MORNING DRILLING REPORT

For: H&D Exploration, LLC

SOUTHWIND DRILLING, INC.

RIG No. 3

Well Name: Farris #1
Location: 938' FSL & 1743' FEL
Section: 5-25S-12W
County: Stafford
API: 15-185-24045-00-00

GL Elevation: 1892'
KB: 1901'
Est. TD: 4300'
Conductor String: N/A

Surface Casing: Ran 8 joints of new 20#, 8 5/8" casing, Tally @ 336.97', Set @ 348', used 350 sacks of 60/40 poz, 4% cc, 2% gel, cement circulated, by Quality (Ticket #1745), plug down @ 12:30 am on 11.14.19.

Plugging Info: Plugged well with 200 sacks of 60/40 Poz, 4% gel, 1st plug @ 4141' w/ 50 sacks, 2nd plug @ 710' w/ 50 sacks, 3rd plug @ 390' w/ 50 sacks, 4th plug @ 60' w/ 20 sacks, 30 sacks for Rathole, cemented by Quality (Ticket #1853), job complete @ 9:00 pm on 11.21.19.

Rotary Total Depth: 4230'
Log Total Depth: 4231'

Rig No. 3 Pusher (Jay Krier) 620-617-4477
Rig No. 3 (Doghouse) 620-566-7014
Southwind Drilling Office 620-564-3800

Geologist: Jim Musgrove

7:00 A.M. Depth: 4230' — **Current Operation: CIRCULATE TO COND HOLE**

Spud Date & Time: 11/13/19 @ 4:45pm	11/13/19 Day 1	11/14/19 Day 2	11/15/19 Day 3	11/16/19 Day 4	11/17/19 Day 5	11/18/19 Day 6	11/19/19 Day 7	11/20/19 Day 8	11/21/19 Day 9	Total
Total Depth (7:00am)	0	348	1707	2624	3414	3820	3918	4170	4230	
Daily Progress	348	1359	917	790	406	98	252	60	0	**4230**
Ft. Per Hr.	107.08	76.56	45.85	37.18	25.78	18.67	16.26	18.46	0.00	**41.47**
Current Operation (7:00am)	Rig Up	WOC	Drilling	Drilling	Drilling	Drilling	WOP	CFS	CTCH	
Formation	Surface	Surface	Lime / Shale	Lime / Shale	Lime / Shale	Lime / Shale	LKC	LKC	Arbuckle	
Fuel Used (41.5 Gal/Inch)	477.25	373.50	373.50	456.50	415.00	290.50	332.00	249.00		**2967.25**
Survey (degree & depth)	3/4° @ 348'					1° @ 3820'				
Mud Cost	$0.00	$851.98	$2,715.53	$2,200.77	$0.00	$635.70	$1,003.69	$89.12		**$7,496.79**
Weight (# / Gal)	10.0	10.0		9.5	9.6	9.9	9.7	9.4		
Vis (Funnel)	40	40		62	50	48	49	50		
Water Loss (cc)						10.8	11.6			
Bit #1										
Bit Make / Type	JZ RR RT									
Bit Size	12 1/4									
Bit Hours	3.25									**3.25**
Bit #2										
Bit Make / Type		JZ RX-23	JZ RX-23	JZ RX-23	JZ RX-23					
Bit Size		7 7/8	7 7/8	7 7/8	7 7/8					
Bit Hours		17.75	20.00	21.25	15.75					**74.75**
Bit #3										
Bit Make / Type						JZ RX-23	JZ RX-23			
Bit Size						7 7/8	7 7/8			
Bit Hours						5.25	4.75			**10.00**
Bit #4										
Bit Make / Type							Hughes	Hughes		
Bit Size							7 7/8	7 7/8		
Bit Hours							10.75	3.25		**14.00**
Bit Cumulative Hours	**3.25**	**17.75**	**20.00**	**21.25**	**15.75**	**5.25**	**15.50**	**3.25**	**0.00**	**102.00**
Weight on Bit (WOB)	15,000	30,000	35,000	35,000	35,000	35,000	35,000	35,000		
RPM	120	70	70	70	80	80	80	80		
Pump Pressure	300	800	800	800	900	900	800	800		
Drilling (Rotating) Hours	**3.25**	**17.75**	**20.00**	**21.25**	**15.75**	**5.25**	**15.50**	**3.25**	**0.00**	**102.00**
Daywork Hrs. (Operator's time)										
Rat Hole (>.75 Hrs)										**0.00**
Wait on Cement	6.50	1.50								**8.00**
Short Trip						1.75				**1.75**
Trip						6.25		10.75	3.00	**20.00**
Circulate					5.25	4.50	4.50	5.25	0.75	**20.25**
Tool						1.00		1.00		**2.00**
Testing						3.00		2.75		**5.75**
Clean Floor after DST										**0.00**
Logging								1.00	4.50	**5.50**
Wait on Orders									0.50	**0.50**
Wait on Cementers										**0.00**
LDDP / LDDC / Plug									4.75	**4.75**
Run Casing / Circ / Cement	2.00									**2.00**
Bit Trip										**0.00**
Jet Cellar / Nipple Down										**0.00**
Survey (Operator Request)										**0.00**
Billable Hours	**8.50**	**1.50**	**0.00**	**0.00**	**5.25**	**16.50**	**4.50**	**20.75**	**13.50**	**70.50**
Non-Billable Hours (Southwind's time)										
Rig Up / Tear Down	9.00								2.00	**11.00**
Wait on Cement (NB)										**0.00**
Drill Rat Hole (<.75 hrs)	0.75									**0.75**
Drill Mouse Hole										**0.00**
Drill Plug										**0.00**
Circulate / Trip (Surface)	0.75									**0.75**
Rig Repair		0.75		0.75	1.75	2.25				**5.50**
Connections	1.50	3.00	2.25	2.00	1.25		0.50			**10.50**
Jet/Displace	0.25	1.00	1.75							**3.00**
Surveys										**0.00**
Rig Check										**0.00**
Bit Trip							3.50			**3.50**
Lost Circulation (< 2 hrs)										**0.00**
Lay Down Kelly / MH & RH									0.50	**0.50**
Non-Billable Hrs.	**12.25**	**4.75**	**4.00**	**2.75**	**3.00**	**2.25**	**4.00**	**0.00**	**2.50**	**35.50**
	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	16.00	
Footage Cost	$ 3,828.00	$ 14,949.00	$ 10,087.00	$ 8,690.00	$ 4,466.00	$ 1,078.00	$ 2,772.00	$ 660.00	$ -	**$ 46,530.00**
Daywork Cost	$ 2,847.50	$ 502.50	$ -	$ -	$ 1,758.75	$ 5,527.50	$ 1,507.50	$ 6,951.25	$ 4,522.50	**$ 23,617.50**
Combined Est. Cost*	**$ 6,675.50**	**$ 15,451.50**	**$ 10,087.00**	**$ 8,690.00**	**$ 6,224.75**	**$ 6,605.50**	**$ 4,279.50**	**$ 7,611.25**	**$ 4,522.50**	**$ 70,147.50**

*Please note that this is estimated footage & daywork cost only. Additional charges will apply on invoice (fuel surcharge, water transfer pump, etc)

DST #1 Info -

Footage Interval: 3727' - 3820' LKC "I-L"
Recovery: 31' Gas in Pipe
95' Gassy Oil Spotted Watery Cut Mud
127' Gassy Mud Cut Water

DST #2 Info -

Footage Interval: 4164' - 4172' Arbuckle
Recovery: 94' Gas in Pipe
788' Gassy Spotty Oily Muddy Cut Water

Anhydrite @ 152_' - 1622' ***Displace @ 2594'***

Job Summary Graphical Report

Southwind Rig No. 3

Farris #1



