

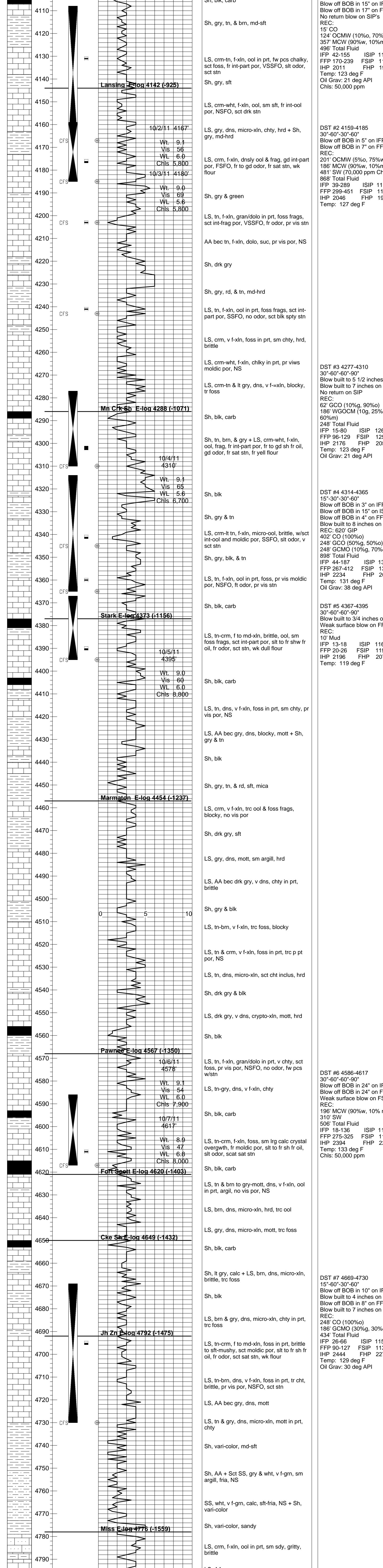
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Geologist's Report		Drilling Time and Sample Log	
OPERATOR	Murfin Drilling Co., Inc.	DATE	Depth
LEASE	Soucie-Seele Unit	NO	Size
FIELD	Widcat	API	Make
LOCATION	2550 FNL & 1990' FEL	WELL NO	Type
SEC.	14	15-193-20814	Depth Out
COUNTY	Thomas	TWP.	Feet
		10S	Hours
		RGE.	
		34W	
CONTRACTOR	Murfin Drilg Co., Inc.	COMPM	
SAMPLES SAVED FROM	3750	TOP DTD	
DRILLING TIME KEPT FROM	3750	TO TD	
SAMPLES EXAMINED FROM	3750	TO TD	
GEOLOGICAL SUPERVISION FROM	3925	TO TD	
MUD UP 3200		TYPE MUD	
FORMATION	LOG	DATUM	
Anhydrite	2727 (+490)	TOP DTD	
B/Anhydrite	2755 (+461)	2729 (+485)	
Topkeka	3889 (-672)	3832 (-675)	
Hennefer Sh.	4102 (-885)	4104 (-887)	
Lansing	4142 (-928)	4144 (-927)	
Muncie Creek	4142 (-929)	4144 (-927)	
Stark Sh.	4288 (-1071)	4286 (-1069)	
Marmaton	4460 (-1237)	4462 (-1235)	
Pawnee	4570 (-1350)	4578 (-1350)	
Cherokee Sh.	4610 (-1403)	4617 (-1403)	
Johnson Zone	4776 (-1559)	4778 (-1561)	
Mississippian	4900	+29	

REFERENCE WELL FOR STRUCTURAL COMPARISON: Murfin Drilg Co., #1-22-James
 1100 FNL & 750 FEL sec. 22-10S-34W, Thomas Co., KS

Casing Record		Elevation	
SURFACE	KB 3217	DF	
8 5/8" at 289 KB w/175SX		GL 3206	
PRODUCTION		Measurements Are All	
5 1/2" at 489 KB w/175SX		From K _B	

Based upon log analysis, DST recovery, and sample examination, it was recommended that casing be set for further testing of the #1-14 Soucie-Seele Unit.



Depth	Sample Descriptions	Remarks
3750	LS, crm-lt tn, f-xln, gran, sct foss frags, blocky	Bit trip @ 3750' Deviation Surveys:
3760	Sh, gry, md-slt, silty	1/2 deg @ 369°
3770	LS, It gry, dns, f-xln, mott, tr foss	1/4 deg @ 3550'
3780	Sh, tn, gry, & rd, silt	1 deg @ 4900'
3790	LS, It gry, dns, v f-xln, mott in prt, trc foss	
3800	LS, crm-lt tn, f-xln, tr foss, brittle	
3810	LS, crm-gry, v f-xln, foss in prt, sm chty, hrd	
3820	Sh, gry, md-slt	
3830	LS, tn, dns, v f-xln, abt foss frags, hrd, trc int-frag por, NS	
3840	Sh, blk & gry	
3850	LS, tn-lt gry, f to md-xln, tr foss, sm v chalky	
3860	Sh, gry & tn, md-hrd	
3870	LS, crm, f-xln, abt foss frags, hrd, trc int-frag por, NS	
3880	LS, crm, f-xln, chiky, foss, sft, no vis por	
3890	Sh, blk, fiss	
3900	LS, tn, dns, f-xln, abt foss frags, blocky, trc chit	
3910	LS, It gry, dns, v f-xln, trc foss, chty in prt	
3920	Sh, drk gry	
3930	LS, crm, f-xln, chalky, foss, sft, pr vis por, NS	
3940	LS, AA bec It gry, sm gran, dolo in prt	
3950	LS, wht, f-xln, v chalky, foss in prt, pr vis moldic por, NS	
3960	LS, AA bec tn, dolo, gran, sft	
3970	Sh, blk	
3980	Siltst, gry & tn, v f-grn, sft, mica, sm pyr	
3990	Sh, blk	
4000	LS, crm, dns, f-xln, foss, sft, sm chky, pr vis por, NS	
4010	LS, AA bec tn, dol, gran, dol, pft	
4020	LS, wht, f-xln, chalky, foss, sft, pr vis pft	
4030	LS, AA bec tn, dol, gran, dol, pft	
4040	Sh, blk	
4050	LS, crm-wht, f-xln, v chalky, ool in prt, sft, sct oomold por, NS	
4070	LS, It gry, dns, mott, argill	
4080	LS, tn, f-xln, foss, sft, chiky, sm gran/dolo, pr vis por, NS	
4090	LS, crm-gry, f-xln, sft, foss, sm v chalky	
4100	Sh, blk, carb	
4110	Sh, gry, tn, & brn, md-slt	
4120	LS, crm-lt tn, f-xln, ool in prt, fw pcc chalky, sct foss, fr int-part por, VSSFO, fr odor, fr sat stn, wk flour	DST #1 4108-4167 30°-60°-30°-60° Blow off BOB in 5° on IFP Blow off BOB in 15° on IFP Blow off BOB in 17° on FFP No return blow on SIP's REC 15° CO 124° OCWM (5%, 70%, 20%) 357° MCW (90%, 10%) 496° Total Fluid IFP 42-155 FSIP 1193 FFP 170-239 FSIP 1180 IHP 201-249 FHP 1998 Temp: 123 deg F Oil Grav: 21 deg API Chls: 50.000 ppm
4130	Sh, gry, sft	
4140	LS, crm-wht, f-xln, ool sit, fr int-ool por, NSFO, sct drk stn	
4150	LS, gry, dns, micro-xln, chty, hrd + Sh, gry, md-hrd	
4160	LS, gry, dns, top 10/1/11 3995	
4170	LS, crm, f-xln, dns, v f-xln, mott, gnd int-part por, VSSFO, fr odor, fr sat stn, wk flour	
4180	Sh, gry, tn, & brn, md-slt	
4190	LS, crm, f-xln, dns, v f-xln, mott, gnd int-part por, VSSFO, fr odor, fr sat stn, fr yell flour	
4200	Sh, blk	
4210	AA bec tn, f-xln, dol, suc, pr vis por, NS	
4220	Sh, drk gry	
4230	Sh, gry, rd, & tn, md-hrd	
4240	LS, tn, f-xln, ool in prt, foss frags, sct int-part por, SSFO, no odor, sct blk spct stn	
4250	LS, crm, v f-xln, foss in prt, sm chty, hrd, brittle	
4260	LS, crm-wht, f-xln, chiky in prt, pr viws	
4270	LS, crm-lt tn, f-xln, ool in prt, foss frags, sct int-part por, SSFO, no odor, sct blk spct stn	
4280	Sh, blk, carb	
4290	Sh, gry & green	
4300	LS, tn, f-xln, gran/dolo in prt, foss frags, sct int-part por, VSSFO, fr odor, pr vis stn	
4310	AA bec tn, f-xln, dol, suc, pr vis por, NS	
4320	Sh, drk gry	
4330	Sh, gry, rd, & tn, md-hrd	
4340	LS, tn, f-xln, ool in prt, foss frags, sct int-part por, SSFO, no odor, sct blk spct stn	
4350	Sh, blk, carb	
4360	Sh, gry, blk, & tn	
4370	LS, tn, f-xln, ool in prt, foss, pr vis moldic por, NSFO, fr odor, pr vis stn	
4380	Sh, blk, carb	
4390	LS, tn-crm, f to md-xln, brittle, ool, sm sft frags, sct int-part por, sit to fr shw fr oil, fr odor, fr sat stn, wk dull flour	DST #2 4159-4185 30°-60°-30°-60° Blow off BOB in 5° on IFP Blow off BOB in 15° on IFP Blow off BOB in 7° on FFP No return blow on SIP's REC 15° CO 124° OCWM (5%, 90%, 10%) 357° MCW (90%, 10%) 481° SW (70,000 ppm Chls) 868° Total Fluid IFP 39-289 ISIP 1193 FFP 170-239 FSIP 1183 IHP 2046 FHP 1998 Temp: 123 deg F Oil Grav: 21 deg API Chls: 50.000 ppm
4400	Sh, blk	
4410	Sh, gry, blk, & tn	
4420	LS, tn, f-xln, ool in prt, foss, pr vis moldic por, NSFO, fr odor, pr vis stn	
4430	Sh, blk, carb	
4440	Sh, gry, blk, & tn	
4450	LS, tn, f-xln, ool in prt, foss, pr vis moldic por, NSFO, fr odor, pr vis stn	
4460	Sh, blk, carb	
4470	Sh, gry, blk, & tn	
4480	LS, tn-crm, f to md-xln, brittle, ool, sm sft frags, sct int-part por, sit to fr shw fr oil, fr odor, fr sat stn, wk dull flour	
4490	Sh, blk, carb	
4500	LS, tn, f-xln, ool in prt, foss, pr vis moldic por, NSFO, fr odor, pr vis stn	
4510	Sh, blk, carb	
4520	LS, tn, f-xln, ool in prt, foss, pr vis moldic por, NSFO, fr odor, pr vis stn	
4530	Sh, blk, carb	
4540	LS, tn, f-xln, ool in prt, foss, pr vis moldic por, NSFO, fr odor, pr vis stn	
4550	Sh, blk, carb	
4560	LS, tn-crm, f to md-xln, brittle, ool, sm sft frags, sct int-part por, sit to fr shw fr oil, fr odor, fr sat stn, wk dull flour	
4570	Sh, blk, carb	
4580	LS, tn, f-xln, ool in prt, foss, pr vis moldic por, NSFO, fr odor, pr vis stn	
4590	Sh, blk, carb	
4600	LS, tn-crm, f to md-xln, brittle, ool, sm sft frags, sct int-part por, sit to fr shw fr oil, fr odor, fr sat stn, wk dull flour	
4610	Sh, blk, carb	
4620	LS, tn-crm, f to md-xln, brittle, ool, sm sft frags, sct int-part por, sit to fr shw fr oil, fr odor, fr sat stn, wk dull flour	DST #3 4277-4310 30°-60°-30°-90° Blow built to 5 1/2 inches on IFP Blow built to 10 inches on FFP No return blow on SIP's REC 62° GCO (10%, 90%) 186° MCW (90%, 10%) 248° Total Fluid IFP 15-80 ISIP 1238 FFP 26-129 FSIP 1253 IHP 21-131 FHP 2053 Temp: 123 deg F Oil Grav: 21 deg API Chls: 50.000 ppm
4630	Sh, blk, carb	
4640	LS, tn-crm, f to md-xln, brittle, ool, sm sft frags, sct int-part por, sit to fr shw fr oil, fr odor, fr sat stn, wk dull flour	
4650	Sh, blk, carb	
4660	LS, tn-crm, f to md-xln, brittle, ool, sm sft frags, sct int-part por, sit to fr shw fr oil, fr odor, fr sat stn, wk dull flour	
4670	Sh, blk, carb	
4680	LS, tn-crm, f to md-xln, brittle, ool, sm sft frags, sct int-part por, sit to fr shw fr oil, fr odor, fr sat stn, wk dull flour	
4690	Sh, blk, carb	
4700	LS, tn-crm, f to md-xln, brittle, ool, sm sft frags, sct int-part por, sit to fr shw fr oil, fr odor, fr sat stn, wk dull flour	
4710	Sh, blk, carb	
4720	LS, tn-crm, f to md-xln, brittle, ool, sm sft frags, sct int-part por, sit to fr shw fr oil, fr odor, fr sat stn, wk dull flour	
4730	Sh, blk, carb	
4740	LS, tn-crm, f to md-xln, brittle, ool, sm sft frags, sct int-part por, sit to fr shw fr oil, fr odor, fr sat stn, wk dull flour	
4750	Sh, blk, carb	
4760	LS, tn-crm, f to md-xln, brittle, ool, sm sft frags, sct int-part por, sit to fr shw fr oil, fr odor, fr sat stn, wk dull flour	
4770	Sh, blk, carb	
4780	LS, tn-crm, f to md-xln, brittle, ool, sm sft frags, sct int-part por, sit to fr shw fr oil, fr odor, fr sat stn, wk dull flour	
4790	Sh, blk, carb	
4800	LS, tn-crm, f to md-xln, brittle, ool, sm sft frags, sct int-part por, sit to fr shw fr oil, fr odor, fr sat stn, wk dull flour	