

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.*

Carlsbad Field Office  
OCD Hobbs  
HOBBS OCD

<b>SUBMIT IN TRIPLICATE - Other instructions on page 2</b>		7. If Unit of CA/Agreement, Name and/or No. 14-08-0001014277 (NMMN-70953X)
1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other Natural Gas Storage	8. Well Name and No. GRM UNIT #8	
2. Name of Operator Enstor Grama Ridge Storage and Transportation, LLC	9. API Well No. 30-025-39922	
3a. Address 20329 State Hwy 249, Suite 500 Houston, TX 77070	3b. Phone No. (include area code) (281) 374-3050	10. Field and Pool or Exploratory Area Morrow Formation, Grama Ridge
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 126' FSL and 1048' FEL of Section 4, Township 22S, Range 34E		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"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input checked="" 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	Possible wellhead and tubing repair
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

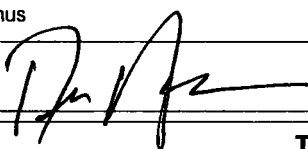
13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths 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.)

GRM UNIT #8 failed the NMOCD 2017 MIT/Bradenhead pressure test due to communication between the production tubing and production casing/liner. As a result of the failed test, the well was immediately shut-in. After review and analysis, the most probable cause of the communication is a casing leak at a depth of 12,668', between the liner hanger and production packer.

BLM Form 3160-5 Notice of Intent was approved on 2/08/18; however, after further review it has been determined that the repair/remediation procedure is operationally risky and unsound. This "Amended" casing repair procedure (see attached wellbore schematics and work over procedure) is more operationally sound and has already been informally reviewed by the BLM. The estimated completion date for this project is December 2018. This work over has been included in the 2018 Plan of Operations.

\*Please note that the well will remain shut-in pending completion of repairs and successful NMOCD-witnessed MIT/Bradenhead pressure test.

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) Nick Nicodemus	Director, Land & Regulatory Affairs Title
Signature 	Date 07/13/2018

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by Mustafa Hague	Petroleum Engineer Carlsbad Field Office Title Date 7-18-2018
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 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.

## **GRAMA RIDGE WELL 8**

### **Workover Procedure**

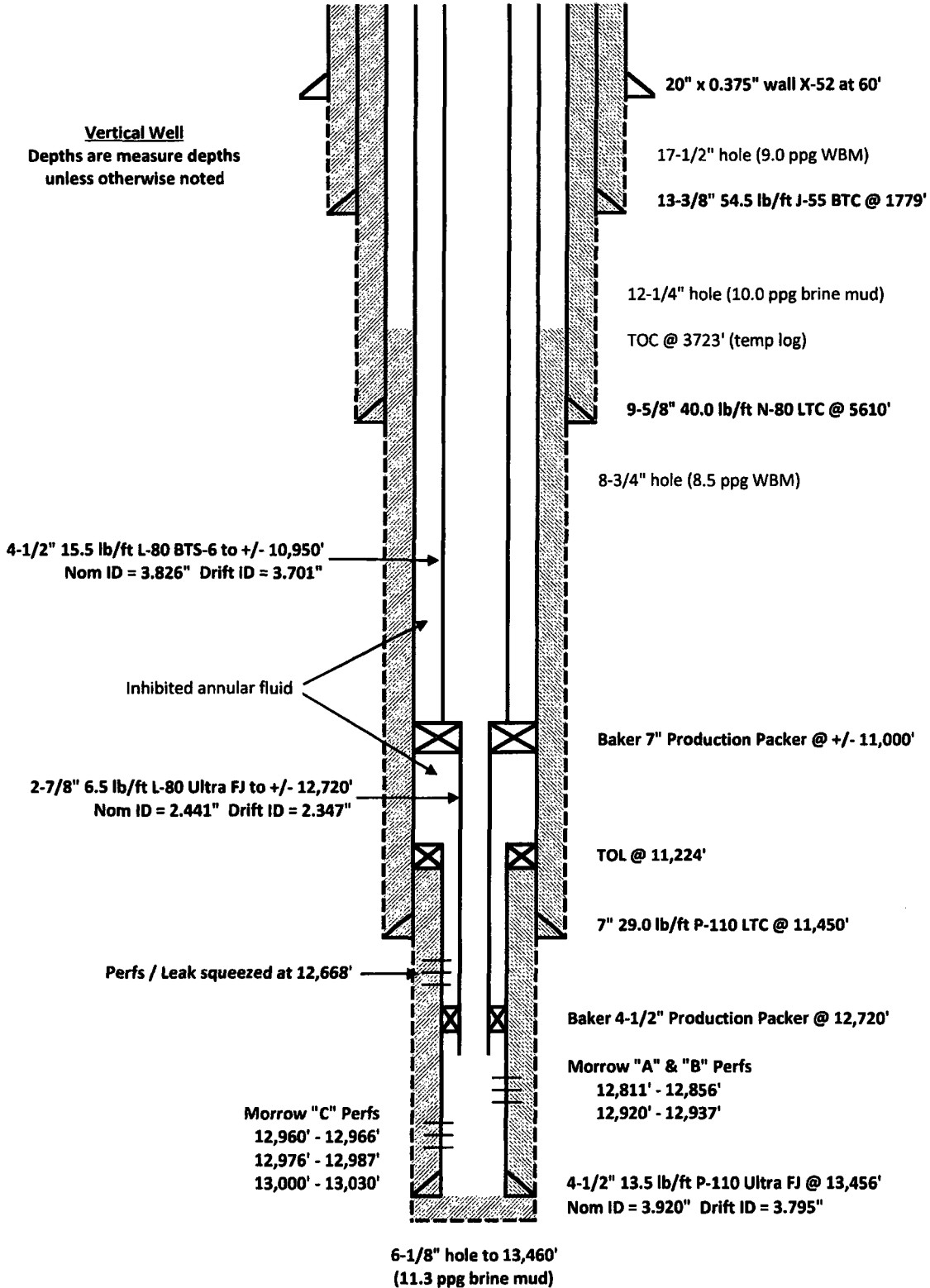
**7-10-2018**

1. Move in and rig a workover rig and associated equipment.
2. Remove the tree valves and nipple up and test BOP's.
3. Perforate the 2-7/8" tubing above the production packer at 12,717'.
4. Circulate and kill the well with kill weight fluid through the perforations in the 2-7/8" tubing.
5. Pull and lay down the 4-1/2" x 2-7/8" tubing.
6. Mill over the production packer at 12,717'.
7. Run and set a retrievable bridge plug (RBP) at approximately 12,790'.
8. Make a test packer run to confirm the depth of the leak in the 4-1/2" liner at approximately 12,668'.
9. Perforate the 4-1/2" casing at the leak depth at approximately 12,668'.
10. Squeeze the perforations with cement.
11. Wait on the cement to set for at least 8 hours.
12. Drill out the cement and test the casing to 550 psi for 30 minutes.
13. Retrieve the RBP at approximately 12,790'.
14. Run and set the 4-1/2" production packer assembly at approximately 12,720'.
15. Run the 7" production packer assembly to approximately 11,000'.
16. Circulate an inhibited fluid into the tubing by casing annulus.
17. Set the 7" packer.
18. Run the 4-1/2" tubing and tag the 7" packer at 11,000'.
19. Circulate inhibited annular fluid into the tubing by casing annulus.
20. Land the tubing hanger in the wellhead and the tubing anchor latch in 7" production packer simultaneously.
21. Test the tubing by casing annulus to 550 psi for 30 minutes.
  - Record the pressure test on a chart or digitally.
22. Nipple down the BOP's and install the tree valves.
23. Clean out the wellbore with coiled tubing and acidize if necessary.
24. Return the well to service.

**Enstor Operating Company, LLC  
Grama Ridge Morrow Unit #8  
Lea County, NM**

**Proposed Wellbore Schematic  
(7/10/2018)**

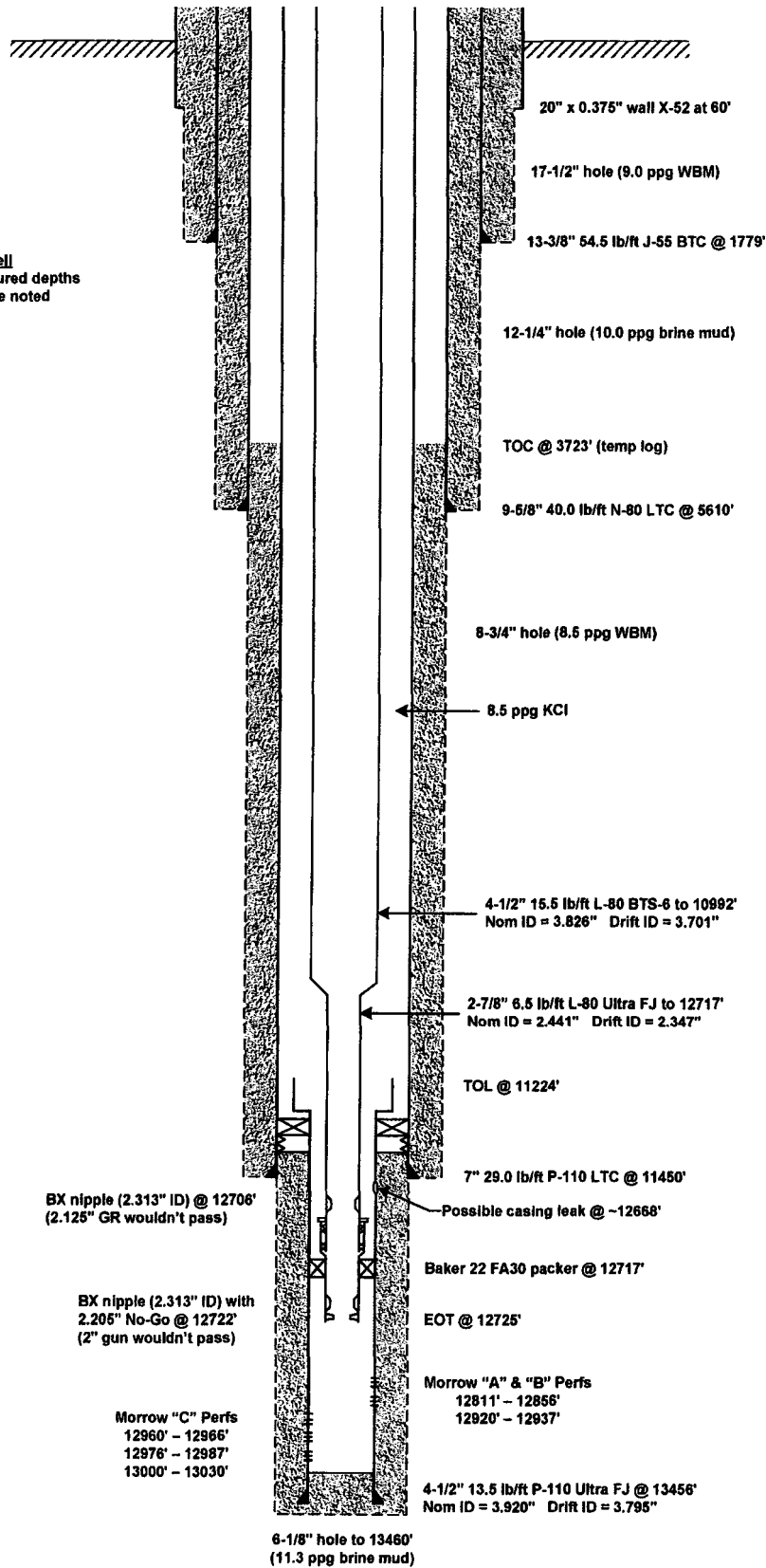
**Vertical Well**  
Depths are measure depths  
unless otherwise noted



Enstor Operating Company, LLC  
Grama Ridge Morrow Unit #8  
Lea County, NM

(Current Wellbore Schematic)

Vertical Well  
All depths are measured depths  
unless otherwise noted



**BUREAU OF LAND MANAGEMENT  
Carlsbad Field Office  
620 East Greene Street  
Carlsbad, New Mexico 88220  
575-234-5972**

**GRM UNIT 8  
30-025-39922  
Enstor Grama Ridge Storage and Transportation LLC**

**Conditions of Approval**

1. Notify BLM at 575-361-2822 (Eddy County) or 575-393-3612 (Lea County) a minimum of 24 hours prior to commencing work.
2. Must conduct casing integrity test (CIT) and submit results to BLM. Notify BLM if test fails. The CIT is to be performed on the production casing to 1500 psi
3. Subsequent sundry required detailing work done. Operator to include well bore schematic of current well condition when work is complete.

**MHH 07182018**