

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

FEB - 2 2009



Form 3160-3
(August 2008)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB NO. 1004-0137
Expires: July 31, 2010

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No NM-106905
1b. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Yates Petroleum Corporation 025575		7. If Unit or CA Agreement, Name and No
3a. Address 105 South Fourth Street, Artesia, NM 88210		8. Lease Name and Well No. Touchdown BJC Federal #2 3660
3b. Phone No. (include area code) 505-748-1471		9. API Well No. 30-005-64080
4. Location of well (Report location clearly and in accordance with any State requirements. *) At surface 370' FNL and 660' FEL Unit A NENE/4 At proposed prod zone Same		10. Field and Pool, or Exploratory Wildcat Devonian
14. Distance in miles and direction from the nearest town or post office* Approximately 20 miles southeast of Roswell, New Mexico.		12. County or Parish Chaves Eddy County
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drlg unit line, if any) 370'		13. State New Mexico
16. No. of acres in lease 640.00		17. Spacing Unit dedicated to this well N/2 320 acres
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 670'		20. BLM/ BIA Bond No. on file NATIONWIDE BOND #NMB000434
21. Elevations (Show whether DF, KDB, RT, GL, etc) 3688' GL		22. Approximate date work will start* As soon as approved.
		23. Estimated duration 45days

24. Attachments

ROSWELL CONTROLLED WATER BASIN

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 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 must be filed with the appropriate Forest Service Office) | 6. Such other site specific information and/ or plans as may be required by the BLM |

25. Signature	Name (Printed/ Typed) Cy Cowan	Date 12/22/2008
Title Regulatory Agent		

Approved By (Signature) /s/ Angel Mayes	Name (Printed/ Typed) /s/ Angel Mayes	Date JAN 28 2009
Title Assistant Field Manager, Lands And Minerals	Office ROSWELL FIELD OFFICE	APPROVED FOR 2 YEARS

Application approval 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 cc operations thereon

Conditions of approval, if any, are attached

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and wilfully 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 page 2)

DECLARED WATER BASIN

CEMENT BEHIND THE 85" CASING MUST BE CIRCULATED, WITNESS

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-005-64090	Pool Code	Pool Name Wildcat Devonian
Property Code 361160	Property Name TOUCHDOWN "BJC" FEDERAL	Well Number 2
OGRID No. 025575	Operator Name YATES PETROLEUM CORP.	Elevation 3688'

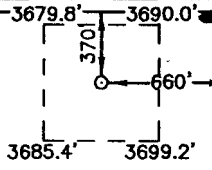
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	11	12 S	26 E		370	NORTH	660	EAST	CHAVES

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

NM-106905	<p>SURFACE LOCATION Lat - N33°17'54.38" Long - W104°18'16.60" SPC- N.: 836119.669 E.: 550116.666 (NAD-83)</p>		OPERATOR CERTIFICATION <p>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 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.</p> <p><i>Cy Cowan</i> 12/22/08 Signature Date Cy Cowan Printed Name</p>
			SURVEYOR CERTIFICATION <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 3 2008 Date Surveyed Signature & Seal of Professional Surveyor W. L. Jones Certificate No. Gary L. Jones 7977 BASIN SURVEYS</p>

NR

YATES PETROLEUM CORPORATION
Touchdown BJC Federal #2
370' FNL and 660' FEL, Unit A (NENE)
Section 11-T12S-R26E
Chaves County, New Mexico

1. The estimated tops of geologic markers are as follows:

Glorieta	2194'	None	Wolfcamp B	5019'	Gas
Tubb	3556'	None	Strawn	5918'	Gas
ABO	4296'	Gas	Silurian-Devonian	6110'	Oil or Gas
Wolfcamp	4780'	Gas	TD	6600'	None

2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Water: 130'

Oil or Gas: Abo through Silurian Devonian Formations. Please note above.

3. Pressure Control Equipment: BOPE will be installed on the 8 5/8" casing and rated for 3000# BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings, which are set and cemented in place. Blowout Preventor controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventors will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit B.
4. Auxiliary Equipment: Kelly cock, pit level indicators, flow sensor equipment, and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when Kelly is not in use.
5. THE PROPOSED CASING AND CEMENTING PROGRAM:

A. Casing Program: ALL NEW CASING

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt./Ft</u>	<u>Grade</u>	<u>Coupling</u>	<u>Interval</u>	<u>Length</u>
12 1/4"	8 5/8"	24.0#	J-55	ST&C	0-1100'	1100'
7 7/8"	5 1/2"	15.5#	J-55	LT&C	0-6600'	6600'

Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, and Tensile Strength 1.8.

Yates Petroleum Corporation requests a variance to install a rotating head on the surface casing strings when intermediate casing will be set. If a BOP system is required then we wish to install a 2M system and receive a variance to test the system to 500# using the rig pumps. The test will be held for 30 minutes on each system component. Components to be tested include pipe rams, blind rams, and annular preventer.

B. CEMENTING PROGRAM:

Surface Casing: 350 sacks 'C' Lite" (WT 12.0 YLD 2.0). Tail with 200 sacks Class 'C' (WT 14.8 YLD 1.32). Cement to Surface.

Production Casing: Lead in with 400 sacks Lite Crete (WT 9.8 YLD 2.92). Tail in with 700 sacks Pecos VILt (WT 13.0 YLD 1.41). Cement circulated to 600'.

6. MUD PROGRAM AND AUXILIARY EQUIPMENT:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-1100'	FW Gel	8.6-9.0	28-32	N/C
1100' to 4200'	Cut Brine	8.6-9.6	28-30	N/C
4200' to 6600'	SaltGel/Starch 4-6% KCL	9.6-10.0	45-55	N/C

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. Rig personnel will check mud hourly.

7. EVALUATION PROGRAM:

Samples: 10' Samples from surface casing to TD
Logging: Platform Express; CNL-LDT/NGT TD-surface casing; CNL/GR TD-surface casing; DLL/MSFL TD-surface casing; BCH Sonic TD-surface casing; FMI TD to top of Wolfcamp.
Coring: None anticipated
DST's: Possible

8. ABNORMAL CONDITIONS, BOTTOM HOLE PRESSURE, AND POTENTIAL HAZARDS:

Abnormal Pressures Anticipated: None

Lost Circulation Zones Anticipated: None.

H2S Zones Anticipated: None Anticipated

Maximum Bottom Hole Temperature: 120 F

9. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 45 days to drill the well with completion taking another 20 days.

MULTI-POINT SURFACE USE AND OPERATIONS PLAN
YATES PETROLEUM CORPORATION
Touchdown BJC Federal #2
370' FNL and 660' FEL, Unit A (NENE)
Section 11-T12S-R26E
Chaves County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

1. EXISTING ROADS:

Exhibit A is a portion of the BLM map showing the well and roads in the vicinity of the proposed location. The proposed wellsite is located approximately 20 miles southeast of Roswell, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

DIRECTIONS:

Go east of Roswell, NM on Highway 380 for approximately 11.2 miles to NM 409. Turn right (south) and continue for approximately 6.5 miles to Wichita Road. Turn left onto Wichita Road and continue south for approximately 2.1 miles. Turn left (east) here onto existing lease road with a cattle guard and locked gates. Gates must remain closed and locked at all times. Combination to lock is 2112. Continue east on lease road for approximately 1 mile. Turn left here and follow lease road north for approximately 1 mile. At this point the road makes a 'T'. Turn left here on existing ranch road and go approximately .2 to the northeast corner of the proposed well location.

1. PLANNED ACCESS ROAD:

- A. The proposed existing access road is approximately .2 of a mile in length from the point of origin to the northeast corner of the drilling pad.
- B. The new access road will consist of approximately 40 feet coming off the existing access road to the northeast corner of the well location.
The new road is bladed with drainage on both sides. One traffic turnout may be built if it is needed.
- C. The route of the road is visible.
- D. Existing roads will be maintained in the same or better condition.

3. LOCATION OF EXISTING WELL:

- A. There is drilling activity within a one-mile radius of the well site.
- B. Exhibit D shows existing wells within a one-mile radius of the proposed well site.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:

- A. There are production facilities on this lease at the present time. It has not been determined know where anticipated production facilities for this well will be located off the location at this time. Note Exhibit B-1 for placement of production equipment will be placed on the well location.
- B. If the well is productive oil, a gas or diesel self-contained unit will be used to provide the necessary power until an electric line can be built, if needed. Power should not be required if the well is productive of gas.
- C. Should a Pipeline Right-Of-Way be required it will be filed under a separate application and/or by 3rd party if applicable.

5. LOCATION AND TYPE OF WATER SUPPLY:

- A. It is planned to drill the proposed well with a fresh water system. The water will be obtained from commercial sources and will be hauled to the location by truck over the existing and proposed roads shown in attached exhibits.

6. SOURCE OF CONSTRUCTION MATERIALS:

The dirt contractor will be responsible for finding a source of material for construction of road and pad and will obtain any permits that may be required.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be collected in tanks until hauled to an approved disposal system being Gandy/Marley, Lea Land Farm or CRI.
- B. A closed loop system will be constructed, maintained and closed in compliance with the State of New Mexico, Energy and Natural Resources Department, Oil Conservation Division—the “Pit Rule” 19.15.17 NMAC.
- C. Drilling fluids will be removed after drilling and completions are completed.
- D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.
- E. Oil produced during operations will be stored in tanks until sold.
- F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- G. All trash, junk, and other waste materials will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not approved.

8. ANCILLARY FACILITIES: NONE

9. WELLSITE LAYOUT:

- A. Exhibit C shows the relative location and dimensions of the well pad, the closed loop design plan, the location of the drilling equipment, orientation and access road approach. (approximately 4.5 acres)
- B. The closed loop system will be constructed, maintained, and closed in compliance with the State of New Mexico, Energy and Natural Resources Department, Oil Conservation Division – the “Pit Rule” 19.15.17 NMAC.
- C. A 600' x 600' area has been staked and flagged.

10. PLANS FOR RESTORATION:

- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the well site in as aesthetically pleasing a condition as possible.
- B. If the proposed well is plugged and abandoned, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible.

Touchdown BJC Federal #2
Page Three

11. SURFACE OWNERSHIP: Fee Surface

Elliott G. McMaster and Evelyn McMaster
Trust under Trust Agreement dated December 18, 1990
PO Box 176
Datil, NM 87821

A Surface Use, Damage and Access Agreement has been entered into between Elliott G. McMaster and Evelyn McMaster Trust under Trust Agreement dated December 18, 1990 and Yates Petroleum Corporation, executed on May 6th, 2008.

Minerals: NM-106905
Federal - Administered by Bureau of Land Management, Roswell Field Office,
2909 W. Second Street, Roswell, NM 88201-2019
Phone: 575-627-0272 FAX: 575-627-0276

12. OTHER INFORMATION:

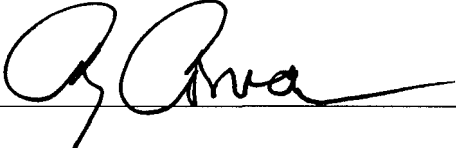
- A. Topography: Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, and historical and cultural sites.
- B. The primary surface use is for grazing.

Exhibits Attached
Exhibit A – Topo/Vicinity Maps
Exhibit B – Pressure System
Exhibit C - Location Layout
Exhibit D –One Mile Radius

CERTIFICATION
YATES PETROLEUM CORPORATION

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; and an someone under employment of Yates Petroleum Corporation has full knowledge of state and federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 22th day of August 2008

Signature 

Name Cy Cowan

Position Title Regulatory Agent

Address 105 South Fourth Street, Artesia, New Mexico 88210

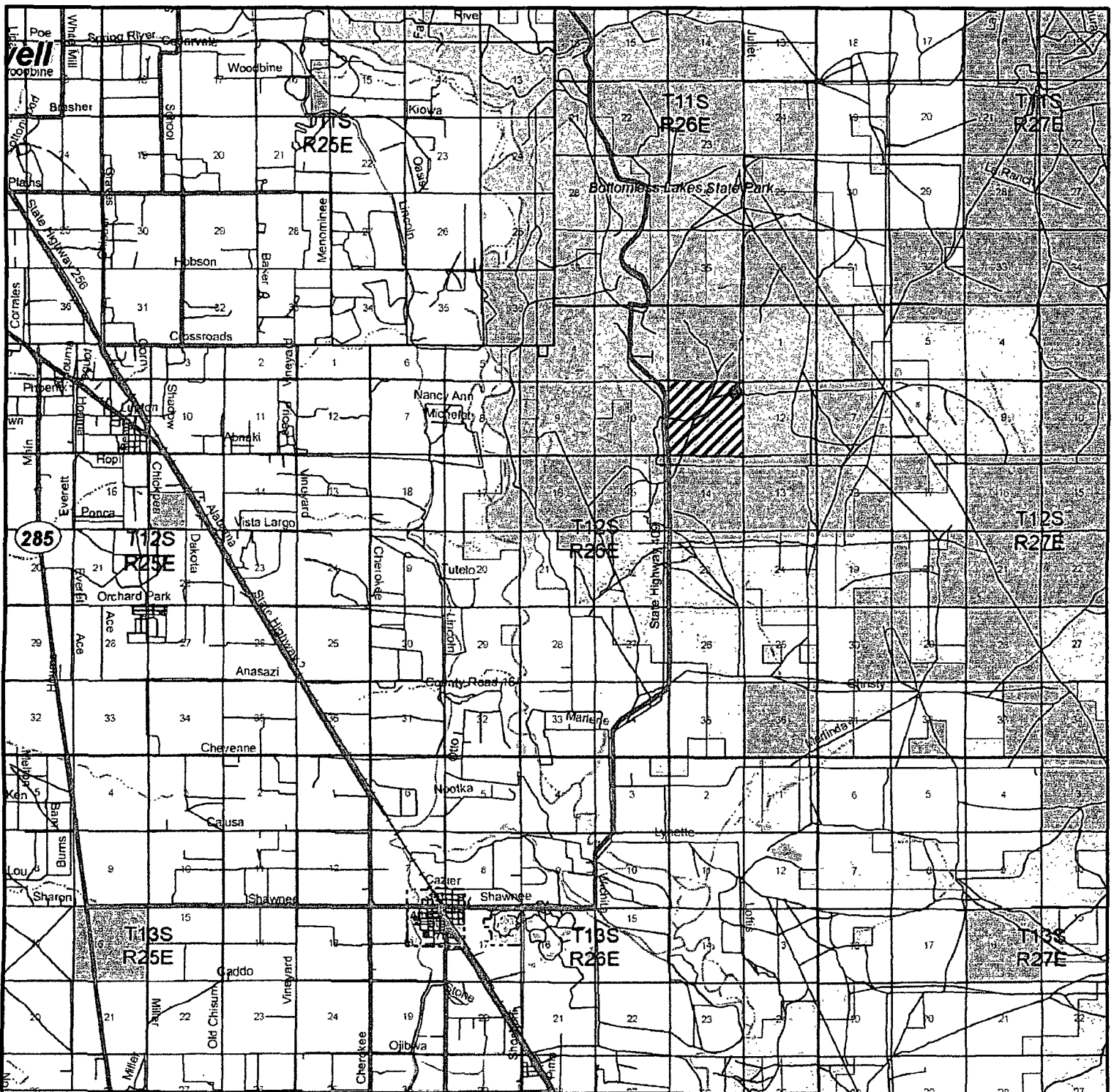
Telephone (505) 748-4372

Field Representative (if not above signatory) Tim Bussell, Drilling Supervisor

Address (if different from above) Same as above.

Telephone (if different from above) (505) 748-4221

E-mail (optional) _____



TOUCHDOWN "BJC" FEDERAL #2

Located at 370' FNL AND 660' FEL
Section 11, Township 12 South, Range 26 East,
N.M.P.M., Chaves County, New Mexico.



P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

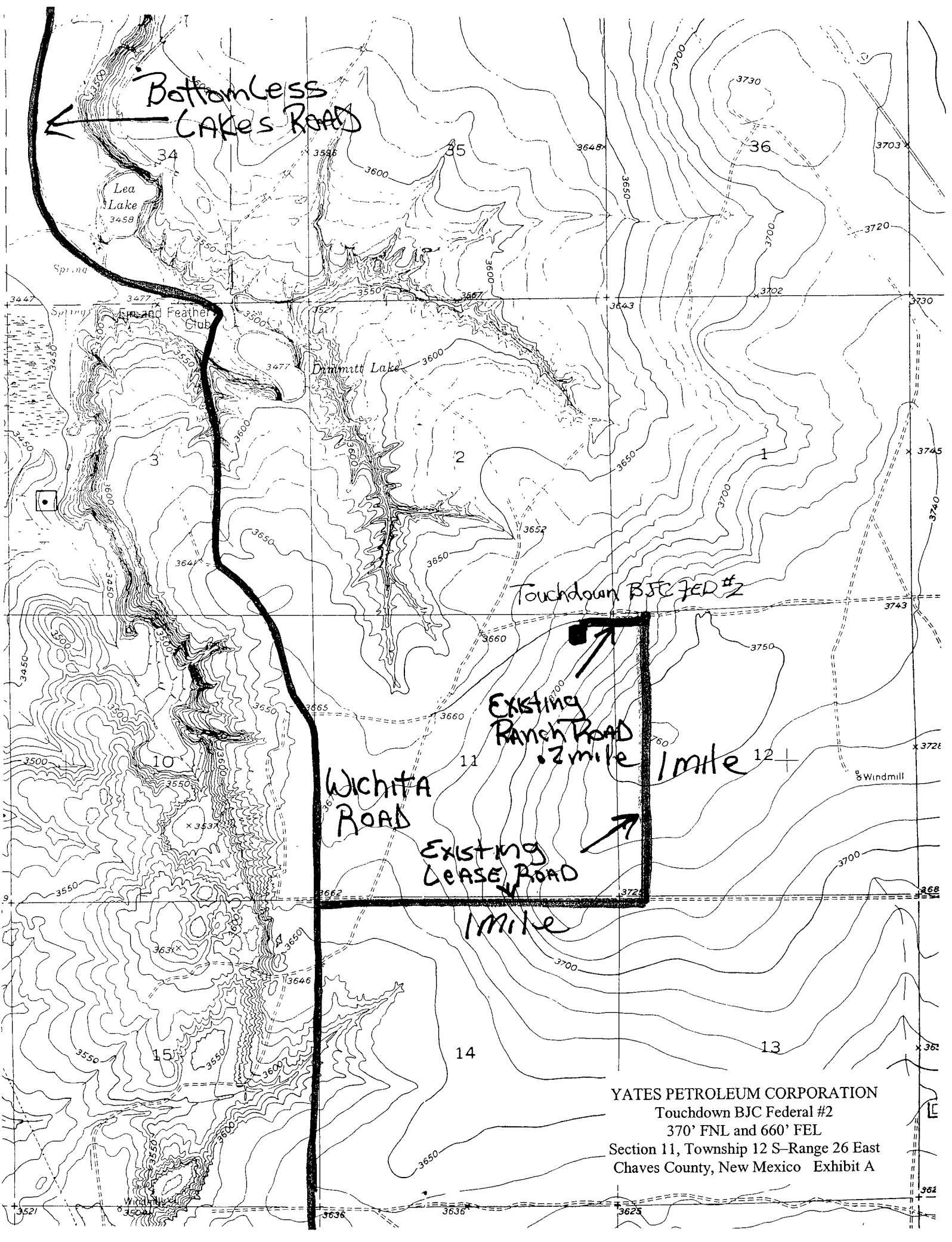
W.O. Number: 20914

Survey Date: 12-17-2008

Scale: 1" = 2000'

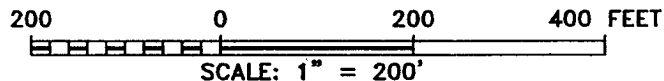
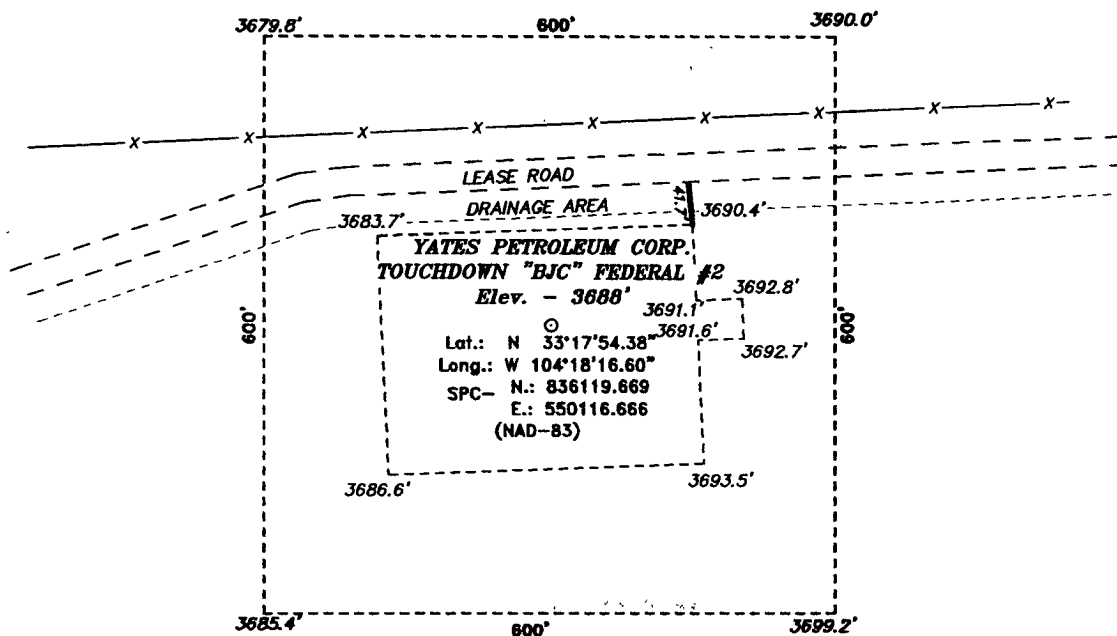
Date: 12-18-2008

YATES
PETROLEUM
CORP.



YATES PETROLEUM CORPORATION
Touchdown BJC Federal #2
370' FNL and 660' FEL
Section 11, Township 12 S-Range 26 East
Chaves County, New Mexico Exhibit A

SECTION 11, TOWNSHIP 12 SOUTH, RANGE 26 EAST, N.M.P.M.,
CHAVES COUNTY, NEW MEXICO.



YATES PETROLEUM CORP.

REF: TOUCHDOWN "BJC" FEDERAL #2 / WELL PAD TOPO

THE TOUCHDOWN "BJC" FEDERAL #2 LOCATED 370'
FROM THE NORTH LINE AND 660' FROM THE EAST LINE OF
SECTION 11, TOWNSHIP 12 SOUTH, RANGE 26 EAST,
N.M.P.M., CHAVES COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786-HOBBS, NEW MEXICO

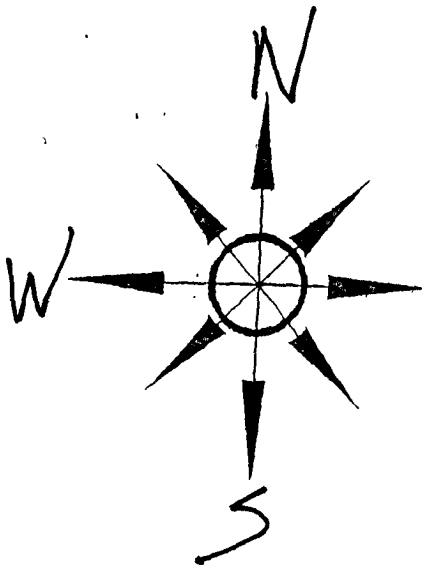
W.O. Number: 20914

Drawn By: J. M. SMALL

Date: 12-18-2008 | Disk: 20914 JMS

Survey Date: 12-17-2008

Sheet 1 of 1 Sheets



YATES PETROLEUM CORPORATION
Touchdown BJC Federal #2
370' FNL and 660' FEL
Section 11, Township 12 S-Range 26 East
Chaves County, New Mexico Exhibit B

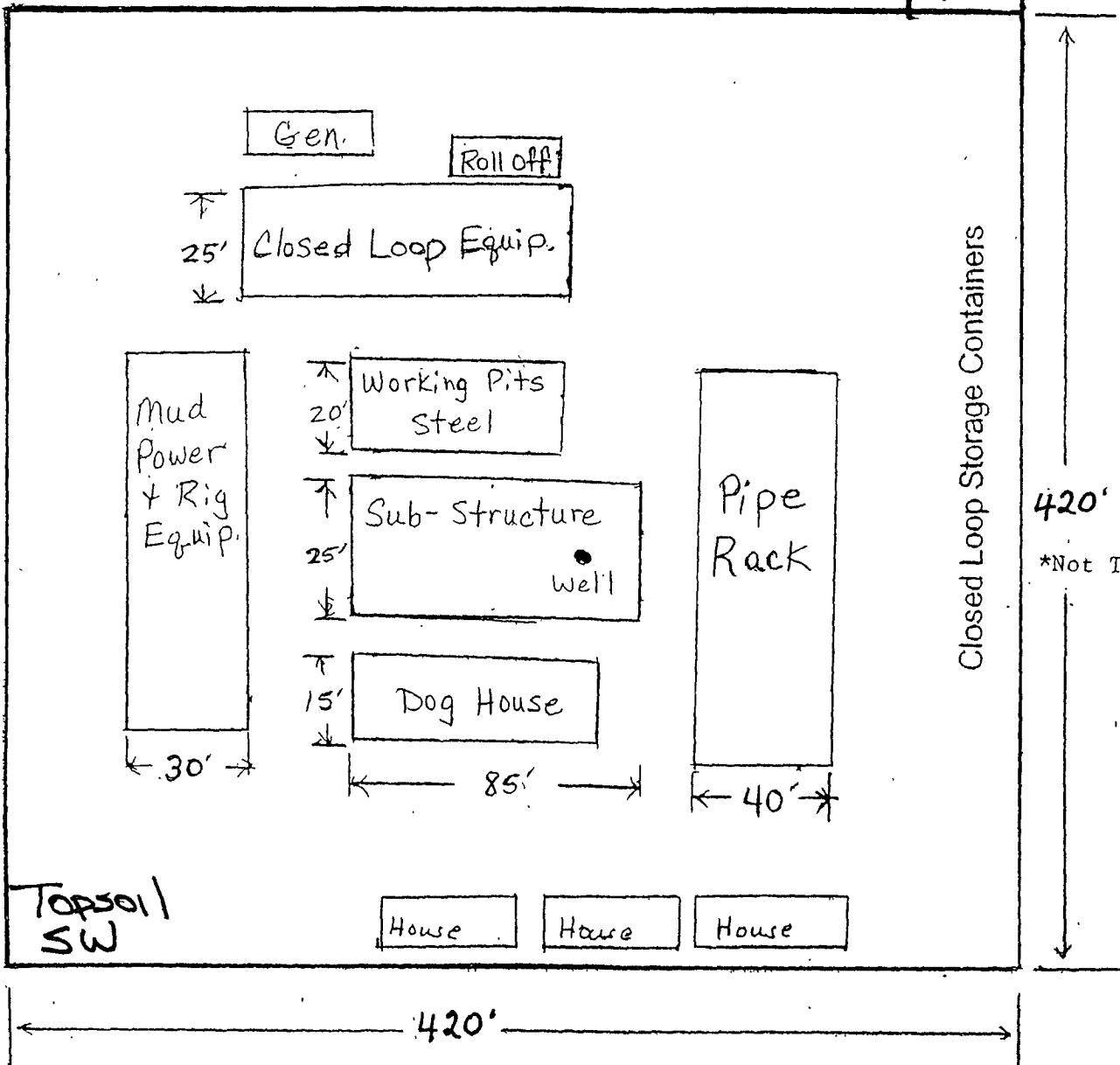
Yates Petroleum Corporation

Location Layout for Permian Basin

Closed Loop Design Plan

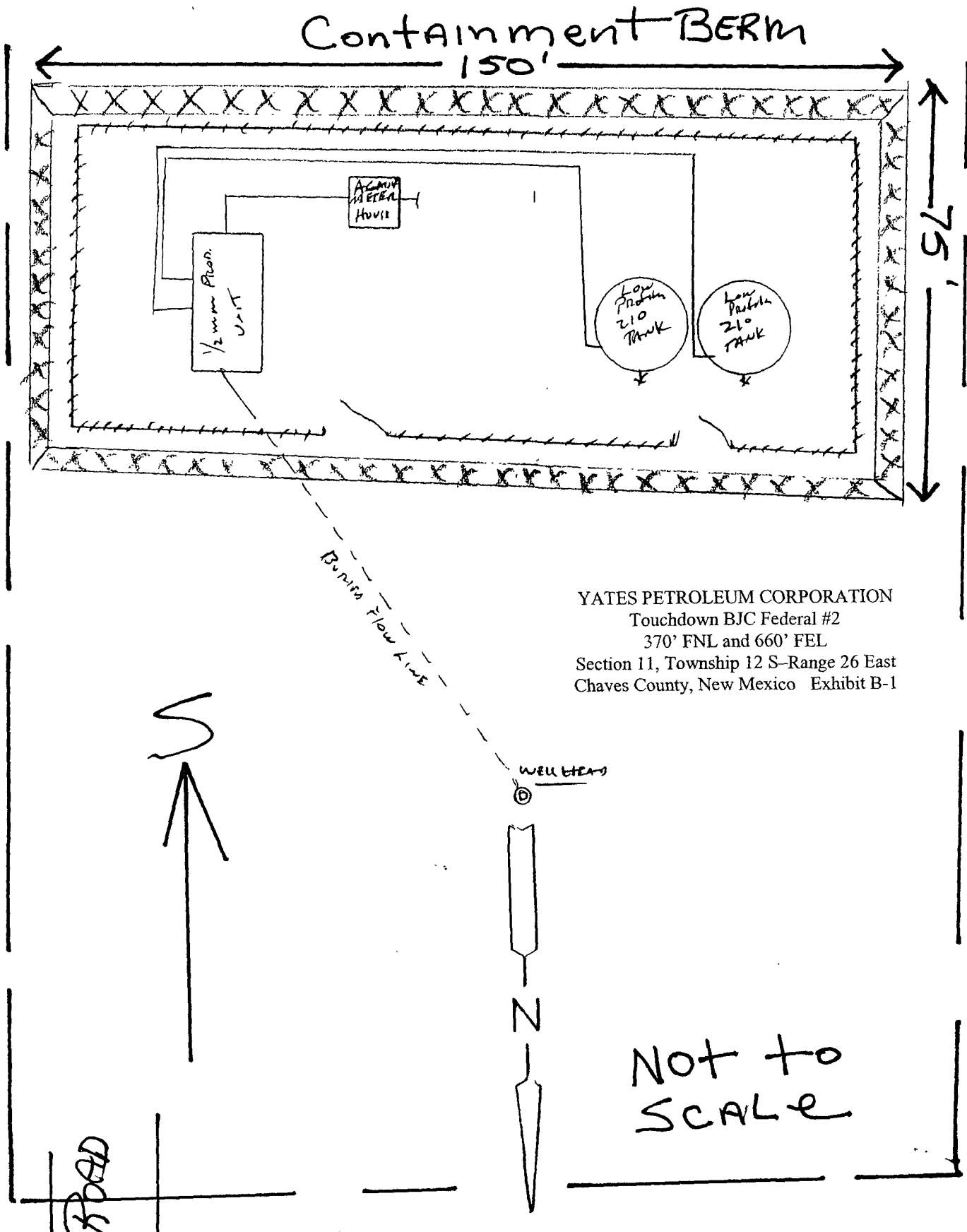
NOT TO SCALE

ROAD 41.7'



MAXIMUM pad size 420' x 420'

Touchdown BJC FEDERAL #2 Proposed Production Facility

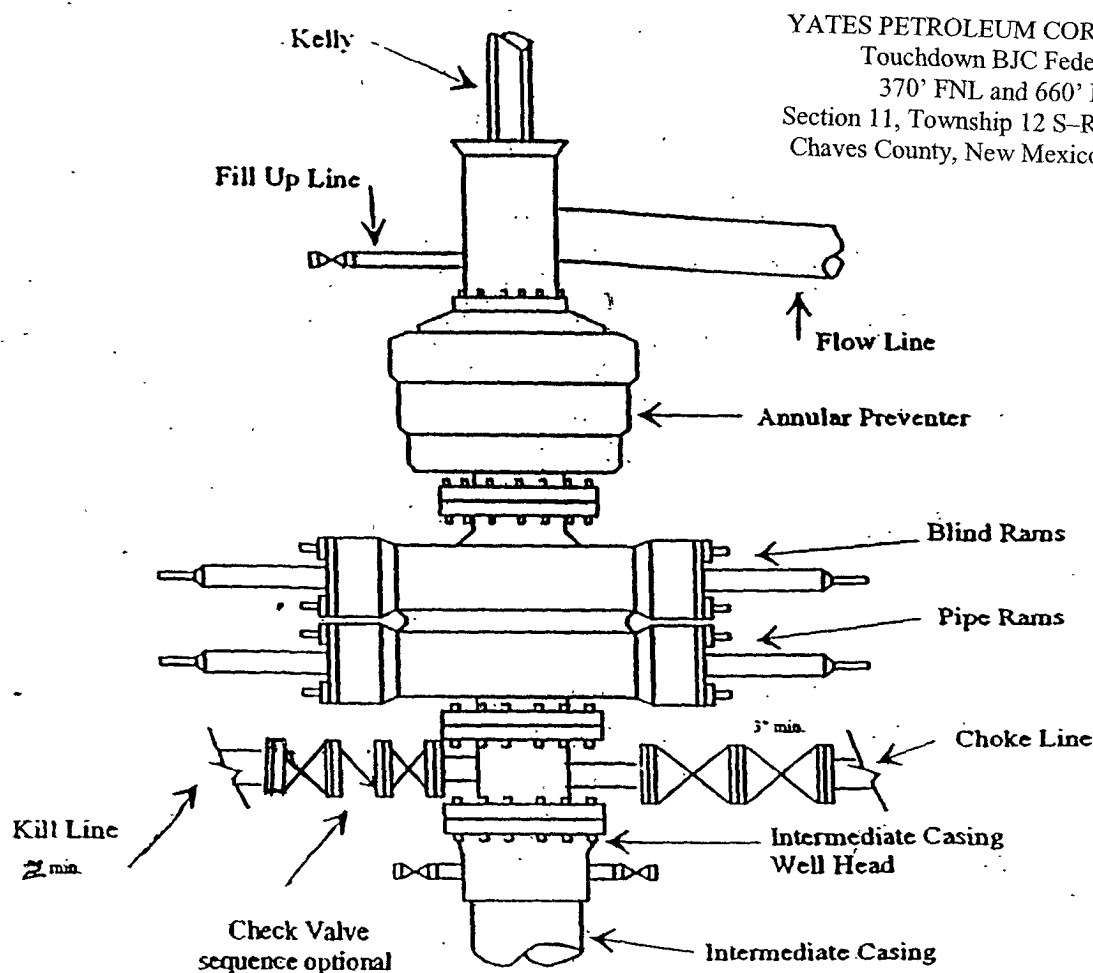




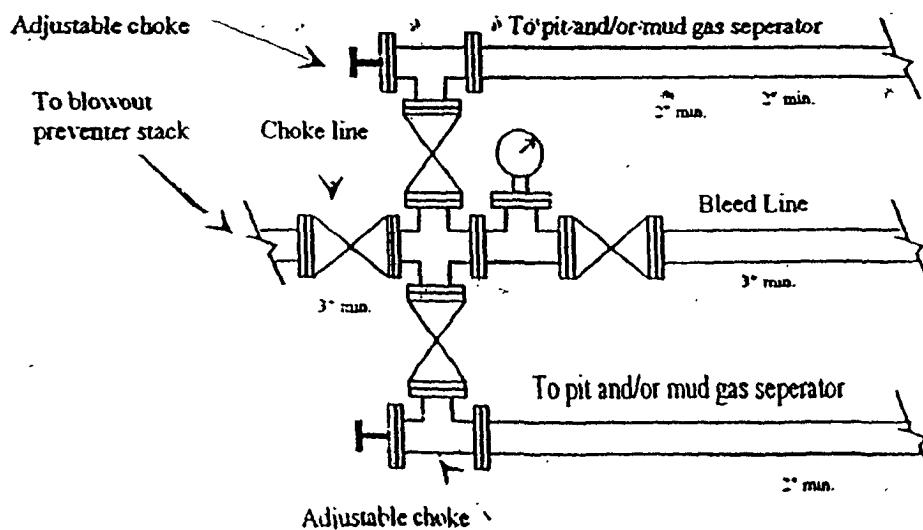
Yates Petroleum Corporation

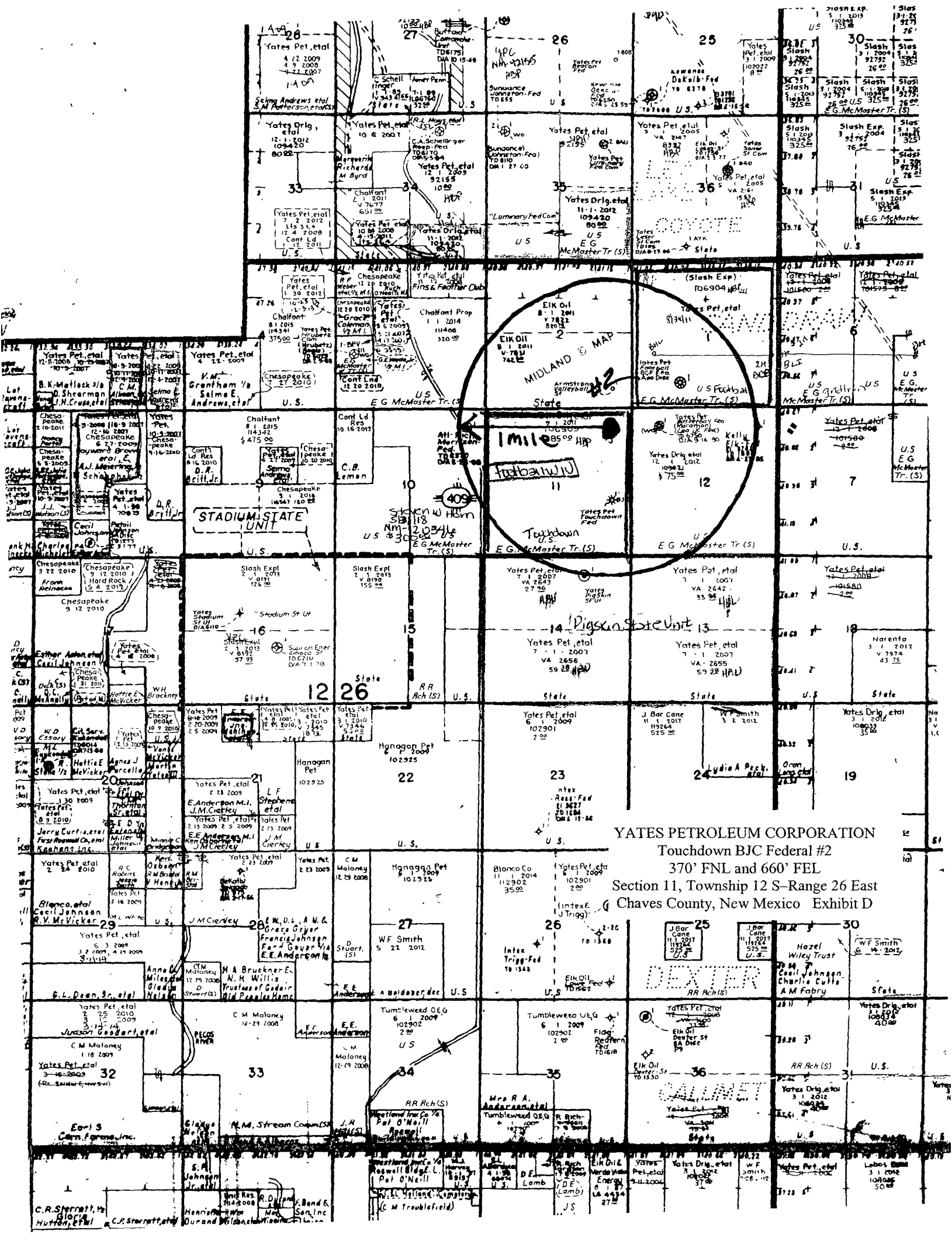
BOP-3

Typical 3,000 psi Pressure System Schematic Annular with Double Ram Preventer Stack



Typical 3,000 psi choke manifold assembly with at least these minimum features





YATES PETROLEUM CORPORATION
Touchdown BJC Federal #2
370' FNL and 660' FEL
Section 11, Township 12 S-Range 26 East
Chaves County, New Mexico Exhibit D

First National Bank
ARTESIA, NEW MEXICO

95-43
1122



YATES BUILDING • ARTESIA, N.M. 88210

No. 156395

DEC 22, 2008

PAY *****4000*DOLLARS*AND*00*CENTS

AMOUNT
\$ *****4,000.00

134200 BUREAU OF LAND MANAGEMENT -
ROSWELL
TO THE ORDER OF 2909 WEST SECOND STREET
ROSWELL, NM 88201-2019

Kathy H. Porter

⑈156395⑈ ⑆112200439⑆

⑈69408810⑈

DETACH BEFORE DEPOSITING CHECK

YATES PETROLEUM CORPORATION
105 SOUTH 4TH STREET ARTESIA, N.M. 88210

LYUTLEP

RECORDING/TITLING FEES
FEDERAL FILING FEE FOR APPLICATION FOR PERMIT TO DRILL
TOUCHDOWN BJO FEDERAL #2
SECTION 11, T12S-R26E
CHAVES COUNTY, NEW MEXICO

No. 156395

\$4,000.00

MARTIN YATES, III
1912-1985

FRANK W. YATES
1936-1986

S.P. YATES
1914-2008



105 SOUTH FOURTH STREET
ARTESIA, NEW MEXICO 88210-2118
TELEPHONE (575) 748-1471

JOHN A. YATES
CHAIRMAN OF THE BOARD
PRESIDENT

JOHN A. YATES JR.
ASSISTANT TO THE PRESIDENT

JAMES S. BROWN
CHIEF OPERATING OFFICER

JOHN D. PERINI
CHIEF FINANCIAL OFFICER

As per BLM instructions, Yates Petroleum Corporation is tendering the \$4,000.00 APD Processing Fee for the Touchdown BJC Federal #2 date submitted: December 22, 2008, Section 11, Township 12 South, Range 26 East, Eddy County, New Mexico.

Please be advised we are tendering this fee under protest as we believe it contradicts language in the Energy Policy Act of 2005 signed by President Bush.

KATHY H. PORTER
SECRETARY

DENNIS G. KINSEY
TREASURER



**PECOS DISTRICT - RFO
CONDITIONS OF APPROVAL**

January 26, 2009

Touchdown BJC Federal #2
370' FNL and 660' FEL,
Unit A, Sec. 11, T12S-R26E
Chaves County, New Mexico, N.M.P.M.
Yates Petroleum Corporation
NM-106905
Archeological Report:

GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

I. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD (Filing of a Sundry Notice is required for this 60 day extension).

II. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

III. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations (access road and/or well pad). Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

IV. CONSTRUCTION

A. NOTIFICATION:

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Roswell Field Office at (505) 627-0247 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved Application for Permit to Drill and Conditions of Approval on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL:

The topsoil will be stripped to approximately 6 inches in depth within the area designated for construction of the well pad. The operator shall stockpile the stripped topsoil adjacent to the constructed well pad. The topsoil will be used for interim and final reclamation of the surface disturbance created by the construction of the well pad.

C. CLOSED SYSTEMS OR STEEL TANKS: No reserve pit will be used.

Steel tanks are required for drilling operations: No Pits Allowed.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT:

If the operator elects to surface the access road and/or well pad using federal mineral, payment shall be made to the BLM prior to removal of any materials. Call the Roswell Field Office at (505) 627-0236.

E. WELL PAD SURFACING:

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational need.

F. ON LEASE ACCESS ROADS:

Road Egress and Ingress

The on lease access road shall be constructed to access the corner of the well pad.

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

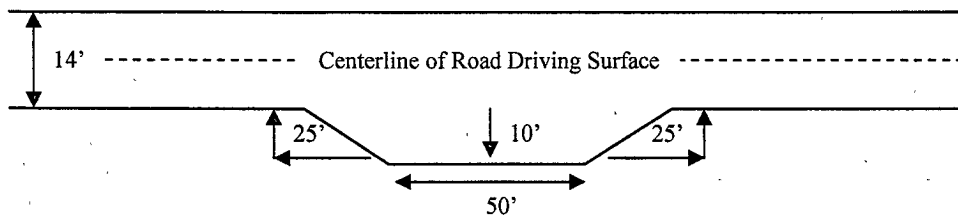
Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Turnouts

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

Standard Turnout – Plan View

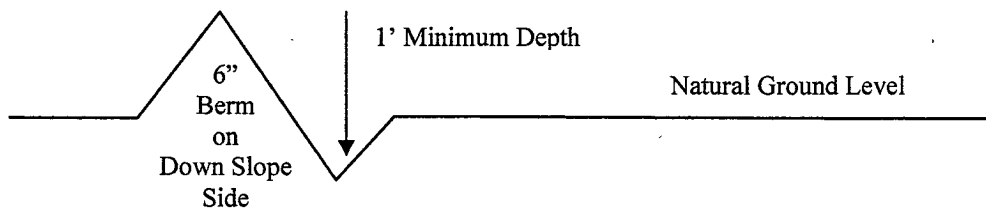


Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section Of Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula For Spacing Interval Of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Culvert Installations

None

Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

Fence Requirement

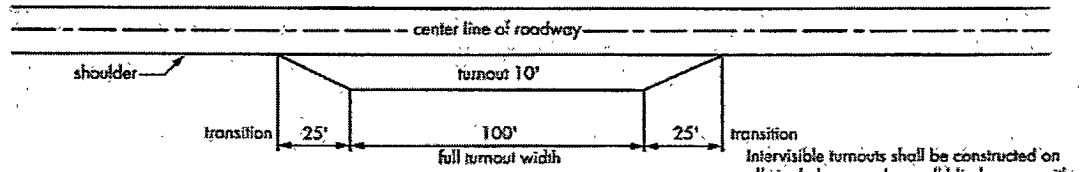
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access

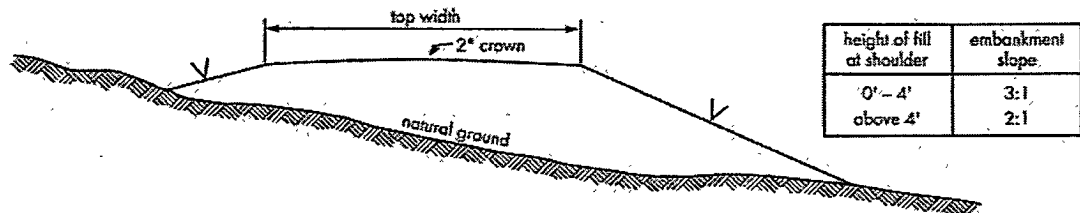
Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



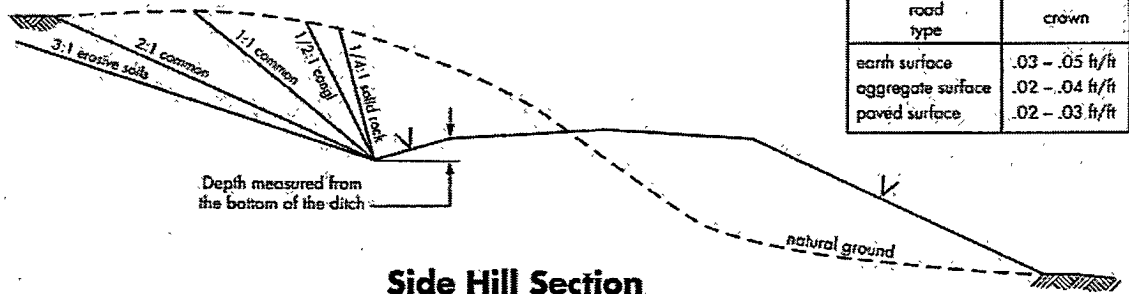
Intervisible turnouts shall be constructed on all single lane roads on all blind curves with additional turnouts as needed to keep spacing below 1000 feet.

Typical Turnout Plan



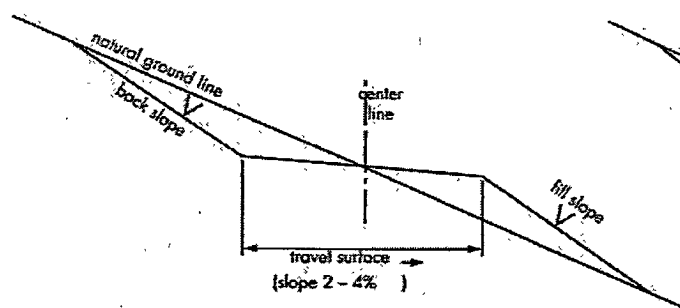
height of fill at shoulder	embankment slope
0' - 4'	3:1
above 4'	2:1

Embankment Section

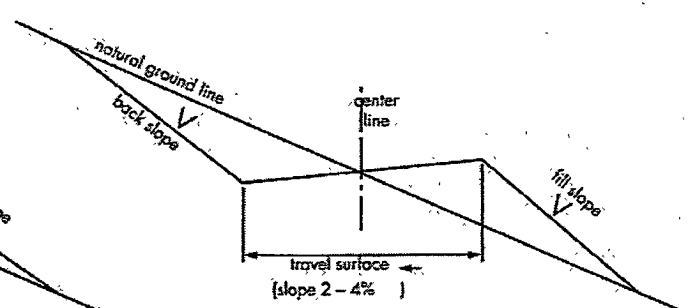


road type	crown
earth surface	.03 - .05 ft/ft
aggregate surface	.02 - .04 ft/ft
paved surface	.02 - .03 ft/ft

Side Hill Section



Typical Outsloped Section



Typical Insloped Section

V. DRILLING

DRILLING OPERATIONS REQUIREMENTS

1. Call the Roswell Field Office, 2909 West Second St., Roswell, NM 88201. During office hours call (575) 627-0205 or after office hours call (575) 910-6024. Engineer on call during office hours call (575) 627-0275 or after office hours call (575) 626-5749.

2. The BLM is to be notified a minimum of 24 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

BOPE Tests

3. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

4. Include the API Number assigned to well by NMOCD on the subsequent report of setting the first casing string.

5. The operator will accurately measure the drilling rate in ft/min to set the base of the usable water protection casing string(s) opposite competent rock. The record of the drilling rate along with the caliper-gamma ray-neutron well log run to surface will be submitted to this office as well as all other logs run on the borehole 30 days from completion

6. Air, air-mist or fresh water and non toxic drilling mud shall be used to drill to the base of the usable water protection casing string(s). Any polymers used will be water based and non-toxic.

B. CASING

1. The 8 5/8 inch usable water protection casing string(s) shall be set at approximately 600 feet in competent bedrock.

If not the operator is required to set usable water protecting casing in the next thick competent bedding (i.e. 15 to 25 ft or greater) encountered and cemented to the surface.

a. If cement does not circulate to the surface, the Roswell Field Office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.

b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin or 500 pounds compression strength, whichever is greater. (This is to include the lead cement).

c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compression strength, whichever is greater.

d. If cement falls back, remedial action will be done prior to drilling out that string.

2. The minimum required fill of cement behind the inch production casing is **sufficient to tie back 500 feet above the uppermost perforation in the pay zone**. If cement does not circulate, a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.

3. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

4. All casing shall be new or reconditioned and tested casing and meet API standards for new casing. The use of reconditioned and tested casing shall be subject to approval by the authorized officer. Approval will be contingent upon the wall thickness of any casing being verified to be at least 87-1/2 per cent of the nominal wall thickness of new casing.

C. PRESSURE CONTROL:

1. Before drilling below the inch surface casing shoe, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve.

2. Before drilling below the inch surface casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be psi.

3. The BOPE shall be installed before drilling below the inch surface casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

a. The BLM Roswell Field office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

b. The tests shall be done by an independent service company.

c. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

VI. PRODUCTION

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, Juniper Green (Standard Environmental Color Chart June 2008).

VRM Facility Requirement – VRM Class IV

Low-profile tanks not greater than eight-feet-high shall be used.

VII. INTERIM RECLAMATION

Earthwork for interim and final reclamation must be completed within 6 months of well completion or well plugging (weather permitting).

During the life of the development, all disturbed areas not needed for active support of production operations should undergo “interim” reclamation in order to minimize the environmental impacts of development on other resources and uses.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used in road repairs, fire walls or for building other roads and locations. In addition, in order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

SEED MIXTURE
Gyp Upland, SD-3 Ecological Site

Common Name and Preferred Variety	Scientific Name	Pounds of Pure Live Seed Per Acre
Blue grama,	(<i>Bouteloua gracilis</i>)	1.0
Sand dropseed	(<i>Sporobolus cryptandrus</i>)	1.0
Plains bristlegrass	(<i>Setaria macrostachya</i>)	1.0
Alkali sacaton	(<i>Sporobolus airoides</i>)	3.0
Buckwheat	(<i>Eriogonum fasciculatum</i>)	1.0
Four-wing saltbush	(<i>Atriplex canescens</i>)	1.0
Desert or Scarlet	(<i>Sphaeralcea ambigua</i>)	<u>1.0</u>
Globemallow	(<i>S. coccinea</i>)	9.0

TOTAL POUNDS PURE LIVE SEED (pls) PER ACRE 9.00

Certified Weed Free Seed

If one species is not available increase ALL others proportionately

Use No Less than 4 species, including one forb.

No less than 9.00 pounds pls per acre shall be applied

C. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

- a. Upon abandonment of the well and/or when the access road is no longer in service, a Notice of Intent for Final Abandonment with the proposed surface restoration procedure must be submitted for approval.
- b. Upon abandonment of the well, all casing shall be cut-off at the base of the cellar or 3-feet below final restored ground level (whichever is deeper). A 4-inch pipe, 10 feet in length, shall be installed 4 feet above ground and embedded in cement. The following information shall be permanently inscribed on the dry hole marker: Well name and number, the name of the operator, the lease serial number, the surveyed location (the quarter-quarter section, section, township and range or other authorized survey designation acceptable to the authorized officer; such as metes and bounds).
- c. Surface Reclamation must be completed within 6 months of well plugging. If the operator proposes to modify the plans for surface reclamation approved on the APD, the operator must attach these modifications to the Subsequent Report of Plug and Abandon using Sundry Notices and Reports on Wells, Form 3160-5.

VIII. PIPELINE PROTECTION REQUIREMENT

Precautionary measures shall be taken by the operator during construction of the access road to protect existing pipelines that the access road will cross over. An earthen berm; 2 feet high by 3 feet wide and 14 feet across the access road travelway (2' X 3' X 14'), shall be constructed over existing pipelines. The operator shall be held responsible for any damage to existing pipelines. If the pipeline is ruptured and/or damaged the operator shall immediately cease construction operations and repair the pipeline. The operator shall be held liable for any unsafe construction operations that threaten human life and/or cause the destruction of equipment.