

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0135  
Expires: July 31, 2010

## SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to recomplete an abandoned well. Use form 3160-3 (APD) for such proposals.

5. Lease Serial No.  
NMNM123525

Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

7. If Unit or CA/Agreement, Name and/or No.  
891006455X

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

LEGACY RESERVES OPERATING LP-Mail: mdickson@legacyp.com

Contact: MATT DICKSON

3a. Address

303 W WALL SUITE 1600  
MIDLAND, TX 79702

3b. Phone No. (include area code)

Ph: 432-689-5200 Ext: 5204

8. Well Name and No.  
LEA UNIT 35H

API Well No.

30-025-42985-00-X1

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

Sec 24 T20S R34E NWSW 2270FSL 800FWL

11. County or Parish, and State

LEA COUNTY, NM

## 12. CHECK 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 checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original A
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

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 shall 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 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Legacy Reserves Operating respectfully request approval to add an additional option for the intermediate casing cement procedures. This option would allow for a three-stage cement job utilizing two DV tools. Both DV tools shall be set a minimum of 50 feet below the previous casing shoe and a minimum of 200 feet above the current shoe and adjust cement proportionately based on placement. Please see the following update to the cementing details for a three-stage cement job.

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #345544 verified by the BLM Well Information System For LEGACY RESERVES OPERATING LP, sent to the Hobbs Committed to AFMSS for processing by MUSTAFA HAQUE on 07/26/2016 (16MH0013SE)	
Name (Printed/Typed) MATT DICKSON	Title DRILLING ENGINEER
Signature (Electronic Submission)	Date 07/22/2016

## THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By (BLM Approver Not Specified) Mustafa Haque	Title PETROLEUM ENGINEER	Date 07/26/2016
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 Hobbs		

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.

\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

**PECOS DISTRICT  
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Legacy Reserves Operating
LEASE NO.:	NM123525
WELL NAME & NO.:	35H-Lea Unit
SURFACE HOLE FOOTAGE:	2270'/S & 800'/W
BOTTOM HOLE FOOTAGE:	330'/N & 430'/W
LOCATION:	Section 24, T. 20 S., R. 34 E., NMPM
COUNTY:	Lea County, New Mexico

**A. CASING**

**All previous COAs still apply except the following:**

1. The minimum required fill of cement behind the **9 5/8** inch intermediate casing, which shall be set at approximately **5600** feet, is:

**Option 1:**

- a. Cement to surface. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
- b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash.**
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

**Option 2:**

**Operator has proposed DV tool at depth of 3950 feet, but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50 feet below previous shoe and a minimum of 200 feet above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range.**

a. First stage to DV tool:

- ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

b. Second stage above DV tool:

- ☒ Cement to surface. If cement does not circulate see A.1.Option 1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash.**

**Option 3:**

**Operator has proposed DV tool at depth of 1860 feet and 3950 ft, but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50 feet below previous shoe and a minimum of 200 feet above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range.**

a. First stage to DV tool:

- ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

b. Second stage above DV tool:

- ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with third stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

c. Third stage above DV tool:

- ☒ Cement to surface. If cement does not circulate see A.1.Option 1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash.**

**MHH 07262016**

## Lea Unit #35H

### Intermediate Casing

In the event that circulation is lost (> 50%) while drilling the 12-1/4" intermediate hole in the Capitan Reef at +/-4000', we will plan to install a DV tool and external casing packer within 200' of the top depth where lost circulation occurred and will pump a two-stage cement job with the potential to add an additional DV tool for a three-stage cement job. If there is no lost circulation a single stage cementing procedure will be followed. Legacy plans to cement to surface regardless of whether a single stage, 2-stage or 3-stage procedure is implemented.

### No DV tool (80% excess on lead & 80% excess on tail to design for cement top at surface)

Lead: 1400 sx (35:65) poz (fly ash) class C cement+ 4% bwoc bentonite II + 5% bwoc MPA-5 + 0.25% bwoc FL- 52 + 5 lbs/sack LCM-1 + 0.125 lbs/sk cello flake+ 0.005 lbs/sk defoamer + 0.005 gps FP-6L + 1.2% bwoc Sodium Metasilicate + 5% bwow Sodium Chloride (12.5 ppg, 2.13 cfps, 8.81 gps wtr)

Tail: 200 sx class C cement (14.80 ppg, 1.33 cfps, 6.35 gps wtr)

### With (1) DV Tool (100% excess on lead & 100% excess on tail to design for cement top at surface)

*Assuming DV tool set at 3950' but if the setting depth changes, cement volumes will be adjusted proportionately.*

#### Stage 1

Lead: 400 sx (35:65) paz (fly ash) class C cement+ 4% bwoc Bentonite II+ 5% bwoc MPA-5 + 0.25% bwoc FL-52 + 5 lbs/sack LCM-1 + 0.125 lbs/sk cello flake+ 0.005 lbs/sk defoamer + 0.005 gps FP-6L + 1.2% bwoc Sodium Metasilicate + 5% bwow Sodium Chloride (12.5 ppg, 2.13 cfps, 8.81 gps wtr)

Tail: 200 sx class C cement (14.80 ppg, 1.33 cfps, 6.35 gps wtr)

#### Stage 2

Lead: 1100 sx (35:65) paz (fly ash) class C cement+ 4% bwoc bentonite II + 5% bwoc MPA-5 + 0.25% bwoc FL-52 + 5 lbs/sack LCM-1 + 0.125 lbs/sk Cello Flake+ 0.005 lbs/sk Static Free+ 0.005 gps FP-6L + 1.2% bwoc Sodium Metasilicate + 5% bwow Sodium Chloride (12.5 ppg, 2.13 cfps, 8.81 gps wtr)

Tail: 200 sx class C cement (14.80 ppg, 1.33 cfps, 6.35 gps wtr)

### With (2) DV Tools (100% excess on lead & 100% excess on tail to design for cement top at surface)

*Assuming one DV tool set at 3950' and one DV tool set at <sup>1860' → SEE COA</sup> 1800' but if the setting depths change, cement volumes will be adjusted proportionately.*

#### Stage 1

Lead: 400 sx (35:65) paz (fly ash) class C cement+ 4% bwoc Bentonite II+ 5% bwoc MPA-5 + 0.25% bwoc FL-52 + 5 lbs/sack LCM-1 + 0.125 lbs/sk cello flake+ 0.005 lbs/sk defoamer + 0.005 gps FP-6L + 1.2% bwoc Sodium Metasilicate + 5% bwow Sodium Chloride (12.5 ppg, 2.13 cfps, 8.81 gps wtr)

Tail: 200 sx class C cement (14.80 ppg, 1.33 cfps, 6.35 gps wtr)

## **Stage 2**

Lead: 600 sx (35:65) paz (fly ash) class C cement+ 4% bwoc bentonite II + 5% bwoc MPA-5 + 0,25% bwoc FL-52 + 5 lbs/sack LCM-1 + 0.125 lbs/sk Cello Flake+ 0.005 lbs/sk Static Free+ 0.005 gps FP-6L + 1.2% bwoc Sodium Metasilicate + 5% bwow Sodium Chloride (12.5 ppg, 2.13 cfps, 8.81 gps wtr)

Tail: 200 sx class C cement (14.80 ppg, 1.33 cfps, 6.35 gps wtr)

## **Stage 3**

Lead: 600 sx (35:65) paz (fly ash) class C cement+ 4% bwoc bentonite II + 5% bwoc MPA-5 + 0,25% bwoc FL-52 + 5 lbs/sack LCM-1 + 0.125 lbs/sk Cello Flake+ 0.005 lbs/sk Static Free+ 0.005 gps FP-6L + 1.2% bwoc Sodium Metasilicate + 5% bwow Sodium Chloride (12.5 ppg, 2.13 cfps, 8.81 gps wtr)

Tail: 200 sx class C cement (14.80 ppg, 1.33 cfps, 6.35 gps wtr)

**Matt Dickson**  
**Drilling Engineer**  
**(432)689-5204**  
**mdickson@legacylp.com**



Haque, Mustafa &lt;mhaque@blm.gov&gt;

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**Leah Unit 35H - Sundry 345544**

4 messages

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**Haque, Mustafa** <mhaque@blm.gov>  
To: mdickson@legacylp.com

Tue, Jul 26, 2016 at 12:41 PM

Hello Matt,

I am working on the sundry where you have requested to have the option of setting two DV tools (@ 1800' and 3950'). I was wondering, if you can please tell me at depth was your surface casing set.

Thank You-  
Haque

Regards,

*Mustafa Haque*  
Petroleum Engineer  
Bureau of Land Management  
620 E Greene St.  
Carlsbad, NM-88220  
Office : (575)-234-5971

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**Matthew C Dickson** <mdickson@legacylp.com>  
To: "Haque, Mustafa" <mhaque@blm.gov>

Tue, Jul 26, 2016 at 3:25 PM

We set our 13-3/8" surface casing at 1810'. Let me know if you need any more information.

Thank you

Matt

**From:** Haque, Mustafa [mailto:mhaque@blm.gov]  
**Sent:** Tuesday, July 26, 2016 1:41 PM  
**To:** Matthew C Dickson  
**Subject:** Leah Unit 35H - Sundry 345544

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**Haque, Mustafa** <mhaque@blm.gov>

Tue, Jul 26, 2016 at 3:38 PM

To: Matthew C Dickson <mdickson@legacylp.com>

Since the surface casing is at 1810', the second DV tool need to be at least 50' below (~1860'). So I will just put that in the COA. The DV tool depths can be moved, as long as they are 50' below the previous casing shoe and 200' above the current shoe. Please let me know if you have any questions regarding this matter.

Thank You-  
Haque

Regards,

*Mustafa Haque*  
Petroleum Engineer  
Bureau of Land Management  
620 E Greene St.  
Carlsbad, NM-88220  
Office : (575)-234-5971

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**Matthew C Dickson** <mdickson@legacylp.com>

Tue, Jul 26, 2016 at 3:40 PM

To: "Haque, Mustafa" <mhaque@blm.gov>

Perfect, thank you for clarifying that. I will make sure we set them at appropriate depths.

Thank you

Matt

**From:** Haque, Mustafa [mailto:mhaque@blm.gov]

**Sent:** Tuesday, July 26, 2016 4:39 PM

**To:** Matthew C Dickson

**Subject:** Re: Leah Unit 35H - Sundry 345544

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