OCD-HOBBS

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HOBBS OCD
NOV 14 2016
RECEIVED

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.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5. Lease Serial No.
NMNM0160973

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
NM71173

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

8. Well Name and No.
RED HILLS UNIT 3

2. Name of Operator
CIMAREX ENERGY CO OF COLORADO
Contact: AMITHY E CRAWFORD
E-Mail: acrawford@cimarex.com

9. API Well No.
30-025-28144

3a. Address
600 N. MARIENFELD SUITE 600
MIDLAND, TX 79701

3b. Phone No. (include area code)
Ph: 432-620-1909

10. Field and Pool, or Exploratory
RED HILLS DEVONIAN GAS

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 5 T26S R33E 1980FSL 2180FWL

11. County or Parish, and State
LEA COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ 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.)

Cimarex Respectfully requests to recomplete and convert the Red Hills Unit #3 well into an injection well.

Cimarex proposes to set a CIPB at 7490' & 13,000' to isolate wellbore & perfs downhole.

Cimarex will perf the Delaware injection zone 5174'-7385' and set a packer at 5124'

SWD-1505
STATES TOP PERF 5374' MGB.

Please see attached the approved SWD Order, Current & Proposed wellbore schematic, and proposed conversion procedure.

Thank you.

SUBJECT TO LIKE APPROVAL BY STATE

SEE ATTACHED FOR CONDITIONS OF APPROVAL

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

Electronic Submission #351043 verified by the BLM Well Information System
For CIMAREX ENERGY CO OF COLORADO, sent to the Hobbs
Committed to AFMSS for processing by DEBORAH MCKINNEY on 09/15/2016 ()

Name *(Printed/Typed)* AMITHY E CRAWFORD — Title REGULATORY ANALYST

Signature (Electronic Submission) — Date 09/13/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____ Title _____ Date

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
NOV 8 2016
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD 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.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

MSB/OCD 11/16/2016

Procedure Sheet – Hobbs District

PLEASE COMMENCE WITH WORK PER PROCEDURE

Red Hills Unit #3

Convert to SWD

Current Wellbore Data

KB	34'
TVD/MD	17597'
PBTD	14,027'
KOP	N/A
Perfs	13,554' – 13,685' (Wolfcamp)
	13,017' – 13,292' (Squeezed Wolfcamp Perfs)
Casing	20'' 94# K55 set @ 826', cmtd w/ 1200 sxs, cmt circ
	13 3/8" 61/68# L80/K55 set @ 4877', cmtd w/ 5000 sxs, cmt circ
	9 5/8'' 47/53.5# S&C-95 set @ 13000', cmtd w/ 3830 sxs, TOC @ 7700'
	7 5/8" 39# T-125 set @ 12685', **Cut and pulled @ 9929'
	7 3/4" 46.1# P110 set @ 16986', cmtd w/ 650 sxs
	4 ½" Liner 11.6# S-95 set @ 17597', cmtd w/ 180 sxs
Tubing	439 jts 2 7/8" 8.7# L80 IJ-3SS

Procedure:

1. MIRU pulling unit and crew.
2. Hold Safety meeting, discussing all risks & potential dangers.
3. Kill well using 2% KCL if needed.
4. Unset packer @ 13,499'. TOH and LD packer.
5. PU Bit and casing scraper. RIH to 1300'. TOH.
6. PU 7-5/8" CIBP mechanical set. RIH and set @ 13000'.
7. Spot 35 sacks of class H cement on top of the CBP.
8. PU 2 jts and pressure test well to 500 psi. Hold for 30 min.
9. PU tbg to ± 9929'.
10. Spot balanced cement plug @ 9929'.
11. TOH standing back tubing. WOC 24 hours.
12. RU Apollo Perforators to shoot 2 squeeze holes, 180-degree phasing @ 7500'.

Please call Kody Murphy at 432.620.1951 if you have any questions

CIMAREX

13. RU Allied Cementers.
14. PU cast iron cement retainer, RIH and set @ 7490'.
15. Sting into retainer and Pump 20 bbls of fresh water to establish rate into perfs.
16. Once rate has been established pump 1200 sacks of Allied High-Yield Class C cement followed by 200 sacks of Class H premium cement @ 5 bpm.
17. Flush tubing w/ 38 bbls of fresh water.
18. Spot 35 sxs of Class H cement on top of cement retainer.
19. TOH. WOC 24 hours.
20. RU Apollo Perforators. Perforate 5174' – 7385' w/ 2 SPF, using 4" select fire guns w/ 0.41 EH, 40" penetration, and 60-degree phasing.
21. PU 9 5/8" treating packer and 9 5/8" RBP. RIH and set RBP @ ± 7400'.
22. PU packer to ± 6950 and set packer.
23. On sand line RIH w/ swab mandrel down to 7400' and TOH w/ swab mandrel.
    **Contact Midland office whether Hydrocarbons are detected or not.
24. RU Acid Specialists.
25. Acidize the perforations w/ 20,000 gals of 15% HCL using rock salt as diversion.
26. TOH w/ 2-7/8" tbg, RBP, and treating packer.
27. PU 3-1/2" fiberlined tubing and Nickle plated 4-1/2" x 9-5/8" packer w/ xover to 3-1/2".
28. RIH and set packer @ ± 5124'.
29. Perform Step rate test: start pumping water @ 1 BPM to acquire injection pressure. Once pressure stabilizes increase injection rate at 1 BPM increments up to 7 BPM or until parting pressure is realized.

DO NOT PERF. ABOVE 5374 AS PER SWD-1505 MSB.

Please call Kody Murphy at 432.620.1951 if you have any questions

Conditions of Approval

Cimarex Energy Co of Colorado
Red Hills Unit - 03, API 3002528144
T26S-R33E, Sec 05, 1980FSL & 2180FWL
November 08, 2016

1. **Operator is required to have the BLM approved NOI procedure with applicable conditions of approval on location for this workover operation.**
2. Subject to like approval by the New Mexico Oil Conservation Division.
3. A NMOCD Form C-102 "Well Location and Acreage Dedication Plat" with updated information is necessary with the notice of intent package when recompletion changes a well's Pool designation.
4. Before casing or a liner is added, replaced, or repaired prior BLM approval of the design is required. Use notice of intent Form 3160-5.
5. Notify BLM 575-393-3612 Lea Co as work begins. Some procedures are to be witnessed. If there is no response, leave a voice mail with the API#, workover purpose, and a call back phone number.
6. **This procedure is subject to the next three numbered paragraphs.**
7. Set cement plugs to cover a minimum of 100ft plus 10ft for every 1,000ft from the bottom of the plug, rounding the number of necessary sacks up to the nearest 5 sacks. Never use less than 25sx. Examples: A cement plug set at 8000 in 7" casing would require a min of 35sx. A 25sx plug in 5 ½" casing should cover 250ft, which may exceed 100ft plus 10ft per 1000ft.
8. Class H > 7500ft & C < 7500ft) cement plugs(s) will be necessary. For any plug that requires a tag or pressure test a minimum WOC time of 4 hours(C) & 8 hours(H) is recommended. Formation isolation plugs of Class "C" to be mixed 14.8#/gal, 1.32 ft^3/sx, 6.3gal/sx water and "H" to be mixed 16.4#/gal, 1.06ft^3/sx, 4.3gal/sx water.
9. Minimum requirement for mud placed between plugs is 25 sacks of salt water gel per 100 barrels in 9 lb/gal brine.
10. Surface disturbance beyond the existing pad shall have prior BLM approval.
11. 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.
12. Functional H_2S monitoring equipment shall be on location.
13. 5000 (5M) Blow Out Prevention Equipment to be used. All BOPE and workover procedures shall establish fail safe well control. Blind ram(s) and pipe ram(s) designed to close on all workstring diameters used is required equipment. A manual BOP closure system (hand wheels) shall be available for use regardless of BOP design. Function test the installed BOPE to 500psig when well conditions allow. Related equipment, (choke manifolds, kill trucks, gas

vent or flare lines, etc.) shall be employed when needed for reasonable well control requirements.

14. 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.
15. **The Procedure Sheet steps 5 through 11 have been modified by these conditions of approval.**
16. Remove the CIBP at 14027 and set a balanced cmt plug across the Atoka formation top from 14470 or below. Tag the plug with tubing at 14225 or above.
17. Set a CIBP in the 7 ¾" csg less than 100' above the open Wolfcamp perfs <13554-685>. Set a 25sx balanced cmt plug or dump bail a minimum 35ft cmt cap on the CIBP.
18. Set a balanced cmt plug across the 9 5/8" shoe at 13000 from 13060 below. Tag the plug with tubing at 12830 or above.
19. Set a balanced cmt plug inside the 7 5/8" csg stub at 9928 from 9980 or below. Tag the plug with tubing at 9780 or above.
20. Set a balanced cmt plug across the 9 5/8" DV Tool at 8491 from 8550 or below. Tag the plug with tubing at 8350 or above.
21. Perform **the Procedure Sheet steps 12 through 19.**
22. **Perform a charted 9 5/8" casing integrity test** of 1000psig minimum from the PBTD to surface. Document the pressure test on a one hour full rotation calibrated (within 6 months) recorder chart registering within 35 to 75 per cent of its full range. **Verify all annular casing vents are plumbed to the surface and open during this pressure test. Call BLM 575-393-3612 and arrange for a BLM witness of that pressure test.** Include a copy of the chart with the subsequent sundry for this workover.
23. **Provide BLM with an electronic copy (Adobe Acrobat Document) cement bond log record from the PBTD taken with 0psig casing pressure. The CBL may be attached to a pswartz@blm.gov email or attached to a WIS subsequent sundry.**
24. **Do not exceed the approved SWD-1505 injection pressure of 1035psig for stimulation operations or injectivity tests. The Procedure Sheet step 29 is not to be conducted.**
25. Class II (production water disposal) wells will not be permitted Stimulation Pressures or "Injectivity Tests" that exceed 50psig below the frac point as clearly indicated by a BLM accepted "Step Rate Test".
26. The traditional generic guideline for an initial wellhead pressure of 0.2 X depth of the injection top has been challenged for tubing sizes above 2 3/8". There is consensus that the reduction of friction pressure caused by use of tubing of larger diameter can allow fracture pressure to reach the formation. That being the case, it is imperative that data from pressure monitors at both the surface and formation be collected during a Step Rate Test and be synchronized.

27. A request for increased wellhead pressures is to be accompanied by a "Step Rate Test:" **conducted after 90 days of stabilized disposal wellhead pressures and rates**. PRIOR to a Step Rate Test BLM – CFO is requiring a Notice of Intent. The test is to clearly indicate any requested wellhead pressure is +50psig below frac pressure for the wellbore's disposal formation.
28. The subsequent report is to include workover stimulation injection pressures. Report maximum/minimum injection rate (BPM) and max/min stimulation injection pressures (psig).
29. Submit a (BLM Form 3160-**5** subsequent report via BLM's Well Information System; https://www.blm.gov/wispermits/wis/SP (email pswartz@blm.gov for instructions) describing (dated daily) all wellbore activity and the Mechanical Integrity Test. Include descriptions of and the setting depths of installed equipment: internally corrosive protected tubing, tubing on/off tool, profile nipple, and packer. File intermediate Form 3160-**5** within 30 days of any interrupted workover procedures and a complete workover subsequent sundry.
30. 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.
31. **The well is considered a commercial hydrocarbon producer until proven otherwise. Provide statements with evidence that paying quantities of hydrocarbons are not produced when the well has a pumped off fluid level. A copy of the well's mudlog, and an estimated insitu water salinity based on copies of open hole logs may to be offered as evidence.**
32. **A minimum of 1000 barrels is to be withdrawn from the proposed disposal formation after any recent stimulation load volumes have been recovered. Reports of ten samples from the last 200bbls analyzed for hydrocarbons and insitu salinity by a reputable laboratory. BLM agreement is to be obtained prior to the well is utilized as a disposal well.**
33. **The swabbing procedure is to be witnessed by BLM. Notify pswartz@blm.gov, 575-200-7902 24 hours prior to the 10 samples being taken.**
34. Approval is granted for disposal of water produced from the lease, communitization, or unit agreement of this well only. Disposal fluid from another operator, lease, communitization, or unit agreement require surface right-of-way agreement **approvals** and authorization from the surface owner.
35. Disposal of off-lease water, water from another operator, or commercial disposal requires that the well be designated as a commercial well and surface right-of-way agreement **approvals.**
36. Non-Commercial Disposal; provide a list of the production water source lease identification and well API numbers on the complete workover subsequent sundry.
37. File intermediate **subsequent sundry** Form 3160-**5** within 30 days of any interrupted workover procedures and a complete workover subsequent sundry.

An inactive/shut-in well bore is a non-producing completion that is capable of "beneficial use" i.e. production in **paying quantities** or of service use.

38. Submit evidence to support your determination that the well has been returned to active "beneficial use" for BLM approval on the Sundry Notice Form 3160-5 within 90 days of this sundry's approval date.
39. Should "beneficial use" not be achieved submit for BLM approval a plan for plug and abandonment.

Well with a Packer - Operations

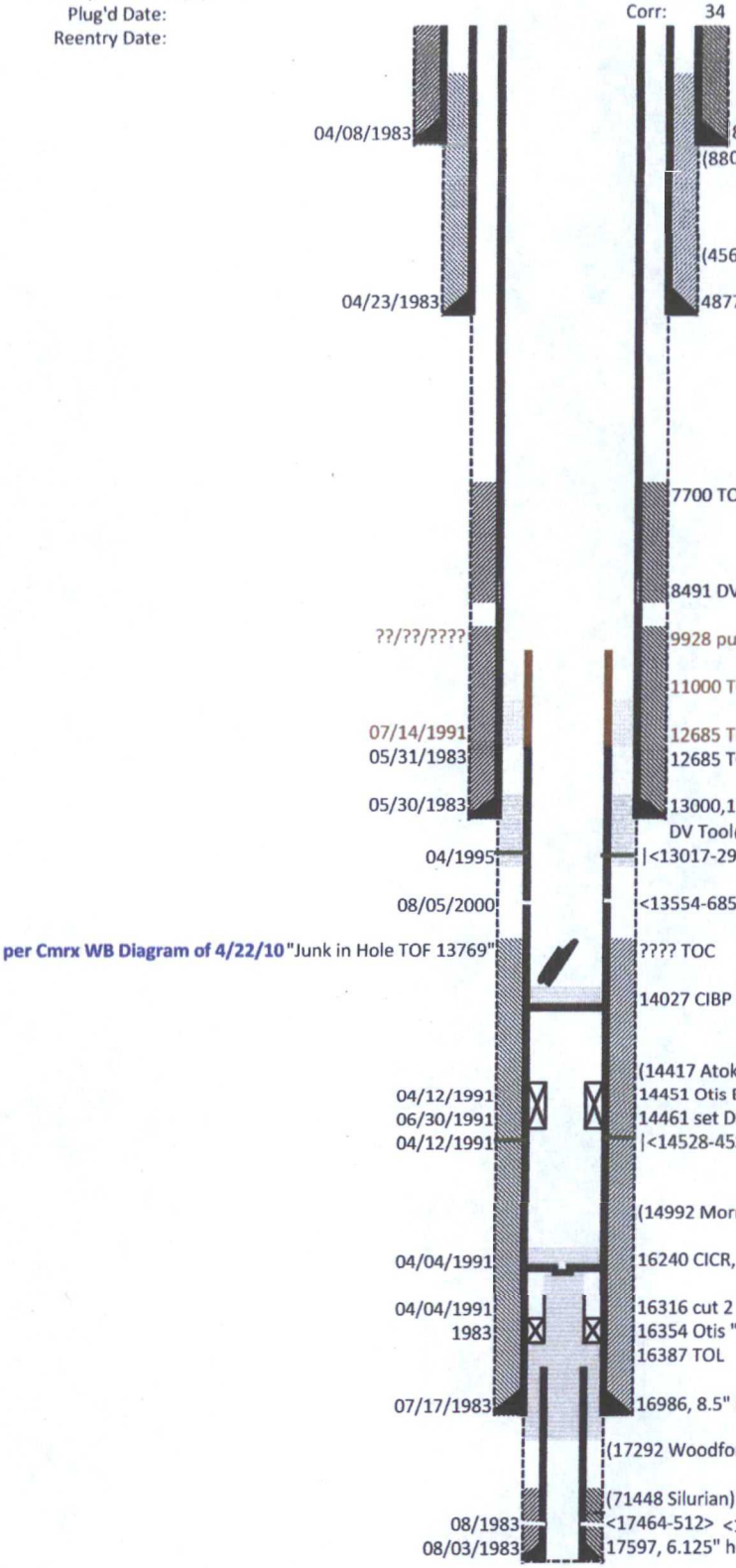
1) Conduct a Mechanical Integrity Test of the tubing/casing annulus after a tubing, packer or casing seal is established.
2) The minimum test pressure should be 500 psig for 30 minutes or 300 psig for 60 minutes, with a minimum 200 psig differential between tubing and casing pressure (at test time) but no more than 70% of casing burst pressure as described by Onshore Order 2.III.B.1.h. (The tubing or reservoir pressure may need to be reduced). Verify all annular casing vents are plumbed to surface and those valves open to the surface during this pressure test. An alternate method for a BLM approved MIT is to have the fluid filled system open to atmospheric pressure and have a loss of less than five barrels in 30 days witnessed by a BLM authorized officer.
3) Document the pressure test on a one hour full rotation chart recorder (calibrated within the last 6 months) registering within 35 to 75 per cent of its full range. Greater than 10% pressure leakoff will be viewed as a failed MIT. Less than 10% pressure leakoff will be evaluated site specifically and may restrict injection approval.
4) Make arrangements 24 hours before the test for BLM to witness. In Lea County phone 575-393-3612. If no answer, leave a voice mail or email with the API#, workover purpose, and a call back phone number
5) Use of tubing internal protection, tubing on/off equipment just above the packer, a profile nipple, or an in line tubing check valve below the packer or between the on/off tool and packer is a "Best Management Practice". The setting depths and descriptions of each are to be included in the subsequent sundry.
6) Compliance with a NMOCD Administrative Order is required, submit documentation of that authorization.
   a) Approved injection pressure compliance is required.
   b) If injection pressure exceeds the approved pressure you are required to reduce that pressure and notify the BLM within 24 hours.
   c) When injection pressure is within 50 psig of the maximum pressure, install automation equipment that will prevent exceeding that maximum. Submit a subsequent report (Sundry Form 3160-5) describing the installed automation equipment within 30 days.

7) A request for increased wellhead pressures is to be accompanied by a step rate test. PRIOR to a Step Rate Test BLM – CFO is requiring a Notice of Intent.
8) Class II (production water injection) wells will not be permitted stimulation injection pressures that exceed frac pressure.
9) Unexplained significant variations of rate or pressure to be reported within 5 days of notice.
10) The casing/tubing annulus is required to be monitored for communication with injection fluid or loss of casing integrity. A BLM inspector may request verification of a full annular fluid level at any time.
11) A "Best Management Practice" is to maintain the annulus full of packer fluid at atmospheric pressure. Equipment that will display on site, continuous open to the air fluid level above the casing vent is necessary to achieve this goal.
12) A suggested format for monthly records documenting that the casing annulus is fluid filled is available from the BLM Carlsbad Field Office.
13) Excessive (+5 bbls/month) gain or loss of annular fluid volume requires notification within 24 hours. Cease injection and maintain production casing and tubing pressure near 0psia. Notify the BLM's authorized officer ("Paul R. Swartz" <pswartz@blm.gov>, cell phone 575-200-7902). If there is no response phone 575-361-2822.
14) Submit a (BLM Form 3160-**5** subsequent report (daily reports) via BLM's Well Information System; https://www.blm.gov/wispermits/wis/SP describing all wellbore (dated daily) activity and include the Mechanical Integrity Test chart document.

Operator: Cimarex Energy Company of Co.
Surface Lease: NM0160973 **BHL:** NM0160973
Case No: NM71019x **Unit Agreement**
Subsurface Concerns for Casing Designs:
Well Status: Gas
Spud date: 4/5/1983
Plug'd Date:
Reentry Date:

Well: RED HILLS UNIT-3
API: 3002528144
@ Srfce: T26S-R33E,05.1980s2180w
@ M TD: T26S-R33E,05.1980s2180w
Estate: P\F\F
CWDW, R of W: 0
Admn Order, date: SWD-1505, 10/21/17
Frmtn, Depths, psig: Bell & Cherry Cyn,5174-7385,1035psig

KB: 3383
GL: 3349
Corr: 34



04/08/1983 826, 26"hole, 20"94# K55 csg, ST&C, Mix 1450sx, circ 300sx
(880 T Salt)
(4565 B Salt)
04/23/1983 4877,17.5"hole,13.375" 68# L80 csg ST&C, Mix 1000sx, circ 1sx
7700 TOC temp
8491 DV Tool
??/??/???? 9928 pulled top 7 5/8" csg **per 3160-4 completion rpt of 04/18/1995**
11000 TOC temp
07/14/1991 12685 Tieback to sfc w/7 5/8" 39# T-125, cmt w/200sx
05/31/1983 12685 TOL (7 3/4")
05/30/1983 13000,12.25"hole, 9.625" 53.5# C95 LT&C csg
DV Tool@8491 Stg#/#SxCirc:1/0,2/0
04/1995 |<13017-292>|7/28/00 spot 100sx-13300,2050psig sqz, tag 12919, DO 13230
08/05/2000 <13554-685 Wolfcamp>
per Cmrx WB Diagram of 4/22/10 "Junk in Hole TOF 13769" ???? TOC
14027 CIBP w/65'cmt cap set **per 3160-4 completion rpt of 04/18/1995**
(14417 Atoka)
04/12/1991 14451 Otis BWB Permanent Pkr
06/30/1991 14461 set DR plug in Otis Pkr (Removed 07/31/1991)
04/12/1991 |<14528-45> <14528-38 10/08/1992>| Sqz'd w/50sx **per 3160-4 rpt 4/18/95**
(14992 Morrow)
04/04/1991 16240 CICR, 1600psig cmt sqz w/200sx, held 1100psig
04/04/1991 16316 cut 2 7/8" tbg
1983 16354 Otis "WB" Pkr on 2 7/8"
16387 TOL
07/17/1983 16986, 8.5" hole, 7.75" 46.1# P110 LT&C csg, Mix 650sx, circ 0sx
(17292 Woodford)
(71448 Silurian)
08/1983 <17464-512> <17453-83 10/12/1990>
08/03/1983 17597, 6.125" hole, 4 1/2" 11.6# LS-95 LT&C csg, Mix 180sx, circ 0sx

"no Form 3160-5 Sundry Reports found"

Diagram last updated: 11/08/2016

_WB Rcd (5.08 RedHillsU-03 2528144