

NIGHTHAWK PRODUCTION LLC

SNOWBIRD 16-15
SE SE Sec 15, T6S, R54W
LINCOLN COUNTY, COLORADO
API No. 05-73-06561-00

Prepared By: H.Mayland
Date: 10/19/2016

ELEVATION
R.B. 5,256
G.L. 5,241
KB 15'
BHT 210'
BHP
Spud date: 09/25/14
TD Date: 10/10/14
Completion 11/04/14

Lat: 39.522910
Long: 103.419160
620' FSL 772' FEL

Geological tops:

Niobrara	3740	Atoka	7633
Dakota	4620	Morrow	7860
Dockum	5170	M 2	8028
Wolfcamp	6186	M 1	8052
LKC	6910	Spergen	8106
Marmaton	7221	Simpson	8177
Cherokee	7455	Granite Wa	8313

Not to scale

Production Tubing

Drilled hole 12 1/4"
SURFACE CSG: 9 5/8" 36# J55 ST&C @ 309'

Cmt: 185 sks Class G 14 PPG, 1.54 yield,
7 bbls cmt to surface

Drilled hole 8 3/4"

Production Casing: 5 1/2" 17# N80 LT&C @ 8,399'

Cmt: Leed: 1155 skx TIX 12 ppg

Cmt: Tail: 480 skx TIX 13 ppg

Cmt to surface, 85 bbls

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"	
I.D.	2.441
Drift	2.347
Burst	7,260
Lin ft/bbl	65.71
BBL/linft	0.0152

	Qty	Length	Depth in hole
Tubing	Jt avg 31.52		
KB difference		12.00	12.00
Slack off		-1.67	10.33
2 7/8" EU 8RD J55 tbg	257	8,101.70	8,112.03
2 7/8" on-off w/2.31 profile		1.84	8,113.87
5 1/2" x 2 7/8" ASI Packer		6.85	8,120.72
2 7/8" EU 8RD J55 pup jt.		10.19	8,130.91

Total

- 10/21/14 Perf Spergen 8,141-8,146' 6 SPF
- 10/22/14 Set CIBP w/2 sks cmt @8,130', Perf 7,428'-31'
- 10/23/14 Acidize 7,428'031' w/500 gal 15% HCL
- 10/24/14 Set RBP @ 7,420', Perf 7,396'-7,404'
- 10/27/14 Acidize 7,396-7,704 w/1200 gal 15% HCL
- 10/28/14 Pulled RBP from 7,420'
- 10/29/14 Set RBP @7,366', perf 7,266'-74'
- 10/30/14 Acidize 7,266'-74' w/1200 gal 15% HCL
- 10/04/16 Squeezed perfs 7,266-74' w/40 sks Class "G" cmt.
- 10/07/16 Resqueezed perf 7,266'-74' w/35 sks Class "G" cmt
- 10/11/16 Pulled RBP From 7,366'
- 10/12/16 Sqz perfs 7,396-7,404' and 7,428'-7,431' w/50 sks Class "G" cmt. w/50 sks Class "G" cmt
- 10/14/16 Drilled out CIBP @ 8,130'
- 10/17/16 Perf Lower Spergen 8,160'-8,174' 6 SPF. Broke down w/300 bbls produced wtr w/ additives.
- 10/18/16 RIH w/injection PKR, circ PKR fluid, set @ 8,120'

Marmaton
7,266'-7,274' Squeezed

7,396'-7,404' Squeezed

Cherokee
7,428'-7,431' Squeezed

Spergen
8,141'-8,146'
8,160'-8,174'

On-Off Tool, nickle coated, 2.31 Profile.
@ 8,113'

ASI packer, Nickle coated.
@ 8,120'

PBTD @ 8,266'
Collar @ 8,306'
Shoe @ 8,399'

TD 8,400'

