



Region: Lane Co., KS

Drilling Completed: February 20, 2014

Well Name: Geneva #1-28

Scale 1:240 (5"=100") Imperial

K.B. Elevation (ft): 2707'

Licence Number: API: 15-101-22492 Spud Date: February 11, 2014 Y= 660184, X= 1449739

Location: S2 SE NE NW SEC. 28-18S-28W

Surface Coordinates: 1103' FNL & 2310' FWL (PLAT) **Bottom Hole** Coordinates: Ground Elevation (ft): 2700'

Logged Interval (ft): 3800' To: RTD Total Depth (ft): 4585' Formation: Mississippi Type of Drilling Fluid: Chemical Premix (Displaced) Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR:

Company: Larson Engineering Inc. Address: 562 West State Road 4

Olmitz, KS 67564-8561

DRILLING CONTRACTOR:

DP 4.5" XH (16.6#); DC 6.25" x 2.25" x 553' (9 of 19 joints are hardbanded), Kelly 40.30', Tool Joint 5.5"; Bit: JZ-HA20-Q, 7-7/8", standard jets 15-15-15; downhole rpm 80, WOB 35k; Kelly Bushing 7' above ground level; LeWayne "Lew" Tresner (tool pusher).

H. D. Drilling, LLC, Rig #3 (Co. Tools)

"Corndog" Landa III.

Set 8-5/8" casing at 274' Set 5-1/2" production casing

CIRCULATION SYSTEM:

CASING:

OPEN HOLE LOGS: DN, DI (SP) (Run-1); ML (Run-2); No Sonic; 5" detail LTD-3600; 2" DI to suface casing; LogTech-Pioneer

DRILL STEM TEST #2: LKC: "K-zone": Interval: 4199-4220 (21'): Blow: weak incr to 7" IFP, surf RB ISIP, BOB 9 min FFP, 1" RB

Wireline, Hays, KS, D. Kerr, Log total depth (4580') was five feet short to to rotary total depth (4585').

Continental EMSCO D-300, duplex, 6×14 , 62 spm adjusted to 56 spm 3889 and below , Chemical, premix, displaced 3389 to 3407'; earth pits, Morgan Mud, Inc., Cade Lines.

DRILL STEM TEST #1: LKC "H-zone": Interval: 4109-4135 (26'): Blow: weak incr to 2" IFP, no RB, weak incr to 6" FFP, no RB; Times: 5-15-15-30; Recovery: 120' MW (70%W, 30%M, Rw 0.175 at 41 F, Chlorides 74k); Pressures: HP: 2058-2034, SIP: 1128-1129; FP: 17-35, 39-88; BHT: 111 F; Trilobite Testing, Inc., Scott City, KS, Cornelio

GOCMW (10%G, 10%C), 6 211	0%W, 20 8, SIP: 5	آ%	М),	0' GIP, 196' TF; Grindout: 10' CGO (10' 146' MW (5%G, 45%W, 50%M, Rw 0.175 92, FP 33-83, 93-148; BHT: 126 F; Trild	5 at	49	F, c	hlo	ride	es 6	0k));	ty, l	KS,				
FSIP: Times: 5-15-15- HGOCM (20%G, 30%C	-30;), 50	Recove 0%M), no	ry W	: 8 ate	DRILL STEM TEST #3: Blow: BOB 3 min IFP, RB 8" ISIP, BC 19' GIP & 428' TF: Grindouts: 370' GO r; Pressures: HP: 2153-2128, SIP: 816 y, KS, Cornelio "Corndog" Landa III.	(55	%G	, 45	% 0), 38	gra	av),	, 58	3'					
Times: 5-15-15-30; R	eco	very: 5'	m	ud	DRILL STEM TEST #4: 389 (75'): Blow: weak incr 1/2" IFP, no w/oil spots (100%M); Pressures: HP: 2 sting, Inc., Scott City, KS, Chuck Smith	2238									≀B ;				
ROP ROP (min/ft) Five Ten	DST	Lithology	Geological Descriptions Geological Descriptions							Total Gas TG (units) Fifty One Hot-Wire 100									
START DIGITAL ROP 2:23 PM 02/15/2014				3800		CAL	L GEO	3410	' @ 10:			4-2014	4		100				
						-B/A -DRY SUP	NHY SAMF ERVIS	PLES V	WERE Y WELI	2 (+61 REQU LSITE	JESTE	TO INS			VEY,				
						-PUN	IP RAT	E 62.2	28 SPM	M AT 3	832		SUB-SI	ZED L	IME -				
				3850					ALE; T 8.7,		4, CH	L 2300	D, LCN	M 2#					
					LS: It-md grayish brown; vf-xtal; rough; pos fair vug porosity; N.S.														
					LS: as above; HEEBNER 3893 (-1186)			_	28 SPN 51 SPN		Н								
				3900	Shale: black; carbonaceous; few small chips 3910; Shale: green, gray; LS: off white to lt grayish brown; mic-vf xtal; chalky in	RAT	E DEC	REAS	OVED SE; INC MES AB	CR BU	JT STIL								
					part; sli granular in part; dull mineral fluor is distinctive; poor apparent porosity; N.S. 3930, incr 3940.														
					LANSING 3931 (-1224) LS: It brown; vf-xtal; dense, platey; includes white, opaq chert; chalky in part; no visible porosity; N.S., small chips;														
				3950	LS: It brown; vf-xtal; dense; seemingly reduced chert; no visible porosity; N.S. Shale: gray, green;	3950	SAMF	PLE W	/AS MIS	SSED.									
B-zone CFS 3981 30/60 O					LS: It brown; vf-xtal; chalky; trc chert; trc poor vug porosity; N.S.	DEF						TO 70	AFTE						
				0	LS: It brown; vf-xtal; dense to chalky; trc opaq chert; poor apparent porosity; N.S.	3981	. BY 4	1010 C	RY RPM DBSER DIA TO	RVE MI	NIMAL	L (10%							
0 ROP 15				4000	LS: as above; LS: It brown; vf-xtal; dense, platey; chalky in part; no visible porosity; N.S.	0				Hot-	Vire				100				
\$					LS: It brown; vf-xtal; dense as above; trc rough textured, poor vug porosity; N.S.														
G-zone				4050	LS: It brown; vf-xtal; dense to chalky in part; no visible porosity; N.S. LS: It-md grayish brown; vf-xtal; med-crs oomoldic														
		0 1 1		4(porosity; N.S.; broken up; few chips 4070. LS: It grayish brown; vf-xtal; dense to chalky in part; no visible porosity; N.S.														
					LS: as above;														
				4100	LS: It grayish brown; vf-xtal; dense, platey; minor chalk; no visible porosity; N.S.	SHC	ORT TR	RIP 15	STANE	DS AF	TER C	FS W.	AS —						
CFS 30 MIN. O)\$1 #1:				MUNCIE CREEK 4110 (-1403) No representation. LS: md grayish-brown; vf-xtal; sli shaley in part; mostly dense; no visible porosity; N.S.	-UNE -NO /	VENT	FUL; RENT I	CIRC 6	60 MIN	BEFO	ORE DI	RILL A	TER); —				
CFS 4135 45/60			•		LS: It grayish-brown; vf-f xtal; trace fine vugular & int xtal porosity; drab dry stain; spotted bright yel-white fluor; no visible oil; 4135-45 min.	BL(OW 6' 8-112	" FFF 29; F	ONE: P; 5-1 P: 17	15-15 7-35, 3	-30; 39-88	120'	MW;						
				4150	LS: off-white, It-md grayish brown; mic-vf xtal; dense to chalky; poor apparent porosity; N.S.														
					LS: It-md grayish brown; vf-xtal; mostly dense; no visible porosity; N.S. LS: It-md grayish brown; vf-xtal; dense to sli chalky; granular in part; tight int gran porosity at best; N.S.														
					LS: grayish brown; vf-xtal; chalky in part; poor apparent porosity; N.S.														
0 ROP 15	DSTI #2:			4200	STARK SH 4205 (-1498) Shale: black; carbon; few chips 4220 stop.	-AHE	AD 41:	95'.— K-Z	ONE:	Hot-	Wire 9-422	20; E	BOB 9	MIM 6	100 N				
← K-zone CFS 4220 30/60 ○			•		LS: md-dk brown; vf-xtal; dense; sub-vitreous; no visible porosity; N.S. LS: It brown; vf-xtal; spotted, bright fluor chalk; trc f-vug w/speckled stain; crush v-sli S.O.; definite odor; trc sptd to sat dry stain & spotted bright fluor; 4220-30 min.	-50	GCM\	W; S	30; 7 SIP: 59 FIL 7.6	99-59)2; FI	P: 33	-83, 9		8; –				
	DSTI #3:				LS: white to It gray; mic-vf xtal; much soft chalk; tro white, opaq chert; poor apparent porosity; N.S. HUSHPUCKNEY 4241 (-1534)	IFP -819	, BOE ' GIP,	3 1/2 , 428	CREI MIN I GO 8	FFP; & HO	8" RE	B; 5-	15- 1	5-30	; =				
CFS 4248 30/60 © CFS 4255 © 30/60			0 0 0	4250	Shale: black; trace at best; poor rep; LS: It grayish brown; vf-xtal; trc fair vug por w/v-lt stain & v-weak fluor; poor samples 4248; LS: It brown to gray; vf-xtal; trc fine vug w/druse, dk brn stain, weak fluor; no visible oil; improved samples; 4255. trc re-xtal w/sli stain, 4260.	-REC	UEST	PUMF	PRATE	E 56 SI					ov —				
CFS 4260 © 30/60					Shale: green; 4280 LS: It brown; vf-xtal; dense to chalky in part; trc chert; almost no grains; no visible porosity; N.S.				38 SPM FIL 7.2			LCN	A 1#						
					LS: It brown; vf-xtal; dense to chalky; no visible porosity; N.S.		04, W	9.1,		., оп	_ 3300	, LOW	11#						
				4300	Shale: green, gray; silty in part; trc coarse pyrite; LS: It brown, It grayish-brn; vf-xtal; sli chalky; mostly dense; smooth; platey; no visible porosity; N.S.														
CFS 4320 30/60)\$1 #4				Shale: gray, green, maroon; MARMATON 4322 (-1615) LS: off white, It-md brown; mic-vf xtal; chalky in part;				TY SEE										
					no visible porosity; N.S. LS: off white, It gray, md browns; mic-vf xtal; dense to sli chalky, mixed w/gray-green sh; N.S.														
				4350	Shale: gray, green, much brownish-maroon; minor lime; LS: It brown; mic-vf xtal; trace fine vugular w/speckled														
CFS 4315 . O			•		stain; no visible oil; only dull fluor; trc dry stain; 4365-60 min;	DS'		5-15-	AMO 15-30										
CFS 4389 Q 30/60					LS: white to It brown; mic-vf xtal; trc orange chert; v-poor porosity; N.S.	-	Ė	_	TL 7.2,	CHL	3800,	LCM 1	#.						
0 ROP 15			•	4400	LS: v-lt brown; vf-xtal; mostly dense; rough, vf-vug porosity w/speckled dry stain & fluor; no visible oil; 4510.	0				Hot-	Wire				100				
					LS: v-lt brown; vf-xtal; dense; trc spotted chalk fluor; no visible porosity; N.S. Shale: dk gray; LS: indistinct; Shale: green, gray;														
					LS: white to It gray; mic-vf xtal; dense; sli chalky; no visible porosity; N.S. Shale: black; carbon; poorly represented?														
				4450	FT SCOTT 4452 (-1745) LS: md-dk grayish brown; vf-xtal; dense; sli oolitic; no vis porosity; N.S., poor rep;		IPLES UGH		A 4450	TO 45	40 HA	VE INC	CREAS	SED .					
					LS: It -md grayish brown; vf-xtal; dense; no visible porosity; N.S., poor rep. CHEROKEE SH 4477 (-1770) LS: It gray; vf-xtal; dense to chalky; no visible														
					grains; v-poor porosity; N.S. LS: mostly lt, some md brown; vf-xtal; dense; sli chalky; no visible porosity; N.S.														

LS: It gray; mic-vf xtal; dense to chalky; no visible

Sand/SiltSt: trc fine quartz w/black flecks of tar; trc

DOL/LS: It to med grayish brown; f xtal; good vugular & int xtal porosity; N.S., mixed w/various lime;

VIS 65, WT 9.3, FIL 8.8, CHL 2800, LCM 1#

MISSISSIPPI SAMPLES VERY POOR, MUCH DESTROYED, 4550 AND BELOW ARE SUB-SIZED.

Hot-Wire

greenish siltst w/asphaltic stain; 4540. MISSISSIPPI 4535 (-1828)

ROTARY TOTAL DEPTH 4585 (--1878)

LS: as above;

porosity; N.S.

DOL/LS as above;

4600

CFS 4585 30/60

1:09 pm 02/20/2014

OIL WELL