

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*5. Lease Serial No.
NMMN0486483

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.
SHELL FEDERAL 19. API Well No.
30-015-1088110. Field and Pool or Exploratory Area
WILDCAT11. County or Parish, State
EDDY COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

FASKEN OIL AND RANCH, LTD.

Contact: ADDISON LONG

E-Mail: addisonl@forl.com

3a. Address

6101 HOLIDAY HILL ROAD
MIDLAND, TX 79707

3b. Phone No. (include area code)

Ph: 432-687-1777

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 5 T21S R24E Mer NMP NESW 1980FSL 1980FWL

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input checked="" type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Fasken Oil and Ranch, Ltd. proposes to plug back and recomple the Shell Federal No. 1 to the Yeso. We recently recomple the well to the Wolfcamp, which ended up being uncommercial. Please find attached the procedure, proposed and current wellbore diagrams.

**SUBJECT TO LIKE
APPROVAL BY STATE**

WITNESS **PLUG BACK** **SEE ATTACHED FOR**
ARTESIA DISTRICT **JUN 16 2017** **CONDITIONS OF APPROVAL**
Accepted for record - NMOCD

RECEIVED

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #376837 verified by the BLM Well Information System
For FASKEN OIL AND RANCH, LTD., sent to the Carlsbad
Committed to AFMSS for processing by PAUL SWARTZ on 05/24/2017 ()

Name (Printed/Typed) ADDISON LONG

Title REGULATORY ANALYST

Signature

(Electronic)

Date 05/22/2017

BUREAU OF LAND MANAGEMENT
OFFICE USE**APPROVED**

MAY 24, 2017

BUREAU OF LAND MANAGEMENT

CARLSBAD FIELD OFFICE

Co.
cert
whicTitle
Stat

(Instructions on page 2)

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

**Recompletion Procedure
Shell Federal No. 1
1980' FSL & 1980' FWL
Sec 5, T21S, R24E
Eddy County, New Mexico**

OBJECTIVE:	Recomplete to Yeso
WELL DATA:	
13-3/8" 48#/ft H-40 ST&C casing:	Set at 310' KB Cmt w/325 sx to surf.
8-5/8" 24.0#/ft J-55 ST&C 8rd casing:	Set at 3100' KB, Cmt w/1100sx Incor w/ 4% gel + 330 sx neat w/2% CaCl2 to surf.
4-1/2" 11.6# N-80&J-55 (1750'-7450') casing:	Set at 9,900' KB, Cmt w/ 450 sx, TOC 7750' by temp survey. 10.73' marker joint @ 9260.38'.
Perfs:	Sqz holes 7080' (2-21-17), 4h, w/145 sx "C", TOC 6720' by CBL Wolfcamp (2-27-17) 7106'-29', 47h SG. Sqz holes 7210' (2-22-17) Cement Retainer 7650' (2-22-17), Sqz holes 7700' (2-16-17), 4h, w/165sx "C" cmt CIBP 8501' (2-16-17) w/25sx "H" cmt to 8143' Strawn (12-29-14) 8568'-76', (5-18-15) 8639'-54' (16h), 8718'-26' (9h), 8758'-66' (9h). CIBP 9131' 12-24-14 w/230' "H" cmt, PBTd tag 8901' by WL 5-18-15) Atoka (7-9-14): 9181'-87', 9193'-9200', 9336'-46', 9406'-22' (1jspf, 1-11/16" SG), total 43 holes. Morrow: 9570'-9572' 4 JSPF Original, 9657'-9662' 2 JSPF 11-10-93, 9727'-9731' 2 JSPF 11-10-93. CIBP 9560' 7-3-14 CIBP 9550' w/35' "H" 7-8-14
Tubing:	2-3/8" Arrowset I 10k pkr w/ TOSSD w/1.81" "F" PN, 220 jts 2-3/8 EUE 8rd 6.5#/ft N-80 tbg, EOT 7003'.
TD:	9,901'
PBTd:	7650' Cement retainer (2-22-17)
Last Tubing Pull:	3-8-17. Note: No OH caliper run in this well. Well full of fresh water containing oxygen scavenger and packer fluid.

1. Set test tank and lay flowline. Arrange for 175 4-1/2" casing protectors to be on location.
2. RUPU, kill well with 2% KCL water containing clay stabilizer and O₂ scavenger.
3. NDWH and NUBOP.
4. Release Arrowset 1x10k packer at 7003' RIW and spot 10 bbls 9.5#/gal mud from 7,650' to 7,030'.
5. POW with 2-3/8" N-80 tubing and packer.
6. RUWL with lubricator. RIW with 4-1/2" 10K CIBP and set at 7030'. RDWL.
7. Bleed any pressure off 8-5/8" x 4-1/2" annulus. **NOTE:** Gas on 8-5/8" x 4-1/2" annulus could contain H₂S gas.
8. ND 7-1/16 3000# x 11" 3000 # well head and install 11" 3000 psi BOP with 4-1/2" pipe rams and have 4-1/2" x 2" swage on location to screw into casing. RIW and spear 4-1/2" casing, remove slips and free point casing (TOC 6700' by CBL).
9. RU WL with lubricator and RIW with chemical cutter and cutoff casing at +/-6700' with casing pulled in tension. RDWL.

10. POW with casing installing thread protectors before laying down.
11. RUWL with lubricator and run caliper log 7030'-3100' (8-5/8" shoe). RDWL.
12. RIW with 2-3/8" perf sub, SN and 2-3/8" tubing to CIBP at 7030', may need to rotate tubing into cutoff.
13. Plug #5 (#'s 1-4 in place down hole): RU cement company and spot 9.5#/gal gel laden mud from 7030' FS to 3000' FS while spotting 95 sx Class "C" cement with 2% CaCl₂ (s.w. 14.8 ppg, yield 1.32 ft³/sx). POW and WOC for 3 hrs and tag plug above 6533' (adjust cement volume per caliper; assumed 10" hole as measured in Well #2 across WC shale).
14. Receive 3400' 2-7/8" EUE 8rd J-55 tubing.
15. POW laying down all 2-3/8" EUE 8rd N80 tubing.
16. PU and RIW with 2-7/8" perforated sub, SN and 2-7/8" EUE 8rd J55 tubing to 3360'.
17. Plug #6: Spot 50 sx (Class "C" with 2% CaCl₂ (s.w. 14.8 ppg, yield 1.32 ft³/sx) from 3360' FS to 3225' FS (adjust volume per caliper; assumed 9" hole as measured in Well #2). POW with tubing into 8-5/8" casing. WOC 3 hrs and tag 3225' (Note base of OH Yeso pay estimated 3210'; this leaves 15' rat hole; however, PBSD should not be below 3300').
18. RU pump truck and circulate well with 2% KCL water containing clay stabilizer and O₂ scavenger. POW with 2-7/8" tubing, SN, 2-7/8" perf sub.
19. RIW with 8-5/8" RBP with ball catcher and set at 3090' (8-5/8" shoe at 3100').
20. RU pump truck and test casing to 2360 psi (80% of 8-5/8" 24#/ft J-55 burst 2950 psi).
21. RU acid pump and spot 750 gal triple inhibited 15% HCL acid 3085'-2805'. POW with tubing.
22. RUWL with lubricator and RIW with 4" slick guns and perforate 8-5/8" casing 1 JSPF, 60° phasing using select fire as follows:

3,050'-55' (11h, 2 JSPF, 60° Ph),
3,075'-80' (11h, 2 JSPF, 60° Ph)
- 22 total holes by Schlumberger GR/Sonic log dated 12-15-66. POW, make sure all shots fired, and RDWL.
23. Displace 750 gal spot acid with fresh water at rate achievable with max pressure 2360 psi (80% of 8-5/8" 24#/ft J-55 burst) flushing to bottom perf 3085'.
24. RIW with retrieving head, SN, 8-5/8" 32-A tension packer and 2-7/8" EUE 8rd J55 tubing to +/-2700'. Reverse 5 bfw into tubing. Set packer in 15 points tension. Test tubing/casing annulus to 500 psi.
25. Swab back load and acid water.

26. Release tension packer. RIW and retrieve RBP at 3095'. POW with 2-7/8" tubing, SN, 8-5/8" 32-A tension packer, retrieving head, and 8-5/8" RBP.
27. RUWL with lubricator and RIW with 4" slick guns and perforate +/-10" open hole formation 1 JSPF, 60 phasing using select fire as follows:
- 3,115'-20' (11h, 2 JSPF, 60° Ph),**
3,140'-45' (11h, 2 JSPF, 60° Ph)
3,170'-75' (11h, 2 JSPF, 60° Ph)
3,195'-3,200' (11h, 2 JSPF, 60° Ph)
- 44 total holes by Schlumberger GR/Sonic log dated 12-15-66. POW, make sure all shots fired, and RDWL.
28. RIW with 8-5/8" 32-A tension packer, SN, 2-7/8" EUE 8rd N-80 tubing, and set packer at +/- 2900' with 15 points tension.
29. RU pumping service. Trap 500 psi on tubing/casing annulus. Acidize Yeso perms 3050'-85' and open hole 3100'-3225' with 4000 gal 15% NEFE acid in four equal stages, at rate 4-5 bpm, maximum tubing pressure 3000 psi (frac gradient 1.0) as follows:
- a. Pump 1000 gal 15% NEFE acid
 - b. Pump 500 lb rock salt block in 10 bbls gelled brine water with biocide, clay stabilizer and O² scavenger.
 - c. Pump 1000 gal 15% NEFE acid.
 - d. Pump 500 lb (adjust as necessary) rock salt block in 10 bbls gelled fresh water with clay stabilizer and O² scavenger.
 - e. Pump 1000 gal 15% NEFE acid.
 - f. Pump 500 lb (adjust as necessary) rock salt block in 10 bbls gelled fresh water with clay stabilizer and O² scavenger.
 - g. Pump 1000 gal 15% NEFE acid.
 - h. Displace acid with fresh water containing clay stabilizer and oxygen scavenger. Record ISIP, 5, 10 and 15 minute SITP. Bleed pressure off annulus and RD pumping service.
30. Swab back acid and load water and evaluate.
31. Kill well if necessary with 2% KCL water with clay stabilizer and O² scavenger. Release 8-5/8" 32-A packer and POW laying down with 2-7/8" EUE 8rd J55 tubing, SN and packer.
32. ND BOP. NU 5K frac valve.
33. RDPU.
34. RU stimulation service and flowback equipment. Frac Lower Yeso perms 3050'-80' and open hole 3100'-3225' and Upper Yeso perms 2810'-20' (11h), 2845'-55' (11h), 2880'-90' (11h) via 8-5/8" 24#/ft J55 casing (0.0636 bbl/ft) as follows (NOTE: fluid additives and sand types TBD):
- a. Frac Lower Yeso 3050'-3225' with 300,000 gal slick water + 150,000 lbs 20/40 sand, maximum pressure 2360 psi (80% of 8-5/8" 24#/ft K-55 burst). Flush to top perf 3050' spotting 1008 gal (24 bbls) 15% double inhibited acid 2890'-2513'.
 - b. RUWL lubricator (tapered with 9-5/8" x 10' on bottom of standard 7")

- (1) Set Magnum 8-5/8" 24#/ft 6K plug at 2950'
- (2) Perforate U. Yeso:

**2,810'-15' (11h, 2 JSPF, 60° Ph),
 2,845'-50' (11h, 2 JSPF, 60° Ph)
 2,880'-85' (11h, 1 JSPF, 60° Ph)**

- c. Frac Upper Yeso 2810'-85' (33h) with 200,000 gal slick water + 100,000 lbs 20/40 sand, maximum pressure 2360 psi (80% of 8-5/8" 24#/ft K-55 burst). Flush to top perf 2810'.
- 35. RU flow back equipment and flow back well until dead. Will need to have fresh air equipment on location for flow back crews. Report results to Midland office.
- 36. RUPU and reverse unit and RIW with 7-3/4" bit, bit sub, and 2-7/8" EUE 8rd J-55 work string and drill out frac plug at 2950'; clean out to PBTD +/- 3225', circulate well clean and POW with 2-7/8" tubing and BHA.
- 37. RIW with 2-7/8" bull plugged MA, 2-7/8" perforated sub, Cavins Desander? (refer to ALS), and 2-7/8" SN and 2-7/8" EUE 8rd 6.5#/ft J-55 tubing to 3090' (10' above 8-5/8" casing shoe).
- 38. Run pump and rods per ALS recommendation.
- 39. RDPU, clean location and release all rental equipment.
- 40. Set pumping unit and generator and return well to production through battery.

CWB/SRF

5-19-17

M:\Common\WELLFILE\S\Shell Fed 1\Engineeing\ShellFed1_afexxxx_Rec to Yeso_3-8-17 srf_cwb BLM.doc

Shell Federal No. 1

Operator: **Fasken Oil and Ranch, Ltd.**

Location: **1980' FSL and 1980' FWL**

Sec 5, T21S, R24E

Eddy County, NM

Spudded: **10/30/1966**

API #: **30-015-10881**

TD: **9901'**

PBTD: **8901' (WL tag 5/18/15 CIBP@9131 w/"H")**

Casing: **13-3/8" 48# H-40 ST&C @ 310'**

w/325sx Incor w/ 2% CaCl₂

circulated to surface

8-5/8" 24# J-55 ST&C 8rd thd @ 3100'

w/1100sx Incor w/ 4% gel + 330 sx neat w/2% CaCl₂

circulated 276 sx to surface

4-1/2" 11.6# N-80&J-55 @ 9900'

450 sx Incor

TOC: **TOC 7750' by Temp survey**

4-1/2" 11.6# N-80: Surf-1750'

4-1/2" 11.6# J-55: 1750'-7450'

4-1/2" 11.6# N-80: 7450'-9900'

AJL: **1sub-2-3/8" N80 EUE 8rd tbg 4.50**

31.78 **4-1/2" x 2-3/8" Arrowset 1X 10K 8.03**

W/TOSSD w/1.81" "F" PN

220 jts, 2-3/8" N80 EUE 8rd tbg 6991.83

KB 12.00

Slackoff -3.00

ET 7013.36

2/21/17 Sqz holes 7080', 145sx "C", Plug #5 4

2/22/17 Sqz holes 7210' 4

2/22/17 Cement Retainer 7650'

2/16/17 Sqz holes 7700', 165sx "C", Plug #4 4

2/16/17 25 sx "H" 8501'-8143', tagged, Plug #3

2/16/17 CIBP 8501'

Wolfcamp

2/21/17 7106'-29' (2jspf, 3-1/8" CG, 0.42"EHD) 47

Strawn

12/29/14 8568'-76' (2jspf, 3-1/8" CG, 0.40"EHD) 16

5/18/15 8639'-54' (1jspf, 1-11/16" SG, 0.21"EH 16

5/18/15 8718'-26' (1jspf, 1-11/16" SG, 0.21"EH 9

5/18/15 8758'-66' (1jspf, 1-11/16" SG, 0.21"EH 9

12/24/14 CIBP 9131" w/230' "H" cmt, PBTD 8901' by WL 5-18-15

Atoka

7/9/14 9181'-87' (1jspf, 1-11/16" SG) 7

7/9/14 9193'-9200' (1jspf, 1-11/16" SG) 8

7/9/14 9336'-46' (1jspf, 1-11/16" SG) 11

7/9/14 9406'-22' (1jspf, 1-11/16" SG) 17

7/3/14 CIBP 9560' Morr CL 9440 43

Morrow

1965 9570'-9572' 4 JSPF Original

11/10/03 9657'-9662' 2 JSPF 11-10-93

11/10/03 9727'-9731' 2 JSPF 11-10-93

Hole Sizes **17-1/2" 310', 12-1/4" 3100', 7-7/8" 9901'**

Status: **Wolfcamp recompletion unsuccessful, 0 mcf/d.**

Current 3-8-17

RKB: 3383'

Grayburg 300'

13-3/8" 48# H-40 ST&C @ 310'

circulated to surface

San Andres 910'

Glorietta 2470'

Yeso 2756'

8-5/8" 24# J-55 ST&C 8rd thd @ 3100'

Bone Spring 3250'

Wolfcamp 6645'

TOC 6720' by CBL

EOT 7013.36

Perf 7080', 145sx, #5

Perfs Wlfc 7106'-29'

Perf 7210'

Cmt Ret 7650'

Perf 7700', 165sx, #4

TOC 7750' by Temp survey

25 Sx 8501'-8143', #3

Strawn 8540'

CIBP 8501'

Strwn 8568'-8766', 8895'-8910'

PBTD: 8901' (WL tag 5/18/15 CIBP@9131 w/"H")

CIBP 9131', Plug #2

Atoka 9170'

Atoka 9181'-9422'

Morrow 9440'

CIBP 9550' w/35' "H" cmt, Plug #1

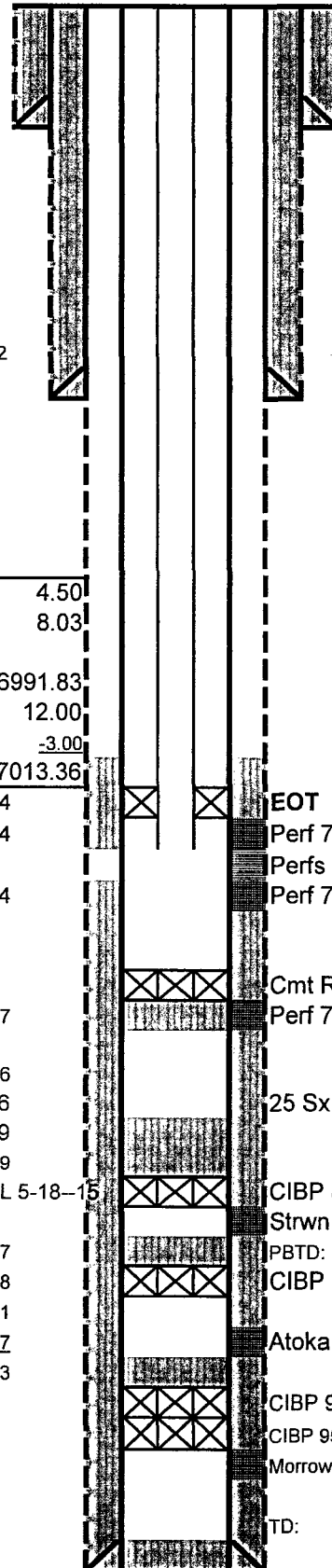
CIBP 9560'

Morrow 9570'-9731'

Barnett 9835'

TD: 9901'

4-1/2" 11.6# N-80&J-55 @ 9900'



Well: **Shell Federal No. 1**

Operator: **Fasken Oil and Ranch, Ltd.**

Location: **1980' FSL and 1980' FWL**

Sec 5, T21S, R24E

Eddy County, NM

Spudded: **10/30/1966**

API #: **30-015-10881**

TD: **9901'**

PBTD: **8901' (WL tag5/18/15 CIBP@9131 w/"H")**

Casing: **13-3/8" 48# H-40 ST&C @ 310'**

w/325sx Incor w/ 2% CaCl₂

circulated to surface

8-5/8" 24# J-55 ST&C 8rd thd @ 3100'

w/1100sx Incor w/ 4% gel + 330 sx neat w/2% CaCl₂

circulated 276 sx to surface

4-1/2" 11.6# N-80&J-55 @ 9900'

450 sx Incor

TOC: **TOC 7750' by Temp survey**

Proposed 2-3/8" EUE 8rd J55 tbg 3090'

U. Yeso 2810'-15' 22h, 2 JSPF, 60° Ph, Csg

U. Yeso 2845'-50' 22h, 2 JSPF, 60° Ph, Csg

U. Yeso 2880'-85' 22h, 2 JSPF, 60° Ph, Csg

L. Yeso 3050'-55' 22h, 2 JSPF, 60° Ph, Csg

L. Yeso 3075'-80' 22h, 2 JSPF, 60° Ph, Csg

L. Yeso 3115'-20' 22h, 2 JSPF, 60° Ph, Csg

L. Yeso 3140'-45' 22h, 2 JSPF, 60° Ph, Csg

L. Yeso 3170'-75' 22h, 2 JSPF, 60° Ph, Csg

L. Yeso 3195'-3200' 22h, 2 JSPF, 60° Ph, Csg

Plug6 45 sx "C" 3360'-3225' Bone Spring

Plug5 95 sx "C" 7030'-6533' Cutoff,TAG 6533'

Note: No caliper, well#2 = 10" hole in WC shale

CIBP 7030'

2/21/17 Sqz holes 7080', 145sx "C", Plug

2/22/17 Sqz holes 7210'

2/22/17 Cement Retainer 7650'

2/16/17 Sqz holes 7700', 165sx "C", Plug

2/16/17 25 sx "H" 8501'-8143', tagged , Plug #3

2/16/17 CIBP 8501'

Wolfcamp

2/21/17 7106'-29' (2jspf, 3-1/8" CG, 0.42"i

Strawn

12/29/14 8568'-76'

5/18/15 8895'-8910'

12/24/14 CIBP 9131" w/230" "H" cmt, PBTD 8901' by WL 5-18--15

Atoka

7/9/2014 9181'-9422'

7/3/14 CIBP 9560'

Morrow

1965, 11/10/2 9657'-9662' 2 JSPF 11-10-93

11/10/03 9727'-9731' 2 JSPF 11-10-93

Hole Sizes 17-1/2" 310', 12-1/4" 3100', 7-7/8" 9901'

Status: Strawn recompletion unsuccessful, 0 mcf/d.

Proposed PB 5-19-17

RKB: 3383'

Grayburg 300'

13-3/8" 48# H-40 ST&C @ 310'
circulated to surface

San Andres 910'

Glorietta 2470'

Yeso 2756'

U. Yeso Perf 2810-85'

L. Yeso Perf 3050-80'

L. Yeso OH 3100'-3225'

8-5/8" 24# J-55 ST&C 8rd thd @ 3100'

Bone Spring 3250'

Plg6 45sx "C", 3360'-3225'

9" OH caliper fr WELL #2

Plg5 95sx "C", 7030'-6533'

Cutoff 4-1/2" 6700'

Wolfcamp 6645'

TOC 6720' by CBL

CIBP 7030'

Perf 7080', 145sx

Perfs Wlfc 7106'-29'

Perf 7210'

Cmt Ret 7650'

Perf 7700', 165sx, plug #4

TOC 7750' by Temp survey

25 Sx 8501'-8143', Plug #3

Strawn 8540'

CIBP 8501'

Strwn 8568'-8766'

PBTD: 8901' (WL tag5/18/15 CIBP@9131 w/"H")

CIBP 9131', Plug #2

Atoka 9170'

Atoka 9181'-9422'

Morrow 9440'

CIBP 9550' w/35" "H" cmt, Plug #1

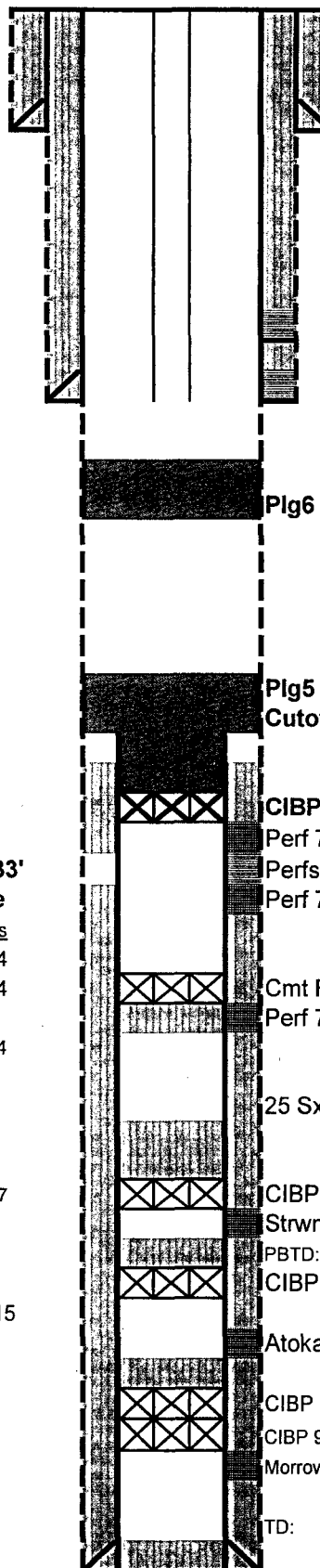
CIBP 9560'

Morrow 9570-9731'

Barnett 9835'

TD: 9901'

4-1/2" 11.6# N-80&J-55 @ 9900'



cwt

5-19-17

Shell 1 w/b diagram.xls

Conditions of Approval
Fasken Oil and Ranch, LTD
Shell - 01, API 3001510881
T21S-R24E, Sec 05, 1980FSL & 1980FWL
May 25, 2017

- 1. Operator is required to have the BLM approved NOI procedure with applicable conditions of approval on location for this workover operation.**
2. Arrange 24 hours before plug back for BLM to witness. Phone 575-361-2822 Eddy Co
Leave a voice mail or email with the API#, workover purpose, and your phone number.
3. A NMOC Form C-102 "Well Location and Acreage Dedication Plat" with updated information is necessary when recompletion changes a well's Pool designation.
4. Before casing or a liner added, replaced, or repaired prior BLM approval of the design is required. Use notice of intent Form 3160-5.
5. Subject to like approval by the New Mexico Oil Conservation Division.
6. Surface disturbance beyond the existing pad must have prior approval.
7. A closed loop system is required. The operator shall properly dispose of drilling/circulating contents at an authorized disposal site. Tanks are required, no excavated pits.
8. Functional H₂S monitoring equipment shall be on location.
9. Blow Out Prevention Equipment 3000 (3M) to be used. All BOPE and workover procedures shall establish fail safe well control. Ram(s) for the work string(s) used is required equipment. Manual BOP closure system including a blind ram and pipe ram(s) designed to close on all (hand wheels) equipment installed regardless of BOP design. Function test the installed BOPE to 500psig when well conditions allow. Related equipment, (choke manifolds, kill trucks, gas vent or flare lines, etc.) employed when needed for reasonable well control requirements.
10. All waste (i.e. trash, salts, chemicals, sewage, gray water, etc.) created by work over operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.
- 11. This procedure is subject to the next three numbered paragraphs.**
12. Set cement plugs to cover a minimum of 100ft plus 10ft for every 1,000ft from the bottom of the plug, rounding the number of necessary sacks up to the nearest 5 sacks. Never use less than 25sx. Examples: A cement plug set at 8000 in 7" casing would require a min of 35sx. A 25sx plug in 5 ½" casing should cover 250ft, which may exceed 100ft plus 10ft per 1000ft.
13. Class H > 7500ft & C < 7500ft) cement plugs(s) will be necessary. For any plug that requires a tag or pressure test a minimum WOC time of 4 hours(C) & 8 hours(H) is recommended. Formation isolation plugs of Class "C" to be mixed 14.8#/gal, 1.32 ft³/sx, 6.3gal/sx water and "H" to be mixed 16.4#/gal, 1.06ft³/sx, 4.3gal/sx water.

14. Minimum requirement for mud placed between plugs is one 50lb/sx of salt water gel per 100 barrels in 9 lb/gal brine.
- 15. Tag Plg5 at 6530 or higher and Plg6 at 3225 or higher.**
16. The subsequent report is to describe ball action and stimulation pressures. Report maximum/minimum injection rate (BPM) and max/min stimulation injection pressures (psig).
17. File intermediate **subsequent sundry** Form 3160-5 within 30 days of any interrupted workover activity.
18. Submit within 30 days of completion the full workover subsequent report (dated daily) via BLM's Well Information System; <https://www.blm.gov/wispermits/wis/SP> with the Mechanical Integrity Test chart document.
19. Submit the BLM Form 3160-4 **Recompletion Report** within 30 days of the date all BLM approved procedures are complete.
20. BLM compliance requires sundry notice of a wellbore inactive/idle over 90 days.