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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

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

Form C-103
Revised July 18, 2013

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.)		WELL API NO. 30-003-20033
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other CO2		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator Kinder Morgan CO2 Company, L.P.		6. State Oil & Gas Lease No. LH4742
3. Address of Operator 830 East Main, Suite 220, Springerville, AZ 85938		7. Lease Name or Unit Agreement Name Cottonwood Canyon
4. Well Location Unit Letter <u>D</u> : <u>381</u> feet from the <u>North</u> line and <u>229</u> feet from the <u>West</u> line Section <u>10</u> Township <u>01N</u> Range <u>21W</u> NMPM Catron County		8. Well Number <u>CC-6X</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6802 GR		9. OGRID Number 34945
		10. Pool name or Wildcat Abo Reef

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: 9/15/2007

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 TITLE DISTRICT ENGR. DATE 3-6-17
Conditions of Approval (if any):

PLUG AND ABANDONMENT PROCEDURE Cottonwood Canyon Unit #6x

January 16, 2017

Unit D, 381' FNL and 229' FWL, Section 10, T-01-N, R-21-W
Catron County, New Mexico / API 30-003-20033
Lat: N 34° 18' 36.3594" / Lat: W -109° 2' 4.1994"

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. **NOTE:** The NMOCD requires a CBL log to be run on all wells where the cement did not circulate to surface or where a CBL log was not previously run. This procedure is prepared with the understanding that it may be modified based on the TOC from CBL(s).
2. 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.
3. RU wireline lubricator and run a gauge ring down the 2-7/8" casing to 2450' or as deep as possible. RIH and set 2-7/8" wireline cement retainer at 2400'. Load casing with water and pressure test to 1500 PSI. Rig down wireline lubricator.
4. NU relief line and blow down well. ND wellhead and NU 7-1/16" 3M BOP with 1.660" rams onto the master valve. Function test BOP. Tally and prepare a 1.660" OD (1-1/4") workstring.
5. **Plug #1 (Precambrian CO2 perforations):** TIH with 1-1/4" workstring and sting into the CR at 2400'. Establish a rate under the CR into the perforations (2470' to 2566'). Determine the size of this plug from the injection rate and pressure. Mix and pump from 50 to 100 sxs Class B cement, squeeze cement under the CR into the perforation, as much as possible, and then sting out of the CR and leave the 5 sxs on top. PUH to 2200' and reverse circulate the 2-7/8" casing clean. TOH. If the 2-7/8" casing did not pressure test, then tag this plug.
6. RU wireline unit and run CBL in the 2-7/8" casing from 2200' to surface. Send this log to the NMOCD for possible modifications to this plugging procedure.
7. If the 2-7/8" x 5-1/2" annulus TOC is determined by the CBL, then ND the BOP from the 2-7/8" master valve and remove this valve. NU the BOP on the 5-1/2" casing's tubing head; install 2-7/8" rams. Pick up on the 2-7/8" and attempt to confirm the free point by stretch. Jet cut the 2-7/8" casing at 2160' (50' below Abo top) or *at the appropriate depth*. Pull and LD the 2-7/8" casing. Install 2-3/8" BOP rams.
8. Prepare and tally 2-3/8" tubing workstring. TIH and tag the 2-7/8" casing stub. If the casing was cut above the 5-1/2" shoe, then first set a 5-1/2" CR approximately 50' above the 2-7/8" casing stub. Load 5-1/2" casing and pressure test above the CR. *If the 5-1/2' casing does not pressure test, then tag or spot cement plugs as appropriate.*

9. TOH and run a CBL to determine the 5-1/2" annulus TOC. If this annulus is not cemented to surface as the Sundry reported, then cut and pull the 5-1/2" casing *at the appropriate depth*. Set plug #2 before cutting the 5-1/2" casing.
10. If the 2-7/8" was cut below the shoe, then TIH to 50' below the 2-7/8" casing stub.
11. **Plug # 2 (5-1/2" Casing shoe, 2-7/8" tubing stub, Abo and Amos Wash formation tops, 2160' to 1674')**: Mix 87 sxs Class B cement (50% excess in the openhole interval) and set a balanced plug covering the casing stub and shoe; if using a 5-1/2" CR, *then adjust the volumes as appropriate*.
12. **Plug #3 (Yeso top, 8-5/8" casing shoe and Glorieta top, 1068' to 736')**: Mix 45 sxs Class B cement and spot a balanced plug inside the 5-1/2" casing to isolate the formation tops. If the 5-1/2' casing was removed, *then adjust this plug as appropriate*. TOH.
13. **Plug #4 (San Andres top, 460' to 360')**: Perforate 6 HSC holes through the 5-1/2" and 8-5/8" casings. Establish an injection rate outside the 8-5/8" casing. If appropriate, set a 5-1/2" CR at 410'. Mix and pump 87 sxs Class B cement, squeeze 70 sxs outside the 8-5/8" casing and leave 17 sxs inside to cover the formation top. If the 5-1/2' casing was removed, *then adjust this plug as appropriate*. TOH.
14. **Plug #5 (13-3/8" Casing shoe, 160' to Surface)**: Perforate with 6 HSC holes at 160'. Establish circulation out then bradenhead valve with water; also attempt to circulate out the 5-1/2" x 8-5/8" intermediate casing valve. Circulate the BH annulus or both annuli clean. Mix and pump approximately 120 sxs Class B cement down the 5-1/2' casing to circulate good cement to surface out the bradenhead valve; and intermediate valve if possible. Shut in and WOC.
15. 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 #6x

Current Wellbore

Unit D, 381' FNL & 229' FWL, Section 10, T-1-N, R-21-W

Catron County, NM / API #30-003-20033

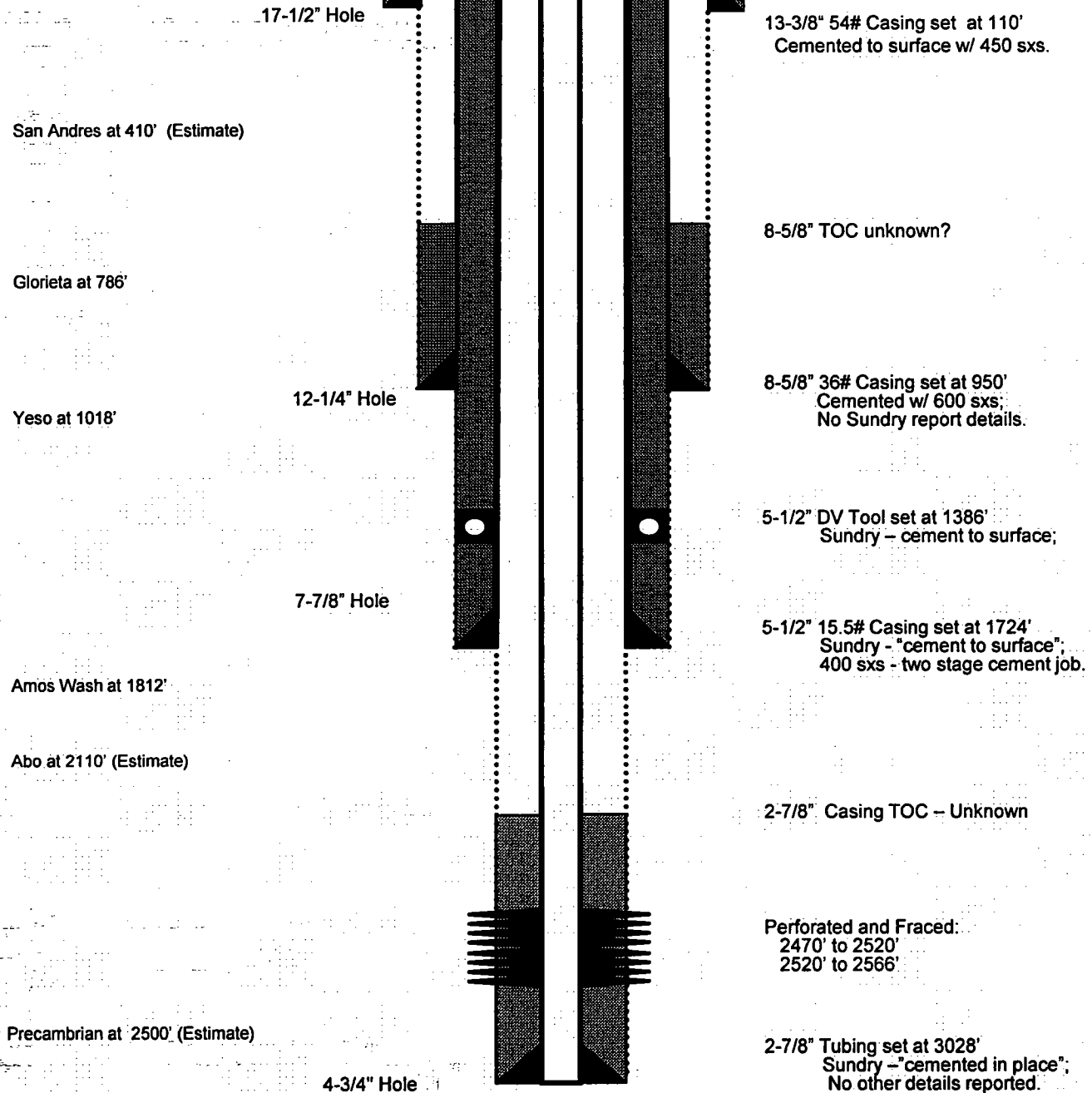
LAT: 34° 18' 36.3594" LONG: -109° 2' 4.1994"

Today's Date: 1/16/17

Spud: 3/10/07

Completion: 10/12/07

Elevation: 6802' GL
6814' KB



TD 3033'
PBD 3028'

Cottonwood Canyon #6x

Proposed Plugged Well

Unit D, 381' FNL & 229' FWL, Section 10, T-1-N, R-21-W

Catron County, NM / API #30-003-20033

LAT: 34° 18' 36.3594" LONG: -109° 2' 4.1994"

Today's Date: 1/16/17

Spud: 3/10/07

Completion: 10/12/07

Elevation: 6802' GL
6814' KB

17-1/2" Hole

San Andres at 410' (Estimate)

Glorieta at 786'

Yeso at 1018'

12-1/4" Hole

Amos Wash at 1812'

Abo at 2110' (Estimate)

7-7/8" Hole

Precambrian at 2500' (Estimate)

4-3/4" Hole

TD 3033'
PBD 3028'

Plug #5: 160' to Surface
Class B cement, 120 sxs

Perforate 6 holes at 160'

13-3/8" 54# Casing set at 110'
Cemented to surface w/ 450 sxs.

Plug #4: 460' - 360'
Class B cement, 87 sxs
17 inside, 70 outside 8-5/8"

Set CR at 410'
Perforate 6 holes at 460'

8-5/8" TOC unknown?

Plug #3: 1068' - 736'
Class B cement, 45 sxs

8-5/8" 36# Casing set at 950'
Cemented w/ 600 sxs;
No Sundry report details.

5-1/2" DV Tool set at 1386'
Sundry - cement to surface;

5-1/2" 15.5# Casing set at 1724'
Sundry - "cement to surface";
400 sxs - two stage cement job.

Cut 2-7/8" at 2160' Plug #2: 2160' - 1674'
Class B cement, 87 sxs
(50% excess, long plug)

2-7/8" Casing TOC - Unknown

CR at 2400' Plug #1: 2566' - 2300'
Class B cement, 50 - 100 sxs
Under and 5 sxs above CR

Perforated and Fraced:
2470' to 2520'
2520' to 2566'

2-7/8" Tubing set at 3028'
Sundry - "cemented in place";
No other details reported.

PROPOSED RECLAMATION PLAN
Cottonwood Canyon Unit #6X
API 30-003-20033

Final site reclamation and revegetation of the CC-6X 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.