

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Carlsbad Field Office  
OCD Hobbs

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.*

3. Lease Serial No.  
NMNM13647

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.  
CAVE LION 5 WXY FEDERAL 6H

API Well No.  
30-025-45426-00-X1

10. Field and Pool or Exploratory Area  
WOLFCAMP

11. County or Parish, State  
LEA COUNTY, NM

**SUBMIT IN TRIPLICATE - Other Instructions on page 2**

JUN 10 2019

RECEIVED

1. Type of Well  
 Oil Well  Gas Well  Other

2. Name of Operator  
MARATHON OIL PERMIAN LLC  
Contact: JENNIFER VAN CUREN  
E-Mail: jvancuren@marathonoil.com

3a. Address  
5555 SAN FELIPE STREET  
HOUSTON, TX 77056  
3b. Phone No. (include area code)  
Ph: 713.296.2500

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
Sec 5 T26S R35E SESW 287FSL 1781FWL  
32.065876 N Lat, 103.392273 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 Drilling Operations
	<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.

MIRU. 2/9/2019 ? Notified BLM of intent to spud. 2/11 ? Spud. Drill 17 ?? surface section from 122? to 1126?. Notified BLM of intent to run surface scg and cement. 2/12 ? Run 13 3/8? csg, 28 jts, 54.5#, STC to 1126?. 2/13 ? Cement csg by pumping 30 bbsl of spacer, 600sx of lead cmt and 345sx tail cmt, with 324sx of cmt returned to surface BLM representative on location during cmt job. RDMO. 4/7 ? Test csg to 1526psi for 30min, 47psi drop, good test. Perform BOPE test. Drill shoe track and 10? of new formation to 1136?. 4/8 ? Drill 12 ?? from 1136? to 5435?. Notified BLM of upcoming csg and cement job. 4/10 ? Run 9 5/8? csg, 132jts, 40#, J55, LTC to 5421?. Cement 9 5/8? csg by pumping 20bbsl spacer, 1335sx lead cmt, and 385sx tail cmt, with 422sx cmt to surface. 4/11 ? Pressure test csg to 3055psi for 30 min, 83psi drop, good test. Drill shoe track and 10? new formation to 5445?. Drill 8 ?? from 5445? to 9904?. 4/13 ? Flow check & TOH. TIH. Re-log gamma last 100?. 4/14 ? Continue drilling 8 ?? from 9904 to 11925. 4/15 ? Notified BLM of upcoming casing run. Run 7? csg, 287jts, 29#, VA Roughneck to 11911?. 4/16 ? Notified BLM of upcoming cmt job. Cement



14. I hereby certify that the foregoing is true and correct.  
Electronic Submission #465896 verified by the BLM Well Information System  
For MARATHON OIL PERMIAN LLC, sent to the Hobbs  
Committed to AFMSS for processing by PRISCILLA PEREZ on 05/20/2019 (19PP1951SE)

Name (Printed/Typed) JENNIFER VAN CUREN Title SR. REGULATORY COMPLIANCE REP

Signature (Electronic Submission) Date 05/20/2019

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By \_\_\_\_\_ Title **Accepted for Record** Date **MAY 22 2019**  
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 **Jonathon Shepard**  
**Carlsbad Field 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 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.

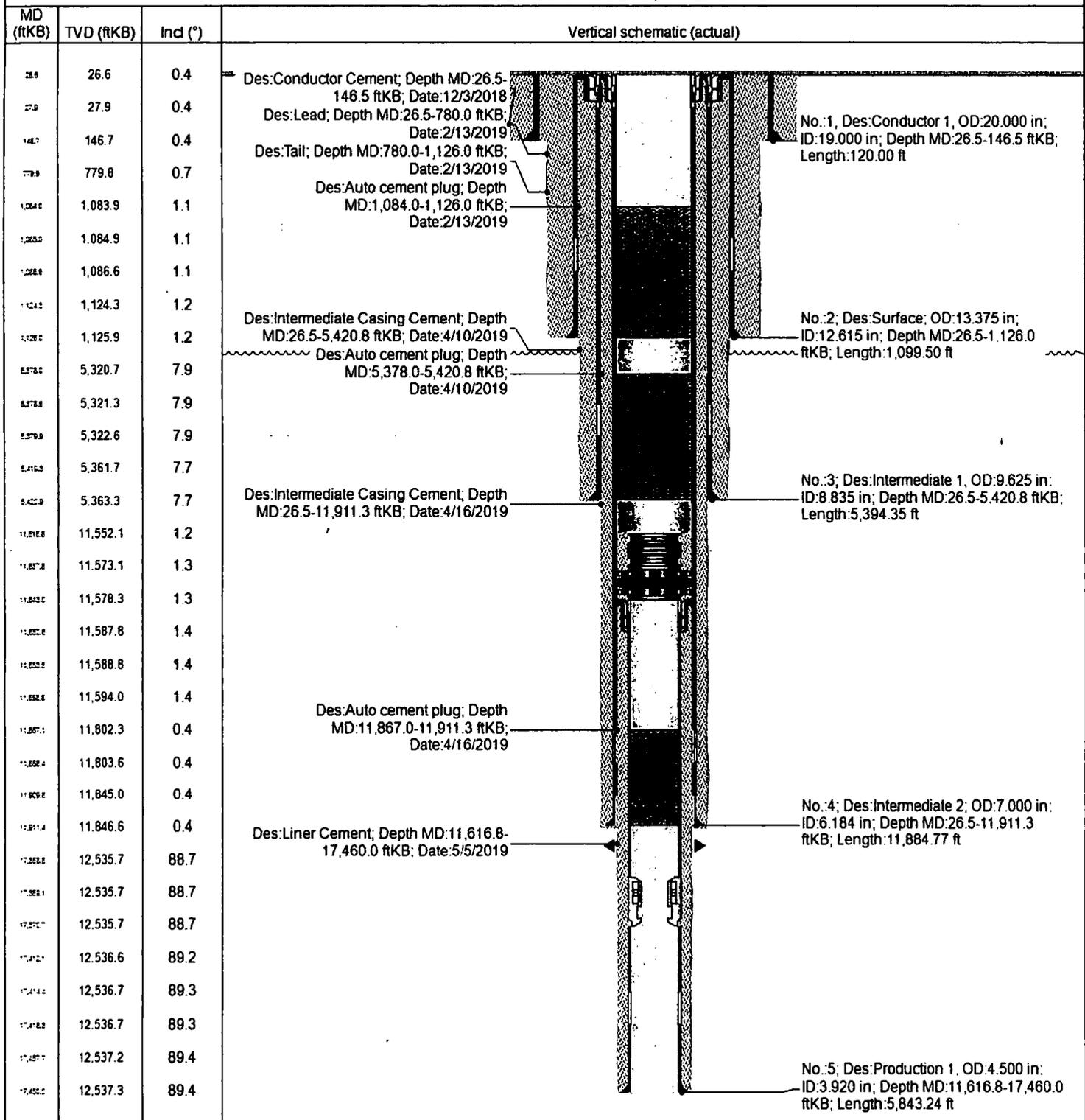
## Additional data for EC transaction #465896 that would not fit on the form

### 32. Additional remarks, continued

csg by pumping 20bbls spacer, 965sx lead cmt, and 180sx tail cmt, with 244sx of cmt to surface. 4/17 ? Test csg to 6005psi for 30 min, 74psi drop, good test. 4/18 ? TIH. Drill cement, shoe track, and 10' new formation to 11935?. Drill 6 1/8? Vertical to 12133?. Drill 6 1/8? curve to 12853?. TOH to BHA. 4/20 ? TIH. Re log gamma from 12759? to 12853?. Continue drilling 6 1/8? curve from 12853? to 13093?. 4/21 ? TOH to BHA. Continue drilling 6 1/8? lateral from 13093? to 14907?. 4/22 ? TOH to BHA. 4/23 ? TIH and re-log gamma from 14806? to 14907?. 4/25 ? Continue drilling 6 1/8? lateral from 14907? to 16159?. Circulate and TOH to BHA. TIH and re log gamma from 16059? to 16159?. 4/26 ? Continue drilling 6 1/8? lateral from 16159? to 16391?. TOH to 15784?. 4/28 ? Sidetrack from 15746? to 15761?. Slide from 15761? to 15776? WOB. Drill from 15776? to 15811?. Flow check. Circulate bottoms. TOH to BHA. TIH to 14741?. Re log from 14741? to 14835?. 4/29 ? Sidetrack from 14836? to 14855?, slide from 14855? to 14868? and drill from 14868? to 14897?. Sidetrack successful. Slide from 14897? to 14910?. Control drill from 14910? to 14975?. 5/1- Continue drill 6 1/8? lateral from 14975? to 16391? (complete side track operations). Drill 6 1/8? lateral from 16391 to 17503?. Circulate, TOH to surface. 5/4 ? Run 4 ?? csg, 140jts, 13.5#, VA Rougneck to 17460?. 5/5 ? Cement csg by pumping 20 bbsl spacer and 615sx of tail cmt, with 135sx of cmt to surface. Pressure test csg to 3700psi for 30 min, held, good test. RDMO.

State/Province <b>NEW MEXICO</b>	Prospect Area <b>RED HILLS</b>	Field Name <b>HARDIN TANK</b>	Well Subtype	Lat/Long Datum <b>NAD27</b>	Latitude (°) <b>32.065759</b>	Longitude (°) <b>-103.391808</b>
Well Configuration Type <b>HORIZONTAL</b>	Well Objective <b>EXPLOITATION</b>	Well Status <b>DRILLING</b>	Ground Elevation (ft) <b>3,263.00</b>	KB-Ground Distance (ft) <b>26.50</b>		

**HORIZONTAL - CAVE LION FEDERAL 5 WXY 6H BP01, 5/17/2019 9:19:34 AM**



Directions to Well: FROM THE MARATHON OFFICE AT 411 TIDWELL, CARLSBAD, NM, HEAD SOUTH ON TIDWELL ROAD TOWARD US HWY 285N FOR 0.2 MILES.  
 TURN LEFT ONTO US HWY 285S, HEADING SE, FOR 5.1 MILES TO NM HWY 31.  
 TURN LEFT ONTO NM HWY 31, HEADING EAST FOR 7.7 MILES TO NM HWY 128E.  
 TURN RIGHT ONTO NM HWY 128E, HEADING EAST FOR 38.7 MILES TO BATTLE AXE ROAD (COUNTY ROAD 2)....

## CAVE LION 5 WXY FEDERAL 6H

30-025-45426

SPUD	TD Reached	Rig Release	Total Depth	Ground Elevation
2/11/2019	5/2/2019	5/5/2019	17503 / 12590	3263
Casing detail	Surface	Intermediate	Production	Liner
Date	2/12/2019	4/10/2019	4/16/2019	5/4/2019
Hole size	17 1/2	12 1/4	8 3/4	6 1/8
Casing size	13 3/8	9 5/8	7	4 1/2
Weight	54.5	40	29	13.5
Type	J55	J55	P110	P110
Thread	STC	LTC	VA Rougneck	VA Roughneck
Top	0	0	0	11617
Depth (MD)	1126	5421	11911	17460
Amount jnts	28	132	287	140
Cement detail	Surface	Intermediate	Production	Liner
Date	2/13/2019	4/10/2019	4/16/2019	5/5/2019
Top depth KB	0	0	0	11617
Bottom depth KB	1126	5421	11911	17460
Lead sks	600	1335	965	
Yield	1.73	2.27	2.6	
Tail sks	345	385	180	615
Yield	1.34	1.33	1.16	1.16
WOC to 500 psi	11.9 hrs	4.5 hrs	8.1 hrs	
Spacer	30 bbls	20 bbls	20 bbls	20 bbls
Class	C	C	C	H
Circulate to surface (sks)	324	422	244	135
Top meas. method	Circulate	Circulate	Circulate	Circulate
TOC	0	0	0	11617
Pressure testing	Surface	Intermediate	Production	Liner
Date	4/7/2019	4/11/2019	4/17/2019	5/5/2019
PSI	1526	3055	6005	3700
Time (min)	30	30	30	30
Bled off	47	83	74	0
Drop	3%	3%	1%	0%
Good test	Yes	Yes	Yes	Yes