

E-04-43

N.M. Oil Cons. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

Form 3160-3
(September 2001)

RECEIVED

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APR 07 2005
COD-ARTESIA

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER			5. Lease Serial No. NM30395	
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone			6. If Indian, Allottee or Tribe Name	
2. Name of Operator <i>per attached SN approved 4-5-05</i> Tom Brown, Inc. <i>GRUY PETROLEUM MANAGEMENT CO</i>			7. If Unit or CA Agreement, Name and No.	
3a. Address P O Box 2608 Midland, TX 79702			8. Lease Name and Well No. Callaway Federal #4	
3b. Phone No. (include area code) 432-688-9598			9. API Well No. 30-015-34064	
4. Location of Well (Report location clearly and in accordance with any State requirements) At surface <i>1630 FSL & 660 FEL per attached SN approved 4-5-05</i> At proposed prod. zone			10. Field and Pool, or Exploratory Diamond Mound (Morrow)	
14. Distance in miles and direction from nearest town or post office* 11.5 miles E/SE of Lake Arthur			11. Sec., T., R., M., or Blk. and Survey or Area Sec. 6, T16S, R28E	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660		16. No. of Acres in lease 322.55	17. Spacing Unit dedicated to this well 322.55	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2625'		19. Proposed Depth 9300	20. BLM/BIA Bond No. on file ES-0183	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3608 GR		22. Approximate date work will start* 4/15/04	23. Estimated duration 25 days	

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>B.E. Franks</i>	Name (Printed/Typed) Brian E. Franks	Date 2-19-04
Title Drilling & Completion Engineer		
Approved by (Signature) <i>/s/ Tony J. Herrell</i>	Name (Printed/Typed) <i>/s/ Tony J. Herrell</i>	Date APR 05 2005
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval does not warrant or certify the the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR 1 YEAR

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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)

**APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED**

Artesia Controlled Water Basin

3160-5
November 1994)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM 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**1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other2. Name of Operator
Gruy Petroleum Management Co.3a. Address
P. O. Box 140907 Irving, TX 75014-09073b. Phone No. (include area code)
972-401-31114. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Unit I-Section 6-T16S-R28E
1830' FSL & 660' FEL5. Lease Serial No.
NMNM30395

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
Callaway Federal No. 49. API Well No.
30-015-10. Field and Pool, or Exploratory Area
Diamond Mound; Morrow (Gas)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			
<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"/> Fracture Treat	<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 type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Change of Operator</u>
	<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 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.)

Effective 8-01-04, Tom Brown, Inc. transferred operatorship of said lease to Gruy Petroleum Management Co.

Gruy Petroleum Management Co. accepts all responsibility under the terms and conditions of the said lease. Bond coverage in the amount of \$25,000 is provided under BLM Bond No. NM 2575 in favor of the Bureau of Land Management, U.S. Department of Interior.

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Zeno Farris

Signature

Zeno Farris

Title

Manager Operations Administration

Date

April 5, 2005

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

/s/ Tony J. Herrell

FIELD MANAGER

Date

APR 05 2005

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

CARLSBAD FIELD OFFICE

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(Instructions on reverse)

Oil Cons.
N.M. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires January 31, 2004

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. **NM30395**
6. If Indian, Allottee or Tribe Name
7. If Unit or CA/Agreement, Name and/or No.
8. Well Name and No. **Callaway Federal 4**
9. API Well No.
10. Field and Pool, or Exploratory Area **Diamond Mound (Atoka Morrow)**
11. County or Parish, State **Eddy, NM**

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other
2. Name of Operator **Tom Brown, Inc.**
3a. Address **P. O. Box 2608, Midland, TX 79702** 3b. Phone No. (include area code) **432-688-9773**
4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
1980 FSL & 660 FEL
Unit I, Sec 6, T16S, R28E

12. CHECK 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"/> Fracture Treat	<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 type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input checked="" 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	

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Request to change the well Location - per BLM, Barry Hunt

From: 1980 FSL & 660 FEL

To: 1830 FSL & 660 FEL

14. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Diane Kuykendall

Title **Operations Asst / Tech**

Signature

Date **5/24/04**

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

/s/ Tony J. Herrick

FIELD MANAGER

Date

APR 05 2005

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Office **CARLSBAD FIELD OFFICE**

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(Instructions on reverse)

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102

Revised February 10, 1994

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

DISTRICT II

P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

P.O. BOX 2088, SANTA FE, N.M. 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number	Pool Code 76079	Pool Name Diamond Mound (Atoka Morrow)
Property Code	Property Name CALLAWAY FEDERAL	Well Number 4
OGRID No. 023230	Operator Name TOM BROWN, INC.	Elevation 3606'

Surface Location

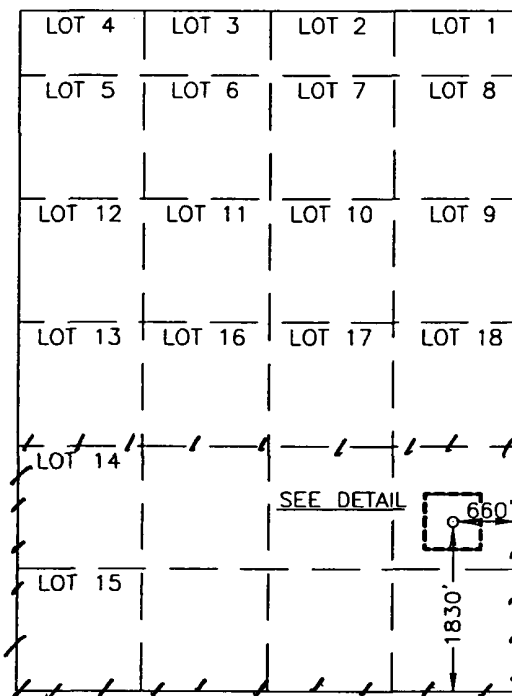
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	6	16-S	28-E		1830	SOUTH	660	EAST	EDDY

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 322.55	Joint or Infill	Consolidation Code	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



SCALE - 1"=2000'

GEODETIC COORDINATES
NAD 27 NME

Y = 709338.5 N

X = 538489.2 E

LAT. - 32°56'59.94"N
LONG. - 104°12'28.30"W

OPERATOR CERTIFICATION

I hereby certify the the information
contained herein is true and complete to the
best of my knowledge and belief.

Brian Franks
Signature
BRIAN FRANKS
Printed Name
DRILLING ENGINEER
Title
5/25/04
Date

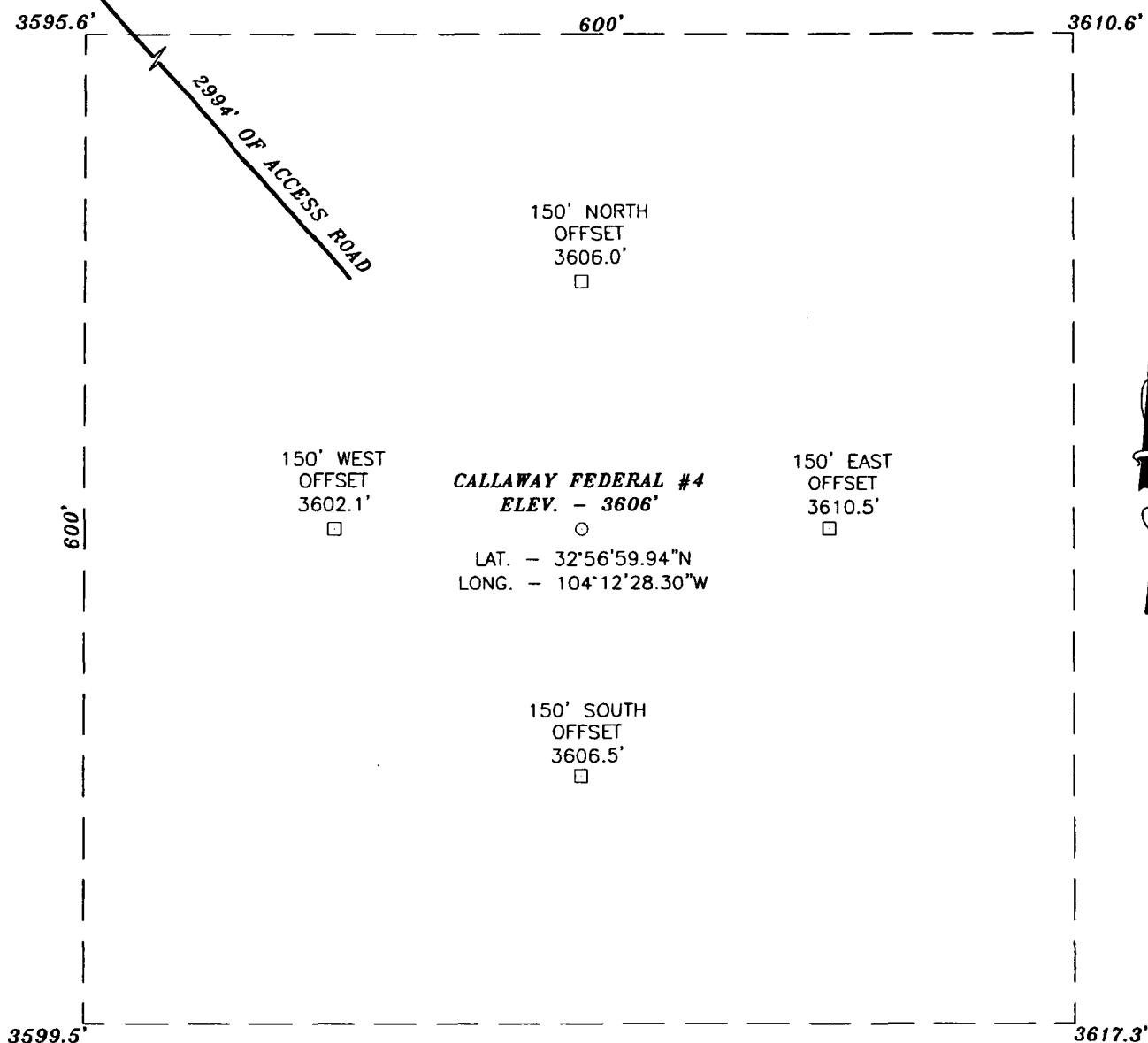
SURVEYOR CERTIFICATION

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.

MAY 13, 2004

Date Surveyed
Signature & Seal of
Professional Surveyor
GARY EIDSON
04.11.0570
Certificate No. GARY EIDSON 12841

SECTION 6, TOWNSHIP 16 SOUTH, RANGE 28 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

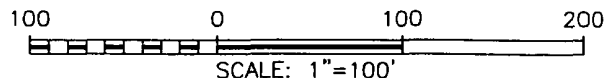


DIRECTIONS TO LOCATION:

FROM THE INTERSECTION OF STATE HWY. #2 AND CO. RD. #507, GO EAST 0.25 MILES. ROAD BENDS RIGHT AND GOES SOUTHEAST 1.0 MILE. ROAD BENDS LEFT & GOES EAST 0.85 MILES. TURN RIGHT AND GO SOUTH 0.4 MILES TO BEND LEFT. CONTINUE SOUTHEAST 0.2 MILES. ROAD BENDS LEFT AND GOES EAST 0.2 MILES. TURN RIGHT AND GO SOUTH 0.4 MILES (CROSS RIVER). TURN LEFT AT INTERSECTION (BUFFALO VALLEY RD) AND GO EAST FOR 2.0 MILES. AT "Y" IN ROAD GO RIGHT 1.5 MILES SOUTHEAST. ROAD BENDS LEFT AND CONTINUES EAST 2.0 MILES. AT INTERSECTION TURN RIGHT AND GO 0.7 MILES SOUTHEAST. PAVEMENT ENDS AT MERRITT RANCH. CONTINUE FROM RANCH SOUTHWEST 0.5 MILES TO BEND LEFT. GO SOUTHEAST 0.9 MILES. TURN RIGHT AND GO SOUTH 0.16 MILES TO CALLAWAY #3 LOCATION. PROPOSED ACCESS ROAD TO CALLAWAY #4 BEGINS AT SOUTHEAST CORNER OF CALLAWAY #3 AND GOES 460' SOUTHEAST. THEN BENDS AND RUNS ALONG P/L ROAD 1800' NORTHEAST. THEN TURNS AND GOES SOUTHEAST 805' TO THIS LOCATION.

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO - HOBBS, NEW MEXICO - 505-393-3117



TOM BROWN, INC.

THE CALLAWAY FEDERAL #4 WELL
LOCATED 1830 FROM THE SOUTH LINE
AND 660 FROM THE EAST LINE SECTION 6,
TOWNSHIP 16 SOUTH, RANGE 28 EAST,
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 05/13/04	Sheet 1 of 1 Sheets		
W.O. Number: 04.11.0570	Drawn By: J. RIVERO		REV 1:N/A
Date: 05/14/04	DISK: CD#10	04110570	SCALE: 1"=100'

APPLICATION FOR PERMIT TO DRILL

TOM BROWN, INC.
Callaway Federal #4
1980' FSL & 660' FEL
Sec 6, T16S, R28E
Eddy County, New Mexico

In conjunction with Form 3160-3, Application for Permit to Drill, Tom Brown, Inc. submits the following items of pertinent information in accordance with Onshore Oil and Gas Order Nos. 1 & 2, and with all other applicable federal and state regulations.

1. Geological Name of Surface Formation: Permian
2. Estimated Tops of Important Geological Markers:

FORMATION	MD	TVD	Subsea TVD	
Yates	220'	220'	+3388'	
Seven Rivers	445'	445'	+3163'	
Queen	950'	950'	+2658'	
San Andres	1690'	1690'	+1918'	
Glorietta	3070'	3070'	+538'	
Tubb	4425'	4425'	-817'	
Abo	5210'	5210'	-1602'	
Wolfcamp	6450'	6450'	-2842'	
Upper Penn	7250'	7250'	-3642'	
Canyon	7935'	7935'	-4327'	
Strawn	8320'	8320'	-4712'	+
Atoka	8760'	8760'	-5152'	*
Morrow	8915'	8915'	-5307'	*
Mississippian	9120'	9120'	-5512'	
PTD	9300'	9300'		

* Primary Reservoir Target

+ Secondary Reservoir Target

3. Estimated Depth of Anticipated Fresh Water, Oil or Gas:

	MD	TVD	
Upper Permian Sands	0-350'	0-350'	Possible Water Sands*
Strawn	8320'	8320'	Gas **
Atoka	8760'	8760'	Gas **
Morrow	8915'	8915'	Gas **

* Ground water will be protected by 13-3/8" surface casing with cement circulated to surface.

** Potentially productive horizons in the 8-3/4" hole section to be protected by the 5-1/2" casing with cement to tie back into intermediate casing.

4. Proposed Casing Program:

Hole Size	Interval(MD)	Casing OD	Description
17-1/2"	0'-400'	13-3/8"	48# H-40, STC New, R-3
12-1/4"	400'-1700'	9-5/8"	36# J-55, STC, New, R-3
8-3/4"	1700'-9300'	5-1/2"	17# L-80, LTC, New, R-3

Proposed Cementing Program:

WITNESS	13-3/8" Surface Casing:	Cement w/165 sx Halliburton Light + 2% CACL2 (12.5 ppg, 1.98 ft ³ /sx). Tail w/ 200 sx Premium Plus (14.8 ppg, 1.34 ft ³ /sx). Float Equipment: Texas pattern shoe w/ insert float valve above shoe joint, 4 centralizers.	WITNESS
	9-5/8" Intermediate Casing:	Cement w/300 sx Interfill "C" (11.9 ppg, 2.45 ft ³ /sx). Tail w/ 200 sx Premium Plus (14.8 ppg, 1.34 ft ³ /sx). Float Equipment: Float shoe w/float collar above shoe joint, 12 centralizers.	
	5-1/2" Production Casing:	Cement w/890 sx Interfill "H" (11.5 ppg, 2.76 ft ³ /sx). Tail w/ 300 sx Super H + .04% Halad-344 + 0.3% CFR-3 + 1 pps salt + 0.1% HR7 (13.0 ppg, 1.66 ft ³ /sx). Estimate TOC @ 1500'.	

NOTE: If fluid losses are encountered in the 8-3/4" hole section, a DV tool will be installed @ ± 4000' to allow a second cement stage to be pumped.

5. Pressure Control Equipment:

The blowout preventer equipment (BOPE) shown in Exhibit D will be utilized for the 12-1/4" and 8-3/4" hole sections as follows:

- 2000 psi WP rating for the 12-1/4" section
- 5000 psi WP rating for the 8-3/4" hole section

The 2M BOPE assembly will consist of a 13-5/8" annular preventer nipped up on the surface casing. The 5M BOPE assembly will consist of a 11" 5000 psi WP double ram-type preventer (4-1/2" pipe and blind rams) and a 5000 psi WP annular preventer (API RP53 Fig. 2c.5), nipped up on the 9-5/8" intermediate casing and used continuously until setting the 5-1/2" casing at total depth of 9300'.

BOPE will be tested as follows:

- Prior to drilling out from surface casing- test all BOPE to 1000 psi using rig pump
- Prior to drilling out from 9-5/8" casing – test ram-type preventers and choke manifold to 5000 psi and annular to 50% of rated WP using independent tester and test plug.

A rotating head will be installed on top of the annular preventer after setting the 9-5/8" casing @ $\pm 1700'$.

All BOP's will be hydraulically operated. Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of hole. The kill line will be 2" minimum and will include a remote connection. The choke line will be 3" minimum. A complete choke manifold schematic is shown in Exhibit E.

NOTE: Contractor choke manifold has 5000 psi rating. Hydraulic choke and remote choke line valve required for 8-3/4" hole section only.

6. Proposed Mud System:

The proposed mud system will be a combination of fresh water, brine, cut brine, and polymer gel. The depth and mud properties of the mud system are listed below.

Depth (MD)	Type	Weight (ppg)	Viscosity (sec)	Fluid Loss (cc)
0-400'	Fresh Water	8.5-9.2	32-36	Not Critical
400'-1700'	Brine Water	9.8-10.1	28-30	Not Critical
1700'-8000'	Cut Brine	9.0-9.5	28-30	Not Critical
8000'-9300'	Cut Brine/XCD	9.0-9.5	38-43	6-8

Sufficient mud materials to maintain the above mentioned mud properties and meet minimum lost circulation and weight increase requirements will be kept at the location at all times.

7. Auxiliary Well Control and Monitoring Equipment:

- A Kelly cock will be kept in the drill string at all times.
- A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- A mud logging unit complete with H2S detector will be monitoring drilling penetration rate and hydrocarbon shows from 6000' to TD.
- PVT/FLO-sensor equipment will be rigged up and operating at 6000' TVD (prior to drilling into the Wolfcamp formation).

8. Drillstem Testing, Logging and Coring Programs:

- Drillstem tests: None planned
- Electric logs: DLLT-MSFL-SDL-DSN: TD to 1700' (SDL-DSN to surface).
- Optional logs: LSS, SFT
- Coring: None planned

9. Abnormal Conditions, Pressures, Temperatures, & Potential Hazards:

No abnormal pressures and/or temperatures are anticipated. Estimated BHP is 3700 psi. No hydrogen sulfide or other hazardous gases or fluids are expected on this location, but equipment will be rigged up as a precaution (see attached H2S operating plan).

10. Anticipated Starting Date and Duration of Operations:

The anticipated start date will be April 15, 2004. Once commenced, drilling operations should be completed in approximately 25 days. If the well is productive, another 10 days will be required for completion work and facility installation.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

TOM BROWN, INC.
Callaway Federal #4
1980' FSL & 660' FEL
SEC. 6, T16S, R28E
Eddy County, NM

I. Hydrogen Sulfide Training.

All personnel, whether regularly assigned, contracted or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H₂S).
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques of first aid and rescue procedures.

In addition the supervisory personnel will be trained in the following areas:

1. The effect of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H₂S Drilling Operations Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

II. H2S Safety Equipment and Systems.

NOTE: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above or three days prior to penetration the first zone containing or reasonable expected to contain H2S.

1. Well Control Equipment:

- A. Flare line.
- B. Choke manifold.
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
- D. Auxiliary equipment to include: annular preventer

2. Protective equipment for essential personnel:

- A. 5-minute escape units located in the dog house and 30-minute air units at briefing areas, as indicated on well site diagram.

3. H2S detection and monitoring equipment.

- A. 3-portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 PPM are reached.
- B. 1-portable SO2 monitor positioned near flare line during H2S flaring operations.

4. Visual warning systems:

- A. Wind direction indicators as shown on well site diagram.
- B. Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be a readable distance from the immediate location.

5. Mud Program:

The mud program has been designed to minimize the volume of H₂S circulated to the surface. Proper mud weight safe drilling practices and the use of H₂S scavengers when necessary will minimize hazards when penetrating H₂S bearings.

6. Metallurgy:

A. All drill strings, casings, tubing, wellhead, blowout preventers, drilling spools kill lines, choke manifold and lines valves shall be suitable for H₂S service.

B. All elastomers used for packing and seals shall be H₂S trimmed.

7. Communications:

A. Radio communications will be available in company vehicles and rig dog house.

8. Well Testing:

A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safely and adequately conduct the test. The drill stem testing of any known formation that contains H₂S will be conducted during daylight hours.

United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Roswell Office
2909 West Second Street
Roswell, New Mexico 88201

Statement Accepting Responsibility for Operations

Operator name: Tom Brown, Inc.
Street or box: P O Box 2608
City, State: Midland, TX
Zip code: 79702

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:

Lease No.: NM30395

Legal Description of Land: S2 of Section 6, T16S, R28E

Formation(s) (if applicable):

Bond Coverage: (State if individually bonded or another's bond)
Statewide

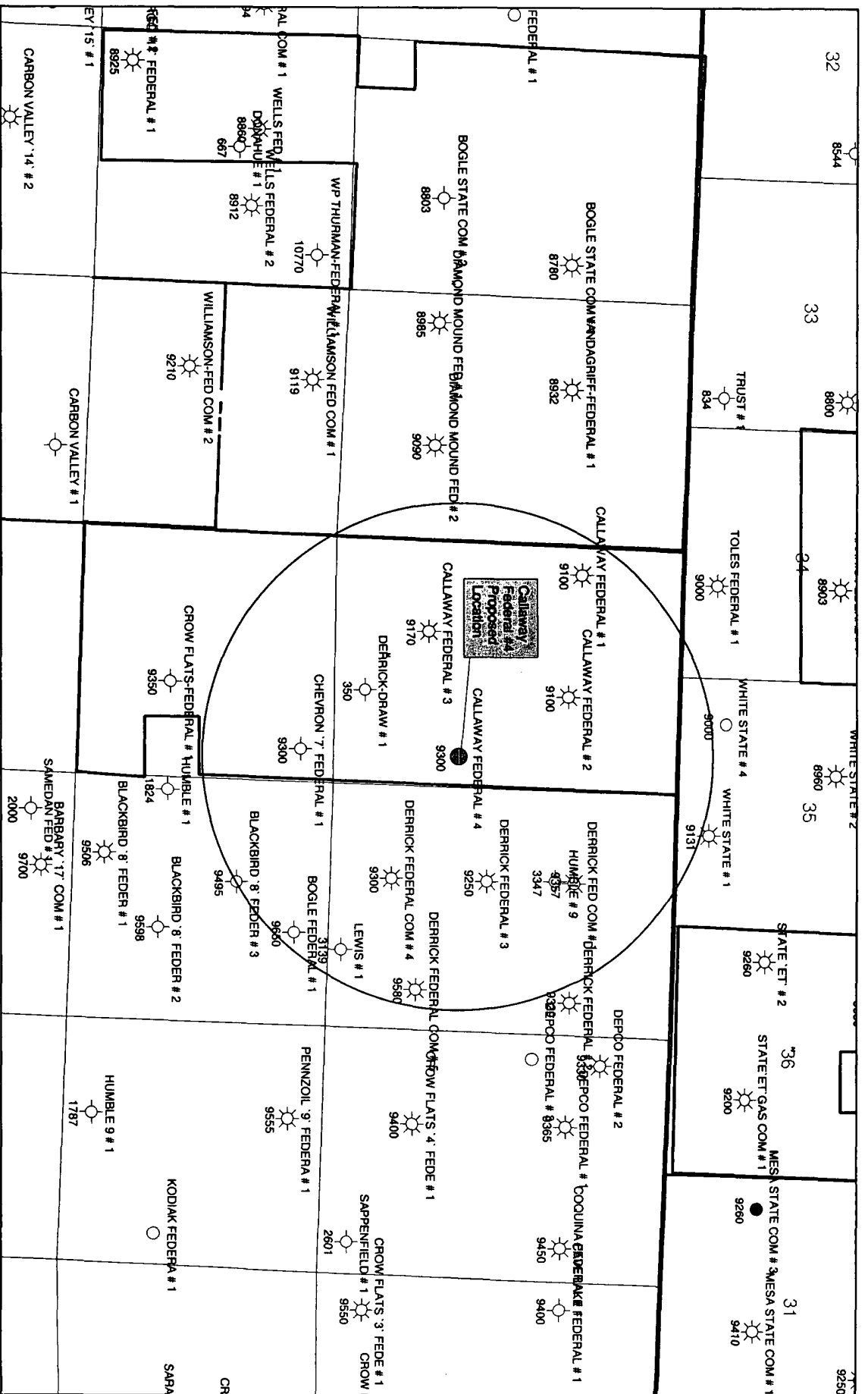
BLM Bond File No.: ES-0183

Authorized Signature: _____

Hal Lee

Title: Operations Manager

Date: 2/20/2004



Map showing proposed location of Tom Brown, Inc. Callaway Federal #4. All wells within circle are within one mile of the proposed location. Radius of circle is approximately 5400 ft. Map scale is 1:36000.

TOM BROWN, INC.
Callaway Federal #4

Exhibit

2

TOM BROWN, INC.
CALLAWAY FEDERAL #4
1980' FSL & 660' FEL
Sec 6, T16S, R28E
Eddy County, NM

EXHIBIT D
BOP SCHEMATIC

(2M Rated Working Pressure)

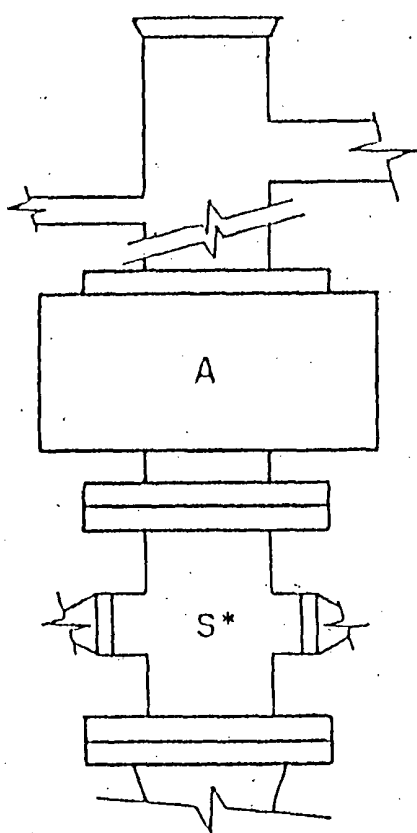


FIG. 2.C.1
ARRANGEMENT S*A

(5M Rated Working Pressure)

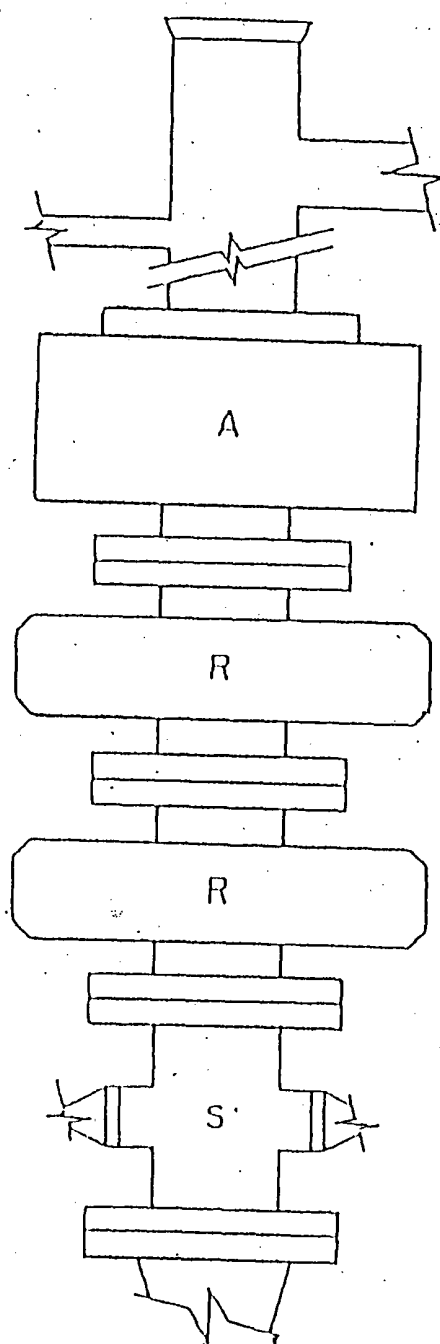


FIG. 2.C.5
ARRANGEMENT S*RRR
Double Ram Type Preventers, R_d Options

TOM BROWN, INC.
CALLAWAY FEDERAL #4
1980' FSL & 660' FEL
Sec 6, T16S, R28E
Eddy County, NM

EXHIBIT E
CHOKE MANIFOLD

(5M Rated Working Pressure)

