

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 1000 Midland TX 79705		² OGRID Number 873
		³ Reason for Filing Code/ Effective Date NW 12/2018
⁴ API Number 30-015-44436	⁵ Pool Name LOCO HILL; GLORIETA-YESO	⁶ Pool Code 96718
⁷ Property Code 319579	⁸ Property Name THUNDERBIRD A	⁹ Well Number 005H

II. ¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West line	County
G	33	16S	30E		2315	NORTH	1955	EAST	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
O	4	17S	30E		330	SOUTH	2160	EAST	EDDY
¹² Lse Code F	¹³ Producing Method Code P	¹⁴ Gas Connection Date 12/4/2018	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
33479	Holly Frontier Refining & Marketing LLC PO Box 1600 Artesia, NM 88211	O
36785	DCP Midstream, LP 370 17th St Suite 2500 Denver CO 80202	G
NM OIL CONSERVATION ARTESIA DISTRICT		
JAN 23 2019		
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IV. Well Completion Data

²¹ Spud Date 10/18/2017	²² Ready Date 12/4/2018	²³ TD 12,280	²⁴ PBTD 12,2007	²⁵ Perforations 4854-12007 OH	²⁶ DHC, MC
²⁷ Hole Size	²⁸ Casing & Tubing Size	²⁹ Depth Set	³⁰ Sacks Cement		
17 1/2	13 3/8	424	450 sx Class C		
12 1/4	9 5/8	3214	1400 sx Class C		
8 1/2	7@4048, 5 1/2 OH	12,280	1220 sx Class H		
Tubing	2 7/8	4333			

V. Well Test Data

³¹ Date New Oil 12/4/2018	³² Gas Delivery Date 12/4/2018	³³ Test Date 12/15/2018	³⁴ Test Length 24 hrs	³⁵ Tbg. Pressure	³⁶ Csg. Pressure
³⁷ Choke Size	³⁸ Oil 327	³⁹ Water 1853	⁴⁰ Gas 333		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: *alicia Fulton*

Printed name:
Alicia Fulton

Title:
Sr. Reg Analyst

E-mail Address:
alicia.fulton@apachecorp.com

Date:
1/23/19

Phone:
432-818-1088

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

*provide addl horizontal
well info*

Pending BLM approvals will
subsequently be reviewed
and scanned

**NM OIL CONSERVATION
ARTESIA DISTRICT**

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SEP 20 2018

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

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.
NMLC060325

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
THUNDERBIRD DEVELOPMENT UNIT 5H

9. API Well No.
30-015-44436

10. Field and Pool or Exploratory Area
LOCO HILLS-GLORIETA-YESO

11. County or Parish, State
EDDY COUNTY, NM

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
APACHE CORPORATION

Contact: SORINA FLORES
E-Mail: sorina.flores@apachecorp.com

3a. Address
303 VETERANS AIRPARK LN #1000
MIDLAND, TX 79705

3b. Phone No. (include area code)
Ph: 432-818-1167

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

Sec 33 T16S R30E Mer NMP SWNE 2315FNL 1955FEL
32.878929 N Lat, 103.974731 W Lon

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 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"/> Hydraulic Fracturing	<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 checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Drilling Operations
	<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 recompleat 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 recompleat 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.

BLM-CO-1463 NMB-000736 (NATIONWIDE)

9/20/18: APACHE RESPECTFULLY REQUEST TO CHANGE WELL NAME:

FROM: THUNDERBIRD A 5H
TO: THUNDERBIRD DEVELOPMENT UNIT 5H

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #436285 verified by the BLM Well Information System
For APACHE CORPORATION, sent to the Carlsbad**

Name (Printed/Typed) SORINA FLORES

Title SUBMITTING CONTACT

Signature (Electronic Submission)

Date 09/20/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title

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.

Office

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

(Instructions on page 2)

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

Pending BLM approvals will
subsequently be reviewed
and scanned

LIMITED **

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

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.
NMLC060325

6. If Indian, Allottee or Tribe Name

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

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
THUNDERBIRD A 5H

2. Name of Operator
APACHE CORPORATION

Contact: ALICIA FULTON
E-Mail: Alicia.fulton@apachecorp.com

9. API Well No.
30-015-44436

3a. Address
303 VETERANS AIRPARK LANE
MIDLAND, TX 79706

3b. Phone No. (include area code)
Ph: 432-818-1088

10. Field and Pool or Exploratory Area
LOCO HILLS-GLORIETA-YESO

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec 33 T16S R30E 2315FNL 1955FEL

11. County or Parish, State
EDDY COUNTY, 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 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"/> Hydraulic Fracturing	<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 checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Production Start-up
	<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 recompleat 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 recompleat 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 THE WELL AS FOLLOWS:

Rig Release 8/1/2018
8/5-8/7 Tag DV Tool at 4020' drill out dv and debris
8/10/2018 transferred water from location to pit wait to frac
9/14- rig up frac fleet and pressure test 7000psi good open well and test casing to 4000psi sleeve opened at 4556 psi begin frac

9/14-9/16 frac stages 1-27 5 1/2 packer plus open hole dual element packer 4050-12280
w/tbltr=112,442bbl propanat total 100 mesh=2,556,980lbs, 40/70=1,279,480lbs 40/70RC=1,272,525 lbs

9/18-9/23 MIRU all equipment RIH with work string mill out debris

**NM OIL CONSERVATION
ARTESIA DISTRICT**

JAN 23 2019

RECEIVED

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #448760 verified by the BLM Well Information System
For APACHE CORPORATION, sent to the Carlsbad**

Name (Printed/Typed) ALICIA FULTON

Title SR REGULATORY ANALYST

Signature (Electronic Submission)

Date 12/20/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title

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.

Office

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

Pending BLM approvals will
subsequently be reviewed
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(Instructions on page 2)

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

Additional data for EC transaction #448760 that would not fit on the form

32. Additional remarks, continued

9/24-shut down and wait on production

11/30 RIH W/ 10 JTS TAIL PIPE, PU DS, MOTOR, INTAKE, SEALS , WENT TO PLUG IN CABLE AND WIND GOT TO STRONG, PICK UP JT OF TBG , SI, SDFN

12/3- OPEN WELL UP AND CONT PU ESP, RU SPOOLERS, TIE IN CABLE & CT LINE, PU 6' SUB, 5.38" SAND GUARD, SN, 6' SUB, 118 JTS TBG, MAKE UPPER SPLICE, LAND WELL, NDBOP, FLANGE WELL UP, RDMO

12/4 turn over to production

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1a. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other b. Type of Completion <input checked="" type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Resvr. Other _____			5. Lease Serial No. NMLC060325		
2. Name of Operator APACHE CORPORATION E-Mail: Alicia.fulton@apachecorp.com			6. If Indian, Allottee or Tribe Name		
3. Address 303 VETERANS AIRPARK LANE MIDLAND, TX 79705			7. Unit or CA Agreement Name and No.		
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface Sec 33 T16S R30E Mer Lot G 2315FNL 1955FEL At top prod interval reported below Sec 33 T16S R30E Mer Sec 4 T17S R30E Mer At total depth Lot O 330FSL 2160FEL			8. Lease Name and Well No. THUNDERBIRD A 5H 9. API Well No. 30-015-44436 10. Field and Pool, or Exploratory LOCO-HILLS; GLORIETA YESO 11. Sec., T., R., M., or Block and Survey or Area Sec 33 T16S R30E Mer 12. County or Parish EDDY 13. State TX		
14. Date Spudded 10/18/2017		15. Date T.D. Reached 08/01/2018		16. Date Completed <input type="checkbox"/> D & A <input checked="" type="checkbox"/> Ready to Prod. 12/03/2018	
18. Total Depth: MD 12285 TVD 4658		19. Plug Back T.D.: MD 12007 TVD		20. Depth Bridge Plug Set: MD TVD	
21. Type Electric & Other Mechanical Logs Run (Submit copy of each)				22. Was well cored? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Was DST run? <input checked="" type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Directional Survey? <input type="checkbox"/> No <input checked="" type="checkbox"/> Yes (Submit analysis)	

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

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375		0	424		450		0	
12.250	9.625		0	3214		1400		0	
8.500	7.000		0	4048		1220		0	
8.500	5.500		4048	12280		0			

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	4333							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) GLORIETA-YESO	4854	12007	4854 TO 12007			PRODUCING
B)						
C)						
D)						

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

Depth Interval	Amount and Type of Material
4854 TO 12007	W/TBLTR=112,422BBL PROPANT TOTAL 100 MESH=2,556,980LBS, 40/70=1,279,480LBS 40/70RC=1,272,525LBS

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
12/04/2018	12/15/2018	24	→	327.0	333.0	1853.0			ELECTRIC PUMPING UNIT
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	Well Status	
			→					POW	

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 reverse side)

ELECTRONIC SUBMISSION #451558 VERIFIED BY THE BLM WELL INFORMATION SYSTEM
** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED

Pending BLM approvals will subsequently be reviewed and scanned

SUBMITTED **

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(Sold, used for fuel, vented, etc.) CAPTURED

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
RUSTLER	405	532	ANHYDRITE, DOLOMITE		
SALADO	532	1185	ANHYDRITE, DOLOMITE		
TANSIL	1185	1347	ANHYDRITE, SALT, DOLOMITE, AND		
YATES	1347	1607	SANDSTONE		
SEVEN RIVERS	1607	2206	SANDSTONE, DOLOMITE, AND LIME		
QUEEN	2206	2636	SANDSTONE, DOLOMITE, AND LIME		
GRAYBURG	2636	2952	SANDSTONE, DOLOMITE, AND LIME		
SAN ANDRES	2952	4387	SANDSTONE, DOLOMITE, AND LIME		

32. Additional remarks (include plugging procedure):
5 1/2 casing is OH packer assembly

glorieta 4387-4444
paddock 4444-TD

33. Circle enclosed attachments:

- | | | | |
|---|--------------------|---------------|-----------------------|
| 1. Electrical/Mechanical Logs (1 full set req'd.) | 2. Geologic Report | 3. DST Report | 4. Directional Survey |
| 5. Sundry Notice for plugging and cement verification | 6. Core Analysis | 7. Other: | |

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

Electronic Submission #451558 Verified by the BLM Well Information System.
For APACHE CORPORATION, sent to the Carlsbad

Name (please print) ALICIA FULTONTitle SR REGULATORY ANALYST

Signature _____ (Electronic Submission)

Date 01/23/2019

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.

**** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ****