OCD Artesia

Form 3160-5
(August 2007)

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.

SUBMIT IN TRIPLICATE *– Other instructions on page 2.*

5. Lease Serial No.
NMNM89052

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☐ Oil Well ☑ Gas Well ☐ Other

8. Well Name and No.
APACHE 25 FEDERAL #16

2. Name of Operator
DEVON ENERGY PRODUCTION COMPANY, LP

9. API Well No.
30-015-34328

3a. Address
333 West Sheridan Avenue, Oklahoma City, OK 73102-5015

3b. Phone No. *(include area code)*
405-228-8698

10. Field and Pool or Exploratory Area
LOS MEDANOS;STRAWN,NORTH GAS

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
1980' FSL & 660' FWL; SEC 25-T22S-R30E

11. Country or Parish, State
EDDY, NM

12. CHECK THE 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
	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other Abandon strawn
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	plug back & use as a
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	monitoring well

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 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.)

Scope of work: Abandon Strawn zone, plug back wellbore to ~4,000', mill out 7" casing from 3,822'-3,827'. Complete wellbore as a long term monitoring station.

1. MIRU completion rig. POOH w/existing 2-3/8" production tubing and packer from 12,580'.
2. Set 4-1/2" CIBP @ 12,575'. Spot 50 sx Cl H cmt on top. Tag TOC minimum of 11,878'.
3. Circulate wellbore with minimum of 9# mud between cement plugs.
4. Set 7" CIBP @ 10,555'. Spot 25 sx Cl H on top. (calc PBD @ 10,405').
5. Perf 7" csg @ 7,660'. Sqz 100 sx Cl H cmt in/out @ 7,460' to 7,660'. (Bone Spring top @ 7,659').
6. Set 7" CIBP @ 5,200. Spot 25 sx Cl C on top. (calc PBD @ 5,050').
7. Set 7" CIBP @ 4,000'. Mill window in 7" casing @ 3,822' to 3,827'. (Delaware top @ 3,795'),
8. Install tubing & packer @ 3,800'. (Base of Salt @ 3,538'. Top of Salt @ 644').
9. Install downhole pressure gauge at 3,825' and connect to surface through wireline. Install surface gauges, methane monitor station, and remote monitor and communication device.

NM OIL CONSERVATION
ARTESIA DISTRICT
JUN 02 2014
RECEIVED

Attachments: Current & proposed wellbore schematics. Detailed engineering procedure.

Accepted for record
NMOCD TES
6-2-2014

Well is Producing in Paying quantities

14. I hereby certify that the foregoing is true and correct.
Name *(Printed/Typed)*
James Allbee

Title Supervisor Production Engineering

Signature James Allbee

Date 01/13/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by
DENIED

Title Eng

Date 5/23/14

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 CFO

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)

DEVON ENERGY PRODUCTION COMPANY LP

Well Name: APACHE 25 FED 16	Field: QUAHADA RIDGE SOUTHEAST		
Location: 1980' FSL & 660' FWL; SEC 25-T22S-R30E	County: EDDY	State: NM	
Elevation: 3363' KB; 3340' GR	Spud Date: 9/22/2005	Compl Date: 2/3/2006	
API#: 30-015-34328	Prepared by: James Allbee	Date: 09/05/13	Rev:

PROPOSED PLUG & MONITOR
(Wellbore dimensions not to scale)

17-1/2" Hole
13-3/8", 48#, H40, ST&C, @ 620'
Cmt'd w/650 sx to surf.

Sqz holes @ 2765'. Pumped 400 sx cmt, w/74 sx circ to pit. Sqz tested to 1000 psi ok (1/24/06)

Sqz holes @ 3000'. Cmt'd w/70 sx (1/17/06)
TOC @ 3000' (CBL 1/21/06).

Sqz holes @ 3550'. Cmt'd w/50 sx (1/14/06)
Resqzd w/50 sx (1/30/06).

12-1/4" Hole
9-5/8", 40#, J55, LT&C, @ 3,812'
Cmt'd w/1575 sx to surf

DV TOOL @ 5,121'
Cmt w/250 sx lead & 840 sx tail

Cement evaluation from NDE (7/30/13) and Schlumberger Report (9/4/13):

Surface-2,768'- Cement barrier
2,995'-3,302'- Cement barrier
3,577'-3,839'- Cement barrier
5,122'-6,500'- Cement barrier
9,030'-10,000'- Cement barrier
12,268'-12,550'- Cement barrier
12,444'-12,451'- Cement barrier
12,483'-12,493'- Cement barrier
12,527'-12,533'- Cement barrier

DV TOOL @ 10,405'
Cmt w/400 sx lead & 950 sx tail
ECP TOOL @ 10,450-10,460'

Top of 4-1/2" Liner @ 11,947'

8-3/4" Hole
7", 26#, P110, @ 12,265'
Cmt'd w/400 sx

STRAWN *(4/12/07)*
12,610'- 12,617'
4/16/07-acidized w/1200 gals 15% HCl

ATOKA (1/3/06) 1/4/06: acidized
12,885'-12,892' 1/7/06: sqzd w/100 sx cement
4/11/07-re-sqz 12885-12892

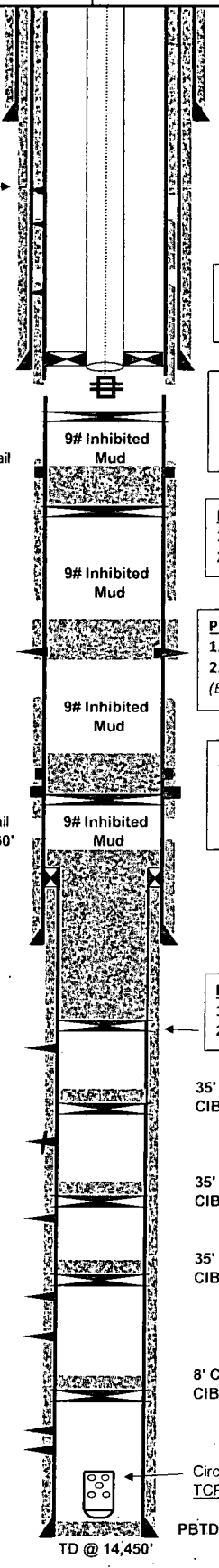
ATOKA BANK (4/3/07)
12,999'- 13,008'
4/4/07-acidzed w/2K gals 15% NeFe

MORROW
13,656'-13,664' *(6/15/06)*

13,888'-13,902' *(6/5/06)*
6/7/06: acidized 13888-902' w/2000 gals
6/28/06: Fraced w/18K#

MORROW (2/4/06) 4 spf, 90° phase
14,250'-14,272'
14,298'-14,303'
2/20/06: Fraced

6-1/8" Hole
4-1/2", 13.5#, P110, @ 14,449'
Cmt'd w/ 331 sx



TD @ 14,450'

Proposed revision well name to:
Monitor 25 Fed 16

Proposed Install Monitor Equipment
1. Install downhole pressure gauge @ 3,825' and connect to surface through wireline.
2. Install surface pressure gauges, methane monitor station and remote monitor and communication device.

Proposed Tubing/Packer
1. Install tubing and production packer @ 3,800'.
(B. Salt @ 3,538')(T. Salt 644')

Proposed Casing Window for Monitor
1. Set CIBP @ 4,000'.
2. Mill window in 7" casing @ 3,822'-3,827'.
(Delaware top @ 3,795')

Proposed P&A Cement Plug #4
1. Set 7" CIBP @ 5,200'.
2. Spot 25 sx cmt @ 5,200'. *(CTOC @ 5,050')*

Proposed P&A Cement Plug #3
1. Perf @ 7,660'.
2. Squeeze 100 sx cmt in/out casing @ 7,460' to 7,660'.
(Bone Spring top @ 7,659')

Proposed P&A Cement Plug #2
1. Set 7" CIBP @ 10,555'.
2. Spot 25 sx cmt @ 10,555'.
(CTOC @ 10,405')

Proposed P&A Cement Plug #1
1. Set CIBP @ 12,575'. Spot 50 sx cmt on top.
2. Tag TOC. *(CTOC @ 11,878')*

35' Cement. PBD @ 12,830 *(4/11/07)*
CIBP @ 12,865' (4/11/07)

35' Cement. PBD @ 12,915 *(4/11/07)*
CIBP @ 12,950' (4/11/07)

35' Cement. PBD @ 13,555 *(4/2/07)*
CIBP @ 13,590' (4/2/07)

8' Cement on top
CIBP @ 14,202' (6/1/06)

Circ Flow sub, 10' sub, Mech firing head,
TCP Gun, Bull plug. **Guns released 2/15/06**

PBTD @ 14,390'

DEVON ENERGY PRODUCTION COMPANY LP

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Location: 1980' FSL & 660' FWL; SEC 25-T22S-R30E	County: EDDY	State: NM
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API#: 30-015-34328 / Prepared by: James Allbee	Date: 09/05/13	Rev:

Current Wellbore- with tubing
(Wellbore dimensions not to scale)

17-1/2" Hole
13-3/8", 48#, H40, ST&C, @ 620'
Cmt'd w/650 sx to surf.

Sqz holes @ 2765'. Pumped 400 sx cmt, w/74 sx circ to pit. Sqz tested to 1000 psi ok (1/24/06)

Sqz holes @ 3000'. Cmt'd w/70 sx (1/17/06)
TOC @ 3000' (CBL 1/21/06).

Sqz holes @ 3550'. Cmt'd w/50 sx (1/14/06)
Resqzd w/50 sx (1/30/06).

12-1/4" Hole
9-5/8", 40#, J55, LT&C, @ 3,812'
Cmt'd w/1575 sx to surf

Delaware	3795
Bone Spring	7659
Wolfcamp	10938
Atoka	12595
Atoka Bank	12978
Morrow	13503
Barnett	14318

Cement evaluation from NDE (7/30/13) and Schlumberger Report (9/4/13):

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12,527'-12,533'- Cement barrier

DV TOOL @ 5,121'
Cmt w/250 sx lead & 840 sx tail

DV TOOL @ 10,405'
Cmt w/400 sx lead & 950 sx tail
ECP TOOL @ 10,450-10,460'

2-3/8", 4.7#, P110, production tubing

Top of 4-1/2" Liner @ 11,947'

8-3/4" Hole
7", 26#, P110, @ 12,265'
Cmt'd w/400 sx

O/O tool, F Nipple (1.81")
Production Packer @ 12,565' *(4/19/07)*
8' sub, R LN (1.81"), EOT 12,580'

STRAWN *(4/12/07)*
12,610' - 12,617'
4/16/07-acidized w/1200 gals 15% HCl

35' Cement. PBD @ 12,830 *(4/11/07)*
CIBP @ 12,865' (4/11/07)

ATOKA (1/3/06) 1/4/06: acidized
12,885'-12,892' 1/7/06: sqzd w/100 sx cement
4/11/07-re-sqz 12885-12892

35' Cement. PBD @ 12,915 *(4/11/07)*
CIBP @ 12,950' (4/11/07)

ATOKA BANK (4/3/07)
12,999' - 13,008'
4/4/07-acidzed w/2K gals 15% NeFe

35' Cement. PBD @ 13,555 *(4/2/07)*
CIBP @ 13,590' (4/2/07)

MORROW
13,656'-13,664' *(6/15/06)*

13,888'-13,902' *(6/5/06)*
6/7/06: acidized 13888-902' w/2000 gals
6/28/06: Fraced w/18K#

8' Cement on top
CIBP @ 14,202' (6/1/06)

MORROW (2/4/06) 4 spf, 90° phase
14,250'-14,272'
14,298'-14,303'
2/20/06: Fraced

Circ Flow sub, 10' sub, Mech firing head,
TCP Gun, Bull plug. **Guns released 2/15/06**

6-1/8" Hole
4-1/2", 13.5#, P110, @ 14,449'
Cmt'd w/ 331 sx

PBTD @ 14,390'

TD @ 14,450'

devon

Apache 25 Fed 16

Eddy County, NM

ABANDON STRAWN, PLUG-BACK & MONITOR PROCEDURES

September 6, 2013

Executive Brief

The scope of this procedure is to abandon the Strawn producing interval, compare the casing condition to baseline measurements, plug back the casing with permanent plugs, then setup a long-term monitor station and pressure relief system. The procedure starts with removing the 2-3/8" production tubing from the wellbore and the existing perforations are isolated with a permanent bridge plug set in the 4-1/2" liner. A series of inspection sensors will be lowered into the wellbore by wireline, then taken out of the wellbore to evaluate/record data about the 4-1/2" liner and the 7" casing. These measurements will be compared to a series of baseline measurements conducted in July 2013. Any remedial work deemed necessary from the comparison to the baseline measurements will be outlined in a separate procedure, if warranted. The 4-1/2" liner and 7" casing will be isolated using a series of cement plugs, corrosion-inhibited fluid and cast iron bridge plugs below 4,500'. The 7" casing will then be milled out to create a deep monitor window beneath the 9-5/8" intermediate casing. Tubing will be lowered in the well to isolate the upper portion of the 7" casing and provide a conduit to lower the downhole pressure monitor in the well. In addition, the 7" casing window and tubing will provide for pressure relief to surface in the unlikely case that high pressure gas is detected on the outside of the 7" casing. At ground level, a remote monitoring station (pressure and gas detection) and pressure relief system will be installed. The remote monitor system will be connected to Devon's Supervisory Control and Data Acquisition (SCADA) system, allowing for monitoring and alarming, in the case of any changes in pressure or detection of gas.

Well Information	
Surface Location	1980' FSL & 660' FWL, Section 25-T22S-R30E
API Number	30-015-34328
Well Spud Date	9/22/2005
WBS Number	**TBD**
Elevation	3,340' Ground Level / 3,363' Kelly Bushing Level
Total Depth Drilled	14,450'
Existing Plug-back Total Depth	12,830'

Tubular Data

Size	Measured Depth *Feet*	Weight *lb/ft*	Casing Grade	Drift Diameter *Inches*	Thread	Burst w/ 0 SF *Psi*	Collapse w/ 0 SF *Psi*	Capacity *Bbl/ft*
13-3/8"	0 – 620	48	H-40	12.59	ST&C	1,730	740	--
9-5/8"	0 – 3,812	40	J-55	8.75	LT&C	3,950	2,570	--
7"	0 – 12,265	26	P-110HC	6.151	LT&C	9,950	7,800	0.0383
4-1/2"	11,947 – 14,449	13.5	P-110HC	3.795	LT&C	12,410	10,680	0.0149
2-3/8"	0 – 12,580	4.7	P-110	1.901	8 RD	14,700	13,250	0.00387

PERFORM SAFETY CHECKS AND SAFETY MEETINGS

Devon Energy is committed to providing a safe working environment for all personnel. A safety meeting will be held prior to commencing each operation in order to define/clarify objectives, roles & responsibilities, identify all potential risk/hazards and establish a work procedure that is safe and environmentally sound.

Perform safety meeting prior to rigging up **ANY** equipment on location. Discuss the job procedure and objectives with all personnel on location. Document the safety meeting on the Wellview report sent to Devon. Make note of all potential risks/hazards, and clearly identify an emergency route and emergency vehicle. Maintain a log of who is on location, and note if they attended the safety meeting or obtained an individual safety orientation upon arriving on location. Make note of any new or inexperienced personnel on location. Ensure proper Personal Protective Equipment (PPE) is used during the job. Minimums are fire retardant clothing, hard hats, steel toes, and safety glasses with side shields. Since the potential exists for this to be a relatively high pressure well, pay attention and be vigilant during these operations to all well pressures. As a precaution, H_2S monitoring equipment is to be on location at all times during workover operations. Communicate anything that appears out of normal to the Devon representative on location.

Wellhead should be locked out and tagged out during operations. Devon rep has combination.

STATUS OF WELLBORE PRIOR TO ABANDONING STRAWN

The well has been drilled, cased with 7" intermediate casing, and cemented. The top of cement was brought to ground level behind the 7" casing. The rest of the well was drilled to final depth, cased with a 4-1/2" production liner, and cemented. The top of cement behind the 4-1/2" production liner is at 11,947' (at the 4-1/2" liner top). The well was initially perforated and production tested in several potentially productive intervals (Morrow and Atoka intervals) deeper than the existing perforations in the Strawn formation. These previous intervals have been permanently isolated below the current producing interval at 12,610'-12,617' with cast-iron bridge plugs (CIBP) and cement set inside the 4-1/2" casing. The well fluids and gas flow up 2-3/8" production tubing through a production packer (set at 12,565') from the Strawn formation to surface in order to isolate production fluids/gas from contacting the 4-1/2" liner above the producing interval and the 7" casing.

The existing production tubing string component listing (from top to bottom) with technical details is as follows: **1 joint of 2-3/8", 4.7#, P-110 tubing, 3 joints of 2-3/8", 4.7#, P-110 tubing subs, 399 joints of 2-3/8",4.7#, P-110 (8 round threaded connections), "F" nipple w/ 1.81"no-go restriction in tubing, On/Off Tool (@ 12,564'), 4-1/2" Retrievable Production Packer (Set @ 12,565'), 1 joint (8') of 2-3/8" 4.7#, P-110 tubing sub, "R" nipple w/ 1.81"no-go restriction in tubing and wireline re-entry guide at bottom. End of tubing components @ 12,580'.**

The existing producing **Strawn** interval is: **12,610' – 12,617'**

See the attached wellbore schematics (current and proposed plug-monitor) for details.

CURRENT WELLBORE SCHEMATIC

DEVON ENERGY PRODUCTION COMPANY LP

Well Name: APACHE 25 FED 16		Field: QUAHADA RIDGE SOUTHEAST	
Location: 1980' FSL & 660' FWL; SEC 25-T22S-R30E		County: EDDY	State: NM
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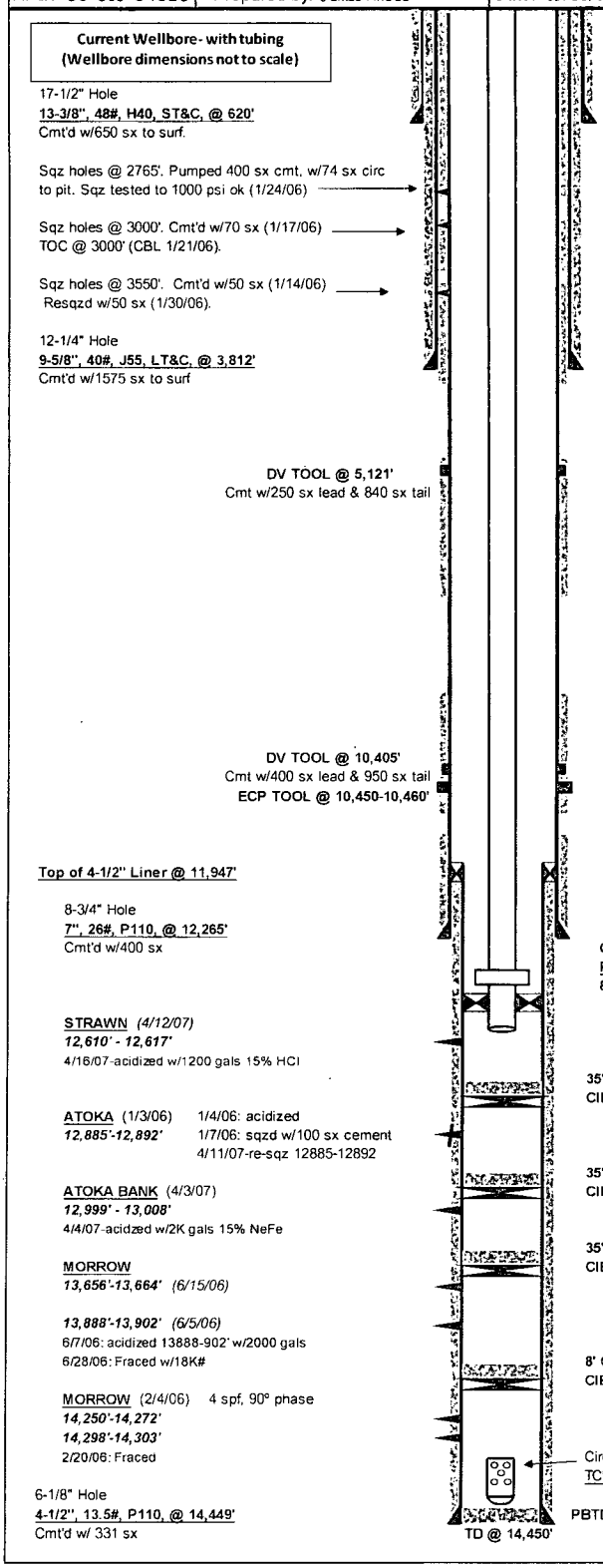

Current Wellbore- with tubing
(Wellbore dimensions not to scale)

17-1/2" Hole
13-3/8", 48#, H40, ST&C, @ 620'
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Sqz holes @ 2765'. Pumped 400 sx cmt, w/74 sx circ to pit. Sqz tested to 1000 psi ok (1/24/06)

Sqz holes @ 3000'. Cmt'd w/70 sx (1/17/06)
TOC @ 3000' (CBL 1/21/06).

Sqz holes @ 3550'. Cmt'd w/50 sx (1/14/06)
Resqzd w/50 sx (1/30/06).

12-1/4" Hole
9-5/8", 40#, J55, LT&C, @ 3,812'
Cmt'd w/1575 sx to surf

DV TOOL @ 5,121'
Cmt w/250 sx lead & 840 sx tail

DV TOOL @ 10,405'
Cmt w/400 sx lead & 950 sx tail
ECP TOOL @ 10,450-10,460'

Top of 4-1/2" Liner @ 11,947'

8-3/4" Hole
7", 26#, P110, @ 12,265'
Cmt'd w/400 sx

STRAWN *(4/12/07)*
12,610' - 12,617'
4/16/07-acidized w/1200 gals 15% HCl

ATOKA (1/3/06)
12,885'-12,892'
1/4/06: acidized
1/7/06: sqzd w/100 sx cement
4/11/07-re-sqz 12885-12892

ATOKA BANK (4/3/07)
12,999' - 13,008'
4/4/07-acidzed w/2K gals 15% NeFe

MORROW
13,656'-13,664' (6/15/06)

13,888'-13,902' (6/5/06)
6/7/06: acidized 13888-902' w/2000 gals
6/28/06: Fraced w/18K#

MORROW (2/4/06) 4 spf, 90° phase
14,250'-14,272'
14,298'-14,303'
2/20/06: Fraced

6-1/8" Hole
4-1/2", 13.5#, P110, @ 14,449'
Cmt'd w/ 331 sx

TD @ 14,450'

Delaware	3795
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Cement evaluation from NDE (7/30/13) and Schlumberger Report (9/4/13):

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2-3/8", 4.7#, P110, production tubing

O/O tool, F Nipple (1.81")
Production Packer @ 12,565' *(4/19/07)*
8' sub, R LN (1.81"), EOT 12,580'

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35' Cement. PBD @ 12,915 *(4/11/07)*
CIBP @ 12,950' (4/11/07)

35' Cement. PBD @ 13,555 *(4/2/07)*
CIBP @ 13,590' (4/2/07)

8' Cement on top
CIBP @ 14,202' (6/1/06)

Circ Flow sub, 10' sub, Mech firing head,
TCP Gun, Bull plug. Guns released 2/15/06

PBTD @ 14,390'

PROPOSED PLUG & MONITOR WELLBORE SCHEMATIC

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TOC @ 3000' (CBL 1/21/06).

Sqz holes @ 3550'. Cmt'd w/50 sx (1/14/06)
Resqzd w/50 sx (1/30/06).

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Cmt w/250 sx lead & 840 sx tail

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DV TOOL @ 10,405'
Cmt w/400 sx lead & 950 sx tail
ECP TOOL @ 10,450-10,460'

Top of 4-1/2" Liner @ 11,947'

8-3/4" Hole
7", 26#, P110, @ 12,265'
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12,885'-12,892' 1/7/06: sqzd w/100 sx cement
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MORROW
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2/20/06: Fraced

6-1/8" Hole
4-1/2", 13.5#, P110, @ 14,449'
Cmt'd w/ 331 sx

9# Inhibited Mud

9# Inhibited Mud

9# Inhibited Mud

9# Inhibited Mud

TD @ 14,450'

Proposed revision well name to:
Monitor 25 Fed 16

Proposed Install Monitor Equipment
1. Install downhole pressure gauge @ 3,825' and connect to surface through wireline.
2. Install surface pressure gauges, methane monitor station and remote monitor and communication device.

Proposed Tubing/Packer
1. Install tubing and production packer @ 3,800'.
(B. Salt @ 3,538')(T. Salt 644')

Proposed Casing Window for Monitor
1. Set CIBP @ 4,000'.
2. Mill window in 7" casing @ 3,822'-3,827'.
(Delaware top @ 3,795')

Proposed P&A Cement Plug #4
1. Set 7" CIBP @ 5,200'.
2. Spot 25 sx cmt @ 5,200'. *(CTOC @ 5,050')*

Proposed P&A Cement Plug #3
1. Perf @ 7,660'.
2. Squeeze 100 sx cmt in/out casing @ 7,460' to 7,660'.
(Bone Spring top @ 7,659')

Proposed P&A Cement Plug #2
1. Set 7" CIBP @ 10,555'.
2. Spot 25 sx cmt @ 10,555'.
(CTOC @ 10,405')

Proposed P&A Cement Plug #1
1. Set CIBP @ 12,575'. Spot 50 sx cmt on top.
2. Tag TOC. *(CTOC @ 11,878')*

35' Cement. PBD @ 12,830 *(4/11/07)*
CIBP @ 12,865' (4/11/07)

35' Cement. PBD @ 12,915 *(4/11/07)*
CIBP @ 12,950' (4/11/07)

35' Cement. PBD @ 13,555 *(4/2/07)*
CIBP @ 13,590' (4/2/07)

8' Cement on top
CIBP @ 14,202' (6/1/06)

Circ Flow sub, 10' sub, Mech firing head, TCP Gun, Bull plug. Guns released 2/15/06

PBTD @ 14,390'

PREPARATORY WORK REQUIRED PRIOR TO ON-SITE ACTIVITY

1. File a P&A Sundry Notice of Intent (if required) for this well and receive regulatory approval prior to commencing operations. Note any conditions of approval and revise this procedure to satisfy those COA's.

2. **Notify all regulatory agencies prior to initiation of work (if required) and Devon EHS personnel.** Hold tailgate safety meetings/job safety analyses prior to rig up, each morning and before each operational change or event.

ISOLATE EXISTING PRODUCING ZONE AND REMOVE TUBING FROM WELLBORE.

***EXPLANATORY NOTES- The following steps are intended to safely isolate the producing Strawn interval from the 4-1/2" liner and 7" casing sections above. The production tubing components and production packer will be removed from the wellbore in order to create enough space in the wellbore to lower the diagnostic tools to perform the non-destructive evaluation of the casing and cement. ***

3. Test and/or install and test the rig anchors on location. Move in and rig up the well service unit. Spot necessary enclosed clean tanks (inspect and verify cleanliness of tanks), reverse unit/pump truck, flowback gas buster with flare stack and temporary flow lines to equipment. Record pressures on tubing and casing.

4. Using the reverse unit/pump truck, pump 50 bbls of 9 ppg KCl filtered fluid down the tubing to top kill the well.

5. Record tubing and casing pressure. Ensure well is secure by flowing back well pressure through gas buster until any pressure is bled off (first bleed off the tubing, then bleed off the casing). Open both casing and tubing valves for 30 minutes to monitor for any flow and ensure the producing zone is balanced with fluid pressure.

6. Uninstall/nipple down the 10,000 psi production tree to gain access to the tubing. Nipple up/install the 5,000 psi Blow-out Preventer Equipment (BOPE) to maintain safe control while running tubing in and out of the well (with 1 set of blind rams on bottom plus 1 set of 2-3/8 & 2-7/8" variable pipe ram on top). Test BOPE to Devon guidelines.

7. Using the well service unit, hold and manipulate the tubing to disconnect the production packer from the 4-1/2" liner. Pick tubing up 2', load, circulate and balance hole with 9 ppg KCl filtered fluid.

8. Take out of the hole with the 2-3/8" production tubing and production packer. Strap/measure tubing component lengths while taking them out of the hole.

9. Move in and rig up wireline with 5,000 psi pressure lubricator device. Test lubricator to Devon guidelines.

10. Lower gauge ring (GR) and junk basket (JB) (sized for 4-1/2", 13.5 #/ft liner) on wireline inside 4-1/2" liner to 12,590' to ensure clearance for successive tools. Take GR/JB out of the well.

11. Lower gauge ring (GR) and junk basket (JB) (sized for 7", 26 #/ft casing) on wireline to liner top at 11,947' to ensure clearance for successive tools. Take GR/JB out of the well.

12. If ok, then take in the hole with wireline and set a 4-1/2", 13.5# permanent cast iron bridge plug (CIBP) @ 12,575'. Take wireline out of the hole.

13. Load and test above the cast iron bridge plug, 7" casing & 4-1/2" liner to 1,000 psi for 30 min with 9 ppg KCl filtered fluid.

14. Rig down and move off the wireline unit and lubricator.

15. Wait at least 2 days prior to starting further logging operations to allow any gas entrained in fluid to escape, as this may affect the data signal on the subsequent diagnostic logs.

COMPARE 4-1/2" LINER AND CEMENT BEHIND 4-1/2" LINER TO BASELINE

EXPLANATORY NOTES- The following steps are intended to measure the integrity of the 4-1/2" liner and cement behind the 4-1/2" liner and to compare the measurements to the baseline measurements performed by Schlumberger in July 2013. The casing inspection measurement identifies any defects in the liner (internal or external) caused by corrosion or mechanical wear. The cement inspection evaluates hydraulic isolation between reservoir layers by measuring the bond between the 4-1/2" liner and the cement sheath behind the pipe. The cement evaluation also qualifies the cement sheath and the bond between the cement and the formation. The diagnostic tools for the 4-1/2" section of the wellbore are smaller than the 7" casing, so they will be run in the hole first.

16. Move in and rig up Schlumberger wireline with 5,000 psi pressure lubricator device. Test lubricator to Devon guidelines.

17. Pick up, take in the hole with a gauge ring (GR) and junk basket (JB) (sized for 4-1/2", 13.5 #/ft liner) on wireline inside 4-1/2" liner to 12,575' to ensure clearance for successive tools. Verify cast iron bridge plug depth at 12,575'. Take GR/JB out of the well.

18. If ok, then pick up and take in the hole Schlumberger's Image Behind Casing (IBC)- Isolation Scanner ultrasonic inspection tool, sized for 4-1/2" liner, to the existing plug back depth at 12,575'. While taking the tool out of the hole, record data to above the top of the 4-1/2" liner at 11,947'. Take the tool out of the hole to surface. Transmit data through satellite for Schlumberger expert to certify quality of data. Lay down the IBC-Isolation Scanner tool.

COMPARE 7" CASING AND CEMENT BEHIND 7" CASING TO BASELINE

EXPLANATORY NOTES- The following steps are intended to measure the integrity of the 7" casing and cement behind the 7" casing and to compare the measurements to the baseline measurements performed by Schlumberger in July 2013. The casing inspection measurement identifies any defects in the liner (internal or external) caused by corrosion or mechanical wear. The cement inspection evaluates hydraulic isolation between reservoir layers by measuring the bond between the 7" casing and the cement sheath behind the pipe. The cement evaluation also qualifies the cement sheath and the bond between the cement and the formation.

19. Pick up, take in the hole with a gauge ring (GR) and junk basket (JB) (sized for 7", 26#/ft casing) on wireline inside 7" casing to ensure clearance for successive tools. Verify liner top depth at 11,947'. Take GR/JB out of the well.

20. If ok, then pick up and take in the hole Schlumberger's Image Behind Casing (IBC)- Isolation Scanner ultrasonic inspection tool, sized for 7" casing. While taking the tool out of the hole, record data up to the surface. Transmit data through satellite for Schlumberger expert to certify quality of data. Lay down the IBC-Isolation Scanner tools.

21. Do not release the Schlumberger wireline units from location until the Schlumberger expert certifies all of the log data.

22. Rig down and move off the Schlumberger wireline unit and lubricator.

23. After processing of the log data, review all results with petrophysical experts to confirm the casing and cement integrity of this wellbore has not deteriorated since the baseline evaluation from July 2013. Do not proceed past this step in this procedure until confirmation is given by engineering.

INSTALL PERMANENT CEMENT PLUGS TO ISOLATE 4-1/2" LINER INTO 7" CASING

EXPLANATORY NOTES- The following steps follow a successful baseline comparison of the well tubulars and cement quality. This series of steps will provide isolation barriers to prevent any formation fluid or gas movement from or between any of the deeper zones into the shallower formations above the Delaware zone (above 3,795'). The first cement plug is to be placed in the pipe above the cast iron bridge plug set at 12,575', filling the 4-1/2" liner and the lower portion of the 7" casing. The second cement plug will provide a barrier across the lower 7" cement stage tool, also known as a DV tool. The third cement plug will provide a barrier at the top of the Bone Spring interval. The fourth cement plug will provide a barrier across the upper 7" cement stage tool, also known as a DV tool. Cast iron bridge plugs (CIBP) will be used to provide an additional sealing barriers at several points along the wellbore. Fluid with corrosion inhibitor will be used between each cement plug to retain the pipe's integrity.

24. Pick up and take in to the hole with 2-3/8" tubing open-ended (tubing collar on bottom) to 12,575' and tag the cast iron bridge plug (CIBP) inside the 4-1/2" liner. Pick the tubing up 2', load, circulate and balance the well so clean fresh water is inside and outside of the 2-3/8" tubing.

25. Rig up cementers. Test surface lines to 6,000 psi. Maximum allowable pumping pressure is 5,000 psi. Refer to "Proposed Plug and Monitor" well diagram.

26. 1st cement plug (above the existing perforations and CIBP in the 4-1/2" liner, into the 7" casing).

    a. With the bottom of the tubing just above the CIBP at 12,573', break circulation (pumping down tubing, up the tubing-casing annulus), mix and pump 50 sacks of Class H neat cement (no other additives), setting a balanced cement plug from 12,573' to 11,878' (~700'). Pull the 2-3/8" tubing to 11,830' and reverse circulate (pumping down the tubing-casing annulus, up the tubing) clean with fresh water. Pull the tubing up to 11,500'. Wait on the cement to harden 4-6 hours or overnight, if necessary.

    b. After waiting on the cement, take the tubing in the well and tag the top of cement (TOC) at 11,878' or higher. BLM is to witness this tag up on the cement plug before proceeding to the next step.

    c. With tubing at the TOC, circulate the well with 9 ppg brine water and place the fluid so brine containing corrosion inhibitor is spotted from this cement plug up to 10,000'.

27. 2nd cement plug (across the lower DV tool in the 7" casing at 10,405').

    a. Pull the tubing out of the well.

b. Move in and rig up a wireline unit to the well. Run a gauge ring (GR) sized for 7", 26 #/ft casing inside the 7" diameter casing to 10,600' on wireline to confirm the subsequent mechanical plug will pass through without obstruction. Pull the GR and wireline out of the well.

c. If the GR run did not encounter any obstructions, pick up and run in the well a cast iron bridge plug (CIBP), sized for 7", 26 #/ft casing on wireline. Set the CIBP at 10,555'. Pull the wireline out of the well. Rig down the wireline unit.

d. Load and pressure test the CIBP and 7" casing to 1,000 psi with fresh water.

e. Pick up and take in to the hole with 2-3/8" tubing open-ended (tubing collar on bottom) to 10,555' and tag the cast iron bridge plug (CIBP) inside the 7" casing. Pick the tubing up 2', load, circulate and balance the well so clean fresh water is inside and outside of the 2-3/8" tubing.

f. With the bottom of the tubing just above the CIBP at 10,555', break circulation (pumping down tubing, up the tubing-casing annulus), mix and pump 25 sacks of Class H neat cement (no other additives), setting a balanced cement plug from 10,555' to 10,405' (150'). Pull the 2-3/8" tubing to 10,360' and reverse circulate (pumping down the tubing-casing annulus, up the tubing) clean with fresh water. Pull the tubing up to 10,000'. Wait on the cement to harden 4-6 hours or overnight, if necessary.

g. After waiting on the cement, take the tubing in the well and tag the top of cement (TOC) at 10,405' or higher. BLM is to witness this tag up on the cement plug before proceeding to the next step.

h. With tubing at the TOC, circulate the well with 9 ppg brine water and place the fluid so brine containing corrosion inhibitor is spotted from this cement plug up to 7,000'.

28. 3rd cement plug (across the top of the Bone Spring interval at 7,659').

a. Pull the tubing out of the well.

b. Move in and rig up a wireline unit to the well. Pick up and run in the well a 2' perforation gun (specifications as follows: 3-3/8" diameter expendable perforation gun, 6 shots per foot, 60 degree phasing, 0.32" entry hole diameter) on wireline. Correlate the perforation gun depth with open hole logs and place the perforation gun at 7,660'. Fire the perforation gun at 7,660'. Pull the wireline and spent perforation gun out of the well. Lay down the perforation gun and confirm all perforations fired. Rig down the wireline unit.

c. Pick up and take in to the hole with 2-3/8" tubing open-ended (tubing collar on bottom) to 7,450' inside the 7" casing. Circulate and balance the well so clean fresh water is inside and outside of the 2-3/8" tubing. Shut-in the tubing-casing annulus and apply pressure to the tubing to breakdown then ensure injectivity into the perforations at 7,660'. Pump 10 bbls of freshwater into the perforations after obtaining a pressure break. Slowly bleed down any pressure through the tubing-casing annulus after this volume has been pumped.

d. With the bottom of the tubing at 7,450', break circulation (pumping down tubing, up the tubing-casing annulus), mix and pump 100 sacks of Class H neat cement (no other additives), setting and squeezing a cement plug from 7,460' to 7,660' (200') inside and outside of the 7" casing. Pull the 2-3/8" tubing to 7,350' and reverse circulate (pumping down the tubing-casing annulus, up the tubing) clean with fresh water. Pull the tubing up to 7,000'. Wait on the cement to harden 4-6 hours or overnight, if necessary.

e. After waiting on the cement, take the tubing in the well and tag the top of cement (TOC) at 7,460' or higher. BLM is to witness this tag up on the cement plug before proceeding to the next step.

f. With tubing at the TOC, circulate the well with 9 ppg brine water and place the fluid so brine containing corrosion inhibitor is spotted from this cement plug up to 5,000'.

29. 4th cement plug (across the upper DV tool in the 7" casing at 5,121').

a. Pull the tubing out of the well.

b. Move in and rig up a wireline unit to the well. Run a gauge ring (GR) sized for 7", 26 #/ft casing inside the 7" diameter casing to 5,300' on wireline to confirm the subsequent mechanical plug will pass through without obstruction. Pull the GR and wireline out of the well.

c. If the GR run did not encounter any obstructions, pick up and run in the well a cast iron bridge plug (CIBP), sized for 7", 26 #/ft casing on wireline. Set the CIBP at 5,200'. Pull the wireline out of the well. Rig down the wireline unit.

d. Load and pressure test the CIBP and 7" casing to 1,000 psi with fresh water.

e. Pick up and take in to the hole with 2-3/8" tubing open-ended (tubing collar on bottom) to 5,200' and tag the cast iron bridge plug (CIBP) inside the 7" casing. Pick the tubing up 2', load, circulate and balance the well so clean fresh water is inside and outside of the 2-3/8" tubing.

f. With the bottom of the tubing just above the CIBP at 5,200', break circulation (pumping down tubing, up the tubing-casing annulus), mix and pump 25 sacks of Class H neat cement (no other additives), setting a balanced cement plug from 5,200' to 5,050' (150'). Pull the 2-3/8" tubing to 4,950' and reverse circulate (pumping down the tubing-casing annulus, up the tubing) clean with fresh water. Pull the tubing up to 4,700'. Wait on the cement to harden 4-6 hours or overnight, if necessary.

g. After waiting on the cement, take the tubing in the well and tag the top of cement (TOC) at 5,050' or higher. BLM is to witness this tag up on the cement plug before proceeding to the next step.

h. Rig down and release the cementers.

i. With tubing at the TOC, circulate the well with 9 ppg brine water and place the fluid so brine containing corrosion inhibitor is spotted from this cement plug up to 3,500'.

INSTALL WINDOW IN 7" CASING FOR BEHIND PIPE GAS/PRESSURE MONITORING

EXPLANATORY NOTES- The following steps provide a method to monitor the space behind the 7" casing for any natural gas accumulation that evades the multiple barriers in the pipe and outside of the pipe. This monitor window is installed in the 7" casing below the 9-5/8" intermediate casing and at the top of the lower pressured Delaware formation. This part of the procedure begins as another wireline set mechanical cast iron bridge plug is to be set for pressure isolation in the 7" casing from below. The 7" casing window is created with mechanical cutters that are used to sever the casing, and will remove any cement behind the casing at this point to provide a connection to the formation across from the casing window. This cut will also provide a complete disconnection within the casing above and the casing below this window.

30. Pull the tubing out of the well.

31. Move in and rig up a wireline unit to the well. Run a gauge ring (GR) sized for 7", 26 #/ft casing inside the 7" diameter casing to 4,300' on wireline to confirm the subsequent mechanical plug will pass through without obstruction. Pull the GR and wireline out of the well.

32. If the GR run did not encounter any obstructions, pick up and run in the well a cast iron bridge plug (CIBP), sized for 7", 26 #/ft casing on wireline. Set the CIBP at 4,000'. Pull the wireline out of the well.

33. Load and pressure test the CIBP and 7" casing to 1,000 psi with fresh water.

34. Pick up and run in the well with a 1' perforation gun (specifications as follows: 3-3/8" diameter expendable perforation gun, 6 shots per foot, 60 degree phasing, 0.32" entry hole diameter) on wireline. Run in the well and correlate the depth of the CIBP with open hole logs to provide a known depth reference. Pulling up the well slowly, correlate the perforation gun depth with open hole logs and place the perforation gun at 3,850'. Fire the perforation gun at 3,850'. Pull the wireline and spent perforation gun out of the well. Lay down the perforation gun and confirm all perforations fired.

35. Rig down the wireline unit.

36. Measure the casing pressure to evaluate the communication with the Delaware formation at 3,850'. Attempt to flow the well to the production test unit and evaluate the flow and pressure response to make sure the pressure inside the 7" casing and outside the casing are similar before running the casing section mill.

37. Monitor casing pressure for at least 2 days and make sure the pressure is stable before proceeding.

38. Pick up and take in the hole with 2-7/8" tubing (high torque connections) and section mill (to cut the window) to 3,827' in the 7" casing. Activate reamer on the section mill tool and create a window in the 7" casing from 3,822'-3,827'.

39. Circulate the well with clean fresh water in the 7" casing from the casing window to surface.

40. Pull the tubing and section mill out of the well.

41. Move in and rig up a wireline unit. Pick up and run in the well with a multi-finger caliper and correlation tools from the CIBP at 4,000' to surface. Take care while running in the well if

the lower piece of casing is eccentered. Confirm the casing window is accurately placed in the 7" casing at 3,822'-3,827' (minimum of 5' of complete separation between the 7" casing, and below the 9-5/8" casing) with the multi-finger caliper tool.

42. Rig down the wireline unit.

CONFIGURE WELL FOR LONG-TERM MONITORING

EXPLANATORY NOTES- The following steps will provide a long term monitoring method remotely, with immediate alarming capabilities for any pressure increase or gas influx. The configuration of the well and surface facilities allows for access to the casing window at 3,822'-3,827' in the 7" casing via the 2-7/8" tubing, and a relief path or chimney to move any gas to the surface facilities if needed. The focus of this monitor system is for long term reliability, redundancy, quick reaction, and transparency of data with the regulatory agencies and area mineral owners. As with other areas of technical innovation, this monitor system design should be scrutinized and re-designed at the time of its implementation in case there are much improved methods of detection, automation and monitoring.

43. Pick up and run in the well with 2-7/8" tubing and a production packer to 3,800'. While running the tubing in the well, hydrotest the tubing to 3,000 psi. Circulate 9 ppg brine fluid containing corrosion inhibitor between the 2-7/8" tubing and the 7" casing. Set the packer at 3,800' to isolate the 7" casing above the packer from the casing window. Test the annular space between the tubing and casing to 1,000 psi.

44. Pick up and install a downhole pressure monitoring sensor on wireline at 3,825'. Connect this gauge to the surface monitor system and verify the accuracy of the measurement by increasing the surface pressure in the tubing in 5 steps of 50 psi (total change at surface of 250 psi). Confirm the downhole pressure monitoring sensor detects the pressure steps immediately and with the same pressure increase observed at surface.

45. Nipple down/remove the 5,000 psi Blow Out Preventer Equipment and install/nipple up the 10,000 psi production tree on the wellhead. Test the production tree to 5,000 psi, tubing to 5,000 psi and casing to 1,000 psi as per Devon guidelines.

46. Rig down and release the well service unit and the accessory equipment.

47. Install electronic surface pressure gauges on the tubing and casing outlets and connect these sensors to the monitoring station on location. Ensure manual gauges are also installed on these same outlets to provide a visual reference for personnel on location.

48. Modify the surface production equipment at the well to provide the emergency pressure relief necessary if any of the monitors detect a pressure increase. This includes a modified separator, flowmeters, emergency gas flare system, tanks. In addition, the connection to the gas pipeline should be retained in case a high volume relief is needed which could exceed the flare system capabilities.

49. Install a continuous, electronic flammable gas detector on surface at the separation equipment. Connect the output of this sensor to the monitoring station on location.

50. Install a remote communication device (radio or satellite) to transmit all recorded sensor data to the Supervisory Control and Data Acquisition (SCADA) system. Using a third party surface recording device, measure the surface tubing pressure for 2 weeks and compare with the data recorded using the SCADA system for data verification. Using the real-time

Decision Support Center (DSC) located in the Devon office in Artesia, provide continuous remote monitoring of the well.

51. With collaboration/suggestions from the regulatory agencies and neighboring mineral owners, publish a web-based display of the remote monitoring of this well.

WORK REQUIRED AFTER ABANDONMENT AND INSTALLATION OF MONITORS

52. File a Subsequent Notice for this well to regulatory agencies on procedures employed and receive regulatory approval.

53. Submit a sundry for a well name change to "Monitor 25 Federal 16" to the regulatory agencies. Revise well signs on location with the new name once approved.

54. Maintain production equipment, pressure relief equipment, data monitoring equipment on a regular schedule, as recommended by the manufacturers.

55. Ensure contingency drills for pressure increases over baseline measurements and methane detection are discussed regularly with production foremen and production operators.

DEVON ENERGY CORPORATION PERSONNEL

(UPDATE PRIOR TO OPERATION)

NAME	TITLE	OFFICE #
James Allbee	Operations Engineer	405-228-8698
Ronnie Carre	Completions Foreman	575-748-0179
Jerry Mathews	Production Superintendent	575-748-0161
Ed Pearson	Operations Manager	405-228-2425