

Ground Elevation (ft): 2819' Logged Interval (ft): 3800' Formation: Mississippi Type of Drilling Fluid: Chemical Premix (Displaced)

#### **OPERATOR:**

Total Depth (ft): 4620'

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

Company: Larson Engineering Inc.

Address: 562 West State Road 4 Olmitz, KS 67564-8561

To: RTD

# **DRILLING CONTRACTOR:**

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

DP 4.5" XH (16.6#); DC 6.25" x 2.25" x 560', Kelly 40.30', Tool Joint 5.5"; Bit: JZ-HA20-Q, 7-7/8", jets 15-15; rpm 80, WOB 35k; Kelly Bushing 7' above ground level; LeWayne "Lew" Tresner (tool pusher).

# CASING:

Set 8-5/8" casing at 266' Set 5-1/2" production casing

#### **CIRCULATION SYSTEM:**

Continental EMSCO D-300, duplex, 6 x 14, 60 spm, 700 psi, Chemical, premix, displaced 3388 to 3402'; earth pits, Morgan Mud, Inc., Cade Lines.

## **OPEN HOLE LOGS:**

DN, DI (SP) (Run-1); ML (Run-2); No Sonic; 5" detail LTD-3600; 2" DI to suface casing; LogTech-Pioneer Wireline, Hays, KS, Jerrod Long, Log total depth (4621') was one foot long to rotary total depth (4620').

### DRILL STEM TEST #1:

LKC "E-zone": Interval: 4035-4051 (16'); Blow: weak incr 1" IFP, no RB, weak incr 2-1/2" FFP, no RB; Times: 5-15-30-60; Recovery: 92' GIP, 117' HOCM (5%G, 35%O, 60%M); Pressures: HP: 1992-2008, SIP: 939-998, FP: 18-28, 30-51; BHT: 118 F; Trilobite Testing, Inc., Scott City, KS, Mike Roberts.

# **DRILL STEM TEST #2:**

LKC "H-zone": Interval: 4130-4155 (25'): Blow: weak incr 1" IFP, no RB, weak incr BOB in 24 min FFP, no RB; Times: 5-15-30-60; Recovery: 62' GIP, 117' HOCM (20%G, 40%O, 40%M); Pressures: HP: 2052-2030, SIP: 1055-1088, FP: 20-31, 37-60; BHT: 117 F; Trilobite Testing, Inc., Scott City, KS, Mike Roberts.

#### **DRILL STEM TEST #3:**

LKC "J-zone": Interval: 4185-4206' (21'): Blow: weak incr 1/2" IFP; no RB, weak incr 4" FFP, no RB; Times: 5-15-30-60; Recovery: 239' SOCM (3%O, 97%M); Pressures: HP: 2103-2034; SIP: 323-320; FP: 19-34, 38-104; BHT: 123 F; Trilobite Testing, Inc., Scott City, KS, Mike Roberts.

### DRILL STEM TEST #4:

LKC "K-zone": Interval: 4220-4236 (16'): Blow: weak incr 4" IFP, no RB, weak incr BOB 12 min FFP, 1" RB FSIP; Times: 5-15-15-30; Recovery: 92' GIP, 211' TF: 94' Oil (100%O, Grav 28), 117' GOCM (2%G, 38%O, 60%M); Pressures: HP: 2086-2092, SIP: 266-250, FP: 28-65, 73-99; BHT: 122 F; Trilobite Testing, Inc., Scott City, KS, Mike Roberts.

# **DRILL STEM TEST #5**

LKC "L-zone": Interval: 4259-4275 (16'): No Blow: Times: 5-15-15-30; Recovery: 2' mud w/oil spots; Pressures: HP: 2125-2089, SIP: 38-57, FP: 16-16, 15-16; BHT: 117 F; Trilobite Testing, Inc., Scott City, KS, Mike Roberts.

# **DRILL STEM TEST #6**

Pawnee, Myrick Station, Ft. Scott: Interval: 4418-4500 (82'): Weak blow died at 2nd open; Times: 5-15-15-30: Recovery: 5' mud w/oil spots (100%M); Pressures: HP: 2227-2289, SIP: 171-201, FP: 55-55, 55-56; BHT: 118 F; Trilobite Testing, Inc., Scott City, KS, Mike Roberts.

## **DRILL STEM TEST #7**

Cherokee: Interval: 4497-4560 (63'): Blow: weak incr 2" IFP, no RB, weak incr BOB/20 min FFP, no RB; Times: 5-15-30-60; Recovery: 216' GIP, 177' TF: 30' Oil (100%O, 37 Grav), 147' GCOM (5%G, 15%O, 80%M); Pressures: HP: 2279-2237, SIP: 1206-1231, FP: 46-56, 57-87; BHT: 122 F; Trilobite Testing, Inc., Scott City, KS, Mike Roberts.

ROP ROP (min/ft)						т	G (un	its)	Т	otal	Gas	3	_		
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1011	DST	Lithology	Porosity and Show	Depth	Geological Descriptions										
	ö	Ē	Por	ŏ											
0         ROP       15						0				Hot-	Wire				100
START DIGITAL ROP				00		CAL	L GEC	3400	' 08/31	/2013	-10:30	a		_	
Ś				3700		-'C' #	1, SW	NE NV	ELL: F	ETRC . 16, 1	DLEUM 7S, 29	I INC., W, D8	воом А, —	HOW	/ER
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QUEEN HILL				3800	Shale: black; carbon; 3810. LS: grayish brown; vf-xtal; dense; N.S.										
0 ROP 15				36	Shale: gray, greenish-gray; silty to calc in part;	0				Hot-	Wire			_	100
<b>}</b>					LS: grayish brown, It brown; mic-vf xtal; chalky in part; dull fluor; trc fos chert; poor porosity; N.S.									_	
<b>``````</b>					pen , and inco, a construction per en per en j, inco									_	
5					LS: It brown; vf-xtal; sli granular; chalky to argill in part; poor porosity; N.S.									_	
					LS: It brown; mic-vf xtal; chalky in part; fos;										
5					includes opaq, fos chert; rough textured in part; N.S.										
					LS: It brown to grayish brown; vf-xtal; dense; poor									_	
				3850	porosity; N.S.									_	
				3	LS: as above, sli cherty;									_	
7														_	
5			ø		LS: It to md grayish brown; vf-xtal; fos, opaq chert; fos-frag; poor int frag porosity; N.S.										
					LS: It-md browns; vf-xtal; dense; poor porosity; N.S.										
														_	
					LS: It-md grayish brown; vf-xtal; fos-frag; shaley in part; poor int frag porosity; N.S.										
				3900											
<b></b>					LS: It-md grayish brown, mottled in part; shaley-chalky in part; fos; poor porosity; N.S.										
														_	
					Shale: black; calc in part; trc 3930	, <u></u> -									
HEEBNER					HEEBNER 3924 (-1098) Shale: black; carbon; many chips 3940.	-vis :	59, W	ı 9.0, l	rı∟ 8.0						
					LS: It-md grayish brown; vf-xtal; dense; N.S. Shale: greenish-gray; chalky, marly;										
					LS: It brown; vf-xtal; minor mic-xtal, soft chalk; rough textured in part; poor apparent porosity; only										
				3950	dull fluor; N.S.										
					Shale: various grays;										
					LANSING 3963 (-1137)										
CFS 3972/30/60			ø		LS: It brown; vf-xtal; mostly dense to chalky in part; some pin-point to vugular porosity; dull fluor; N.S.	-CF9	3972	SHOP		P 15 9	TAND	S. CIP	C 15 M	ם או	BILL
						AHE	AD.					-, oin		, D	
					LS: It brown to grayish brown; mic-vf xtal; dense; no visible porosity; N.S.										

			Shale: gray, green; pyritic;							<u> </u>		_	
		000	LS: It grayish brown; vf-xtal; trc dense oolite; no visible porosity; N.S.										100
0 ROP 15		4	LS: as above but includes tan to orange translucent,	0				Hot-	Wire				100
			sli mottled chert; N.S., 30 min.										
CFS 4008/30/60													
	$\equiv =$		Shale: green, gray;					<u> </u>		<u> </u>			
CON													
			LS: white to It brown; mic-vf xtal; dense, platey to	_	<u> </u>					<u> </u>			
			chalky; v-dull fluor; no visible porosity; N.S.										
			LS: as above;										
				DOT	Г <i>Щ</i> 4 .	F 70		400	F 405	4. 14	/EAK		M.
<b>#</b> 1:											; SIP:		
			Shale: dk-gray to black;		; FP:						, 317.	909	
			LS: It-md brown; vf-xtal; dense; N.S.	-			-						
E-zone	<u>'</u>		LS: It brown; vf-xtal; trc oolite; trc vug porosity	CIRC	C 60 M	IN BEI	FORE	DRILI		AD.—			
E-2011e			w/spotted stain & weak fluor; v-sli oil; no odor;							<u> </u>			
		4050	4051-30 & 60 min.	-vis s	52, W	9.1,	FIL 6.	8					
CFS 4051		6	LS: It brown; vf-xtal; dense, grain supported oolite;							<u> </u>			
30/60			N.S., 4060, 4065.										
		_								<u> </u>			
	<u>⊳</u> , – – – – – – – – – – – – – – – – – – –	ø	LS: It brown; vf-f xtal; dolomitic in part; much										
CFS 4065	ÉÉÉ	-	semi-opaq chert; tight int xtal porosity; N.S., 4065-30 min.										
30/60													
		-/	LS: It-md grayish brown; vf-xtal; med-crs ool to										
		0	oomoldic; poor- fair oom porosity; N.S., 4090.										
		-											
			LS: white to It brown; mic-vf xtal; v-chalky, soft; no										
			visible porosity; N.S.										
			LS: mostly It brown; vf-xtal; dense to chalky in part;										
		þ	poor porosity; N.S.	<u> </u>		$\square$		-	-		$\vdash$		
		4100											
		Ī		<u> </u>		$\vdash$		-	-	-	$\vdash$		
		1	LS: as above.										
<b>Š</b>													
			LS: It brown to gray; vf-xtal; dense, platey; no										
			visible porosity; N.S., 4130.										
			MUNCIE CREEK 4131 (-1305)										
			Shale: black; carbon; few chips 4140.		Г #2·	H-70	) NF·	413	i 0-415	5. B	OB 2	4 MI	м —
			LS: md-dk gravish brown, sli mottled; vf-xtal; opag								OCM		
			chert; dense; no visible porosity; N.S.						37-60			,	
	<u> </u>		Shale: green; trace; poorly expressed.					1					
H-zone			LS: It gray; vf-xtal; mostly dense; includes milky										
			chert; trace fine vug porosity in crumbly chalk,		57, W1	F 0 2		1					
		4150	w/speckled stain & sli show oil; no odor; fluor no help;	130	57, W	9.2,		4					
		4	trc dry stain; 4155 stop, 30 min; trace fine oom 60										
CFS 4155 30/60			min.							<u> </u>			
2			LS: grayish-brown; vf-xtal; dense to sli chalky; no										
			visible porosity; N.S.					<u> </u>		<u> </u>		_	
			Radio-active shale is indistinct.										
			Radio-active shale is indistinct. LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S.										
			LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S.										
			LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor										
			LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S.,										
			LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor								/EAK		
			LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop.	BLC	OW 4'	" FFF	<b>)</b> ; 5-	15-30	)-60;	239'	/EAK SOCI		
DS11 #3: CFS 4190 30/60 ©			LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part;	BLC	OW 4'	" FFF	<b>)</b> ; 5-	15-30		239'			
CFS 4190 30/60 O			LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S.	BLC 323	)W 4' -320;	" FFF FP:	); 5- 19-3	15-30 4, 38	)-60;	239'			
CFS 4190 30/60 O			<ul> <li>LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop.</li> <li>LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S.</li> <li>LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to</li> </ul>	BLC 323	)W 4' -320;	" FFF FP:	); 5- 19-3	15-30 4, 38	)-60; -104; '	239'			
		00	<ul> <li>LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop.</li> <li>LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S.</li> <li>LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain &amp; sli bleed black</li> </ul>	BLC 323	)W 4' -320;	" FFF FP:	); 5- 19-3	15-30 4, 38 DRILI	D-60; -104; AHE	239'			
CFS 4190 30/60 CFS 4190 30/60 O		4200	<ul> <li>LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop.</li> <li>LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S.</li> <li>LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain &amp; sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to</li> </ul>	BLC 323 CIRC	OW 4' -320; 60 M	" FFF FP:	P; 5- 19-3 FORE	15-30 4, 38 DRILI Hot-	D-60; -104; AHE	239' AD.	SOCI	M; SI	P:
		4200	LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened	-BLC -323 -CIRC 0 -KEL	DW 4' -320; 60 M	" FFF FP: N BEF	P; 5- 19-3 FORE	15-3( 4, 38 DRILI Hot- SHOR	)-60; -104; AHE/ Wire T AT C	239' AD.	4236. E	M; SI	P:
		4200	<ul> <li>LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop.</li> <li>LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S.</li> <li>LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain &amp; sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to</li> </ul>	BLC 323 CIRC CIRC KELI PRO	OW 4' -320; 60 M LY IS ( BABL	" FFF FP: N BEF	P; 5- 19-3 FORE FORE	15-30 4, 38 DRILI Hot- SHOR D WHE	)-60; -104; AHE/ Wire T AT C EN GO	239' AD. CONN ING B	4236. E	M; SI	P:
		4200	<ul> <li>LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop.</li> <li>LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S.</li> <li>LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain &amp; sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show &amp; strong odor 4220.</li> </ul>	BLC 323 CIRC CIRC KEL PRO DRIL	OW 4' -320; 60 M 	" FFF FP: IN BEF IN BEF ONE F Y OCC	P; 5- 19-3 FORE FORE CURE R 4206	15-30 4, 38 DRILI Hot- SHOR D WHE 6 TRIF	-104; -104; AHE/ Wire T AT C EN GO 2. SO F	239' AD. CONN ING B ROP, S	4236. E	M; SI	P:
		4200	LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened	BLC 323 CIRC CIRC KEL PRO DRIL	OW 4' -320; 60 M 	" FFF FP: IN BEF IN BEF ONE F Y OCC	P; 5- 19-3 FORE FORE CURE R 4206	15-30 4, 38 DRILI Hot- SHOR D WHE 6 TRIF	-104; -104; AHE/ Wire T AT C EN GO 2. SO F	239' AD. CONN ING B ROP, S	4236. E	M; SI	P:
		4200	LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S.	BLC 323 CIRC CIRC KELI PRO DRIL CFS	OW 4' -320; 60 M 	" FFF FP: IN BEF ONE F Y OCC AFTEI	2; 5- 19-3 FORE FORE OOT S CUREL R 4200 DJUS	15-30 4, 38 DRILI Hot- SHOR D WHE 6 TRIF 5 TED D	-104; -104; AHE/ Wire T AT C EN GO 2. SO F	239' AD. CONN ING B ROP, S	4236. E	M; SI	P:
0 <b>POP</b> 15 CON CFS 4206 30/60 ○ CFS 4206 30/60 ○ CFS 4206 30/60 ○ CFS 4206 30/60 ○		4200	LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. STARK 4222 (-1396)	BLC 323 CIRC CIRC PRO DRIL CFS	DW 4' -320; 60 M C 60 M LY IS 0 BABL LING 4231 / 53, WT	" FFF FP: IN BEI ONE F Y OCC AFTEI ARE A	2; 5- 19-3 FORE FORE CUREI R 4200 DJUS	15-30 4, 38 DRILI Hot- SHOR 5 TRIF 5 TED I	-104; -104; AHE/ Wire T AT C EN GO P. SO F DOWN	239'	4236. E ACK T TARK	ERRO O TOP FOOT	P:
		4200	LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S.	BLC 323 CIRC CIRC PRO DRIL CFS	DW 4' -320; 60 M 	" FFF FP: IN BEF N BEF ONE F Y OCC AFTEI ARE A 9.1, F	2; 5- 19-3 FORE FORE CURE R 4200 DJUS	15-30 4, 38 DRILI Hot SHOR D WHE 6 TRIF STED I 4220	-104; -104; -AHE/ Wire T AT C EN GO 2. SO F DOWN	239' AD. CONN ING B ROP, S HOLE	4236. E ACK T TARK ONE F	M; SI	P:
0 <b>POP</b> 15 CON CFS 4206 30/60 ○ CFS 4206 30/60 ○ CFS 4206 30/60 ○ CFS 4206 30/60 ○		4200	LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black; carbon; few chips 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray;	BLC 323 CIRC CIRC DRIL PRO DRIL CFS VIS ( DS1 FFF	OW 4' -320; 60 M 60 M BABL LING 4231 / 63, WT F #4: 2; 5-1	" FFF FP: IN BEI DNE F Y OCC AFTEI ARE A 9.1, F K-ZC 5-15	D; 5- 19-3 FORE FORE CUREI R 4200 DJUS CUREI CUR	15-30 4, 38 DRILI DRILI Hot SHOR D WHE 6 TRIF TED I 4220 92' 0	-104; -104;	AD	4236. E ACK T TARK ONE F ONE F	M; SI ERRO O TOP FOOT 2 MIN	P:
0 CON CFS 4206 30/60 ○ CFS 4200 CF		4200	LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black; carbon; few chips 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor	BLC 323 CIRC PRO DRIL CFS VIS 6 DST FFF GO	DW 4' -320; c 60 M LY IS 0 BABL LING 4231 / F #4: CM; S	" FFF FP: N BEF DNE F Y OCCC AFTEI ARE A SIP: 2	2; 5- 19-3 FORE FORE CUREI R 4200 DJUS CUREI CUR	15-30 4, 38 DRILI Hot- SHOR D WHI 6 TRIF TED I 4220 92' (0 50;	D-60; -104; - AHE/ AHE/ T AT C EN GO C-SO F DOWN D-4230 GIP, 9 FP: 22	239' AD. CONN ING B ROP, S HOLE 6: B <sup>1</sup> 4' OI 8-65,	4236. E ACK T TARK ONE F	M; SI ERRO O TOP FOOT 2 MIN	P:
0 CPS 4206 30/60 CFS 4206 30/60 CFS 4232 50 CFS 4232 50 CFS 4232 50 CFS 4232 50 CFS 4232 50 CFS 425 CFS 425 CFS 4232 50		4200	LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black; carbon; few chips 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted	BLC 323 CIRC PRO DRIL CFS VIS 6	DW 4' -320; c 60 M LY IS 0 BABL LING 4231 / F #4: CM; S	" FFF FP: N BEF DNE F Y OCCC AFTEI ARE A SIP: 2	2; 5- 19-3 FORE FORE CUREI R 4200 DJUS CUREI CUR	15-30 4, 38 DRILI Hot- SHOR D WHI 6 TRIF TED I 4220 92' (0 50;	-104; -104;	239' AD. CONN ING B ROP, S HOLE 6: B <sup>1</sup> 4' OI 8-65,	4236. E ACK T TARK ONE F ONE F	M; SI ERRO O TOP FOOT 2 MIN	P:
0 CON CFS 4206 30/60 ○ CFS 4200 CF		4200	LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black: carbon: few chips 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted wet stain, fluor & v-sli show oil; no odor; sptd- sat dry	BLC 323 CIRC PRO DRIL CFS VIS 6	DW 4' -320; c 60 M LY IS 0 BABL LING 4231 / F #4: CM; S	" FFF FP: N BEF DNE F Y OCCC AFTEI ARE A SIP: 2	2; 5- 19-3 FORE FORE CUREI R 4200 DJUS CUREI CUR	15-30 4, 38 DRILI Hot- SHOR D WHI 6 TRIF TED I 4220 92' (0 50;	D-60; -104; - AHE/ AHE/ T AT C EN GO C-SO F DOWN D-4230 GIP, 9 FP: 22	239' AD. CONN ING B ROP, S HOLE 6: B <sup>1</sup> 4' OI 8-65,	4236. E ACK T TARK ONE F ONE F	M; SI ERRO O TOP FOOT 2 MIN	P:
0 CPS 4206 30/60 CFS 4206 30/60 CFS 4232 50 CFS 4232 50 CFS 4232 50 CFS 4232 50 CFS 4232 50 CFS 425 CFS 425 CFS 4232 50		4200	LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black; carbon; few chips 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted wet stain, fluor & v-sli show oil; no odor; sptd- sat dry stain; 4236-30 min.	BLC 323 CIRC PRO DRIL CFS VIS 6	DW 4' -320; c 60 M LY IS 0 BABL LING 4231 / F #4: CM; S	" FFF FP: N BEF DNE F Y OCCC AFTEI ARE A SIP: 2	2; 5- 19-3 FORE FORE CUREI R 4200 DJUS CUREI CUR	15-30 4, 38 DRILI Hot- SHOR D WHI 6 TRIF TED I 4220 92' (0 50;	D-60; -104; - AHE/ AHE/ T AT C EN GO C-SO F DOWN D-4230 GIP, 9 FP: 22	239' AD. CONN ING B ROP, S HOLE 6: B <sup>1</sup> 4' OI 8-65,	4236. E ACK T TARK ONE F ONE F	M; SI ERRO O TOP FOOT 2 MIN	P:
0 CPS 4206 30/60 CFS 4206 30/60 CFS 4232 50 CFS 4232 50 CFS 4232 50 CFS 4232 50 CFS 4232 50 CFS 425 CFS 425 CFS 4232 50		4200	LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black: carbon: few chips 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted wet stain, fluor & v-sli show oil; no odor; sptd- sat dry stain; 4236-30 min. Chalk: white; mic-xtal; soft; white-wash; only v-dull	BLC 323 CIRC PRO DRIL CFS VIS 6	DW 4' -320; c 60 M LY IS 0 BABL LING 4231 / F #4: CM; S	" FFF FP: N BEF DNE F Y OCCC AFTEI ARE A SIP: 2	2; 5- 19-3 FORE FORE CUREI R 4200 DJUS CUREI CUR	15-30 4, 38 DRILI Hot- SHOR D WHI 6 TRIF TED I 4220 92' (0 50;	D-60; -104; - AHE/ AHE/ T AT C EN GO C-SO F DOWN D-4230 GIP, 9 FP: 22	239' AD. CONN ING B ROP, S HOLE 6: B <sup>1</sup> 4' OI 8-65,	4236. E ACK T TARK ONE F ONE F	M; SI ERRO O TOP FOOT 2 MIN	P:
0 CPS 4206 30/60 CFS 4206 30/60 CFS 4232 50 CFS 4232 50 CFS 4232 50 CFS 4232 50 CFS 4232 50 CFS 425 CFS 425 CFS 4232 50			LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black; carbon; few chips 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted wet stain, fluor & v-sli show oil; no odor; sptd- sat dry stain; 4236-30 min.	BLC 323 CIRC PRO DRIL CFS VIS 6	DW 4' -320; c 60 M LY IS 0 BABL LING 4231 / F #4: CM; S	" FFF FP: N BEF DNE F Y OCCC AFTEI ARE A SIP: 2	2; 5- 19-3 FORE FORE CUREI R 4200 DJUS CUREI CUR	15-30 4, 38 DRILI Hot- SHOR D WHI 6 TRIF TED I 4220 92' (0 50;	D-60; -104; - AHE/ AHE/ T AT C EN GO C-SO F DOWN D-4230 GIP, 9 FP: 22	239' AD. CONN ING B ROP, S HOLE 6: B <sup>1</sup> 4' OI 8-65,	4236. E ACK T TARK ONE F ONE F	M; SI ERRO O TOP FOOT 2 MIN 2'	P:
0 CPS 4206 30/60 CFS 4206 30/60 CFS 4232 50 CFS 4232 50 CFS 4232 50 CFS 4232 50 CFS 4232 50 CFS 425 CFS 425 CFS 4232 50			LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black: carbon: few chips 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted wet stain, fluor & v-sli show oil; no odor; sptd- sat dry stain; 4236-30 min. Chalk: white; mic-xtal; soft; white-wash; only v-dull fluor; no visible porosity; N.S., almost 100% of 4250.	BLC 323 CIRC PRO DRIL CFS VIS 6	DW 4' -320; c 60 M LY IS 0 BABL LING 4231 / F #4: CM; S	" FFF FP: N BEF DNE F Y OCCC AFTEI ARE A SIP: 2	2; 5- 19-3 FORE FORE CUREI R 4200 DJUS CUREI CUR	15-30 4, 38 DRILI Hot- SHOR D WHI 6 TRIF TED I 4220 92' (0 50;	D-60; -104; - AHE/ AHE/ T AT C EN GO C-SO F DOWN D-4230 GIP, 9 FP: 22	239' AD. CONN ING B ROP, S HOLE 6: B <sup>1</sup> 4' OI 8-65,	4236. E ACK T TARK ONE F ONE F	M; SI ERRO O TOP FOOT 2 MIN 2'	P:
0 CPS 4206 30/60 CFS 4206 30/60 CFS 4232 50 CFS 4232 50 CFS 4232 50 CFS 4232 50 CFS 4232 50 CFS 425 CFS 425 CFS 4232 50		4250 4200	LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black: carbon: few chips 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted wet stain, fluor & v-sli show oil; no odor; sptd- sat dry stain; 4236-30 min. Chalk: white; mic-xtal; soft; white-wash; only v-dull fluor; no visible porosity; N.S., almost 100% of 4250. LS: It-md brown; vf-xtal; dense; minor opaq chert, trc	BLC 323 CIRC PRO DRIL CFS VIS 6	DW 4' -320; c 60 M LY IS 0 BABL LING 4231 / F #4: CM; S	" FFF FP: N BEF DNE F Y OCCC AFTEI ARE A SIP: 2	2; 5- 19-3 FORE FORE CUREI R 4200 DJUS CUREI CUR	15-30 4, 38 DRILI Hot- SHOR D WHI 6 TRIF TED I 4220 92' (0 50;	D-60; -104; - AHE/ AHE/ T AT C EN GO C-SO F DOWN D-4230 GIP, 9 FP: 22	239' AD. CONN ING B ROP, S HOLE 6: B <sup>1</sup> 4' OI 8-65,	4236. E ACK T TARK ONE F ONE F	M; SI ERRO O TOP FOOT 2 MIN 2'	P:
0 CON CFS 4206 30/60 CFS 4206 30/60 CFS 4232 50 CFS 4232 50 CFS 4230 CFS 4232 50 CFS 4232 50 CFS 425 CFS 4232 50 CFS 4232			LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black: carbon: few chips 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted wet stain, fluor & v-sli show oil; no odor; sptd- sat dry stain; 4236-30 min. Chalk: white; mic-xtal; soft; white-wash; only v-dull fluor; no visible porosity; N.S., almost 100% of 4250. LS: It-md brown; vf-xtal; dense; minor opaq chert, trc quartzitic chert; no visible por; N.S.	BLC 323 CIRC PRO DRIL CFS VIS 6	DW 4' -320; c 60 M LY IS 0 BABL LING 4231 / F #4: CM; S	" FFF FP: N BEF DNE F Y OCCC AFTEI ARE A SIP: 2	2; 5- 19-3 FORE FORE CUREI R 4200 DJUS CUREI CUR	15-30 4, 38 DRILI Hot- SHOR D WHI 6 TRIF TED I 4220 92' (0 50;	D-60; -104; - AHE/ AHE/ T AT C EN GO C-SO F DOWN D-4230 GIP, 9 FP: 22	239' AD. CONN ING B ROP, S HOLE 6: B <sup>1</sup> 4' OI 8-65,	4236. E ACK T TARK ONE F ONE F	M; SI ERRO O TOP FOOT 2 MIN 2'	P:
0 CON CFS 4206 30/60 CFS 4206 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4235 50/60 CFS 4235 50/60 CFS 4235 50/60 CFS 4235 50/60 CFS 4			LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black: carbon: few chips 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted wet stain, fluor & v-sli show oil; no odor; sptd- sat dry stain; 4236-30 min. Chalk: white; mic-xtal; soft; white-wash; only v-dull fluor; no visible porosity; N.S., almost 100% of 4250. LS: It-md brown; vf-xtal; dense; minor opaq chert, trc quartzitic chert; no visible por; N.S. <b>HUSHPUCKNEY 4260 (-1434)</b>	BLC 323 CIRC PRO DRIL CFS VIS 6 DST FFF GO	DW 4' -320; c 60 M LY IS 0 BABL LING 4231 / F #4: CM; S	" FFF FP: N BEF DNE F Y OCCC AFTEI ARE A SIP: 2	2; 5- 19-3 FORE FORE CUREI R 4200 DJUS CUREI CUR	15-30 4, 38 DRILI Hot- SHOR D WHI 6 TRIF TED I 4220 92' (0 50;	D-60; -104; - AHE/ AHE/ T AT C EN GO C-SO F DOWN D-4230 GIP, 9 FP: 22	239' AD. CONN ING B ROP, S HOLE 6: B <sup>1</sup> 4' OI 8-65,	4236. E ACK T TARK ONE F ONE F	M; SI ERRO O TOP FOOT 2 MIN 2'	P:
0 CON CFS 4206 30/60 CFS 4206 30/60 CFS 4232 50 CFS 4232 50 CFS 4230 CFS 4232 50 CFS 4232 50 CFS 425 CFS 4232 50 CFS 4232			LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black: carbon: few chips 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted wet stain, fluor & v-sli show oil; no odor; sptd- sat dry stain; 4236-30 min. Chalk: white; mic-xtal; soft; white-wash; only v-dull fluor; no visible porosity; N.S., almost 100% of 4250. LS: It-md brown; vf-xtal; dense; minor opaq chert, trc quartzitic chert; no visible por; N.S. <b>HUSHPUCKNEY 4260 (-1434)</b> Shale: black; carbon; 4267-30 min.		DW 4' -320; C 60 M C 60 M LY IS C BABL LING 4231 / C 33, WT F #4: C 30 M C 30 M	" FFF FP: DNE F ONE F ON		15-3(4, 38	D-60; -104; L AHE/ Wire T AT C EN GO SO F DOWN D-4230 D-42500 D-42500 D-42500 D-42500 D-42500 D-42500 D-42500 D-42500 D-42500 D-	239' AD. CONN ING B SOP, S HOLE 6: B' 4' OI 8-65, AD.	4236. E 4236. E 4236. T TARK ONE F ONE F ONE F 00E 12 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ERRO 0 0 7 7 7 7 7 7 7 7	P:
0 CON CFS 4206 30/60 CFS 4206 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4236 70 CFS 4236 70 CFS 4236 70 CFS 4236 70 CFS 4236 70 CFS 4236 70			LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black: carbon: few chips 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted wet stain, fluor & v-sli show oil; no odor; sptd- sat dry stain; 4236-30 min. Chalk: white; mic-xtal; soft; white-wash; only v-dull fluor; no visible porosity; N.S., almost 100% of 4250. LS: It-md brown; vf-xtal; dense; minor opaq chert, trc quartzitic chert; no visible por; N.S. <b>HUSHPUCKNEY 4260 (-1434)</b> Shale: black; carbon; 4267-30 min. LS: dk brown; vf-m xtal, m-c calcites; tight int xtal at	BLC 323 CIRC VIS C DRIL DRIL CFS VIS C CIRC CIRC CIRC	DW 4' -320; 2 60 M 2 60 M BABL LING 4231 / 53, WT 7 #4: 2; 5-1 CM; § C 30 M CM; 5-1 CM; § C 30 M	"FFF FP: DNE FP: ONE F		15-3( 4, 38 DRILL Hot- SHOR D WHE SHOR D WHE TED I 4220 92' C 550; 1 DRILL DRILL 4225	D-60; -104; L AHE/ MVire T AT C EN GO SO F DOWN D-4230 AIP, 9 FP: 2: L AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/	239' AD. CONN ING B SOP, S HOLE 6: B <sup>I</sup> 4' OI 8-65, AD. 5: NO	4236. E ACK T TARK ONE F ONE F	M; SI ERRO O TOP FOOT FOOT P O MIN P O D W;	P:
0 CON CFS 4206 30/60 CFS 4206 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4235 50/60 CFS 4235 50/60 CFS 4235 50/60 CFS 4235 50/60 CFS 4			LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black: carbon: few chips 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted wet stain, fluor & v-sli show oil; no odor; sptd- sat dry stain; 4236-30 min. Chalk: white; mic-xtal; soft; white-wash; only v-dull fluor; no visible porosity; N.S., almost 100% of 4250. LS: It-md brown; vf-xtal; dense; minor opaq chert, trc quartzitic chert; no visible por; N.S. <b>HUSHPUCKNEY 4260 (-1434)</b> Shale: black; carbon; 4267-30 min. LS: dk brown; vf-m xtal, m-c calcites; tight int xtal at best; trc fluor; N.S., 30 min.	BLC 323 CIRC VIS C DRIL DRIL CFS VIS C CIRC CIRC CIRC	DW 4' -320; 2 60 M 2 60 M BABL LING 4231 / 53, WT 7 #4: 2; 5-1 CM; § C 30 M CM; 5-1 CM; § C 30 M	"FFF FP: DNE FP: ONE F		15-3( 4, 38 DRILL Hot- SHOR D WHE SHOR D WHE TED I 4220 92' C 550; 1 DRILL DRILL 4225	D-60; -104; L AHE/ MVire T AT C EN GO SO F DOWN D-4230 AIP, 9 FP: 2: L AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/	239' AD. CONN ING B SOP, S HOLE 6: B <sup>I</sup> 4' OI 8-65, AD. 5: NO	4236. E 4236. C 4236. T TARK ONE F ODE 12 L, 117 73-99	M; SI ERRO O TOP FOOT FOOT P O MIN P O D W;	P:
0 CON CFS 4206 30/60 CFS 4206 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4236 70 CFS 4236 70 CFS 4236 70 CFS 4236 70 CFS 4236 70 CFS 4236 70			LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black: carbon: few chips 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted wet stain, fluor & v-sli show oil; no odor; sptd- sat dry stain; 4236-30 min. Chalk: white; mic-xtal; soft; white-wash; only v-dull fluor; no visible porsity; N.S., almost 100% of 4250. LS: It-md brown; vf-xtal; dense; minor opaq chert, trc quartzitic chert; no visible por; N.S. <b>HUSHPUCKNEY 4260 (-1434)</b> Shale: black; carbon; 4267-30 min. LS: dk brown; vf-m xtal, m-c calcites; tight int xtal at best; trc fluor; N.S., 30 min. LS: dk brown; vf-m xtal, m-c calcites; tight int xtal at best; trc fluor; N.S., 30 min.	BLC 323 CIRC CIRC PRO DRILL CFS DST FFF GO CIRC CIRC	DW 4' -320; C 60 M LY IS C BABLLING 4231 / S3, WT F #4: C 5, 5-1 CM; S C 30 M C 425 C 30 M	"FFF FP: IN BEI DNE F PY OCC AFTEI ARE A 9.1, F K-ZC 5-15 SIP: 2 IN BEI L-ZO 80; 2'	5; 5- 19-3 FORE FORE URE: UURE: A 4200 DJUS URE: A 4200 DJUS FORE FORE FORE	15-3( 4, 38 DRILI Hot- SHOR D WHIE SHOR D WHIE TED ( 92' C 50;	D-60; -104; AHE/ AHE/ Wire T AT C SO F DOWN D-4230 GIP, 9 FP: 2 AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/	239' AD. CONN ING B ROP, S HOLE 6: B <sup>0</sup> 4' OI 8-65, AD. 6: B <sup>0</sup> 4' OI 8-65, 5: N( -57,	4236. E 4236. C 4236. T TARK ONE F ODE 12 L, 117 73-99	M; SI ERRO O TOP FOOT FOOT P O MIN P O D W;	P:
0 CIN CFS 4206 30/60 CFS 4206 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4236 30/60 CFS 4267 30/60			LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black: carbon: few chips 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted wet stain, fluor & v-sli show oil; no odor; sptd- sat dry stain; 4236-30 min. Chalk: white; mic-xtal; soft; white-wash; only v-dull fluor; no visible porosity; N.S., almost 100% of 4250. LS: It-md brown; vf-xtal; dense; minor opaq chert, trc quartzitic chert; no visible por; N.S. <b>HUSHPUCKNEY 4260 (-1434)</b> Shale: black; carbon; 4267-30 min. LS: dk brown; vf-m xtal, m-c calcites; tight int xtal at best; trc fluor; N.S., 30 min. LS: It-md browns; vf-xtal; coarse oomoldic w/spotted stain; fos w/spotted stain; also barren oom; no visible	BLC 323 CIRC DRIL DRIL CFS DS1 FFP GO CIRC CIRC CIRC CIRC	DW 4' -320; 2 60 M 2 60 M 2 10 60 M 2 10 60 M 53, WT 63, WT 63, WT 7 #4: 2 30 M 63, WT 7 #4: 2 30 M 63, WT 7 #5: 5 -15-5 5 -15-5 5 -15-5	" FFF FP: N BEI DNE F Y OCC Y OCC Y OCC Y OCC S 19.1, F S IP: 2 S IP:		15-3( 4, 38 DRILI Hot- SHOR D WHE SHOW D WHE C 50; D WHE 222( 92' C 50; D RILI DRILI DRILI	D-60; -104; AHE/ AHE/ Wire T AT C SO F DOWN D-4230 GIP, 9 FP: 2 AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/	239' AD. CONN ING B ROP, S HOLE 6: B <sup>0</sup> 4' OI 8-65, AD. 6: B <sup>0</sup> 4' OI 8-65, 5: N( -57,	4236. E 4236. C 4236. T TARK ONE F ODE 12 L, 117 73-99	M; SI ERRO O TOP FOOT FOOT P O MIN P O D W;	P:
0 CON CFS 4206 30/60 CFS 4206 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4236 70 CFS 4236 70 CFS 4236 70 CFS 4236 70 CFS 4236 70 CFS 4236 70			LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black: carbon: few chips 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted wet stain, fluor & v-sli show oil; no odor; sptd- sat dry stain; 4236-30 min. Chalk: white; mic-xtal; soft; white-wash; only v-dull fluor; no visible porsity; N.S., almost 100% of 4250. LS: It-md brown; vf-xtal; dense; minor opaq chert, trc quartzitic chert; no visible por; N.S. <b>HUSHPUCKNEY 4260 (-1434)</b> Shale: black; carbon; 4267-30 min. LS: dk brown; vf-m xtal, m-c calcites; tight int xtal at best; trc fluor; N.S., 30 min. LS: dk brown; vf-m xtal, m-c calcites; tight int xtal at best; trc fluor; N.S., 30 min.	BLC 323 CIRC DRIL DRIL CFS DS1 FFP GO CIRC CIRC CIRC CIRC	DW 4' -320; C 60 M LY IS C BABLLING 4231 / S3, WT F #4: C 5, 5-1 CM; S C 30 M C 425 C 30 M	" FFF FP: N BEI DNE F Y OCC Y OCC Y OCC Y OCC S 19.1, F S IP: 2 S IP:		15-3( 4, 38 DRILI Hot- SHOR D WHE SHOW D WHE C 50; D WHE 222( 92' C 50; D RILI DRILI DRILI	D-60; -104; AHE/ AHE/ Wire T AT C SO F DOWN D-4230 GIP, 9 FP: 2 AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/	239' AD. CONN ING B ROP, S HOLE 6: B <sup>0</sup> 4' OI 8-65, AD. 6: B <sup>0</sup> 4' OI 8-65, 5: N( -57,	4236. E 4236. C 4236. T TARK ONE F ODE 12 L, 117 73-99	M; SI ERRO O TOP FOOT FOOT P O MIN P O D W;	P:
0 CIN CFS 4206 30/60 CFS 4206 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4236 30/60 CFS 4267 30/60			LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black: carbon: few chips 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted wet stain, fluor & v-sli show oil; no odor; sptd- sat dry stain; 4236-30 min. Chalk: white; mic-xtal; soft; white-wash; only v-dull fluor; no visible porosity; N.S., almost 100% of 4250. LS: It-md brown; vf-xtal; dense; minor opaq chert, trc quartzitic chert; no visible por; N.S. <b>HUSHPUCKNEY 4260 (-1434)</b> Shale: black; carbon; 4267-30 min. LS: dk brown; vf-m xtal, m-c calcites; tight int xtal at best; trc fluor; N.S., 30 min. LS: lt-md browns; vf-xtal; coarse oomoldic w/spotted stain; fos w/spotted stain; also barren oom; no visible oil; only dull fluor; just trace 4275 stop, 30 & 60 min.	BLC 323 CIRC DRIL DRIL CFS DS1 FFP GO CIRC CIRC CIRC CIRC	DW 4' -320; 2 60 M 2 60 M 2 10 60 M 2 10 60 M 53, WT 63, WT 63, WT 7 #4: 2 30 M 63, WT 7 #4: 2 30 M 63, WT 7 #5: 5 -15-5 5 -15-5 5 -15-5	" FFF FP: N BEI DNE F Y OCC Y OCC Y OCC Y OCC S 19.1, F S IP: 2 S IP:		15-3( 4, 38 DRILI Hot- SHOR D WHE SHOW D WHE C 50; D WHE 222( 92' C 50; D RILI DRILI DRILI	D-60; -104; AHE/ AHE/ Wire T AT C SO F DOWN D-4230 GIP, 9 FP: 2 AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/	239' AD. CONN ING B ROP, S HOLE 6: B <sup>0</sup> 4' OI 8-65, AD. 6: B <sup>0</sup> 4' OI 8-65, 5: N( -57,	4236. E 4236. C 4236. T TARK ONE F ODE 12 L, 117 73-99	M; SI ERRO O TOP FOOT FOOT P O MIN P O D W;	P:
0 CON CFS 4206 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4236 30/60 CFS 4236 30/60 CFS 4267 30/60 CFS 4275 30/60 CFS 4275 30/60 CFS 4275 30/60			LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black: carbon: few chips 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted wet stain, fluor & v-sli show oil; no odor; sptd- sat dry stain; 4236-30 min. Chalk: white; mic-xtal; soft; white-wash; only v-dull fluor; no visible porsity; N.S., almost 100% of 4250. LS: It-md brown; vf-xtal; dense; minor opaq chert, trc quartzitic chert; no visible por; N.S. <b>HUSHPUCKNEY 4260 (-1434)</b> Shale: black; carbon; 4267-30 min. LS: dk brown; vf-m xtal, m-c calcites; tight int xtal at best; trc fluor; N.S., 30 min. LS: It-md browns; vf-xtal; coarse oomoldic w/spotted stain; fos w/spotted stain; also barren oom; no visible oil; only dull fluor; just trace 4275 stop, 30 & 60 min.	BLC 323 CIRC DRIL DRIL CFS DS1 FFP GO CIRC CIRC CIRC CIRC	DW 4' -320; 2 60 M 2 60 M 2 10 60 M 2 10 60 M 53, WT 63, WT 63, WT 7 #4: 2 30 M 63, WT 7 #4: 2 30 M 63, WT 7 #5: 5 -15-5 5 -15-5 5 -15-5	" FFF FP: N BEI DNE F Y OCC Y OCC Y OCC Y OCC S 19.1, F S IP: 2 S IP:		15-3( 4, 38 DRILI Hot- SHOR D WHE SHOW D WHE C 50; D WHE 222( 92' C 50; D RILI DRILI DRILI	D-60; -104; AHE/ AHE/ Wire T AT C SO F DOWN D-4230 GIP, 9 FP: 2 AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/	239' AD. CONN ING B ROP, S HOLE 6: B <sup>0</sup> 4' OI 8-65, AD. 6: B <sup>0</sup> 4' OI 8-65, 5: N( -57,	4236. E 4236. C 4236. T TARK ONE F ODE 12 L, 117 73-99	M; SI ERRO O TOP FOOT FOOT P O MIN P O D W;	P:
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0 CON CFS 4206 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4236 30/60 CFS 4236 30/60 CFS 4236 30/60 CFS 4236 30/60 CFS 4275 30/60 CFS 4275 30/60 CFS 4285 30 ⊙ min.		4250	LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black: carbon: few chios 4230. LS: dk bri; vf-xtal; dense; trc fine sulfides; N.S. Shale: lt greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted wet stain, fluor & v-sli show oil; no odor; sptd- sat dry stain; 4236-30 min. Chalk: white; mic-xtal; soft; white-wash; only v-dull fluor; no visible porosity; N.S., almost 100% of 4250. LS: lt-md brown; vf-xtal; dense; minor opaq chert, trc quartzitic chert; no visible por; N.S. <b>HUSHPUCKNEY 4260 (-1434)</b> Shale: black; carbon; 4267-30 min. LS: dk brow; vf-m xtal, m-c calcites; tight int xtal at best; trc fluor; N.S., 30 min. LS: lt brown; vf-xtal; coarse oomoldic w/spotted stain; fos w/spotted stain; also barren oom; no visible oil; only dull fluor; just trace 4275 stop, 30 & 60 min. LS: It brown; vf-xtal; mostly dense; trc ool to oom; chalky in pt; poor oom por; N.S. LS: It brown; vf-xtal; dense, well defined, grain supported oolite; N.S. LS: It brown; vf-xtal; dense, well defined, grain supported oolite; N.S. LS: tt gray to brn w/sli dk gray mottling, mic- vf xtal; chalky in pt; w/ It-dk gray mottled chert; no vis porosity; N.S., 4310. LS: grayish brown, sli mottled; vf-xtal; sli chalky; no	BLC 323 CIRC DRIL DRIL CFS DS1 FFP GO CIRC CIRC CIRC CIRC	DW 4' -320; 2 60 M 2 60 M 2 10 60 M 2 10 60 M 53, WT 63, WT 63, WT 7 #4: 2 30 M 63, WT 7 #4: 2 30 M 63, WT 7 #5: 5 -15-5 5 -15-5 5 -15-5	" FFF FP: N BEI DNE F Y OCC Y OCC Y OCC Y OCC S 19.1, F S IP: 2 S IP:		15-3( 4, 38 DRILI Hot- SHOR D WHE SHOW D WHE C 50; D WHE 222( 92' C 50; D RILI DRILI DRILI	D-60; -104; AHE/ AHE/ Wire T AT C SO F DOWN D-4230 GIP, 9 FP: 2 AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/	239' AD. CONN ING B ROP, S HOLE 6: B <sup>0</sup> 4' OI 8-65, AD. 6: B <sup>0</sup> 4' OI 8-65, 5: N( -57,	4236. E 4236. C 4236. T TARK ONE F ODE 12 L, 117 73-99	M; SI ERRO O TOP FOOT FOOT P O MIN P O D W;	P:
0 CON CFS 4206 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4236 30/60 CFS 4236 30/60 CFS 4236 30/60 CFS 4236 30/60 CFS 4275 30/60 CFS 4275 30/60 CFS 4285 30 ⊙ min.		4250	LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black: carbon: few chins 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted wet stain, fluor & v-sli show oil; no odor; sptd- sat dry stain; 4236-30 min. Chalk: white; mic-xtal; soft; white-wash; only v-dull fluor; no visible porosity; N.S., almost 100% of 4250. LS: It-md brown; vf-xtal; dense; minor opaq chert, trc quartzitic chert; no visible por; N.S. <b>HUSHPUCKNEY 4260 (-1434)</b> Shale: black; carbon; 4267-30 min. LS: dk brown; vf-rxtal; dense; minor opaq chert, trc quartzitic chert; no visible por; N.S. <b>HUSHPUCKNEY 4260 (-1434)</b> Shale: black; carbon; 4267-30 min. LS: It brown; vf-rxtal; mostly dense; trc ool to oom; chalky in pt; poor oom por; N.S. LS: It brown; vf-xtal; dense; trc ool to oom; chalky in pt; poor oom por; N.S. LS: It brown; vf-xtal; dense; well defined, grain supported oolite; N.S. LS: It brown; vf-xtal; dense; well defined, grain supported oolite; N.S. LS: It gray to brm w/si dk gray mottling, mic- vf xtal; chalky in pt; w/ It-dk gray mottled chert; no vis porosity; N.S., 4310. LS: grayish brown, sli mottled; vf-xtal; sli chalky; no visible porosity; N.S.	BLC 323 CIRC DRIL DRIL CFS DS1 FFP GO CIRC CIRC CIRC CIRC	DW 4' -320; 2 60 M 2 60 M 2 10 60 M 2 10 60 M 53, WT 63, WT 63, WT 7 #4: 2 30 M 63, WT 7 #4: 2 30 M 63, WT 7 #5: 5 -15-5 5 -15-5 5 -15-5	" FFF FP: N BEI DNE F Y OCC Y OCC Y OCC Y OCC S 19.1, F S IP: 2 S IP:		15-3( 4, 38 DRILI Hot- SHOR D WHE SHOW D WHE C 50; D WHE 222( 92' ( 50; D RILI DRILI DRILI	D-60; -104; AHE/ Mire T AT C SO F DOWN D-4230 GIP, 9 FP: 2 AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/	239' AD. CONN ING B ROP, S HOLE 6: B <sup>0</sup> 4' OI 8-65, AD. 6: B <sup>0</sup> 4' OI 8-65, 5: N( -57,	4236. E 4236. C 4236. T TARK ONE F ODE 12 L, 117 73-99	M; SI ERRO O TOP FOOT FOOT P O MIN P O D W;	P:
0 CON CFS 4206 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4236 30/60 CFS 4236 30/60 CFS 4236 30/60 CFS 4236 30/60 CFS 4275 30/60 CFS 4275 30/60 CFS 4285 30 ⊙ min.		4250	LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black: carbon: few chios 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted wet stain, fluor & v-sli show oil; no odor; sptd- sat dry stain; 4236-30 min. Chalk: white; mic-xtal; soft; white-wash; only v-dull fluor; no visible porosity; N.S., almost 100% of 4250. LS: It-md brown; vf-xtal; dense; minor opaq chert, trc quartzitic chert; no visible por; N.S. <b>HUSHPUCKNEY 4260 (-1434)</b> Shale: black; carbon; 4267-30 min. LS: dk brown; vf-xtal; coarse oomoldic w/spotted stain; fos w/spotted stain; also barren oom; no visible oil; only dull fluor; just trace 4275 stop, 30 & 60 min. LS: It brown; vf-xtal; mostly dense; trc ool to oom; chalky in pt; poor oom por; N.S. LS: It brown; vf-xtal; dense, well defined, grain supported oolite; N.S. LS: It brown; vf-xtal; dense, well defined, grain supported oolite; N.S. LS: It brown; vf-xtal; dense, well defined, grain supported oolite; N.S. LS: grayish brown, sli mottled; vf-xtal; sli chalky; no visible porosity; N.S.	BLC 323 CIRC DRIL DRIL CFS DS1 FFP GO CIRC CIRC CIRC CIRC	DW 4' -320; 2 60 M 2 60 M 2 10 60 M 2 10 60 M 53, WT 63, WT 63, WT 7 #4: 2 30 M 63, WT 7 #4: 2 30 M 63, WT 7 #5: 5 -15-5 5 -15-5 5 -15-5	" FFF FP: N BEI DNE F Y OCC Y OCC Y OCC Y OCC S 19.1, F S IP: 2 S IP:		15-3( 4, 38 DRILI Hot- SHOR D WHE SHOW D WHE C 50; D WHE 222( 92' ( 50; D RILI DRILI DRILI	D-60; -104; AHE/ Mire T AT C SO F DOWN D-4230 GIP, 9 FP: 2 AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/	239' AD. CONN ING B ROP, S HOLE 6: B <sup>0</sup> 4' OI 8-65, AD. 6: B <sup>0</sup> 4' OI 8-65, 5: N( -57,	4236. E 4236. C 4236. T TARK ONE F ODE 12 L, 117 73-99	M; SI ERRO O TOP FOOT FOOT P O MIN P O D W;	P:
0 CON CFS 4206 30/60 CFS 4232 30/60 CFS 4232 30/60 CFS 4236 30/60 CFS 4236 30/60 CFS 4236 30/60 CFS 4236 30/60 CFS 4275 30/60 CFS 4275 30/60 CFS 4285 30 ⊙ min.		4250	LS: md-dk grayish brown; vf-xtal; trc smokey chert; dense; N.S. LS: grayish brown; vf-xtal; dense oolite; trc dull fluor does not cut; v-tight int ool porosity at best; N.S., 4290 stop. LS: grayish brown; vf-xtal; dense to shaley in part; no visible porosity; N.S. LS: grayish brown; vf-xtal; oolitic to oomoldic; fair to good oom porosity; 2/5 spotted stain & sli bleed black oil; faint odor; spotted dull to bright fluor; spotted to sat dry stain; 4206-30 min., continued but lessened show & strong odor 4220. LS: grayish brown w/occasional dark grains; vf-xtal; opaque chert; no visible por; N.S. <b>STARK 4222 (-1396)</b> Shale: black: carbon: few chins 4230. LS: dk brn; vf-xtal; dense; trc fine sulfides; N.S. Shale: It greenish-gray; LS: grayish brown; vf-xtal; includes much bright fluor chalk; few chips fine-med vugular porosity w/spotted wet stain, fluor & v-sli show oil; no odor; sptd- sat dry stain; 4236-30 min. Chalk: white; mic-xtal; soft; white-wash; only v-dull fluor; no visible porosity; N.S., almost 100% of 4250. LS: It-md brown; vf-xtal; dense; minor opaq chert, trc quartzitic chert; no visible por; N.S. <b>HUSHPUCKNEY 4260 (-1434)</b> Shale: black; carbon; 4267-30 min. LS: dk brown; vf-rxtal; dense; minor opaq chert, trc quartzitic chert; no visible por; N.S. <b>HUSHPUCKNEY 4260 (-1434)</b> Shale: black; carbon; 4267-30 min. LS: It brown; vf-rxtal; mostly dense; trc ool to oom; chalky in pt; poor oom por; N.S. LS: It brown; vf-xtal; dense; trc ool to oom; chalky in pt; poor oom por; N.S. LS: It brown; vf-xtal; dense; well defined, grain supported oolite; N.S. LS: It brown; vf-xtal; dense; well defined, grain supported oolite; N.S. LS: It gray to brm w/si dk gray mottling, mic- vf xtal; chalky in pt; w/ It-dk gray mottled chert; no vis porosity; N.S., 4310. LS: grayish brown, sli mottled; vf-xtal; sli chalky; no visible porosity; N.S.	BLC 323 CIRC DRIL DRIL CFS DS1 FFP GO CIRC CIRC CIRC CIRC	DW 4' -320; 2 60 M 2 60 M 2 10 60 M 2 10 60 M 53, WT 63, WT 63, WT 7 #4: 2 30 M 63, WT 7 #4: 2 30 M 63, WT 7 #5: 5 -15-5 5 -15-5 5 -15-5	" FFF FP: N BEI DNE F Y OCC Y OCC Y OCC Y OCC S 19.1, F S IP: 2 S IP:		15-3( 4, 38 DRILI Hot- SHOR D WHE SHOW D WHE C TRIF TED I 4220 50; DRILI DRILI DRILI	D-60; -104; AHE/ Mire T AT C SO F DOWN D-4230 GIP, 9 FP: 2 AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/ AHE/	239' AD. CONN ING B ROP, S HOLE 6: B <sup>0</sup> 4' OI 8-65, AD. 6: B <sup>0</sup> 4' OI 8-65, 5: N( -57,	4236. E 4236. C 4236. T TARK ONE F ODE 12 L, 117 73-99	M; SI ERRO O TOP FOOT FOOT P O MIN P O D W;	P:

		- 1		porosity; N.S.										
			•											
			4350	Shale: green, minor maroon										
3			-	MARMATON 4351 (-1525)										
				LS: grayish brown; vf-xtal; dense; much fine										
	9			glauconite; streaks green, maroon shale; no visible									_	
				porosity; N.S. Shale: green, maroon								$\vdash$		
				LS: It grayish brown; mic-vf xtal; sli chalky; no visible								$\square$		
				porosity; N.S., possibly glauc & shaley as above.										
	'													
<b>4</b>				LS: It brown; mic-vf xtal; chalky in part; includes trace smokey to orange chert; no visible porosity; N.S.										
				trace shokey to orange chert, no visible porosity, N.S.						_				
												$\vdash$		
0			4400						Hot	Wire		$\vdash$		100
			4	LS: It brown; vf-xtal; oolitic in part; mostly dense;	<u> </u>					wite		$\square$		100
				trc orange chert; trc barren oom porosity; N.S.								$\square$		
												$\square$		
				LS: It brown; vf-xtal; dense to sli chalky; N.S.										
				Shale: black; trace 4430.										
PAW				PAWNEE 4422 (-1596)										
				LS: It-md brown; vf-xtal; dense to sli chalky; platey;										
				includes It gray, opaq chert; no visible porosity; N.S.,						-		$\vdash$		
				trc 4430, incr 4440.								$\vdash$		
				LS: dk brown; vf-xtal; dense; much smokey chert;								$\square$	_	
				trc dk grayish brn shale; N.S., 4450.	-vis -	49. W	T 9.1.	+ FIL 8.4	 			$\square$		
2				Shale: black; carbon; 4460.										
			1450	LS: dk grayish brown; vf-xtal; shaley; N.S.										
			4	Shale: green, gray;										W –
		۰		LS: It brown; vf-xtal; oolitic to fos-frag?; tight int grain porosity w/spotted stain, weak fluor; v-sli show				7; 5- 55-5			5 IVIU 	JD; SIF		
				oil; 4470.					-			┢──┼╸	-	
				LS: It-md brown; vf-xtal; sli chalky in part; poor	FUIR	J 30 M		FORE			AD.	$ \rightarrow$		
				porosity; N.S.								$\vdash$		
				Shale: black; carbon; much 4490.								$\square$	_	
FT SCOTT		•		FT. SCOTT 4474 (-1648) LS: It brown; vf-xtal; oolitic chert; trace int granular										
				w/sli stain, possible Myrick float?; 4490.										
				LS: It-dk grayish brown; vf-xtal; dense; trc v-fine						-		$\vdash$	-	
$\prec$	#7			sulfide; poor porosity; N.S.								$\vdash$		
CHER SH			0	CHER SH 4498 (-1672)		<u> </u>								
CFS 4500											<u> </u>	1		
			4500	Shale: black; carbon;										
			450											
			450	Shale: black; carbon; LS: grayish brown; vf-xtal; dense; N.S.										
		•	450	Shale: black; carbon;		Г #7:	CHE	ROK	EE:	4497	-4560	): BOI	B 20	
		•	450	Shale: black; carbon; LS: grayish brown; vf-xtal; dense; N.S. LS: grayish brown; vf-xtal; mostly dense; few grains; trace bright fluor, vf-vug porosity; v-sli stain; 4520.	MIN	I FFP	; 5-1	5-30	-60;	216'	GIP, S	30' OIL	., 14	
		•	450	<ul> <li>Shale: black; carbon;</li> <li>LS: grayish brown; vf-xtal; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; mostly dense; few grains; trace bright fluor, vf-vug porosity; v-sli stain; 4520.</li> <li>LS: grayish brown; f-xtal; dense; trace tight int xtal</li> </ul>	MIN	I FFP	; 5-1	5-30	-60;	216'	GIP, S		., 14	
		•	450	<ul> <li>Shale: black; carbon;</li> <li>LS: grayish brown; vf-xtal; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; mostly dense; few grains; trace bright fluor, vf-vug porosity; v-sli stain; 4520.</li> <li>LS: grayish brown; f-xtal; dense; trace tight int xtal w/bright fluor &amp; v-sli stain; 4530.</li> </ul>	MIN	I FFP	; 5-1	5-30	-60;	216'	GIP, S	30' OIL	., 14	
		• •	450	<ul> <li>Shale: black; carbon;</li> <li>LS: grayish brown; vf-xtal; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; mostly dense; few grains; trace bright fluor, vf-vug porosity; v-sli stain; 4520.</li> <li>LS: grayish brown; f-xtal; dense; trace tight int xtal w/bright fluor &amp; v-sli stain; 4530.</li> <li>LS: It grayish brown; mic-vf xtal; dense; dull mineral</li> </ul>	GO	I FFP CM;	; 5-1 SIP:	1206	-60; -123 <sup>-</sup>	216'	GIP, : 2:46-	30' OIL 56, 57-	., 14	
		• •	450	<ul> <li>Shale: black; carbon;</li> <li>LS: grayish brown; vf-xtal; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; mostly dense; few grains; trace bright fluor, vf-vug porosity; v-sli stain; 4520.</li> <li>LS: grayish brown; f-xtal; dense; trace tight int xtal w/bright fluor &amp; v-sli stain; 4530.</li> </ul>	GO	I FFP CM;	; 5-1 SIP:	1206	-60; -123 <sup>-</sup>	216' ( 1; FF	GIP, : 2:46-	30' OIL 56, 57-	., 14	
		• •	450	<ul> <li>Shale: black; carbon;</li> <li>LS: grayish brown; vf-xtal; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; mostly dense; few grains; trace bright fluor, vf-vug porosity; v-sli stain; 4520.</li> <li>LS: grayish brown; f-xtal; dense; trace tight int xtal w/bright fluor &amp; v-sli stain; 4530.</li> <li>LS: It grayish brown; mic-vf xtal; dense; dull mineral</li> </ul>	GO	I FFP CM;	; 5-1 SIP:	1206	-60; -123 <sup>-</sup>	216' ( 1; FF	GIP, : 2:46-	30' OIL 56, 57-	., 14	
		• •	450	<ul> <li>Shale: black; carbon;</li> <li>LS: grayish brown; vf-xtal; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; mostly dense; few grains; trace bright fluor, vf-vug porosity; v-sli stain; 4520.</li> <li>LS: grayish brown; f-xtal; dense; trace tight int xtal w/bright fluor &amp; v-sli stain; 4530.</li> <li>LS: It grayish brown; mic-vf xtal; dense; dull mineral fluor; trace bright fluor, vf-vug por, v-sli stain; 4540.</li> </ul>	GO	I FFP CM;	; 5-1 SIP:	1206	-60; -123 <sup>-</sup>	216' ( 1; FF	GIP, : 2:46-	30' OIL 56, 57-	., 14	
		• •	450	<ul> <li>Shale: black; carbon;</li> <li>LS: grayish brown; vf-xtal; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; mostly dense; few grains; trace bright fluor, vf-vug porosity; v-sli stain; 4520.</li> <li>LS: grayish brown; f-xtal; dense; trace tight int xtal w/bright fluor &amp; v-sli stain; 4530.</li> <li>LS: It grayish brown; mic-vf xtal; dense; dull mineral</li> </ul>	GO	I FFP CM;	; 5-1 SIP:	1206	-60; -123 <sup>-</sup>	216' ( 1; FF	GIP, : 2:46-	30' OIL 56, 57-	., 14	
		• • •		<ul> <li>Shale: black; carbon;</li> <li>LS: grayish brown; vf-xtal; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; mostly dense; few grains; trace bright fluor, vf-vug porosity; v-sli stain; 4520.</li> <li>LS: grayish brown; f-xtal; dense; trace tight int xtal w/bright fluor &amp; v-sli stain; 4530.</li> <li>LS: It grayish brown; mic-vf xtal; dense; dull mineral fluor; trace bright fluor, vf-vug por, v-sli stain; 4540.</li> <li>LS: It brown; vf-xtal; tight int granular w/trace bright fluor, v-sli stain; 4550.</li> </ul>	GO	I FFP CM;	; 5-1 SIP:	1206	-60; -123 <sup>-</sup>	216' ( 1; FF	GIP, : 2:46-	30' OIL 56, 57-	., 14	
		• • •	4550 450	<ul> <li>Shale: black; carbon;</li> <li>LS: grayish brown; vf-xtal; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; mostly dense; few grains; trace bright fluor, vf-vug porosity; v-sli stain; 4520.</li> <li>LS: grayish brown; f-xtal; dense; trace tight int xtal w/bright fluor &amp; v-sli stain; 4530.</li> <li>LS: It grayish brown; mic-vf xtal; dense; dull mineral fluor; trace bright fluor, vf-vug por, v-sli stain; 4540.</li> <li>LS: It brown; vf-xtal; tight int granular w/trace bright fluor, v-sli stain; 4550.</li> <li>LS: grayish brown; vf-xtal; dense granular; N.S.</li> </ul>	GO	I FFP CM;	; 5-1 SIP:	1206	-60; -123 <sup>-</sup>	216' ( 1; FF	GIP, : 2:46-	30' OIL 56, 57-	., 14	
		• • •		<ul> <li>Shale: black; carbon;</li> <li>LS: grayish brown; vf-xtal; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; mostly dense; few grains; trace bright fluor, vf-vug porosity; v-sli stain; 4520.</li> <li>LS: grayish brown; f-xtal; dense; trace tight int xtal w/bright fluor &amp; v-sli stain; 4530.</li> <li>LS: It grayish brown; mic-vf xtal; dense; dull mineral fluor; trace bright fluor, vf-vug por, v-sli stain; 4540.</li> <li>LS: It brown; vf-xtal; tight int granular w/trace bright fluor, v-sli stain; 4550.</li> </ul>		2 30 M	IN BE	FORE	-60; -123 DRILI	216' ( 1; FF	GIP, : 2:46-	30' OIL 56, 57-	., 14	
		• • •		<ul> <li>Shale: black; carbon;</li> <li>LS: grayish brown; vf-xtal; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; mostly dense; few grains; trace bright fluor, vf-vug porosity; v-sli stain; 4520.</li> <li>LS: grayish brown; f-xtal; dense; trace tight int xtal w/bright fluor &amp; v-sli stain; 4530.</li> <li>LS: It grayish brown; mic-vf xtal; dense; dull mineral fluor; trace bright fluor, vf-vug por, v-sli stain; 4540.</li> <li>LS: It brown; vf-xtal; tight int granular w/trace bright fluor, v-sli stain; 4550.</li> <li>LS: grayish brown; vf-xtal; dense granular; N.S.</li> <li>SiltSt: white; vf-grain; no visible porosity; N.S., trace</li> </ul>		2 30 M	IN BE	1206	-60; -123 DRILI	216' ( 1; FF	GIP, : 2:46-	30' OIL 56, 57-	., 14	
CFS 4560 30/60 ()				<ul> <li>Shale: black; carbon;</li> <li>LS: grayish brown; vf-xtal; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; mostly dense; few grains; trace bright fluor, vf-vug porosity; v-sli stain; 4520.</li> <li>LS: grayish brown; f-xtal; dense; trace tight int xtal w/bright fluor &amp; v-sli stain; 4530.</li> <li>LS: It grayish brown; mic-vf xtal; dense; dull mineral fluor; trace bright fluor, vf-vug por, v-sli stain; 4540.</li> <li>LS: It brown; vf-xtal; tight int granular w/trace bright fluor, v-sli stain; 4550.</li> <li>LS: grayish brown; vf-xtal; dense granular; N.S.</li> <li>SiltSt: white; vf-grain; no visible porosity; N.S., trace 4560 stop, high vol in 30 min.</li> </ul>		2 30 M	IN BE	FORE	-60; -123 DRILI	216' ( 1; FF	GIP, : 2:46-	30' OIL 56, 57-	., 14	
CFS 4560 30/60 ()		0 0 0		<ul> <li>Shale: black; carbon;</li> <li>LS: grayish brown; vf-xtal; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; mostly dense; few grains; trace bright fluor, vf-vug porosity; v-sli stain; 4520.</li> <li>LS: grayish brown; f-xtal; dense; trace tight int xtal w/bright fluor &amp; v-sli stain; 4530.</li> <li>LS: It grayish brown; mic-vf xtal; dense; dull mineral fluor; trace bright fluor, vf-vug por, v-sli stain; 4540.</li> <li>LS: It brown; vf-xtal; tight int granular w/trace bright fluor, v-sli stain; 4550.</li> <li>LS: grayish brown; vf-xtal; dense granular; N.S.</li> <li>SiltSt: white; vf-grain; no visible porosity; N.S., trace 4560 stop, high vol in 30 min.</li> <li>Shale: dk-green, gray; trc silty &amp; glauconitic;</li> </ul>		2 30 M	IN BE	FORE	-60; -123 DRILI	216' ( 1; FF	GIP, : 2:46-	30' OIL 56, 57-	., 14	
CFS 4560 30/60 ()		0 0 0		<ul> <li>Shale: black; carbon; LS: grayish brown; vf-xtal; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; mostly dense; few grains; trace bright fluor, vf-vug porosity; v-sli stain; 4520.</li> <li>LS: grayish brown; f-xtal; dense; trace tight int xtal w/bright fluor &amp; v-sli stain; 4530.</li> <li>LS: It grayish brown; mic-vf xtal; dense; dull mineral fluor; trace bright fluor, vf-vug por, v-sli stain; 4540.</li> <li>LS: It brown; vf-xtal; tight int granular w/trace bright fluor, v-sli stain; 4550.</li> <li>LS: grayish brown; vf-xtal; dense granular; N.S.</li> <li>SiltSt: white; vf-grain; no visible porosity; N.S., trace 4560 stop, high vol in 30 min.</li> <li>Shale: dk-green, gray; trc silty &amp; glauconitic;</li> <li>EROS. MISS. 4571 (-1745)</li> </ul>		2 30 M	IN BE	FORE	-60; -123 DRILI	216' ( 1; FF	GIP, : 2:46-	30' OIL 56, 57-	., 14	
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CHALKY OOLITE			4550	<ul> <li>Shale: black; carbon; LS: grayish brown; vf-xtal; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; mostly dense; few grains; trace bright fluor, vf-vug porosity; v-sli stain; 4520.</li> <li>LS: grayish brown; f-xtal; dense; trace tight int xtal w/bright fluor &amp; v-sli stain; 4530.</li> <li>LS: It grayish brown; mic-vf xtal; dense; dull mineral fluor; trace bright fluor, vf-vug por, v-sli stain; 4540.</li> <li>LS: It brown; vf-xtal; tight int granular w/trace bright fluor, v-sli stain; 4550.</li> <li>LS: grayish brown; vf-xtal; dense granular; N.S.</li> <li>SiltSt: white; vf-grain; no visible porosity; N.S., trace 4560 stop, high vol in 30 min.</li> <li>Shale: dk-green, gray; trc silty &amp; glauconitic;</li> <li>EROS. MISS. 4571 (-1745)</li> <li>LS: It brown; vf-xtal; dense; includes much semi-trans to opaq chert; no visible porosity; N.S.</li> <li>LS: It brown, cream; vf-xtal; chalky oolite; includes white, translucent to opaq chert; tight int ool porosity; N.S.</li> <li>LS: It brown, cream; vf-xtal; fine to med oolite; tight int ool porosity at best; N.S.</li> <li>LS: oolitic &amp; chalky as above; 4620 stop.</li> <li>SPERGEN 4619 (-1793)</li> <li>Dol: md brown; f-xtal; tight int xtal porosity; N.S., trc 30 min, incr 60 min.</li> </ul>		1 FFP CM; 2 30 M 52, W 52, W	'; 5-1 SIP: IN BE	5-30- 1206	-60; -123 DRILI	216' () 1; FF			., 14	
CFS 4620 30/60-0 RTD 2:47 am			4550	<ul> <li>Shale: black; carbon; LS: grayish brown; vf-xtal; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; mostly dense; few grains; trace bright fluor, vf-vug porosity; v-sli stain; 4520.</li> <li>LS: grayish brown; f-xtal; dense; trace tight int xtal w/bright fluor &amp; v-sli stain; 4530.</li> <li>LS: It grayish brown; mic-vf xtal; dense; dull mineral fluor; trace bright fluor, vf-vug por, v-sli stain; 4540.</li> <li>LS: It brown; vf-xtal; tight int granular w/trace bright fluor, v-sli stain; 4550.</li> <li>LS: grayish brown; vf-xtal; dense granular; N.S.</li> <li>SiltSt: white; vf-grain; no visible porosity; N.S., trace 4560 stop, high vol in 30 min.</li> <li>Shale: dk-green, gray; trc silty &amp; glauconitic;</li> <li>EROS. MISS. 4571 (-1745)</li> <li>LS: It brown; vf-xtal; dense; includes much semi-trans to opaq chert; no visible porosity; N.S.</li> <li>LS: It brown, cream; vf-xtal; fine to med oolite; tight int ool porosity at best; N.S.</li> <li>LS: oolitic &amp; chalky as above; 4620 stop.</li> <li>SPERGEN 4619 (-1793)</li> <li>Dol: md brown; f-xtal; tight int xtal porosity; N.S., trc</li> </ul>		1 FFP CM; 2 30 M 52, W 52, W	'; 5-1 SIP: IN BE	5-30- 1206	-60; -123 DRILI	216' () 1; FF			., 14	
CHALKY OOLITE 0 ROP 15 CFS 4620 30/60 O			4550	<ul> <li>Shale: black; carbon; LS: grayish brown; vf-xtal; dense; N.S.</li> <li>LS: grayish brown; vf-xtal; mostly dense; few grains; trace bright fluor, vf-vug porosity; v-sli stain; 4520.</li> <li>LS: grayish brown; f-xtal; dense; trace tight int xtal w/bright fluor &amp; v-sli stain; 4530.</li> <li>LS: It grayish brown; mic-vf xtal; dense; dull mineral fluor; trace bright fluor, vf-vug por, v-sli stain; 4540.</li> <li>LS: It brown; vf-xtal; tight int granular w/trace bright fluor, v-sli stain; 4550.</li> <li>LS: grayish brown; vf-xtal; dense granular; N.S.</li> <li>SiltSt: white; vf-grain; no visible porosity; N.S., trace 4560 stop, high vol in 30 min.</li> <li>Shale: dk-green, gray; trc silty &amp; glauconitic;</li> <li>EROS. MISS. 4571 (-1745)</li> <li>LS: It brown; vf-xtal; dense; includes much semi-trans to opaq chert; no visible porosity; N.S.</li> <li>LS: It brown, cream; vf-xtal; chalky oolite; includes white, translucent to opaq chert; tight int ool porosity; N.S.</li> <li>LS: It brown, cream; vf-xtal; fine to med oolite; tight int ool porosity at best; N.S.</li> <li>LS: oolitic &amp; chalky as above; 4620 stop.</li> <li>SPERGEN 4619 (-1793)</li> <li>Dol: md brown; f-xtal; tight int xtal porosity; N.S., trc 30 min, incr 60 min.</li> </ul>		1 FFP CM; 2 30 M 52, W 52, W	'; 5-1 SIP: IN BE	5-30- 1206	-60; -123 DRILI	216' () 1; FF			., 14	