

Adobe Scott 'AYE' #1

High Plains Field

HOBBS OCD

FEB 22 2018

RECEIVED

OBJECTIVE:

Perforation & Frac of the Atoka Sands

WELL DATA:

API No. 30-025-29457

Legal Location: 1980' FSL & 1730' FEL, Sec. 11, Township 15 South, Range 34 East, NMPPM, LEA Co., N.M.

Elevation: 4071' GL

Surface Casing: 13 3/8" 54# J-55 @ 372'. Cmted w/ 400 sks.

Intermediate Casing: 9 5/8" 47# P-110 @ 4520'. Cmted w/ 1800 sks.

Production Casing: 4 1/2" 11.6# P-110 @ 13525'. Cmted w/ 2635 sks. TOC @ 4000'.

Previous perfs: Austin Cycle: 13027'-13038' @ 2 spf. (22 holes). Morrow: 12784'-86'; 12792'-96'; 12802'-04'; 12820'-24'; 12828'-32'; 12848'-55' @ 6spf. (138 holes).

Marker Joints: 12136' & 12564'. Casing report (10/5/2003)

PBTD: CIBP & cement @ 12965'

TD: 13510'

Volumetric Capacities:

- Tubing = .00579 bbl/ft
- Annular = .0075 bbl/ft
- Casing = .0155 bbl/ft

Well Configuration:

- (1) CIBP @ 13000' w/ 35' of cement @ 12965' set above Morrow perforations.
- (2) ~400 jts - 2 7/8" L-80 w/ 1.81" O/O tool & AS1X 4 1/2" packer @ 12600'.

PROCEDURE:

1. MIRUPU. MIRURU. Set (1) 500 bbl frac tank for flush/flowback.
2. ND WH. NU BOP. Send tree for service.
3. Release AS1X 4 1/2" packer & POOH w/packer & 2-7/8" tbg. Stand back tbg & LD packer. Tally pipe while POOH.
4. MIRU WL, set CIBP @ ~ 12,700' and dump bail 20' of cement. POOH.
5. Test casing & plug to 8000#s.
6. PU & RIH w/ 3 1/8" gamma perf guns. Perforate **12,542'-48'** @ 3 spf (21 holes) using premium (deepest penetrating) charges. POOH & RDMO WL company.

7. MIRU Tubing Testers. PU & Hydro-test 2-7/8" tubing above slips while RIH w/ 4" 10K treating packer to setting depth @ 12,500'.
8. Swab test well recording FL's & cuts. Report results.

NOTE: If first stage test proves to be commercial, continue as follows.

9. Set (10) 500 bbl frac tanks and fill w/ 2% KCL water for frac.
10. MIRU Acid Company, breakdown perfs @ 12,542'-48', & acidize Atoka perfs at 3-5 bpm with 700 gals of 15% NEFE double inhibited HCL w/ 60 ball sealers evenly spaced. Hold 2000#s on backside during acid job if possible.
11. Flush to top perf, ~ **73 bbls**. Record ISIP, 5, 10, & 15 min SIP's. RDMO Acid Company.
12. Flow well back and RU swab tools. Commence swabbing recording FL's & cuts. Report results.
13. POOH w/ tubing & packer. NU Frac Valve (or Frac Stack).
14. MIRU Frac Company & pump frac down 4 1/2" casing as per attached design across 12,542'-12,548' perf interval. Flush to top perf, ~ **195 bbls**. Record ISIP, 5, 10, & 15 min SIP's.
15. MIRU WL, RIH with composite frac plug and 3 1/8" gamma gun assembly. Set CFP @ ~ 12,450'. MUH & perforate 12,250'-12,262' @ 3 spf (39 holes) using premium (deepest penetrating) charges. POOH & RD WL.
16. RU Frac Company & pump frac down 4 1/2" casing as per attached design across 12,250'-12,262' perf interval bull heading 1400 gals of 15% NEFE double inhibited HCL acid ahead of the frac. Flush to top perf. ~ **190 bbls**. Record ISIP, 5, 10, & 15 min SIP's.
17. MIRU WL, RIH with CFP and 3 1/8" gamma gun assembly. Set CFP @ ~ 12,175'. MUH & perforate 11,966'-72'; 11,990'-12,002'; & 12,071'-76' @ 3 spf using premium (deepest penetrating) charges. POOH & RDMO WL.
18. RU Frac Company & pump frac down 4 1/2" casing as per attached design across 11,966'-12,076' perf interval bull heading 2700 gals of 15% NEFE double inhibited HCL acid ahead of the frac. Flush to top perf, ~ **187 bbls**. Record ISIP, 5, 10, & 15 min SIP's. RDMO Frac Company. ND Frac Valve (or Frac Stack).
19. MIRU Flowback Company. RU Swivel, tubing, & CFP drill-out assembly. RIH & DO CFPs @ 3-5 bpm while monitoring returns taking returns up the annulus and through the flowback equipment. Circulate hole clean & POOH. RDMO flowback company.
20. PU 2 7/8" tubing & 4" AS1X 10K packer & RIH to setting depth @ ~ 11,000'. ND BOP and space out for tree installation. NU Tree, release O/O tool, and circ. packer fluid.
21. Latch onto packer and test.
22. RU swab tools and commence swabbing. Record FL's & cuts.
23. RD & release rental equipment.
24. Test well & turn over to production.

Current Wellbore Schematic

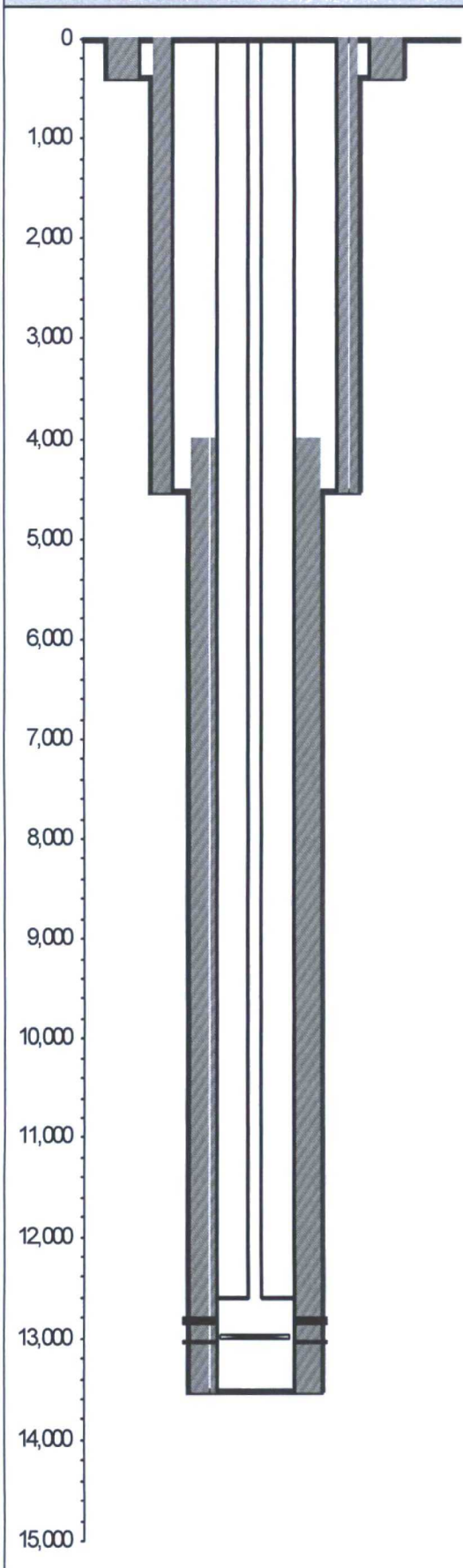
(From Surface to TD)

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Adobe Scott AYE # 1Y

API # 3002529457



1980 FSL & 1730 FEL	GL Elev: 4,071.00	KOP:	
Section J-11, Township 15S, Range 34E		EOC:	
County, State: Lea, NM		Fill Depth:	
Aux ID: HIGHPL		PBTD:	12,965.00
'KB' correction: 15; All Depths Corr To: KB		TD:	13,510.00
		BOP:	

Hole Size

Diameter	Top At	Btm At	Date Drilled
17.5000	0.00	378.00	10/17/1985
12.2500	378.00	4,523.00	10/25/1985
7.8750	4,523.00	13,510.00	12/12/1985

Surface Casing

Date Ran:

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Casing	10	13.3750	54.50	J55	357.00	15.00	372.00

Intermediate Casing

Date Ran:

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Casing	117	9.6250	47.00	P110	4,505.00	15.00	4,520.00

Production Casing String 1

Date Ran:

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Casing	315	4.5000	11.60	P110	13,495.00	15.00	13,510.00

Cement

Top At	Btm At	I D	O D	TOC Per	# - Type	# Sx	Class	Wt.
0.00	372.00	13.375	17.500	Circ	10 - Tail	400	C	14.80
Tail: Circ. cement to surface								
0.00	4,520.00	9.625	12.250	Circ	20 - Lead	1400	C	14.80
					21 - Tail	400	C	14.80
Lead: Circ. cement to surface; Tail: Circ. 150 sxs to surface								
4,000.00	13,510.00	4.500	7.875	Est	30 - Lead	1710	C	12.50
					31 - Tail	925	H	13.00
Tail: Est. TOC @ 4000								

Zone and Perfs

Morrow (Gas)

Perforations

Top	Bottom	Formation	Status	Opened	Closed	# / Ft	Ttl #
12,784.00	12,786.00	Morrow	A	2/11/2004			12
6spf, 12 holes, .42" diam.							
12,792.00	12,796.00	Morrow	A	2/11/2004			24
6spf, 24 holes, .42" diam.							
12,802.00	12,804.00	Morrow	A	2/11/2004			12
6spf, 12 holes, .42" diam.							
12,820.00	12,824.00	Morrow	A	2/11/2004			24
6spf, 24 holes, .42" diam.							
12,828.00	12,832.00	Morrow	A	2/11/2004			24
6spf, 24 holes, .42" diam.							
12,848.00	12,855.00	Morrow	A	2/11/2004			42
6spf, 42 holes, .42" diam.							
13,027.00	13,038.00	Austin	TA	10/14/2003	2/9/2004		22

Wellbore Plugs and Junk

Top	Bottom	Type	Diameter	Solid	Date
12,965.00	13,000.00	CIBP	4.000	Yes	2/9/2004
CIBP w/ cement; 12,965'-13,000'					

Tubing String 1

Date Ran: 2/11/2004

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Tubing	400	2.3750	4.70	L-80	12,585.00	15.00	12,600.00
Packer	1	4.5000			1.00	12,600.00	12,601.00

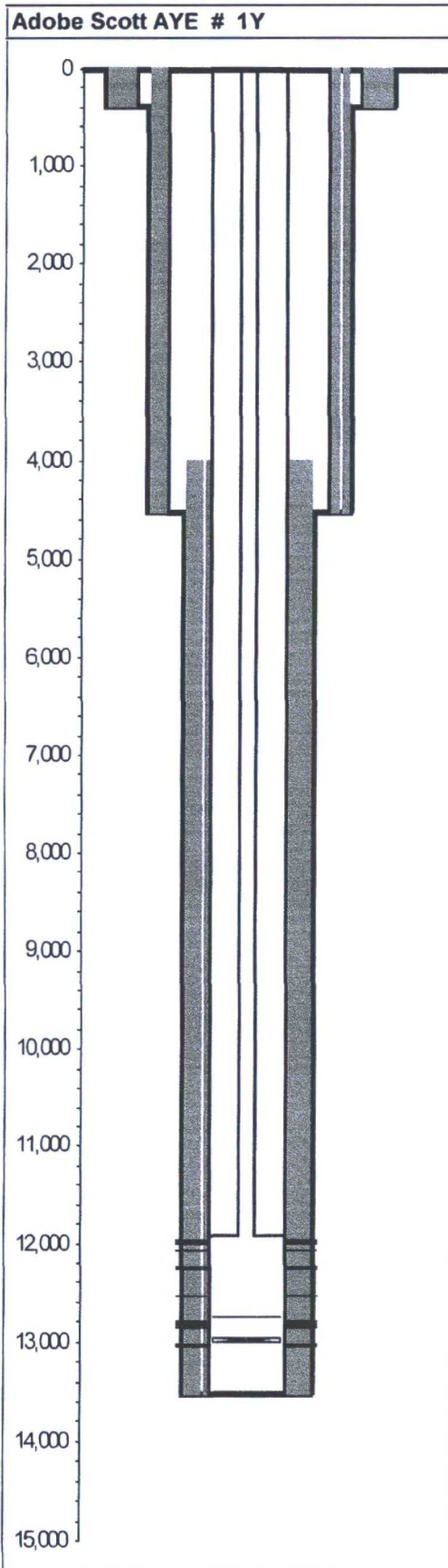
4-1/2" AS1X Packer

Proposed Wellbore Schematic

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(From Surface to TD)



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Aux ID: HIGHPL
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GL Elev: 4,071.00

KOP:

EOC:

Fill Depth:

PBTD: 12,965.00

TD: 13,510.00

BOP:

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Casing	10	13.3750	54.50	J55	357.00	15.00	372.00

Intermediate Casing

Date Ran:

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Casing	117	9.6250	47.00	P110	4,505.00	15.00	4,520.00

Production Casing String 1

Date Ran:

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Casing	315	4.5000	11.60	P110	13,495.00	15.00	13,510.00

Cement

Top At	Btm At	I D	O D	TOC Per	# - Type	# Sx	Class	Wt.
0.00	372.00	13.375	17.500	Circ	10 - Tail	400	C	14.80
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4,000.00	13,510.00	4.500	7.875	Est	30 - Lead	1710	C	12.50
					31 - Tail	925	H	13.00
Tail: Est. TOC @ 4000								

Zone and Perfs

Morrow (Gas)

Comments / Completion Summary

Proposed perforations for Atoka Recompletion

Perforations

Top	Bottom	Formation	Status	Opened	Closed	# / Ft	Ttl #
11,966.00	11,972.00	Proposed - Atoka	A				42
6spf, 42 holes, .42" diam.							
11,990.00	12,002.00	Proposed - Atoka	A				78
6spf, 42 holes, .42" diam.							
12,071.00	12,076.00	Proposed - Atoka	A				36
6spf, 42 holes, .42" diam.							
12,250.00	12,262.00	Proposed - Atoka	A				78
6spf, 42 holes, .42" diam.							
12,542.00	12,548.00	Proposed - Atoka	A				42
6spf, 42 holes, .42" diam.							
12,784.00	12,786.00	Morrow	TA	2/11/2004			12
6spf, 12 holes, .42" diam.							
12,792.00	12,796.00	Morrow	TA	2/11/2004			24
6spf, 24 holes, .42" diam.							
12,802.00	12,804.00	Morrow	TA	2/11/2004			12
6spf, 12 holes, .42" diam.							
12,820.00	12,824.00	Morrow	TA	2/11/2004			24
6spf, 24 holes, .42" diam.							
12,828.00	12,832.00	Morrow	TA	2/11/2004			24
6spf, 24 holes, .42" diam.							

Wellbore Schematic (From Surface to TD)

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Top	Bottom	Formation	Status	Opened	Closed	# / Ft	Ttl #
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6spf, 42 holes, .42" diam.							
13,027.00	13,038.00	Austin	TA	10/14/2003	2/9/2004		22

Wellbore Plugs and Junk

Top	Bottom	Type	Diameter	Solid	Date
12,750.00	12,753.00	CIBP	4.000	Yes	
<i>Proposed - CIBP w 20' of cement 12,750'</i>					
12,965.00	13,000.00	CIBP	4.000	Yes	2/9/2004
<i>CIBP w/ cement; 12,965'-13,000'</i>					

Tubing String 1

Date Ran: 2/11/2004

Description	#	Diameter	Weight	Grade	Length	Top At	Btm At
Tubing	380	2.8750	6.50	L-80	11,915.00	15.00	11,930.00
<i>Proposed - 2 7/8" L-80 tubing @ 11,915'</i>							
Packer	1	4.5000			8.00	11,930.00	11,938.00
<i>Proposed - 4 1/2" Halliburton Guiberson Uni 6 packer</i>							