

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NM OIL CONSERVATION

ARTESIA DISTRICT

FORM 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 re-enter an
abandoned well. Use form 3160-3 (APD) for such proposals.*

AUG 3 2015

RECEIVED

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well ☐ Oil Well ☒ Gas Well ☐ Other		5. Lease Serial No. NMLC065680
2. Name of Operator DEVON ENERGY PRODUCTION CO. EMail: linda.good@devn.com		6. If Indian, Allottee or Tribe Name
3a. Address 333 WEST SHERIDAN AVE OKLAHOMA CITY, OK 73102	3b. Phone No. (include area code) Ph: 405.552.6558	7. If Unit or CA/Agreement, Name and/or No.
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 25 T18S R31E NWNW 1250FNL 660FWL		8. Well Name and No. SHUGART 25 FED COM 2
		9. API Well No. 30-015-31758-00-S1
		10. Field and Pool, or Exploratory N SHUGART
		11. County or Parish, and State EDDY COUNTY, NM

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

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

Devon Energy Production Co., L.P. respectfully requests permission to recomplete this well per the attached procedure. Plan to abandon the existing perfs and move uphole and recomplete various portions of the Bone Spring and do some science logging work.

Please disregard the Sundry Notice submitted on 2/17/2015, EC #291937.

Attachments: Procedure, Current WBD & Proposed WBD.

WED 8/13/15
Accepted for record
NMLC065680

Provide C-102

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct. Electronic Submission #310605 verified by the BLM Well Information System For DEVON ENERGY PRODUCTION CO LP, sent to the Carlsbad Committed to AFMSS for processing by JENNIFER SANCHEZ on 07/29/2015 (15JAS0463SE)	
Name (Printed/Typed) LINDA GOOD	Title REGULATORY SPECIALIST
Signature (Electronic Submission)	Date 07/29/2015
THIS SPACE FOR FEDERAL OR STATE OFFICE USE	
Approved By _____	Title _____
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 _____
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 **

Shugart 25 Fed Com 2
BSSS (3,Frac Barrier,L2,U2) Recompletion
WBS#: XX-XXXXX.XX

Objective - Safely PA and recomplete and existing vertical well into a science well.

API# - 30-015-31758
 GL - 3,678'
 TD - 12,178'

Location - Eddy Co.--Sec 25-18S-31E
 KB - 3,693' (15')
 PBDT - 12,090' (1750 SKS)

Lat: 32 Deg 43' 19.66" N
 Long: 103 Deg 49' 44.292" W

Casing	OD	ID	Drift	WT/FT	Grade	Top	Bottom	TOC	Collapse (psi, 100%)	Burst (psi, 100%)	ID Capacity (BBL/FT)
Surface	13-3/8"	12.715"	12.559"	48	H-40	15'	791'	Surface	770	1,730	.157054
Intermediate	8-5/8"	7.921"	7.796"	32	K-55	15'	4,289'	Surface	2,530	3,930	.06095
Prod-Sec 1	5-1/2"	4.778"	4.653"	20	L-80	15'	1,433'	-4,638'	8,830	9,190	.022177
Prod-Sec 2	5-1/2"	4.892"	4.767"	17	L-80	1,433'	9,585'		6,290	7,741	.023248
Prod-Sec 3	5-1/2"	4.778"	4.653"	20	L-80	9,585'	12,175'		8,830	9,190	.022177
Prd Tbg	2-3/8"	1.995"	1.901"	4.7	L-80	15'	10,650'	-	11,780	11,200'	.003866
Workstring	3-1/2"										

Volumes:

2-3/8" by 5-1/2" 17# = .017769 BBL/FT
 2-3/8" by 5-1/2" 20# = .016698 BBL/FT
 3-1/2" by 5-1/2" 17# = .011348 BBL/FT
 3-1/2" by 5-1/2" 20# = .010277 BBL/FT

NOTE: CONFIRM TBG MAKE WHEN PULLING – INCONSISTENT RECORDS

- Current perforations: 11,670'-12,042' (Morrow)
- Geology

Sections	Bottom	Top	Perf Bottom	Perf Top	Notes
Morrow	NA	NA	12042	11670	PA Existing Perfs
Atoka	11434	11191	NA	NA	PA Behind Pipe
Wolfcamp	10328	9808	NA	NA	PA Behind Pipe
3rd BS	9808	9464	9756	9746	DFIT/Frac/Log
3-2 BS Frac Barrier	9450	9125	9380	9390	DFIT
L 2nd BS	9119	8460	9000	8990	DFIT/Frac/Log
U 2nd BS	9119	8460	8922	8912	DFIT/Frac/Log

- Expected TOC (CBL Survey 9/6/2001): -4,638'
- Formation Fluid: Natural Gas, Produced Water, Formation Oil
- Current BHA (top to bottom)
 - 333 JTS of 2-3/8" 4.7# L-80

- Caliper
- Casing Inspection Tool (USIT – Schlumberger or Equiv)
- 2. Gyro (MD, Incl, Azm)
- 3. Temperature Log (Utilize for Baseline Temp)
- b) Repeat Pass w/ 1000 PSI on CSG

Plugbacks

6) Plugback existing Morrow as follows (Notify BLM for witness if required):

- a) Ensure safety of 5K Lubricator.
- b) RIH w/ GRJB for 5-1/2" CSG to +/- 11,700' KBM.
- c) RIH w/ WL and 5-1/2", 20#, 10k CIBP to 11,620' KBM and set CIBP.
- d) RIH and dump bail X SKS (or 35') of class H neat CMT on top of CIBP @ 11,620' KBM. Make multiple runs if necessary.
- e) WOC. Tag TOC (Top of cement must be no lower than 11,585).
- f) If ok, proceed. If not, contact field supervisor and OKC engineer.

Plugback TOP of Morrow w/ Balanced Plug (11,534-11,319')

- g) RU CMT Crew and Spot X BBLs of 9 PPG Spud Mud
- h) PUH to 11,319' and spot X sx (or 215') of class H neat cmt across the Morrow formation
- i) WOC and tag TOC
- j) Spot X BBLs of 9PPG Spud Mud
- k) PUH to 11,141' and spot x sx (or 243') of class H neat cmt across the Atoka (11,191'-11,434') at 11,141' to 11,484'
- l) WOC and Tag TOC (Top must be no lower than 11,191').
- m) If ok, proceed on. If not, contact field supervisor and OKC engineer.

*****Due to the fact that we will be running tracer logs for the 3rd Bone Spring that will need to run past the top of the Wolfcamp, we will need to bypass PA the Wolfcamp formation at the present time to make sure our tools can get deep enough. We are aware that in the future we will need to come back and plugback this zone.**

Test Casing

- 7) PU 3 1/2" Flush JNT rental frac string w/ 5-1/2" PKR and RIH to 6,250', while pressure testing underneath slips to 6,000 PSI. Set PKR and MIT casing below that depth to 6,000 PSI for 30 minutes. Send chart into the BLM. Blow down pressure upon completion.

3rd BSSS DFIT and Frac

- 8) MIRU WL with full lubricator. Make GR run and correlate to Schlumberger Triple Combo Logs ran on 12/18/2001. Perforate (with 3-1/8" slick guns) the 3rd Bone Spring from 9,746-9,756' (10') @ 3 SPF w/ 60° phasing. POOH making sure all guns have fired.
- 9) RD WL. RU WSU. TIH to 9,400' and set PKR. RDMQ WSU.
- 10) RU pressure truck and all surface equipment per Devon guidelines.
 - a) Test Lines. Load Annulus. Close pipe rams, and chain down tubing. Monitor 5-1/2" X 3 1/2" annulus during job. Install a pressure relief valve to annulus and pipe any released pressure above 500 psi to divert to flowback tanks during job.
- 11) Perform DFIT analysis on 3BSSS. Ensure that all surface measurement equipment is in place and records accurate pressures throughout the job. Record pressures for 2 weeks. *See attached document for DFIT

procedure. RDMO pressure trucks.

12) Upon completion of 2 weeks, remove gauges and secure site. Send data to OKC. MIRU pressure truck.

13) Frac 3BSSS per vendor proposal attached. **Max surface pressure = 6,500 psi.**

Frac general info:

- o 30-35 BPM
- o Expected max STP is ~6,500 psi
- o 150,000 LBS Proppant
- o Record average treating pressure, rates and job load along with ISIP, 5, 10 & 15 minute readings
- o Entire Job to be tagged w/ RA tracer (Fluid and Proppant).

14) SWI. RDMO frac crew.

15) RU WL, with full lubricator, and run spectral gamma ray and temperature log across the entire 3rd BSSS as well as deep as possible (Next TOC is 11,106, which is 1,350 ft below bottom perf) and all the way up to the PKR set point at 9,400'. Report findings to OKC. RD WL.

16) Flow well back according to attached flowback procedure. Flow well for 1 week or until it dies. Swab on well and look for improvement and report findings backing to OKC on a daily basis.

17) RU WSU. Unset 5-1/2" PKR. TOOH and stand back 3-1/2" frac string.

18) RU WL.

Barrier DFIT

19) **Make GR Run. Correlate to Schlumberger Triple Combo Logs ran on 12/18/2001.** Perforate (with 3-1/8" slick guns) the Barrier between 2nd and 3rd Bone Spring from 9,380-9,390' @ 3 spf w/ 60° phasing. POOH making sure all guns have fired.

20) RD WL. RU WSU. TIH to 9,050' and set PKR. RDMO WSU.

21) RU pressure truck and all surface equipment per Devon guidelines.

- a) Test Lines. Load Annulus. Close pipe rams, and chain down tubing. Monitor 5-1/2" X 3 1/2" annulus during job. Install a pressure relief valve to annulus and pipe any released pressure above 500 psi to divert to flowback tanks during job.

22) Perform DFIT analysis on 2&3rd Barrier. Ensure that all surface measurement equipment is in place and records accurate pressures throughout the job. Record pressures for 2 weeks. *See attached document for DFIT procedure. RDMO pressure trucks.

23) Upon completion of 2 weeks, remove gauges and secure site. Send data to OKC.

24) RU WSU. Unset 5-1/2" PKR. TOOH and stand back 3-1/2" frac string.

25) RU WL.

L2nd BSS DFIT and Frac

- 26) **Make GR Run. Correlate to Schlumberger Triple Combo Logs ran on 12/18/2001.** Perforate (with 3-1/8" slick guns) the Lower 2nd Bone Spring from 8,990-9,000' @ 3 spf w/ 60° phasing. POOH making sure all guns have fired.
- 27) RD WL. RU WSU. TIH to 8,650' and set PKR. RDMO WSU.
- 28) RU pressure truck and all surface equipment per Devon guidelines.
- a) Test Lines. Load Annulus. Close pipe rams, and chain down tubing. Monitor 5-1/2" X 3 1/2" annulus during job. Install a pressure relief valve to annulus and pipe any released pressure above 500 psi to divert to flowback tanks during job.
- 29) Perform DFIT analysis on L2BSS. Ensure that all surface measurement equipment is in place and records accurate pressures throughout the job. Record pressures for 2 weeks. *See attached document for DFIT procedure. RDMO pressure trucks.
- 30) Upon completion of 2 weeks, remove gauges and secure site. Send data to OKC. MIRU pressure truck.
- 31) Frac L2BSS per vendor proposal attached. **Max surface pressure = 6,500 psi.**
- Frac general info:
- o 30-35 BPM
 - o Expected max STP is ~6,500 psi
 - o 150,000 LBS Proppant
 - o Record average treating pressure, rates and job load along with ISIP, 5, 10 & 15 minute readings
 - o Entire Job to be tagged w/ RA tracer (Fluid and Proppant).
- 32) SWI. RDMO frac crew.
- 33) RU WL, with full lubricator, and run spectral gamma ray and temperature log across the entire L2nd BSS as well as deep as possible (Next TOC is 9,330, which is 330 ft below bottom perf) and all the way up to the PKR set point at 8,650'. Report findings to OKC. RD WL.
- 34) Flow well back according to attached flowback procedure. Flow well for 1 week or until it dies. Swab on well and look for improvement and report findings backing to OKC on a daily basis.
- 35) RU WSU. Unset 5-1/2" PKR. TOOH and stand back 3-1/2" frac string.
- 36) RU WL.
- 37) **Plugback Existing L 2nd BSS** (Notify BLM for witness if required):
- a) RIH w/ WL and 5-1/2", 20#, 10K CIBP to 8,980' KBM and set CIBP.
 - b) RIH and dump bail 2 SKS of sand.

U2nd BSS DFIT and Frac

- 38) **Correlate to Schlumberger Triple Combo Logs ran on 12/18/2001.** Perforate (with 3-1/8" slick guns) the Upper 2nd Bone Spring from 8,912-8,922' @ 3 spf w/ 60° phasing. POOH making sure all guns have fired.
- 39) RD WL. RU WSU. TIH to 8,570' and set PKR. RDMO WSU.
- 40) RU pressure truck and all surface equipment per Devon guidelines.

- a) Test Lines. Load Annulus. Close pipe rams, and chain down tubing. Monitor 5-1/2" X 3 1/2" annulus during job. Install a pressure relief valve to annulus and pipe any released pressure above 500 psi to divert to flowback tanks during job.
- 41) Perform DFIT analysis on L2BSS. Ensure that all surface measurement equipment is in place and records accurate pressures throughout the job. Record pressures for 2 weeks. *See attached document for DFIT procedure. RDMO pressure trucks.
- 42) Upon completion of 2 weeks, remove gauges and secure site. Send data to OKC. MIRU pressure truck.
- 43) Frac U2BSS per vendor proposal attached: **Max surface pressure = 6,500 psi.**
Frac general info:
- 30-35 BPM
 - Expected max STP is ~6,500 psi
 - 150,000 LBS Proppant
 - Record average treating pressure, rates and job load along with ISIP, 5, 10 & 15 minute readings
 - Entire Job to be tagged w/ RA tracer (Fluid and Proppant).
- 44) SWI. RDMO frac crew.
- 45) RU WL, with full lubricator, and run spectral gamma ray and temperature log across the entire U2nd BSS as well as deep as possible (Next TOC is ~8,970, which is 48 ft below bottom perf) and all the way up to the PKR set point at 8,570'. Report findings to OKC. RD WL.
- 46) Flow well back according to attached flowback procedure. Flow well for 1 week or until it dies. Swab on well and look for improvement and report findings backing to OKC on a daily basis.
- 47) RU WSU. Unset 5-1/2" PKR. TOOH & LD 3-1/2" frac string.
- 48) PU 4-5/8" bit and drill out CIPBs to 9,700', circulate hole clean. TOOH
- 49) PU SN, 2-7/8" L-80 prod string and TIH to 9,770'. RIH w/ pump and rods and put well on prod.

DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SHUGART 25 FED COM #2		Field: SHUGART; MORROW	
Location: 1250' FNL & 660' FWL; SEC 25-T18S-R31E		County: EDDY	State: NM
Elevation: 3678' GR		Spud Date: 7/6/01	Compl Date: 12/20/01
API#: 30-015-31758	Prepared by: Ronnie Slack	Date: 2/19/07	Rev:

CURRENT

17-1/2" hole
13-3/8", 48#, H40, STC, @ 791'
 Cemented w/775 Sx. Cement to surface

12-1/4" hole
8-5/8", 32#, K55, LTC, @ 4289'
 Cemented w/1750 Sx. Cement to surface

TOC @ 4638'

DV Tool @ 9794'

COMMENTS:

12/20/01: On ESP pump
 5/30/02: 2-3/8" tbg, on plunger. SN at 11743'. Eot 11745'
 10/23/04: On plunger
 2/28/05: On Plunger
 5/23/05: ran 1-1/4" capillary string
 1/11/06: Fished capillary string, & ran 1-1/4" capillary string (11,600')
 10/6/06: On plunger.
 10/13/06: Replace tubing with holes, RIH w/tubing. Set 10,668'
 11/2/06: 366 jts 2-3/8", on plunger SN @ 11,740'. EOT 11,741'
 11/16/06: on plunger
 12/15/06: Tubing stop 10,650'. On plunger.

2-3/8" Production Tubing

Tubing Stop @ 10,650'

SN @ 11,740' (11/2/06)
 EOT @ 11,741'

MORROW (9/11/01)

11670' - 11674'
 11834' - 11838'
 11874' - 11877'
 11922' - 11926'
 11948' - 11951'
 11953' - 11957'
 11960' - 11962'
 11966' - 11974'
 12038' - 12042'

11/01: Acidliized w/19.5K gals 7.5% HCl, fraced w/43K gals + 50K # 20/40

7-7/8" Hole
5-1/2", 17# & 20#, L80, LT&C, @ 12,175'
 Cemented w/1750 Sx. TOC @ 4638' (CBL)

12,090' PBTD

12,178' TD

DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SHUGART 25 FED COM #2		Field: SHUGART; MORROW	
Location: 1250' FNL & 660' FWL: SEC 25-T18S-R31E		County: EDDY	State: NM
Elevation: 3678' GR		Spud Date: 7/6/01	Compl Date: 12/20/01
API#: 30-015-31758	Prepared by: Ronnie Slack	Date: 2/19/07	Rev:

PROPOSED

17-1/2" hole

13-3/8", 48#, H40, STC, @ 791'

Cemented w/775 Sx. Cement to surface

12-1/4" hole

8-5/8", 32#, K55, LTC, @ 4289'

Cemented w/1750 Sx. Cement to surface

TOC @ 4638'

Brushy Canyon

xxxx-xxxx'

1st BSS

xxxx-xxxx'

Upper 2nd BSS

8,912'-8,922'

Lower 2nd BSS

8,990'-9,000'

2-3 BSS Barrier

9,380'-9,390'

3rd BSS

9,746'-9,756'

DV Tool @ 9794'

Wolfcamp

9,808'-10,328'

Atoka

11,191'-11,434'

***Next cement plug at 11,319'

Morrow

11,319'-11,534'

MORROW (9/11/01)

11670' - 11674'

11834' - 11838'

11874' - 11877'

11922' - 11926'

11948' - 11951'

11953' - 11957'

11960' - 11962'

11966' - 11974'

12038' - 12042'

11/01: Acidized w/19.5K gals 7.5% HCl, fraced w/43K gals + 50K # 20/40

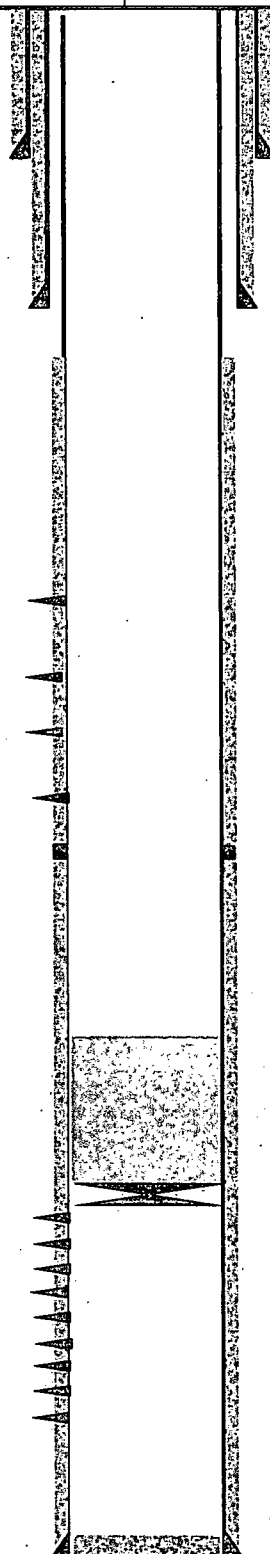
7-7/8" Hole

5-1/2", 17# & 20#, L80, LT&C, @ 12,175'

Cemented w/1750 Sx. TOC @ 4638' (CBL)

12,090' PBTD

12,178' TD



- 1.81" SN
- Production Facility: Shugart 25 Fed Com 2 Oil - No Shared Wells

Safety: All personnel will wear hard hats, safety glasses with side shields and steel toed boots while on location. Assess wellhead working height for safety. If needed, use work platform or man-lift for fall protection. H2S monitoring equipment is required by BLM to be on location.

Devon Contacts	Contact Name	Office Location	Office Phone	Cell Phone	E-mail
Sr. Completions Foreman	Ronnie Carre	Artesia	575-748-0179	575-748-5528	Ronnie.Carre@dvn.com
Completions Foreman	Martin Jimenez	Artesia	575-748-0197	575-513-5819	Martin.Jimenez@dvn.com
Production Foreman	Rudy Zuniga	Artesia	575-746-5575	575-390-5435	Rudy.Zuniga@dvn.com
Production Asst. Foreman	Ray Carter	Artesia	575-748-9928	575-513-0956	Ray.Carter@dvn.com
Production Asst. Foreman	Librado Castillo	Artesia	N/A	N/A	Librado.Castillo@dvn.com
Production Asst. Foreman	Lynn Smith	Artesia	575-746-5554	575-748-5241	Lynn.Smith@dvn.com
Production Engineer	David Garza	OKC	405-228-2015	307-257-3077	David.Garza@dvn.com
Completions Engineer	Mike Smith	OKC	405-552-8160	405-229-7983	Michael.Smith2@dvn.com
Production Engineer	Sherry Liu	Artesia	575-748-0167	575-703-2748	Sherry.Liu@dvn.com
Production Engineer	Brent Schroder	OKC	405-552-4921	405-593-6714	Brent.Schroder@dvn.com
Construction/Facilities Foreman	Rick Campos	Artesia	575-746-5576	575-513-1933	Enrique.Campos@dvn.com
Construction/Facilities Foreman	Jack Pittman	Artesia	575-748-0186	575-513-1740	Jack.Pittman@dvn.com
EHS Professional	Amancio Cruz	Artesia	575-746-5582	575-513-2453	Amancio.Cruz@dvn.com
Automation Foreman	Danny Nolen	Artesia	575-748-0198	575-746-7810	Danny.Nolen@dvn.com
Measurement Foreman	Robert Hernandez	Artesia	575-748-9924	575-513-0060	Robert.Hernandez@dvn.com

Procedure: Please note BLM's COA and required BLM notifications/witnessing. Hold tailgate safety meetings prior to RU, each morning and before each operational change or event.

GENERAL Steps

- 1) Test and/or install and test anchors. MIRU WSU (Well Service Unit). Spot necessary enclosed tanks, gas buster with flare stack and temporary flow lines to equipment. Record pressures on TBG and CSG. Blow down tubing and casing pressure if any.
- 2) Top kill TBG and CSG (if necessary) with 2% KCL. Continue to trickle water.
- 3) ND Tree (Send in tree to be serviced/maintained and tested for future use). NU 10K BOPE (Outfitted w/ 1 set of blind rams on Bottom with additional 1 Set of 2-3/8" Pipe Rams on Top, will ALSO need 1 Set of 3-1/2" Pipe Rams for later use) Test BOPE to Devon guidelines.

Logs

- 4) MIRU WSU. TOOH and lay down w/ 2-3/8".
- 5) RU WLU w/ Full 5K Lubricator (Test to Devon Specifications)
 - a) RUN FULL SUITE OF LOGS to 11,670'
 1. CBL – Report back to OKC where TOC is located.

**Shugart 25 Fed Com 2
30-015-31758
Devon Energy Production Co., LP
July 29, 2015
Conditions of Approval**

Notify BLM at 575-361-2822 a minimum of 24 hours prior to commencing work.

Work to be completed by October 29, 2015.

- 1. Operator shall place CIBP at 11,620' (50 above top most perf) and place 25sx of Class H cement on top. WOC and tag.**
- 2. Operator shall place a balanced class H cement plug from 11,534-11,319' to seal the top of the Morrow formation. WOC.**

Note: Operator may combine Step 1 and 2.

- 3. Operator shall place Atoka plug as proposed.**

Note: The Wolfcamp formation will need to be properly abandoned prior to abandoning the Bone Spring formation.

- 4. Must conduct a casing integrity test before perforating and fracturing. Submit results to BLM. The CIT is to be performed on the production casing to max treating pressure. Notify BLM if test fails**
- 5. Before casing or a liner is added or replaced, prior BLM approval of the design is required. Use notice of intent Form 3160-5.**
- 6. Surface disturbance beyond the originally approved pad must have prior approval.**
- 7. Closed loop system required.**
- 8. All waste (i.e. drilling fluids, 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.**
- 9. Operator to have H2S monitoring equipment on location.**

10. A minimum of a **5000 (5M)** BOP 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 (5M 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.

11. Subsequent sundry required detailing work done, C-102 form, and completion report with the new formation. Operator to include well bore schematic of current well condition when work is complete.

12. See attached for general requirements.

JAM 072915

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

Permanent Abandonment of Production Zone Conditions of Approval

Failure to comply with the following Conditions of Approval may result in a Notice of Incidents of Noncompliance (INC) in accordance with 43 CFR 3163.1.

1. Plugging operations shall commence within ninety (90) days from this approval.

If you are unable to plug back the well by the 90th day provide this office, prior to the 90th day, with the reason for not meeting the deadline and a date when we can expect the well to be plugged back. Failure to do so will result in enforcement action.

2. Notification: Contact the appropriate BLM office at least 24 hours prior to the commencing of any plug back operations. For wells in Eddy County, call 575-361-2822. For wells in Lea County, call 575-393-3612

3. 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 9,090 feet; a 3M system for a well not deeper than 13,636 feet; and a 5M system for a well not deeper than 22,727 feet.

4. 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.

5. Cement Requirement: Sufficient cement shall be used to bring any required plug to the specified 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. If a bailer is used to cap this plug, 35 feet of cement shall be sufficient. **Before pumping or bailing cement on top of CIBP, tag will be required to verify depth.**

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.

6. Subsequent Plug back Reporting: Within 30 days after plug back work is completed, file one original and three copies of the 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.**

7. 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.