District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised November 14, 2012

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
ConocoPhillips Company P. O. Box 51810 Midland, TX 79710	217817
	3. API Number 015-35237

4. Property Code	5. Property Name	6. Well No.
31319	Leatherstocking 18 State Com	2

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
M	18	18S	28E		810	South	660	West	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
M									

9. Pool Information

Pool Name	Pool Code
Wildcat; Wolfcamp (oil)	96794

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
Recomplete	O		State	3597'
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	10587	Wildcat; Wolfcamp		12/19/2006

Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
surf	17 1/2"	13 3/8"	48	460'	460 sx	0
int	8 5/8"	11	32	2620'	650 sx	0
prod	7 7/8"	4 1/2"	11.6	10587'	500 sx	8250'

Casing/Cement Program: Additional Comments

place CIBP at 10,235' and a minimum of 20' class H cmt on top to PB the Morrow perfs. Perf for Wolfcamp @ 8670'-8675'.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
DoubleRam	5000	5	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐, if applicable.
Signature: Rhonda Rogers

Printed name: Rhonda Rogers

Title: Staff Regulatory Technician

E-mail Address: rogerrs@conocophillips.com

Date: 08/07/2013 Phone: (432)688-9174

OIL CONSERVATION DIVISION

Approved By: K Dade

Title: Dist Supervisor

Approved Date: 8/19/2013 Expiration Date:

Conditions of Approval Attached

Leatherstocking 18 State Com 2
API #30-015-35237
Location: 810' FSL, 660' FWL, Sec 18, T-18S, R28E, Eddy County, NM
Plugback Morrow/Recomplete as Wolfcamp producer.

PROCEDURE

1. Test / replace anchors.
2. Confirm wellbore is isolated from flowline (LOTO) and static prior to proceeding.
3. MI & RU well service unit and ancillary equipment (e.g., pipe racks, frac tanks, etc.).
4. Control / kill well w/ produced water as required.
5. RU. Test lubricator. RIH w/ two way check valve. Set 2 way check in tubing -hanger. POOH.
6. ND well head and NU BOPE (1 – 7 1/16" x 5k psi Hydril + 1 - 5K psi BOP w/ blind rams) and environmental tray.
7. RU. Test lubricator. RIH w/ retrieving tool, latch onto/release two way check valve and POOH.
8. RD-MO services.
9. MI-RU an electronic scanning service to scan 2⅜", 4.7# L-80 production tbg when pulled.
10. Release AS-1X production packer and allow wellbore to stabilize.

Note: If packer does not release, use On/Off tool to release from packer

11. POOH scanning 2-⅜", 4.7# L-80 production tbg. Laydown all bad joints and send to yard for disposal. Stand good tubing back in derrick.

Isolate Morrow:

12. MI-RU e-line services with packoff (or full lubricator, shop tested to 2,000 psig, if needed).

Note: If packer was not removed it will be necessary to make a gauge run

13. PU-RIH w/ CCL tool and CIBP and set CIBP @ 10,235' (or immediately above production packer if not recovered). POOH.
14. PU-RIH w/ dump bailer. Spot/place a minimum of 20' (three (3) sacks) class "H" cement atop bridge plug.
15. Tag up and record location of Top of Cement on CIBP. POOH.
16. RD-MO e-line services.
17. RIH open-ended w/ ten (10) joints of production tubing.
18. Load casing w/ 2% KCL via tubing.
19. Close pipe rams and pressure down tubing to 500 psi. Hold for 30 minutes.
20. Release pressure, open pipe rams, POOH. Laydown tubing.
21. RD-MO well service unit.

Casing Evaluation:

22. MI ***Schlumberger*** Logging services. RU packoff (or full lubricator, shop tested to 2,000 psig, if needed).
23. RIH w/ ***Schlumberger USIT*** logging tool. Log the production casing from 8400'± RKB back to surface. POOH.

Note: USIT log will confirm mechanical condition & TOC for production casing

24. RD-MO ***Schlumberger*** logging services.

IMMEDIATELY: Send USIT Log Results to Libardo Gonzalez

- **If Casing is in Good Condition – Proceed to Next Step**

Otherwise

- **STOP consult Engineer for Path-forward**

Perforate Wolfcamp

25. MI-RU perforating services with packoff (or full lubricator, shop tested to 2,000 psig, if needed).
26. PU GR/CCL tool and Composite Bridge Plug (CBP). RIH and set CBP @ 8900' RKB. POOH.

Note: Correlate depth control to gamma ray/ CCL strip log made on location – as no logs available

27. PU-RIH to perforate using ***TITAN*** (or equivalent) 3-1/8" guns with deep penetrating charges (0.40" EH, 40.8") loaded @ 6 SPF on 60 degree phasing. Perforate the casing from the bottom up as follows:

Wolfcamp (135' OA)

Formation	Perf Top	Perf Bottom	Interval	SPF	Total Shots
Wolfcamp	8670	8675	5	6	30
Wolfcamp	8683	8686	3	6	18
Wolfcamp	8694	8708	14	6	84
Wolfcamp	8739	8743	4	6	24
Wolfcamp	8756	8760	4	6	24
Wolfcamp	8795	8805	10	6	60
TOTAL			**40**		**240**

Net Total 40' w\ 240 holes for entire interval

28. POOH with perforating guns and inspect to verify number of shots fired. Record in WellView.
29. RD-MO perforating services.

Stimulate Wolfcamp

30. MI-RU Test lubricator. Install tubing hanger w/ two way check valves in wellhead.
31. Engage/run in hold down pins.
32. ND BOPE and NU 10k psi Frac Stack (see below) directly onto 4 ½" casing-head.

Note: the 4 ½" casing is 11.6#/ft, P-110 w/ Yield pressure 10,690 psi, de-rated maximum yield pressure = 8,480 psi

33. RU Test lubricator. RIH w/ retrieving tool, latch onto hanger w/ two way check valves, release, and POOH.
34. RD-MO services.
35. Spot two (2) 500 bbl frac tanks (1 lined + 1 unlined). Load tanks w/ inhibited fresh water prior to acid work. Provide water sample to Acid service provider in advance of acid work.
36. Confirm Frac Tank(s) requirement w/ ***Acid service provider***.
37. MI-RU **Acid service** provider to treat the new Wolfcamp perforations
38. Bring adequate horsepower to accomplish up to 25 bpm @ 6,000 psi. An acid ball-out will be part of the procedure, so a remote ball launcher and N2 operated relief valve are required. Place a pressure gauge on the tubing-casing backside and monitor 4 ½" x 8⅝" backside pressure throughout job.
    Acidize Wolfcamp perforations (8670'– 8805' - OA) as follows:
    a) Establish injection rate and pressure.
    b) Monitor 4½" x 8 ⅝" annulus looking for signs of communication
    c) Pump inhibited 2% KCL water to break down perforations (record rate & pressure which must adequate to support dropping ball sealers)
    d) Pump a minimum of 100 bbl inhibited 2% KCL water pad

Pump 25 bbls acid @ at rate > 8 bpd (record pressure and rate)

    e) Drop 25 - 5/8" RCN balls
    f) Repeat step e and f dropping 25 – 5/8" RCN balls after each 25 bbls acid until all balls and acid are pumped. Note: a total of 200 RCN balls will be used

Note: should pre-mature ball out occur – surge fluid back into frac tank then resume treatment

    g) Once all acid is pumped, flush w/ 150 bbls inhibited 2% KCL
    h) Record ISIP, SITP (5 min), SITP (10 min) & SITP (15 min)

39. RD-MO **Acid treating services**.
40. Allow acid to set on perforations a minimum of 6 hours (over night is recommended).
41. Confirm / release any remaining pressure on workstring, then release treating packer.

Cement Squeeze

42. Close lower frac valve. RD remaining frac stack to that point,
43. MI-RU. Test lubricator. Open frac valve.

44. Install tubing hanger w/ two way check valves in wellhead.
Shop test hanger two check valves in direction of flow prior to arriving at location.
45. Engage/run in hold down pins.
46. ND remaining frac valve and NU BOPE (1 – 7 1/16" x 5k psi Hydril + 1 - 5K psi BOP unit (blind rams) and environmental tray.
47. RU. Test lubricator. RIH w/ retrieving tool, latch onto hanger w/ two way check valves and POOH.
48. RD-MO services.
49. MI-RU perforating services with packoff (or full lubricator, shop tested to 2,000 psig, if needed).
50. PU-RIH w/ CCL and RBP. Set RBP @ 8350'± RKB. POOH.
51. Spot/dump two (2) sacks sand atop RBP.
52. PU-RIH w/ GR-CCL tool and perforating gun loaded w/ eight (8) shallow penetrating charges to perforate a 2 feet interval of the 4 ½" production casing. Location of shots to be based on CBL and as reasonably close to TOC cement as possible to still get good perforations for circulation. POOH.
53. Confirm all shots fired.
54. RD-MO logging services.
55. MI-RU a high pressure pump truck. Lay /install iron from pump truck to wellhead and flow back tank. Pressure test surface lines to a minimum of 3000 psi.
56. MI & RU well service unit and ancillary equipment (e.g., pipe racks, frac tanks, etc.).
57. Control / kill well w/ inhibited 2% KCL water as required.
58. PU-RIH w/ retrievable packer on production tubing. Set packer at 8000'± RKB.
59. Break circulation with inhibited 2% KCL water. Establish / record injection rate and pressure.

Note: Provide *Halliburton* cementing w\ a circulating pressure and rate

60. Circulate bottoms up a minimum of two (2) times or longer as required to ensure good / clean returns.
61. Shut-down, bleed off pressure.
62. Release retrievable packer. POOH. Laydown packer and stand tubing back in derrick.
    - If there is NOT a cementing delay – proceed to next step

    Otherwise
    - If there IS a cementing delay - laydown tubing and RD-MO well service unit.

Remedial Cement Squeeze:

63. MI-RU ***Halliburton*** high pressure cementing equipment. Install iron from a pump trucks to wellhead and flow back tank. Pressure test surface lines to a minimum of 3000 psi.

Note: Provide *Halliburton* w\ a representative water sample prior to arrival at location

64. Re-establish circulation with inhibited 2% KCL water. Record injection rate and pressure.

Note: Provide rate and pressure information to *Halliburton* prior to arrival.

65. Pump the following slurry as per ***Halliburton*** recommendation:

    Lead Cement – 940 sacks (VersaCem H + w/ 10% Bentonite + 0.25lbm/sk D-AIR 5000 (Defoamer))
    - Fluid weight – 11.90 lbm/gal
    - Slurry Yield 2.24 cuft/sk
    - Total Mixing Fluid - 12.77 gal/sk
    - Volume - 372.65 bbl

    Tail Cement - 250 sacks (VersaCem – H +0.5% LAP-2 (Fluid Loss Control) + 0.05% SA-1015 (Free Water Control))
    - Fluid weight – 14.20 lbm/gal
    - Slurry Yield 1.26 cuft/sk
    - Total Mixing Fluid - 5.77 gal/sk
    - Volume - 55.55 bbl

66. Drop plug and displace with 2% KCL to 8100'± (or as per ***Halliburton*** Cementer recommendation based on observation).
67. Shut down and shut-in well.
68. RD-MO ***Halliburton*** cement services.
69. Allow cement to cure over-night (or as directed by ***Halliburton***).

Drill out / test cement squeeze

70. MI-RU a drilling package (high pressure pump, swivel/rotary, etc.).

71. PU-RIH w\ a bit and drill collars on 2⅜" tubing, tag up on top of cement and clean cement out of the wellbore to RBP @ 8350'. Close pipe rams and pressure down workstring to 500 psi to confirm casing repair is holding.
72. POOH, laydown bit & drill collars. Stand tubing back in derrick.
73. PU-RIH w/ RBP recovery tool on tubing. Cleanout/reverse debris from atop RBP, latch onto and POOH w/ RBP. Stand tubing back in derrick. Lay down RBP and return to ***Apollo***.

Production Equipment

74. MI-RU hydro-test services to test production tubing while RIH.
75. PU-RIH w/ production packer on 2 3/8" (4.7#/ft, L-80) production tubing. Hydro-test production tubing, below grade, to 5000 psi (Maximum Internal Yield pressure = 14,900 psi).
76. PU and screw together a TIW valve, landing sub, and tubing hanger w/ two way check valves.
77. RIH with tubing hanger containing two way check valves, seat /space out tubing hanger, secure hold-down screws, and pressure test to confirm hanger is holding.
78. ND BOPE and NU wellhead assembly.
79. RU Test lubricator. RIH w/ retrieving tool, latch onto two way check valves, release hold down pins, and POOH.
80. RD-MO services.

Produce Wolfcamp

81. RU well service unit swab line/ or a swab unit.
82. Swab Wolfcamp to kick-off well.
83. RD-MO swab line/unit.
84. RD-MO WSU and any ancillary equipment.
85. Clean up location; remove produced liquids, trash, and debris.

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

Month - Year
APR 27 2007
OCD - ARTESIA, NM

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-35237	96794	Wildcat: Wolfcamp oil

Property Code	Property Name	Well Number
31319	LEATHERSTOCKING "18" STATE COM	2

OGRID No.	Operator Name	Elevation
217817	ConocoPhillips Company	3597'

Surface Location

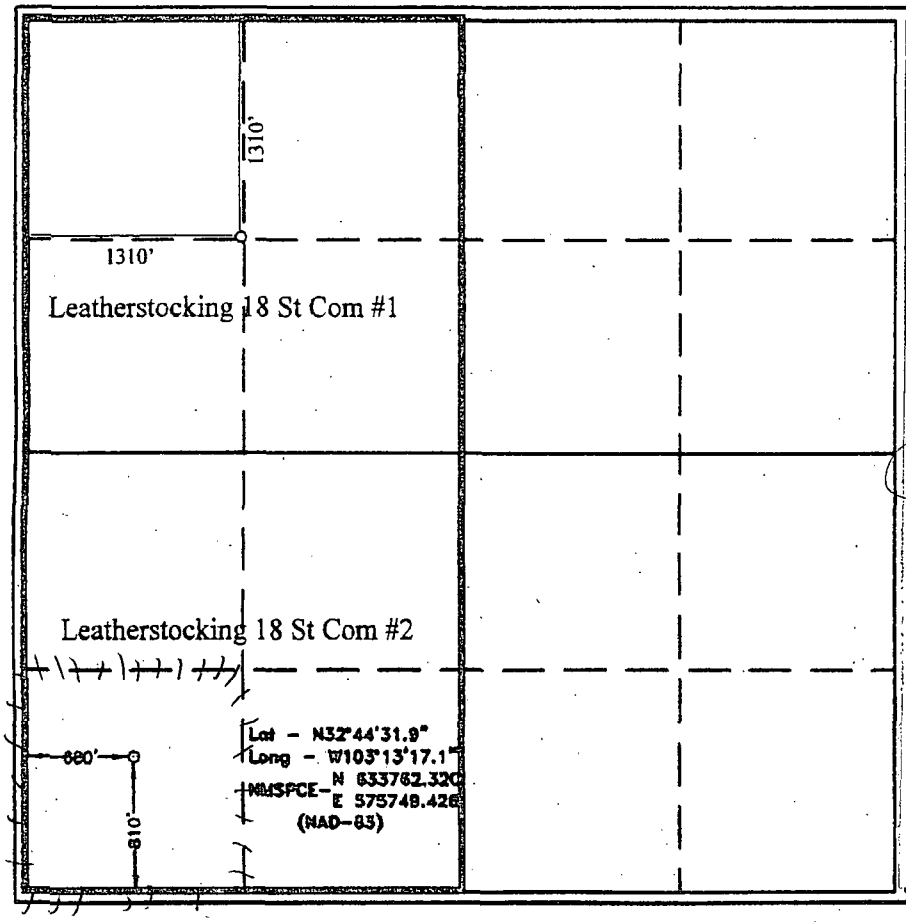
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	18	18 S	28 E		810	SOUTH	660	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location of has a right to drill this well at the location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

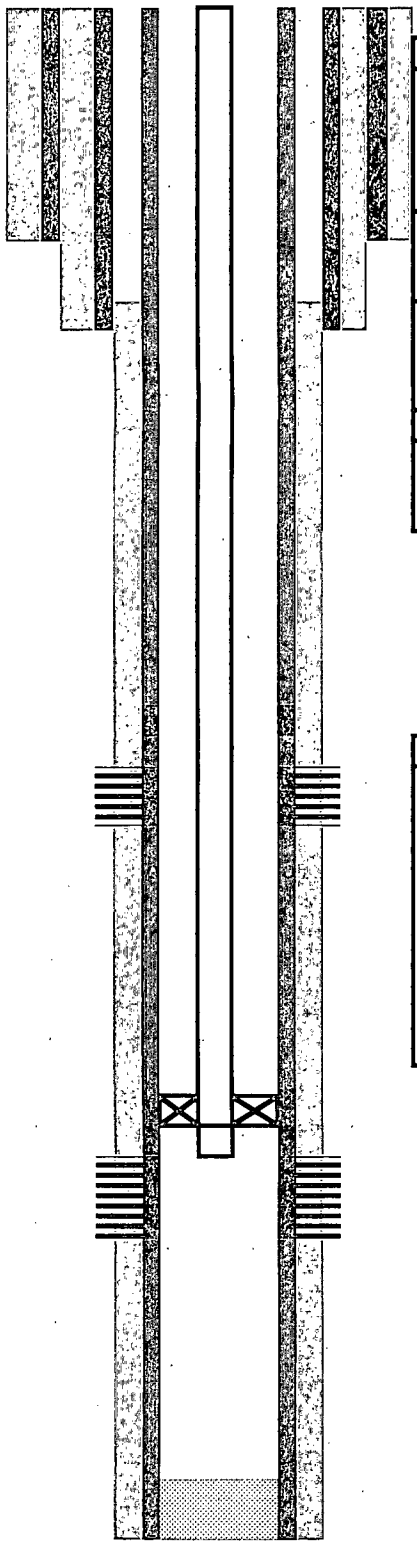
Rhonda Rogers 8/7/13
Signature Date

Rhonda Rogers
Printed Name

rogerrs@conocophillips.com
Email Address

Current

LEATHERSTOCKING STATE COM # 2
API # 30-015-3523700
Sec 18, T 18S, R28E, Eddy County , NM



Ground Elevation: 3597 KB/RT Elevation: 3613

Casing Configuration

13 3/8" STC, H40, 48# Set @ 460" , Hole size: 17 1/2" , Cemented w lead of 210 sxs Halliburton Light Premium Plus (12.5 #/gal, 1.97 Yld) Tail: 200 sxs Premium Plus (14.8, yld 1.34) Circulated 42 sxs to surface. Cment fell to 95' . Top job with 50 sxs of HOWCO neat 800 sks of Class C cement, 200 sks cird to srfc , Toc @ surface

8 5/8", 32# , K55 , Hole Size: 12 1/4" , Set @ 2620,Cemented with Lead 450 sxs (11.9 #, 2.45 Yld) Tail: 200 sxs Premium Plus (14.8 #, 1.33 Yld)

4-1/2", 11.6# P110 , Hole Size: 7 7/8", Set @ 10587,
Cemented with 500 sxs Super H +0.5% Halad + 0.4% FR-3+ 1# Slat+5#Gilsonite+0.125# Ploy-Eflake+0.35% HR-7
. TOC @ 8250 by CBL

Tubing Configuration

2 3/8" L80, 1.995" ID , 4.70 #/ft
On-off tool , 1.875" ID X profile
AS x1 Packer @ 10 184' , 1.990 ID

Formation Tops	
Seven Rivers	945
Bowers Sand	1249
Queen	1485
Grayburg	1995
San Andres	2245
Lovington Sand	2370
Wolfcamp	7930
Strawn	9070
Atoka	9747
Morrow	10076

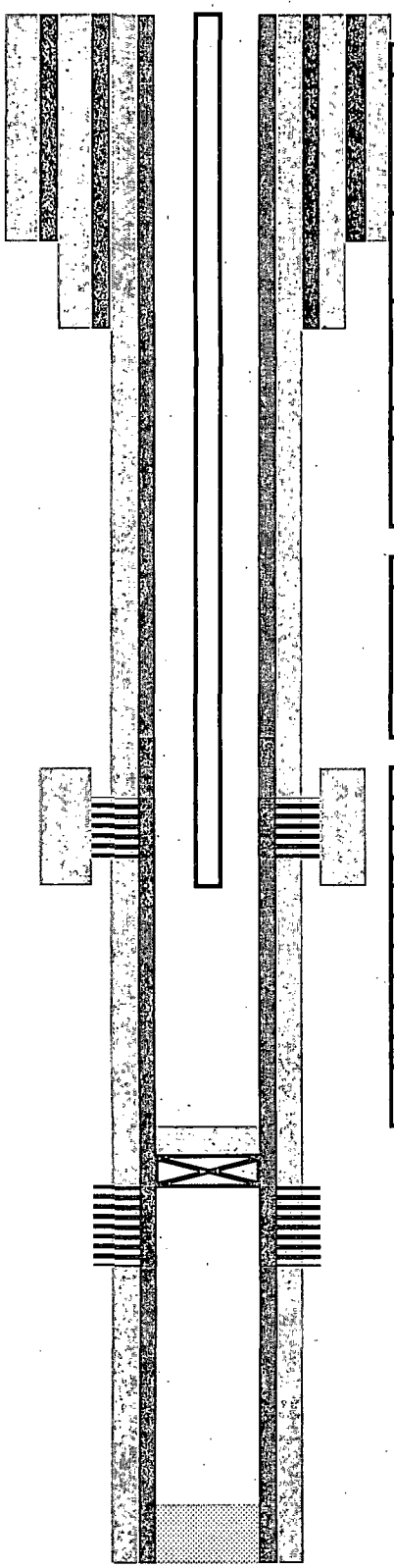
Morrow Formation
10238-10246 @ 6spf 3.15.07
10258-10266 @ 6spf 3.15.07
10274-10278 @ 6spf 3.15.07
10293-10296 @ 6spf 3.15.07
10322-10330 @ 6spf 3.15.07

Stimulation Treatment
44613 gals WF , 320 Tons of CO2 with 166580# Versaprop

PBTD:10490
TD: 10587

Proposed

LEATHERSTOCKING STATE COM # 2
API # 30-015-3523700
Sec 18, T 18S, R28E, Eddy County , NM



Ground Elevation: 3597 KB/RT Elevation: 3613

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4-1/2", 11.6# P110 , Hole Size: 7 7/8", Set @ 10587,
Cemented with 500 sxs Super H +0.5% Halad + 0.4% FR-3+ 1# Slat+5#Gilsonite+0.125# Ploy-Eflake+0.35% HR-7
. TOC @ 8250 by CBL

Tubing Configuration

2 3/8" L80, 1.995" ID , 4.70 #/ft
Rods and pump as per Wellview

Remedial Cement

5000 (Defoamer)) Fluid weight – 11.90 lbm/gal Slurry Yield 2.24 cuft/sk

Tail Cement - 250 sacks (VersaCem – H +0.5% LAP-2 (Fluid Loss Control) + *0.05% SA-1015 (Free Water Control))Fluid weight – 14.20 lbm/gal Slurry Yield* 1.26 cuft/sk

Proposed Perf

Formation	Top	Bottom	Footage	SPF	Total Shots
Wolfcamp	8670	8675	5	6	30
Wolfcamp	8683	8686	3	6	18
Wolfcamp	8694	8708	14	6	84
Wolfcamp	8739	8743	4	6	24
Wolfcamp	8756	8760	4	6	24
Wolfcamp	8795	8805	10	6	60
TOTAL			**40**		**240**

Proposed Treatment

10,000 gallons (~238 bbls) of 15% NE Fe HCL, non-emulsifier, iron reducer, and corrosion inhibitor (double inhibited)

CIBP Set @ 10 325' with 20 ft of H Cment on top

PBTD:10305
TD: 10587