

Submit 1 Copy To Appropriate District Office

District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-103
Revised July 18, 2013

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-015-40111
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> ARTESIA DISTRICT		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator Apache Corporation		6. State Oil & Gas Lease No. 309175
3. Address of Operator 303 Veterans Airpark Lane, Suite 1000 Midland, TX 79705		7. Lease Name or Unit Agreement Name WASHINGTON 33 STATE
4. Well Location Unit Letter <u>N</u> : <u>900</u> feet from the <u>S</u> line and <u>1650</u> feet from the <u>W</u> line Section <u>33</u> Township <u>17S</u> Range <u>28E</u> NMPM County <u>EDDY</u>		8. Well Number <u>59</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3676		9. OGRID Number 873
		10. Pool name or Wildcat ARTESIA;GLORIETA-YESO (O) <u>96830</u>

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input checked="" type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
CLOSED-LOOP SYSTEM <input type="checkbox"/>			
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Apache would like to add perfs and acidize

Current perfs 3590-4116
add pefs @ 4145-4556

wbd current and proposed attached
procedures attached.

Spud Date:

06/05/2012

Rig Release Date:

06/12/2012

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

SIGNATURE alicia Fulton TITLE Sr. Staff Reg Analyst DATE 12/4/2018

Type or print name Alicia Fulton E-mail address: alicia.fulton@apachecorp.com PHONE: (432) 818-1062

For State Use Only

APPROVED BY: Raymond M. Padany TITLE Geologist DATE 12-6-18
Conditions of Approval (if any):

Work Objective

Current

Region Office
District /Field Office
AFE Type

Permian / Midland

NW District

Start Date	TBD	End Date	TBD
Lease	Washington 33 State	KB/GL	3,876'
Well Name	Washington 33 State	Well No.	#59
Field	Artesia	TD @	5,100'
County	Eddy	PBTD @	5,080'
State	New Mexico	ETD @	
AFE #	TBD	API #	30-015-40111
Gross AFE	TBD	Spud Date	6/15/2012
Apache WI	100.00%	Comp. Date	7/12/2012

Description	O.D.	Grade	Weight	Depth	Cmt Sx	TOC
Surface Csg	8-5/8"	J-55	24#	508'	320	Circ to surf
Inter Csg						
Prod Csg	5-1/2"	J-55	17#	5,100'	790	Circ to surf
Casing Liner						

[illegible][illegible][illegible]

8 5/8" hole

3,590'
Glorieta/
Paddock
4,116'

5 1/2" hole

TD: 5.100'

Apache Representative

Contract Rig/Number

Apache Engineer

Operator

Apache Corporation

Work Objective

Current

Proposed

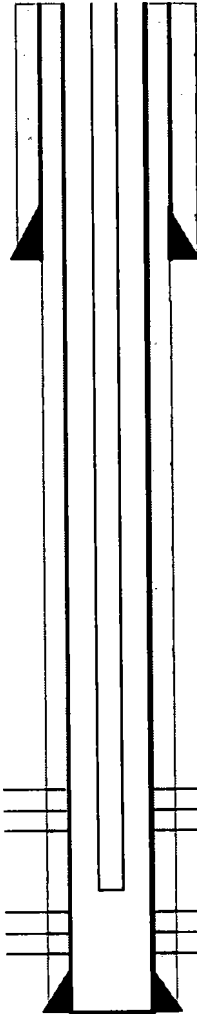
Region Office
District / Field Office
AFE Type

Permian / Midland
NW District

Start Date	TBD	End Date	TBD
Lease	Washington 33 State	KB/GL	3,878'
Well Name	Washington 33 State	Well No.	#59
Field	Artesia	TD @	5,100'
County	Eddy	PBTD @	5,060'
State	New Mexico	ETD @	
AFE #	TBD	API #	30-015-40111
Gross AFE	TBD	Spud Date	6/15/2012
Apache WI	100.00%	Comp. Date	7/12/2012

Description	O.D.	Grade	Weight	Depth	Cmt Sx	TOC
Surface Csg	8-5/8"	J-55	24#	508'	320	Circ to surf
Inter Csg						
Prod Csg	5-1/2"	J-55	17#	5,100'	790	Circ to surf
Casing Liner						

8 5/8" hole



Date	Zone	Actual Perforations	JSPF	Total Perfs
6/18/2012	Glorieta/Paddock	3,590', 3,614', -28', -80', -81', 3,701', -21', -32', -49', -83', -74', -82', -89', 3,810', -24', -50', -74', -88', 3,915', -38', -61', -70', -80', 4,005', -15', -28', -50', -69', -92', 4,116'	1	30
Proposed	Paddock	4,145', -46', -47', -48', -49', -50', -51', -52', -53', -54', -55', -56', -57', -58', -59', -60', -61', -62'	1	18
Proposed	Blinbry	4,300', -01', -02', -03', -04', -05', -06', -07', -08', -09', -10', -11', -12'	1	13
Proposed	Blinbry	4,460', -61', -62', -63', -64', -65', -66', -67', -68', -69', -70'	1	11
Proposed	Blinbry	4,478', -79', -80', -81', -82', -83', -84', -85', -86', -87', -88', -89', -90', -91', -92', -93', -94', -95', -96', -97', -98', -99', -4,500', -01', -02', -03', -04', -05', -06', -07', -08', -09', -10', -11', -12', -13', -14'	1	37
Proposed	Blinbry	4,545', -46', -47', -48', -49', -50', -51', -52', -53', -54', -55', -56'	1	12

Date	Zone	Stimulation / Producing Interval	Amount
6/19/2012	Glorieta/Paddock	Acidize w/ 3,504 gallons 15% HCl NEFE	
6/28/2012	Glorieta/Paddock	Frac w/ 159,558 gal 20# and 193,863# 16/30 sand	
Proposed	Paddock/Blinbry	Acidize w/ 10,100 gal 15% HCl NEFE	

Well History / Failure	

5 1/2" hole

TD: 5,100'

Apache Representative

Contract Rig/Number

Apache Engineer

Operator



AFE 11-18-1950

Well name: Washington 33 State #59

API Number: 30-015-40111

County, State: Eddy, NM

Legals: SEC-33 T-17S RGE-28E

Depths: 5,100' MD 5,060' PBD

Producing Interval 3,590'-4,116' Glorieta/Yeso (30 total holes - 1 JSPF)

CSG	OD	Grade	Wt/Ft	Cap (bbl/ft)	Set @
Surface	8.625"	J-55	24.0#	0.0637	508'
Production	5.500"	J-55	17.0#	0.0232	5,100'
Tubing	2.875"	J-55	6.4#	0.00579	

Engineer:	Connor Sauer	432-818-1109 (o)	connor.sauer@apachecorp.com
Assistant Foreman:	David Pedroza	575-910-3283 (c)	david.pedroza@apachecorp.com
Production Foreman:	Javier Berdoza	575-441-5755 (c)	javier.berdoza@apachecorp.com

What's New:

- 1) Scan and repair suspected HIT w/ customer owned inventory if available.
- 2) Perforate intervals from 4,145'-4,558" (91 net ft) w/ 1 JSPF @ 120 phasing.
- 3) Acidize new perfs w/ 10,100 gallons 15% HCl and 120 ball sealers.
- 4) Install 1-3/4" rod pump w/ 2-stage, HVR, brass Ni-carb and brass pull tube, alternate (California) ball and seats from inventory if available.
- 5) Inspect and replace rods to reflect updated design w/ customer owned inventory if available.

WELL HISTORY:

The Washington 33 State #59 is a vertical well that was spud 6/5/12 and perforated with 30 holes (1 JSPF) into the Glorieta/Yeso formations before acidizing with 3,000 gallons of 15% HCl. The well was then completed via a small entry frac using 159,558 gallons 20# linear gel with 193,863# of 16/30 white sand and put on production via rod pump 7/12/12. This well has not been pulled since initial completion.

During a pay interval study of the Washington 33 State lease, the #59 was discovered to possess uncompleted sandstone and dolomite lenses that contain 4-8% average porosity throughout the lower Paddock and Blinbry formations. Investigation of offset wells with only Blinbry completions found four wells that attributed 6-7 BOPD on average to their Blinbry intervals. These offset wells have also recorded 15 MBO (44%) more production than the Washington State #59. Comparison of target intervals found moderate heterogeneity between the wells with the four offsets primarily targeting larger carbonate intervals that included neighboring sandstone lenses.

Based on the frequency of failures due to HIT in the Washington 33 State lease and this well's existing run time without failure, it is recommended to proactively pull this well to inspect for a HIT. With production equipment pulled, it is then advised to perforate the identified sandstone and dolomite lenses from 4,145'-4,558' (91 net feet) with 1 JSPF @ 120 phasing before acidizing and using RCN ball sealers for diversion. A micellar solvent

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(PAO-901) will be mixed into the acid at a recommended 2% concentration to provide a fully miscible additive that will act as a non-emulsifying agent and a surfactant to water-wet the formation. Two three-stage acid jobs will then be performed over the sandstone and dolomite intervals to clear and stimulate the new perforations and wellbore area. With lower perforations, it is also recommended to downsize the pump to 1.75" to lower gearbox loading caused by extending the rod string as well as mitigate gas interference. The attached Rodstar is built to lift an estimated 250 BFPD.

Pending the execution and results of this workover, the offset Washington 33 State #39 offers additional contiguous sandstone lenses with favorable porosity to investigate further. Additionally, the Washington 33 State #32, #33, #51, #53, #54, and #57 lack completed Blinbry intervals as well.

WORKOVER SUMMARY:

The scope of this work includes pulling the pump before tripping out of hole with production tubing while scanning to detect a suspected HIT. The well will then have 91 perforations added to the sandstone and dolomite lenses shown in the log data from 4,145'-4,556' (1 JSPF @ 120 phasing). The well will then be acidized with 10,100 gallons and 120 RCN ball sealers split between three separate intervals. The repaired tubing string will then be tripped back in hole with the SN lowered below the new bottom perforation. An updated rod string will then be run back in hole with a downsized (1.75") pump and the well will be RTP.

PROCEDURE:

1. MIRU workover rig.
2. POOH w/ rods and pump. Report preliminary findings of the pump and rods (paraffin, scale, sand, rod wear, etc.). Inspect and replace rods as necessary.
3. Pump produced water as necessary to ND pumping tee. NU 5k double BOP (2-7/8" rams on top and blinds on bottom) and function test. Release TAC (if not set, please note in WellView).
4. TIH w/ tubing string and tag for fill (PBTB @ 5,060'). If necessary, TIH w/ bit and tubing to CO well.
5. TOOH w/ production tubing string while scanning for HIT. Replace as necessary.
6. MIRU wireline unit. RIH w/ gauge ring. POOH and correlate w/ previous logs. Short joint @ ~3,552'-3,574.
7. RIH w/ perf gun to shoot 91 perforations between 4,145'-4,556' (net intervals below) at 1 JSPF and 120-degree phasing using charges that generate 0.37"-0.42" diameter hole with a minimum of 21' penetration.

• 4,145-4,162 (18 holes)	• 4,460-4,470 (11 holes)	• 4,545-4,556 (12 holes)
• 4,300-4,312 (13 holes)	• 4,478-4,514 (37 holes)	
8. POOH w/ perf gun. RDMO wireline unit.

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9. MIRU acid crew w/ 10,100 gallons 15% HCl. Verify acid concentration \pm 15% HCl. Verify iron concentration is less than 100 ppm in acid. Add 200 gallons of PAO-901 Micellar Solvent to acid (2% concentration). Circulate tank for 15 minutes to mix additives into solution.
10. TIH w/ RBP, ball catcher, packer and tubing while hydro-testing. Set RBP @ 4,620'. Pull up hole and set packer @ 4,400'.
11. Test lines to 4,500 psi (MSTP = 3,500 psi), bleed off. Set pressure safety valve at 4,000 psi.
12. Establish rate at 4-5 bpm with brine water. Acidize the lower 60 perforations (4,460'-4,470', 4,478'-4,514' & 4,545'-4,558') w/ 7,000 gallons NEFE 15% HCl acid with 90 RCN ball sealers in four stages and flush with 41 bbl (wellbore capacity + 10 bbl) brine water as follows:

	STAGE				
PARAMETERS	1	2	3	4	Total
Rate (bbl/min)	4.5	4.5	4.5	4.5	
Max Surface Pressure (psi)	3,500	3,500	3,500	3,500	
FLUID/STAGE					
Acid - 15% HCl (gal)	1,000	2,000	2,000	2,000	7,000
RCN Ball Sealers	20	25	25	30	120
Total Volume (bbls)	24	48	48	48	167
Total Time (min)	5	11	11	11	37

13. Release packer and TIH to knock off balls and latch on to RBP. Pull up hole and set RBP @ 4,360'. Pull up hole and set packer @ 4,230'.
14. Test lines to 4,500 psi (MSTP = 3,500 psi), bleed off. Set pressure safety valve at 4,000 psi.
15. Establish rate at 4-5 bpm with brine water. Acidize 13 perforations (4,300'-4,312') w/ 600 gallons NEFE 15% HCl acid in a one stage dump with no ball sealers. Flush with 38 bbl (wellbore capacity + 10 bbl) brine water as follows:

	STAGE	
PARAMETERS	1	Total
Rate (bbl/min)	4.5	
Max Surface Pressure (psi)	3,500	
FLUID/STAGE		
Acid - 15% HCl (gal)	600	600
RCN Ball Sealers	0	0
Total Volume (bbls)	14	14
Total Time (min)	3	3

16. Release packer and TIH to latch on to RBP. Pull up hole and set RBP @ 4,230'. Pull up hole and set packer @ 4,050'.
17. Test lines to 4,500 psi (MSTP = 3,500 psi), bleed off. Set pressure safety valve at 4,000 psi.



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18. Establish rate at 4-5 bpm with brine water. Acidize the upper 18 perforations (4,145'-4,162') w/ 2,500 gallons NEFE 15% HCl acid with 30 RCN ball sealers in three stages and flush with 38 bbl (wellbore capacity + 10 bbl) brine water as follows:

PARAMETERS	STAGE			Total
	1	2	3	
Rate (bbl/min)	4.5	4.5	4.5	
Max Surface Pressure (psi)	3,500	3,500	3,500	
FLUID/STAGE				
Acid - 15% HCl (gal)	500	1,000	1,000	2,500
RCN Ball Sealers	10	10	10	30
Total Volume (bbls)	12	24	24	60
Total Time (min)	3	5	5	13

19. Release packer and TIH to knock off ball sealers and latch on to RBP.
20. TOOH w/ tubing, packer, ball catcher and RBP.
21. RDMO acid crew.
22. TIH w/ packer, SN and tubing string. Set packer @ 4,120'.
23. If swab line has not had a new rope socket poured in the last 90 days, cut off 200' of swab line and re-head.
24. Swab test lower Paddock and Blinbry interval (4,145'-4,558') for 24 hours.
25. TOOH w/ tubing, SN and packer.
26. TIH w/ repaired tubing string while hydro testing. Lower SN to 4,620'.
27. RIH w/ pump and updated rod string and downsized (1.75") pump. RTP.
28. Evaluate for paraffin cleanup treatment.

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Cost Estimate

Washington 33 State #59								
Days	5							
Account #	Description	Qty	Days	Cost/Unit	Subtotal (Pre-Tax)	Taxes (9%)	Total Cost	AFE Cost
70019	Contract Rigs		5	\$2,700	\$13,500	\$1,215	\$14,715	
70021	Company Supervision		5	\$1,000	\$5,000	\$450	\$5,450	
70031	Equipment Rental							
	Combo Unit		5	\$40	\$200	\$18	\$218	
	BOP	1		\$400	\$400	\$36	\$436	
70034	Well Stimulation	10,100 gal	1	\$21,000	\$21,000	\$1,890	\$22,890	
70049	Logging		1	\$12,500	\$12,500	\$1,125	\$13,625	
70074	Trucking & Hauling		5	\$1,000	\$5,000	\$450	\$5,450	
70187	Pump Truck Service		5	\$1,000	\$5,000	\$450	\$5,450	
71043	Pump	1		\$4,000	\$4,000	\$360	\$4,360	
71032	Other Subsurface Equipment	1		\$1,000	\$1,000	\$90	\$1,090	
70076	Tubing Inspection/Testing		1	\$4,000	\$4,000	\$360	\$4,360	
70007	Chemical		1	\$3,000	\$3,000	\$270	\$3,270	
	Contingency						\$8,131	
	Total							\$89,445

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