

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103

Revised August 1, 2011

HOBBS OCD

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

DEC 14 2011

WELL API NO.
30-025-25719

5. Indicate Type of Lease

STATE ☒ FEE ☐

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name
CENTRAL VACUUM UNIT

8. Well Number 44

9. OGRID Number 4323

10. Pool name or Wildcat
VACUUM GRAYBURG SAN ANDRES

SUNDRY RECEIVED 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 INJECTOR

2. Name of Operator

CHEVRON U.S.A. INC.

3. Address of Operator

15 SMITH ROAD, MIDLAND, TEXAS 79705

4. Well Location

Unit Letter D: 134 feet from the NORTH line and 1219 feet from the WEST line

Section 31

Township 17-S

Range 35-E

NMPM

County LEA

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

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 ☐

SUBSEQUENT REPORT OF:

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

OTHER: CLEAN OUT & RUN LINER

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.

CHEVRON U.S.A. INC. INTENDS TO CLEAN OUT & RUN A LINER IN THE SUBJECT WELL.

PLEASE FIND ATTACHED, THE INTENDED PROCEDURE, WELLBORE DIAGRAMS, & C-144CLEZ INFO.

Spud Date:

Rig Release Date:

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

SIGNATURE

Denise Pinkerton

TITLE: REGULATORY SPECIALIST

DATE: 12-14-2011

Type or print name: DENISE PINKERTON

E-mail address: leakejd@chevron.com

PHONE: 432-687-7375

APPROVED BY:

Marey Brown

TITLE

Compliance Officer

DATE

12/20/2011

Condition of Approval: Notify OCD Hobbs
office 24 hours prior to running MIT Test & Chart.

Per Underground Injection Control Program Manual
11.6 C Packer shall be set within or less than 100
feet of the uppermost injection perfs or open hole.

CONTACT TERRY WARNELL S.F. OFFICE
505-476-3466 FOR APPROVAL OF
PACKER SETTING DEPTH > 100'.

CVU No. 44 (CO₂ INJECTOR)

API No. 30-025-25719

Vacuum (Grayburg-San Andres) Field

Lea County, NM

Workover Procedure

Rigless

1. Notify Field Specialist to shut-in well two weeks prior to beginning workover (ensure that production has LOTO @ header & that well has been injecting H₂O for at least 2 weeks). Monitor pressure. Rig up to back flow if pressure does not fall below 500 psi in the 1st week.
2. Notify OCD / BLM of intent to perform repair.
3. Record tubing and casing pressures for kill weight fluid calculations.
4. RU slickline truck with lubricator. RIH with profile nipple gauge ring & determine size/type of profile nipple @ 4325'. Set appropriate blanking plug in profile nipple (best field record from 2000 shows that an on/off tool was run but has no record of profile nipple size or type). Pressure up on tubing to 2000 psi to ensure that plug is holding. Monitor tubing x casing annulus while testing tubing/plug to ensure that high pressure is not applied to the casing if the tubing leaks. Bleed pressure and RD slickline unit.
5. RU pump truck & test casing against injection packer to 550' psi for 30 minutes while monitoring tubing pressure. Attempt to establish if there is a tubing, packer, or, casing leak. Notify remedial engineer if pressure losses are greater than or equal to 10% of applied pressure. Have an RBP and packer on hand when the rig arrives to isolate a potential casing leak.

With Rig (Set RBP's for WH Repair)

***Ensure that elevators are callipered and inspected prior to handling tubulars of differing sizes & before the start of operations each day.

6. Rig up pulling unit and hydra-walk.
7. Check tubing and casing pressure – both should be dead due to set packer & blanking plug. Bleed pressure from surface valves and monitor throughout well work.
8. ND WH.
9. NU 5000 psi hydraulic BOP with 2-3/8" pipe rams over blind rams & 3M hydraulic annular.
10. Caliper and inspect elevators & lifting equipment.
11. Test BOP: Unlatch f/ on/off tool & POOH and lay down 2 jts 2-3/8" 4.7# J55 duoline injection tbg. PU 4 1/2" packer & set @ +/-30'. Close pipe rams and chart test pipe rams to 250 psi for 10 minutes, then 500 psi for 10 minutes. Bleed off pressure, open pipe rams, shut annular preventer, chart test annular preventer to 250/500 psi for 10 minutes. Bleed off pressure and open annular preventer. LD test joint and packer.

Note: if casing tested against injection packer in step 5, test pipe rams against injection packer as well.

CVU No. 44 (CO₂ INJECTOR)

API No. 30-025-25719

Vacuum (Grayburg-San Andres) Field

Lea County, NM

Note: Casing was backed off and replaced @ 22' in 1998. This *could* be the source of a shallow casing leak.

12. Ensure that on/off tool is not engaged & pump kill weight mud cap down annulus.
13. RIH and latch back onto packer on/off tool.
14. RU Slickline unit. Retrieve blanking plug. Rig down slickline unit.
15. Bullhead kill weight mud to kill tubing.
16. Release packer and lay down all 2-3/8" duoline tubing. Send all duoline tubing in for inspection – it will not be rerun on this well. LD old injection packer.
17. RU Weatherford WL Unit & full lubricator. Run CIT log (Casing inspection log – NOTE THAT THIS IS A LONG LEAD ITEM). Send copy of processed log to Brummert (nbgn@chevron.com) & Paul Brown (PaulBrown@chevron.com). *Decision to run 3-1/2" liner will be based on these log results.*
18. PU 4-1/2" RBP & packer & TIH on 2-3/8" 4.7# L80 workstring. Set RBP @ +/-4300' (100' above perfs). Test RBP to 1500 psi.
19. Unset packer & circulate hole until clean FW is seen at surface – may require several circulations. Consider using Con-Det to help clean any hydrocarbons from the inside of casing. Ensure that bradenhead valve is open – watch for communication up the casing x casing annulus – if communication is seen, circulate clean FW up the casing x casing annulus to surface.
20. Reset packer directly above RBP & pressure test casing f/ 4300' to surface to 550 psi for 30 minutes (barrier #1 for WH repair). Monitor bradenhead for communication during this test. Notify remedial engineer if pressure loss is greater than or equal to 10% of applied pressure.
21. TOH LD all but 380' of 2-3/8" WS.
22. PU 2nd 4-1/2" RBP & packer. Set 2nd RBP @ +/- 380' (Note: shallowest known casing leak is at 447' & surface casing shoe is at 396'). Pressure test RBP to 1000 psi.
23. Release packer & circulate hole until clean FW is seen at surface. Consider using Con-Det to help clean any hydrocarbons from the inside of casing. Ensure that bradenhead valve is open – watch for communication up the casing x casing annulus – if communication is seen, circulate clean FW up the casing x casing annulus to surface.
24. TOH LD 2-3/8" workstring.
25. SI well in on blind rams & pressure test casing from RBP set @ 380' to surface to 550 psi for 10 minutes. Ensure good pressure test prior to RD pulling unit. Dump 15' sand (~150#) down casing.
26. ND BOP.
27. RDMO pulling unit.

CVU No. 44 (CO₂ INJECTOR)

API No. 30-025-25719

Vacuum (Grayburg-San Andres) Field

Lea County, NM

Rigless (WH Repair)

28. Unscrew tubing head from 4-1/2" casing.
29. Dig out casing head. Have a gang with air compressor on location to jackhammer cement & sandblast casing.
30. Inspect 8-5/8" casing. If good, cut windows in surface casing to relieve tension in the 4-1/2" production casing.
31. Once tension has been relieved in the production string, cut the 8-5/8" casing to desired height & remove by stripping over the 4-1/2" casing.
32. Inspect the 4-1/2" casing, repair if needed (same way as 8-5/8" casing). Stub up 4-1/2" casing to desired height first.
33. Weld 8-5/8" slip x slip collar & strip 8-5/8" casing joint over the 4-1/2" casing & weld.
34. Cut 8-5/8" casing joint to desired height & install 8-5/8" SOW x 11" 3M (slip on wellhead).
35. Install 4-1/2" casing slip type casing hanger (no weight to activate) to centralize casing. Measure and make final cut off to prep for next section of WH. Install primary packoff to seal annulus.
36. Nipple up next section of wellhead: 11" 3M x 11" 3M to packoff 4-1/2". (This will add a bowl to land the 3-1/2" liner). Test void per Vetco instructions. Ensure that this section of the WH has outlets with valves.
37. Install 11" 3M x 7-1/16" 3M tubing spool (This will serve as a XO spool for running a 7-1/16" BOP)
38. Install dry hole cap with 5M ball valve.

With Rig (Major Workover / Liner Run)

39. MIRU Pulling unit & 5000' of 2-3/8" 4.7# L80 workstring & 6 x 3-1/8" DC's.
40. Check pressure on production casing – should be dead due to RBP's. Bleed pressure off if necessary. Open bradenhead valves, bleed pressure if necessary, and monitor throughout well work.
41. PU 4-1/2" packer and test joint. Test BOP pipe rams to 250/750 psi for 5 minutes each. LD test joint and packer
42. TIH & wash sand off of RBP set @ 380'.
43. Retrieve RBP set @ 380' & 4300'.
44. PU 3-7/8" MT bit & 6 x 3-1/8" DC's. TIH on 2-3/8" workstring & make clean out run to PBTD @ 4770'. Circulate hole clean. Have cuttings analyzed by Baker Petrolite.
45. TOH, stand back 2-3/8" WS & LD C/O Assembly.

CVU No. 44 (CO₂ INJECTOR)

API No. 30-025-25719

Vacuum (Grayburg-San Andres) Field

Lea County, NM

46. RU WL & RIH with 4-1/2" CBP (composite bridge plug). Tie into Gray WL's "Injection Profile with Caliper" log dated 1/27/2010. Set CBP @ 4315' (+/- 5' above injection packer set depth).
47. Dump bail 10' class C neat cement on CBP. RDMO WL unit.
48. TIH w/ 4-1/2" packer & set @ 4295'. Test CBP/cement to 1500 psi.
49. TOH LD packer & lay down 2-3/8" workstring.
50. Order out 3 1/2" 9.2# J55 ULT-FJ handling equipment (elevators, slips, lift nubbins), and have proof of current inspections for all load bearing equipment. Ensure that ULT-FJ technician is on hand, and alert him that we will need an ULT-FJ crossover for the cement job. Have liner cleaned, drifted, and inspected prior to running. (Kendricks Inspection 432 559 9325).
51. Change from 2-3/8" pipe rams to 3 1/2" pipe rams.
52. Caliper & inspect elevators and lifting equipment. PU and RIH with 3 1/2" J-55 9.2# ULT-FJ liner as follows: 3 1/2" ULT-FJ Float Shoe, 1 jt 3 1/2" 9.2# ULT-FJ J55 casing, 3 1/2" ULT-FJ Float Collar, 3 1/2" 9.2# ULT-FJ J-55 liner to surface. Tag CBP/cement lightly w/ 3 1/2" casing string, PU +/- 2' above CIBP/cement and space out with pup joints as appropriate.

***Ensure that Float shoe is welded on or bucked on & thread locked at machine shop.
53. Circulate 1.5 x casing capacity (60 bbls)
54. MIRU up cementers.
55. Close 3-1/2" pipe rams around liner to centralize pipe in WH.
56. Pump 150 sacks (200% excess) Class "C" neat cement down the liner and up the 3 1/2" X 4-1/2" annulus. Discuss amount of excess with Remedial Engineer as higher cement volumes may be required based on the results of Weatherford CIT log. Displace using a wiper plug & FW – DO NOT OVERDISPLACE. Over displacement could lead to a wet shoe. Use 3-1/2" pipe rams to centralize liner during cement job.
57. Wash out BOP & WH with FW.
58. ND BOP & tubing head, set C-21 manual slips (weight activated slips WILL NOT set due to lack of liner weight).
59. NU tubing head & BOP.
60. WOC per cementer's recommendations. Use surface cement samples to indicate cement integrity
61. Rough cut excess 3-1/2" liner.
62. ND tubing head & BOP.
63. Measure and make final cut, Install primary seal for 3-1/2" liner
64. Install packoff for 3-1/2" liner.

CVU No. 44 (CO₂ INJECTOR)

API No. 30-025-25719

Vacuum (Grayburg-San Andres) Field

Lea County, NM

65. NU tubing head & test void per Vetco recommendation.
66. NU 5M OR 3M hydraulic BOP as follows: 2-1/16" pipe rams over blind rams. PU 3-1/2" packer on 2-1/16" L80 IJ 3.25# workstring. Set packer @ 30' & test pipe rams to 1500 psi for 5 mins. LD test joint and packer. Shut blind rams and test blind rams to 1500 psi for 5 minutes.
67. RIH w/ 2-3/4" bear claw bit & 12 x 2-3/8" DC's on 2-1/16" L-80 C.S. Hydril 3.25# workstring, tag up on Float collar.
68. Cleanout shoe track cement & CBP. C/O to PBTD @ 4770'.
69. POOH and LD bit. Stand back WS.
70. NU Guardian tree saver.
71. Rig up acidizers & pump 10,000 gallons 15% HCl w/ corrosion inhibitor down the 3-1/2" liner. Pump acid in 3 equal stages w/ 1,000 lbs rock salt in gelled BW between stages. Adjust salt volumes as necessary based on the pressure response of each drop. Pump acid @ maximum rate while staying below 4000 psi.
72. Shut in one hour and flow back load. If well will not flow, do NOT swab.
73. PU 2-3/4" MT bit & TIH w/ 2-1/16" workstring & C/O salt in the OH section to PBTD @ 4770'.
74. TOH LD WS & C/O assembly.
75. PU new 3-1/2" IPC Nickel plated / IPC AS1-X injection packer w/ 1.43" 'F' profile nipple, on/off tool, & pump out plug & TIH on new 2-1/16" L80 IJ (integral joint) 3.25# IPC TK15 tubing. Set packer +/- 10' above the end of liner per production engineer. NOTE: ESURE PACKER IS NOT SET ABOVE UPPER UNIT BOUNDARY @ 3933' PER THE NMOC.
76. Load tubing & equalize pressure @ on/off tool. Unlatch from on/off tool, circulate packer fluid to surface, and latch onto on/off tool.
77. Run preliminary MIT – apply 550 psi to the casing for 30 minutes. Isolate reverse pump during the pre-MIT & use chart recorder to record the pressure response. Notify remedial engineer if pressure losses are greater than or equal to 10 % of applied pressure.

Notify OCD w/ 24 hrs of intent to run official MIT.
78. If pre-MIT test is good, bleed off backside pressure & ND BOP.
79. NU wellhead (new CO₂ tree), blow pump off plug.
80. RDMO pulling unit.
81. Perform and chart final MIT to 550 psi for 30 min. Submit C103 report with original MIT chart attached.
82. Hand over to production for return to injection

CVU #44 Wellbore Diagram

Created: 03/02/06 By: C. A. Irle
 Updated: 07/30/07 By: HLH
 Updated: 04/13/09 By: Cayce
 Lease: Central Vacuum Unit
 Field: Central Vacuum Unit
 Surf. Loc.: 134' FNL & 1,219' FWL
 Bot. Loc.:
 County: Lea St.: NM
 Status: Active Injection Well

Well #: 44 St. Lse: 857943
 API: 30-025-25719
 Unit Ltr.: D Section: 31
 TSHP/Rng: S-17 E-35
 Unit Ltr.: Section:
 TSHP/Rng:
 Directions: Buckeye, NM

Surface Casing

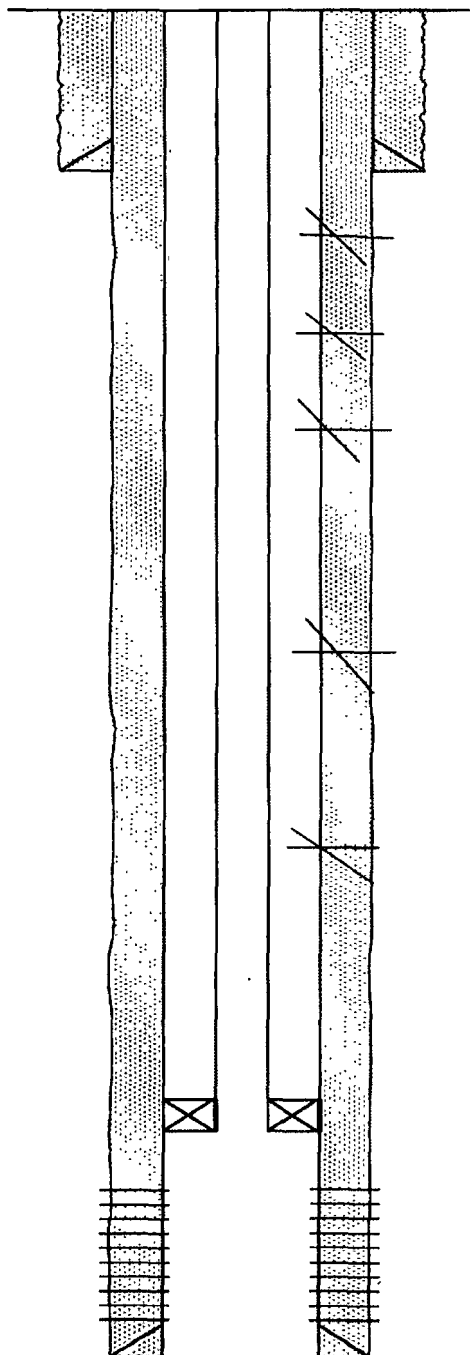
Size: 8.5/8"
 Wt., Grd.: 24#
 Depth: 396
 Sxs Cmt: 425
 Circulate: Yes
 TOC: Surface
 Hole Size: 12 1/4"

Production Casing

Size: 4 1/2"
 Wt., Grd.: 10.5#
 Depth: 4,800'
 Sxs Cmt: 2,500
 Circulate: Yes
 TOC: Surface
 Hole Size: 7 7/8"

Perforations - 2 jsfp 120 ph

4404-07, 18-20, 22-27, 42-60, 43,
 51, 60, 4508-13, 10, 91-93, 92,
 4600-60, 03, 13, 30, 42, 58, 71-92,
 77, 87, 4698-4714



KB:
 DF: 4007'
 GL: 3994'
 Ini. Spud: 12/31/77
 Ini. Comp.: 02/07/78

History

2/7/78 Ini Comp: Perf 4443, 51, 60, 4510,
 92, 4603, 13, 30, 42, 58, 77, 87, 4701, 10,
 RBD 4717, acid 3000 gls 15% NE 210# RS,
 RBP 4531, acid 1200 gls 15% NE 210# RS,
 6/1/98 Stim: Unscrew 4 1/2" @ 22', repl 4
 1/2" jt, csg leak 3182-3565, sqz, csg leak
 1137-1167 & csg leak 447-476, sqz 2, acid
 10000 gls 15% NEFE 2000# RS.
 7/31/00 Stim: Leak 2740-2803 & csg leak
 1121-1183, sqz, perf 2 jsfp 120 ph 4404-07,
 18-20, 22-27, 42-60, 4508-13, 91-93, 4600-
 60, 71-92, 4698-4714, acid 8000 gls 15%
 NEFE, tag 4716, CO 4770 (PBTD)
 6/06- Gray Tagged fill @ 4644'
 10/16/06 Prepared for CO2 Injection
 9/12/07 Tag fill at 4492' w/ bailer. Made
 hole to 4571'.
 3/09 Tagged @ 4445'. Tbg. pressure 1745.

Packer w/ O/O Tool @ 4325'

San Andres Perfs:
 4404 - 4714

PBD: 4,770
 TD: 4,800