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District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
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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. 30-003-20026
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. LH-4758
7. Lease Name or Unit Agreement Name Cottonwood Canyon
8. Well Number CC-3
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 P : 660 feet from the South line and 660 feet from the East line
Section 36 Township 01N Range 21W NMPM Catron County

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
6802 GR

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input checked="" type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
CLOSED-LOOP SYSTEM <input type="checkbox"/>			
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

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: 4/16/1998

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 Engineer / DIST IV DATE 3/6/17
Conditions of Approval (if any): _____

January 24, 2017

A-Plus Well Service, Inc.
PLUG AND ABANDONMENT PROCEDURE
Cottonwood Canyon Unit #3

Page 1 of 2

Unit P, 660' FSL and 660' FEL, Section 36, T-01-N, R-21-W
Catron County, New Mexico / API 30-003-20026
Lat: N 34.26133 / Long: W -108.98501

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 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. NU relief line and blow down well.
2. **Note: Existing CIBP at 2050'.** Load casing with water. Pressure test 5.5" casing to 800 PSI. ND wellhead and NU BOP. Shell pressure test BOP.
3. Prepare and tally a 2.375" tubing workstring. Make up a 4.75" bit and bit sub; TIH with workstring to tag existing CIBP at 2050'. Rig up drilling equipment and establish circulation with fresh water. Drill out CIBP and push to 2.875" liner top at 2794' or as deep as possible. TOH and LD bit.
4. RU wireline unit and set 5.5" CR at 2700' (note: deviations starts at 2238'). TIH with and tag CR. Load casing with water and circulate well clean. Pressure test 5.5" casing to 800 PSI. *If the casing does not test, then spot or tag subsequent plugs as appropriate.*
5. TOH with tubing. Run a CBL from the new PBSD to surface. **Send this log to the NMOCD for possible modifications to the following plugging plan.**
6. **Plug #1 (Isolate 2.875" Liner, Precambrian zones and Abo top, 3968' to 2548')**: TIH with tubing and sting into CR at 2700'. Establish rate under CR. Mix and pump 223 sxs Class B cement, squeeze 200sxs under the CR and leave 30 sxs above inside the 5.5" casing to isolate CO₂ zone with the liner and cover the Abo top. TOH with tubing.
7. **Plug #2 (8.625" Casing shoe and Amos Wash top, 2338' to 2172')**: If the casing will be cut below this depth, then modify this plug as appropriate. If the casing will be cut above this depth, mix 25 sxs Class B cement and spot a balanced plug **inside the 5.5" casing** to cover the Amos Wash top and 8.625" casing shoe. TOH with tubing.
8. ND the BOP and wellhead; weld a slip on collar onto the 5.5" casing. Pull up to 120,000# to unseat the casing slips. Once the casing slips are removed, then stretch the casing to determine the free point (compare to the CBL annulus TOC). Jet cut the casing at the appropriate depth. NU the tubing head and the 7-1/16" BOP and install 5.5" pipe rams. Pull and lay down the 5.5" casing.

January 24, 2017

A-Plus Well Service, Inc.
PLUG AND ABANDONMENT PROCEDURE
Cottonwood Canyon Unit #3

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9. **Plug #3 (5.5" Casing stub, _____' to _____')**: Mix 43 sxs Class B cement and spot a balanced plug inside the 5.5" and the 8.625" casing to cover the stub (50' below cut). TOH and WOC. TIH and tag cement. Load the 8.625" casing with water and circulate well clean. Pressure test this casing to 1000 PSI. TOH with tubing.
10. ND the 7-1/16" BOP and the tubing head. NU a 10" or 11" 3M double BOP on the casing head. Install 2-3/8" rams. RU wireline unit. Run a CBL to determine bottom of cement on 1998 bradenhead pump down job.
11. **Plug #4 (Yeso top, 1582' to 1482')**: Perforate the 8.625" casing with 6 HSC holes at 1582'. Attempt to establish rate into the squeeze holes if the casing tested. Set an 8.625" wireline CR at 1532'. TIH and sting into the CR; re-establish rate into squeeze holes. Mix 114 sxs Class B cement, squeeze 71 sxs outside the casing and leave 43 sxs inside to cover the Yeso top. PUH to 1410' and reverse circulate the casing clean. TOH with tubing.
12. **Plug #5 (Glorieta top, 1373' to 1273')**: Perforate the 8.625" casing with 6 HSC holes at 1373'. Attempt to establish rate into the squeeze holes if the casing tested. Set an 8.625" wireline CR at 1323'. TIH and sting into the CR; re-establish rate into squeeze holes. Mix 114 sxs Class B cement, squeeze 71 sxs outside the casing and leave 43 sxs inside to cover the Glorieta top. TOH with tubing.
13. **Plug #6 (San Andres tops, 1028' to 928')**: Perforate the 8.625" casing with 6 HSC holes at 1028'. Attempt to establish rate into the squeeze holes if the casing tested. Set an 8.625" wireline CR at 978'. TIH and sting into the CR; re-establish rate into squeeze holes. Mix 114 sxs Class B cement, squeeze 71 sxs outside the casing and leave 43 sxs inside to cover the Glorieta top. TOH with tubing.
14. **Plug #7 (13,375" Surface casing shoe, 162' to Surface)**: Perforate 6 HSC squeeze holes at 162' (depending on the CBL results). Establish circulation out bradenhead with water and circulate the BH annulus clean. Mix and pump approximately 130 sxs Class B cement down the 8.625" casing to circulate good cement to surface. Shut in well and WOC.
15. ND the 11" 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 #3

Current

Abo Reef Pool

Unit P, 660' FSL & 660' FEL, Section 36, T-1-N, R-21-W

Catron County, NM / API #30-003-20026

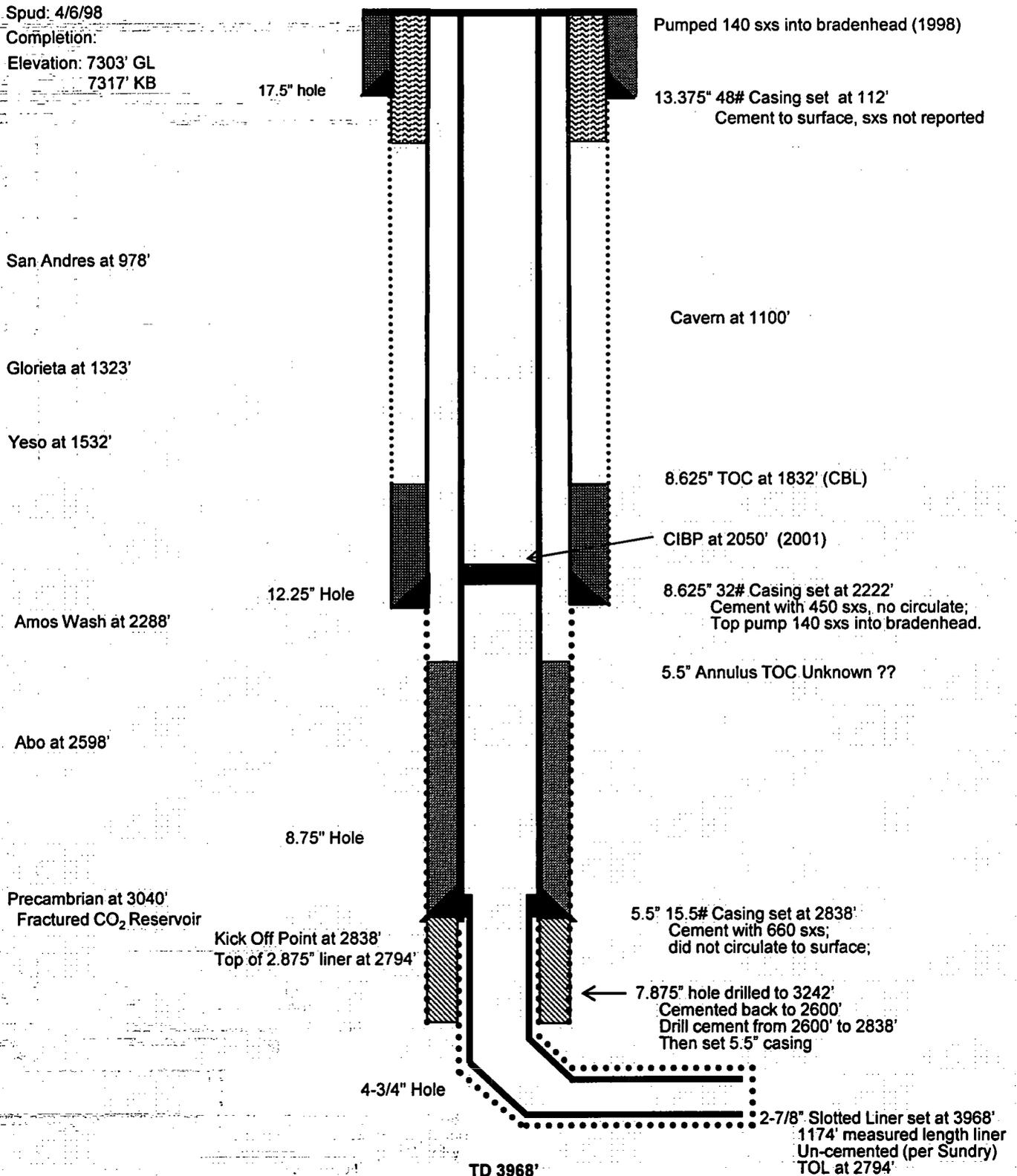
Lat: N 34.26133 / Long: W -108.98501

Today's Date: 1/24/17

Spud: 4/6/98

Completion:

Elevation: 7303' GL
7317' KB



Cottonwood Canyon #3 Proposed Plugged Well

Abo Reef Pool

Unit P, 660' FSL & 660' FEL, Section 36, T-1-N, R-21-W

Catron County, NM / API #30-003-20026

Lat: N 34.26133 / Long: W -108.98501

Today's Date: 1/24/17

Spud: 4/6/98

Completion:

Elevation: 7303' GL

7317' KB

17.5" hole

Maybe Perforate
at 172' after CBL.

San Andres at 978'

Cavern at 1100'

Glorieta at 1323'

Yeso at 1532'

Cut 5-1/2" casing at ~1800'

8.625" TOC at 1832' (CBL)

Amos Wash at 2288'

12.25" Hole

Abo at 2598'

8.75" Hole

Precambrian at 3040'

Fractured CO₂ Reservoir

Kick Off Point at 2838'

Top of 2.875" liner at 2794'

4.75" Hole

TD 3968'

Pumped 140 sxs into bradenhead (1998)

13.375" 48# Casing set at 112'
Cement to surface, sxs not reported

Plug #7 172' to Surface
Cement with 50 sxs (no perforation);
or 130 sxs with perf. and circulate.

Plug #6 1028' to 928'
Cmt w/ 114 sxs.
Perf at 1028' and CR at 978'

Plug #5 1373' to 1273'
Cmt w/ 114 sxs.
Perf at 1373' and CR at 1323'

Plug #4 1582' to 1482'
Cmt w/ 114 sxs.
Perf at 1582' and CR at 1532'

Plug #3 100' over casing stub
Cement with 43 sxs.

Plug #2 2338' to 2172'
Cement with 25 sxs.

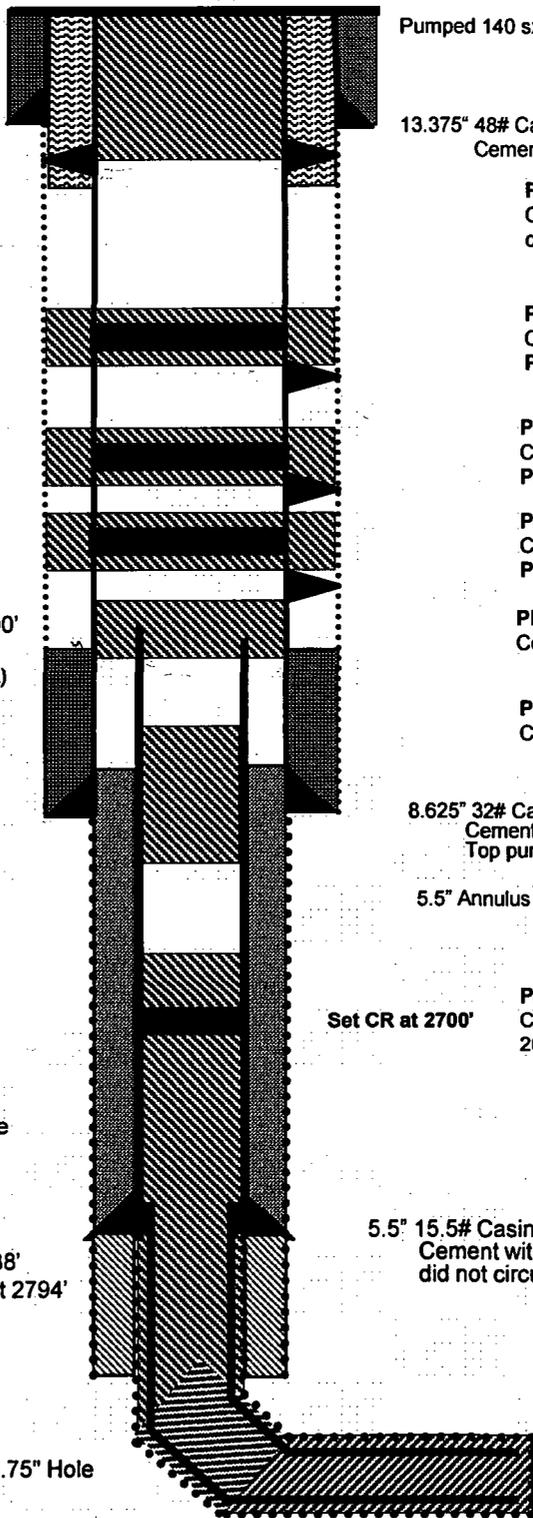
8.625" 32# Casing set at 2222'
Cement with 450 sxs, no circulate;
Top pump 140 sxs into bradenhead.

5.5" Annulus TOC Unknown ??

Plug #1 3968' to 2548'
Cement with 223 sxs;
200 sxs below CR and 23 above.
Set CR at 2700'

5.5" 15.5# Casing set at 2838'
Cement with 660 sxs;
did not circulate to surface;

2-7/8" Slotted Liner set at 3968'
1174' measured length liner
Un-cemented (per Sundry)
TOL at 2794'



PROPOSED RECLAMATION PLAN
Cottonwood Canyon Unit #3
API 30-003-20026

Final site reclamation and revegetation of the CC-3 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.