OPERATOR

Company:	SANDLIN OIL CORPORATION		
Address:	621 17TH STE.2055 DENVER, CO 80293-2001		
Contact Geologist:	GARY SANDLIN		
Contact Phone Nbr:	303-292-3313		
Well Name:	STAAB-KARLIN, et al # 2		
Location:	NE NE NE SE Sec.15-12s-18w	API:	15-051-26,657-00-00
Pool:		Field:	BEMIS-SHUTTS
State:	KANSAS	Country:	USA

Scale 1:240 Imperial

Well Name:	STAAB-KARLIN, et al # 2		
Surface Location:	NE NE NE SE Sec.15-12s-18w		
Bottom Location:			
API:	15-051-26,657-00-00		
License Number:	6677		
Spud Date:	2/9/2014	Time:	6:00 AM
Region:	ELLIS COUNTY		
Drilling Completed:	2/13/2014	Time:	9:45 PM
Surface Coordinates:	2615' FSL & 170' FEL		
Bottom Hole Coordinates:			
Ground Elevation:	2145.00ft		
K.B. Elevation:	2155.00ft		
Logged Interval:	3000.00ft	To:	3760.00ft
Total Depth:	3760.00ft		
Formation:	ARBUCKLE		
Drilling Fluid Type:	CHEMICAL/FRESH WATER GEL		

SURFACE CO-ORDINATES

Well Type:	Vertical		
Longitude:	-99.2978412	Latitude:	39.0086772
N/S Co-ord:	2615' FSL		
E/W Co-ord:	170' 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:	VAL ENERGY, INC.		
Rig #:	6		
Rig Type:	MUD ROTARY		
Spud Date:	2/9/2014	Time:	6:00 AM
TD Date:	2/13/2014	Time:	9:45 PM
Rig Release:	2/15/2014	Time:	9:00 AM

ELEVATIONS

K.B. Elevation:	2155.00ft	Ground Elevation:	2145.00ft
K.B. to Ground:	10.00ft		

NOTES

RECOMMENDATION TO RUN PRODUCTION CASING BASED ON FAVORABLE STRUCTURE AND POSITIVE RESULTS OF DRILL STEM TEST # 1

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

DRILL STEM TESTING BY TRILOBITE TESTING INC: ONE (1) STRADDLE TEST

FORMATION TOPS SUMMARY AND CHRONOLOGY OF DAILY ACTIVITY

	STAAB-KARLIN et al # 2 NE NE NE SE SEC.15-12S-18W 2145'GL 2155'KB		**STAAB-KARLIN #1 SE SW SE NE SEC15-12S-18W**
FORMATION	SAMPLE TOPS	LOG TOPS	COMPARISON
Anhydrite	1420 +735	**1417 +738**	*+ 731*
B-Anhydrite	1451 +704	**1452 +703**	*+ 698*
Topeka	3123 -968	**3122 -967**	*- 966*
Heebner Shale	3355-1200	**3353-1198**	*-1198*
Toronto	3378-1223	**3374-1219**	*-1219*
LKC	3399-1244	**3399-1244**	*-1243*
BKC	3645-1490	**3645-1490**	*-1486*
Simpson Shale	3660-1505	**3662-1507**	
Arbuckle	3670-1515	**3642-1626**	*-1644*
RTD	3760-1605	**3759-1604**	*-1592*

SUMMARY OF DAILY ACTIVITY

2-09-14	RU, Spud 6:00 AM, set 8 5/8" surface casing to 214.85' w/ 150 sxs Common 2%Gel 3%CC, plug down 1:15PM, slope ¼ degree
2-10-14	630'
2-11-14	2048', drilling
2-12-14	2932', drilling, displaced 2791'
2-13-14	3488', RTD 3760' @9:45PM, short trip 33 stands, CCH, TOWB, slope ¾ degree
2-14-14	3760', logs, straddle DST # 1 Arbuckle 3662' to 3694', TIWB
2-15-14	3760', LDDP, run production casing, RD

DST # 1 STRADDLE TEST 3662' TO 3694' ARBUCKLE BOTTOM PACKER HELD

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Sandlin Oil Corp

621 17th St 2055
Denver Co 80293

ATTN: Herb Dienes

15-12S-18W Ellis

Staab-Karlin #2

Job Ticket: 56185 **DST#: 1**

Test Start: 2014.02.14 @ 12:18:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:12:30
Time Test Ended: 20:11:00

Test Type: Conventional Straddle (Initial)
Tester: Tim Phillips
Unit No: 59

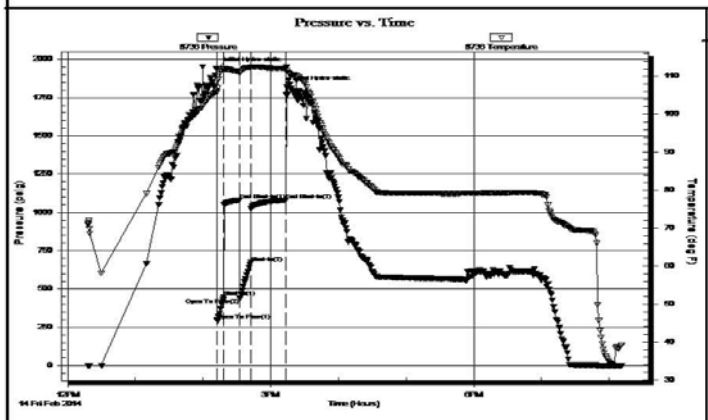
Interval: 3662.00 ft (KB) To 3694.00 ft (KB) (TVD)
Total Depth: 3760.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2155.00 ft (KB)
2150.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 8736
Press@RunDepth: 670.95 psig @ ft (KB)
Start Date: 2014.02.14 End Date: 2014.02.14
Start Time: 12:18:05 End Time: 20:10:59

Capacity: 8000.00 psig
Last Calib.: 2014.02.14
Time On Btm: 2014.02.14 @ 14:12:00
Time Off Btm: 2014.02.14 @ 15:14:00

TEST COMMENT: IFP-5- BOB in 30 sec
ISI-15-Blow back built to 2.5 in
FF-10-BOB in 15 sec
FSI-30-Blow back built to 4.5 in



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1941.71	106.25	Initial Hydro-static
1	296.82	105.72	Open To Flow (1)
6	446.36	111.83	Shut-In(1)
21	1079.70	111.18	End Shut-In(1)
21	439.58	110.90	Open To Flow (2)
31	670.95	112.38	Shut-In(2)
62	1080.92	112.00	End Shut-In(2)
62	1817.72	112.32	Final Hydro-static

Recovery

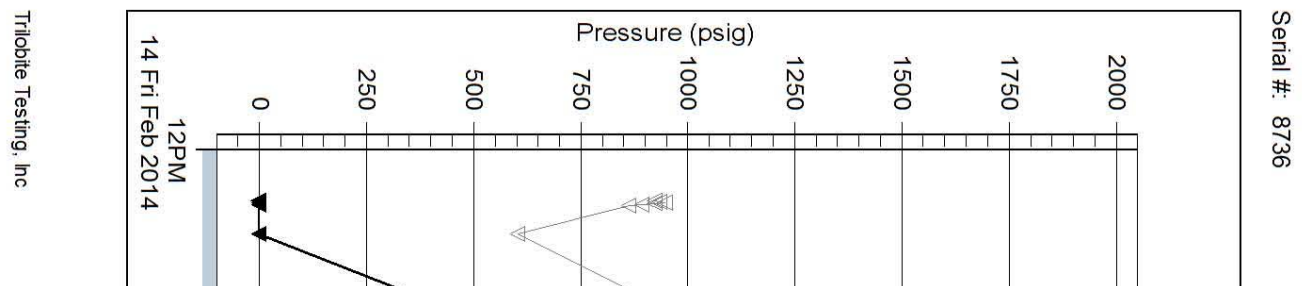
Length (ft)	Description	Volume (bbl)
2152.00	GO 85%O, 15% G	30.19
0.00	GIP 190 ft	0.00

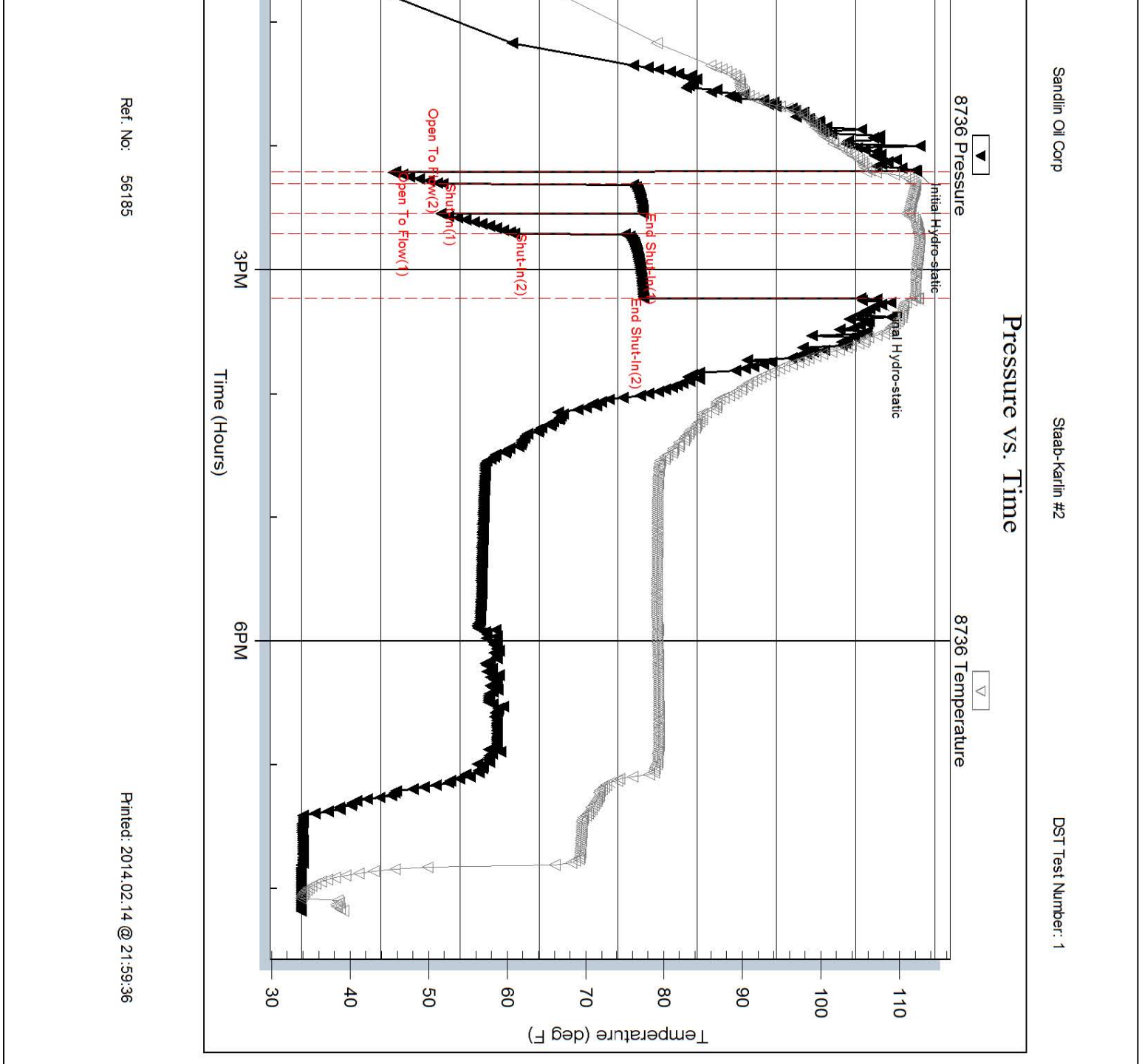
Gas Rates

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

Trilobite Testing, Inc Ref. No: 56185 Printed: 2014.02.14 @ 21:59:34

DST # 1 STRADDLE TEST EXPANDED CHART





ROCK TYPES

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

ACCESSORIES

MINERAL

- ▲ Chert, dark
- P Pyrite
- △ 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
0 ROP (min/ft) 5 0 ROP (min/ft) 5	3000 3010 3020 3030 3040 3050 3060 3070				BEGIN 1' DRILL TIME FROM 3000' TO RTD BEGIN 10' WET AND DRY SAMPLES FROM 3000' TO RTD **ANHYDRITE TOP 1417+738** **ANHYDRITE BASE 1452+703** Shale, lt gray, soft sticky clumps Lime, med gray, granular, shaley Lime, med brn, fnxln Shale, lt gray, soft forming sticky clumps Lime, lt brn, fnxln Lime, lt brn, fnxln, thin beds of fusulinids Shale, dove gray, soft sticky clumps Lime, lt brn, fnxln	**8 5/8" SURFACE CASING SET TO 214.84' W/150 SXS COMMON 2%GEL 3%CC** **SLOPE 1/4 DEGREE @ 215'**

Shale, lt-med gray soft blocky to soft sticky clumps

Lime, lt brn, fnxln, slightly fossiliferous-fusulinids

Shale, lt-med gray, soft forming sticky clumps

TOPEKA ELog 3122-967

Lime, lt-med brn, fnxln-granular in part, speckled with gray fossil remnants

Lime, lt-med brn-med gray, fnxln

Lime, lt gray-offwhite, fnxln-granular in part, 1 chip with trace of fine oil specks, no odor, NFO

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

Shale, lt-med gray, soft blocky

Lime, lt brn-lt grayish brn, fnxln

Lime, lt-med brn, fnxln, slightly fossiliferous-fusulinids

Lime, lt brn-lt gray, fn-vfxln-slighly micro xln in part

Lime, lt brn, mostly fnxln-slightly granular in part

Lime, lt-med brn, increasing granular with slight chalk matrix

Lime, lt-med brn, increasing bedded chalk

Lime, tan-crm, fnxln, bedded chalk

Lime, tan-lt brn, fnxln with bedded chalk
Chert, gray, fresh, sharp

Lime, lt-med brn, fnxln, increasing chalky matrix and bedded chalk

Shale, lime green, soft forming sticky clumps

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

Shale, black carbonaceous, blocky

Lime, med brn, fnxln, slightly fossiliferous

Lime, crm-lt brn-lt gray, fnxln, some soft on crush, slight bedded chalk

Lime, crm-lt grayish brn, fn-vfxln, slight bedded chalk

Lime, tan-lt brn, granular with bedded chalk and scattered sticky clumps of chalk

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

Lime, tan-lt brn, fnxln, bedded chalk

Lime, tan-lt brn, fnxln, bedded chalk

HEEBNER SHALE SPL 3355-1200 ELog 3353-1198

Shale, black carbonaceous, fissile, blocky
Lime, lt-med brn, fn-vfxln

Shale, lime green, soft forming sticky clumps

TORONTO ELog 3374-1219

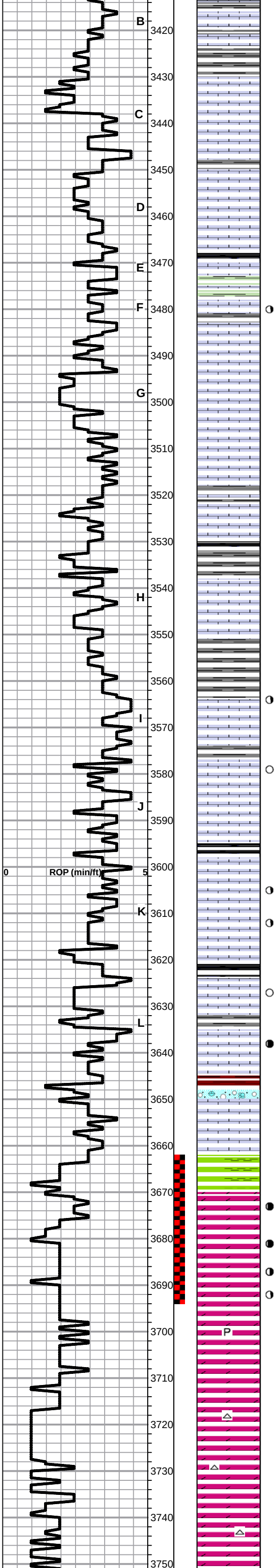
Lime, tan-crm, fnxln, bedded chalk, NS

Lime, lt brn, fn-vfxln

LKC ELog 3399-1244

Lime, tan-lt brn, fnxln-granular, chalky matrix with bedded chalk in part, NS

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



Lime, lt-med brn, fnxln

Shale, lt gray forming soft mud clumps

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

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

Lime, tan, fnxln, chalky, NS

Lime, tan, fnxln, bedded chalk

Shale, black carbonaceous

Lime, tan-lt brn, mostly fnxln with fine pinpoint porosity with trace of lt stain, NFO, No Odor

Lime, crm-tan, fnxln, bedded chalk, NS

Lime, tan, fnxln, bedded chalk, NS

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

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

Lime, lt-med brn, fnxln

Shale, med gray, firm blocky with black carbonaceous in part

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

Lime, tan, fnxln, lot of bedded chalk

Shale, lt gray, soft blocky with sticky clumps in part

Lime, tan-lt brn, fnxln, bedded chalk, one chip with fine inter xln scattered fine pinpoint porosity, few free floating oil globules in tray, no odor

Lime, tan-lt grayish brn, fn-vfxln, hard on crush, bedded chalk in part, one piece oomoldic with trace of stain, NFO, No Odor.

Lime, crm-tan-slightly off white, fnxln with scattered oomoldic. appears poorly developed

Shale, gray-black carbonaceous

Lime, tan-lt brn, mostly fnxln, few specks of free oil, very lt odor, fine interxln with scattered pinpoint porosity. Not well developed.

Lime, tan-lt brn, fn-micro xln

Lime, tan with with chalk, NFO, No Odor, good wet cut on crush in chalk clumps

Lime,crm-tan, fnxln, more inter xln and vuggy porosity with scattered staining, MSFO with lt odor

BKC ELog 3645-1490

Shale, red soft mud
Lime, crm, fnxln with specks of glauconite and reworked

SIMPSON SHALE ELog 3662-1507

Shale, blue green, soft sticky to firm dark, blue green, waxy

ARBUCKLE ELog 3670-1515

Dolomite, tan-med brn, mostly fnxln, spotty staining, lt odor

Dolomite, tan-lt brn, fnxln, lt odor and scattered staining in porous chips, scattered vugs and inter xln porosity

Dolomite, tan-lt brn, fnxln, med xln sucrosic in part, lt odor

Dolomite, tan-lt brn, pyritic in part, fnxln

Dolomite, tan-lt brn, fn-vfxln, hard on crush

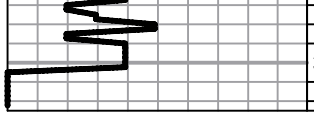
Dolomite, tan-lt brn, fnxln
Chert, bone white, fresh, sharp

Dolomite, tan-lt brn, fnxln-granular in part
Chert, milky white, fresh, sharp

Dolomite, tan-lt brn, fn-vfxln, hard on crush

Dolomite tan-lt brn, fn-vfxln

DST # 1 STRADDLE TEST OF ARBUCKLE. SEE HEADER FOR TEST SUMMARY



RTD 3760-1605 LTD 3759-1504

SLOPE 3/4 DEGREE @3760'