

MORNING DRILLING REPORT

For: H&D Exploration, LLC

SOUTHWIND DRILLING, INC.

RIG No. 8

Well Name: Durler #1
 Location: 1127' FNL & 1120' FWL
 Section: 32-24S-22W
 County: Hodgeman
 API: 15-083-21924-00-00

GL Elevation: 2420'
 KB: 2430'
 Est. TD: 4600'
 Conductor Pipe: N/A

Rig No. 8 (Pusher Bill Sanders) 620 617-0706
 Rig No. 8 (Doghouse) 620 566-7156
 Southwind Drilling Office 620 564-3800



Surface Casing: Ran 37 joints of 23#, 8 5/8" casing, Tally @ 1534', Set @ 1545', used 600 sacks of 60/40 Poz, 3% cc, 2% gel, 1/2# Flo-seal, cement circulated, by Quality (Ticket #1738), plug down 11:00 am on 07.09.16.

Plugging Info: Plugged well with 170 sacks of 60/40 Poz, 4% gel, 2% cc, 1/4# Flo-seal, 1st plug @ 1575' w/ 50 sacks, 2nd plug @ 800' w/ 50 sacks, 3rd plug @ 60' w/ 20 sacks, 30 sacks for Rat hole, 20 sacks for Mouse hole, cemented, by Global (Ticket # _____), job complete @ 4:00 am on 07.19.16.

Rotary Total Depth: 5055'
 Log Total Depth: 5052'

Geologist: Jim Musgrove

7:00 A.M. Depth: 5055' 7:00 A.M. Current Operation: TEAR DOWN

Spud Date & Time:	07/07/16	07/08/16	07/09/16	07/10/16	07/11/16	07/12/16	07/13/16	07/14/16	07/15/16	07/16/16	07/17/16	07/18/16	07/19/16	Total
07/08/2016 @ 12:30 AM	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	Day 9	Day 10	Day 11	Day 12	Day 13	
Total Depth (7:00am)	0	580	1546	1950	2902	3459	4030	4455	4731	4775	4791	5043	5055	5055
Daily Progress	580	966	404	952	557	571	425	276	44	16	252	12		5055
Ft. Per Hr.	145.00	71.56	70.26	53.63	30.94	30.05	23.94	16.00	17.60	21.33	20.16	12.00	#DIV/0!	38.96
Current Operation (7:00am)	Rig Up	Drilling	TOWB	Drilling	Drilling	CTCH	Drilling	Drilling	Short Trip	CFS	DST #3	Drilling	Tear Down	
Formation	Surface	Surface	Redbed	Redbed / Shale	Shale / Lime	Shale	Shale / Lime	Shale / Lime	Lime	Cherokee Lime	Mississippi	Mississippi	Lime	
Fuel Used (32.4 Gal/Inch)	162.00	307.80	243.00	453.60	486.00	453.60	388.80	421.20	243.00	145.80	453.60	259.20		4017.60
Survey (degree & depth)		1° @ 1546'							3/4° @ 4731'			3/4° @ 5055'		

Mud Cost	\$0.00	\$658.00	\$224.00	\$0.00	\$2,870.18	\$854.82	\$1,194.00	\$0.00	\$0.00	\$0.00	\$835.16	\$297.86		\$6,934.02
Weight (# / Gal)		9.5	8.7	9.0	8.5	9.1	9.4	9.4	9.3	9.2	9.5			
Vis (Funnel)		50	28	28	40	40	46	45	55	51	53			
Water Loss (cc)						9.1	10.4	10.4	12.0	12.0	11.2			

Bit #1														
Bit Make / Type	JZ	JZ												
Bit Size	12 1/4	12 1/4												
Bit Hours	4.00	13.50												17.50
Bit #2														
Bit Make / Type			Reed S52P	Reed S52P	Reed S52P	Reed S52P	Reed S52P	Reed S52P	Reed S52P	Reed S52P	Reed S52P	Reed S52P	Reed S52P	
Bit Size			7 7/8	7 7/8	7 7/8	7 7/8	7 7/8	7 7/8	7 7/8	7 7/8	7 7/8	7 7/8	7 7/8	
Bit Hours			5.75	17.75	18.00	19.00	17.75	17.25	2.50	0.75	12.50	1.00		112.25
Bit Cumulative Hours	4.00	13.50	5.75	17.75	18.00	19.00	17.75	17.25	2.50	0.75	12.50	1.00	0.00	129.75
Weight on Bit (WOB)	10,000	25,000	20,000	25,000	25,000	30,000	35,000	35,000	35,000	35,000	35,000	35,000		
RPM	100	100	85	80	80	80	80	75	80	80	80	80		
Pump Pressure	712	900	800	850	820	875	875	920	925	950	950	950		
Drilling (Rotating) Hours	4.00	13.50	5.75	17.75	18.00	19.00	17.75	17.25	2.50	0.75	12.50	1.00	0.00	129.75

Daywork Hrs. (Operator's time)														
Rat Hole (>.75 Hrs)	0.25													0.25
Wait on Cement			4.00											4.00
Weather														0.00
Short Trip		3.25				1.00	1.50	1.25	1.50					8.50
Trip									9.00	10.75	3.25	3.75		26.75
Circulate				0.25	0.50			3.25	5.25	6.25	2.25	1.75		19.50
Tool									2.00	1.25	0.50			3.75
Testing									3.50	4.50	2.25			10.25
Clean Floor after DST														0.00
Logging												5.50		5.50
Nipple Down / Jet Cellar														0.00
LDDP / LDDC / Plug well												8.25		8.25
Run Casing / Circ / Cement			3.50											3.50
Set Slips														0.00
Lost Circulation (> 2 hrs)														0.00
Billable Hours	0.25	3.25	7.50	0.00	0.25	1.50	1.50	4.50	21.25	22.75	8.25	19.25	0.00	90.25

Non-Billable Hours (Southwind's time)														
Rig Up / Tear Down	16.50											3.00		19.50
Wait on Cement (NB)			8.00											8.00
Drill Rat Hole (<.75 hrs)	0.75													0.75
Drill Plug			0.50											0.50
Circulate / Trip (Surface)		1.00	0.50											1.50
Rig Repair			0.25		0.25	0.50	1.50			0.25	2.25	0.50		5.50
Connections	2.50	4.00	1.00	4.00	2.00	2.50	2.50	1.00			1.00			20.50
Jet/Displace		1.50	0.50	1.50	1.25		0.50	0.50		0.25				6.00
Surveys									0.25				0.25	0.50
Rig Check		0.75		0.75	0.25	0.50	0.25	0.75						3.25
Stuck in hole					1.00									1.00
Circulate (NB)					1.00									1.00
Lost Circulation (< 2 hrs)														0.00
Lay Down Kelly / MH & RH														0.00
Non-Billable Hrs.	19.75	7.25	10.75	6.25	5.75	3.50	4.75	2.25	0.25	0.50	3.25	3.75	0.00	68.00

Footage Cost	\$ 6,380.00	\$ 10,626.00	\$ 4,444.00	\$ 10,472.00	\$ 6,127.00	\$ 6,281.00	\$ 4,675.00	\$ 3,036.00	\$ 484.00	\$ 176.00	\$ 2,772.00	\$ 132.00	\$ -	\$ 55,605.00
Daywork Cost	\$ 83.75	\$ 1,088.75	\$ 2,512.50	\$ -	\$ 83.75	\$ 502.50	\$ 502.50	\$ 1,507.50	\$ 7,118.75	\$ 7,621.25	\$ 2,763.75	\$ 6,448.75	\$ -	\$ 30,233.75
Combined Est. Cost*	\$ 6,463.75	\$ 11,714.75	\$ 6,956.50	\$ 10,472.00	\$ 6,210.75	\$ 6,783.50	\$ 5,177.50	\$ 4,543.50	\$ 7,602.75	\$ 7,797.25	\$ 5,535.75	\$ 6,580.75	\$ -	\$ 85,838.75

*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: 4677' - 4731' "Cherokee Limestone" Recovery: 2475' Gas in Pipe 275' Gassy Heavy Oil Cut Mud 20' Oil Cut Mud	DST #2 Info - Footage Interval: 4764' - 4780' Recovery: 210' Gas in Pipe 45' Oil Cut Mud
DST #3 Info - Footage Interval: 4767' - 4791' "Mississippi" Recovery: 94' Gas in Pipe 63' Gassy Cut Water Cut Oily Mud	DST #4 Info - Footage Interval: Recovery:

Anhydrite @ 1536' - 1569'

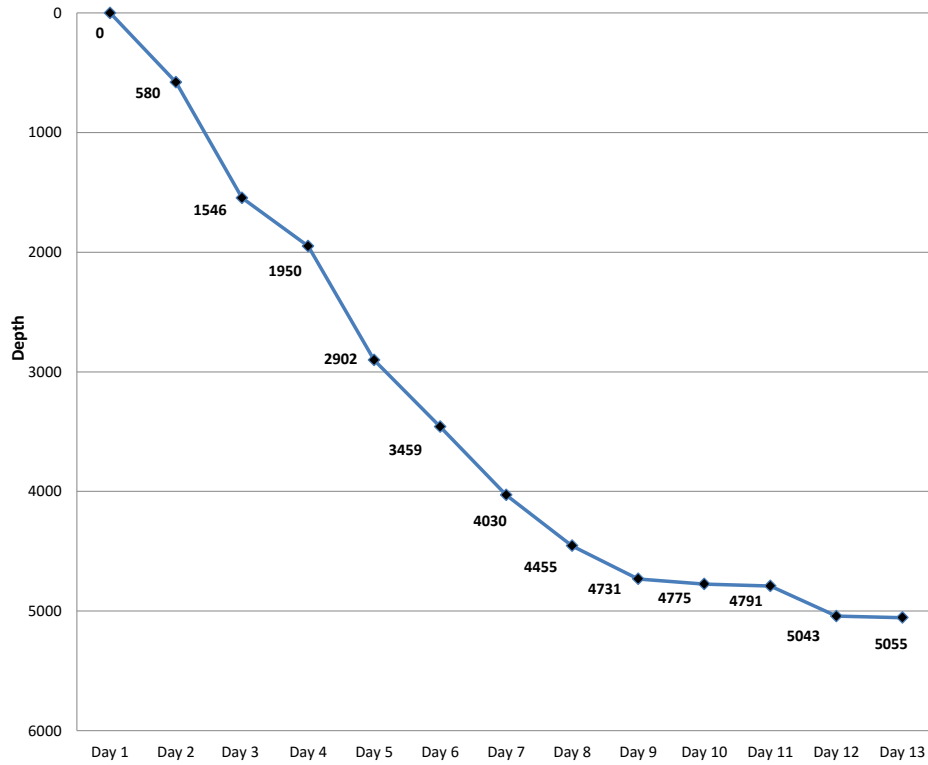
Displaced @ 3392' - 3424'



Job Summary Graphical Report

Southwind Rig No. 8
Durler #1

Days vs Depth



Days vs Cost

