



Casing Summary

15- 43040

Well Name MIDNIGHT SUN 2-26-27 005H		Lease		Field Name Welch		Business Unit Mid-Continent	
Ground Elevation (ft) 3,222.00	Original RKB (ft) 3,244.00	Current RKB Elevation 3,244.00, 6/5/2015				Mud Line Elevation (ft)	Water Depth (ft)

Conductor, Planned?-N, 139ftKB

Set Depth (MD) (ftKB) 139		Set Tension (kips)		String Nominal OD (in) 20		String Min Drift (in) 18.937		Centralizers		Scratchers	
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
3	Casing Joint	20	19.125	94.00	H-40		22	139	117.00	1,530.0	520.0

Surface, Planned?-N, 496ftKB

Set Depth (MD) (ftKB) 496		Set Tension (kips)		String Nominal OD (in) 13 3/8		String Min Drift (in) 7		Centralizers		Scratchers	
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
1	Casing Joint	13 3/8	12.715	48.00	H-40		22	22	0.00		740.0
1	Wellhead	13 3/8	12.715	48.00	H-40		22	26	4.11		740.0
1	Landing Joint	13 3/8	12.715	48.00	H-40		26	26	0.00		740.0
1	Casing Pup Joint	13 3/8	12.715	48.00	H-40		26	31	4.81		740.0
10	Casing Joint	13 3/8	12.715	48.00	H-40		31	419	388.03		740.0
1	Float Collar	13 3/8	12.715	48.00	H-40		419	420	1.00		740.0
2	Casing Joint	13 3/8	12.715	48.00	H-40		420	494	74.51		740.0
1	Float Shoe	13 3/8	12.715	48.00	H-40		494	496	1.58		740.0

Structural, Planned?-N, 5,887ftKB

Set Depth (MD) (ftKB) 5,887		Set Tension (kips)		String Nominal OD (in) 2 7/8		String Min Drift (in) 0		Centralizers		Scratchers	
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
1	Tubing	2 7/8	2.441	6.50	J-55	EUE	4,688	4,688	0.00		
1	Whipstock	12	2.441	48.00	H-40	EUE	4,688	4,721	32.61		
35	Tubing	2 7/8	2.441	6.50	J-55	EUE	4,721	5,853	1,131.73		
1	Float Shoe	3 3/8	2.125	6.50	J-55	EUE	5,853	5,855	2.05		
1	Mule Shoe	2 7/8	2.441	6.50	J-55	EUE	5,855	5,887	32.37		

Intermediate Casing 1, Planned?-N, 7,539ftKB

Set Depth (MD) (ftKB) 7,539		Set Tension (kips)		String Nominal OD (in) 9 5/8		String Min Drift (in) 8.688		Centralizers 48		Scratchers	
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
1	Casing Pup Joint	9 5/8	8.844	40.00	HCK-55		24	24	0.00		
1	Casing Joint	9 5/8	8.844	40.00	HCK-55		24	24	0.00	3,950.0	4,230.0
1	Landing Joint	9 5/8	8.844				24	24	0.00		
1	Casing Hanger w/ pup	9 5/8	8.844				24	24	0.00		
1	Casing Pup Joint	9 5/8	8.844	40.00	HCK-55		24	24	0.00		
51	Casing Joint	9 5/8	8.844	40.00	HCK-55		24	2,176	2,152.11	3,950.0	4,230.0
1	DV Tool	9 5/8	8.844				2,176	2,179	2.66		
1	External Casing Packer	9 5/8	8.844				2,179	2,203	23.91		
12	Casing Joint	9 5/8	8.844	40.00	HCK-55		2,203	7,452	5,249.10	3,950.0	4,230.0
5											
1	Float Collar	9 5/8	8.844				7,452	7,453	1.22		
2	Casing Joint	9 5/8	8.844	40.00	HCK-55		7,453	7,537	84.40	3,950.0	4,230.0
1	Shoe	9 5/8	8.844				7,537	7,539	1.63		

Structural, Planned?-Y, 9,168ftKB

Set Depth (MD) (ftKB) 9,168		Set Tension (kips)		String Nominal OD (in) 2 7/8		String Min Drift (in) 0		Centralizers		Scratchers	
Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
1	Whipstock	8 3/4	2.441	48.00	H-40	EUE	8,489	8,522	33.35		
19	Tubing	2 7/8	2.441	6.50	J-55	EUE	8,522	9,136	613.75		
1	Float Shoe	3 3/8	2.125	6.50	J-55	EUE	9,136	9,138	2.05		
1	Mule Shoe	2 7/8	2.441	6.50	J-55	EUE	9,138	9,168	29.97		

Production Casing, Planned?-N, 14,101ftKB

Set Depth (MD) (ftKB) 14,101		Set Tension (kips)		String Nominal OD (in) 5 1/2		String Min Drift (in) 90		Centralizers		Scratchers	
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Jts	Item Des	OD (in)	ID (in)	Wt (lb/ft)	Grade	Top Thread	Top Depth (MD) (ftKB)	Btm Depth (MD) (ftKB)	Len (ft)	P Burst (psi)	P Collapse (psi)
1	Casing Joint	5 1/2	4.892	17.00	HCP-110	CDC	23	23	0.00		
1	Pup Joint	5 1/2	4.892	17.00	HCP-110	CDC	23	23	0.00		
1	Landingt Joint	5 1/2	4.892	17.00	HCP-110	CDC	23	23	0.00		
1	Casing Hanger	5 1/2	4.892	17.00	HCP-110	CDC	23	28	5.30		
19 2	Casing Joint	5 1/2	4.892	17.00	HCP-110	CDC	28	8,396	8,367.80		
1	Pup Joint	5 1/2	4.892	17.00	HCP-110	CDC	8,396	8,396	0.00		
12 7	Casing Joint	5 1/2	4.892	17.00	HCP-110	CDC	8,396	13,884	5,488.70		
1	Pup	5 1/2	4.892	17.00	HCP-110	CDC	13,884	13,894	10.00		
1	RSI	5 1/2	4.892	17.00	HCP-110	CDC	13,894	13,900	5.49		
1	Pup	5 1/2	4.892	17.00	HCP-110	CDC	13,900	13,910	10.00		
1	Casing Joint	5 1/2	4.892	17.00	HCP-110	CDC	13,910	13,954	44.24		
1	Pup	5 1/2	4.892	17.00	HCP-110	CDC	13,954	13,964	9.62		
1	LC	5 1/2	4.892	17.00	HCP-110	CDC	13,964	13,965	1.44		
1	Casing Joint	5 1/2	4.892	17.00	HCP-110	CDC	13,965	14,012	47.00		
1	FC	5 1/2	4.892	17.00	HCP-110	CDC	14,012	14,013	1.23		
2	Casing Joint	5 1/2	4.892	17.00	HCP-110	CDC	14,013	14,099	86.01		
1	Shoe	5 1/2	4.892	17.00	HCP-110	CDC	14,099	14,101	1.55		