

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Form C-101
Revised March 17, 1999

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Submit to appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ 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 Ave., Suite 1800 Midland, TX 79701-5116		² OGRID Number 151416
³ Property Code 32562		³ API Number 30-025-36333
⁵ Property Name Buckeye "1" State		⁶ Well No. 1

⁷ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4 / D	1	17S	34E		820	North	1310	West	Lea

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

⁹ Proposed Pool 1

North Vacuum Atoka Morrow

¹⁰ Proposed Pool 2

¹¹ Work Type Code N	¹² Well Type Code G	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 4040'
¹⁶ Multiple No	¹⁷ Proposed Depth 12800'	¹⁸ Formation Morrow	¹⁹ Contractor Not available	²⁰ Spud Date 8/10/03

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#	500'	550 sx	Surface
12 1/4"	9 5/8"	36/40#	5000'	1200 sx	Surface
8 3/4"	4 1/2"	11.6/13.5#	12800'	2100 sx	4500'

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.

Please see attached for procedure, casing program and BOP schematic.

Permit Expires 1 Year From Approval
Date Unless Drilling Underway

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Printed name: Jimmy D. Carlile

Title: Regulatory Affairs Coordinator

Date: 7/15/03

Phone: (915) 687-1777

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

Expiration Date:

Conditions of Approval:

Attached ☐

JUL 17 2003

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State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised March 17, 1999

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State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-36333	Pool Code 86800	Pool Name North Vacuum Atoka Morrow
Property Code 32562	Property Name BUCKEYE "1" STATE	Well Number 1
OGRID No. 151416	Operator Name FASKEN OIL & RANCH, LTD.	Elevation 4040'

Surface Location

UL or lot No. LOT 4/D	Section 1	Township 17 S	Range 34 E	Lot Idn	Feet from the 820	North/South line NORTH	Feet from the 1310	East/West line WEST	County LEA
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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 320	Joint or Infill	Consolidation Code	Order No.						

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

	<p>OPERATOR CERTIFICATION</p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Jimmy D. Carlile</i> Signature Jimmy D. Carlile Printed Name Regulatory Affairs Coord. Title July 15, 2003 Date</p> <p>SURVEYOR CERTIFICATION</p> <p>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.</p> <p>NOVEMBER 20, 2002 Date Surveyed Signature & Seal of Professional Surveyor 7977 W.D. No. 2872A Certificate No. 7977 BASIN SURVEYS</p>
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Recommended Procedure

Buckeye "1" State No. 1 ————— A.F.E. No. 628 ————— North Vacuum Atoka-Morrow Field
820' FNL and 1310' FWL
Sec. 1, T17S, R34E
Lea County, NM

1. Drilling contractor to set 30" conductor if necessary. MIRU rotary tools.
2. Drill 17-1/2" hole to 500' with spud mud. Set and cement 13-3/8" casing with 550 sx Class "C" with 2% CaCl₂ (s.w. 14.8 ppg, yield 1.32 ft³/sx). WOC 18 hrs.
3. Drill 12-1/4" hole to 5000' with 10 ppg brine water. Control seepage with paper.
4. Set and cement 9-5/8" casing at 5000' with estimated 1000 sx Halliburton Interfill "C" with 8# salt and 1/4# Flocele (s.w. 11.9 ppg, yield 2.46 ft³/sx) plus 200 sx Class "C" neat (s.w. 14.8 ppg, 1.32 ft³/sx). Run temperature survey and locate TOC if cement is not circulated.
5. Install 11" x 5000 psi intermediate spool. NU 11" 5000 psi B.O.P.'s, hydril and choke manifold. WOC 12 hours. Set up DST test line complete with test tank. RU mud gas separator with flare ignitor. Install H₂S monitor equipment, escape packs and briefing stations.
6. Hydrostatically test 200' of 9-5/8" casing to 2800 psig, casing spool, BOP's, and choke manifold to 3000 psig, and hydril to 1500 psig. Install PVT equipment
8. Drill 8-3/4" hole to total depth of 12,800'. Drill out using fresh water to a depth of 9600'. Convert to 9.5 ppg cut brine water at 9600' just above the Wolfcamp shales. Mud up as dictated by hole conditions or by 11,500' with starch and PAC mud system. Increase viscosity with salt gel or polymer as needed to clean hole. Maintain 9.5-10.0 ppg and 10 cc water loss to total depth.
NOTE: Be prepared to raise mud weight to 12 ppg in the Atoka-Morrow interval if necessary.
9. DST all shows.
10. Log well with DLL-MSFL and CNL-LDT using Schlumberger Platform Express.
11. Run and cement 4-1/2" production casing (resin coated and centralized through pay zones) with DV tool at base of Abo (estimate 9600') as follows;

First Stage: Note, batch mix lead slurry. 10 bfw + 500 gallons Mud Clean + 10 bfw and estimated 1000 sx Halliburton Super "H" with 1# salt, 0.4% CFR-3, 0.5% Halad-344, 0.1% HR-7 and 5# Gilsonite (s.w. 13.0 ppg, yield 1.67 ft³/sx). Open DV tool and circulate 6 hours.

Second stage: 1000 sx Halliburton Lite "C" with 6% gel (s.w. 12.6 ppg, yield 2.01 ft³/sx) plus 100 sx Class "H" neat (s.w. 15.6 ppg, yield 1.18 ft³/sx). Calculate second stage cement volume for TOC at 4500'.

12. Set slips, nipple down BOP's and run temperature survey to locate cement top.
13. Install 11"-5000 psi x 7-1/16"-5000 psi tubinghead and flow tree.
14. Rig down and move out rotary tools.
15. Level location, set mast anchors, move in and rig up completion unit.

Buckeye "1" State No. 1 Recommended Procedure
Page 2

16. RIW with 3-3/4" bit, 4-1/2" casing scraper, 6 3-1/2" drill collars and 2-3/8" 4.7# N-80 EUE 8rd tubing. Drill out DV tool and reciprocate scraper through DV tool several times. Pressure test casing to 1500 psig. RIW and clean out to float collar. Circulate well clean and pressure test casing to 1500 psig. POW and LD tools.
17. RIW with packer, T.O.S.S.D. with "F" profile nipple and 2-3/8" tubing. Set packer, install flow tree, swab down tubing and perforate pay interval.
18. Flow test well , evaluate, and stimulate if necessary.
19. RDPU. Clean and level location.
20. Run C.A.O.F.P. and pressure build up.
21. Connect surface equipment.

TET
(Buckeye1State1drlgprc)

Recommended Casing Program
A.F.E. No. 628

Fasken Oil and Ranch, Ltd.-----Buckeye "1" State No. 1-----North Vacuum Atoka-Morrow Field
Lea County, NM

String	Footage	Size	Weight	Grade	Thread
Surface	500'	13-3/8"	48.00#	H-40	ST&C
Intermediate	2700'	9-5/8"	36.00#	K-55	ST&C
	1500'	9-5/8"	40.00#	K-55	ST&C
	800'	9-5/8"	40.00#	HCK-55	ST&C
	<u>5000'</u>				
Production	2,500'	4-1/2"	11.60#	N-80	BT&C
	8,400'	4-1/2"	11.60#	N-80	LT&C
	1,900'	4-1/2"	13.50#	N-80	LT&C
	<u>12,800'</u>				
Tubing	12,700'	2-3/8"	4.70#	N-80	EUE 8rd

TET
(Kbuckeye1State1csg)

