

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Form C-104
Revised August 1, 2011

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address Apache Corporation 303 Veterans Airpark Lane Suite 3000 Midland TX 79705		² OGRID Number 873
		³ Reason for Filing Code/ Effective Date NW / 02/06/2014
⁴ API Number 30-015-40992	⁵ Pool Name Fren; Glorieta-Yeso	⁶ Pool Code 26770
⁷ Property Code 308711	⁸ Property Name Crow Federal	⁹ Well Number 18H

II. ¹⁰Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
L	09	17S	31E		1805	South	110	West	Eddy

¹¹ Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	09	17S	31E		2121	South	331	East	Eddy
¹² Lse Code F	¹³ Producing Method Code P	¹⁴ Gas Connection Date 02/06/2014	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date				

III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
221115	Frontier Field Services LLC 4200 East Skelly Drive Suite 700 Tulsa OK 74135	G
252293	Holly Energy Pipeline 311 W Quay / PO Box 1360 Artesia NM 88210	O

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MAY 23 2014

NMOCD ARTESIA

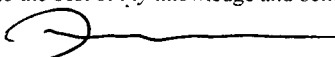
IV. Well Completion Data

²¹ Spud Date 10/24/2013	²² Ready Date 02/06/2014	²³ TD 10,795'	²⁴ PBDT 10,756'	²⁵ Perforations 5620'-10,682'	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
17-1/2"	13-3/8"	470'	520 sx Class C		
11"	8-5/8"	3515'	1440 sx Class C		
7-7/8"	5-1/2"	10,795'	1650 sx Class C		
Tubing	2-7/8"	6173'			

V. Well Test Data

³¹ Date New Oil 02/06/2014	³² Gas Delivery Date 02/06/2014	³³ Test Date 05/03/2014	³⁴ Test Length 24	³⁵ Tbg. Pressure	³⁶ Csg. Pressure
³⁷ Choke Size	³⁸ Oil 190	³⁹ Water 870	⁴⁰ Gas 196		⁴¹ Test Method P

⁴² I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: 

Printed name:
Fatima Vasquez

Title:
Regulatory Analyst II

E-mail Address:
Fatima.Vasquez@apachecorp.com

Date:
05/19/2014

Phone:
(432) 818-1015

OIL CONSERVATION DIVISION

Approved by:


"Geologist"

Approval Date:

5-27-2014

Pending BLM approvals will
subsequently be reviewed
and scanned

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.5. Lease Serial No.
NMLC-029426B

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE – Other instructions on page 2.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
Apache Corporation (873)3a. Address
303 Veterans Airpark Ln., Ste 3000
Midland, TX 797053b. Phone No. (include area code)
(432) 818-1015

7. If Unit of CA/Agreement, Name and/or No.

8. Well Name and No.
Crow Federal #18H (308711)9. API Well No.
30-015-40992

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1805' FSL & 110' FWL UL: L Sec:9 T:17S R:31E

10. Field and Pool or Exploratory Area
Fren; Glorieta-Yeso (26770)11. County or Parish, State
Eddy, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input checked="" type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input checked="" type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Apache completed this horizontal well as follows:

12/30/2013 Log TOC @ 120'. Set CBP @ 10,787'. Stage 1 - Perf Upper Blinebry @ 10,680'-10,682', 10,565'-10,567', 10,450'-10,452' w/ 5 SPF, 45 holes. Frac w/ 178.6 bbl 15% HCl & 179,770# sand (100 Mesh & 40/70). Set CBP @ 10,393'. Stage 2 - Perf Upper Blinebry @ 10,335'-10,337', 10,220'-10,222', 10,098'-10,100' w/ 5 SPF, 45 holes.

12/31/2013 Frac w/ 179 bbl 15% HCl & 182,715# sand (100 Mesh & 40/70). Set CBP @ 10,048'. Stage 3 - Perf Upper Blinebry @ 9990'-9992', 9875'-9877', w/ 5 SPF, 30 holes. Misfire on last gun. Perf last zone 9760'-9762' w/ 5 SPF, 15 holes. Frac w/ 177.1 bbl 15% HCl & 184,210# sand (100 Mesh & 40/70). Set CBP @ 9703'. Stage 4 - Perf Upper Blinebry @ 9645'-9647', 9530'-9532', 9415'-9417' w/ 5 SPF, 45 holes. Frac w/ 177 bbl 15% HCl & 179,650# sand (100 Mesh & 40/70). Set CBP @ 9258'. Stage 5 - Perf Upper Blinebry @ 9300'-9302', 9185'-9187', 9070'-9072' w/ 5 SPF, 45 holes. Frac w/ 178 bbl 15% HCl & 184,005# sand (100 Mesh & 40/70). Set CBP @ 9013'. Stage 6 - Perf Upper Blinebry @ 8955'-8957', 8840'-8842', 8725'-8727' w/ 5 SPF, 45 holes. Frac w/ 185 bbl 15% HCl & 184,110# sand (100 Mesh & 40/70). Set CBP @ 8668'. Stage 7 - Perf Upper Blinebry @ 8610'-8612', 8495'-8497', 8380'-8382' w/ 5 SPF, 45 holes. Frac w/ 183 bbl 15% HCl & 179,340# sand (100 Mesh & 40/70).

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)
Fatima Vasquez

Title Regulatory Analyst II

Signature

Date 05/15/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Office

Pending BLM approvals will
subsequently be reviewed
and scannedTitle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to
fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

states any false,

Crow Federal #18H
API #30-015-40992
Apache Corp. (873)

Completion continued.

Set CBP @ 8323'. Stage 8 - Perf Upper Blinebry @ 8265'-8267', 8150'-8152', 8035'-8037' w/
5 SPF, 45 holes.

01/01/2014 Frac Stage 8 w/ 182 bbl 15% HCl & 181,060# sand (100 Mesh & 40/70).

Set CBP @ 7978'. Stage 9 - Perf Upper Blinebry @ 7920'-7922', 7805'-7807', 7690'-7692' w/
5 SPF, 45 holes. Frac w/ 184 bbl 15% HCl & 179,330# sand (100 Mesh & 40/70).

Set CBP @ 7633'. Stage 10 - Perf Upper Blinebry @ 7575'-7577', 7460'-7462', 7345'-7347'
w/ 5 SPF, 45 holes. Frac w/ 182 bbl 15% HCl & 181,980# sand (100 Mesh & 40/70).

Set CBP @ 7300'. Stage 11 - Perf Upper Blinebry @ 7230'-7232', 7115'-7117', 7000'-7002'
w/ 5 SPF, 45 holes. Frac w/ 179 bbl 15% HCl & 179,820# sand (100 Mesh & 40/70).

Set CBP @ 6950'. Stage 12 - Perf Upper Blinebry @ 6885'-6887', 6770'-6772', 6655'-6657'
w/ 5 SPF, 45 holes. Frac w/ 179 bbl 15% HCl & 179,280# sand (100 Mesh & 40/70).

Set CBP @ 6598'. Stage 13 - Perf Upper Blinebry @ 6540'-6542', 6425'-6427', 6310'-6312'
w/ 5 SPF, 45 holes. Frac w/ 175.9 bbl 15% HCl & 179,060# sand (100 Mesh & 40/70).

Set CBP @ 6253'. Stage 14 - Perf Upper Blinebry @ 6195'-6197', 6080'-6082', 5965'-5967'
w/ 5 SPF, 45 holes. Frac w/ 177 bbl 15% HCl & 163,930# sand (100 Mesh & 40/70).

Set CBP @ 5908'. Stage 15 - Perf Upper Blinebry @ 5850'-5852', 5735'-5737', 5620'-5622'
w/ 5 SPF, 45 holes. Frac w/ 178.6 bbl 15% HCl & 193,570# sand (100 Mesh & 40/70).

01/11/2014 DO plugs - #1@ 5908', #2@ 6253', #3@ 6598', #4@ 6950', #5@ 7300', #6@ 7633',
#7@ 7978', & #8@ 8323'.

01/12/2014 DO plugs - #9@ 8668', #10@ 9013', #11@ 9258', #12@ 9703', & #13@ 10,048',
#14@ 10,393', #15@ 10,787'. Circ hole clean to PBD @ 10,756'. Circ hole clean.

01/22/2014 RIH w/ 2-7/8" J-55 6.5# prod tbg. Submersible @ 5757'. Desander @ 5843'. ETD @ 6173'.

02/06/2014 POP.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: October 31, 2014

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
NMLC-029426B1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion: ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resrv.,
Other: _____

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

2. Name of Operator
Apache Corporation (873)8. Lease Name and Well No.
Crow Federal #18H (308711)3. Address 303 Veterans Airpark Ln., Ste. 3000
Midland, TX 797053a. Phone No. (include area code)
(432) 818-10159. API Well No.
30-015-40992

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface 1805' FSL & 110' FWL UL:L Sec:09 T:17S R:31E

At top prod. interval reported below

At total depth 2121' FSL & 331' FEL UL:L Sec:09 T:17S R:31E

10. Field and Pool or Exploratory
Fren; Glorieta-Yeso (26770)11. Sec., T., R., M., on Block and
Survey or Area
Sec:09 T:17S R:31E

12. County or Parish

Eddy

13. State

NM

14. Date Spudded
10/24/201315. Date T.D. Reached
11/07/201316. Date Completed 02/06/2014
☐ D & A ☒ Ready to Prod.17. Elevations (DF, RKB, RT, GL)*
3838' GL18. Total Depth: MD 10,795'
TVD 6259'19. Plug Back T.D.: MD 10,756'
TVD20. Depth Bridge Plug Set: MD
TVD21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
CN/RBGR-CCL/(6) Gamma-ROP (1", 2", 5")22. Was well cored? ☐ No ☐ Yes (Submit analysis)
Was DST run? ☐ No ☐ Yes (Submit report)
Directional Survey? ☐ No ☒ Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cement Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17-1/2"	13-3/8" H-40	48#		470'		520 sx Class C		Surface	
11"	8-5/8" J-55	32#		3515'		1440 sx Class C		Surface	
7-7/8"	5-1/2" L-80	17#		10,795'		1650 sx Class C		120'	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2-7/8"	6173'							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Blinbry	5601'		5620'-10,682'	5	675	Producing
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material
5620'-10,682'	2695 gals acid & 2,711,830# sand

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
02/06/14	05/03/14	24	→	190	196	870	36.7		
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→				1032	Producing	

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

*(See instructions and spaces for additional data on page 2)

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Pending BLM approvals will
subsequently be reviewed
and scanned

28b. Production - Interval C									
Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

28c. Production - Interval D									
Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

29. Disposition of Gas (Solid, used for fuel, vented, etc.)

Sold

30. Summary of Porous Zones (Include Aquifers): Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.	31. Formation (Log) Markers
--	-----------------------------

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
				Queen San Andres	2616' 3336'
				Glorieta Paddock	4858' 4922'
				Blinebry	5601'

32. Additional remarks (include plugging procedure):

33. Indicate which items have been attached by placing a check in the appropriate boxes:

<input checked="" type="checkbox"/> Electrical/Mechanical Logs (1 full set req'd.)	<input type="checkbox"/> Geologic Report	<input type="checkbox"/> DST Report	<input checked="" type="checkbox"/> Directional Survey
<input type="checkbox"/> Sundry Notice for plugging and cement verification	<input type="checkbox"/> Core Analysis	<input checked="" type="checkbox"/> Other: OCD Forms C-102, C-104, Frac Disclosure	

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) Fatima Vasquez

Title Regulatory Analyst II

Signature 

Date 05/19/2014

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 3)

(Form 3160-4, page 2)