

HUGHES DRILLING REPORT

Well No. 3
 Farm N. McMillan
 SURFACE CASING
 Size 7"
 Feet 26.10
 Circulated 9 sx cement

PERMANENT CSG.
 Size 2 7/8 EWE
 Feet 719.40
 float shoe on bottom

OPERATOR Hughes Drilling

T. D. at Completion 740
 Contractor HUGHES DRILLING CO.

Fr. Co., Kansas
 1700 FSL 2445 FEL
 API # 15-297-27188

S. 2. Twp 16 S R. 14 W. 20 E

DATE	DRILLED		REMARKS - TYPE WORK - BILLING REF.	PIPE TALLY
	FROM	TO		
5/24/18	0	2	Soil	① 21.5 - 21.5
26	2	23	clay	② 22.5 - 44.0
5/23/18	23	29	Shale	③ 22.5 - 66.5
5/28/18	29	53	Lime	④ 22.5 - 89.0
	53	60	Shale	⑤ 22.5 - 111.5
	60	70	Lime	⑥ 22.5 - 134.0
	70	76	Shale	⑦ 22.5 - 156.5
	76	95	Lime	⑧ 22.5 - 179.0
	95	102	Shale	⑨ 22.5 - 201.5
	102	104	Grassy sand	⑩ 22.5 - 224.0
	104	156	Shale	⑪ 22.5 - 246.5
	156	175	Lime	⑫ 22.5 - 269.0
	175	189	Shale	⑬ 22.5 - 291.5
	189	192	Lime	⑭ 22.5 - 314.0
	192	233	Shale	⑮ 22.5 - 336.5
	233	256	Lime	⑯ 22.5 - 359.0
	256	269	Shale	⑰ 22.5 - 381.5
	269	278	Lime (Broken 269-271)	⑱ 22.5 - 404.0
	278	305	Shale	⑲ 22.5 - 426.5
	305	316	Lime	⑳ 22.5 - 449.0
	316	337	Shale (lime 321-322)	㉑ 22.5 - 471.5
30'	337	361	Lime	㉒ 22.5 - 494.0
	361	371	Shale (stone 370-371)	㉓ 22.5 - 516.5
10'	371	393	Lime	㉔ 22.5 - 539.0
	393	398	Shale	㉕ 22.5 - 561.5
	398	401	Lime	㉖ 22.5 - 584.0
	401	404	Shale	㉗ 22.5 - 606.5

STRATA THICKNESS	FORMATION DRILLED	T.D.
2	Soil	2
21	clay	23
6	Shale	29
21	Lime	53
7	Shale	60
10	Lime	70
6	Shale	76
19	Lime	95
7	Shale	102
2	Gr. sand	104
52	Shale	156
19	Lime	175
14	Shale	189
3	Lime	192
41	Shale	233
23	Lime	256
13	Shale	269
9	Lime	278
27	Shale	305
11	Lime	316
21	Shale	337
30'	24	Lime 361
	10	Shale 371
20	22	Lime 393
	5	Shale 398
	3	Lime 401
	3	Shale 404
"Hertius"	5	Lime 409
157	Shale	566
2	Sandy lime	568
11	Shale	579
8	Lime	587
7	Shale	594
5	Lime	599
8	Shale	607
7	Lime	614
6	Shale	621
2	Lime	626
7	Shale	633
7	Lime	641
14	Shale	655

HUGHES DRILLING REPORT

Fr Co., Kansas 1304
 1700 FSL 2445 FEL
 API # 15-059-27188

Well No. 3 SURFACE CASING PERMANENT CSG.
 Farm N. McMillen Size..... Feet.....
 Circulated _____ sx cement
 OPERATOR Hughes Drilling T. D. at Completion 740
 Contractor HUGHES DRILLING CO.

STRATA THICKNESS	FORMATION DRILLED	T.D.
2	Lime	661
10	Shale	671
#2 Squirrel 16	oil sand	687
20	Shale	707
1	Lime	708
11	Shale	719
#2 Squirrel 13	Sand	732
8	Shale	740
		T.D.

DATE	DRILLED		REMARKS - TYPE WORK - BILLING REF.	PIPE TALLY
	FROM	TO		
"H2" "H4"	404	409	Lime	(28) 22.5 - 629.0
	409	566	Shale (Broken 414-416) (Broken Lime 521-523)	
	566	568	Lime (sandy oil odor)	(29) 22.5 - 651.5
	568	579	Shale	(30) 22.5 - 674.0
	579	587	Lime	(31) 22.5 - 696.5
	587	594	Shale	(32) 22.5 - 719.0
	594	599	Lime	
	599	607	Shale	
	607	614	Lime	
	614	629	Shale	
	629	631	Lime (Brown)	
	631	638	Shale	
	638	645	Lime (Broken)	
	645	659	Shale	
	659	661	Lime	
	661	671	Shale	
#2 Squirrel	671	687	oil sand (remarks pg 3)	
5-24-18 G.R.S.	687	707	Shale	
	707	708	Lime	
	708	719	Shale	
#2 Squirrel	719	732	sand (LT. Brown sand) (oil trace) (solid 727-728)	
	732	740	Shale	
			T.D.	

5/24/18 - set 719, 40' of 2 7/8" Bro Edge pipe (used)
 used 3 centralizers
 Float shoe on bottom

HUGHES DRILLING CO.

Pg. 3

Wellsville, Kansas 66092

Roger 913-883-2295
Darrel 913-883-4027

Ron 913-883-4655
Clay 913-883-4383

CORE TIME
LEASE N. McMillen #3
FORMATION #1 Squirrel
DATE: 5/24/18

(REF) Chip sample

	FROM	FEET TO	TIME	MINUTES	REMARKS
①	671	672	}		sand very laminar, w/shale (some bleed)
②	672	673			
③	673	674			
④	674	675			
⑤	675	676			
⑥	676	677			
⑦	677	678	-		sand laminar, w/shale (bleeding)
⑧	678	679	}		solid sand (good bleed)
⑨	679	680			
⑩	680	681			
⑪	681	682			
⑫	682	683			678-683
⑬	683	684			683-686
⑭	684	685	}		sand laminar w/shale (bleeding)
⑮	685	686			
⑯	686	687	-		sand very laminar w/shale (bleeding)
⑰	687	688			
⑱	688	689			
<p>(Best Perf Zone)</p> <p>677-686 ECH</p> <p>3 shots per ft</p> <p>120° phase</p>					



PRESSURE PUMPING LLC
 PO Box 884, Chanute, KS 66720
 620-431-0210 or 800-467-8676

SM - 10773
 PO - 16779
 FT - 10663

TICKET NUMBER 54020
 LOCATION Ottawa
 FOREMAN Alan Mader

**FIELD TICKET & TREATMENT REPORT
 CEMENT**

Invoice #81325A

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
5-27-18	3425	N. McMillan 3	SE 2	16	20	Fr
CUSTOMER Hughes Drilling			TRUCK #			
MAILING ADDRESS 122 Main			DRIVER			
CITY Wellsville			TRUCK #			
STATE KS			DRIVER			
ZIP CODE 66092			TRUCK #			
			DRIVER			

JOB TYPE long string HOLE SIZE 5 7/8 HOLE DEPTH 710 CASING SIZE & WEIGHT 2 7/8
 CASING DEPTH 719 DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT _____ SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING yes
 DISPLACEMENT 4.18 DISPLACEMENT PSI 800 MIX PSI 200 RATE 4 bpm

REMARKS: Hold meeting. Established rate. Mixed & pumped 100# gel followed by 87 sk Poz Blend I-A plus 29 gal + 44# flo seal per sack. Circulated cement. Flushed pump. Pumped plug to casing TD. Well held 800 PSI. Set float

Hughes water Eric

Alan Mader

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0450	1	PUMP CHARGE	467 1500.00	
CE0002	15	MILEAGE	467 107.25	
CE0711	min	ten miles	503 660.00	
		sub	2267.35	
		less 40%	-906.90	1360.45
CE5840	87	Poz Blend I-A	1174.50	
CE5965	246#	gel	73.70	
CE6075	22#	floral	44.00	
CP8176	1	2 1/2 plug	45.00	
		sub	1387.00	
		less 40%	-534.92	802.08
		8	SALES TAX	64.19
			ESTIMATED TOTAL	2226.92
				(3711.93)

AUTHORIZATION _____ TITLE _____ DATE _____
 I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.