

Sec. 30, Twp. 17, Rng. 22
 Mi. Co., Kansas
 9475 FSL 165 FEL
 API # 15-121-29382

HUGHES DRILLING REPORT

Well No. #18
 Farm Brawn
 SURFACE CASING
 Size 7"
 Feet 23.8
 Circulated 7 sx cement

PERMANENT CSG.
 Size 2 3/8" 8sd EVE
 Feet 575' Bolt at 571'
 Seaming nipple at 524'
 T. D. at Completion 585'

OPERATOR John Herrick
 Contractor HUGHES DRILLING CO.

STRATA THICKNESS	FORMATION DRILLED	T.D.
4	Soil	4
26	Clay	30
14	Shale	44
19	Lime	63
25	Shale	88
5	Lime	93
47	Shale	134
15	Lime	149
10	Shale	159
30'	28 Lime	187
8	Shale	195
20'	22 Lime	217
4	Shale	221
5	Lime	226
3	Shale	229
Herrick	5 Lime	234
128	Shale	362
3	Red Bed	365
3	Shale	370
2	Lime	372
2	Shale	374
5	Sdy Shale	379
13	Shale	392
17	Lime	409
40	Shale	449
5	Lime	454
13	Shale	467
2	Lime	489
20	Shale	499
2	Red Bed	501
7	Shale	508
4	Lime	512
4	Shale	516
5	Lime	521
5	Shale	526
9	oil sand	535
50	Shale	585
		T.D.

DATE	DRILLED		REMARKS - TYPE WORK - BILLING REF.	PIPE TALLY
	FROM	TO		
6/24/13	0	4	Soil	(1) 21.5-21.5
	4	30	Clay	(2) 22.5-44.0
6/25/13	30	44	Shale	(3) 22.5-66.5
23	44	63	Lime	(4) 22.5-89.0
5 7/8	63	88	Shale (BRKN 83-88)	(5) 22.5-111.5
PDC BIT	88	93	Lime	(6) 22.5-134.0
	93	134	Shale	(7) 22.5-156.5
	134	149	Lime	(8) 22.5-179.0
	149	159	Shale	(9) 22.5-201.5
30'	159	187	Lime	(10) 22.5-224.0
	187	195	Shale (Slate 188-189)	(11) 22.5-246.5
20'	195	217	Lime	(12) 22.5-269.0
	217	221	Shale (Slate 217-218)	(13) 22.5-291.5
	221	226	Lime	(14) 22.5-314.0
	226	229	Shale	(15) 22.5-336.5
"Herrick"	229	234	Lime	(16) 22.5-359.0
	234	362	Shale (BRKN 237-239)	(17) 22.5-381.5
	362	365	Red Bed	(18) 22.5-404.0
	365	370	Shale	(19) 22.5-426.5
	370	372	Lime (BRKN)	(20) 22.5-449.0
	372	374	Shale	(21) 22.5-471.5
"Penu"	374	379	Sandy shale	(22) 22.5-494.0
	379	392	Shale	(23) 22.5-516.5
	392	409	Lime	(24) 22.5-539.0
	409	449	Shale	(25) 22.5-561.5
	449	454	Lime	(26) 22.5-584.0
	454	467	Shale	

PS-4

Sec. 30, Twp. 17, Rng 22
11 Mi. Co., Kansas
4475 FSL 165 FEL
API # 15-121-29382

HUGHES DRILLING REPORT

Well No. #18
Farm Brown

SURFACE CASING
Size.....
Feet.....
Circulated _____ sx cement

PERMANENT CSG.
Size 2 7/8" 8rd EVE
Feet 575' Bolt at 571'

OPERATOR John Herrick

T. D. at Completion 585'
Contractor HUGHES DRILLING CO.

STRATA THICKNESS	FORMATION DRILLED	T.D.

DATE	DRILLED		REMARKS - TYPE WORK - BILLING REF.	PIPE TALLY
	FROM	TO		
	467	469	Lime (Brown)	
	469	484	Shale (slate 469-470)	
	484	489	Lime	
	489	499	Shale	
	499	501	Red Bed	
	501	508	Shale	
	508	512	Lime	
	512	516	Shale (slate 516-517)	
	516	521	Lime	
	521	526	Shale	
	526	535	oil sand (Remarks pg. 3)	
	535	585	Shale T.D.	
6/25/15			Set 575' of 2 7/8" 8rd EVE Bolt at 571' Used 3 centralizers seating nipple at 524 10 rd reg. weld on collar on top	