-623-0533
Well Name: M.R. ALLEN #17
Location: SE SE NW S22 T11S R19W
API: 15-051-26951
Pool: State: KS Field: SOLOMON
Country:

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: -99.4176837
Latitude: 39.0820557
N/S Co-ord: 2310' FNL
E/W Co-ord: 2310' FWL

LOGGED BY

Company:
Address: 2717 HICKORY ST.
HAYS, KS 67601
Phone Nbr: (785)-639-0721
Logged By: Geologist Name: CAMERON BRIN

CONTRACTOR

Contractor: DISCOVERY DRILLING CO., INC
Rig #: 2
Rig Type: MUD ROTARY
Spud Date: 5/15/2019 Time: 2:45 PM
TD Date: 5/23/2019 Time: 5:10 PM
Rig Release: 5/24/2019 Time: 10:45 AM

ELEVATIONS

K.B. Elevation: 1988.00ft Ground Elevation: 1980.00ft

NOTES

RECOMMENDATION TO RUN PRODUCTION CASING BASED ON FAVORABLE STRUCTURE, LOG ANALYSIS AND RESIVOIR DEVELOPMENT AS INDICATED BY DST #1

OPEN HOLE LOGGING PROVIDED BY: ELI
 DUAL INDUCTION LOG, COMPENSATED DENSITY/ NEUTRON LOG, AND MICRO LOGS WERE COMPLETED

DRILL STEM TESTING PROVIDED BY: TRILOBITE TESTING, INC
 ARBUCKLE (3422' to 3509') CONVENTIONAL BOTTOM HOLE TEST


WELL COMPARISON SHEET

	Mustang Energy Corporation		Skelly Oil Company		T.E. Anderson & Solomon Production		Mustang Energy Corporation	
	M.R. Allen #17		Mauder R. Allen #8		M.R. Allen #11		M.R. Allen #13	
			Producing		Producing		Producing	
	SE SE NW 22-11S-19W		NE SE NW 22-11S-19W		SE SW SE NW 22-11S-19W		W2 NW SE NW 22-11S-19W	
	KB 1988		KB 1967		KB 1996		KB 1964	
Formation	Sample Tops	Log Tops	Log Tops		Log Tops		Log Tops	
Anhydrite	1278' (+710)	1278' (+710)	1256' (+711)	-1	1277' (+719)	-9	1251' (+713)	-3
Base	1314' (+674)	1312' (+676)	1291' (+676)	0	1320' (+676)	-2	1294' (+670)	+4
Topeka	2938' (-950)	2937' (-949)	2915' (-948)	-1	2940' (-944)	-5	2913' (-949)	0
Heebner	3160' (-1172)	3160' (-1172)	3136' (-1169)	-3	3161' (-1165)	-7	3133' (-1169)	-3
LKC	3201' (-1213)	3202' (-1214)	3177' (-1210)	-4	3203' (-1207)	-7	3176' (-1212)	-2
BKC	3426' (-1438)	3425' (-1437)	3400' (-1433)	-4	3426' (-1430)	-7	3499' (-1535)	-2
Arbuckle	3504' (-1516)	3504' (-1516)	3481' (-1514)	-2	3501' (-1505)	-11	3479' (-1515)	-1

Daily Activity Summary

- 5/15/19** R.U., SPUD @ 2:45PM, DRILLING, 8 5/8" SURFACE CASING SET @ 237' KB w/150 SKS COMMON 2%GEL & 3%CC, WOC
- 5/16/19** 286', DRILLED PLUG @ 6:00AM, DRILLING
- 5/17/19** 1798', DRILLING
- 5/18/19** 2258', TWISTED OFF JOINT OF HW PIPE, FISHED w/ MAGNET, DRILLING, TWISTED OFF DRILL COLLAR PIN @ 2:00 PM, RAN OVERSHOT IN THE HOLE AND GOT STUCK ONCE ON THE FISH, GOT OFF OF FISH, TOH, TIH w/ BIT, CTCH, SHORT TRIP 20 STANDS, CTCH, TOH, START IN WITH WASHPIPE
- 5/19/19** 2441', TIH WITH WASHPIPE, TOH, MUD UP @ 2441'
- 5/20/19** 2441', TOH, WATING ON DRILL COLLARS, TIH, DRILLING
- 5/21/19** 2847', DRILLING, CFS @ 2978, DRILLING, TOH TO CHANGE BIT
- 5/22/19** 3255', TIH, DRILLING
- 5/23/19** 3509', CFS @ 3509, SHORT TRIP (25 STANDS), CCH, TOWB, TIWT, DST #1 3222'-3509', TOWT, TIWB,
 DRILLING, RTD 3590' @ 5:10pm, TOWB, LOGGING
- 5/24/19** 3590', RAN PRODUCTION CASING AND CEMENT, COMPLETED @10:15am, RIG RELEASED @10:45am

DST #1

	DRILL STEM TEST REPORT	
	Mustang Energy Corporation	22-11S-19W Ellis, KS
4400 Yellowstone Rd	M.R. Allen #17	

Depth | Interval
Cored Interval
DST Interval

DST

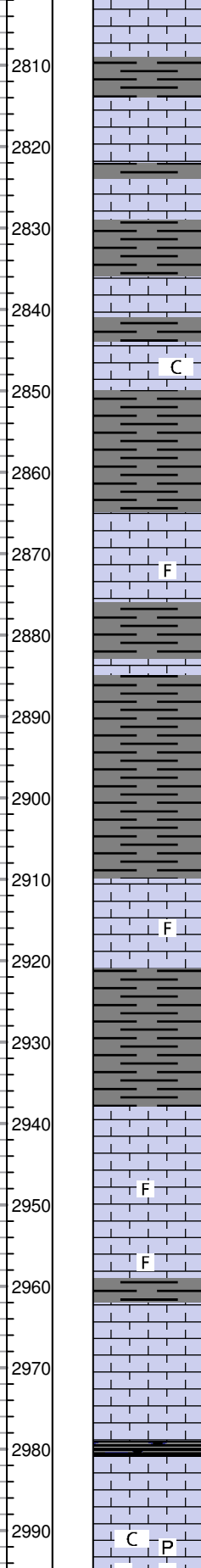
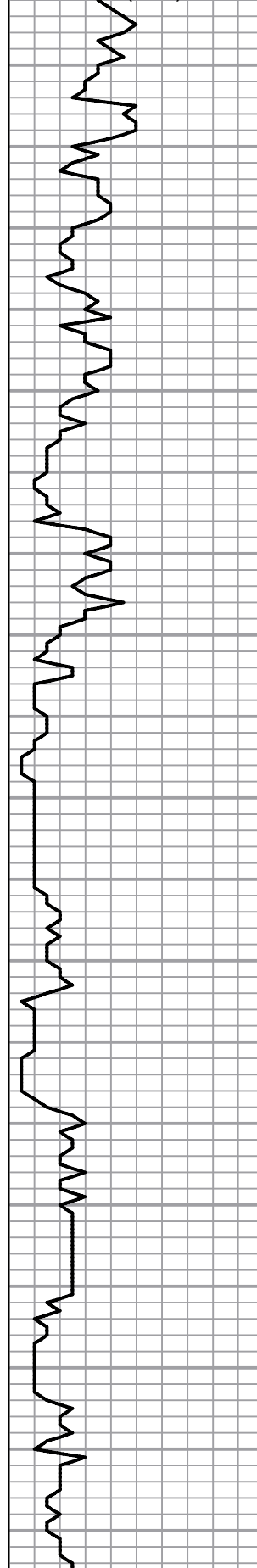
Lithology

Oil Show

Geological Descriptions

1:240 Imperial

0 1:240 Imperial ROP (min/ft) 10



ANHYDRITE: SPL 1278' (+710) LOG 1287' (+710)
BASE: SPL 1314' (+674) LOG 1312' (+676)

START 1' DRILL TIME THROUGH ANHYDRITE FROM 1250' TO 1350'
RESUME 1' DRILL TIME FROM 2800' TO RTD
START 10' WET/ DRY SAMPES FROM 2830' TO RTD

Lm- cream- gray, fnxln, slightly chalky

Sh- black- gray, soft

Lm- gray- tan, fn-md xln, slightly fossiliferous

Sh- gray- green

Lm- gray, fnxln, very dense, slightly fossiliferous

Sh- black- gray

Sh- black, grey, green, soft

TOPEKA: SPL 2938' (-948) LOG 2937' (-949)

Lm- cream, fnxln, slightly fossiliferous throughout

Lm- cream- gray, fnxln, no show, no odor, no porosity, dense, ammonite fossils in part

Lm- cream, fnxln, 5-6 chips w/ poor pinpoint porosity, SFO when crushed and slight sheen on top of cup, few chips with poor brown stain, fair gasy odor

Sh- Black, carbonaceous, waxy, firm

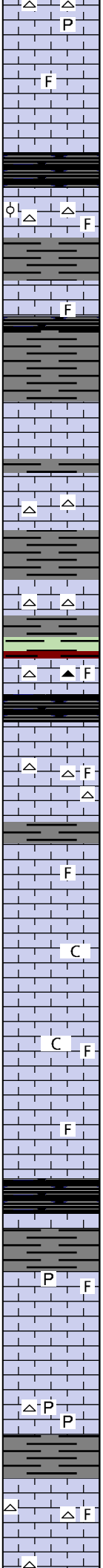
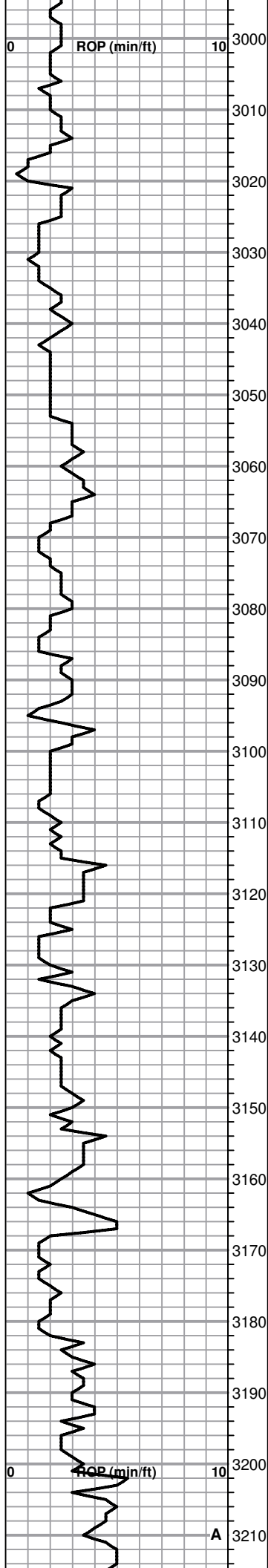
Lm- cream- gray, fn- med grain, few chips w/ very light brown stain, SFO when crushed, slight sheen on top of cup, poor inxln porosity, slightly chalky, cherty in part, pyrite, fair odor

SURFACE CASING SET @ 237' KB w/ 150 SKS COMMON, 2% GEL & 3% CC (DID CIRCULATE)

SURVEY @ 238' (1/4°)

GEO ON SITE @ 6:00AM 5/21/19

CFS @ 2978



slightly chalky, cherty in part, pyrite, fair odor

3000 P

3010 F

3020 Sh- black, carbonaceous, boxy, firm

3030 F

3040 Lm- tan- cream, fnxln, fossiliferous in part, fairly dense

3050 Sh- black, green, red, soft, sticky

3060 Lm- cream- tan, fnxln, few chips w/ poor vuggy- inxln porosity, light brown stain, SFO in porosity, slightly cherty, dense, tight, poor odor, porosity has gas bubbles when heated

3070 Lm- cream, fnxln, slightly sand, few chips white angular chert

3080 Lm- off white, fnxln, no shows, very barren, soft white chert throughout

3090 Sh- gray, red, green

3090 Lm- cream, fnxln, no shows, barren, white- brown chert throughout, fossiliferous

3090 Sh- black, carbonaceous

OREAD: LOG 3096' (-1108)

3100 Lm- crm, fnxln, Chert white, sharp, angular, slightly fossiliferous,

3110 Lm- cream, fnxln, no shows of live oil, scattered chips with very fine inxln porosity, fossiliferous, slight odor

3120 F

3130 Lm- cream, fnxln, few chips with poor- fair vuggy- inxln porosity, light brown stain, SFO when crushed, slight odor, chalky

3140 Lm- cream- light gray- fnxln, scattered pinpoint- inxln porosity, light brown stain, SFO in porosity, fossiliferous, chalky, fair odor

3150 Lm- cream, fnxln, scattered poor- fair vuggy- fnxln porosity, light brown stain, SFO when crushed, fossiliferous, fair odor

HEEBNER: SPL 3160' (-1172) LOG 3160' (-1172)

3160 Sh- black, carbonaceous, waxy, soft

TORONTO: LOG 3175' (-1187)

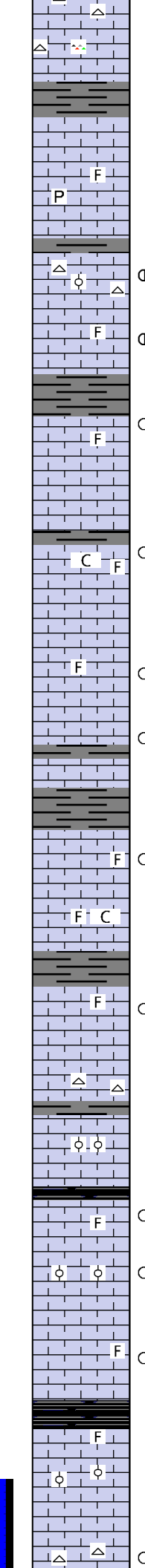
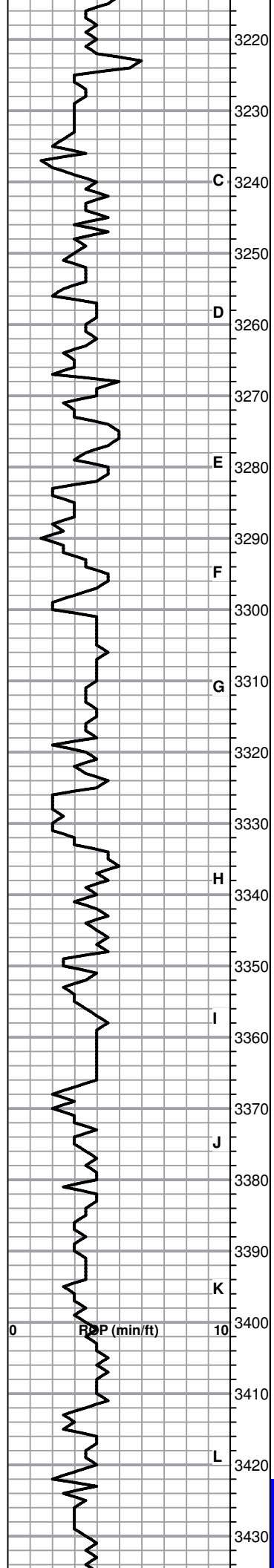
3180 Lm- cream, fnxln, scattered poor inxln porosity, 1 chip with good vuggy- inxln porosity, SFO in porosity, brown stain, fossiliferous, pyrite, fair odor

3190 Lm- tan. fnxln, scattered poor very fine inxln porosity, dead oil stain, very dense, 1 chip with fair-good inxln porosity, SFO in porosity, brown stain, pyrite throughout, chert in part

3200 Sh- gray, red

LKC: SPL 3201' (-1213) LOG 3202' (-1214)

3210 Lm- creamn- gray, fnxln- med grain, scattered microxln porosity, NSFO, dead oil, cherty, fossiliferous, scattered oolites, no odor



Lm- cream- off white, fnxn, oolitic in part, scattered inxn- in-foss porosity, no show oil, no odor, cherty

Lm- off white, fnxn, 1 chip w/ fr pinpoint porosity, slight SFO when crushed, brown stain, no odor, orange chert through

Sh- gray

Lm- cream, micro- fnxn, very dense, cherty, slightly fossiliferous, pyrite, no odor

Lm- cream- fnxn, fair pinpoint- in- oolitic porosity, light brown stain, fair SFO when crushed, fairly tight, dense, cherty

Lm- cream, fnxn, scattered fair inxn- infossiliferous porosity, light brown stain, NSFO, oolitic, fairly dense, fair- good odor

Sh- gray black

Lm- cream, fnxn, scattered fair inxn- vuggy porosity, SFO when crushed and on top of cup, light brown stain, few chips with good saturation, fossiliferous, fair odor

Lm- cream, fnxn, scattered inxn porosity, fair SFO when crushed and in cup, light brown stain, chalky, fossiliferous, fair odor

Lm- cream, very fnxn, dense, few chips with fnxn porosity, fair SFO, brown stain, fossiliferous, slight odor

Lm- cream, fnxn, barren, dense, 2 chips with fair inxn porosity, fair SFO, brown stain, tight, slight odor

Sh- gray

Lm- cream, fnxn, fossiliferous, barren, few chips with fair in-foss porosity, brown stain, poor SFO, slight odor

Lm- cream, fnxn, fossiliferous, oomoldic, barren, chalky in part

Sh- black, gray

Lm- cream, fnxn, fossiliferous, few chips with fair inxn- in-foss porosity, fair SFO, fair- good light brn stain, no odor

Lm- crm, fnxn, foss, dense, scat pr inxn porosity, lt brn stn, pr SFO when crushed, fr odor, sltly cherty

Lm- crm, fnxn scat oolites, 1 chip w/ gd in-oolitic porosity, fr SFO, brn stn, no odor

Sh- black

Lm- crm - fnxn, few chips w/ pr- fr inxn- in-foss porosity, brn stn, fr SFO, slt odor

Lm- crm, fnxn, 6-8 chips w/ gd in-oolitic porosity, gd SFO oozing from pores and sheen on top of cup, brn stn, fr sat, fr odor

Lm- crm- brn- sltly foss, 6-8 chips w/ fr-gd vuggy- inxn porosity, gd SFO, brn stn, fr sat brn stn, fr odor when oily rock is crushed

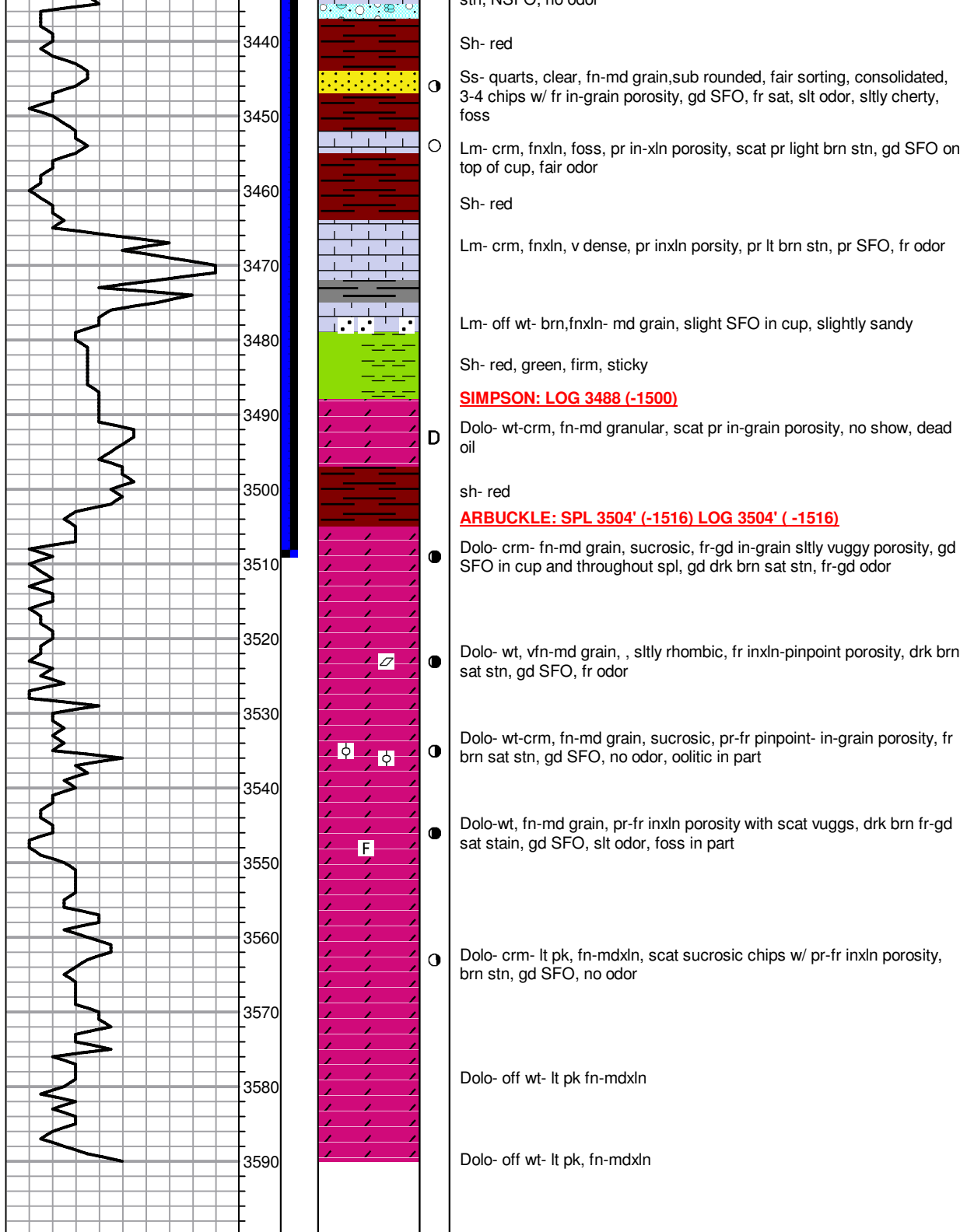
Sh- black

Lm- crm, fnxn, foss, pr scat oolitic porosity, NS, no odor

Lm- crm-off wt, fnxn, cherty, few chips w/ pr-fr inxn porosity, drk brn stn, NSFO, no odor

BKC: SPL 3426' (-1438) LOG 3425' (-1437)

DST #1 3422' to 3509'
SEE HEADER FOR SUMMARY



CFS @ 3509
 SURVERY @ 3509 (6°)

5 1/2" CASING SET @
 3585.69' KB w/350 SKS
 QMDC-FS/sk & 150 SKS
 COMMON. CEMENT
 CIR TO CELLAR

SURVERY @ 3590
 (5 1/2°)