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June 3, 2013

Solutions Consulting  
 Attention: Herb Deines  
 108 W. 35th  
 Hays, Kansas 67601

Werth Exploration Trust – Stevenson SOL #5, Section 27, T7S, R22W,  
 Graham County, Kansas

Herb and Andy:

Attached to this summary letter is my lithologic log for the above-captioned well. As recommended by myself and the open-hole logger, a straddle-packer DST was run across the LKC J and K zones, based on shows in well cuttings and the OH Microlog (for the K zone). This DST was unsuccessful, recovering 10' of mud. Therefore, the well was plugged. From the results of the two recent dry holes in this area, it appears that LKC reservoir development depends on porosity/permeability development as well as favorable structural position.

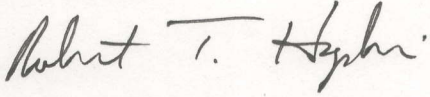
Shows were observed in the C, E, F, J, and K zones of the LKC. The best shows, from the J and K zones, consisted of slight to fair oil stain, fair to good odor, scattered bright fluorescence, and trace to slight free oil in vuggy porosity.

**LOG TOP COMPARISON:**

<u>Formation</u>	<u>Stevenson SOL 5 log tops</u>	<u>compared to B.D./Stevenson 1 (W)</u>		<u>compared to Stevenson 1 S</u>	
Anhydrite	1816(+406)	+33	(+373)	-3	(+409)
Topeka Ls.	3204(-982)	+3	(-985)	-0-	(-982)
Heebner Sh.	3412(-1190)	+1	(-1191)	-3	(-1187)
Top LKC	3456(-1234)	-4	(-1230)	-5	(-1229)
LKC "E"	3513(-1291)	+1	(-1292)	-0-	(-1291)
LKC "H"	3582(-1360)	-0-	(-1360)	-3	(-1357)
LKC "J"	3612(-1390)	+2	(-1392)	-1	(-1389)
Base KC	3649(-1427)	+3	(-1430)	-0-	(-1427)

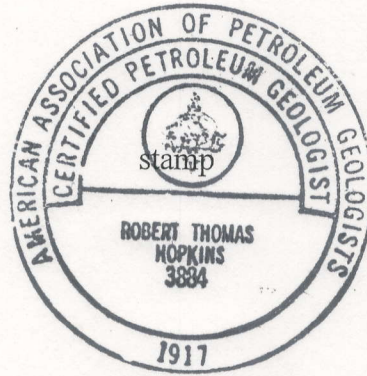
If you have any questions, please call me at 785-819-2460. Thank you for this opportunity to serve you!

Sincerely,



Robert T. Hopkins, L.G., C. P. G.

attachments



# LITHOLOGIC LOG

ROBERT HOPKINS-consulting geologist

Operator WERTH EXPLOR TRUST

Location NE NE NW 27-75-22W

Lease/Well Stevenson SOL 5

County Graham State KS

scale 1" = 20'

GL 2213 KB 2222 \* (measure from \*)

depth this sheet - from 3150 to 3330

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DRILLING TIME (min/ft)								DEPTH	tops shows	lith graph	DESCRIPTION (lithology, DSTs, mud properties)
1	2	3	4	5	6	7	8				
								50			
										bf fossiliferous cherty lst., sl. φ, n.s.	
										gray sh to sandy sh.	mud vis 60; wt. 8.7
								3200			<u>Topeka 3211'</u> (doesn't correlate to 014 log)
										gray fossiliferous lst., tite, n.s.	
										bf fossiliferous tite lst., n.s.	
										gray sh	
										bf fossiliferous granular lst., sl. foss., sl φ, n.s.	
								50			gray med-coarse lst., very foss.; tite, n.s.
										gray sh to limy sh.	
										bf cherty fossiliferous lst., fr. φ, n.s.	
										bf cherty lst., foss., sl. fr φ, n.s.	
								3300			wh cherty lst., tite, n.s.
										blk sh.	
										gray sh - sdy sh.	
											mud vis 61, wt. 8.8
								30			

# LITHOLOGIC LOG

ROBERT HOPKINS-consulting geologist

Operator Werth Explor. Trust

Location NE NE NW 27-7s-22W

Lease / Well Stevenson SOL 5

County Graham State Ks

scale 1" = 20'

GL KB 2222 (measure from \*)

depth this sheet - from 3330 to 3510

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DRILLING TIME (min/ft)								DEPTH	tops shows	lith graph	DESCRIPTION (lithology, DSTs, mud properties)
1	2	3	4	5	6	7	8				
								30			bf-gry fuxln lst, sl. φ, n.s.
											grn sdy sh.
								50			bf. fuxln cherty lst, tile, n.s.
											blk sh., carbonaceous grn sh.
											bf fm-medxln granular lst, sl. φ, n.s.
											bf-gry sandy lst, tile, n.s.
								3400			gray fuxln fossiliferous lst, sl. φ, n.s.
											<u>Heebner 3412'</u>
											blk carb sh. wh cherty lst, n.s. grn-gry sh-sdy sh. ↓
											<u>Toronto 3438'</u> MUD VIS 70; wt 8.5
								50			wh-bf, medxln oolitic lst, foss., sl. φ, n.s. w/ pyrite
											red-grn-gry sh. <u>LKC 3454'</u>
											bf fuxln lst, sl. φ, sl. foss., n.s., sl. cherty
											bf fuxln lst, sl. cherty, trc pinpoint φ, sl. str., v. sl. odor, no free oil, weak fluorescence dk gry sh.
											bf fuxln lst, sl. pinpoint φ, trc free oil, v. sl. str., sl. odor, weak fluorescence
								3500			-bf tile lst, n.s. gry-grn sh.
								10			bf fuxln tile lst, sl. fossiliferous, n.s.

"A"

"B"

"C"

"D"

CFS

# LITHOLOGIC LOG

ROBERT HOPKINS-consulting geologist

Operator Werth Explor. Trust

Location NE NE NW 27-7s-22W

Lease / Well Stevenson SOL 5

County Graham State KS

scale 1" = 20'

GL KB 2222 (measure from \*)

depth this sheet - from 3510 to 3690

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DRILLING TIME (min/ft)								DEPTH	tops shows	lith graph	DESCRIPTION (lithology, DSTs, mud properties)
1	2	3	4	5	6	7	8				
								10			gry sh. <span style="float:right">E-3514'</span>
				"E"							bf fuxln lst; sl. $\phi$ <sup>vug</sup> trc str, sl. odor, weak fluor. some for "F", oolitic
				"F"							gry sh. bf challey lst; sl. $\phi$ , n.s.
				"G"							blk-gry sh. mud vis 63; wt. 8.7
								50			bf fuxln oolitic lst, tite, n.s. sh. cherty
											bf fw-med xln tite cherty lst, n.s.
											blk sh. bf-gry fuxln fossiliferous lst, tite, n.s.
											dk gry sh - sdy sh.
				"H"							bf fuxln chalky lst, sl. $\phi$ , n.s.
											grn-gry fuxln granular lst, tite, n.s.
								3600			red-grn-gry sh.
				"I"							bf fw-med xln tite lst, n.s.
				"J"							bf fuxln lst, oolitic, some vuggy $\phi$ ; sl-free str, gd. odor, trc free oil, some br. fluor along fractures tite lst, n.s.
											- red-grn-gry sh.
				"K"							bf fuxln lst, some vuggy $\phi$ , trc-sl-free oil, firm str, sl-free odor, br. scattered fluorescence
				"L"							blk sh.
								50			bf fuxln tite lst, n.s.
											red-gry sh.
											red-gry siltstone, tite, n.s.
											gry sh. - red sh. <span style="float:right">BKC 3650'</span>
											wh-lt. gry fuxln lst, tite, n.s.
											red-grn-gry sh.
								90			mud vis 60; wt 9.3

# LITHOLOGIC LOG

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Location NE NE NW 27-7s-22w

Lease / Well Stevenson SOL 5

County Graham State KS

scale 1" = 20'

GL KB 2222 (measure from \*)

depth this sheet - from 3690 to 3700' RTD

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DRILLING TIME (min/ft)								DEPTH	tops shows	lith graph	DESCRIPTION (lithology, DSTs, mud properties)
1	2	3	4	5	6	7	8				
								90			red-grn-gry sh.
								3700			dk gry foss fux/lst., tite, n.s.
								RTD 3700'			at RTD saw NABORS OH log.
											Straddle Test J/K 3606-3637' DST #1
											32"-20" pull tool
											SIP: 550-597 #
											FP: 45-52 #; rec 10' mud
											Note: OH log was 7' shallower than drilled. This was accounted for with the DST-straddle anchor.