Form 3160-5
(November 1994)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia
RECEIVED
AUG 14 2012
OCD ARTESIA

FORM APPROVED
OMB No 1004-0135
Expires July 31, 1996

SUNDRY NOTICES AND REPORTS ON WELLS

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

SUBMIT IN TRIPLICATE – Other instructions on reverse side

5. Lease Serial No.
NM-99028

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
[X] Oil Well [ ] Gas Well [ ] Other

8. Well Name and No. cam
DUKE ARP FEDERAL #1

2 Name of Operator
LRE OPERATING, LLC

9. API Well No.
30-015-30476

3a. Address c/o Mike Pippin LLC
3104 N Sullivan, Farmington, NM 87401

3b. Phone No. *(include area code)*
505-327-4573

10. Field and Pool, or Exploratory Area
EMPIRE, WOLFCAMP (22420)
AND
Eddy County, New Mexico

4. Location of Well *(Footage, Sec., T, R., M., or Survey Description)*
1980' FSL & 990' FWL Unit L
Sec. 14, T17S, R27E

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
[X] Notice of Intent	[X] Acidize	[ ] Deepen	[ ] Production (Start/Resume)	[ ] Water Shut-Off
	[ ] Alter Casing	[ ] Fracture Treat	[ ] Reclamation	[ ] Well Integrity
[ ] Subsequent Report	[X] Casing Repair	[ ] New Construction	[X] Recomplete	[X] Other 2nd Amended Procedure
	[X] Change Plans	[ ] Plug and Abandon	[ ] Temporarily Abandon	
[ ] Final Abandonment Notice	[ ] Convert to Injection	[ ] Plug Back	[ ] Water Disposal	

13 Describe Proposed or Completed Operations (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 shall 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 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.)

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

2nd AMENDED PROCEDURE

LRE would like to repair a suspected csg leak & recomplete from the Logan Draw; Morrow Gas Pool (80400) to the Empire, Wolfcamp (22420) as folllows: MIRUSU. TOH w/production equipment. Spot a 35 sx Cl "H" cmt plug from 9510'-9210'. WOC. Tag cmt @ 9250' or shallower. (Morrow perfs are @ 9343'-9457'). Locate & repair csg leak as required. (See attached detailed procedure). Perf Wolfcamp @ about 6194'-6220' & 6230'-36' w/about 130 holes. Spot about 200 gal 15% HCL across new perfs. Land 2-3/8" tbg @ about 6100' w/4-1/2" pkr @ 5980'. Stimulate w/about 4000 gal linear & gelled acid & about 4000 gal linear gel (no sand). TOH w/tbg & pkr. If well flows, set 4-1/2" pkr @ about 6150' on 2-3/8" 4.7# N-80 tbg. If well does not flow, land 2-3/8" 4.7# N-80 tbg @ about 6300'. Run pump & rods. (See attached detailed procedure). Release workover rig.

Accepted for record
NMOCD

WITNESS
PLUG BACK

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

Name *(Printed/Typed)* Mike Pippin — Title Petroleum Engineer (Agent)

Signature Mike Pippin — Date June 7, 2012

THIS SPACE FOR FEDERAL OR STATE USE

Approved by — Title — Date AUG 13 2012

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

APPROVED
WESLEY W. INGRAM
PETROLEUM ENGINEER

Title 18 U.S.C. Section 1001, makes 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.

LIME ROCK RESOURCES

DUKE ARP FEDERAL COM #1
LOGAN DRAW (MORROW) FIELD
LRE Operating, LLC

Abandon Existing Morrow Perfs and Recomplete the Wolfcamp

REVISED 5/9/12

Location: 1,980 FSL & 990 FWL, Sec 14, T17S, R27E, Eddy Co, NM

API #: 30-015-30476 **AFE #R12002**

Elevation – 3,483' GL, 3,500' to DF, 3,501' to RKB, 18' fr/GL to RKB

Directions to Location: From Artesia, go east on Hwy 82 for 7.2 miles. Turn north on lease road. Follow lease road 0.6 miles and then turn right. Follow lease road east to the Logan ASO Fed Com #1 location. From the SE corner of this location, follow lease road 0.6 miles to Duke ARP Fed Com well site.

	OD	Weight	Grade	Top	Bottom	ID	Drift	Cplg
Surface	8-5/8"	24.0#	J-55	0'	1,605'	8.097	7.972	STC
Production	4-1/2"	11.6#	N-80	0'	9,720'	4.000	3.875	LTC

Scope of Work: Pull tbg, set cement plug to abandon existing Morrow perfs, move up hole and recomplete the Wolfcamp at 6,200'.

Contacts

Name	Title	Office Phone	Cell
Tim Miller	COO	713-292-9514	281-467-0916
Steve Hunter	Operations Manager	713-292-9516	832-330-7313
Jeff Patton, P.E.	Production Engineer	713-345-2138	713-492-6503
Mike Barrett	Production Foreman	575-623-8424	505-353-2644

Procedure

Current Status: This well was originally completed in the Morrow with perfs fr/9,343' – 9,457'. The well currently makes 5 to 7 MCFPD. A review of the well logs indicates that the Wolfcamp may be productive and should be tested before the well is abandoned. The plan is to release the packer and TOH w/tbg, set a balanced cement plug to abandon the Morrow perfs (9,343'-457') and recomplete the Wolfcamp limestone at ~6,200'.

1. Prep location for recompletion and workover. Check and replace rig anchors. If necessary, test pull rig anchors to 20,000# and record on chart. Send test pull chart to Houston office. Add rock or Caliche to well pad if needed for stability.

2. MIRU slickline unit. RIH w/GR and sample bail (for 2-3/8" tbg). Tag for fill or PBTD. PBTD is reported at 9,655'. RDMO slickline unit. Report depth to Houston.

3. MIRU WOR. MI additional tools and rental items as needed for the workover. Also MI ~15 extra jts of 2-3/8" tbg. **H2S monitoring equipment is also required per BLM conditions of approval (COA).**

4. Kill well as needed down tbg w/FSW. NU WH & NU BOP's. Note: a DSA may be needed to NU the BOP's to the tbghead. Inspect WH and send in for repairs or inspection if needed.

5. Install blind rams on top and 2-3/8" rams on bottom. PT BOP's to 250 psi low & ~~2,500~~ 3000 psi high.

6. During the last workover, the 4-1/2" csg annulus was loaded with water and was observed circulating out the surface csg valve. To re-check the casing leak, RU rig pump and break circ out surface csg valve using FSW. SD and pour 2 or 3 gallons of oil-based paint into the pump line and circ it out to surface. Record number of bbls needed to circ paint out. It will possible to back into the approx depth of the leak. RD pump iron.

7. Release tbg from wellhead. Inspect hanger or wrap-around and repair or replace as needed. Once tbg is released from the WH, PU landing jt and release on/off tool. Allow well to equalize. Re-latch on/off tool and release the Guiberson Uni-VI packer. Once loose, allow well to equalize and allow packer rubbers to relax.

8. Once packer is loose, PU additional 2-3/8" tbg (about 11 jts) and push packer to bottom. Because there is a hole (or problem) in the csg, it's recommended that the packer be junked on bottom (and not pulled to surface). Push packer as deep as possible. Top of packer needs to be below bottom Morrow perf (at 9,457'). PBTD is at ~9,655' or as recorded by slickline (from step 1).

9. Tbg tally is shown below:

   - Tubing subs (if any)
   - 294 jts(?) 2-3/8", 4.7#, N-80, 8rd EUE tbg
   - On/Off Tool w/1.81" ID Profile
   - Guiberson Uni – VI Packer Landed at 9,276'
   - Full length Tbg Jt
   - Collar sub for Pump-Out Plug Landed at 9,317'

10. Wash packer down if necessary. Once packer is in the rat hole, release from the on/off tool and prep to TOH.

11. TOH and stand back tbg. Visually inspect tbg on TOH and identify ~6,300' of the best looking jts. It's recommended that the best looking jts be racked on 1 side of the derrick and the other jts be racked on the other side. The best looking tbg will need to be run back in the well first and the worst tbg run on top. Only 6,300' of tbg will be needed at the end of the recompletion. LD tbg subs (if any).

12. PU 3-5/8" (or 3-3/4") bit and 4-1/2" csg scraper. TIH w/tools to ~6,300'. Watch for drag while TIH due to problem created by casing leak. Do not let bit and scraper get stuck. Clean up casing as needed. TOH and LD bit and scraper.

13. PU a RBP and packer combo (similar to a Model C RBP, Model H retrieving head and Retrievamatic Packer). TIH to 5,250' and set RBP and packer. Release from RBP and pull up 5'. Pressure test RBP, packer and tbg to 2,000 psi. Once test is ok, pull up hole and test down the csg to 500 psi looking for leak. It is suspected that the leak is high. Once leak is found, TIH and latch RBP. Pull RBP up hole and set 100' below bottom of leak. Release from RBP and re-test (down tbg) to 500 psi. Pull packer up hole and re-isolate leak. Est injection rate and pressure. Provide details of test to Houston and discuss options for repair. Cement type and volume will also be determined once the test results are obtained.

14. Upon evaluation of the csg leak, the cement plug may be set before the casing problem is repaired. It would be preferred to set the cement plug first before fixing the casing problem. To set the cement plug, continue with the steps below. To fix the csg problem before setting cement plug, skip to step #23.

Setting Cement Plug Across Morrow Perfs

15. **CONTACT BLM (575-361-2822) 24 HRS PRIOR TO PUMPING CEMENT PLUG.**

16. MIRU Cement Pump truck and bulk truck. A cement plug will be used to abandon the existing Morrow perf's (fr 9,343' – 457'). The plug will need to be set from 9,510' (or deeper) to 9,210' (or higher). The plug needs to be Class "H" cement with additives and mixed at 16.4 ppg and yield 1.06 cuft/sx. It is recommended that 35+ sx (minimum) be used for the plug. **Once the plug sets,**

it must be tagged and the top of plug must be 9,250' or higher (per BLM's COA).

17. TIH open ended (using a collar, 1 jt tbg, SN on btm) to 9,510' (or deeper) and land top of tbg at rig floor. Run tbg as mentioned in step #9 (best on btm, worst on top). PU extra tbg if needed and run it on top.

18. Install TIW valve and load hole with FSW. Continue to circ until hole is static and fluid density is the same on the outside and inside of the tbg.

19. MI a load of fresh water (~100 bbls). Use fresh water for mixing cement and as a spacer ahead and behind the cement.

20. Mix cement plug to the correct density and check with mud scale. Once cement is acceptable, pump and balance the cement plug across the perforated interval. It recommended that some back-pressure is held on the casing to keep the cement from falling too fast. Pump a 7 to 10 bbl fresh water spacer ahead followed by the correct fresh water spacer behind to balance the plug. Finish the displacement with FSW. It will be acceptable to cut the displacement 1 bbl short to ensure tbg is on a vacuum. Due to csg leak, volumes needed to balance and displace may be harder to calculate. Contact Houston for help in figuring the correct volumes.

21. Pull 10 to 15 stands of tbg and then reverse out using FSW. Once tbg is clean, pull another 10 stands and SD to wait on cement.

22. TIH w/tbg and tag top of plug. **Top of plug must be tagged at 9,250' or higher.**

Repairing the Casing Leak

23. Casing may be repaired by the following options: 1) Pump squeeze cement thru tbg and packer. 2) Re-cementing by pumping cement down the casing like a regular csg job using a 4-1/2" top rubber cement plug. 3) Cut or back off casing and repair with csg patch or screwing back in. Houston will provide an additional procedure for this cement job. **ALWAYS CONTACT THE BLM BEFORE ANY CEMENT JOB IS CONDUCTED !!!!**

Resume Recompletion to the Wolfcamp

24. Shut blind rams on BOP and load csg w/FSW. **Pressure test casing and cement plug to 500 psi for 30 min as required by BLM's COA. Use chart during test to record pressure and time. Keep a copy of the chart and send to Houston (chart must be submitted to the BLM).**

25. TOH w/tbg to 6,300'. LD the tbg on the TOH. These jts should be the worst looking. See step 11. The remaining tbg in the well should be the best tbg.

26. MIRU acid truck (or acid transport) with 300 gals of 15% HCl with additives for pickle job. Use pump (either acid truck or rig pump) to spot the 300 gals of pickle acid down to end of tbg. Displace the acid down the tbg w/FSW. It will be ok to circ 1 or 2 bbl around end of tbg. Once acid is on spot, shut down and wait 10 to 15 min. RU pump to casing and reverse acid out to flowback tank. Note: Ask acid company to bring 2 (50 lb) bags of soda ash to neutralize acid. Dump 1 bag of soda ash in to flowback tank. Use other bag as needed. Once pickle acid is circ to surface, continue to circ 2 more tubing volumes (about 50 bbls).

27. TOH to ~3,000'. RU swab and swab down tbg and casing.

28. Finish TOH. LD SN and collar.

29. RU WLU. Prep to perf the Wolfcamp as follows. Run a CCL and 3-1/8" HSC Gun loaded with 4 spf using SDP-3125-411NT charges (21 gr, 0.37" EHD, 42.90" PD). Depths will be correlated to the CCL / CBL log by JSI dated 12/28/98. The CCL log looks to be on depth with the Schlumberger Open Hole logs dated 22-Dec-1998 (at back of procedure). A short jt is on depth fr/6,142' to 6,164+' and additional collars are on depth at 6,098', 6,208+' and 6,252+'.

Depth	Number of Holes
6,194' – 20'	105 holes
6,230' – 36'	25 holes

30. Inspect guns and make sure all shots fired. Count holes and note on morning report. RDMO WLU.

31. PU collar on bottom, 4 jts 2-3/8" tbg (for tail pipe), 4-1/2" Model R (or RTTS, Weatherford HD, etc) type packer, 2-3/8" regular SN and 2-3/8" tbg to surface. TIH until end of tail pipe is below bottom perf (at 6,236').

32. Spot 2 or 3 bbls of 15% HCl acid around end of tbg. Once on spot, PU and land EOT at ~6,100' (about 100' above top perf). Set packer. Load csg w/FSW then test and hold 1,000 psi.

The Wolfcamp will be stimulated using a gelled acid frac design. The exact job design is still being evaluated. The job will likely consist of 3,000 to 4,000 gals of linear and gelled acid along with 3,000 to 4,000 gals of linear frac gel. The intent of the design is to get acid deep into the formation. The exact job design, pump schedule and additives will be provided by the service company.

33. Open by-pass on packer and break circ. Spot the acid job within 2 bbls of packer. Close by-pass and acidize formation as directed.

34. Once the job has been pumped as designed, displace using FSW. Displace to bottom perf and over displace by 5 bbls. SD and get ISIP, 5 min, 10 min & 15 min pressures. Record total load to recover (TLTR). RDMO acid trucks.

35. Open well to flowback tank. Allow well to flow and clean up. Once well dies, RU swab and start swabbing to flowback tank. Swab test well as directed by Houston.

36. Once testing is completed, kill well down tbg w/FSW (if needed) and release packer. TOH and LD packer, SN and collar. Stand back tbg.

37. Based on the well test there are 2 options for completing the well. **Option 1 (run packer and tbg) starts with Step #31. Option 2 (install rod pump) start with # 40**.

38. MIRU WLU. Prep to RIH w/packer.

39. PU Weatherford Arrowset – 1X w/1.875" ID "X" profile nipple/on-off tool stinger on top, 6' x 2-3/8" pup jt, 1.791" ID "XN" profile nipple, 4' x 2-3/8" pup jt and 2-3/8" Ceramic Disk sub.

40. RIH w/packer assembly on wireline and set at ~6,190'. This will be between the collars at 6,164+' and 6,208+'. RDMO WLU.

41. Prep to TIH tbg as follows: On/Off tool overshot and 2-3/9", 4.7#, N-80, 8rd EUE tbg to surface. Latch packer w/on/off tool and pull 10K over string weight. Space out tbg as needed w/pup jts. Installed tbg hanger (or wrap-around) and land in tbghead.

42. ND BOP's and NU wellhead.

43. Load annulus w/clean FSW or 3% KCl water. Contact local vendor for inhibitor and add to fluid. Test casing to 500 psi to ensure packer/casing/tbg is holding. Bleed pressure down to 100 psi and shut in.

44. RU swab and swab tbg down to nipple.

45. Drop a 4' x 3/4" bar (made from sucker rod) and bust out disk. Bar will fall in to rat hole.

46. Open well to tanks. Choke well as needed. Allow well to clean-up before putting gas to sales. If well dies, RU swab and swab well as directed by Houston.

47. Prep the location for installation of the pumping unit. Call the One Call system before doing any digging on or around location. Check with field foreman (Mike Barrett 575-623-8424) for roustabout crew to install fuel gas line for ppg unit engine.

48. MI and set Lufkin 640C-365-168 ppg unit with Ajax DP-60 gas engine. Also MI a new or used concrete base for the unit. Sheave motor and gearbox to run at 7 to 8 SPM.

While unit is being set on location, set the weights for the correct counter balance. See the rod design sheet at the back of the procedure for correct counter balance weight and torque.

49. Move in equipment and tools needed for running the tbg, pump and rods. Equipment needed will include 4-1/2" TAC, Rod pump, 9 – 1-1/2" sinker bars, 131-3/4" S-88 (or Norris 96/97) rods, 111-7/8" S-88 (or Norris 96/97) rods w/slimhole cplgs, 1-1/2" x 24' PR, tubing flange, pumping tee, stuffing box, lubricator, rod rotator, clamps, Ratigan rod BOP, rod tongs, rod elevators, rod hook, table.

50. PU new BHA and TIH with tubing. Run tbg as shown in the table below. Set TAC with 15,000# of tension.

KB	18'	
190-jnts 2-3/8" N-80 tbg	6,000'	
1- 4-1/2" TAC	3'	
9-jnts 2-3/8" N-80 tbg	300'	
1-SN	1'	+/- 6,300'
1-2-3/8" tbg collar	1'	

51. Build up wellhead for the rod pump. Install the pumping Tee, Ratagin and stuffing box. Seen in picture in back of procedure.

52. RU rod equipment. Inspect rod elevators, running table, rod hook, rod tongs for correct sizes and operation.

53. PU & TIH with pump and rods as shown below. Handle pump and rods carefully. Use correct make-up displacement (torque) when putting rods together. Mark and displace rods as shown in the back of procedure. If necessary, have Weatherford supply make-up cards for S-88 rods or Norris for cards on 96 rods.

Qty	Description
1	1-1/2" x 24' Polish Rod
As needed	7/8" plain Pony Rods
111	7/8" Plain rods with T cplgs
132	3/4" Plain rods with T cplgs
9	1-1/2" API "C" Sinker Bars (3/4" pins)
1	30" Patco Rod (or lifting rod)
1	2" x 1-1/2" x 20' x 6' RWBC Pump

54. Land pump in SN and space out using 7/8" pony rods as needed. Install the polish rod. Install the packing rubbers in the stuffing box.

55. Load tubing with FSW. Pressure test tubing to 500 psi. Stroke pump and test to 500 psi.

56. Have roustabout crew rig up pumping Tee to flow line so pumping unit can be started and the pump can be checked for pump action.

57. Rig up horses head and install bridle line and carrier bar. Adjust horses for proper alignment.

58. Install clamps and rod rotor on the polish rod.

59. Tag pump then lift PR 24" off btm. Tighten PR clamp. Lower entire weight of rod string down on rod rotator and carrier bar.

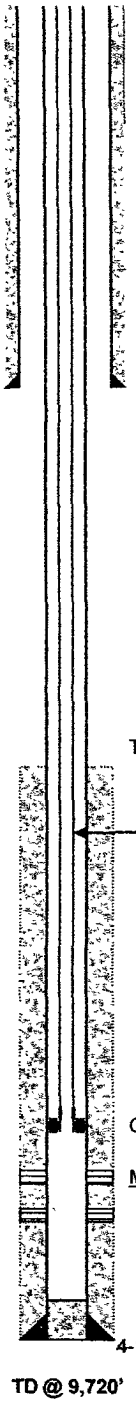
60. Rig down and move floor, tools, blocks, ect. away from pumping unit.

61. Open flow line to battery. Start pumping unit. Make sure pump is working before releasing WOR. Release tools and WOR. Let the pumper know that the well is back on.

62. RDMO WOR and release all tools. Include tbg tally with last report and note amount and condition of tbg (and or equipment) left on location.

63. Contact Mike Barrett and pumper and turn well over to production.

LIME ROCK RESOURCES



8-5/8", 24#, J-55, ST&C Casing @ 1,605'

TOC @ 5,180' by CBL

2-3/8", 4.7#, N-80, EUE 8rd Tubing

Guiberson Uni-VI Packer @ 9,276' w/ 1.81" ID on-off tool

Morrow Perfs: 9,343-51'; 9,359-71'; 9,439-45' & 9,453-57' (112 – 0.42" DIA holes)

PBTD @ 9,655'

4-1/2"; 11.6#; N-80; LT&C Casing @ 9,720'

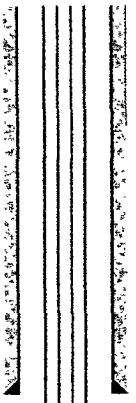
TD @ 9,720'

Elevation: 3,483' GL 18' fr GL to RKB	
Date Spud: 12/02/98	
Date TD'd: 12/22/98	
Date Completed: 01/03/99	
Zone	**Frac**
Morrow	70,000 gals 75Q CO2 foamed gelled 3% KCl w/ 75,000# RC 20/40 sand
Recompletions & Workovers	
Date	
Current Status:	
Last Well Test:	

Lime Rock Resources
Duke ARP Federal Com 1
Sec 14L-17S-27E
Eddy County, NM
Current: 29 July 2008 SJH

Current Wellbore Diagram

LIME ROCK RESOURCES



8-5/8", 24#, J-55, ST&C
Casing @ 1,605'

Elevation: 3,483' GL 18' fr GL to RKB	
Date Spud: 12/02/98	
Date TD'd: 12/22/98	
Date Completed: 01/03/99	
Zone	**Frac**
Morrow	70,000 gals 75Q CO2 foamed gelled 3% KCl w/ 75,000# RC 20/40 sand
Recompletions & Workovers	
Date	
Current Status:	
Last Well Test:	

PROPOSED RECOMPLETION

TOC @ 5,180' by CBL

2-3/8", 4.7#, N-80, EUE 8rd Tubing

Arrowset – 1X Packer at ~6,190' w/On-Off Tool

Proposed Wolfcamp Perfs: 6,194'-20' and 6,230'-36'

Set Cement Plug from 9,510' to 9,210' (minimum).
Top of plug must be tagged higher than 9,250'.

Junk Guiberson Packer in bottom of well

PBTD @ 9,655'

4-1/2"; 11.6#; N-80; LT&C Casing @ 9,720'

TD @ 9,720'

Lime Rock Resources
Duke ARP Federal Com 1
Sec 14L-17S-27E
Eddy County, NM
Proposed: 2 Feb 2012 JWP

Proposed Wellbore Diagram

Conditions of Approval

LRE Operating, LLC
Duke ARP Federal Com 1
API 30-015-30476
August 13, 2012

1. Notify BLM 575-361-2822 before plug back procedures. The procedures are to be witnessed. If no answer, leave a voice mail with the API#, workover purpose, and a call back phone number. Note the contact, time and date in your subsequent report.
2. Surface disturbance beyond the existing pad shall have prior approval.
3. A closed loop system is required. The operator shall properly dispose of drilling/circulating contents at an authorized disposal site. Tanks are required for all operations, no excavated pits.
4. Functional H_2S monitoring equipment shall be on location.
5. A minimum of 3000 (3M) BOPE is to be used. All blowout preventer (BOP) and related equipment (BOPE) shall comply with reasonable well control requirements. A two ram system with a blind ram and a pipe ram designed for the size of the work string shall be adequate. Tapered work strings will require an additional pipe ram. The manifold shall comply with Onshore Oil and Gas Order #2 Attachment I (3M) Diagrams of Choke Manifold Equipment). The accumulator system shall have an immediately available power source to close the rams and retain 200 psi above pre-charge. The pre-charge test shall follow requirements in Onshore Order #2.
6. All waste (i.e. trash, salts, chemicals, sewage, gray water, etc.) created as a result of work over operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.
7. Minimum requirement for mud placed between plugs is 25 sacks of salt water gel per 100 barrels in 9 lb/gal brine.
8. The BLM PET witness is to run tubing tally and agree to cement placement. Sample each plug for cement curing time and tag and/or pressure test (WOC time of 4 hours recommended) as requested by BLM PET witness.
9. **Modify procedure with a Step 22a: Set a 25sx Class H neat cement plug between the Step 22 plug and the lower expected useful Wolfcamp pay to establish less than 3000 feet between cased hole plugs.**
10. **Before casing or a liner is added or replaced, prior BLM approval of the design is required. Use notice of intent Form 3160-5. Only approved for cement procedures, casing patch requires additional review.**

11. **After setting the top plug and before perforating, perform a BLM PET witnessed (charted) casing integrity test to 1000 psig. Pressure leakoff may require remediation prior to continuing with procedure. Include a copy of the chart in the subsequent sundry for this workover.**
12. **The proposed upper perforations are in the Abo not the Wolfcamp according to the tops submitted with the completion report.**
13. The operator will be required to tag fracture material with a tracer and run a tracer survey to verify that the fracture material is not placed out of zone. Results of the tracer to be reported on the workover subsequent sundry Form 3160-5.
14. File a **subsequent sundry** Form 3160-**5** within 30 days of the plug back and acid treatment. Include an updated wellbore diagram. File the subsequent sundry for the frac separately if it is delayed as much as 20 days.
15. Submit the BLM Form 3160-**4 Completion Report** within 30 days of the date all BLM approved procedures are complete.
16. Workover approval is good for 90 days (completion to be within 90 days of approval). A legitimate request is necessary for extension of that date.

PRS/WWI 081312

Access information for **use of Form 3160-5** "Sundry Notices and Reports on Wells"

NM Fed Regs & Forms - http://www.blm.gov/nm/st/en/prog/energy/oil_and_gas.html

§ 43 CFR 3162.3-2 Subsequent Well Operations.

§ 43 CFR 3160.0-9 (c)(1) Information collection.

§ 3162.4-1 (c) Well records and reports.