

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTCarlsbad Field Office
OCD HobbsFORM 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.***SUBMIT IN TRIPLICATE - Other Instructions on page 2**

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMNM13647
2. Name of Operator MARATHON OIL PERMIAN LLC		6. If Indian, Allottee or Tribe Name
Contact: JENNIFER VAN CUREN E-Mail: jvancuren@marathonoil.com		7. If Unit or CA/Agreement, Name and/or No.
3a. Address 5555 SAN FELIPE STREET HOUSTON, TX 77056	3b. Phone No. (include area code) Ph: 713.296.2500	8. Well Name and No. CAVE LION 5 WC FEDERAL 2H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 5 T26S R35E SESW 287FSL 1811FWL 32.065876 N Lat, 103.392174 W Lon		9. API Well No. 30-025-45421-00-X1
		10. Field and Pool or Exploratory Area WOLFCAMP
		11. County or Parish, State LEA 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"/> Re-enter Drilling Operations
	<input type="checkbox"/> Change Plans	<input checked="" 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 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.

MIRU. 2/28/2019 ? Notified BLM of intent to spud. 3/2 ? Notified BLM on intent to run casing. 3/3 ? Spud. Notified BLM of intent to cement csg. Drill 12?? surface section from 147? to 1200?. Run 13 3/8? csg, 29 jts, 54.5#, STC to 11912. Cement csg by pumping 30 bbls of spacer, 685sx of lead cmt, and 260sx tail cmt, with 237sx of cmt returned to surface. RDMO. 3/28 ? MIRU. Test csg to 1550 psi for 30 min, 50 psi drop, good test. Perform BOPE test. Drill shoe track and 10? new formation to 1210?. Drill 12 ?? from 1210 to 5435?. Notified BLM of upcoming casing and cementing job. 3/30 ? Run 9 5/8? csg, 132 jts, 40#, J55, LTC to 5419?. Cement 9 5/8? csg by pumping 20 bbls spacer, 1265sx lead cmt, and 360sx tail cmt, with 358sx cmt to surface. 3/31 ? Pressure test csg to 3210psi for 30 min, 30 psi drop, good test. Drill shoe track and 10? new formation to 5445?. Drill 8 ?? from 5445? to 9766?. 4/1 ? TOH to BHA. TIH. 4/2 - Re-log gamma from 9650? to 9766?. Drill 8 ?? csg from 9766? to 10978?. 4/3 ? TOH to BHA. 4/4 ? TIH and re-log gamma from 10880? to 10978?. Continue drilling 8 ?? from 10978 to 12020?. 4/5 ? Notified BLM of upcoming csg run and cement job. TOH to

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

Electronic Submission #467457 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 06/04/2019 (19PP2089SE)

Name (Printed/Typed) JENNIFER VAN CUREN

Title SR. REGULATORY COMPLIANCE REP

Signature (Electronic Submission)

Date 06/04/2019

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 Accepted for Record

AUG 06 2019

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.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Additional data for EC transaction #467457 that would not fit on the form

32. Additional remarks, continued

BHA. 4/6 ? Run 7? csg, 302jts, 29#, TMK UP Ultra to 12005?. Cement csg by pumping 20 bbsl spacer, 1020sx lead cmt, 190sx tail cmt, no cement to surface observed. RDMO. 5/6 ? MIRU. Test csg to 6359 psi for 30 min, 47 psi drop, good test. 5/7 ? Drill shoe track and 10? of new formation to 12030?. Drill 6 1/8? vertical from 12030? to 12711?. Flow check and circulate. TOH to 111?. Re-log gamma from 12598? to 12711?. 5/8 ? Continue drilling 6 1/8? vertical from 12711? to 12736? (KOP). Drill 6 1/8? curve from 12736? to 13509?. 5/9 ? TOH to 111? and TIH to 13415?. Re-log gamma from 13415? to 13509?. Continue drilling 6 1/8? curve from 13509? to 13622?. Start drilling 6 1/8? lateral from 13622? to 17593?. 5/14 ? TOH to BHA. 5/18 ? Notified BLM of upcoming casing run. Run 4 1/2? ? 5 ?? csg with 417jts, 15.1# - 23#, TMK UP BPN 17554?. 5/20 ? Cement csg by pumping 40 bbls spacer and 600sx tail cmt, with no cmt to surface. Pressure test csg to 10000 psi for 30 min, held, good test. RDMO.



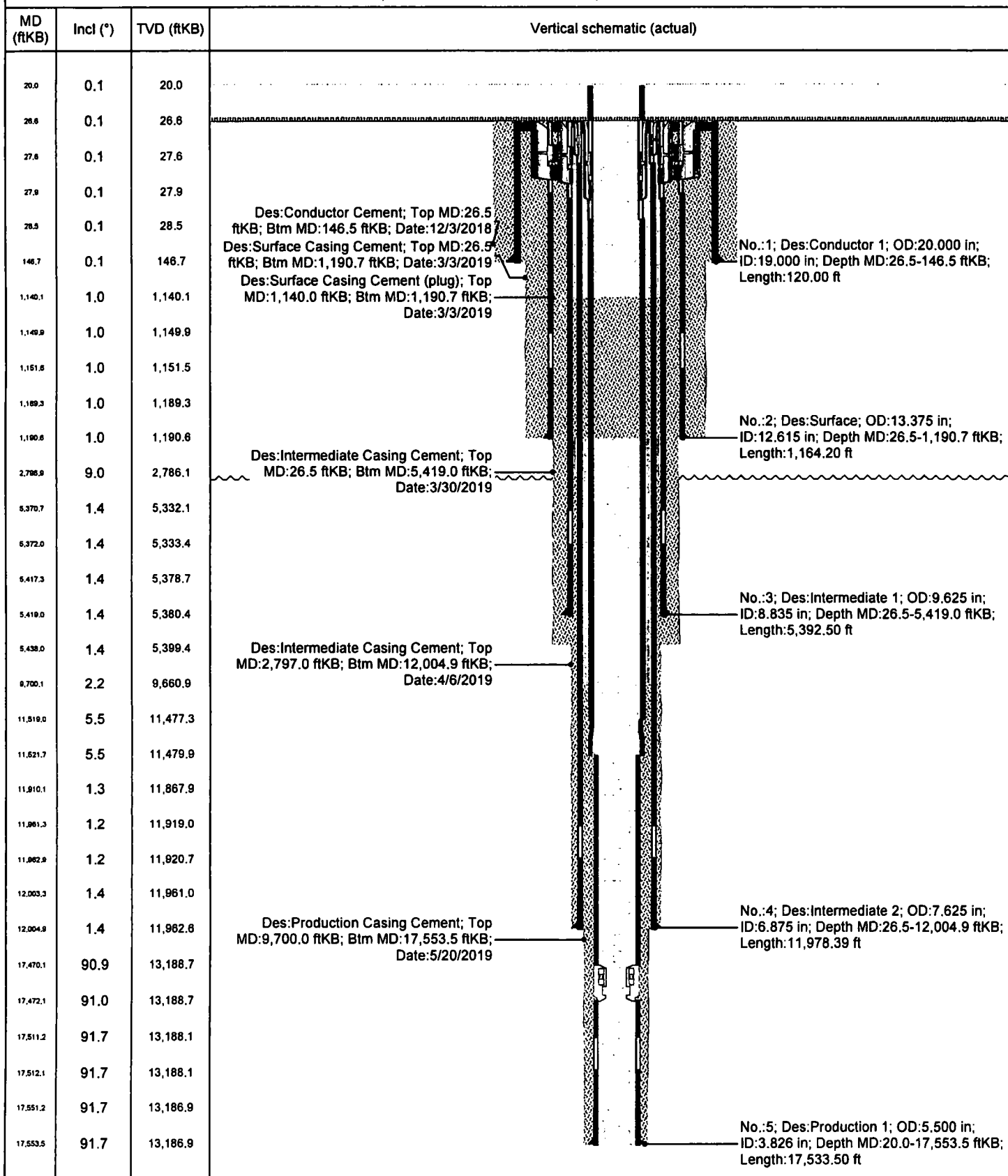
Marathon Oil

Wellbore Schematic

Well Name: CAVE LION 5 WC FEDERAL 2H

State/Province NEW MEXICO	Country UNITED STATES	Field Name HARDIN TANK	Latitude (°) 32.06575000	Longitude (°) -103.39171260	North/South Distance (ft) 287.0	North/South Reference FSL
APV IFO UWI 3002545421	KB-Ground Distance (ft) 26.50	KB-Mud Line Distance (ft)	Ground Elevation (ft) 3,263.00	Drilling Rig Spud Date 3/3/2019	Well Original Completion Date	Well First Production Date

HORIZONTAL, CAVE LION 5 WC FEDERAL 2H, 6/4/2019 9:54:40 AM



CAVE LION 5 WC FEDERAL 2H				
30-025-45421				
SPUD	TD Reached	Rig Release	Total Depth	Ground Elevation
3/3/2019	5/14/2019	5/20/2019	17593 / 13209	3263
Casing detail	Surface	Intermediate	Production	Liner
Date	3/3/2019	3/30/2019	4/6/2019	5/18/2019
Hole size	17 1/2	12 1/4	8 3/4	6 1/8
Casing size	13 3/8	9 5/8	7	5 1/2 - 4 1/2
Weight	54.5	40	29	23 - 15.1
Type	J55	J55	P110	P110HC
Thread	STC	LTC	TMK UP Ultra	TMK UP BPN
Top	0	0	0	0
Depth (MD)	1191	5419	12005	17554
Amount jnts	29	132	302	417
Cement detail	Surface	Intermediate	Production	Liner
Date	3/3/2019	3/30/2019	4/6/2019	5/20/2019
Top depth KB	0	0	2797	9700
Bottom depth KB	1191	5419	12005	17554
Lead sks	685	1265	1020	
Yield	1.73	2.32	2.6	
Tail sks	260	360	190	600
Yield	1.34	1.33	1.16	1.16
Spacer	30 bbls	20 bbls	20 bbls	40 bbls
Class	C	C	C	G/H
Circulate to surface (sks)	237	358	0	0
Top meas. method	Circulate	Circulate	Calculations	Calculations
TOC	0	0	2797	9700
Pressure testing	Surface	Intermediate	Production	Liner
Date	3/28/2019	3/31/2019	5/6/2019	5/20/2019
PSI	1550	3210	6359	10000
Time (min)	30	30	30	30
Bled off	50	30	47	0
Drop	3%	1%	1%	0%
Good test	Yes	Yes	Yes	Yes