Form 3160-5
(November 1994)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

N.M. Oil Cons. Division
811 S. 1st Street
Artesia, NM 88210-2834

FORM APPROVED
OMB No. 1004-0135
Expires July 31, 1996

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.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

5. Lease Serial No.
LC-067132

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
SCR - 150

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
Empire 20 Federal Com 2

2. Name of Operator
Gruy Petroleum Management Co.

9. API Well No.
30-015-31046

3a. Address
P. O. Box 140907 Irving, TX 75014-0907

3b. Phone No. *(include area code)*
972-401-3111

10. Field and Pool, or Exploratory Area
Turkey Track Atoka/Morrow Nor.

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
660' FSL & 1650' FEL Sec. 20 T18S - R29E

11. County or Parish, State
Eddy Co. NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Dual completion procedure
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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 recomplete 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 shall 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 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Request approval of Atoka/Morrow dual completion procedures. See attached procedure and well bore schematic.

RECEIVED
OCD - ARTESIA

SUBJECT TO
LIKE APPROVAL
BY STATE

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

Name *(Printed/Typed)*	Title
Zeno Farris	Manager Operations Administration
Signature: Zeno Farris	Date: August 16, 2000

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by	Title	Date
(ORIG. SGD.) DAVID R. GLASS	PETROLEUM ENGINEER	AUG 21 2000
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on reverse)

5 ½" PLS Packer & TCP Power Perf Completion

Procedure:

1. P/U and RIH w/ TCP assembly, on/off tool, and 5 ½" PLS Packer, for over-balanced perforating on 11,010' of 6.5# N-80 2 7/8" tubing (testing to 8500#). After running 100 feet, fill tubing with 16 gallons of filtered 7% KCL water.

2. RU Halliburton w/ 5,000 psi lubricator. Perforate Morrow with N2 blanket from 11,138'– 50' with TCP casing gun @ 6 shots/ft (73 shots). RD Halliburton.

3. Flow well to production and recover treatment. SI well.

Status of Well when beginning second completion:
BHP pulled. Well SI.

Procedure:

1. Wireline set blank-off plug in packer @ 11,067.

2. Blow down and load tubing to equalize with casing.

3. Release on/off tool and POOH laying down 2-7/8" tubing.

4. P/U and RIH w/ ±10,980' of 2-3/8", 4.7#, N-80 tubing (testing to 7,000#). (On/Off tool @ 11,066.7' KB)

5. RU Halliburton and pickle tubing w/ 250 gal. xylene and 250 gal. 15% HCl and load hole w/ 7% treated KCl water w/ surfactant.

6. Swab fluid level to ±8,000' to setup for under-balanced perforating (2,000# hydrostatic). TOOH.

7. RU Halliburton w/ 5,000 psi lubricator. Perforate Atoka from 10,658' – 70' w/ expendable casing gun @ 6 shots/ft, 60° phasing (73 shots). RD Halliburton.

8. Flow back through casing to test well.

9. Kill well (if needed) w/ 7% treated KCl water and TIH w/ production string w/ sliding sleeve open (see detail below).

10. Swab Atoka in through sliding sleeve and establish controlled flow through tubing and casing. SI tubing and establish Atoka production through casing.

11. Close sliding sleeve and monitor Atoka production via annulus.

12. Once Atoka is producing, pull plug from packer (Morrow) and establish simultaneous production from Morrow and Atoka.

2-3/8" Production Tubing String

KB	17.00'	@	14.00'
2-3/8", 4.7", N-80 Tubing/Subs	*10,626.00'*	@	*10,640.00'*
Blast Joints	*40.00'*	@	*10,680.00'*
2-3/8", 4.7", N-80 Tubing/Subs	*384.77'*	@	11,064.77'
Otis On/Off w/ 1.875" x w/2-3/8" XO	1.70'	@	11,066.47'
Latch into On/Off Tool			

Itialics – approx. lengths/depths

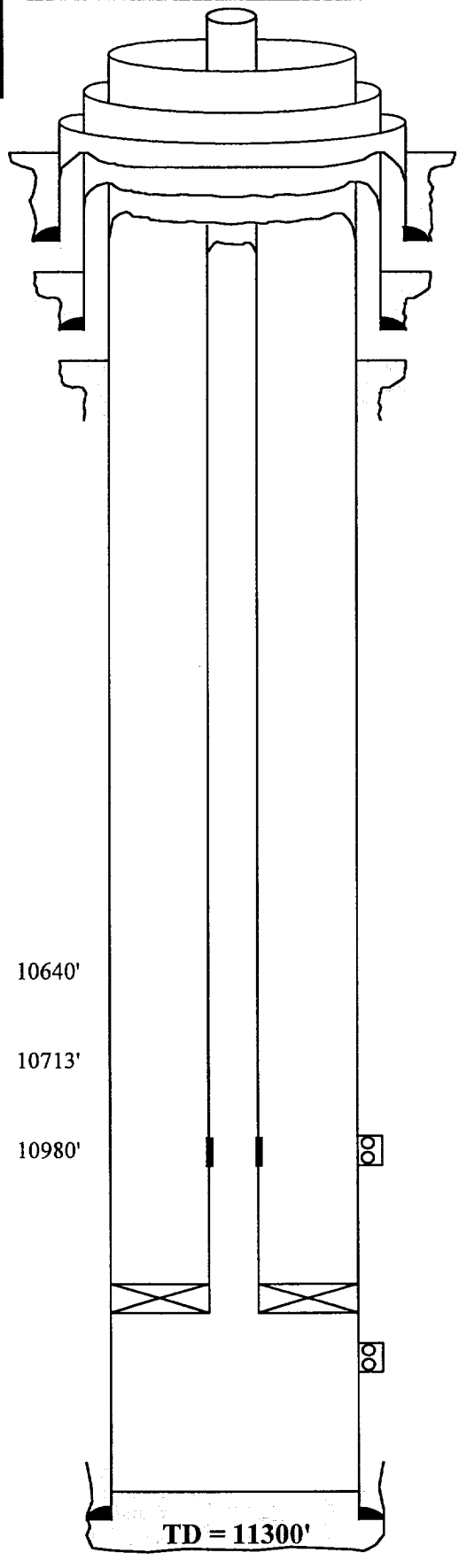
(existing tubular detail)			
5½" PLS 13-17# 10K w/ 60K shear	3.96'	@	11,070.43'
2-3/8" tubing sub	9.98'	@	11,080.41'
2-3/8" tubing release w/ 1.88" latch	1.56'	@	11,081.97'
2-3/8" tubing (1 jt)	32.70'	@	11,114.67'
3-3/8" Mod KV Firer w/ 2-3/8" XO (3-3/8" OD)	2.96'	@	11,117.63'
Prop Gun (3-3/8" OD)	16.70'	@	11,134.33'
Blank Section (3-3/8" OD)	3.67'	@	11,138.00'
TCP Guns	12.00'	@	11,150.00'
Bull Plug	0.75'	@	11,150.75'

Empire 20 Fed Com #2

Jim Howell 8/3/00

KB: 3530.0'
DF: 3529.0'
GL: 3513.0'
Datum: 17.0' above GL

660' FSL & 1650' FEL
Sec 20-T18S-R29E
Eddy Co., NM



TOC of 13-5/8" @ surface

13-3/8", 48#, H-40 @ 404'
cmt w/ 375 sx

TOC of 8-5/8" @ surface

8-5/8", 32#, J-55 @ 3230'
cmt w/ 1950 sx

TOC of 5-1/2" @ 3067'

7-1/16" x 5000#
6" x 1500# flange

DV Tool @ 7000'
cmt w/ 500 sx

Tubing Detail:

1 jt 2-3/8", N-80	
1 sub (6')	
320 jts 2-3/8", N-80	10640'
2 blast jts (3" OD)	
1 jt 2-3/8", N-80	
sliding sleeve (1.875 ID) XU	10713'
8 jts 2-3/8", N-80	
on/off tool w/ XO pn (1.875 ID)	
PL2 packer	10980'

Perfed 10658'-70' w/ 6 spf

Perfed 11137'-50' w/ 6 spf

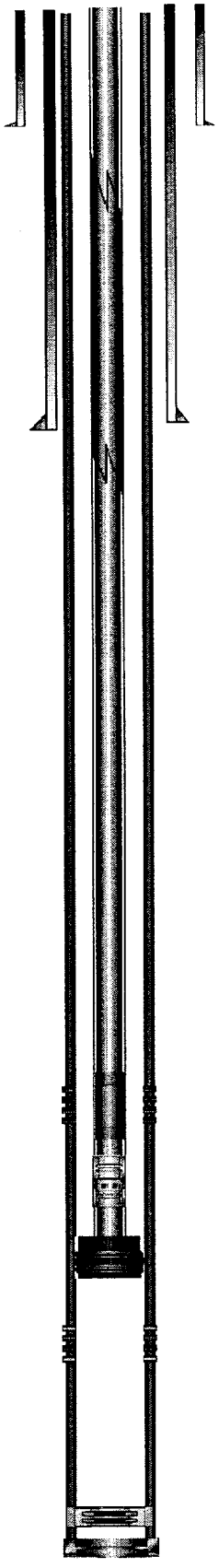
PBTD = 11247'

TD = 11300'

5-1/2", 17#, S-95 & N-80 @ 11,300'
cmt w/ 445 sx

Empire 20 Federal Com #2
Eddy County, NM

8/14/00
By: HLM



13-3/8" Casing Detail

K.B.	17.00'	@	17.00'
8 Jts., 48#, H-40	341.85'	@	358.85'
Insert Float	0.00'	@	358.85'
1 Jt., 48#, H-40	44.47'	@	403.32'
Shoe	0.68'	@	404.00'

8-5/8" Casing Detail

K.B.	17.00'	@	17.00'
71 Jt.s, 32#, J-55, LT&C	3,165.91'	@	3,182.91'
Float Shoe	1.19'	@	3,184.10'
1 Jt. 32#, J-55, LT&C	44.89'	@	3,228.99'
Guide Shoe	1.01'	@	3,230.00'

2-3/8" Tubing Detail

K.B.	17.00'	@	15.00'
1 Jt., 4.7#, N-80	33.10'	@	48.10'
1 Tbg., sub 4.7#, N-80	6.00'	@	54.10'
320 Jts, 4.7#, N-80	10,584.22'	@	10,638.32'
2 Blast Joints	39.70'	@	10,678.02'
1 Jt., 4.7#, N-80	33.10'	@	10,711.12'
Sliding Sleeve	2.50'	@	10,713.62'
8 Jts. 4,7#, N-80	264.65'	@	10,978.27'
Off/On Tool	1.70'	@	10,979.97'
Halliburton PL Packer (16 pts compression)	6.95	@	10,986.92'

5-1/2" Casing Detail

K.B.	17.00'	@	17.00'
8 Jts., 17#, S-95	308.51'	@	325.51'
157 Jts., 17#, N-80	6,672.61'	@	6,998.12'
DV Tool	2.13'	@	7,000.25'
62 Jts, 17#, N-80	2,633.19'	@	9,633.44'
37 Jts., 17#, S-95	1,620.54'	@	11,253.98'
Float Collar	1.01'	@	11,254.99'
1 Jt., 17#, S-95	43.72'	@	11,298.71'
Guide Shoe	1.29'	@	11,300.00'