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District II
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Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
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

HOBBSOCD
JAN 22 2015

☐ AMENDED REPORT

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		OGRID Number 873
		3. API Number 30-025-41268
4. Property Code 302328	5. Property Name Bertha J Barber	6. Well No. 019

7. Surface Location

UL - Lot D	Section 8	Township 20S	Range 37E	Lot Idn	Feet from 820	N/S Line N	Feet From 415	E/W Line W	County Lea
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8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
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9. Pool Information

Pool Name Wildcat, Yates-Seven Rivers Euromont - Queen	Pool Code 07902 22800
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Additional Well Information

11. Work Type RC	12. Well Type O	13. Cable/Rotary	14. Lease Type P	15. Ground Level Elevation 3557'
16. Multiple No	17. Proposed Depth 3950'	18. Formation Yates/Seven Rivers	19. Contractor	20. Spud Date 2/2015
Depth to Ground water		Distance from nearest fresh water well		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
Surf	11"	8.625"	24#	1080'	470 sx C	Surface
Prod	7-7/8"	5-1/2"	17#	3950'	1050 sx C	80'

Casing/Cement Program: Additional Comments

Apache proposes to re-enter & complete in Yates/Seven Rivers, per the attached procedure. Grayburg is TA'd.

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: *Reesa Fisher*

Printed name: Reesa Fisher

Title: Sr Staff Reg Analyst

E-mail Address: Reesa.Fisher@apachecorp.com

Date: 1/19/2015

Phone: (432) 818-1062

OIL CONSERVATION DIVISION

Approved By:

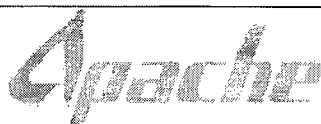
Title: **Petroleum Engineer**

Approved Date: *01/28/15*

Expiration Date: *01/28/17*

Conditions of Approval Attached

JAN 29 2015



Bertha J Barber #19
 API: 30-025-41268
 Eunice Monument Field
 Lea, New Mexico

AFE Number: 11-14-4431
 KB: 3568' GL: 3557' (KB 11' above GL)
 8-5/8" 24 lb/ft J-55 casing set @ 1080'
 5-1/2" 17 lb/ft L-80 casing set @ 3950'
 TD: 3950' PBTD: 3907' (FC)
 Marker Joint: 3242'

COMPLETION PROCEDURE

Casing: 5-1/2", 17lb/ft, L-80
 ID: 4.892"
 Drift= 4.767"
 Capacity= 0.02324 BBL/ft
 Burst= 7741 psi; 80%= 6193 psi

Anticipate one day for stimulations. Prepare wireline, water, service co., and other associated contractors to be present during job.

1. Prep location. Spot the necessary 500 BBL water tanks, BOP, well head, and frac valve onto location. Set a flow back tank before stimulation. Have Service Co test water for quality.
2. MIRU PU. RU BOP. ND WH and change to 5000 psi frac WH. Load and pressure test casing to 6,000 psi for 5 min.
3. MIRU WL. RU perforating guns. NU lubricator. TIH w/ 4" casing guns (or available equivalent) and perforate Yates/Seven Rivers as per below table:

<u>Perf Interval</u>		<u>Ft</u>	<u>JSPF</u> (90° phasing)	<u>Holes</u>
2,346	2,346	1	1	1
2,348	2,348	1	1	1
2,358	2,358	1	1	1
2,360	2,360	1	1	1
2,462	2,462	1	1	1
2,464	2,464	1	1	1
2,472	2,472	1	1	1
2,475	2,475	1	1	1
2,556	2,556	1	1	1
2,558	2,558	1	1	1
2,573	2,573	1	1	1
2,578	2,578	1	1	1
2,616	2,616	1	1	1
2,620	2,620	1	1	1
2,634	2,634	1	1	1
2,638	2,638	1	1	1

<u>Perf Interval</u>		<u>Ft</u>	<u>JSPF</u> (90° phasing)	<u>Holes</u>
2,722	2,722	1	1	1
2,728	2,728	1	1	1
2,742	2,742	1	1	1
2,744	2,744	1	1	1
2,752	2,752	1	1	1
2,754	2,754	1	1	1
2,812	2,812	1	1	1
2,818	2,818	1	1	1
2,830	2,830	1	1	1
2,836	2,836	1	1	1
2,851	2,851	1	1	1
2,868	2,868	1	1	1
2,874	2,874	1	1	1
2,888	2,888	1	1	1
2,894	2,894	1	1	1
2,904	2,904	1	1	1

Total Perfs = 32 holes / 32 ft Net (558 ft Gross)

Correlate to Capitan Compensated Neutron Gamma Ray Log dated 01/30/2014. TOH w/ perforators, RDMO WL.

4. TIH w/ PKR assembly. TOH and set PKR above perfs @ $\pm 2,340'$. Test backside to 500 psi.
5. MIRU acid services. Acidize Yates/Seven Rivers (2346'-2904') down the tubing w/ 4,000 gallons 15% HCL, dropping 45 ball sealers to divert, evenly spaced throughout the job. Do not exceed 4,000 psi. Displace to bottom perf w/ flush. Release PKR and knock off balls. TOH. SI well for 4 hrs.
6. NU lubricator. Begin swabbing runs and check for fluid entry. Send results to Aaron Clements in Midland. SDFN.
7. MIRU service company and frac well as per attached procedure from Basic.
8. RDMO Service Company.
9. SI well overnight.
10. RU NU with lubricator and swab well. Send results to Aaron Clements in Midland office.
11. Run production tubing as per the Monument office specifications.
12. RDMOPU. Place well into test through rented portable flare unit and monitor gas stream until sales quality is reached.
13. Run well to production equipment and place into sales. Have chemical rep test fluids and put well on the appropriate chemical maintenance program.