



NIGHTHAWK PRODUCTION LLC

Steamboat Hansen 8-10
SE NE Sec 10, T6S, R54W
LINCOLN COUNTY, COLORADO
API No. 05-73-06361-00

ELEVATION
R.B. 5,233
G.L. 5,221
KB 12'
BHT 214 °
Spud date: 10/02/12
Completion 11/16/12

Lat: 39.54349
Long: -103.42029
2,522' FNL 983' FEL

Not to scale

Prepared By: Harold Mayland
Date: 2/10/2016

Geological tops:

Niobrara	3672	Cherokee	7400
Dakota	4612	Atoka	7618
Stone Correl	5992	Morrow	7790
Wolfcamp	6207	Spergen	7987
LKC	6903	Simpson	8078
Marmaton	7233	Granite Wa	8192

Production Tubing

Drilled hole 12 1/4"
SURFACE CSG: 8 5/8" 24# J55 ST&C @ 309'
Cmt: 130 sks Class G to surface

Drilled hole 7 7/8"
Production Casing: 5 1/2" 17# N80 LT&C @
Cmt: Leed, 333 sks 12 ppg, 1.79 yield
Cmt: Tail, 324 sks 13 ppg, 1.43 yield, good returns.

TOC 3,560' (CBL)

Port collar @ 4,506'

5 1/2" 17# N80

I.D.	4.892
Drift	4.767
Burst	7,740
Lin ft/bbl	43.01
BBL/linft	0.0232

2 7/8" J55 EU 8RD

I.D.	2.441
Drift	2.347
Burst	7,260
Lin ft/bbl	172.7500
BBL/linft	0.00579

2 7/8" X 5 1/2"

Lin ft/bbl	65.71
BBL/linft	0.0152

	Qty	Length	Depth in hole
Tubing	Avg Jt length 32.43		
KB difference		10.00	10.00
Stretch		2.20	12.20
2 7/8" EU 8RD J55 tbg	245	7,920.86	7,933.06
TAC		3.17	7,936.23
2 7/8" EU 8RD J55 tbg	6	195.25	8,131.48
Seating Nipple		1.10	8,132.58
2 7/8" X 6' Perforated pup Jt	1	6.20	8,138.78
2 7/8" EU 8RD J55 tbg		32.40	8,171.18
bull plug		0.50	8,171.68
Total Joints	252		
Rods			
Polish rod 1 1/2" x 30'	1		
Pony rod 1" x 8' EL	1		
Pony rod 1" x 6' EL			
Pony rod 1" x 2' EL			
7/8" rods EL	105		
3/4" rods S88	125		
3/4" rods MMS HS	40		
3/4" rods S88	42		
1 1/2" X 25' K Bars	10		
1" X2' pony rod	1		
2 1/2" x 2" x 26" RHBC BNC, 230" max stroke			

NOTE:
11/02/12 Perf 8049-55'
11/03/12 DFIT perfs 8049-55'
11/07/12 Perf 8,055-65'
11/12/12 Set WRBP @ 8,048' perf 8,027-40'
11/14/12 Pull WRBP from 8,048'
06/26/13 Run BHP build up. BHP 1757 psi, 217 degrees
06/29/13 Change out pumping unit to a 912.
09/16/13 Perforated 8,018'-8,027'
08/22/14 Pumped 1060 gal Toluene
03/20/15 Pumped 145 bbls water w/6 bbls ethanol w/additives.
07/14/15 Pumped 4970 gal 2%KCL mixed w/750 gal Acetone and 1000 gal ethanol
02/05/16 Pumped 6000 gal 2% KCL w/1000 gal Acetone, 750 gal Ethanol, 65 gal RAS-92, 12 gal IC-75. 140 bio-balls.

Spergen
8,018'-8,027'
8,027-8,040'
8,049-8,055'
8,055-8,065'

PBTD @ 8,386'
Collar @ 8,391'

Shoe @ 8,484'

TD 8,500'