

MORNING DRILLING REPORT

SOUTHWIND DRILLING, INC.

For: H&D Exploration, LLC

RIG No. 3

Well Name: Herrman #1
 Location: 2119' FNL & 1848' FEL
 Section: 8-19S-13W
 County: Barton
 API: 15-009-26142-00-00

GL Elevation: 1856'
 KB: 1864'
 Est. TD: 3400'
 Conductor Pipe: N/A

Rig No. 3 (Pusher Jay Krier) 620 617-4477
 Rig No. 3 (Doghouse) 620 566-7104
 Southwind Drilling Office 620 564-3800



Surface Casing: Ran 8 joints of new 20#, 8 5/8" casing, Tally @ 334.28', Set @ 344', used 225 sacks of 60/40 Poz, 3% cc, 2% gel, cement circulated, by Quality (Ticket #1701), plug down @ 3:30 am on 05.24.16.

Production Info: Ran 84 joints of new 15.5#, 5 1/2" casing, Tally @ 3489.43', Set @ 3497', used 440 sacks of 80/20 QMDC, 1/4# Flo, cemented, by Quality (Ticket #1704), job complete @ 7:45 am on 05.30.16.

Rotary Total Depth: 3505'
 Log Total Depth: 3503' Geologist: Jim Musgrave

7:00 A.M. Depth: 3505' 7:00 A.M. Current Operation: TEAR DOWN

Spud Date & Time:	05/23/16	05/24/16	05/25/16	05/26/16	05/27/16	05/28/16	05/29/16	05/30/16	Total
05/23/2016 @ 1:45 PM	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	
Total Depth (7:00am)	0	344	1765	2580	3257	3273	3425	3505	
Daily Progress	344	1421	815	677	16	152	80		3505
Ft. Per Hr.	80.94	96.34	47.94	39.25	21.33	30.40	45.71	#DIV/0!	57.70
Current Operation (7:00am)	Rig Up	WOC	Drilling	Drilling	Short Trip	TIWB	CFS	Tear Down	
Formation	Surface	Surface	Lime / Shale	Lime / Shale	Lime / Shale	Lime / Shale	Lime / Shale	Arbuckle	
Fuel Used (39 Gal/Inch)	234.00	312.00	351.00	351.00	234.00	195.00	156.00		1833.00
Survey (degree & depth)	1/2' @ 344'				3/4' @ 3257'				

Mud Cost	\$0.00	\$0.00	\$2,065.73	\$842.23	\$0.00	\$2,698.55	\$2,056.30		\$7,662.81
Weight (# / Gal)									
Vis (Funnel)									
Water Loss (cc)				9.6	12.2	16.0			

Bit #1									
Bit Make / Type	Reed RT								
Bit Size	12 1/4								
Bit Hours	4.25								4.25
Bit #2									
Bit Make / Type		Reed R24	Reed R24	Reed R24	Reed R24	Reed R24	Reed R24	Reed R24	
Bit Size		7 7/8	7 7/8	7 7/8	7 7/8	7 7/8	7 7/8	7 7/8	
Bit Hours		14.75	17.00	17.25	0.75	5.00	1.75		56.50
Bit Cumulative Hours	4.25	14.75	17.00	17.25	0.75	5.00	1.75	0.00	60.75
Weight on Bit (WOB)	12,000	30,000	30,000	30,000	30,000	30,000	30,000		
RPM	120	80	80	80	80	80	80		
Pump Pressure	450	825	850	875	875	575	675		
Drilling (Rotating) Hours	4.25	14.75	17.00	17.25	0.75	5.00	1.75	0.00	60.75

Daywork Hrs. (Operator's time)										
Rat Hole (>.75 Hrs)										0.00
Wait on Cement										0.00
Weather										0.00
Short Trip					2.00	0.25				2.25
Trip	0.75				11.50	7.25	5.50			25.00
Circulate	0.25			2.50	4.50	7.00	4.75			19.00
Tool					1.25	0.50				1.75
Testing					5.50	2.75				8.25
Clean Floor after DST					0.25					0.25
Logging							5.00			5.00
Nipple Down / Jet Cellar							1.25			1.25
LDDP / LDDC							3.25			3.25
Run Casing / Circ / Cement	6.00						2.25	0.75		9.00
Set Slips								0.50		0.50
Lost Circulation (> 2 hrs)										0.00
Billable Hours	7.00	0.00	0.00	4.50	23.25	17.50	22.00	1.25		75.50

Non-Billable Hours (Southwind's time)										
Rig Up / Tear Down	7.50							6.75		14.25
Wait on Cement (NB)	3.50	4.50								8.00
Drill Rat Hole (<.75 hrs)	0.25									0.25
Drill Plug										0.00
Circulate / Trip (Surface)	0.50									0.50
Rig Repair			3.00			1.00				4.00
Connections	1.00	3.50	2.00	2.25		0.25	0.25			9.25
Jet/Displace		1.00	1.75							2.75
Surveys										0.00
Rig Check		0.25	0.25			0.25				0.75
Lost Circulation (< 2 hrs)										0.00
Lay Down Kelly / MH & RH										0.00
Non-Billable Hrs.	12.75	9.25	7.00	2.25	0.00	1.50	0.25	6.75		39.75

Footage Cost	\$ 3,440.00	\$ 14,210.00	\$ 8,150.00	\$ 6,770.00	\$ 180.00	\$ 1,520.00	\$ 800.00	\$ -	\$ 35,050.00
Daywork Cost	\$ 1,750.00	\$ -	\$ -	\$ 1,125.00	\$ 5,812.50	\$ 4,375.00	\$ 5,500.00	\$ 312.50	\$ 18,875.00
Combined Est. Cost*	\$ 5,190.00	\$ 14,210.00	\$ 8,150.00	\$ 7,895.00	\$ 5,972.50	\$ 5,895.00	\$ 6,300.00	\$ 312.50	\$ 53,925.00

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

<p>DST #1 Info -</p> <p>Footage Interval: 3194' - 3257' LKC "A-E"</p> <p>Recovery: 1008' Gas in Pipe 265' Gassy Oil Cut Mud</p>	<p>DST #2 Info -</p> <p>Footage Interval: 3257' - 3273' LKC "F"</p> <p>Recovery: Gas to Surface 1043' Clean Oil 50' Gassy Oil Cut Mud</p>
<p>DST #3 Info -</p> <p>Footage Interval: 324' - 3380' LKC "H-J"</p> <p>Recovery: 703' Gas in Pipe 431' Heavy Oil Gassy Cut Mud 126' Heavy Oil Cut Water</p>	<p>DST #4 Info -</p> <p>Footage Interval:</p> <p>Recovery:</p>

Anhydrite @ 750' - 776'

Displaced @ 2524' - 2575'

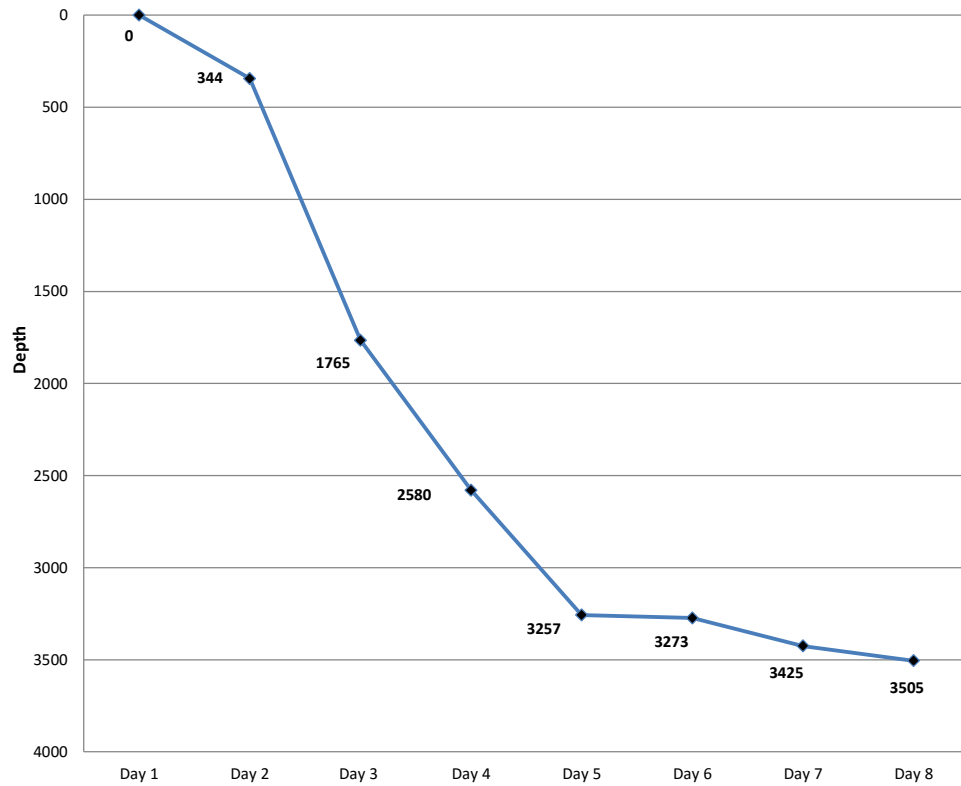


Job Summary Graphical Report

Southwind Rig No. 3

Herrman #1

Days vs Depth



Days vs Cost

