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District III
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Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised July 18, 2013

OCD - HOBBS ☐ AMENDED REPORT
07/26/2016
RECEIVED

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address Apache Corporation: 303 Veterans Airpark Lane, Suite 1000 Midland, TX 79705		² OGRID Number 873
		³ API Number 30-025-34163
⁴ Property Code 309138	⁵ Property Name J H Williams	⁶ Well No. 002

7. Surface Location

UL - Lot P	Section 34	Township 19S	Range 37E	Lot Idn	Feet from 470	N/S Line South	Feet From 990	E/W Line East	County Lea
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8. Proposed Bottom Hole Location

UL - Lot P	Section 34	Township 19S	Range 37E	Lot Idn	Feet from 470	N/S Line South	Feet From 990	E/W Line East	County Lea
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9. Pool Information

¹⁰ Pool Name Eumont; Yates-7 RVRs-Queen (Oil)	¹¹ Pool Code 22800
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Additional Well Information

¹² Work Type A = P	¹³ Well Type O	¹⁴ Cable/Rotary R	¹⁵ Lease Type P	¹⁶ Ground Level Elevation 3569
¹⁷ Multiple No	¹⁸ Proposed Depth 7,000'	¹⁹ Formation Tubb / Drinkard 7R-Qu	²⁰ Contractor --	²¹ Spud Date 10/26/1997
²² Depth to Ground water		²³ Distance from nearest fresh water well		²⁴ Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surface	12-1/4"	9-5/8"	36#	1241'	600 sxs	3565'
Intermediate	8-3/4"	7"	23#	4030'	400 sxs	2862'
Production	6-1/8"	4-1/2"	10.5#	7000'	265 sxs	

Casing/Cement Program: Additional Comments

Isolate open perms (Drinkard, Tubb) and re-complete in Eumont

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐, if applicable.

Signature: *Isabel Hudson*

Printed name: Isabel Hudson

Title: Regulatory Analyst

E-mail Address: Isabel.Hudson@apachecorp.com

Date: 07/25/2016

Phone: (432) 818-1142

OIL CONSERVATION DIVISION

Approved By:

[Signature]

Title:

Petroleum Engineer

Approved Date: **07/26/2016**

Expiration Date: **07/26/2018**

Conditions of Approval Attached

KZ



July 21, 2016

Williams JH # 2

API # 30-025-34163

Lea County, NM

Production Casing: 4-1/2" 10.5# Set @ 7,000'

Producing Interval: **6,418-904'**

Objective: Isolate open perms (Drinkard, Tubb) and re-complete in Eumont

Procedure:

1. POOH with rods and tbg
2. Set CIBP @ 6,380' with 35' cmt
3. Fill up casing with 7% KCL water
4. Pressure test casing to 600 psi
5. RIH with a wireline re-entry guide, 1.875 X-nipple, 10' pup jt, 5K tension set packer and test tbg to 80%
6. Set top of packer @ 3,380'
7. Pressure up casing to 500 psi.
8. Swab well down to 2,000'
9. Perforate with 1-1 1/16" strip gun (4 spf 0° phasing, deep penetrating charges):
 - 3,442-51'
 - 3,472-76'
 - 3,480-94'
 - 3,500-08'
 - 3,512-22'
 - 3,538-42'
 - 3,560-64'
 - 3,583-96'
 - 3,600-05'
 - 3,620-28'
 - 3,640-45'
 - 3,652-62'
10. Rig up acid truck
11. Load tbg with acid and break down formation with acid. Use 7% KCl water to displace acid
12. Do not over displace water into the formation. Leave 2-3 bbls of acid in the tbg
13. Swab test well and determine if a rod pump is required
14. Return the well to production

GL=3569'
KB=3579'
Spud:10/26/97

Apache Corporation – J.H. Williams #2

Wellbore Diagram – Current

Date: 3/30/2016

API: 30-025-34163

Surface Location

K. Grisham



470' FSL & 990' FEL,
Lot P Sec 34, T19S, R37E, Lea County, NM

Surface Casing

9-5/8" 36# @ 1241' w/ 600 sxs to surface

TOC @ 3565'

Intermediate Casing

7" 23# J-55 @ 4030' w/ 400 sxs. TOC @ 2862'

Hole Size
=12-1/4"

Hole Size
=8-3/4"

Hole Size
=6-1/8"

7/12: Treat for paraffin. Acid frac Drinkard w/ 64,386 gals acid. Acidize Tubb w/ 2500 gals 15% HCL, drop 120 ball sealers, no ball action.

5/98: Perf Tubb @ 6418-6614 w/ 2 jspf (90 holes)
Acidized w/ 10,000 gal 15 % NEFE w/ 136 mcf N2
8/12: Acidized w/ 2500 gallons 15% NEFE

11/97: Perf Drinkard @ 6812-6904 w/ 2 jspf (118 holes)
Acidized w/ 5000 gal 15% HCL
8/12: Acid frac with 860 bbs 12# XL assist and 64,386 gal 15% Divert S acid system.

PBTD = 6,950'
MD = 7,000'

Production Casing

4-1/2" 10.5# J-55 @ 7000' w/ 265 sxs