

Submit 1 Copy To Appropriate District Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

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

WELL API NO.
30-003-20040

5. Indicate Type of Lease

STATE ☒ FEE ☐

6. State Oil & Gas Lease No.
LH4763

7. Lease Name or Unit Agreement Name

Cottonwood Canyon

8. Well Number CC-12

9. OGRID Number
34945

10. Pool name or Wildcat
Abo Reef

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 CO2

2. Name of Operator
Kinder Morgan CO2 Company, L.P.

3. Address of Operator
830 East Main, Suite 220, Springerville, AZ 85938

4. Well Location

Unit Letter M : 660 feet from the South line and 1,980 feet from the West line

Section 36 Township 01N Range 21W NMPM Catron County

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
7639 GR

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 ☐
DOWNHOLE COMMINGLE ☐
CLOSED-LOOP SYSTEM ☐
OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐
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 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Plug and Abandonment Procedure and Reclamation Plan attached.

Proposed start date for Cottonwood Canyon Plug and Abandonment program (nine wells total): May 15, 2017.

Spud Date:

7/7/2008

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

Michael Hannigan

TITLE

Senior EHS Engineer

DATE 2/14/2017

Type or print name Michael Hannigan, P.E. E-mail address: michael_hannigan@kindermorgan.com PHONE: 970-882-5532

For State Use Only

APPROVED BY:

Will Jones

TITLE

DIST IV / ENGR.

DATE

3-7-17

Conditions of Approval (if any):

January 23, 2017

A-Plus Well Service, Inc.
PLUG AND ABANDONMENT PROCEDURE
Cottonwood Canyon Unit #12

Page 1 of 2

Unit M, 660' FSL and 1980' FWL, Section 36, T-01-S, R-21-W
Catron County, New Mexico / API 30-003-20040
Lat: N 34° 10' 4.60" / Long: W -108° 59' 23.24"

Note: All cement volumes use 100% excess outside pipe and 50' excess inside. The stabilizing wellbore fluid will be 8.3 ppg, sufficient to balance all exposed formation pressures. All cement will be Class B, mixed at 15.6 ppg with a 1.18 cf/sx yield. This project will utilize a closed-loop system to handle waste fluids circulated from the well and cement wash up.

1. Install and test location rig anchors or set a base beam. Comply with all NMOCD, BLM, and Operator safety regulations. MOL and RU daylight pulling unit. Conduct safety meeting for all personnel on location. Record casing, tubing and bradenhead pressures.
2. RU Wireline lubricator; pump 50 bbl. fresh water down the 5.5" casing. RIH and set 5.5" cement retainer at 2905'. Load casing with water. Pressure test 5.5" casing to 1000 PSI. *If the casing does not test, then spot or tag subsequent plugs as appropriate.* NU relief line and blow down well. ND wellhead and NU BOP. Shell pressure test the BOP.
3. Prepare and tally a 2.375" tubing workstring. TIH and tag CR at 2905'. Circulate casing clean with water. Sting into the CR and establish an injection rate.
4. **Plug #1 (Open hole lateral, 5.5" Casing shoe and Abo and Amos Wash tops, 2905' to 2308'):** Mix 300 sxs Class B cement and squeeze below CR; adjust cement volume as appropriate depending on the injection pressure. Sting out and leave 74 sxs above to cover the formation tops. PUH.
5. **Plug #2 (7" Casing shoe and Yeso tops 1874 to 1540'):** Mix 44 sxs Class B cement and spot a balanced plug inside the 5.5" casing to cover the casing shoe and formation top. TOH.
6. **Plug #3 (Glorieta top and 9.625" Casing shoe, 1469' to 1270'):** Perforate 6 HSC holes at 1419' through both casing strings. Establish rate into the squeeze holes. Set a 5.5" CR at 1469'. Mix and pump 224 sxs Class B cement, squeeze 194 sxs outside the casing and leave 30 sxs inside to cover the formation top and casing shoe. TOH.
7. **Plug #4 (San Andres, 1140' to 1040'):** Perforate 6 HSC holes at 1140' through the three casing strings. Establish rate into the squeeze holes. Set a 5.5" CR at 1090'. Re-establish rate into squeeze holes. Mix and pump 92 sxs Class B cement, squeeze 75 sxs outside the casing and leave 17 sxs inside.
8. **Plug #5 (Ground water zone, 450' to 350'):** Perforate 6 HSC holes at 450' through the three casing strings. Establish rate into the squeeze holes. Set a 5.5" CR at 400'. Re-establish rate into squeeze holes. Mix and pump 92 sxs Class B cement, squeeze 75 sxs outside the casing and leave 17 sxs inside. TOH.

January 23, 2017

A-Plus Well Service, Inc.
PLUG AND ABANDONMENT PROCEDURE
Cottonwood Canyon Unit #12

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Procedure Continued:

9. **Plug #6 (13.375" Surface casing shoe, 150' to Surface):** Perforate 6 HSC holes at 150' through the three casing strings. Establish rate into the squeeze holes. Establish circulation out each casing valve with water and circulate the annuli clean. Mix and pump approximately 100 sxs Class B cement to circulate good cement to surface out each annulus. Shut well in and WOC.
10. **ND the BOP and dig out the wellhead:** Complete a hot work permit and cut off the wellhead. Fill annuli with cement as necessary. Install P&A marker to comply with regulations. Record GPS coordinate for P&A marker on tower report. Photograph P&A marker in place. RD, MOL and cut off anchors.

Cottonwood Canyon #12

Current

Abo Reef Pool

Unit M, 660' FSL & 1980' FWL, Section 36 T-1-S, R-21-W

Catron County, NM / API #30-003-20040

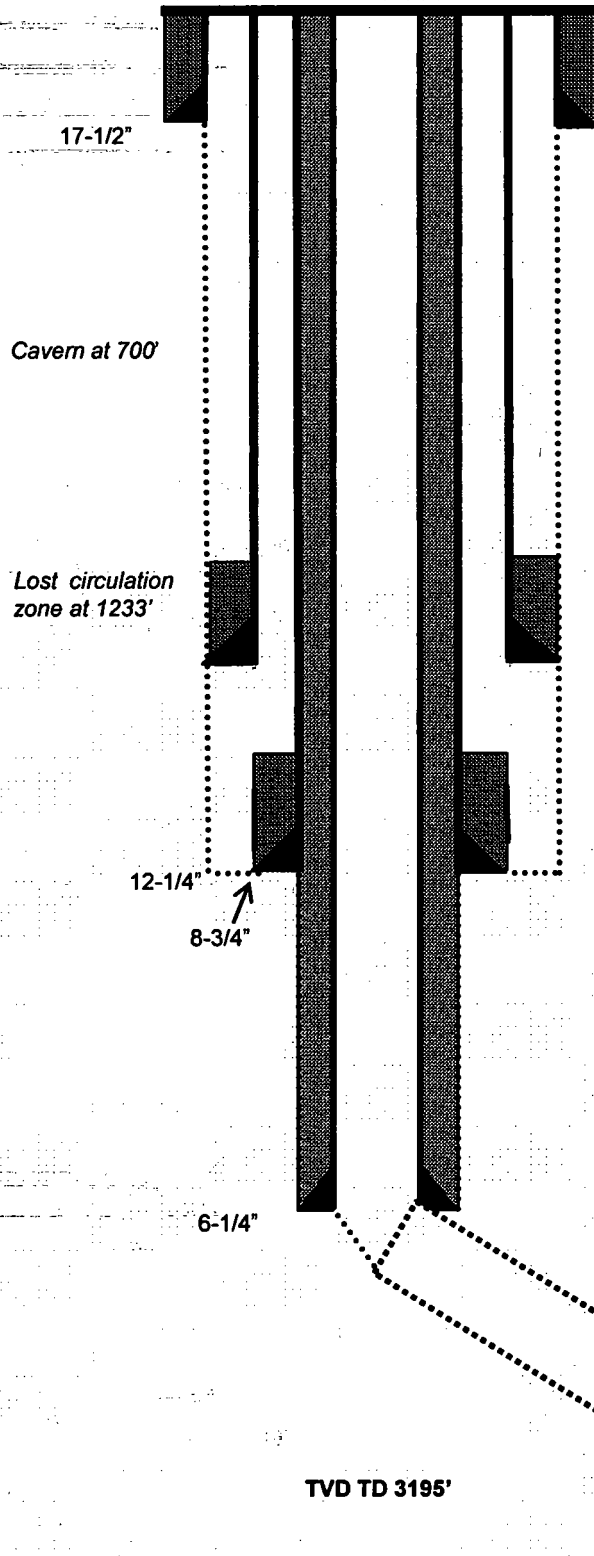
Today's Date: 1/23/17

LAT: 34° 10' 4.60" N LONG: 108° 59' 23.24" W

Spud: 7/10/08

Completion: 7/29/08

Elevation: 7639' GL
7653' KB



5-1/2" Annulus TOC at Surface (Circulated)

9-5/8" Annulus TOC - Unknown

13-3/8" 48# Casing set at 80'
No cementing records

9-5/8" Annulus TOC - Unknown

9-5/8" 36# Casing cemented at 1320'
Had drilled to 1821'; ran casing to 1350'; hole
tight, stuck, crowned out; later determined
parted casing; Cement with 1200 cf;
no circulation; TOC unknown.

7" Annulus TOC at 1500' (Calculated)
Cement 12.3 ppg, Mud 8.4 ppg; 64 PSI.

7" 23# Casing set at 1824'
Cement with 811 cf;
Sundry: "cement to surface";
Drig Rpt: "we have cement around
the shoe"; final pressure 64 PSI.

5-1/2" 15.5# Casing set at 2955'
Cement with 533 cf
Circulate 40 bbl. to surface.
Kick-off point at 3030'

4-3/4"

MDTD 5110'

TVD TD 3195'

Cottonwood Canyon #12

Proposed Plugged Well

Abo Reef Pool

Unit M, 660' FSL & 1980' FWL, Section 36 T-1-S, R-21-W

Catron County, NM / API #30-003-20040

LAT: 34° 10' 4.60" N LONG: 108° 59' 23.24" W

Plug 6: 150' to 0'
Class B cement, 100 sxs

Today's Date: 1/23/17

Spud: 7/10/08

Completion: 7/29/08

Elevation: 7639' GL
7653' KB

5-1/2" Annulus TOC at Surface (Circulated)
9-5/8" Annulus TOC - Unknown

13-3/8" 48# Casing set at 80'
No cementing records

Perforate at 150'

CR at 400'
Perf at 450'

Plug 5: 450' to 350'
Class B cement, 92 sxs
17 inside, 75 outside.

CR at 1090'
Perf at 1140'

Plug 4: 1140' to 1040'
Class B cement, 92 sxs
17 inside, 75 outside.

9-5/8" 36# Casing cemented at 1320'
Cement with 1200 cf;
No circulation; TOC unknown.

CR at 1419'
Perf at 1469'

Plug 3: 1469' to 1270'
Class B cement 223 sxs,
29 inside and 194 outside.

7" Annulus TOC at 1500' (Calculated)

7" 23# Casing set at 1824'
Cement with 811 cf;

Plug 2: 1874' to 1540'
Class B cement, 44 sxs

Plug 1: 5110' to 2308'
Class B cement, 300 sxs
under CR and then
74 sxs above.

CR at 2905'

5-1/2" 15.5# Casing set at 2955'
Cement with 533 cf
Circulate 40 bbl. to surface.

Kick-off point at 3030'

4-3/4"

MDTD 5110'

TVD TD 3195'

17-1/2"

Ground Water at 400'

Cavern at 700'

San Andres at 1090'

Lost circulation
zone at 1233'

Glorieta at 1419'

Yeso at 1590'

12-1/4"

8-3/4"

Amos Wash at 2358'

Abo at 2631'

6-1/4"

PROPOSED RECLAMATION PLAN
Cottonwood Canyon Unit #12
API 30-003-20040

Final site reclamation and revegetation of the CC-12 location will consist of re-grading the location to match, as closely as possible, the surrounding contours followed by scarification of previously disturbed areas and the broadcast application of an appropriate seed mix. Any compacted portions of the location will be scarified to a minimum depth of 12 inches while all other areas of disturbance will be scarified to a minimum depth of 6 inches. Following scarification all disturbed areas of the location, including access roads, will be seeded with a mix of plant species appropriate for an arid sandy environment.