

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

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
June 16, 2008

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit to appropriate District Office

☐ AMENDED REPORT

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

¹ Operator Name and Address Fasken Oil and Ranch, Ltd. 303 W. Wall St., Ste. 1800, Midland, TX 79701		² OGRJD Number 151416
		³ API Number 30-015-21140
⁴ Property Code 028914	⁵ Property Name Howell "29" Com	⁶ Well No. 1
⁹ Proposed Pool 1 (11795) Wildcat (Yeso) CEMETARY		¹⁰ Proposed Pool 2

⁷ Surface Location

UL or lot no G	Section 29	Township 20S	Range 25E	Lot Idn	Feet from the 1980'	North/South line North	Feet from the 2310'	East/West line East	County Eddy
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⁸ Proposed 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
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Additional Well Information

¹¹ Work Type Code P	¹² Well Type Code O	¹³ Cable/Rotary R	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation 3542' GL
¹⁶ Multiple No	¹⁷ Proposed Depth 9675'	¹⁸ Formation Yeso	¹⁹ Contractor	²⁰ Spud Date 7-6-2010

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 1/2"	13 3/8"	48	202'	300 sx	Surface
12 1/4"	8 5/8"	24 & 32	3240'	1200 sx	Surface
7 7/8"	4 1/2"	10.5 & 11.6	9673'	775 sx	7190' TS

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

This well is currently completed in the Cemetary (Wolfcamp) pool with perms from 7190' - 7204'.

Fasken Oil and Ranch, Ltd. proposes to perf the Wolfcamp from 6736' - 6752' and test it. If it is non-commercial then Fasken will plug back to the Wildcat (Yeso) pool.

Please see attached for procedure and plat.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature <i>Kim Tyson</i>		Approved by	
Printed name: Kim Tyson		Title	
Title: Regulatory Analyst		Approval Date:	Expiration Date
E-mail Address: kimt@forl.com			
Date: 6-4-2010	Phone: 432-687-1777	Conditions of Approval Attached <input type="checkbox"/>	

Sent to Well File 6-4-2010. LWT

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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 October 15, 2009

Submit one copy to appropriate

District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-21140	² Pool Code 11795	³ Pool Name CENETARY Wildcat (Yeso)
⁴ Property Code 028914	⁵ Property Name Howell "29" Com	
⁷ OGRID No. 151416	⁸ Operator Name Fasken Oil and Ranch, Ltd.	⁶ Well Number 1 ⁹ Elevation 3542' GL

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
G	29	20S	25E		1980'	North	2310'	East	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 40	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 	¹⁷ 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 <u>Kim Tyson</u> Date <u>6-4-2010</u> Printed Name <u>Kim Tyson</u>	
	¹⁸ 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 _____	

**Recommended Workover Procedure
Howell "29" Com No. 1**

Fasken Oil & Ranch, Ltd. ----- Howell "29" No. 1 ----- Cemetary Field

Surface Location: 1980' FNL & 2310' FEL Sec 29, T20S, R25E, Eddy Co., NM

Objective: Perforate and test Wolfcamp zone 6736'-52'. If non-commercial recompleate to Yeso.

API: 30-015-21140

KB: 15' above GL

Completed: 6-7-74

TD: 9675'

PBTD: Current 8215', CIBP @ 8250' w/35' Class "H" cmt Apr '03. Original 9607' FC

13-3/8" @ 202' w/400 sx, Circ to surf.

8-5/8" @ 3240' w/1200 sx, Circ to surf.

4-1/2" 10.5 & 11.6#/ft @ 9673' w/775sx, TOC @ 6244 CBL 12/7/05.

Perfs: Original 1JSPF 9484-9504', (20 holes).

Oct 1992 perfed 1JSPF w/2-1/8" OD strip gun, 0.29" entry hole at 9332'-61', 9364'-69', 9470'-78' (45 holes).

Mar 1998 perfed 1JSPF w/1-11/16" OD strip gun, at 9332'-61', 9364'-69', 9484'-9504' (57 holes).

Dec 2001 Perf 9332'-61', 9364'-69' (68 holes).

CIBP 9300' w/35' cmt

April 02: perf Strawn 8318'-23' (6h), 8436'-42' (7h), 8568'-76' (9h), 8913'-21' (9h), 9036'-38' (3h).

Total 34 holes with 1-11/16" strip gun, Apr '03.

Set 4-1/2" CIBP w/ 35' cement 12-5-05

Current Perfs: 7190'-7204' 12-8-05

Packer: Arrowset I-10K packer set @ 7121.67' w/TOSSD w/1.875" SS profile nipple.

Tubing 2-3/8" 4.7 #/ft EUE 8rd N-80

Status: Well shut-in since July '08.

1. Test mast anchors. Notify NMOCD 24 hrs before starting. Blow down tubing pressure.
2. RUPU and kill well with 30 bfw down tubing, NDWH and NU BOP.
3. Release Arrowset 1x10k packer at 7122' and POW with 2-3/8" N-80 tubing and packer. LD estimated 16 jts tubing.
4. RUWL and pack off. RIW with 3.87" gauge ring to 7150'. RIW with 4-1/2" 10K CIBP and set at 7150' and dump bail 35' Class "H" cement on CIBP. RDWL.
5. RIW with 4-1/2" Arrowset I-X 10K Packer, 3-3/4" X 2-3/8" with TOSSD w/1.875" "F" profile nipple and set packer at +/-6636' landing tubing in 15000# compression.
6. Release TOSSD and circulate tubing/csg annulus with 75 bbls 2% kcl wtr containing packer fluid, engage TOSSD.
7. ND BOP. NU flow tree.
8. Swab fluid level down to 5000' from surface.

9. RUWL full lubricator and perforate Wolfcamp formation with 1-11/16" strip gun 6736'-52 with 1JSPF, total 17 holes, by Schlumberger Compensated Neutron-Formation Density Log dated 06-May-74. POW and make sure all shots fired. RDWL.
10. Flow and swab and evaluate.
11. If stimulation required. RU stimulation services. RU tree saver. RU pump truck and trap 1500 psi on tubing casing annulus. Acidize perms 6736'-52' with 1000 gal mixture of 15% HCL NEFE acid. Max surface pressure 1500 psi.
12. Flow and swab back load and acid water to pit until flare will burn. RDPU.
13. Return well to sales. NOTE: if Wolfcamp zone 6736'-52 is non-commercial proceed to recomplete to Yeso.

Recomplete to Yeso

14. Have tank permits in hand before RUPU and notify NMOCD 24 hrs before starting.
15. RUPU and kill well with 30 bfw down tubing, NDWH and NU BOP. Receive 140- 4-1/2" pin end thread protectors.
16. Release Arrowset 1x10k packer at 6690" and POW with 2-3/8" N-80 tubing and packer. LD estimated 25 jts tubing.
17. RUWL and pack off. RIW with 4-1/2" 10K CIBP and set at 7150' and dump bail 35' Class "H" cement on CIBP.
18. Dig out wellhead exposing 8-5/8" x 4-1/2" annulus valves and make sure they are open. Open valves on surface and check for pressure on 8-5/8" x 4-1/2" annulus and fill with FW. **NOTE:** Gas on 8-5/8" x 4-1/2" annulus could contain H₂S gas.
19. 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. Once free point has been determined call in results to Midland office estimating 6200' of free pipe.
20. RU wire line company and RIW with chemical cutter and cutoff casing at the depth decided by Midland office with casing pulled in tension.
21. POW and RDWL and POW with casing installing thread protectors before laying down.
22. RIW with 2-3/8" perf sub, sn and 2-3/8" tubing to 6250' +/-, may need to rotate tubing into cutoff. RU cement company and spot 10#/gal gel laden mud from 6250' FS to 3000' FS while spotting 35 sx Class "C" with 2% CaCl₂ (s.w. 14.8 ppg, yield 1.32 ft³/sx). POW and WOC for 3 hrs and tag plug above 6150'. POW laying down 2-3/8" tubing to 3290' FS.
23. Spot 45 sx Class "C" with 2% CaCl₂ (s.w. 14.8 ppg, yield 1.32 ft³/sx) from 3290' FS to 3190' FS and WOC 3 hrs and tag above 3190' FS. POW and LD remaining 2-3/8" N-80 tubing.

24. Receive and unload 3150' of 2-7/8" EUE 8rd j-55 tubing. Clean and tally tubing and RIW to 3050' and pickle tubing with 500 gals 15% HCl acid and reverse to tank. Spot 750 gals 15% HCl DI acid from 3050'- 2770' FS.
25. RUWL with lubricator and RIW with 4" slick guns and perforate 8-5/8" casing 2 JSPF, 120° phasing using select fire @ 2784'-89' (11h), 2816'-21' (11h), 2846'-51' (11h), 2895'-2900' (11h), 2956'-61' (11h), and 3003'-3008' (11h), total 66 holes. POW with guns and note that all shots fired. RDWL.
26. RIW with 8-5/8" HD packer, SN, and 2-7/8" EUE 8rd tubing to +/-2700'. Reverse 5 bfw. Set packer in 10 points compression.
27. Displace 750 gal spot acid with fresh water at max pressure 1000 psi (0.8 psi/ft FG at 2770' w/FW) flushing to bottom perf 3050'.
28. Swab back spot acid and evaluate.
29. RU pumping service and acidize perms 2784'-3008' (66 holes) with 3500 gal 15% NEFE acid with 4 gpt Ferrotrol 280L, 1gpt CI-27, and 1 gpt NE-940 additives (or equivalent). Pump 500 gals acid followed by 3000 gals acid dropping 140 - 1.3 s.g. ball sealers in evenly spaced. Attempt to achieve ball out with maximum pressure 1200 psi. Displace acid with fresh water containing clay stabilizer and oxygen scavenger. Record ISIP, 5, 10 and 15 minute SITP. Bled pressure off annulus and RD pumping service.
30. Kill well if necessary with fresh water containing oxygen scavenger. Release 8-5/8" HD packer and RIW to below bottom perf at 3050'. POW with 2-7/8" tubing, SN and packer.
31. ND BOP. NU 5K frac valve.
32. RU stimulation service. Frac Lower Yeso perms 2784'-3008' via 8-5/8" casing with 299,750 gal Aqua Frac 2000 + 150,188 lbs 20/40 mesh Brady sand +/- 40 BPM, maximum pressure 2360 psi (80% of 8-5/8" 24#/ft K-55 burst) Flush spotting 1000 gal 10% HCL acid containing 4 gpt Ferrotrol 280L, 1gpt CI-27, and 1 gpt NE-940 at 2600'- 2210'. Obtain 5, 10, 15 min SICP.
33. RU WL and 3000 psi lubricator and run 8-5/8" ceramic flow through frac plug at 2650'.
34. Pressure test casing and frac plug to 1500 psi.
35. RIW with 4" slick guns and perforate 8-5/8" casing 2 JSPF, 120° phasing using select fire @ 2562'-67' (11h), 2589'-94' (11h), and 2605'-10' (11h), total 33 holes. POW with guns and note that all shots fired. RDWL.
36. Frac Upper Yeso perms 2562'-2610' via 8-5/8" casing with 152,100 gal Aqua Frac 2000 + 74,925 lbs 20/40 mesh Brady sand +/- 70 BPM, maximum pressure 2360 psi (80% of 8-5/8" 24#/ft K-55 burst). Obtain 5, 10, 15 min SICP.
37. Flow back frac load until well is dead.
38. ND frac valve and NU BOP with 2-7/8" pipe rams and blind rams.
39. RU reverse unit and RIW with 7-1/2" bit, bit sub, 6 - 3-1/2" DC's and 2-7/8" EUE 8rd J-55 workstring and drill out frac plug at 2650'.

40. Clean out PBTD +/-3190', circulate well clean and POW 2-7/8" tubing and BHA.
41. RIW with 2-7/8" bull plugged MA, 2-7/8 " perforated sub and 2-7/8" SN and 2-7/8" EUE 8rd 6.5#/ft J-55 tubing to 2500' above top perf @ 2550'.
42. Run rods and pump per ALS recommendation to be included with procedure.
43. RDPU, clean location and release all rental equipment.
44. Return well to production and report daily production on daily drilling reports to Midland office.