

Submit 3 Copies to Appropriate District Office  
District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Ave., Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources

Form C-103  
May 27, 2004

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO.	30-015-33002
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>	
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name Spruce 10 State	
8. Well Number	001
9. OGRID Number	147179
10. Pool name or Wildcat Undesignated; Penn	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3922 GR	
Pit or Below-grade Tank Application <input type="checkbox"/> or Closure <input type="checkbox"/>	
Pit type _____ Depth to Groundwater _____ Distance from nearest fresh water well _____ Distance from nearest surface water _____	
Pit Liner Thickness: _____ mil Below-Grade Tank: Volume _____ bbls; Construction Material _____	

**SUNDRY NOTICES AND REPORTS ON WELLS**  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

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

2. Name of Operator  
Chesapeake Operating, Inc.

3. Address of Operator  
P. O. Box 11050  
Midland, TX 79702-8050

4. Well Location  
Unit Letter O : 1310 feet from the South line and 1980 feet from the East line  
Section 10 Township 19S Range 23E NMPM County Eddy

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐

OTHER: Workover ☒

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Chesapeake, hereby, requests permission to perforate the Penn zone per the attached Workover Procedure

If this work requires an earthen pit, a permit must be approved prior to construction of the pit(s).

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE Brenda Coffman TITLE Regulatory Analyst DATE 03/28/2005

Type or print name Brenda W. Coffman E-mail address: bcoffman@chkenergy.com Telephone No. (432)687-2992

For State Use Only

APPROVED BY: Richard W. Green TITLE District II Supervisor DATE JUL 04 2005

Conditions of Approval (if any):

**Spruce 10 State #1**  
**WORKOVER PROCEDURE**  
**Revised 1/19/05**

**GENERAL INFORMATION**

Location: 1310' FSL & 1980' FEL, Sec 10 – T19S – R23E  
API No.: 30-015-33002

**WELL INFORMATION**

<u>String OD</u>	<u>Weight &amp; Grade</u>	<u>Depth</u>	<u>ID</u>	<u>Drift</u>	<u>Burst</u>	<u>TOC</u>
13-3/8"	48# H-40 STC	0' – 313'	12.715"	12.559"	1730	0'
8-5/8"	32# J-55 LTC	0' - 1933'	7.921"	7.796"	3930	0'
5-1/2"	17# L-80 LTC	0' - 8406'	4.892"	4.767"	7740	6300'

Existing Morrow perfs: 8002 – 8121' (OA)

Proposed Pennsylvanian perfs: 7631 - 60', 7154 – 66', 6640 – 86', 6526 – 6618', 6404 – 6440' (OA).

PBTD: 8311'

**Re-Completion Procedure**

1. MIRU Service Rig and requisite equipment. Kill Morrow with 7% KCL. ND WH, NU BOP.
2. Release Arrowset packer and POOH w/ 2-3/8" tubing.
3. MIRU Wireline Service Company. Correlate to GR/CCL/CBL log dated 12/24/2003 and set a CIBP @ 7950'. Bail 2 sx of cement on plug. Load and test casing to 1500#.
4. Perforate via casing gun the Lower Penn Sand 7631 – 36' (21 holes) & 7649 – 60' (45 holes) w/ 4 SPF, 90 deg phasing, 23 gram charge, .38" hole size.
5. RIH to with treating packer picking up 2-7/8" 6.5# P-110 workstring. MIRU Acid Service Company. Spot 200 gal of 7-1/2% NeFe w/ EOT @ 7660'. Acid to contain 4 gpt of iron control, 1 gpt each of corrosion inhibitor, surface tension reducer, and non-emulsifier. Pull and set packer @ ~ 7580'. ND BOP and NU tree. Pressure test lines. Pressure annulus to 1500 psi. Displace spot acid, establish rate of 3 to 4 BPM w/ 7% KCL. Acidize w/ 1,300 gal of 7-1/2% HCL. Launch 75 ball sealers during job. Acid to contain 200 gpt of methanol, 4 gpt of iron control, 1 gpt each of corrosion inhibitor, surface tension reducer, and non-emulsifier. Max pressure 10,000#. Flow back to recover load, clean up well, and test zone.
6. Kill well as required w/ 7% KCL. ND WH. NU BOP. Lower packer to clear perfs of ball sealers. Re-set packer @ ~ 7580'. ND BOP, NU WH. MIRU Frac Service Company. Pressure annulus to 1500 psi. Establish rate with pad and frac the Lower Penn Sand with 35,000 gal of 40# Binary Foam and 35,000 pounds of 18/40 mesh Versaprop at rates of 15+ BPM per frac schedule. Ramp sand from ½ to 3#/gal. Maximum pressure 12,000#. Anticipated treating pressure ~ 9,000#. Flow back to recover load, clean up well, and test zone.
7. Kill well as required with 7% KCL. ND tree. NU BOP. POOH with workstring.
8. MIRU WL Service Company. Check PBTD. Set a composite plug @ 7580'. Load and test casing to 1500#. Perforate via casing gun the Middle Penn Sand 7154 – 66' (49 holes) w/ 4 SPF, 90 deg phasing, 23 gram charge, .38" hole size.
9. RIH to with treating packer and workstring. MIRU Acid Service Company. Spot 200 gal of 7-1/2% NeFe w/ EOT @ 7166'. Acid to contain 4 gpt of iron control, 1 gpt each of corrosion inhibitor, surface tension reducer, and non-emulsifier. Pull and set packer @ ~ 7100'. ND BOP and NU tree. Pressure test lines. Pressure annulus to 1500 psi. Displace spot acid, establish rate of 3 to 4 BPM w/ 7% KCL. Acidize w/ 1,300 gal of 7-

1/2% HCL. Launch 60 ball sealers during job. Acid to contain 200 gpt of methanol, 4 gpt of iron control, 1 gpt each of corrosion inhibitor, surface tension reducer, and non-emulsifier. Max pressure 10,000#. Flow back to recover load, clean up well, and test zone.

10. Kill well as required with 7% KCL. ND WH. NU BOP. Lower packer to clear perms of ball sealers. Re-set packer @ ~ 7100'. ND BOP, NU WH. MIRU Frac Service Company. Pressure backside to 1500 psi. Establish rate with pad and frac the Lower Penn Sand with 35,000 gal of 40# Binary Foam and 35,000 pounds of 18/40 mesh Versaprop at rates approaching 15 BPM per frac schedule. Ramp sand from 1/2 to 3#/gal. Maximum pressure 12,000#. Anticipated treating pressure ~ 9,000#. Flow back to recover load, clean up well, and test zone.
11. Kill well as required with 7% KCL. ND tree. NU BOP. POOH with workstring.
12. MIRU WL Service Company. Check PBTD. Set a composite plug @ 7100'. Load and test casing to 1500#. Perforate via casing gun the Upper Penn Lime 6640 – 50', 6666 – 69', 6674 – 86' (103 holes) w/ 4 SPF, 90 deg phasing, 23 gram charge, .38" hole size.
13. RIH to with treating packer and workstring. MIRU Acid Service Company. Spot 200 gal of 15% NeFe w/ EOT @ 6686'. Pull and set packer @ ~ 6590'. ND BOP and NU tree. Pressure test lines. Pressure annulus to 1500 psi. Displace spot acid, establish rate of 3 to 4 BPM w/ 7% KCL. Acidize w/ 2500 gal of 15% NeFe. Launch 120 ball sealers during job. Ramp rates to 5 or 6 BPM as zone breaks. Max pressure 6,000#. Flow back to recover load, clean up well, and test zone.
14. Kill well as required with 7% KCL. ND tree. NU BOP. Lower packer to clear perms of ball sealers. POOH with workstring.
15. MIRU WL Service Company. Set a composite plug @ 6625'. Load and test casing to 1500#. Perforate via casing gun the Upper Penn Lime 6526 – 40', 6548 – 59', 6566 – 85', 6594 – 6618' (236 holes) w/ 4 SPF, 90 deg phasing, 23 gram charge, .38" hole size.
16. RIH with treating packer and workstring. MIRU Acid Service Company. Spot 200 gal of 15% NeFe w/ EOT @ 6618'. Pull and set packer @ ~ 6475'. ND BOP and NU tree. Pressure test lines. Pressure annulus to 1500 psi. Displace spot acid, establish rate of 3 to 4 BPM w/ 7% KCL. Acidize w/ 3500 gal of 15% NeFe. Launch 250 ball sealers during job. Ramp rates to 5 or 6 BPM as zone breaks. Max pressure 6,000#. Flow back to recover load, clean up well, and test zone.
17. Kill well as required with 7% KCL. ND tree. NU BOP. Lower packer to clear perms of ball sealers. POOH with workstring.
18. MIRU WL Service Company. Set a composite plug @ 6480'. Load and test casing to 1500#. Perforate via casing gun the Upper Penn Lime 6404 – 19' and 6434 – 40' (86 holes) w/ 4 SPF, 90 deg phasing, 23 gram charge, .38" hole size.
19. RIH with treating packer and workstring. MIRU Acid Service Company. Spot 200 gal of 15% NeFe w/ EOT @ 6440'. Pull up, reverse acid into tubing, and set packer @ ~ 6360'. ND BOP and NU tree. Pressure test lines. Pressure annulus to 1500 psi. Displace spot acid, establish rate of 3 to 4 BPM w/ 7% KCL. Acidize w/ 3500 gal of 15% NeFe. Launch 100 ball sealers during job. Ramp rates to 5 or 6 BPM as zone breaks. Max pressure 6,000#. Flow back to recover load, clean up well, and test zone.
20. RIH w/ bit and collars on workstring. Knock composite plugs to bottom. Circulate well clean off bottom with 7% KCL. POOH.
21. RIH w/ Arrowset packer, 2-3/8" 4.7# L80 tubing subs, nipples, and 2-3/8" tubing as follows: Re-entry guide, 4' sub, 'XN' w/ 1.791" no-go, 10' sub, Arrowset packer w/ 1.875" 'X' Profile in on/off tool, and 2-3/8" L80 tubing. Space out tubing and set packer ~ 6475'. Pressure test annulus to 1000#. ND BOP. NU tree.
22. Swab well in. RDMOCU.