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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

WELL API NO. 30-003-20025	
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>	
6. State Oil & Gas Lease No. LH4728	
7. Lease Name or Unit Agreement Name Cottonwood Canyon	
8. Well Number CC-4	
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 <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> 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 : 1,043 feet from the South line and 660 feet from the East line Section 16 Township 01N Range 20W NMPM Catron County	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6845 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.

See A-PLUS well plugging report (attached).

Spud Date:

3/15/1998

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 6/23/2017

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:

*[Signature]*

TITLE

*Engineer*

DATE

*6/23/17*

Conditions of Approval (if any):



Kinder Morgan  
17801 Hwy 491  
Cortez, CO 81321

P.O. Box 1979, Farmington, NM 87499  
(505) 325-2627

Cottonwood Canyon # 4  
API: 30-003-20025

## Well Plugging Report

### Cement Summary

**Plug #1,** Precambrian and Abo top; cover existing perfs, with CR at 2318 ft.; 114 sxs of Class B (15.6 ppg, 134.5 cf.) from 2293 ft. to 2811 ft.; 56 sxs in annulus, 56 below CR and 2 above; WOC over night; tagged with wireline at 2265 ft. Will Jones with NMOCD gave Pete McNeil approval to change plug on 6-5-17, because we couldn't get any deeper with the CR due to polybore trash in well.

**Plug #2,** Amos Wash top and 8.625" Intermediate casing shoe; shoot 4 SQZ holes at 2245ft.; inside / outside plug with CR at 2200 ft.; 77 sxs of Class B (15.6 ppg, 90.9 cf.) from 2024 ft. to 2245 ft.; 51 in annulus, 6 below CR and 20 above; no WOC and tag, casing PT to 700 PSI before perforating.

**Plug #3,** Yeso and Glorieta top; shoot 6 deep perforations at 1360'; inside / outside, with CR at 1315 ft.; 46 sxs of Class B (15.6 ppg, 54.3 cf.) from 1050 ft. to 1360 ft.; 10 in annulus, 6 below CR and 30 above; tagged with tubing at 960 ft. While pumping PSI spiked to 1500 PSI and forced the stinger out of the CR, TBG was chained down. Attempted to sting back into the CR and were unable to continue injecting below CR.

**Plug #4,** San Andres top, shoot 6 deep perforations at 920'; only inside 5-1/2" casing, with 41 sxs of Class B (15.6 ppg, 48.4 cf.) from 598 ft. to 960 ft.; unable to establish injection rate into squeeze holes, pressured up to 1500 PSI; set plug then WOC for 4 hrs.; tag TOC at 586'.

**Plug #5,** Surface conductor shoe; shoot 6 deep perforations at 170; fill casing and annulus, 77 sxs of Class B (15.6 ppg, 90.9 cf.) from 0 ft. to 170 ft.; squeeze 20 sxs outside 5-1/2" casing with limited returns to surface and leave 57 sxs inside; WOC overnight.

**Set Marker,** saw off well head and found cement down 100' in 5-1/2" x 8-5/8" annulus and down 10' in 5-1/2" casing; fill annulus and casing and set p&a marker with 37 sxs cement. Job Complete.

### Work Detail

05/26/2017

P Travel to equipment.  
P Held safety meeting on the JSA. Service and start equipment.  
P Road rig and equipment to CC #4 and unload. Return to CC-3.  
P Load and secure frac tank and workstring on trailers.  
P Travel to CC-4, unload and spot.  
P Spot and rig up wire-line. RIH with 3.896" gage ring and tag up at 2500', POOH.  
Return to Farmington.

05/30/2017

P Travel to location. Held SFTY on the JSA, service and start equipment.  
P Well records show CIBP at 2700' in CC #4 well and at 2500' in CC #5 well.  
Confusion about which well working on. Orders to rig down pulling unit and move to the CC #5 to do wireline work to determine its PBTD.  
U Road rig and base beam to CC-5. Spot base beam and rig.  
U Rig up Daylight pulling unit. Take wire line unit to CC-5 and RIH and tag up at 1742'. Return to CC-4 with rig and equipment.  
P PU 4.5" string mill, PU TBG and TIH to 1990'.  
P Clean and secure location SDFD.  
P Return to Springerville.

05/31/2017

P Travel to location. Held SFTY meeting on the JSA, service and start equipment.  
P Continue to TIH PU TBG, tag up at 2500'. Pump 7 bbl. and establish circulation, at 17 bbl. lost circulation. Pump 63 more bbl. and never circulated again, when the pumped was kicked out the well was on a vacuum.  
P TOOH and LD the string mill.  
P RIH with A Plus CBL logging tool to 2492' and log to fluid top at 650'. Found cement outside the 5.5" casing from 2492' to 2440' and from 1910' to 1010' with intermittent bond at other depths.  
P PU Select 4 1/8" junk mill and bit sub. TIH and tag up at 2500', LD 1 JT.  
P PU the power swivel and 1 JT. Begin to drill out the plug. Ran out of water after pumping 310 bbl. while drilling, the well never circulated.  
P Wait on water.  
P Begin to drill out the plug. The plug dropped the plug and chased it to 2559'. PUH to 2521'.  
P Clean and secure location, SDFD.  
P Return to Springerville.

06/01/2017

P Travel to location.  
P Held SFTY meeting on the JSA, service and start equipment.  
P Check PSI, TBG 0, CSG 0, BH 0, open the well. Start pumping at 2 BPM 0 PSI, tag the plug at 2559'. Begin to drilling out, made 5' and the mill plugged up.  
P TOOH and LD the mill. Unplug the mill.  
P PU the mill and TIH, tag the plug at 2328'. Drill down to 2338', drop to 2500' and drill to 2510' dropped to 2519', drill to 2559', dropped to 2777'. Drilled out to 2787' and dropped to 2910'.  
P TOOH to 2148' EOT.  
P Clean and secure location, SDFD.  
P Return to Springerville.

06/02/2017

P Travel to location.  
P Held SFTY meeting on the JSA, service and start equipment.  
P Check PSI, TBG 0, CSG 0, BH 0. Open the well, TOOH and LD the 4-1/8" junk mill.  
P PU Weatherford 5.5" 20#-23# PKR. Attempt to RIH and stack out at surface, LD the PKR.  
P WOO. Clean and secure location SDFD.  
P Return to Farmington.

KinderMorgan  
06/05/2017

Cottonwood Canyon #4

P&A Report

- P Travel to location.
- P Held SFTY meeting on the JSA, service and start equipment.
- P Check PSI on the well, no TBG, CSG 0, and BH 0, rig up relief lines and open the well.
- P PU Weatherford 5" PKR, TIH to 2495'. Unable to pass 2495', set the PKR and establish an injection rate of 2 BPM at 1000 PSI.
- P TOOH and LD the PKR. The PKR was packed with pieces of the polly liner.
- P RIH with a 3.9" gage ring to 2310', POOH. The junk basket was full of pieces of the polly liner.
- P TIH open-ended to 2495'. Pump 60 bbl. to establish partial circulation. Pumped 160 bbl. total and lost and lost all fluid after 2.5 hours circulating. When stopped circulating there was still small pieces of polly liner coming to surface.
- P RIH with 5" wire line CR to 2318'. Attempt to work past 2318', unable to get any deeper. Set the CR at 2318', POOH.
- P PU the stinger and TIH to 2310', begin to pump to wash off the CR. Sting into the CR and establish rate of 2 BPM at 1000 PSI.
- P **Plug #1** mix and pump 114 sxs 134.52 CUFT 15.6# class B CMT from 2811' to 2293' inside above and below. Leaving 112 sxs below the CR and 2 sxs above the CR. (On 6-5-17 Pete McNeil received approval from Will Jones with the NMOCD to modify the plug based on well.)
- P TOOH to 1648', clean and secure location.
- P Return to Springerville.

06/06/2017

- P Travel to location.
- P Held SFTY meeting on the JSA, service and start equipment.
- P Check PSI on the well, TBG 0, CSG 0, BH 0, open the well to the pit. TOOH, LD the stinger. RIH and tag TOC at 2265', POOH. Load the well with 4 bbl. and PSI test to 700 PSI, good test.
- P Dig out the well head and expose the 5-1/2" X 13-3/8" intermediate CSG, no 13-3/8" casing head; observed cement in this casing at surface.
- P RIH with 3-1/8" HSC to 2245', attempt to perf. Gun did not fire POOH and dropped gun.
- U Wait for tools to come from Farmington to fish the dropped gun.
- U PU and TIH with overshot, tag the gun at 2265'. Attempt to catch fish. TOOH and no fish. Order different overshot. Clean and secure location, SDFD.
- U Return to Springerville.

06/07/2017

- P Travel to location. Held SFTY meeting on the JSA, service and start equipment.
- P Check PSI on the well, no TBG, CSG 0, BH 0, and Inter 0, open the well to the pit.
- U PU new overshot and TIH. Tag the fish at 2307', latch on to the fish. TOOH and LD the all the fish and over shot.
- P RIH with 3-1/8" HSC and perforate 4 holes at 2245'. Establish rate of 2 BPM at 0 PSI, pumped 15 bbl. total into holes. RIH with 5" WL CR and set it at 2200'.
- P TIH with stinger and tag the CR at 2200'. Load the hole with 2 bbl., sting into the CR and re-establish a rate of 2 BPM at 200 PSI.
- P **Plug #2** mix and pump 77sxs 15.6# 90.86 CUFT Class B CMT from 2200' to 2024'. Leaving 6sxs below, 51sxs out and 20 above the CR with a sting out PSI of 700 PSI.



6/07/2017

Continued

- TOOH LD to 1321' and continue TOOH, LD the stinger.
- P RIH to 1360' and perf 6 deep holes. Load the well with 2.5 bbl. and establish a rate of 2 BPM at 600 PSI; pumping 6 bbl. total. RIH with 5" WL CR to 1315' and set the CR.
- P PU the stinger and TIH to 1315', load the hole with 3 bbl., sting into the CR and reestablish rate of 2 BPM at 600 PSI.
- P **Plug #3** mix and pump 46sxs 15.6# 54.28 CUFT Class B CMT from 1360' to 1050'. Leaving 6 sxs below the CR, 10 sxs out and 30 sxs above the CR. (The pipe was chained down and at 1500 PSI the stinger popped out of the CR, attempted to sting back in but couldn't. Well locked up at 1500 PSI.)
- P TOOH LD to 878' and continue TOH with tubing.
- P RIH to 920' and perf 6 deep holes. Load the well with 3 bbl., attempt to establish rate of 2 BPM pump 5 bbl. at 600 PSI and the PSI climbed to 1500 PSI. Bleeds down to 1000 PSI in 2 min. and takes 5 min. to drop to 400 PSI and holds. Attempt 2 more times with same result. On the third attempt bleed off times were double. Clean and secure location.
- P Return to Springerville.

06/08/2017

- P Travel to loc.
- P Held safety meeting on the JSA, service and start equipment.
- P Check PSI on well, 0 TBG, 0 CSG, 0 BH, 0 Inter, open the well to pit.
- P RU the pump and attempt to establish rate into perf at 920'. Load the hoe with 1.5 bbl. Use a 1/4 bbl. and PSI up to 1500 PSI, bleeds to 1200 PSI in 5 min. WOO.
- P PU plugging sub, TIH and tag CR at 960'.
- P **Plug #4** mix and pump 41sxs 15.6# 48.38 CUFT class B CMT from 960' to 598' inside the 5-1/2" casing. TOOH LD all TBG.
- P WOC
- P RIH and tag TOC at 586', PUH to 170' and perf 6 - 3-1/8" HSC holes. Establish light circulation out BH with 16 bbl. with a rate of 3 BPM at 1000 PSI.
- P **Plug #5** mix and pump 77sxs 15.6# 90.86 CUFT Class B CMT from 170' to surface. Leaving 20sxs inside the 5-1/2" and 57sxs in the 5-1/2" X 8-5/8" annulus.
- P RD pump and lines, load scrap metal and wellheads.
- P RD daylight pulling unit.
- P Load mud pit, waste pit and secure all equipment.
- P Return to Springerville.

06/09/2017

- P Travel to location. Held SFTY meeting JSA, service and start equipment.
- P Check PSI on the well, CSG 20 PSI, BH light vacuum, open the well. Chip out CMT from the blind rams and the spools. Tag CMT in the 5-1/2" down 10'. Finish digging out the well head. ND the BOP and rack it back.
- P Cut off the well head, CMT in the 5-1/2" at surface and the 5-1/2" X 8-5/8" down 100'. RU the pump truck, cut and prepare the DHM.
- P DHM and top off mix and pump 37sxs 15.6# 43.66 CUFT Class B CMT to top off and set the DHM.
- P Wash up and RD the pump and equipment.
- P Finish moving equipment to next location and spot equipment.
- P Return to Farmington.

\* P = Procedure Planned; U = Unplanned A+ issue; X = COA, Well Conditions