



# WELLSITE GEOLOGIST'S REPORT

RENE HUSTEAD  
CONSULTANT GEOLOGIST



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

Well Name: SCHOEPF #1-15  
 Location: NE NW SE NW SEC. 15-18S-30W  
 Licence Number: API: 15-101-22564  
 Spud Date: June 4, 2015  
 Surface Coordinates: 1648' FNL & 1714' FWL

Region: Lane Co., KS  
 Drilling Completed: June 15, 2015 Oil

Bottom Hole Coordinates: VERTICAL  
 Ground Elevation (ft): 2870' K.B. Elevation (ft): 2879'  
 Logged Interval (ft): 3800' To: 4600' Total Depth (ft): 4600'  
 Formation: Mississippi  
 Type of Drilling Fluid: Chemical Premix (Displaced)

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### OPERATOR:

Company: Larson Engineering Inc.  
 Address: 562 West State Road 4  
 Olmitz, KS 67564-8561

### DRILLING CONTRACTOR:

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

DP 4.5" XH (16.6#); DC 6-1/4" x 2-3/8" x 556', Kelly 40.30', Tool Joint 5.5" ; Bit: JZ-HA20Q, 7-7/8", standard jets 15-15-15; rpm 80, WOB 35k; Kelly Bushing 9' above ground level; LeWayne "Lew" Tresner (tool pusher).

### CASING:

Set 8-5/8" casing at 255.51'  
 Set 5-1/2" production casing at 4600'

### CIRCULATION SYSTEM:

Continental EMSCO D-300, duplex, 6 x 14, 60-62 spm, Chemical, premix, earth pits, Mud Co/ Service Mud Inc, Jason Whiting

### OPEN HOLE LOGS:

DN, DI (SP) (Run-1); ML (Run-2); No Sonic; 5" detail LTD-3600; 2" DI to surface casing; LogTech-Pioneer Wireline, Hays, KS, Jerrod Long, Log total depth (4600') was equal to rotary total depth (4600').

ROP (min/ft)	DST	Lithology	Geological Descriptions	Total Gas (units)
0			LS-CRM/GRY-F-XLN-FOSS-TR GLAU-HD-DNS W/ CHRT-OFF WHT-OPQ-FRSH	0
0			SH-BLK-CARB	0
0			LS-CRM-F-GRN-BRIT-V-SM OOL-PR TO FR SM OOL-MOLDIC POR-NO VIS FLOR-NO VIS CUT	0
0			LS-TN-F-GRN-BRIT-SHLY IP-TR PR INTER-GRN POR-NO VIS FLOR-NO VIS CUT	0
0			LS-CRM-V-F-GRN-BRIT-SLI CHLKY-SM OOL AND FOSS FRAGS-V-DULL YEL/WHT MIN FLOR W/ CHRT-OFF WHT-FRSH-OPQ	0
0			SH-GRY-GRN-SPLNTY	0
0			SH-GRY-GRN-SPLNTY	0
0			LS-CRM-F-GRN-CHLKY-TR FOSS-TR SH LT GRY IMBD-SCATT DULL WHT FLOR	0
0			LS-CRM-F-GRN-BRIT-SM OOL-PR TO FR OOL-MOLDIC POR-NO VIS FLOR	0
0			LS A.A.	0
0			LS-CRM-F-GRN-BRIT- SH DK GRY DISS THRU-FOSS FRAGS-TR DULL YEL FLOR-NO VIS CUT	0
0			<b>HEEBNER 3899' (-1020')</b>	0
0			SH-BLK-CARB	0
0			LS-LT BRN-F-GRN-HD-FOSS FRAGS-DNS-NO VIS FLOR	0
0			LS-OFF WHT-V-F-XLN-BRIT-SLI CHLKY IP-SCATT WHT FLOR-NO VIS CUT-N/S	0
0			LS-OFF WHT-F-XLN-BRIT-SLI CHLKY IP-BRITE WHT FLOR-NO VIS CUT-N/S	0
0			<b>LANSING/KC 3937' (-1058')</b>	0
0			SH-GRY/GRN-SPLNTY-SILTY	0
0			LS-CRM/LT GRY-V-F-XLN-FOSS-TR GLAU-HD-DNS W/ CHRT-OFF WHT-OPQ-FRSH	0
0			LS-OFF WHT-F-XLN-BRIT-DNS-TR SM PYR XLS IMBD-DULL YEL/WHT MIN FLOR	0
0			SH-GRY-SPLNTY AND	0
0			LS-CRM-F-XLN-OOL-HD-DNS-BRITE WHT FLOR-NO VIS CUT W/ CHRT-GRY-FOSS-OPQ-FRSH	0
0			LS-CRM/GRY-F-XLN-BRIT-CHLKY IP-TR FOSS-PR PP AND ISO VUG POR-SCATT YEL FLOR-NO VIS CUT-N/S	0
0			LS-TN-F-XLN-BRIT-FR INTER-GRN/SM VUG POR-TR DK BRN STN-NO VIS FLOR-NO VIS CUT-NO ODOR W/ CHRT-GRY-TRANS-FRSH SH-RED-SILTY	0
0			LS-OFF WHT-F-XLN-MSTLY DNS W/ TR SM VUG POR-BRITE WHT FLOR-NO VIS CUT-N/S	0
0			SH-GRY-PLATY-SILTY W/ PYR XLS	0
0			LS-OFF WHT-F-XLN-OOL-PR PP POR-NO VIS SHOW	0
0			LS-CRM-F-XLN-OOL-TR PP POR-SLI TR LT BRN STN-SPOTTED FLOR-GD FLSH CUT WHEN CRUSHED-GD ODOR	0
0			LS-CRM-F-XLN-OOL-FR INTER-XLN-AND SM VUG POR-LT BRN STN-SPOTTED YEL FLOR-FR STRM CUT-GD ODOR	0
0			SH-GRY/GRN-SFT-GUMMY W/	0
0			LS-TN-F-XLN-OOL-HD-DNS	0
0			POOR SAMPLES	0
0			LS-TN-F-XLN-BRIT-OOL-PR TO FR OOL-MOLDIC POR-NO SHOW	0
0			LS-TN-F-XLN-TR FOSS-HD-DNS W/ CHLK IN TRAY	0
0			LS A.A. W/ CHLK AND CHRT-GRY-OPQ-FRSH IN TRAY	0
0			LS-CRM-F-XLN-FOSS IP-HD-DNS W/ CHRT-OFF WHT-OPQ-FRSH SOME CHLK IN TRAY	0
0			SH-BLK-CARB	0
0			LS-GRY/TN MOTT-F-XLN-HD-DNS	0
0			<b>MUNCIE CREEK 4117' (-1238')</b>	0
0			SH-BLK-CARB	0
0			LS-GRY/TN-F-XLN-HD-DNS W/ CHRT-GRY-OPQ-FRSH	0
0			LS-CRM-F-XLN/GRN-BRIT-CHLKY-V-SM FOSS FRAGS IP-V LT BRN STN-BRITE YEL FLOR-GD FLSH CUT UPON CRUSHING-GD ODOR-CHRT-GRY-OPQ-FRSH IN TRAY	0
0			LS-CRM-F-XLN/GRN-BRIT-CHLKY IP-BRITE YEL FLOR-TR FLSH CUT WHEN CRUSHED-GD ODOR	0
0			LS-CRM-V-F-GRN-BRIT-SM FOSS FRAGS-PR INTER-XLN/GRN POR-BRITE YEL FLOR-FR FLSH CUT WHEN CRUSHED-GD ODOR-SSFO	0
0			LS-LT BRN-V-F-XLN-BRIT TO HD-TR FOSS-TR PR INTER-XLN POR-V-LT BRN STN-FR FLSH CUT WHEN CRUSHED-V-FNT ODOR	0
0			LS-LT BRN-V-F-XLN-HD-FOSS-SH-DK BRN IMBD IP-TR BRITE YEL FLOR-NO VIS SHOW	0
0			LS-TN-F-XLN-V-OOL-FOSS-PR INTER-PRT POR-LT BRN STN-GD FLSH CUT WHEN CRUSHED-GD ODOR-SSFO	0
0			LS-TN-GRY-F-XLN-FOSS-FR VUG POR-LT BRN STN-SPOTTED GLD FLOR-GD STRM CUT-GD ODOR	0
0			SH-BLK-BLKY-WAXEY	0
0			LS-CRM-M-XLN-LG OOL-GD INTER-PRT POR-LT BRN STN-SCATT YEL GLD STN-GD-STRM CUT-STRNG ODOR	0
0			LS-CRM-F-XLN-OOL-GD OOL-MOLDIC POR-TR LT BRN STN-SCATT YEL GLD FLOR-GRD STRM CUT-FNT ODOR	0
0			LS-TN-F-GRN/XLN-HD-DNS V-DULL YEL FLOR-NO VIS CUT W/ PYR XLS IN TRAY	0
0			<b>STARK SH 4214' (-1335')</b>	0
0			LS-DK BRN-F-XLN-W/ CRS XLN POR-TR FREE CRYSTALS-LT BRN STN-SPOTTED YEL GLD FLOR-GD CUT-GD ODOR	0
0			LS-CRM-F-XLN-W/ ABUNDNT CHLK IN TRAY-NO VIS FLOR-NO VIS CUT-FNT ODOR	0
0			LS-TN-F-XLN-W/CHLK IN TRAY-TR SPOTTED FLOR TO MSTLY NO FLOR-NO VIS CUT-V-FNT ODOR	0
0			LS-TN-F-XLN-TR PYR-HD-DNS	0
0			<b>HUSH SH 4253' (-1374')</b>	0
0			SH-BLK-CARB	0
0			LS-DK BRN-F-XLN-W/ GD CRS XLN VUG POR-BRN STN-SPOTTED YEL GLD FLOR-GD STRM CUT-GD ODOR	0
0			LS-CRM/GRY-F-XLN-TR V-SM XLN AND PP POR-BRN STN-PR DELAYED CUT-V-FNT ODOR	0
0			LS-CRM-F-XLN W/M-XLN SM VUG POR-BRN STN-GD STRM CUT-GD ODOR	0
0			LS-TN-F-XLN-TR PYR IMBD-TR ISO VUG POR-LT BRN STN-TR SPOTTED FLOR IP TO NO FLOR-PR FLSH CUT-FNT ODOR	0
0			-ABUNDNT FLOR-CHLK IN TRAY	0
0			<b>B/KC 4302' (-1423')</b>	0
0			<b>PLEASANTON 4310' (-1431')</b>	0
0			LS-TN-GRY MOTT-F-XLN-TR CRS XLN, SM VUG AND PP POR-LT BRN STN WHEN DRIED-NO VIS FLOR-GD STRM CUT-FNT ODOR	0
0			LS-TN-F-XLN-HD-DNS W/ 1 PC CRS XLN POR-LT BRN STN-SPOTTED FLOR-FLSH CUT-FNT ODOR	0
0			LS-TN-F-XLN-FOSS-HD-DNS IN TRAY 4 PC-SM EDGE XLS POR-LT BRN STN-SPOTTED FLOR-STRM CUT FNT ODOR	0
0			LS-DK BRN-F-XLN-HD-DNS SM PYR XLS IMBD	0
0			SH-BLK-CARB	0
0			<b>MARMATON 4358' (-1479')</b>	0
0			SH-BLU-PURPLE-GRY-BLKY-LMY	0
0			SH-GRY-BLKY	0
0			LS-CRM-F-XLN-FOSS-OOL-PR-INTER-XLN AND SM VUG POR-NO VIS FLOR-NO VIS CUT-NO ODOR	0
0			LS-TN-F-XLN-CHALKY-HD-DNS W/ NO VIS POR-BRITE YEL FLOR-GD STRM CUT-W/ TR CHRT-RED-OPQ-FRSH	0
0			SH-LT BLU-BLKY-LMY	0
0			LS-OFF WHT-F-XLN-OOL-CHLKY IP-HD-DNS W/ CHRT-RED-OPQ IMBD IP	0
0			LS-TN-GRY-F-XLN-FOSS-SH-LT BRN IMBD-TR YEL FLOR-NO VIS CUT-NO ODOR	0
0			LS-OFF WHT-F-XLN-OOL-NO VIS FLOR-NO VIS SHOW	0
0			<b>PAWNEE 4420' (-1541')</b>	0
0			LS-CRM-F-XLN-FR EDGE VUG AND PP POR-BRITE YEL FLOR-GD STRM CUT-WITH CHRT-RED-OPQ-FRSH IN TRAY	0
0			LS-OFF WHT-F-XLN-FOSS-CHLKY-TR ISO VUG POR-BRITE WHT FLOR-LT BRN STN-GD FLSH CUT-TR CHRT-BRN-TRANS-FOSS-FRSH	0
0			LS-OFF WHT-F-XLN-CHLKY IP-SM PYR XLS IMBD IP-TR INTER-XLN-PP POR-DULL YEL FLOR-TR LT BRN STN-GD STRM CUT	0
0			SH-BLK-CARB	0
0			<b>MYRICK STATION 4452' (-1573')</b>	0
0			LS-DK BRN-F-XLN-HD-DNS	0
0			LS-OFF WHT-F-XLN-CHLKY-TR DK BLK SH IMBD IP-DULL WHT MIN FLOR-NO VIS SHOW	0
0			LS-BLK-CARB W/ PYR XLS IMBD	0
0			<b>FORT SCOTT 4470' (-1591')</b>	0
0			LS-TN-V-F-XLN-HD-DNS	0
0			LS-TN-F-XLN-V-OOL-TR INTER-PRT POR-DK BLK STN-NO VIS FLOR-GD STRM CUT-GD ODOR W/ CHRT-GRY-OPQ-FRSH	0
0			LS-GRY-F-XLN-CHLKY IP-PR-PP POR-LT BRN STN-NO VIS FLOR-PR FLSH CUT-FNT ODOR	0
0			LS-TN-F-XLN-W/ PP AND SM VUG POR-LT BRN STN-SPOTTED YEL GLD FLOR-PR-FLSH CUT-FNT ODOR	0
0			LS-TN-F-XLN-HD-TR FOSS FRAGS-SM PYR XLS IMBD IP-DNS -W/ CHRT-OFF WHT-TRANS-OOL-FRSH	0
0			LS-TN-GRY-F-XLN-HD-DNS	0
0			LS-OFF WHT-F-XLN-HD-DNS	0
0			LS-OFF WHT-F-XLN-V-OOL-HD-DNS W/ CHRT-OFF WHT-OPQ-FRSH	0
0			LS-OFF WHT-F-XLN-OOL-CHLKY-PP AND SM VUG POR-DK BRN STN-NO VIS FLOR-PR-FLSH CUT-FNT ODOR	0
0			B/JOHNSON 4546' (-1667)	0
0			SLTSS-LT GRN-V-F-GRN-SHLY	0
0			SLTSS-LT GRN-V-F-GRN-SHLY	0
0			SS-FRSTY WHT-V-F-GRN-MSTLY TT WITH SOME SM PCB'S-FRI-ENDED AND WELL SRTEED-TR PYR XL IMBD-PR-FR INTER-GRN POR-NO VIS SHOW	0
0			LS-TN-F-XLN-HD-DNS WITH SND GRNS IMBD-SCATTED BRITE YEL FLOR-NO VIS CUT	0
0			SH-LT BLU-SNDY IP-W/ CHRT-CLEAR-FRSH-TR LG SND GRNS IN TRAY-W/LS-TN-OOL-BRIT-TR PP POR BTD MSTLY DNS-TR BRITE WHT FLOR-NO VIS CUT	0
0			ROTARY TOTAL DEPTH 4600 (-17210)	0