

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

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.
RML0063586

6. If Indian, Allottee or Tribe Name

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		7. If Unit of CA/Agreement, Name and/or No.
2. Name of Operator SHACKELFORD OIL COMPANY		8. Well Name and No. LUSK WEST DELAWARE UNIT # 902
3a. Address 11417 W COUNTY RD 33 MIDLAND, TX 79707	3b. Phone No. (include area code) (432) 682-9784	9. API Well No. 30-025-30329
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 990 FNL & 1900 FEL SEC 29 T19S R32E		10. Field and Pool or Exploratory Area
		11. Country 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 checked="" 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 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 checked="" 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 recomplate 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.)

PLEASE SEE ATTACHED

HOBBS OCD

AUG 21 2019

RECEIVED



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

Title **CFO**

Signature *[Handwritten Signature]*

Date **6/12/19**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by *[Handwritten Signature]*

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.

Petroleum Engineer Date **JUL 09 2019**
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)

X2 NMOC D 9-9-19

FOR RECORD ONLY

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13 - Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment.

NOTICES

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c) and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Last Updated: 6/12/2019 08:15 AM

Field Name	Lease Name	Well No.
Lusk West Delaware Unit	Lusk West Delaware Unit	902
County	State	API No.
Lea	New Mexico	30025303290000

Version	Version Tag			
3	PROPOSED			
GL (ft)	KB (ft)	Section	Township/Block	Range/Survey
		29	19S	32E

Operator	Well Status	Latitude	Longitude	
Shackelford Oil Company				
Dist. N/S (ft)	N/S Line	Dist. E/W (ft)	E/W Line	Footage From
Prop Num	Spud Date	Comp. Date		

Additional Information

Updated 01/02/2018
By Brady Shackelford

Other 1	Other 2	Other 3	Other 4
Prepared By	Updated By	Last Updated	
Shackelford	Shackelford	6/12/2019 8:15 AM	

Hole Summary

Date	O.D. (in)	Tr. (ft)	Bottom (MD ft)	Comments
	17.500	0	908	
	12.250		4,504	
	7.750	0	7,192	

Tubular Summary

Date	Description	O.D. (in)	Wt (lb/ft)	Grade	Top (MD ft)	Bottom (MD ft)
	Surface casing	13.375	54.00	J-55	0	908
	Intermediate casing	8.625	32.00	J-55	0	4,504
	Production casing	5.500	15.00	K-55	0	7,192

Casing Cement Summary

Date	No. Sx	Csg. O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
	722	13.375	0	908	CIRC TO SURFACE
	800	8.625	0	4,504	CIRC TO SURFACE
	800	5.500	2,280	7,192	CEMENT BOND LOG

Tools/Problems Summary

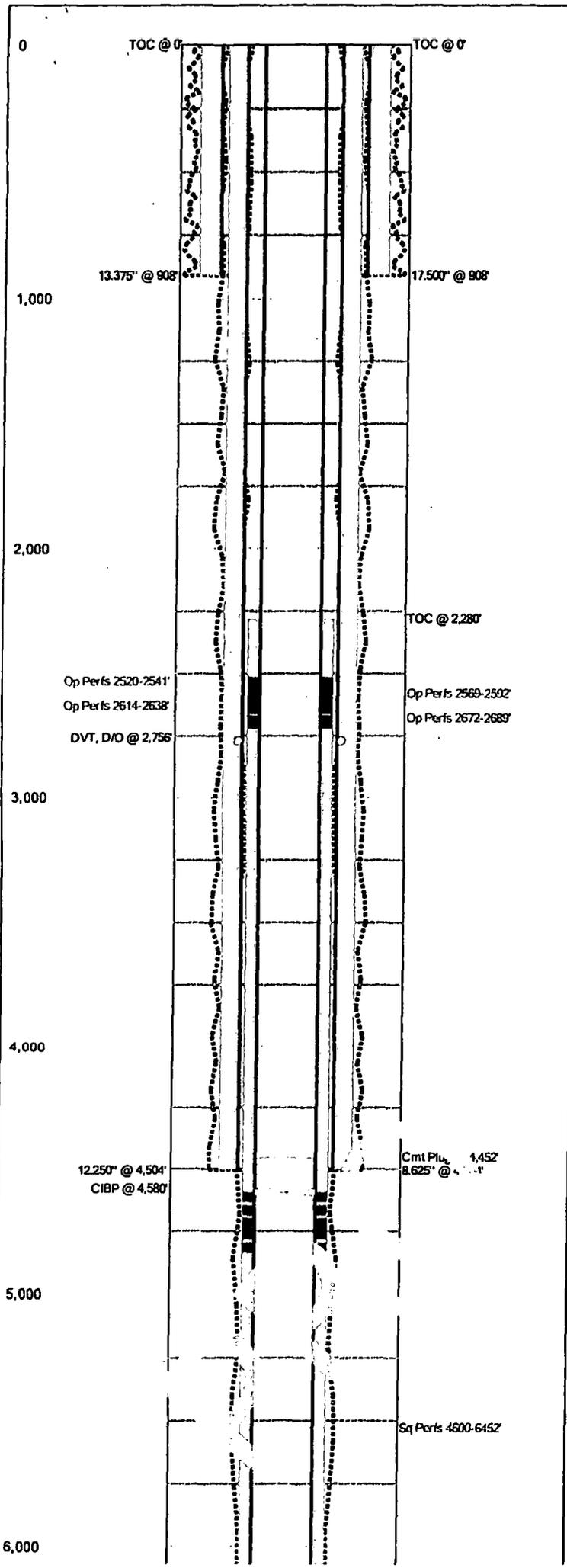
Date	Tool Type	O.D. (in)	I.D. (in)	Top (MD ft)	Bottom (MD ft)
	DVT, D/O	8.625	0.000	2,756	
	CIBP	5.500	0.000	4,580	
	CIBP	5.500	0.000	6,370	

Cement Plug Summary

Date	No. Sx	O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
	25	5.500	4,452	4,580	Pressure test to 500 psi, Witnessed by BLM (Pat McKelvey)
8/22/2014	25	5.500	6,167	6,370	Witnessed by BLM (Pat McKelvey)
8/15/2014	25	5.500	6,880	7,200	

Perforation Summary

C	Date	Perf. Status	Formation	OA Top (MD ft)	OA Bottom (MD ft)	Shots
		Open	YATES	2,520	2,541	
		Open	YATES	2,569	2,592	
		Open	YATES	2,614	2,638	
		Open	YATES	2,672	2,689	



Last Updated: 6/12/2019 08:15 AM

Field Name		Lease Name		Well No.	County	State	API No.
Lusk West Delaware Unit		Lusk West Delaware Unit		902	Lea	New Mexico	30025303290000
Version	Version Tag			Spud Date	Comp. Date	GL (ft)	KB (ft)
3	PROPOSED						
Section	Township/Block	Range/Survey	Dist. N/S (ft)	N/S Line	Dist. E/W (ft)	E/W Line	Footage From
29	19S	32E					
Operator			Well Status		Latitude	Longitude	Prop Num
Shackelford Oil Company							
Other 1		Other 2		Other 3		Other 4	
Last Updated			Prepared By			Updated By	
06/12/2019 8:15 AM			Shackelford			Shackelford	

Additional Information

Updated 01/02/2018
By Brady Shackelford

Hole Summary

Date	O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
	17.500	0	908	
	12.250	0	4,504	
	7.875	0	7,200	

Tubular Summary

Date	Description	No. Jts	O.D. (in)	Wt (lb/ft)	Grade	Top (MD ft)	Bottom (MD ft)	Comments
	Surface Casing		13.375	54.00	J-55	0	908	
	Intermediate Casing		8.625	32.00	J-55	0	4,504	
	Production Casing		5.500	15.00	K-55	0	7,192	

Casing Cement Summary

C	Date	No. Sx	Yield (ft3/sk)	Vol. (ft3)	Csg. O.D. (in)	Top (MD ft)	Bottom (MD ft)	Description	Comments
		722	1.00	722	13.375	0	908		CEMENT TO SURFACE
		800	1.00	800	8.625	0	4,504		CEMENT TO SURFACE
		800	1.00	800	5.500	2,280	7,192		CEMENT BOND LOG

Tools/Problems Summary

Date	Tool Type	O.D. (in)	I.D. (in)	Top (MD ft)	Bottom (MD ft)	Description	Comments
	DV tool (drilled out)	8.625	0.000	2,280	0		
	Cast Iron Bridge Plug	5.500	0.000	4,500	0		
	Cast Iron Bridge Plug	5.500	0.000	6,300	0		

Cement Plug Summary

Date	No. Sx	O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
	25	5.500	4,452	4,580	Pressure tested 1000 Jpsi, Witnessed by BLM (Pat McKelvey)
8/22/2014	25	5.500	6,167	6,370	Witnessed by BLM (Pat McKelvey)
8/15/2014	25	5.500	6,880	7,200	

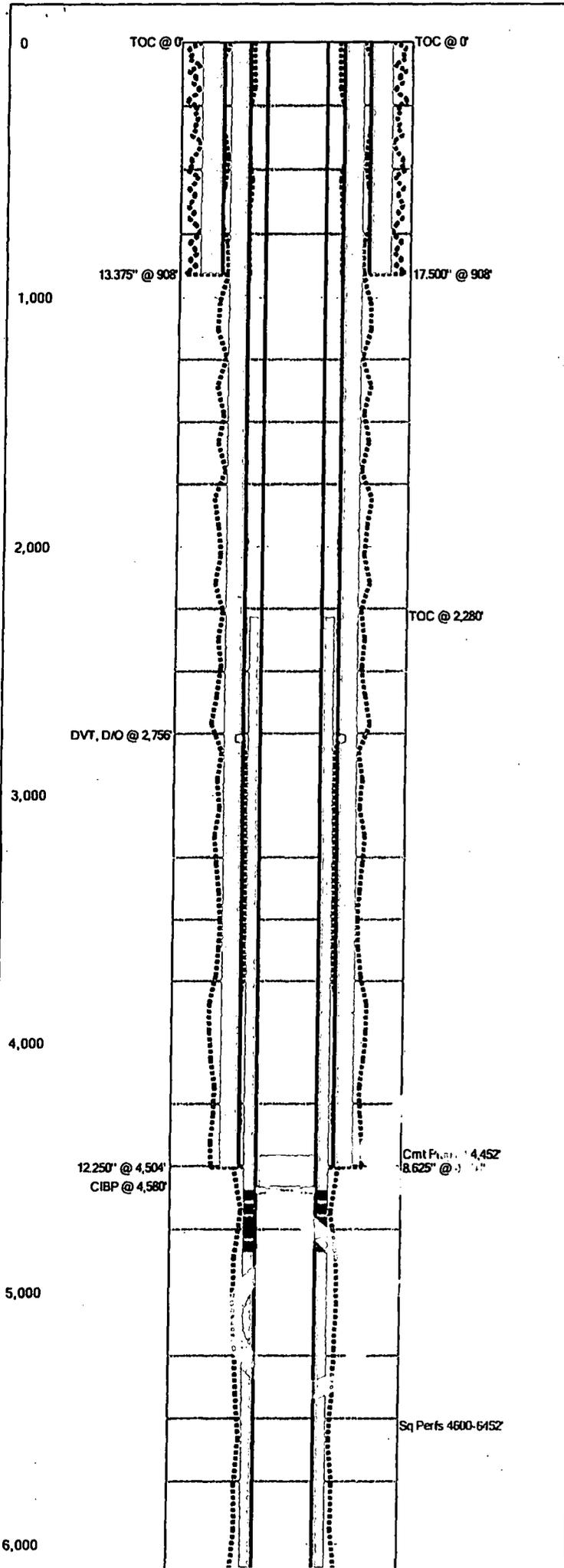
Perforation Summary

C	Date	Perf. Status	Formation	Comments	
		Squeezed			
Top (MD ft)	Bottom (MD ft)	SPR	Shows	Phasing (deg)	Interval Comments
4,600	4,600			8	
4,654	4,660	1		6	
4,706	4,706	1		8	
4,722	4,722			8	
4,750	4,750	1		10	
4,803	4,803	1		27	
6,446	6,446	2		14	
C	Date	Perf. Status	Formation	Comments	
		Open	YATES	STAGE 4	

Last Updated: 6/12/2019 08:15 AM

C	Date	Perf. Status	Formation		Comments	
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	2,614	2,622				
	2,630	2,638				
C	Date	Perf. Status	Formation		Comments	
		Open	YATES		STAGE 1	
	Top (MD ft)	Bottom (MD ft)	SPF	Shots	Phasing (deg)	Interval Comments
	2,672	2,677				
	2,686	2,689				

Last Updated: 6/12/2019 08:12 AM



Field Name		Lease Name		Well No.
Lusk West Delaware Unit		Lusk West Delaware Unit		902
County		State		API No.
Lea		New Mexico		30025303290000
Version	Version Tag			
	2 Updated Current			
GL (ft)	KB (ft)	Section	Township/Block	Range/Survey
		29	19S	32E
Operator		Well Status	Latitude	Longitude
Shackelford Oil Company				
Dist. N/S (ft)	N/S Line	Dist. E/W (ft)	E/W Line	Footage From
Prop Num		Spud Date	Comp. Date	
Additional Information				
Updated 01/02/2018 By Brady Shackelford				
Other 1	Other 2	Other 3	Other 4	
Prepared By		Updated By	Last Updated	
Shackelford		Shackelford	6/12/2019 8:12 AM	

Date	O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
	17.500	0	908	
	12.250	0	4,504	
	7.875	0	7,200	

Date	Description	O.D. (in)	Wt (lb/ft)	Grade	Top (MD ft)	Bottom (MD ft)
	Sunaco	13.375	54.00	J-55	0	908
	Intermediate Casing	8.625	32.00	J-55	0	4,504
	Production Casing	5.500	15.00	K-55	0	7,192

Date	No. Sx	Csg. O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
	722	13.375	0	908	CIRC TO SURFACE
	800	8.625	0	4,504	CIRC TO SURFACE
	800	5.500	2,280	7,192	CEMENT BOND LOG

Date	Tool Type	O.D. (in)	I.D. (in)	Top (MD ft)	Bottom (MD ft)
	DVT, D/O	8.625	0.000	2,756	
	CIBP	5.500	0.000	4,580	
	CIBP	5.500	0.000	6,370	

Date	No. Sx	O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
	25	5.500	4,452	4,580	Pressure test to 500 psi, Witnessed by BLM (Pat McKelvey)
8/22/2014	25	5.500	6,167	6,370	Witnessed by BLM (Pat McKelvey)
8/15/2014	25	5.500	6,880	7,200	

C	Date	Perf. Status	Formation	OA Top (MD ft)	OA Bottom (MD ft)	Shots
		Squeezed		4,600	6,452	81

Last Updated: 6/12/2019 08:12 AM

Field Name		Lease Name		Well No.	County	State	API No.	
Lusk West Delaware Unit		Lusk West Delaware Unit		902	Lea	New Mexico	30025303290000	
Version	Version Tag				Spud Date	Comp. Date	GL (ft)	KB (ft)
2	Updated Current							
Section	Township/Block	Range/Survey	Dist. N/S (ft)	N/S Line	Dist. E/W (ft)	E/W Line	Footage From	
29	19S	32E						
Operator			Well Status		Latitude	Longitude	Prop Num	
Shackelford Oil Company								
Other 1		Other 2		Other 3		Other 4		
Last Updated			Prepared By			Updated By		
06/12/2019 8:12 AM			Shackelford			Shackelford		
Additional Information								
Updated 01/02/2018 By Brady Shackelford								

Hole Summary

Date	O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
	17.500	0	908	
	12.250	0	4,504	
	7.875	0	7,200	

Tubular Summary

Date	Description	No. Jts	O.D. (in)	Wt (lb/ft)	Grade	Top (MD ft)	Bottom (MD ft)	Comments
	Surface Casing		13.375	54.00	J-55	0	908	
	Intermediate Casing		8.625	32.00	J-55	0	4,504	
	Production Casing		5.500	15.00	K-55	0	7,192	

Casing Cement Summary

C	Date	No. Sx	Yield (ft3/sk)	Vol. (ft3)	Csg. O.D. (in)	Top (MD ft)	Bottom (MD ft)	Description	Comments
		722	1.00	722	13.375	0	908		CIRC TO SURFACE
		800	1.00	800	8.625	0	4,504		CIRC TO SURFACE
		800	1.00	800	5.500	2,280	7,192		CEMENT BOND LOG

Tools/Problems Summary

Date	Tool Type	O.D. (in)	I.D. (in)	Top (MD ft)	Bottom (MD ft)	Description	Comments
	DV tool (drilled out)	8.625	0.000	2,750			
	Cast Iron Bridge Plug	5.500	0.000	5,580	0		
	Cast Iron Bridge Plug	5.500	0.000	6,370	0		

Cement Plug Summary

Date	No. Sx	O.D. (in)	Top (MD ft)	Bottom (MD ft)	Comments
	25	5.500	4,452	4,580	Pressure test 500 psi, Witnessed by BLM (Pat McKelvey)
8/22/2014	25	5.500	6,167	6,370	Witnessed by Pat McKelvey
8/15/2014	25	5.500	6,880	7,200	

Perforation Summary

C	Date	Perf. Status	Formation	Comments
		Squeezed		
Top (MD ft)	Bottom (MD ft)	PF	Shots	Interval Comments
4,600	4,600	1	8	
4,654	4,654	1	6	
4,706	4,706	1	8	
4,722	4,730		8	
4,750	4,760	1	10	
4,803	4,830	1	27	
6,446	6,452	2	14	

PROPOSED PROCEDURES

- 1.) Set CIBP at 4580'
- 2.) Pump 25 sx plug. Tag top of cement and pressure test for 30 minutes, witness by BLM
- 3.) Perforate Yates as follows:
 - a. 2520 – 2522
2539 – 2541
Set Plug at 2550'
Set Packer at 2500', acidize w/ 2000 gals of acid
 - b. 2569 – 2571
2575 – 2580
2584 – 2586
2587 – 2589
2590 – 2592
Set Plug at 2608'
Set Packer at 2550', acidize w/ 2000 gals of acid
 - c. 2614 – 2622
2630 – 2638
Set Plug at 2650'
Set Packer at 2608', acidize w/ 2000 gals of acid
 - d. 2672 – 2677
2686 – 2689
Set Packer at 2650', acidize w/ 2000 gals of acid
- 4.) Test for production determine whether to frac

BUREAU OF LAND MANAGEMENT

Carlsbad Field Office
620 East Greene Street
Carlsbad, New Mexico 88220
575-234-5972

Conditions of Approval for Permanent Abandonment of a Production Zone

1. **Notification:** Contact the appropriate BLM office at least 24 hours prior to the commencing of ~~any plug back operations~~ operations. For wells in Eddy County, call 575-361-2822. For wells in Lea County, call 575-393-3612
2. **Blowout Preventers:** A blowout preventer (BOP), as appropriate, shall be installed before commencing any plugging operation. The BOP must be installed and maintained as per API and manufacturer recommendations. The minimum BOP requirement is a 2M system for a well not deeper than 9,100 feet, a 3M system for a well not deeper than 13,600 feet, or a 5M system for a well not deeper than 22,700 feet (all depths are for measured well depth).
3. **Mud Requirement:** Mud shall be placed between all plugs. Minimum consistency of plugging mud shall be obtained by mixing at the rate of 25 sacks (50 pounds each) of gel per 100 barrels of brine water. Minimum nine (9) pounds per gallon.
4. **Cement Requirement:** Sufficient cement shall be used to bring any required plug to the approved depth and length. Any given cement volumes on the proposed plugging procedure are merely estimates and are not final. Unless specific approval is received, no plug except the surface plug shall be less than 25 sacks of cement. Any plug that requires a tag will have a minimum WOC time of 4 hours. In lieu of a cement plug across perforations in a cased hole (not for any other plugs), a bridge plug set within 50 feet to 100 feet above the perforations shall be capped with 25 sacks of cement (or 35 feet with a bailer). Before pumping cement on top of CIBP, a tag will be required to verify depth. Based on depth, a tag of the cement may be deemed necessary. Unless otherwise specified in the approved procedure, the cement plug shall consist of either Neat Class "C", for up to 7,500 feet of depth or Neat Class "H", for deeper than 7,500 feet plugs.
5. **Subsequent Plug back Reporting:** Within 30 days after plug back work is completed, file a Subsequent Report (Form 3160-5) to BLM. The report should give in detail the manner in which the plug back work was carried out, the extent (by depths) of cement plugs placed, and the size and location (by depths) of casing left in the well. Show date work was completed. If plugging back to a new zone submit a Completion Report (Form 3160-4) with the Subsequent Report.
6. **Trash:** All trash, junk and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.
7. **If well location is within the Timing Limitation Stipulation Area for Lesser Prairie-Chicken:** From March 1st through June 15th annually, abandonment activities will be allowed except between the hours from 3:00 am and 9:00 am. Normal vehicle use on existing roads will not be restricted.