OPERATOR

Company:	ANDY WERTH DBA WERTH EXPLORATION TRUST		
Address:	1308 SCHWALLER AVE. HAYS, KANSAS 67601		
Contact Geologist:	ANDY WERTH		
Contact Phone Nbr:	785-625-4968		
Well Name:	WALZ-MUSTANG SOL # 11		
Location:	NW SE NE SE Sec.7-11s-20w	API:	15-051-26,654-00-00
Pool:		Field:	UNNAMED
State:	KANSAS	Country:	USA

Scale 1:240 Imperial

Well Name:	WALZ-MUSTANG SOL # 11		
Surface Location:	NW SE NE SE Sec.7-11s-20w		
Bottom Location:			
API:	15-051-26,654-00-00		
License Number:	30259		
Spud Date:	1/14/2014	Time:	2:45 PM
Region:	ELLIS COUNTY		
Drilling Completed:	1/23/2014	Time:	6:05 AM
Surface Coordinates:	1927' FSL & 346' FEL		
Bottom Hole Coordinates:			
Ground Elevation:	2054.50ft		
K.B. Elevation:	2062.00ft		
Logged Interval:	3000.00ft	To:	3725.00ft
Total Depth:	3725.00ft		
Formation:	LANSING-KANSAS CITY		
Drilling Fluid Type:	CHEMICAL/FRESH WATER GEL		

SURFACE CO-ORDINATES

Well Type:	Vertical		
Longitude:	-99.575178	Latitude:	39.1077009
N/S Co-ord:	1927' FSL		
E/W Co-ord:	346' FEL		

LOGGED BY

Company:	SOLUTIONS CONSULTING, INC.		
Address:	108 W 35TH HAYS, KS 67601		
Phone Nbr:	(785) 639-1337		
Logged By:	GEOLOGIST	Name:	HERB DEINES

CONTRACTOR

Contractor:	SKYTOP DRILLING LLC		
Rig #:	1		
Rig Type:	MUD ROTARY		
Spud Date:	1/14/2014	Time:	2:45 PM
TD Date:	1/23/2014	Time:	6:05 AM
Rig Release:	1/24/2014	Time:	3:00 PM

ELEVATIONS

K.B. Elevation:	2062.00ft	Ground Elevation:	2054.50ft
K.B. to Ground:	7.50ft		

NOTES

RECOMMENDATION TO PLUG AND ABANDON WELL BASED ON NEGATIVE RESULTS OF DRILL STEM TESTS AND LOG ANALYSIS

OPEN HOLE LOGGING BY NABORS COMPLETION & PRODUCTION SERVICES CO: DUAL INDUCTION LOG, COMPENSATED DENSITY/NEUTRON LOG, MICRO LOG

DRILL STEM TESTING BY SUPERIOR TESTERS ENTERPRISES LLC: ONE (1) CONVENTIONAL TEST AND ONE (1) STRADDLE TEST

FORMATION TOPS SUMMARY AND CHRONOLOGY OF DAILY ACTIVITY

	WALZ-MUSTANG SOL #11 **NW SE NE SE** **SEC. 7-11S-20W** **2054.5'GL 2062'KB**		**MIXER # 1** **SE NE SE** **SEC. 7-11S-20W**
FORMATION	SAMPLE TOPS	LOG TOPS	COMPARISON
Anhydrite	1504 +558	**1504 +558**	*+ 547*
B-Anhydrite	1545 +517	**1544 +518**	*+ 518*
Topeka	3096-1034	**3098-1036**	*-1045*
Heebner Shale	3306-1244	**3306-1244**	*-1253*
Toronto	3326-1264	**3327-1265**	*-1273*
LKC	3343-1281	**3344-1282**	*-1291*
BKC	3561-1499	**3565-1503**	*-1511*
Simpson Shale		**3638-1576**	*-1576*
Arbuckle		**3654-1592**	*-1587*
RTD	3725-1663	**3726-1664**	*-1591*

SUMMARY OF DAILY ACTIVITY

1-15-14	RU, Spud 2:45 PM,
1-16-14	244', set 8 5/8" surface casing to 243' w/160 sxs Common 2%Gel 3%CC, WOC 8 hrs, drill plug at 1:45 PM
1-17-14	840', drilling
1-18-14	1665', drilling
1-19-14	2375', drilling
1-20-14	2965', drilling, displaced at 3000'
1-21-14	3336', drilling, CFS 3336' short trip, CFS 3390', CFS 3410', DST # 1 3368'-3410' "C-D" LKC
1-22-14	3410', TIWB, drilling, CFS 3614', CFS 3644', CFS 3652'
1-23-14	3725', RTD 6:05 AM, short trip, TOWB, slope 1 degree, logs, DST #2 straddle 3657'-3675' Arbuckle
1-24-14	3725', finish DST # 2, decision to plug and abandon well

DST # 1 3657' TO 3675' "C" AND "D" ZONE OF LKC

SUPERIOR ENTERPRISES LLC TESTERS

DRILL STEM TEST REPORT

Werth Exploration Trust

1308 Schwaller Avenue
Hays, Kansas 67601

ATTN: Herb Deines

7/11S/20W/Ellis

Walz-Mustang SOL #11

Job Ticket: 19191 **DST#: 1**

Test Start: 2014.01.20 @ 19:35:00

GENERAL INFORMATION:

Formation: **Lansing/Kansas City**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 22:18:00
Time Test Ended: 03:27:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Ken Swinney
Unit No: 3330 Hays/50

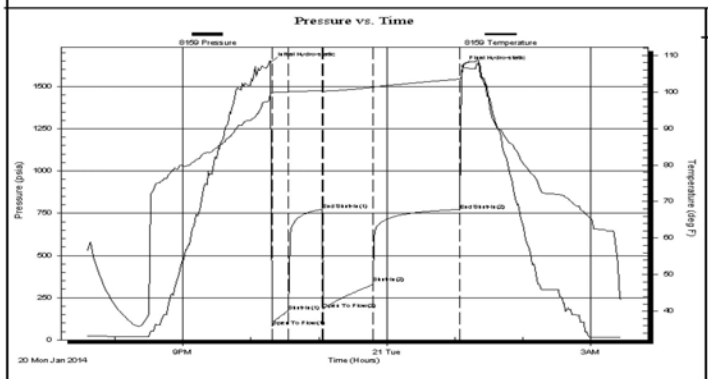
Interval: 3368.00 ft (KB) To 3410.00 ft (KB) (TVD)
Total Depth: 3410.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Poor

Reference Elevations: 2062.00 ft (KB)
2055.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8159 **Outside**
Press@RunDepth: 767.86 psia @ 3407.00 ft (KB)
Start Date: 2014.01.20 End Date: 2014.01.21
Start Time: 19:35:00 End Time: 03:27:00

Capacity: 5000.00 psia
Last Calib.: 2014.01.20
Time On Btm: 2014.01.20 @ 22:17:30
Time Off Btm: 2014.01.21 @ 01:07:00

TEST COMMENT: 1ST Open 15 Minutes/Good blow /Blow built to bottom of bucket of diesel in 4 minutes 30 seconds
1ST Shut In 30 Minutes/Weak surface blow back
2ND Open 45 Minutes/Good Blow /Blow built to bottom of bucket of diesel in 7 minutes 30 seconds
2ND Shut In 75 Minutes/Blow back built to 1 inch



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1643.86	99.66	Initial Hydro-static
1	81.58	99.71	Open To Flow (1)
16	171.39	100.00	Shut-In(1)
45	772.42	100.38	End Shut-In(1)
46	181.12	100.21	Open To Flow (2)
91	337.13	101.26	Shut-In(2)
167	767.86	103.54	End Shut-In(2)
170	1620.22	107.26	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	77 feet of gas in pipe	0.00
434.00	Mud cut Water/Mud 5% Water 95%	4.72
155.00	Gas and Oil cut Muddy Water	2.17
0.00	Gas 5% Oil 5% Mud 30% Water 60%	0.00
15.00	Clean Gassy Oil/Gas 5% Oil 95%	0.21
0.00	Recov. Chlorides 90,000 ppm	0.00

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)

Superior Testers Enterprises LLC Ref. No: 19191 Printed: 2014.01.20 @ 03:50:55

DST # 2 3657' TO 3675' ARBUCKLE STRADDLE TEST BOTTOM PACKER HELD

SUPERIOR ENTERPRISES LLC TESTERS

DRILL STEM TEST REPORT

Werth Exploration Trust

1308 Schwaller Avenue
Hays, Kansas 67601

ATTN: Herb Deines

7/11S/20W/Ellis

Walz-Mustang SOL #11

Job Ticket: 19192 **DST#: 2**

Test Start: 2014.01.23 @ 17:05:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 19:46:30
Time Test Ended: 00:34:00

Test Type: Conventional Straddle (Initial)
Tester: Ken Swinney
Unit No: 3330 Hays/50

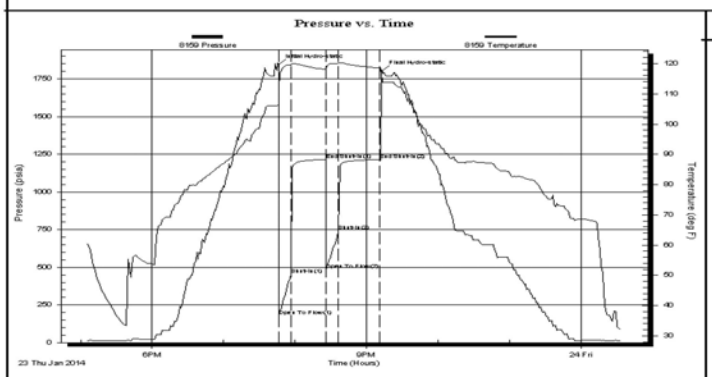
Interval: 3657.00 ft (KB) To 3675.00 ft (KB) (TVD)
Total Depth: 3675.00 ft (KB) (TVD)
Hole Diameter: 7.80 inches Hole Condition: Fair

Reference Elevations: 2062.00 ft (KB)
2055.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8159 **Inside**
Press@RunDepth: 743.85 psia @ 3669.00 ft (KB)
Start Date: 2014.01.23 End Date: 2014.01.24
Start Time: 17:05:00 End Time: 00:34:00

Capacity: 5000.00 psia
Last Calib.: 2014.01.22
Time On Btm: 2014.01.23 @ 19:46:00
Time Off Btm: 2014.01.23 @ 21:13:00

TEST COMMENT: 1ST Open 10 Minutes/Strong blow /Blow built to bottom of bucket of diesel in 50 seconds
1ST Shut In 30 Minutes/Blow back built to 1/2 inch
2ND Open 10 Minutes/Strong blow /Blow built to bottom of bucket of diesel in 45 seconds
2ND Shut In 30 Minutes/No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1847.82	106.55	Initial Hydro-static
1	178.17	112.06	Open To Flow (1)
11	453.42	119.61	Shut-In(1)
40	1215.19	118.06	End Shut-In(1)
40	486.30	118.06	Open To Flow (2)
51	743.85	120.08	Shut-In(2)
85	1214.76	118.54	End Shut-In(2)
87	1804.80	114.29	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1426.00	Mud cut Water with show of oil	18.64
0.00	Mud 3% Water 97%	0.00
0.00	Recov. Chlorides 32,000 ppm	0.00
0.00	Recov. Resist .28 ohms @ 50 deg	0.00

Gas Rates

	Choke (inches)	Pressure (psia)	Gas Rate (Mcf/d)

Superior Testers Enterprises LLC Ref. No: 19192 Printed: 2014.01.22 @ 01:09:38

ROCK TYPES

Clystgy, Clystcol, Chtcongl, Dolprim, Dolsec, Dol Lime, Lmst fw<7, Lmst fw7>, Lscongl, shale, grn, shale, gry, Carbon Sh, shale, red

ACCESSORIES

MINERAL
- Nodules
- P Pyrite
- Varicolored chert
- Chert White

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)

Curve Track #1
ROP (min/ft)
1:240 Imperial

Depth | Intervals
Cored Interval
DST Interval

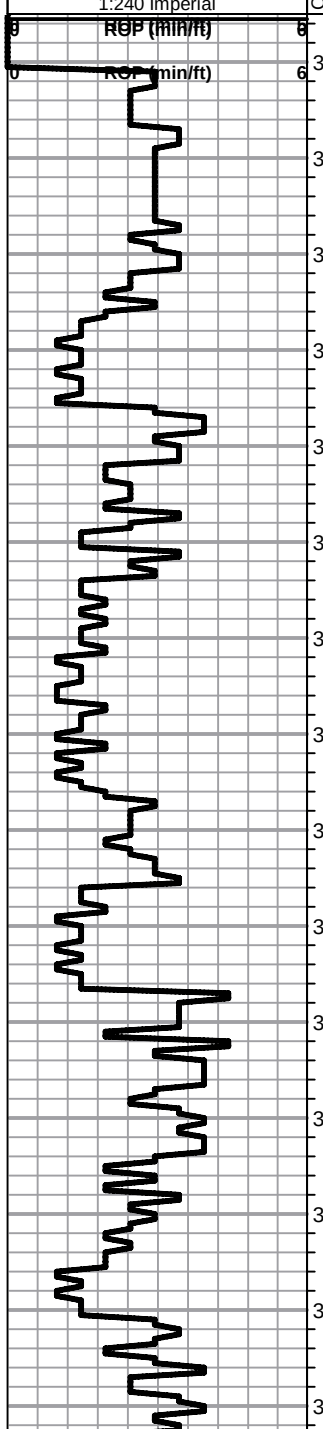
DST

Lithology

Oil Show

Geological Descriptions

Curve Track #3
1:240 Imperial



BEGIN 1' DRILL TIME FROM 3000' TO RTD
BEGIN 10' WET AND DRY SAMPLES FROM 3100' TO RTD

ANHYDRITE TOP 1504+558
ANHYDRITE BASE 1544+518

Shale, med gray, soft-firm, calcareous in part

TOPEKA 3098-1036

Lime, med brn, fnxln

Lime, lt-med brn, fnxln, slight bedded chalk, slightly fossiliferous

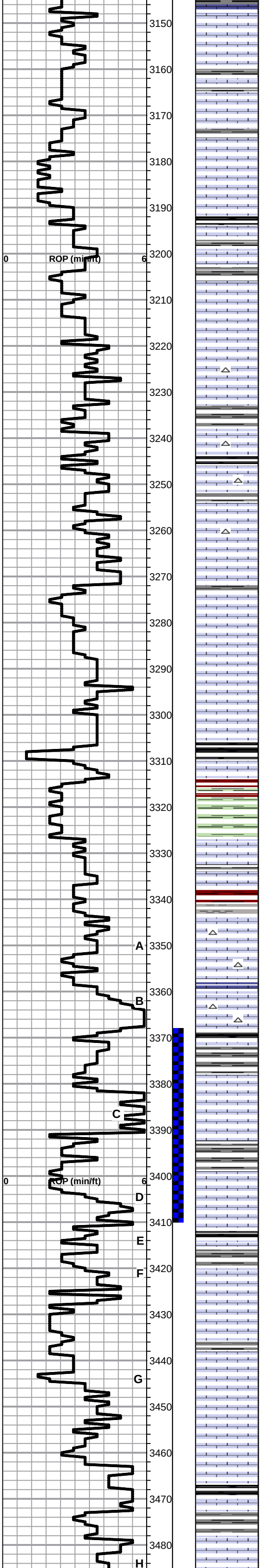
Lime, lt brn-lt grayish brn, fnxln, slightly fossiliferous

Lime, lt brn-lt grayish brn, fnxln-granular, NS, no wet cut

Lime, lt brn, granular-fnxln

Lime, med brn-med grayish brn, fnxln, fusulinids

8 5/8" SURFACE CASING SET TO 243' W/160 SXS COMMON 2%GEL 3%CC



Lime, lt-med brn, fnxln, fossiliferous in part

Lime, lt-med brn, fn-granular in part, slightly fossiliferous, calcareous shale in part

Lime, lt-med brn, fnxln, slightly fossiliferous

Lime, lt-med brn, fnxln-granular, slightly fossiliferous, bedded chalk with sticky clumps in part, lt white chalk wash

Lime, med brn-med grayish brn, fnxln, hard on crush

Shale, black carbonaceous
Lime, lt-med brn, fnxln, slightly fossiliferous

Lime, lt brn, fn-vfxln, hard on crush, slightly fossiliferous

Lime, tan-lt brn, fnxln, slightly fossiliferous, scattered bedded chalk

Lime, lt-med brn, fnxln, fusulinids, increasing gray tint and shaley near lime-shale boundary

Lime, lt grn-lt gray, vfxln

Shale, black carbonaceous

Lime, lt brn, fn-vfxln, slightly fossiliferous

Lime, tan-lt brn, fn-vfxln, slight bedded chalk

Lime, tan-lt brn, fnxln

Lime, tan-lt brn, fnxln, slight bedded chalk, NS

Lime, tan-lt brn, fnxln, slight bedded chalk

Lime, tan-lt brn, fnxln, slight bedded chalk

HEEBNER SHALE 3306-1244

Shale, black carbonaceous, fissile, blocky
Lime, lt brn, vfxln, slightly fossiliferous, well cemented

Shale, reddish brn grading into lime green soft shale

TORONTO 3327-1265

Lime, tan-lt brn, fnxln, few granular chips with slight chalk, NS, scattered fossils

SHORT TRIP 3336'

LKC 3344-1282

Lime, crm, fn-vfxln, slightly fossiliferous, slight bedded chalk, NS, No Odor

Lime, crm-tan, fnxln-granular with lt chalk wash, NS

Lime, crm-tan, fn-vfxln, bedded chalk, tan chert, fresh, sharp

Lime, tan, fnxln, with few chips oolitic/fossil fragments, scattered stain with lt odor

DST # 1 3363' TO 3410' "C-D"
SEE HEADER FOR TEST SUMMARY

Lime, crm-tan, fnxln, bedded chalk

CFS 3390'

Shale, med gray, firm blocky

Lime, crm-tan, fnxln with few chips oolitic,lt scattered staining, no odor, NFO

Lime, crm-tan, fnxln, bedded chalk

CFS 3410'

Shale, black carbonaceous, blocky
Lime, pale gray tint, fnxln
Shale, lt gray, forming soft mud

Lime, crm-tan, fnxln, bedded chalk, 2 chips with spotty stain, appears poorly developed

Lime, tan-lt brn, fnxln-granular, bedded chalk, NS

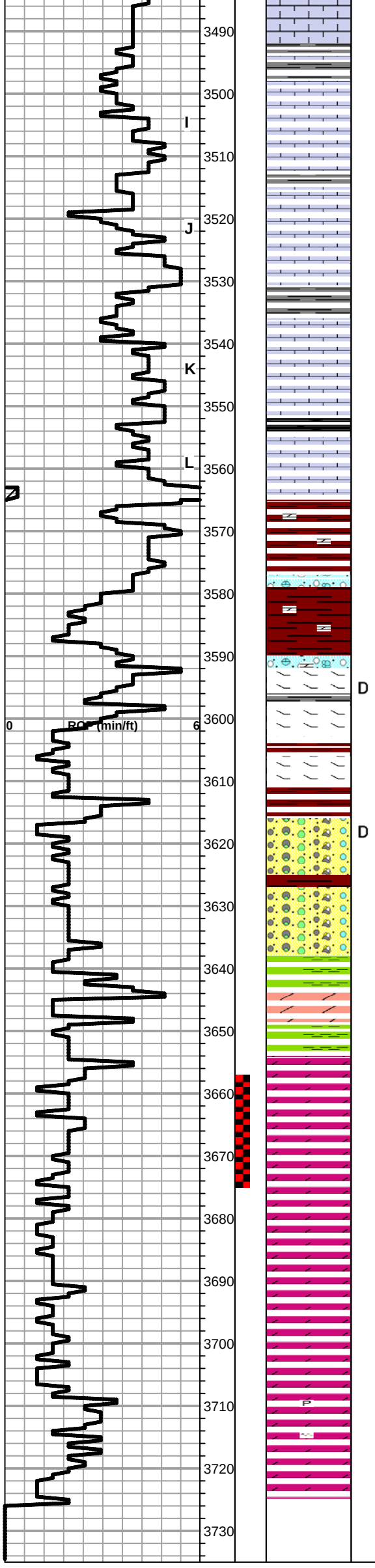
Lime, crm-tan, fnxln-granular, lot of bedded chalk, NS

Lime, crm-tan, fn-vfxln, slight bedded chalk content

Lime, med brn, fnxln

Shale, black carbonaceous
Lime, crm-tan, fnxln

Lime, crm-tan, fn-vfxln, NS



Lime, lt gray, fnxln grading into lt gray, soft shale	
Lime, tan-lt brn, fn-vfxln, one chip with spotty stain, NFO, No Odor	
Lime, crm-lt brn, fn-micro xln, slight bedded chalk content	
Lime, crn-lt brn, fnxln, bedded chalk, few chips with oolitic, poorly developed with spotty staining, NFO, No Odor	
Lime, crm-lt brn, fn-micro xln, bedded chalk	
Lime, crm-tan, fn-vfxln, slight bedded chalk content, NS	
Lime, crm, fn-vfxln, brittle on crush	
Lime, tan-lt brn, fnxln, NS	
BKC 3565-1503	
Shale, red-reddish brn, chert nodules in part	
Shale, reddish brn, soft, sandy in part, NS	
Lime, clastic mix with gilsonitic content, NFO, No Odor	
Lime, tan-lt brn, fnxln, partially dolomitic with scattered gilsonite, NFO, No odor	
Lime, tan-lt brn, fnxln transitioning into red shale and chert	
Chert, vari colored, fresh, sharp, some weathered with black flakes, NFO, No odor	
Chert and shale, red wash, vari colored	
SIMPSON SHALE 3638-1576	
Shale, blue-green, waxy, few quartz sand grains, NS	CFS 3644'
Clastic mix	
ARBUCKLE 3654-1592	CFS 3652'
Dolomite, lt-med brn, fnxln-granular, fine grained, scattered to saturated staining, lt odor	
Dolomite, lt-med brn, fnxln-granular, fine grained with increasing grain size with depth, saturated staining, lt odor	DST # 2 STRADDLE TEST 3657' TO 3675' SEE HEADER FOR TEST SUMMARY
Dolomite, crm-lt brn, fn-cxln granular, lt decreasing odor and staining	
Dolomite, tan, fn-cxln granular, rhombic xln, lt staining and lt odor	
Dolomite, tan-lt brn, fn-cxln granular, increasing rhombic xln development	
Dolomite, as above	
Dolomite, tan, fnxln, few pyrite clusters and oolitic chert	
RTD 3725-1663 LTD 3726-1664	SLOPE 1 DEGREE