

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 August 1, 2011

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

WELL API NO. 30-025-25816
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name CENTRAL VACUUM UNIT
8. Well Number 28
9. OGRID Number 4323
10. Pool name or Wildcat VACUUM G/B SAN ANDRES

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 INJECTOR **HOBBS OCD**

2. Name of Operator  
CHEVRON U.S.A INC. **NOV 14 2013**

3. Address of Operator  
15 SMITH ROAD, MIDLAND, TEXAS 79705

4. Well Location **RECEIVED**

Unit Letter P : 1230 feet from the SOUTH line and 159 feet from the EAST line  
Section 25 Township 17-S Range 34-E NMPM County LEA

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
3,985' (GL)

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 ☐

OTHER: MIT REPAIR, PREP FOR CO2 INJ, CO, DPN, &  
STIMULATE ☒

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.

**The CVU # 28 is currently Shut-In for a MIT failure.** This well is included with the 4 well package of, CVU wells, # 25, #26, #27 and # 28; which we have submitted to the OCD to add Gas injection making all four wells, **Water Alternating Gas** wells, (WAG Wells); (C103 is dated 11-06-2013). CHEVRON WILL ADD THE CVU # 28, AS A WAG WELL, AFTER THE WELL IS REPAIRED. THE WELL WILL BE DEEPENED AN ADDITIONAL 40', TO 4,840', PERF'D FROM 4,730 -4,800, CEMENT IN LINER FROM SURFACE TO +/- 4,311, ACIDIZE, REPLACE THE INJECTION EQUIPMENT, RTI.

Spud Date:

12-15-13

Rig Release Date:

12-30-13

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

SIGNATURE Ryan Warmke/Chay TITLE Ryan Warmke DATE 11-13-13

Type or print name Ryan Warmke E-mail address: RYANWarmke@chevron.com PHONE: 432-687-7452

For State Use Only

APPROVED BY: Mary Brown TITLE Compliance Officer DATE 11/19/2013

Conditions of Approval (if any):

NOV 19 2013

**Well:** Central Vacuum Unit # 28  
**Field:** Vacuum Grayburg San Andres  
**API No.:** 30-025-25816  
**Lea County, New Mexico**

**HOBBS OCD**

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**Description of work:** POOH with existing inj equipment. Deepen to 4,840', perfs. Cement in liner, acidize. RIH with injection tubing and packer. RTI.

**Pre-Work:**

\*\*\*Check wellhead and all connections and change out anything that needs to be replaced prior to rigging up on the well\*\*\*

1. Check wellhead connections for pressure rating & condition. Change out if necessary.
2. Utilize the rig move check list.
3. Check anchors and verify that pull test has been completed in the last 24 months.
4. Ensure location of & distance to power lines is in accordance with MCA SWP. Complete and electrical variance and electrical variance RUMS if necessary.
5. Ensure that location is of adequate build and construction.
6. Ensure that elevators and other lifting equipment are inspected. Caliper all lifting equipment at the beginning of each day or when sizes change.
7. When NU anything over and open wellhead (EPA, etc.) ensure the hole is covered to avoid dropping anything downhole
8. For wells to be worked on or drilled in an H2S field/area, include the anticipated maximum amount of H2S that an individual could be exposed to along with the ROE calculations for 100 ppm and 500 ppm (attached).
9. If the possibility of trapped pressure exists, check for possible obstruction by:
  - Pumping through the fish/tubular – this is not guaranteed with an old fish as the possibility of a hole above the obstruction could yield inconclusive results
  - Dummy run – make a dummy run through the fish/tubular with sandline, slickline, eline or rods to verify no obstruction. Prior to making any dummy run contact RE and discuss.

If unable to verify that there is no obstruction above the connection to be broken, or if there is an obstruction:

- Hot Tap at the connection to check for pressure and bleed off  
Observe and watch for signs / indicators of pressure as connection is being broken. Use mud bucket (with seals removed) and clear all non-essential personnel from the floor.

**Procedure:**

**Contact Tim Gray with Baker Petrolite to line up chemicals when we rig up on this well**

1. Rig up pulling unit. Check wellhead pressure, and pump +/- 300 bbls of 10# BW. Calculate kill mud weight.
2. Rig up wireline truck. Test lubricator on catwalk to 1,000 psi. Run gauge ring to determine profile nipple size. Set blanking plug in profile nipple. Pressure test tubing to 1,500 psi after plug is set. Bleed off pressure.
3. ND wellhead (will be replacing WH with New Vetco CO2 WH).

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4. NU 5,000 psi BOP with 2-3/8" pipe rams over blinds with hydrill on top.
5. Release of off On/Off tool. POOH with 1 joint of tubing, install 4-1/2" test packer, RIH & set packer at ~25'. Test BOP to 250 psi low / 1,000 psi high. POH & lay down test packer.
6. Circulate kill mud. Latch back up. RU WL and pull plug.
7. Release packer and TOH. Lay down all injection tubing and packer. (If packer elements are swollen to the point fluid will not readily pass: RU WL and perf tubing above the packer.)
8. RIH with a 3-7/8" MTB and 3 1/8" drill collars on 2-3/8" work string, continue in the hole to the PBSD (4,765'). DO cement / casing shoe to 4,800'. Circulate hole clean.
9. POOH and lay down bit.
10. RIH with a 3-7/8" PDC bit and 3 1/8" OD drill collars on 2-3/8" work string to 4,800'. Drill new hole from 4,800' - 4,840'. Circulate hole clean.
11. POOH and lay down bit and workstring.
12. Set up an exclusion zone around the wireline perforating operation. All phones, radios, etc. need to be turned off.
13. Rig up full lubricator, test lubricator to 500 psi on catwalk. Get on depth with CRC CNL dated 3/27/78 (tie in strip attached). Run a GR-CNL from 4,840' - 2,700'.
14. Perforate the 4-1/2" casing from 4,730 - 4,800' as per the technical team recommendation using 3-1/8" guns w/ 2 JSPF @ 120 degree phasing. Perf charge specs: 35 gram, 0.41" EHD, 47.56" ATP, or similar.
15. POOH with perforating gun.
16. Set a composite bridge plug at 4311' (10' above the last packer setting depth).
17. RD wireline truck.
18. Order out 3 1/2" 9.2# L80 ULT-FJ handling equipment (elevators, slips, lift nubbins), and have proof of current inspections for all load bearing equipment. Ensure that casing technician is on hand, and alert him that we may need a flush joint crossover for the cement job. Have liner cleaned, drifted, and inspected prior to running. (Kendricks Inspection 432 559 9325).
19. Change from 2-3/8" pipe rams to 3 1/2" pipe rams.
20. Caliper & inspect elevators and lifting equipment. PU and RIH with 3 1/2" L-80 9.2# ULT-FJ liner as follows: 3 1/2" ULT-FJ Float Shoe, 1 jt 3 1/2" 9.2# L80 ULT-FJ casing, 3 1/2" ULT-FJ Float Collar, 3 1/2" 9.2# ULT-FJ L-80 liner to surface. Tag CBP/cement lightly with casing string. Pick up 2' and space out with pup joints as necessary.

**\*\*Ensure that Float shoe is welded on or bucked on & thread locked at machine shop.**

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21. Land 3 1/2" liner on slips in existing tubing head. Cut off casing as per QCI directions. Nipple up 7 1/16" X 3 1/2" B-5 Adapter flange with 3 1/2" female seals on bottom, 3 1/2" EUE Box up. (Contact Ward at QCI for B-5 Adapter flange. 432-425-8473)
22. MIRU up cementers. Nipple up 3 1/2" Plug dropping head.
23. Circulate 1.5 x casing capacity (57 bbls)
24. Install 3 1/2" liner wiper plug in head.
25. Pump 135 sacks (100% excess) Class "C" cement w/ 0.3% Halad 322 (fluid loss) and 0.3% CFR-3 (dispersant) down the liner and up the 3 1/2" X 4-1/2" annulus. Drop wiper plug with +/- 10 sx cement left in tub. Displace wiper plug with remaining cement and fresh water. Bump plug with +/- 2,000 psi. DO NOT Overdisplace. Record any cement volume circulated.
26. WOC per cementer's recommendations. Use surface cement samples to indicate cement integrity
27. ND cement head and 3 1/2" flange.
28. NU tubing head flange with secondary seals and test void per VETCO recommendation.
29. 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.
30. Test liner to 5,500 psi.
31. 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.
32. Cleanout shoe track cement & CBP. C/O to TD @ 4,840'.
33. POOH and LD bit. Lay down workstring.
34. Pump 110 gal of Baker Petrolite's WLC-603 neat down the casing. Follow with 275 gals of Baker Petrolite's SRW-196 sulfate scale converter mixed in 18 Bbls of water and flush with 25 Bbls of FW.
35. Shut well in overnight to allow for ample contact time.
36. RU Petroplex and acidize San Andres perms from 4,407 – 4,840' with 18,000 gal 15% HCL containing 165 gals WLC-603. Pump acid in 4 equal stages and block with 1,000lbs rock salt/stage as a diverting agent. Adjust salt volumes as necessary based on pressure response. Pump acid at 4-6 BPM. Max Pressure = 4,800 psi. Load and pressure backside to 500 psi. Over displace acid with 100 Bbls of FW to bottom perf at 4,700'. Monitor casing pressure for communication around packer.
37. Shut-in for 2 hours to allow acid to spend.
38. Flow or swab load back.
39. Kill well as necessary (if possible use 10# BW – NOT 14# mud).

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40. 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.
41. Load tubing & equalize pressure @ on/off tool. Unlatch from on/off tool, circulate packer fluid to surface, and latch onto on/off tool.
42. 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.
43. Notify OCD w/ 24 hrs of intent to run official MIT.
44. If pre-MIT test is good, bleed off backside pressure & ND BOP.
45. NU wellhead (new Vetco CO2 tree / wellhead), blow pump off plug.
46. RDMO pulling unit.
47. Perform and chart final MIT to 550 psi for 30 min. Submit C103 report with original MIT chart attached.
48. Write work order to re-connect the injection line.
49. Hand over to production for return to injection.

RRW 10/1/2013 Revised 10/15/13 JS

Contacts:

Remedial Engineer – Jay Stockton	(432-687-7791 / Cell: 432-967-5644)
Production Engineer – Ryan Warmke	(432-687-7452 / Cell: 281-460-9143)
ALCR – Danny Acosta	(Cell: 575-631-9033)
D&C Ops Manager – Boyd Schaneman	(432-687-7402 / Cell: 432-238-3667)
D&C Supt. – Heath Lynch	(432-687-7857 / Cell: 281-685-6188)
OS – Nick Moschetti	(Cell: 432-631-0646)
Baker Petrolite – Tim Gray	(Cell: 575-910-9390)

## Wellbore Diagram

**CVU 28**

Created: 7/3/2008 By: JSS  
 Updated: 5/4/2009 By: Cayce  
 Updated: 7/9/2013 By: CHAY  
 Lease: Central Vacuum Unit  
 Field: Vacuum (Grayburg San Andres)  
 Surf. Loc.: 1230' FSL & 159' FEL  
 Bot. Loc.:  
 County: Lea St.: NM  
 Status: **Injector**

Well #: 28 St. Lse: B-1056  
 API 30-025-25816  
 Unit Ltr.: P Section: 25  
 TSHP/Rng.: 17S / 34E  
 Unit Ltr.: Section:  
 TSHP/Rng.:  
 CHEVNO: EQ0049  
 Directions: Buckeye, NM

**Surface Casing**

Size: 8 5/8"  
 Wt., Grd.: 24#, K-55  
 Depth: 409'  
 Sxs Cmt: 425  
 Circulate: Yes  
 TOC: Surface  
 Hole Size: 12 1/4

KB: 3995'  
 DF: NA  
 GL: 3985'  
 Ini. Spud: 3/5/1978  
 Ini. Comp.: 4/14/1978

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**Perforations:**

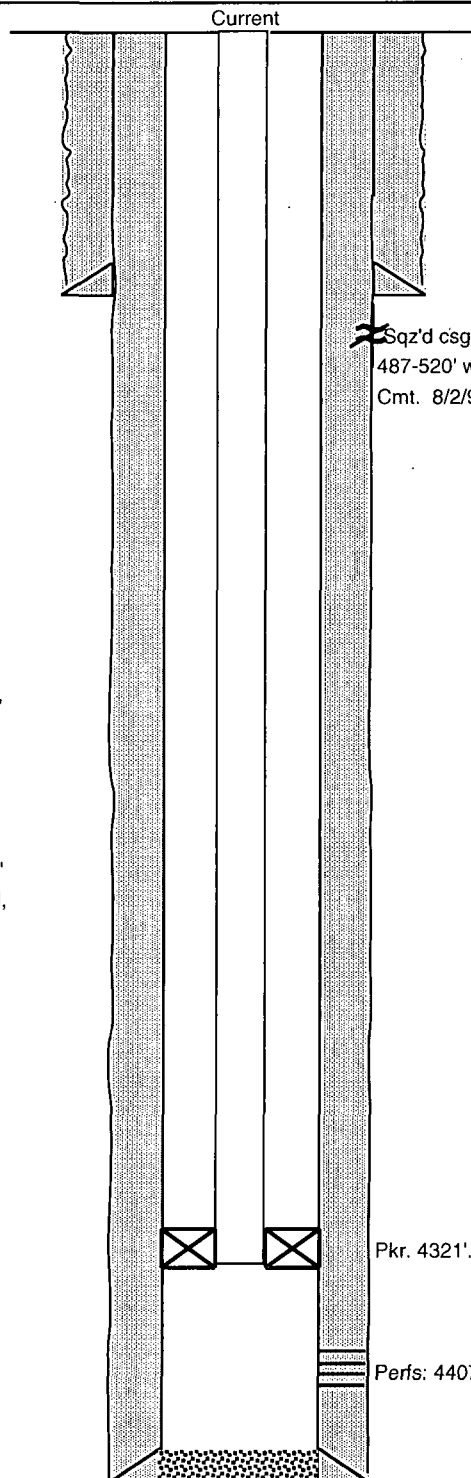
4 1/2" csg. w/2 JSPF from 4407, 13, 21, 38, 90, 98, 4657, 68, 73, 84, 98, 4705, 11, 17, 4724'.

**Tubing and Packer Detail:**

TIH w/4 1/2" injection pkr. On 137 jts. 2 3/8" rice duo-lined inj. Tbg. Circ. Hole w/pkr fluid, set inj. Pkr. @ 4321'.

**Production Casing**

Size: 4 1/2"  
 Wt., Grd.: 10.5#, K-55  
 Depth: 4800'  
 Sxs Cmt: 2100  
 Circulate: Yes  
 TOC: Surface  
 Hole Size: 7 7/8



Sqz'd csg. Leak  
 487-520' w/200 sx.  
 Cmt. 8/2/96.

**Perf. and Stimulation History:****CVU 028**

4/14/78 New well Initial completion perf. w/2 JSPF from 4407, 13, 21, 38, 90, 98, 4657, 68, 73, 84, 98, 4705, 11, 17, 4724'.  
 Acidize 4407-4724' w/4900 gals 15% acid.  
 Test: 1290 BWPD @ vac. 24 hr. injection.  
 9/25/86 Acidize 4407-4724' w/5500 gals acid. before: 660 BWPD @ 880#. after: 800 BWPD @ 800# 24 hr. inj.  
 8/2/96 Sqz'd csg leak 487-520' w/200 sx. cmt.  
 8/15/96 TIH w/4 1/2" injection pkr. on 137 jts. 2 3/8" rice duo-lined injection tbg. circ. hole w/pkr fluid, set inj. pkr. @ 4321'.  
 8/23/96 OPT: Injecting 1317 BWPD @ 1130#.  
 4/09 Tagged @ 4345'. Tbg press 1525.

Pkr. 4321'.

Perfs: 4407-4724'.

PBTD: 4765'  
 TD: 4800'

## Wellbore Diagram

CVU 28

Created: 7/3/2008 By: JSS  
 Updated: 7/9/2013 By: CHAY  
 Updated: 11/12/2013 By: CHAY  
 Lease: Central Vacuum Unit  
 Field: Vacuum (Grayburg San Andres)  
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 Status: Injector

Well #: 28 St. Lse: B-1056  
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 Unit Ltr.: P Section: 25  
 TSHP/Rng: 17S / 34E  
 Unit Ltr.: Section:  
 TSHP/Rng:  
 CHEVNO: EQ0049  
 Directions: Buckeye, NM

## Surface Casing

Size: 8 5/8"  
 Wt., Grd.: 24#, K-55  
 Depth: 409'  
 Sxs Cmt: 425  
 Circulate: Yes  
 TOC: Surface  
 Hole Size: 12 1/4"

## Perforations:

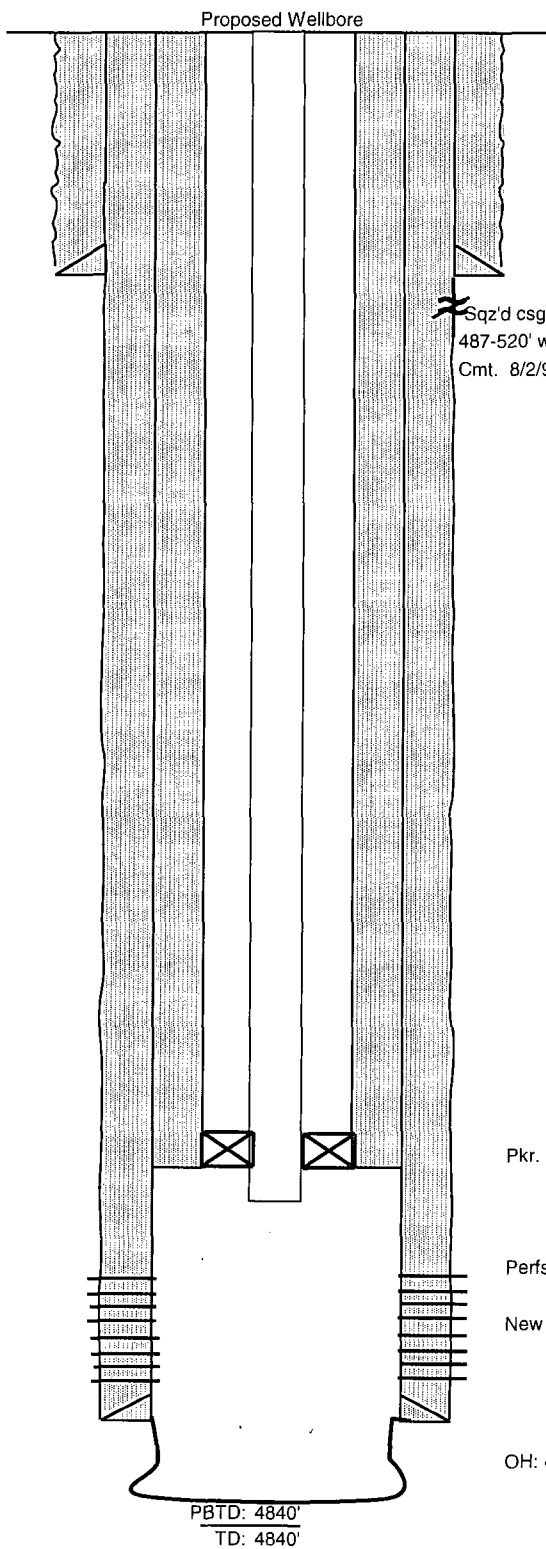
4 1/2" csg. w/2 JSPF from 4407, 13, 21, 38, 90, 98, 4657, 68, 73, 84, 98, 4705, 11, 17, 4724'.

## Tubing and Packer Detail:

TIH w/4 1/2" injection pkr. On 137 jts. 2 3/8" rice duo-lined inj. Tbg. Circ. Hole w/pkr fluid, set inj. Pkr. @ 4321'.

## Production Casing

Size: 4 1/2"  
 Wt., Grd.: 10.5#, K-55  
 Depth: 4800'  
 Sxs Cmt: 2100  
 Circulate: Yes  
 TOC: Surface  
 Hole Size: 7 7/8"



KB: 3995'  
 DF: NA  
 GL: 3985'  
 Ini. Spud: 3/5/1978  
 Ini. Comp.: 4/14/1978

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## Perf. and Stimulation History:

CVU 028

4/14/78 New well Initial completion perf. w/2 JSPF from 4407, 13, 21, 38, 90, 98, 4657, 68, 73, 84, 98, 4705, 11, 17, 4724'. Acidize 4407-4724' w/4900 gals 15% acid. Test: 1290 BWPD @ vac. 24 hr. injection.  
 9/25/86 Acidize 4407-4724' w/5500 gals acid. before: 660 BWPD @ 880#. after: 800 BWPD @ 800# 24 hr. inj.  
 8/2/96 Sqz'd csg leak 487-520' w/200 sx. cmt.  
 8/15/96 TIH w/4 1/2" injection pkr. on 137 jts. 2 3/8" rice duo-lined injection tbg. circ. hole w/pkr fluid, set inj. pkr. @ 4321'.  
 8/23/96 OPT: Injecting 1317 BWPD @ 1130#.  
 4/09 Tagged @ 4345'. Tbg press 1525.

11/12/13: Rpr MIT Failure, CO, Dpn to 4840'. Add perms: f/4730' to 4800'. Cmt in linr f/Surf to +/- 4311'. Acdz w/18,000 gals of 15% HCL. Rtn to Inj, adding gas inj, for a WAG well.

Pkr. 10' +/- above end of Liner

Perfs: 4407-4724'.

New Perfs: 4730' - 4800'

OH: 4,800' - 4,840'

PBTD: 4840'  
 TD: 4840'