



Geologist's Report

Company: L. D. Drilling, Inc
 Lease: Devore #1-10
 Field: Crissman North
 Surface Location: SE-NE-NW-NW (404' FNL & 1029' FWL)
 Sec: 10 Twp: 23S Rge: 14W
 County: Stafford State: Kansas
 GL: 1973' KB: 1978'

Contractor: Petromark Drilling Rig #2
 Spud: 5/1/14 Comp: 5/9/14
 RTD: 4075' LTD: 4072'
 Mud Up: +/- 3100' Mud Type: Chemical Displaced

Drilling Time Kept From: 3300' to RTD
 Samples Saved From: 3300' to RTD
 Samples Examined: 3300' to RTD
 Geoloical Supervision: 3500' to RTD
 Geologist on Well: Kurt Talbott

Surface Casing: 8 5/8" @ 328'
 Production Casing: 5 1/2" @

Wireline Logs: By Pioneer: DCP, DIL, MEL

Well Comparison 25

WELL BEING DRILLED		LD DRILLING		OFFSET	
DEVORE #1-10		1973 GL 1978 KB		DEVORE #1	
FORMATION	LOG	SS	SS	MD	SS
ANHYDRITE	879	1099			
BASE ANHYDRITE	897	1081			
HEEBNER	3412	-1434		3406	-1435
TORONTO	3430	-1442			
BROWN LIME	3542	-1564			
LANSING	3556	-1578		3552	-1581
BASE KC	3782	-1804		2781	-1810
VIOLA	3909	-1931		3886	-1915
SIMPSON	3944	-1966		3945	-1974
SIMPSON SAND	3961	-1983		3956	-1985
ARBUCKLE	3996	-2018		4000	-2029
TOTAL DEPTH	4072	-2094		4005	-2034

ROCK TYPES

- Cht Dolprim
- Lmst fw<7 shale, gry
- shale, red
- Shcol
- Ss

OTHER SYMBOLS

EVENTS

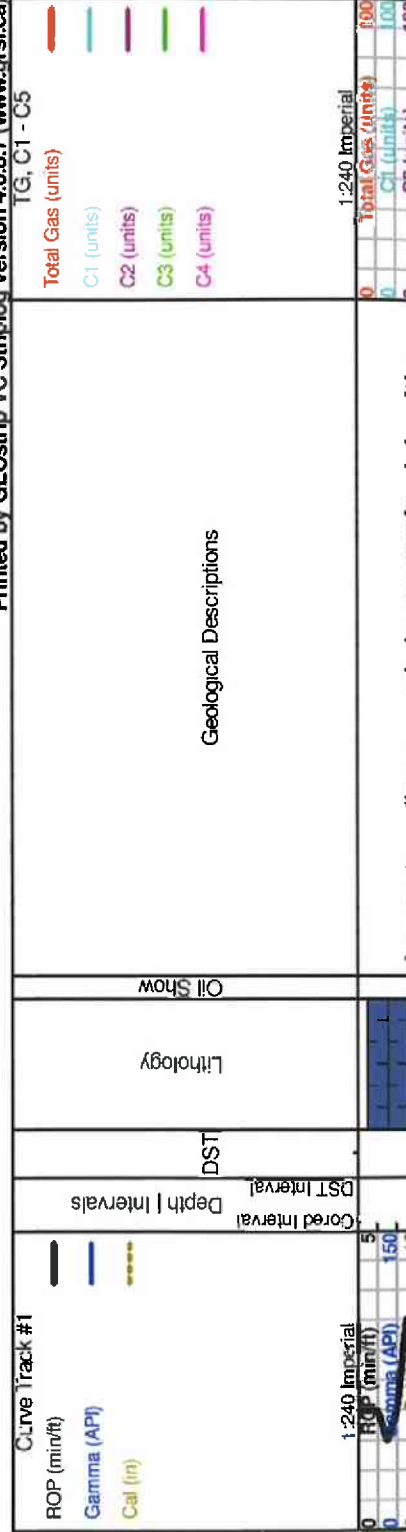
- J1 Casing Shoe
- RTF
- Sidewall
- Left Casing Shoe
- Right Casing Shoe

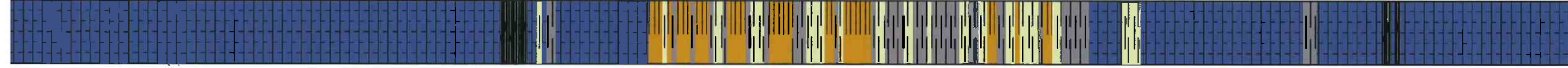
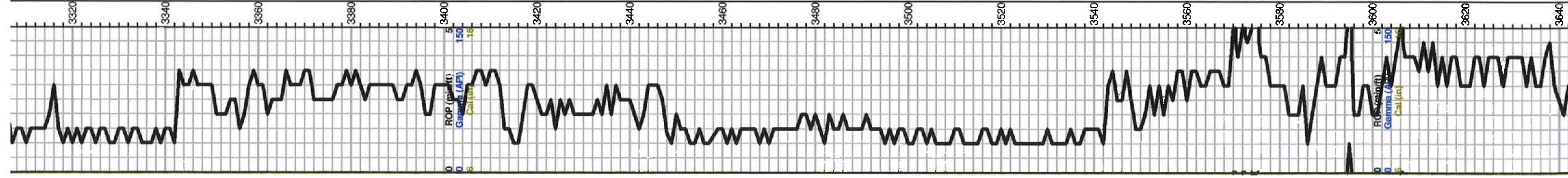
INTERVALS

- Core
- DST

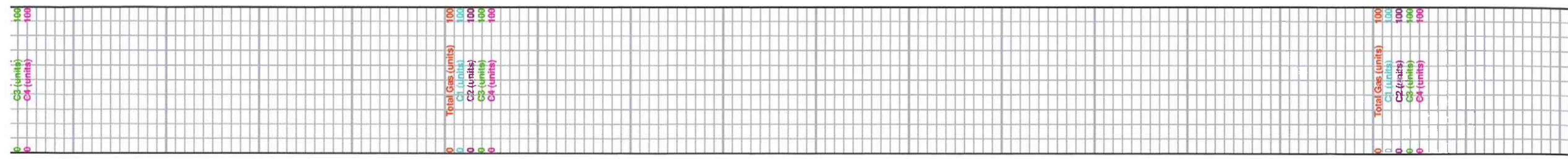
DST

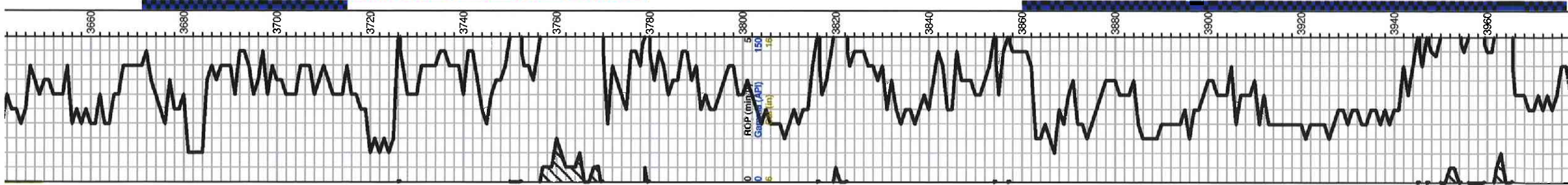
- DST Int
- DST alt





A/A	
Ls-crm/wht, fxln, dense, slightly dolomitic, poor vis por, Stains?? NSFO, no odor	
A/A Chert-tan/buff	
Ls-wht/crm, fxln, dense, slightly dolomitic, cherty in part, slightly chalky	
Ls-tan/lt gry, fxln, fossils, dense, poor vis por, cherty in part, slightly chalky	
A/A chert-tan/gry	
Heebner 3412.0 (-1434.0) -1434.0	
Black carbon shale	
Toronto 3432.0 (-1444.0) -1442.0	
Ls-wht/crm, f-med xln, granular, slightly dolomitic, poor ppt por, trace spotty stains, NSOF, chalky	
Douglas 3448.0 (-1470.0) -1468.0	
Shale-brown/green/grey	
A/A firm	
Shale-gry/grm/maroon, firm	
A/A	
Brown Lime 3542.0 (-1564.0) -1564.0	
Ls-tan/buff, fxln, dense, poor vis por	
Lansing 3555.0 (-1577.0) -1578.0	
Ls-wht/crm, fxln, fossils/ool, poor vis por, dnese,	
Ls-crm/tan, fxln, ool, poor to fair oom por, no vis stains, slightly chalky, chert-tan/crm	
Ls-crm/tan,fxln, ool, poor scattered oom to sub oom por, no vis shows, chalky	
Ls-tan/crm, fln, ool, scattered sub oom por, Trace black carbon shale	
Ls-crm/tan, fxln, highly ool, dense, poor vis por, cherty in part	
Ls-crm/tan, fxln, ool, poor vis por, chalky	
Ls-crm/wht, fxln, ool, poor scattered por, no vis shows,	





A/A slightly chalky

Ls-crm/wht, fxln, ool, oom, fair oom por, scattered dark brown stains, TrSFO, faint odor slightly chalky

Ls-crm/wht/tan, fxln, ool, poor sub oom to iner ool por, trace dark brown to black stains, TrSFO, faint odor

Ls-wht/crm, fxln, ool, poor to fair oom to finely vug por, dark to black staining, SFO, faint odor, slightly chalky

Ls-tan/crm, fxln, ool, poor ppt to iner ool por, scattered golden to dark brown stains, SFO, fair odor, slightly chalky, chert-tan/crm

Ls-buff/tan, fxln, dense, poor vis por

Ls-crm/lt gry, fxln, ool, scattered sub oom por, Trace stains, NSFO, shalek brown/green

Base KC 3781.0 (-1803.0) -1804.0

Shale- brown/green A/A

A/A

is-gry/tan, fxln, dense, poor vis por, cherty in part, Shale-maroon/grm/gry

Shale and LS A/A

Ls-wht/lt gry, fxln glauconitic in part, poor vis por, Shale- red/brown/green

Shale-red/brown A/A

Chert-boney wht/tan

A/A Shale-turq/brown

Viola 3905.0 (-1927.0) -1931.0

Chert-tan/wht, scattered tripolitic por, mostly fresh, scattered black stains, Gassy odor, NSFO,

Chert-tan/wht/buff, trip por, scattered dark brown to black stains, TrSFO, odor

A/A

Shale-turq/green/maroon

Simpson Sand 3961.0 (-1966.0) -1983.0

Sand-very fine to fine grained, poor to fair iner gran por, Golden brown stains to saturated, SFO, good odor

DST #1 3670-3715
30-30-30-30
IF: Surface blow died in 13 min

Recovery:
5' Mud

Pressures:
ISIP 27 psi
FSIP 33 psi
IFP 8-27 psi
FFP 14-19 psi
HSH 1687-1676 psi

DST #2 3712-3777
30-45-45-45
IF: Built to 3 1/4"

Recovery: 3
32' Gas In Pipe
60' MCW (87w 13m)
60' HMCW (55w 45m)

Pressures:
ISIP 988 psi
FSIP 964 psi
IFP 10-45 psi
FFP 53-72 psi
HSH 1721-1728 psi

Total Gas (units) 100
C1 (units) 100
C2 (units) 100
C3 (units) 100
C4 (units) 100

DST #3 3859-3977
30-30-30-45
IF: 1/4" Died in 22 minutes

Recovery:
52' Mud with few oil spots

Pressures:
ISIP 426 psi
FSIP 502 si
IFP 19-28 psi
FFP 29-47 psi
HSH 1864-1802 psi

Shale-turq/gry/maroon

Arbuckle 3995.0 (-2017.0) -2018.0

Dol- wht/ crm, f-med xln, dense, scattered ppt to inner xln por, no vis shows, slightly cherty
Dol-tan/crm/t gry, f-med xln, few rhomb, fair inner xln por, no vis shows, chalky

Dol-wht/lt gry, fxln, sucrosic, dense, poor scattered por, chert-boney wht/crm

A/A

Dol-tan/gry, f-med xln, sucrosic, poor scattered por, dense,

Dol- A/A poor to fair inner xln por, cherty in part, chalky

Total Depth 4075.0 (-2097.0) -2094.0

