



NIGHTHAWK PRODUCTION LLC

Craig 7-34
SWNE Sec 34, T13S, R55W
LINCOLN COUNTY, COLORADO
API No. 05-73-06317

ELEVATION
R.B. 17'
G.L. 5,062'
KB 5,079'
BHT 175 °
Spud date: 10/5/08
Completion 11/26/08

Lat: 38.87571
Long: 103.54315
1,470' FNL 2,560' FEL

Production Tubing

TOC 2nd stage @2,715' (CBL)

Port Collar @ 3,588'

Remedial cmt 2 SPF @ 3,800'
75 sks cmt

Bottom of cmt 3,990'

TOC 5500' + (CBL)

LKC
5732-34'
6120-30'
Possible perfs

Marmaton
6374-6384'
Possible perfs

Cherokee Excello
6446-6448' Open

Cherokee
6434-6446' Excello
6470-6496' V shale
6536-6560' Tebo
6576-6586' Tebo
6596-6606' Tebo B
Squeezed off

U & L Atoka
6735-6765'
6835-6865'
6890-6920'
6920-6950'
6950-6980'

Mississippian
7335-7340'
7383-7400'
7495-7500'

Not to scale

Prepared By: Harold Mayland
Date: 3/7/2013

Geological tops:

Ft Hayes	2708	Cherokee	6452
D Sand	3231	Atoka	6710
LKC	5758	Morrow	7086
Marmaton	6206	Arbuckle	7524

Drilled hole 17 1/2"
SURFACE CSG: 13 3/8" 54.5# K55 ST&C @ 396'
Cmt: 325 sks, circ to surface.

Drilled hole 12 1/2"
Intermediate CSG: 8 5/8" 32# J55 @ 2,680'
Cmt: 225 sks, 1" to top out w/75 sks

Drilled hole 7 7/8"
Production Casing: 4 1/2" 11.6# N80 LT&C @ 7,580'
1st Stage - 450 sks
2nd Stage - 125 sks

4 1/2" 11.6# N80	
I.D.	4.000
Drift	3.875
Burst	7,780
Lin ft/bbl	64.34
BBL/linft	0.0155

2 3/8" J55 EU 8RD	
I.D.	1.995
Drift	1.901
Burst	7,700
Lin ft/bbl	258.65
BBL/linft	0.0039

2 3/8" X 4 1/2"	
I.D.	1.995
Drift	1.901
Burst	7,700
Lin ft/bbl	99.37
BBL/linft	0.0101

03/06/13

	Qty	Length	Depth in hole
Tubing	Estimated		
KB difference		14.00	14.00
			14.00
2 3/8" EU 8RD J55 tbg	197	6,344.60	6,358.60
Seating Nipple		1.10	6,359.70
Total Joints	197		
Rods			
Polish rod 1 1/2" x 22'	1		0.00
Pony rod 2' x 7/8"	0		0.00
Pony rod 4' x 7/8"	0		0.00
Pony rod 6' x 7/8"	0		0.00
Pony rod 8' x 7/8"	0		0.00
7/8" rods	48		1,200.00
3/4" rods	104		2,600.00
7/8" rods	3		75.00
Stabiizer pony rod 7/8" x 2'	0		75.00
2 1/2" x 1 1/2" x 20' RWBC pump	0		3,950.00

NOTE:

11/07/08 Perf 7,385-7,500'
11/10/08 Acidize 7,495'-7,500' w/250 gal 15% HCL
Acidize 7,383'-7,400' w/500 gal 15% HCL
Acidize 7,335'-7,340' w/250 gal 15% HCL } Miss perfs
01/13/09 Acid frac w/ 10,000 gal 15% HCL, 665 bbls wtr.
01/16/09 Acid frac w/ 10,000 gal 15% HCL, 728 bbls wtr.
01/22/09 Acid frac w/ 10,000 gal 15% HCL, 660 bbls wtr.
01/23/09 Acid frac w/ 10,000 gal 15% HCL, 604 bbls wtr.
03/09/09 Perf 6,735'-6,980'
03/11/09 Frac 6,735-6980' w/10,000 gal 15% HCL, 665 bbls wtr.
03/11/09 Frac w/61,120# 20/40 sand, 1085 bbls DynaAqua wtr.
04/27/09 Set Composite BP @ 6,660', perf 6,434'-6,606'
04/28/09 Acidize 6,434'-6,606' w/1000 gal 15% HCL
04/30/09 Frac 6,434-6,606' w/101,125# 20/40 sand, traced frac, went up to 6245'
11/10/09 Set CR @ 6400', squeeze perfs 6434-6606' w/200 sks.
11/11/09 Shot squeeze holes @ 3800' sqz 75 sks cmt.
11/18/09 Drilled out Composite BP, and CR to 7230'
11/19/09 Cmt Ret @ 6700' sqz 200 sks into formation.
11/26/09 Drill out CR @ 6700'
07/01/11 Set CIBP @6,530'
07/06/11 Squeezed perfs 6,436'-6,496'
07/07/11 Perf 6446-6448'
03/06/13 Set CIBP @6,420' w/ 2 sx cmt
03/07/13 MIT

CIBP @6420'

CIBP @ 6,530'

PBTD 7,512'

Shoe @ 7,580'

TD 7,584'