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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-10881	² Pool Code 97565	³ Pool Name N. Seven Rivers; Glorieta-Yeso
⁴ Property Code Shell Federal	⁵ Property Name	
⁷ OGRID No. 151416	⁶ Operator Name Fasken oil and Ranch, Ltd.	⁸ Well Number 1 ⁹ Elevation 3819 GR

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	5	21S	24E		1980	South	1980	West	Eddy

¹¹ 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

¹² Dedicated Acres 4.0	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.

	¹⁶ 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 or has a right to drill this well at this 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. Signature: <i>Adrian Long</i> Date: 6-29-17 Addison Long Printed Name addisonl@fort.com E-mail Address		
	¹⁷ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. Date of Survey Signature and Seal of Professional Surveyor: Certificate Number		

RVP 6-30-17

**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, PBTD 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")

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'

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'

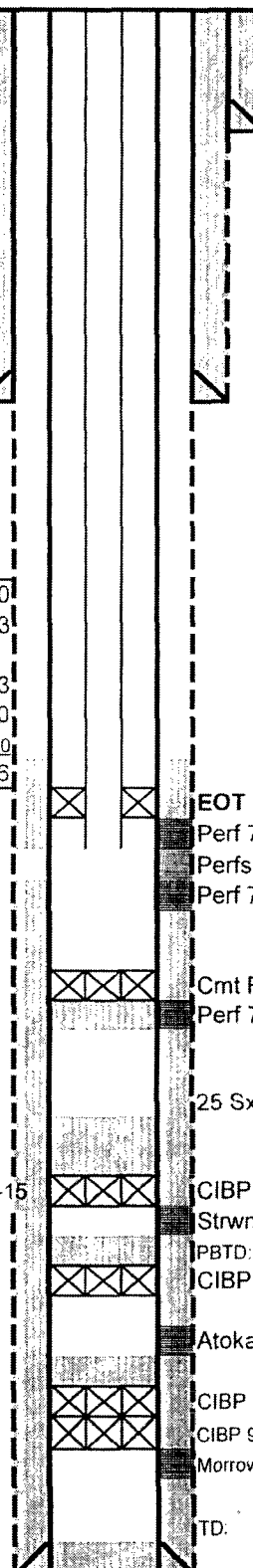
w/325sx Incor w/ 2% CaCl₂
 circulated to surface
 8-5/8" 24# J-55 ST&C 8rd thd @ 3100'
 w/1100sx Incor w/ 4% gel + 330 sx neat w/2% CaCl₂
 circulated 276 sx to surface
 4-1/2" 11.6# N-80&J-55 @ 9900'
 450 sx Incor
 TOC: TOC 7750' by Temp survey
 4-1/2" 11.6# N-80: Surf-1750'
 4-1/2" 11.6# J-55: 1750'-7450'
 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"E) 16
 5/18/15 8718'-26' (1jspf, 1-11/16" SG, 0.21"E) 9
 5/18/15 8758'-66' (1jspf, 1-11/16" SG, 0.21"E) 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.



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

CIBP 8501'

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

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'

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 NMOCD 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. Portojohns 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 1/2" 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.