8012 Field exam 10/3/06 ATS-08-238

OCD-ARTESIA

Form 3160-3
(February 2005)

RESUBMITTAL

AUG 15 2006
OCD-ARTESIA

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OMB No. 1004-0136
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

5 Lease Serial No: NM-16780

6 If Indian, Allottee or Tribe Name:

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

1a Type of work: [X] DRILL [ ] REENTER

b. Type of Well: [ ] Oil Well [X] Gas Well [ ] Other [ ] Single Zone [ ] Multiple Zone

8 Lease Name and Well No.: Lansdale BHZ Federal Com

2. Name of Operator: Yates Petroleum Corporation

9 API Well No.: 1H 30-015-36573

3A. Address: 105 South Fourth Street, Artesia, New Mexico 88210

3b Phone No. *(include area code)*: (505) 748-1471

10. Field and Pool, or Exploratory: 97489 Wildcat Wolfcamp

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: Roswell Controlled Water Basin 660' FSL and 660' FWL Pilot Hole BLM

At proposed prod. Zone: 660' FNL and 660' FWL Bottom Hole F+P.

11. Sec., T., R., M., or Blk, and Survey or Area: Section 1, T17S-R24E

14 Distance in miles and direction from nearest town or post office*: Approximately 9 miles as the crow flys northwest of Artesia, New Mexico.

12. County or Parish: Eddy County

13. State: NM

15 Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of Acres in lease	17. Spacing Unit dedicated to this well
660'	1324.8	W/2
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	**19 Proposed Depth**	**20. BLM/BIA Bond No. on file**
5280.	5200,	NMB000434
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	**22. Approximate date work will start***	**23. Estimated duration**
3678' GL	ASAP	45 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.
2. A Drilling Plan.
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.
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized office.

25. Signature	Name *(Printed/Typed)*	Date
Cy Cowan	Cy Cowan	12/18/2007
Regulatory Agent	Regulatory Agent	
Approved by *(Signature)* /s/ James Stovall	Name *(Printed/Typed)* /s/ James Stovall	Date AUG 15 2008
Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

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 conduct operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S. ... y and willfully to make to any department or agency of the United States any false, fictitious or fraudulent state... tion.

NOTE: NEW PIT RULE 19-15-17 NMAC PART 17 A form C-144 must be approved before starting drilling operations.

(Instructions on reverse) C-144 att

SEE ATTACHED FOR CONDITIONS OF APPROVAL

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 & Natural Resources Department

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

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease – 4 Copies
Fee Lease – 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
	97489	Wildcat Wolfcamp

4 Property Code	5 Property Name	6 Well Number
37351	LANSDALE BHZ FED COM	1H

7 OGRID No.	8 Operator Name	9 Elevation
025575	YATES PETROLEUM CORPORATION	3678

10 Surface Location

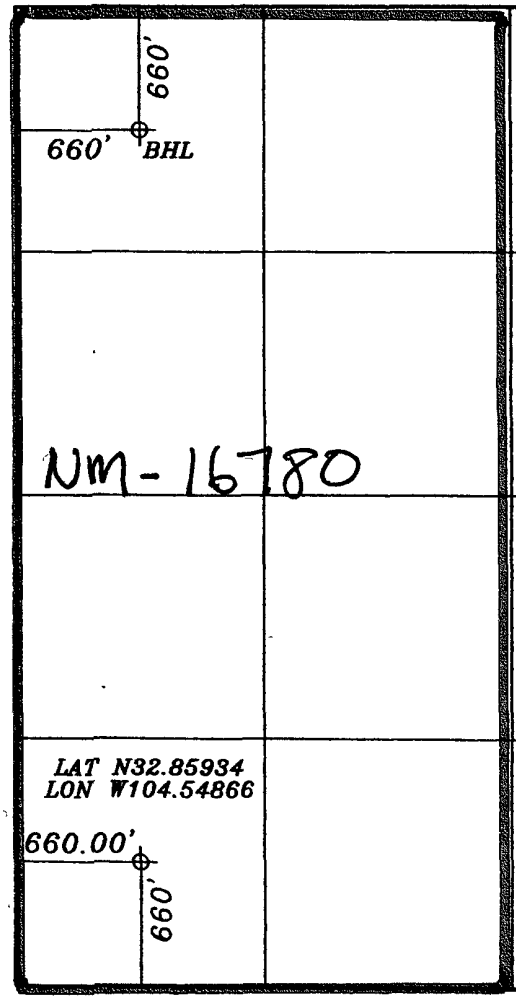
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	1	17-S	24-E		660	SOUTH	660	WEST	EDDY

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
LOT 4	1	17-S	24-E		660	NORTH	660	WEST	EDDY

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
320			

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.



17 OPERATORS 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 mineral or working interest, or to voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — Date: 12/18/07

Cy Cowan, Regulatory Agent
Printed Name

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.

SEPTEMBER 14, 2006
Date of Survey

Signature and Seal of Professional Surveyor:

DAN R. REDDY
NEW MEXICO
5412
REGISTERED PROFESSIONAL LAND SURVEYOR
REGISTERED PROFESSIONAL ENGINEER

Certificate Number: DAN R. REDDY NM PE&PS 5412

YATES PETROLEUM CORPORATION
Lansdale BHZ Federal Com. #1H
660' FSL and 660' FWL (Pilot Hole)
660' FNL and 660' FWL (Bottom Hole)
Section 1, T17S-R24E
Eddy County, New Mexico

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

San Andres	Oil	647'	Wolfcamp	Gas Pay	4865'
Glorietta	Oil	1867'	Base Wolfcamp	Gas Pay	4956'
Tubb	Oil	3177'	Wolfcamp Shale	Gas Pay	4977'
Abo	Oil	3807'	TD (Pilot Hole)		5200'
			TD (Lateral)		8678'

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

Water: 335'
Oil or Gas: Wolfcamp

See COA

3. **Pressure Control Equipment:** BOPE will be installed on the 9 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.

Auxiliary Equipment:

A. 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.

4. **THE PROPOSED CASING AND CEMENTING PROGRAM:**

A. Casing Program: (All New)

Hole Size	Casing Size	Wt./Ft	Grade	Thread	Interval	Length
17 1/2"	13 3/8"	48#	H-40	ST&C	0-350'	350'
12 1/4"	9 5/8"	36#	J-55	ST&C	0-1500'	1500'
8 3/4"	Open Hole	Pilot	----	----	0-5200' TVD	5200'
* 8 3/4"	7"	23# +26#	J-55	ST&C	0-5000' MD	5000'
7 7/8"	5 1/2"	17#	HP-110	LT&C	0-8678' MD	8678'

See COA

* 7" will only be set if hole conditions dictate.

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.

See COA

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

Yates Petroleum Corporation

Jeremiah Mullen (jmullen@ypcnm com)
(505)748-4378
105 S. Fourth Street
Artesia, N.M. 88210

The following is the contingency casing design and cement program for the Lansdale BHZ Fed. Com. #1H:

Size	Wt. (#/ft.)	Grade	Depth	Top of Cement
7"	23#	J-55	0'-5000'	700'

Lead with 500sx C-lite (Yld 2.04 Wt. 12.5#) and tail with 225sx class C (Yld 1.33 Wt. 14.8).

4 ½" liner	11.6#	HCP-110	4000'-8678'	4000'

350sx Acid Soluble Cement (Yld 2.6 Wt. 11.15).

B. CEMENTING PROGRAM:
Surface Casing: 250 sx Lite "C" (YLD 2.1 WT 12.6) tail in w/ 200 sx "C" w/ 2% CaCl2 (YLD 1.32 WT 14.8). – circulate to Surface all.

Intermediate Casing: 450 sx Lite "C" (YLD 2.10 WT 12.6) Tail in w/200 sx Class "C" +2% CaCl2 (YLD 1.32 WT 14.8). – circulate to Surface, all.

Production Casing: TOC1000', Lead w/ 775 sx Lite "C" (YLD 2.05 WT 12.5) Tail in w/ 1200 sx Magne Plus (YLD 1.05 WT 13.0).

5. Mud Program and Auxiliary Equipment:

Interval	Type	Weight	Viscosity	Fluid Loss
Spud to 350'	FW/Spud Mud	8.4-8.9	32-36	N/C
350'-1500'	F/WGel/Air Mist	8.4-8.9	28-34	N/C
1500'-8678'	Cut Brine	8.8-9.2	28	N/C

see COA

ALL DEPTHS ARE MEASURED

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. Mud will be checked hourly by rig personnel.

6. EVALUATION PROGRAM:

Samples: 10' out from under intermediate casing to TD.
Logging: Platform Express/HALS/FMI.
Coring: Rotary Sidewall Cores.
DST's: NonE anticipated.

7. Abnormal Conditions, Bottom hole pressure and potential hazards:
Anticipated BHP:

From:	0	TO	350' TVD	Anticipated Max. BHP:	162	PSI
From:	350'	TO	1500'	Anticipated Max. BHP:	695	PSI
From:	1500'	TO	5200' TVD	Anticipated Max. BHP:	2490	PSI

Abnormal Pressures Anticipated: None

Lost Circulation Zones Anticipated: None

H2S Zones Anticipated: None

Maximum Bottom Hole Temperature: 168° F

8. ANTICIPATED STARTING DATE:

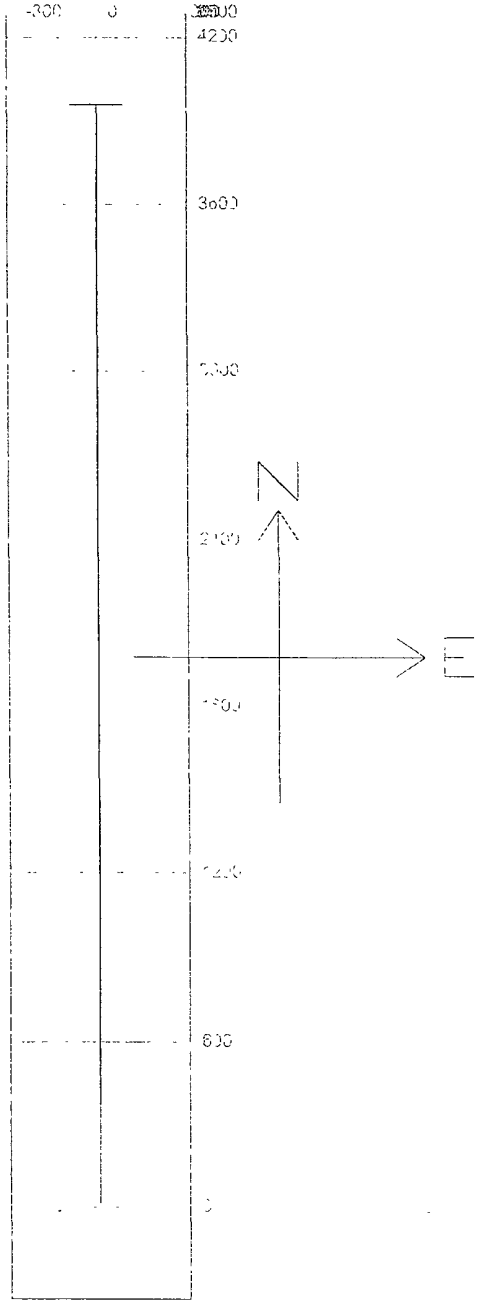
Plans are to drill this well as soon as possible after receiving approval. It should take approximately 30 days to drill the well with completion taking another 15 days.

Simulated Survey - C:\Program Files\Drilling Toolbox 2001\Templates\Visual Wellbore\lansdale1H.wpp

	M.D. [ft]	Inclination [°]	Azimuth [°]	T.V.D. [ft]	N+/S- [ft]	E+/W- [ft]	D.L.S. [°/100ft]	ToolFace [°]	T.F. Ref. [HS/GN]
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	4500.00	0.00	0.00	4500.00	0.00	0.00	15.00	0	GN
3	4500.00	0.00	0.00	4500.00	0.00	0.00	15.00	0	GN
4	4525.00	3.75	0.00	4524.98	0.82	0.00	15.00	0	HS
5	4550.00	7.50	0.00	4549.86	3.27	0.00	15.00	0	HS
6	4575.00	11.25	0.00	4574.52	7.34	0.00	15.00	0	HS
7	4600.00	15.00	0.00	4598.86	13.02	0.00	15.00	0	HS
8	4625.00	18.75	0.00	4622.78	20.27	0.00	15.00	0	HS
9	4650.00	22.50	0.00	4646.17	29.08	0.00	15.00	0	HS
10	4675.00	26.25	0.00	4668.94	39.39	0.00	15.00	0	HS
11	4700.00	30.00	0.00	4690.99	51.17	0.00	15.00	0	HS
12	4725.00	33.75	0.00	4712.21	64.37	0.00	15.00	0	HS
13	4750.00	37.50	0.00	4732.53	78.93	0.00	15.00	0	HS
14	4775.00	41.25	0.00	4751.85	94.79	0.00	15.00	0	HS
15	4800.00	45.00	0.00	4770.10	111.88	0.00	15.00	0	HS
16	4825.00	48.75	0.00	4787.18	130.12	0.00	15.00	0	HS
17	4850.00	52.50	0.00	4803.04	149.44	0.00	15.00	0	HS
18	4875.00	56.25	0.00	4817.60	169.76	0.00	15.00	0	HS
19	4900.00	60.00	0.00	4830.80	190.99	0.00	15.00	0	HS
20	4925.00	63.75	0.00	4842.58	213.03	0.00	15.00	0	HS
21	4950.00	67.50	0.00	4852.90	235.80	0.00	15.00	0	HS
22	4975.00	71.25	0.00	4861.70	259.19	0.00	15.00	0	HS
23	5000.00	75.00	0.00	4868.96	283.11	0.00	15.00	0	HS
24	5025.00	78.75	0.00	4874.63	307.45	0.00	15.00	0	HS
25	5050.00	82.50	0.00	4878.70	332.11	0.00	15.00	0	HS
26	5075.00	86.25	0.00	4881.15	356.99	0.00	15.00	0	HS
27	5094.13	89.12	0.00	4881.93	376.10	0.00	0.00		
28	8678.45	89.12	0.00	4937.00	3960.00	0.00	0.00		

3D³ Directional Drilling Planner - 3D View

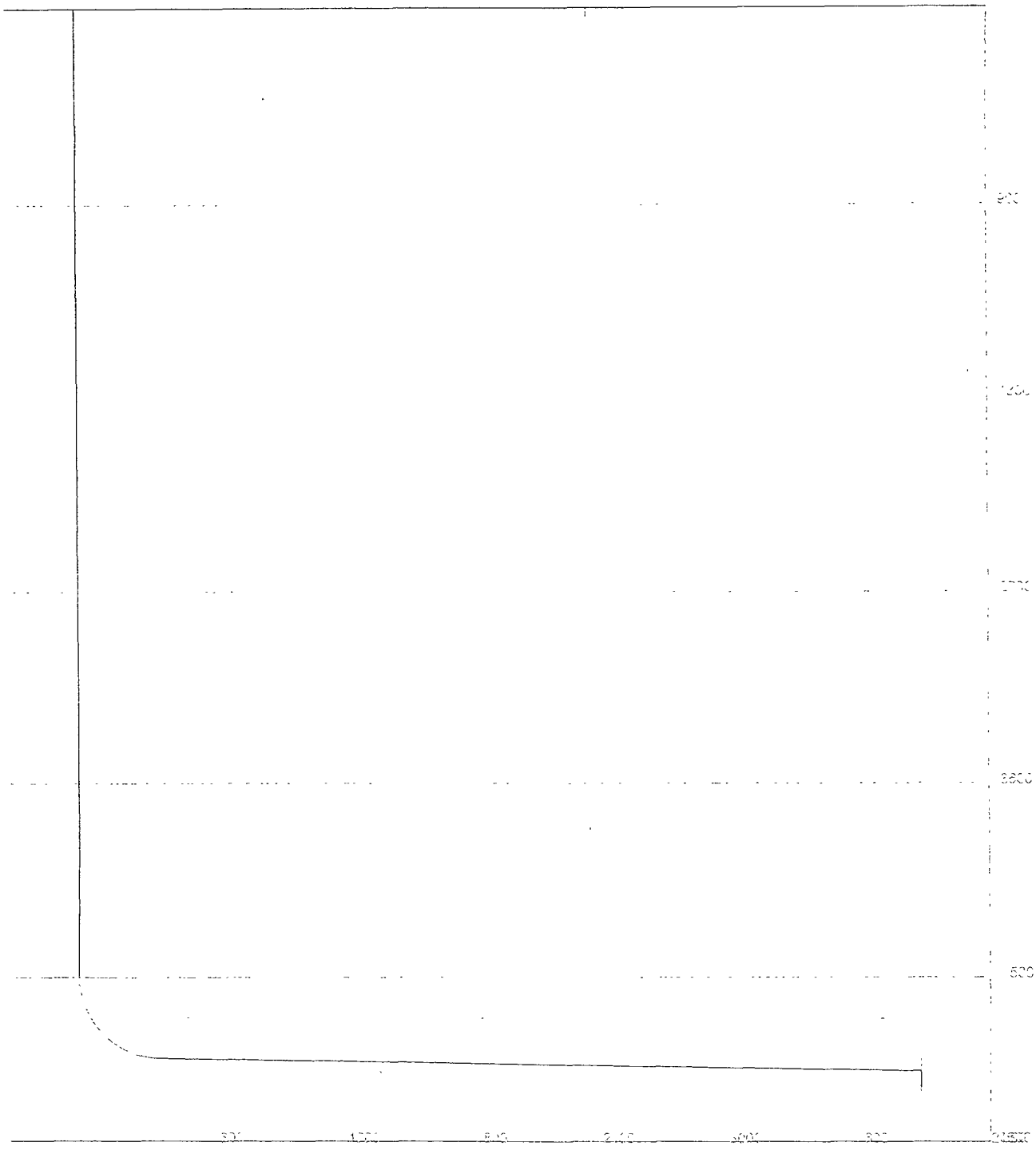
Company: **Technical Toolboxes Inc.**
Well: **Lansdale BHZ Fed. Com. #1H**



File: C:\Program Files\Drilling Toolbox 2001\Templates\Visual Wellbore\lansdale1H.wpp

3D³ Directional Drilling Planner - 3D View

Company: **Technical Toolboxes Inc.**
Well: **Lansdale BHZ Fed. Com. #1H**



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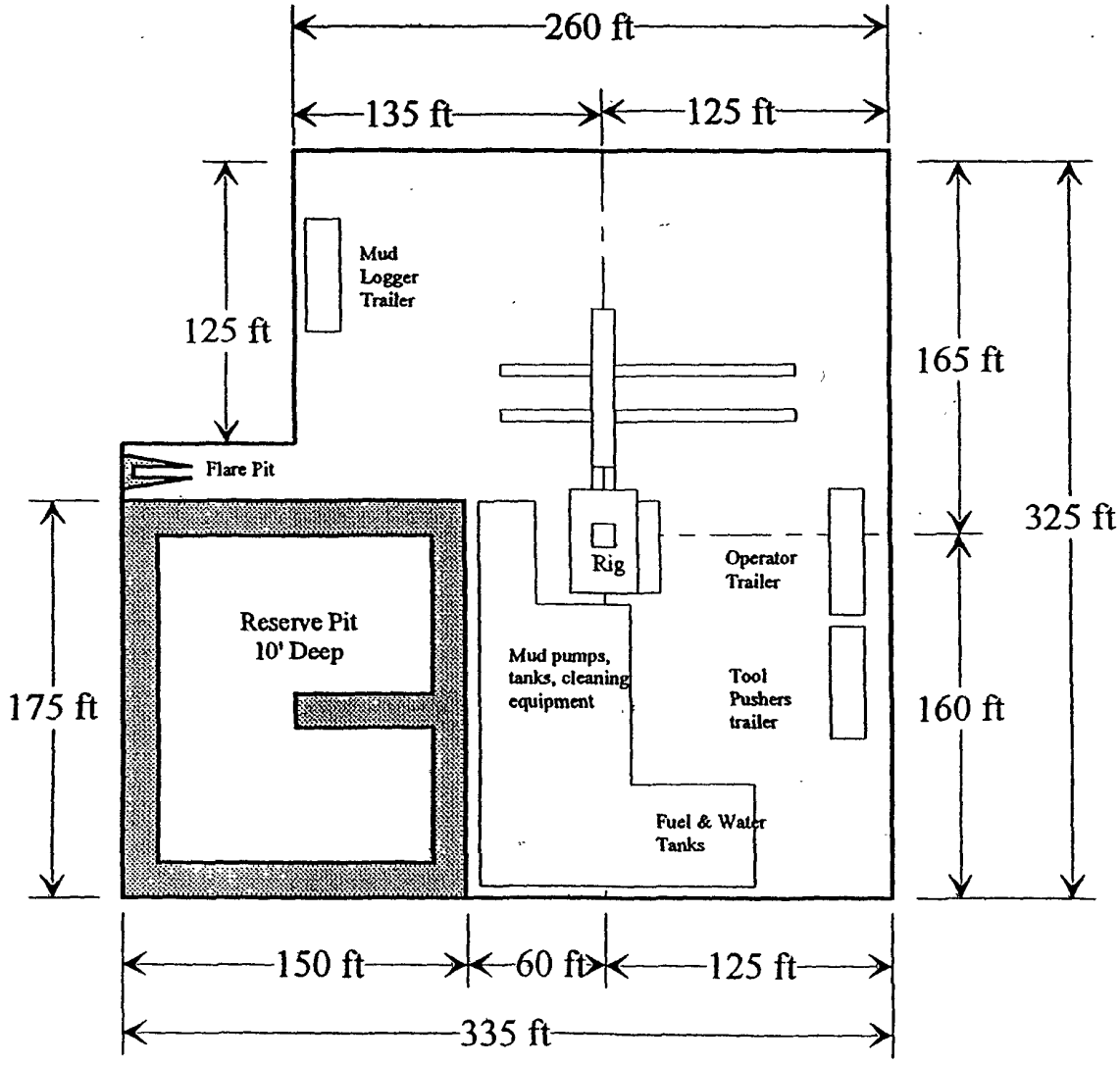
PB - L1

Yates Petroleum Corporation

Location Layout for Permian Basin
Up to 12,000'

N

Lansdale BHZ Federal Com. #1H
660' FSL & 660' FWL (Surface)
660' FNL & 660' FWL (Bottom Hole)
Section 1-T17S-R24E
Eddy County, New Mexico
EXHIBIT C



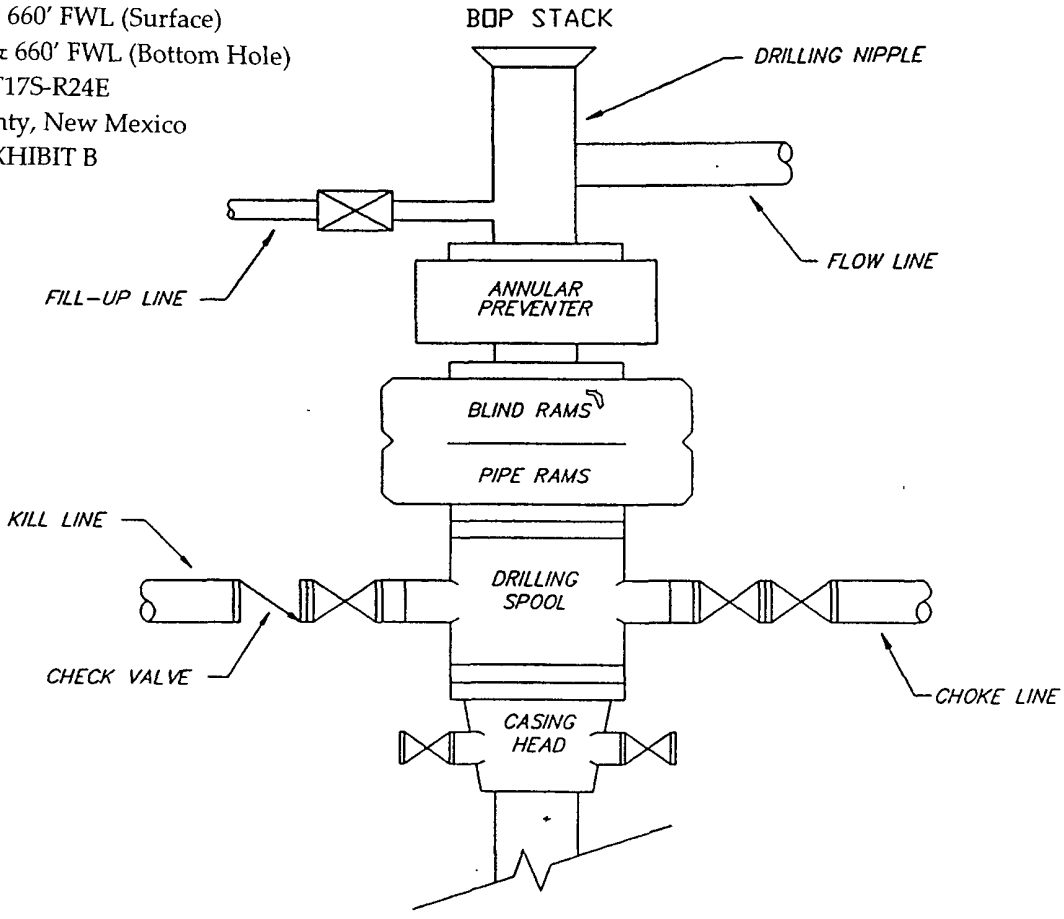
Distance from Well Head to Reserve Pit will vary between rigs

The above dimension should be a maximum

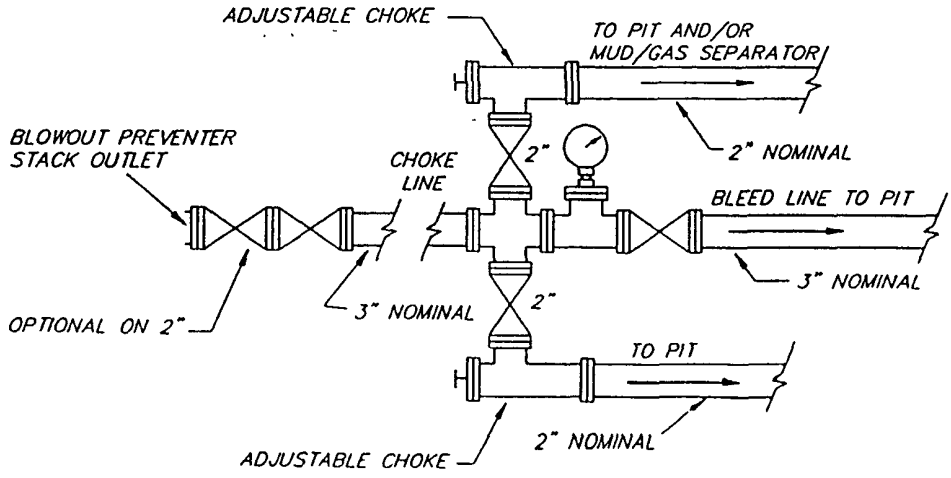
YATES PETROLEUM CORPORATION

Lansdale BHZ Federal Com. #1H
660' FSL & 660' FWL (Surface)
660' FNL & 660' FWL (Bottom Hole)
Section 1-T17S-R24E
Eddy County, New Mexico
EXHIBIT B

TYPICAL 3,000 p.s.i. BLOWOUT PREVENTER SCHEMATIC



TYPICAL 3,000 p.s.i. CHOKE MANIFOLD SCHEMATIC



MULTI-POINT SURFACE USE AND OPERATIONS PLAN
Yates Petroleum Corporation
Lansdale BHZ Federal Com. #1H
660' FSL and 660' FWL (Pilot Hole)
660' FNL and 660' FWL (BHL)
Section 1,T17S-R24E
Eddy 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 well site is located approximately 9 miles northwest of Artesia, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

DIRECTIONS:

From 13th Street in Artesia, go west of Artesia 4.7 miles to Lonesome Trail Road. Turn right on Lonesome Trail road and go .9 of a mile to a fork in the road. Take the left fork in the road that goes past a caliche pit. Follow this lease road westerly, northwesterly and then westerly for approximately 4.4 miles. The road will turn right here and so south for approx. 1 mile. At this point the road will turn west and go to an EOG location. The new road to the Lansdale will start at this point going east for approximately .1 of a mile to the southwest corner of the Lansdale well location.

2. PLANNED ACCESS ROAD:

A. The proposed new access will be approximately 0.1 of a mile in length from the point of origin the southwest corner of the well location. The road will lie in a west to east direction.
.B. The new road will be 14 feet in width (driving surface) and will be adequately drained to control runoff and soil erosion.
C. The new road will be bladed with drainage on one side. Traffic turnouts may be built.
D. The route of the road is visible.
E. Existing roads will be maintained in the same or better condition.
F. One cattle guard will be needed.

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 no production facilities on this lease at the present time.
B. In the event that the well is productive, the necessary production facilities will be installed on the drilling pad. If the well is productive oil, a gas or diesel self-contained unit will be used to provide the necessary power. No power will be required if the well is productive of gas.

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 Exhibit A.

6. SOURCE OF CONSTRUCTION MATERIALS:

The dirt contractor will acquire any materials from the closest source at the time of construction of the well pad.

7. METHODS OF HANDLING WASTE DISPOSAL:

A. Drill cuttings will be disposed of in the reserve pits.
B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
C. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.
D. Oil produced during operations will be stored in tanks until sold.
E. Current laws and regulations pertaining to the disposal of human waste will be complied with.
F. 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 reserve pits, the location of the drilling equipment, rig orientation and access road approach.
B. The reserve pits will be plastic lined. Yates Petroleum Corporation is in full compliance with the OCD General Plan for Drilling Pits approved on April 15, 2004.
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 wellsite in as aesthetically pleasing a condition as possible.
B. Unguarded pits, if any, containing fluids will be fenced until they have dried and been leveled.
C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible.
D. The reserve pits will be reclaimed to meet the standards set by OCD Rule 50.

11. SURFACE OWNERSHIP: The surface location on lands managed by the Bureau of Land Management, Carlsbad, New Mexico. Yates Petroleum has made surface use agreements will the private surface owners to cross their lands with our access road to the location.

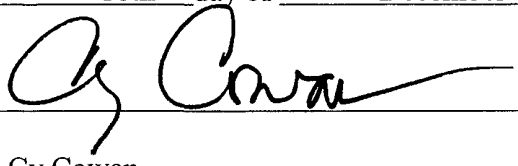
12. OTHER INFORMATION:

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

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 18th day of December, 20 07

Signature 

Name Cy Cowan

Position Title Regulatory Agent

Address 105 South Fourth Street, Artesia, New Mexico 88210

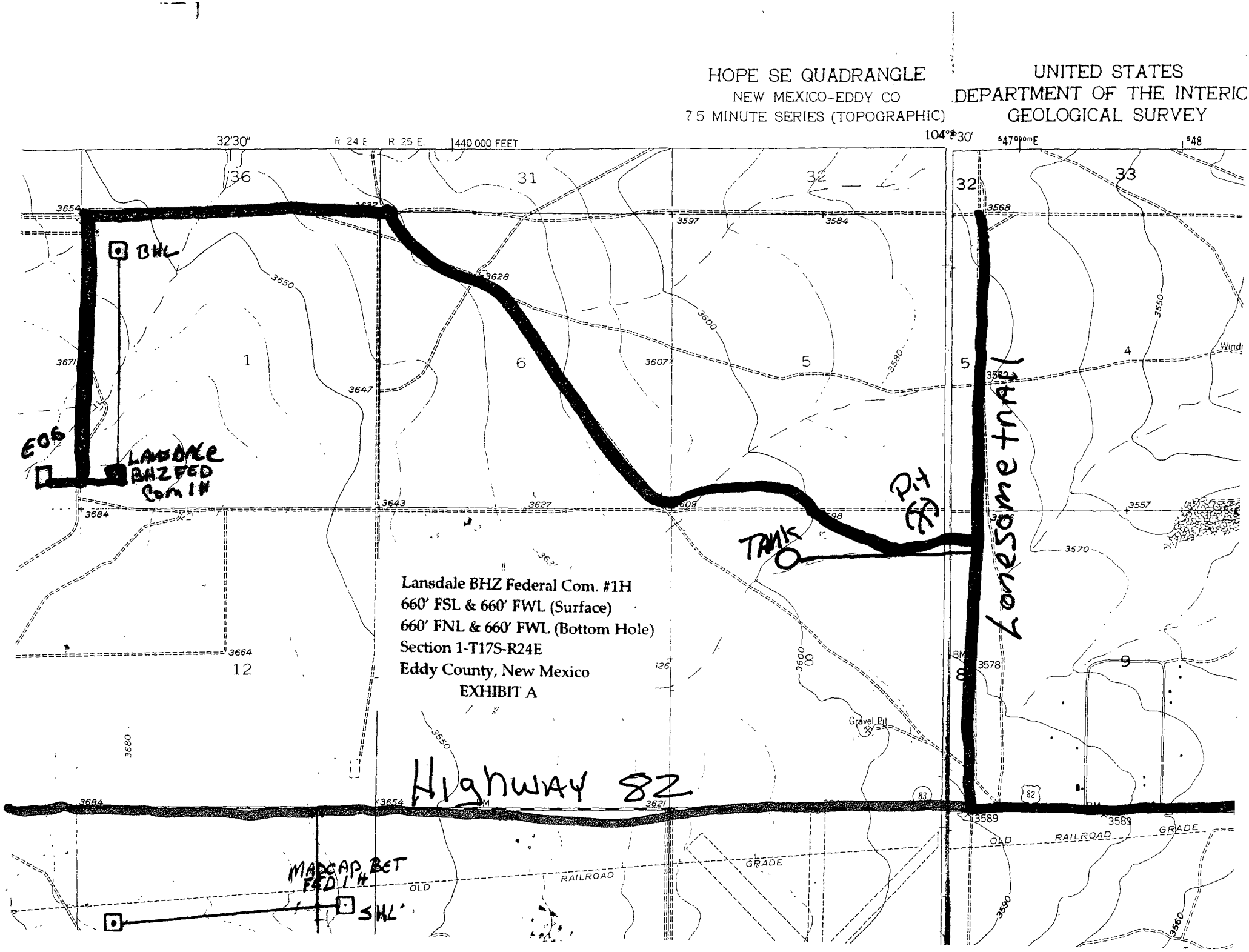
Telephone (505) 748-4372

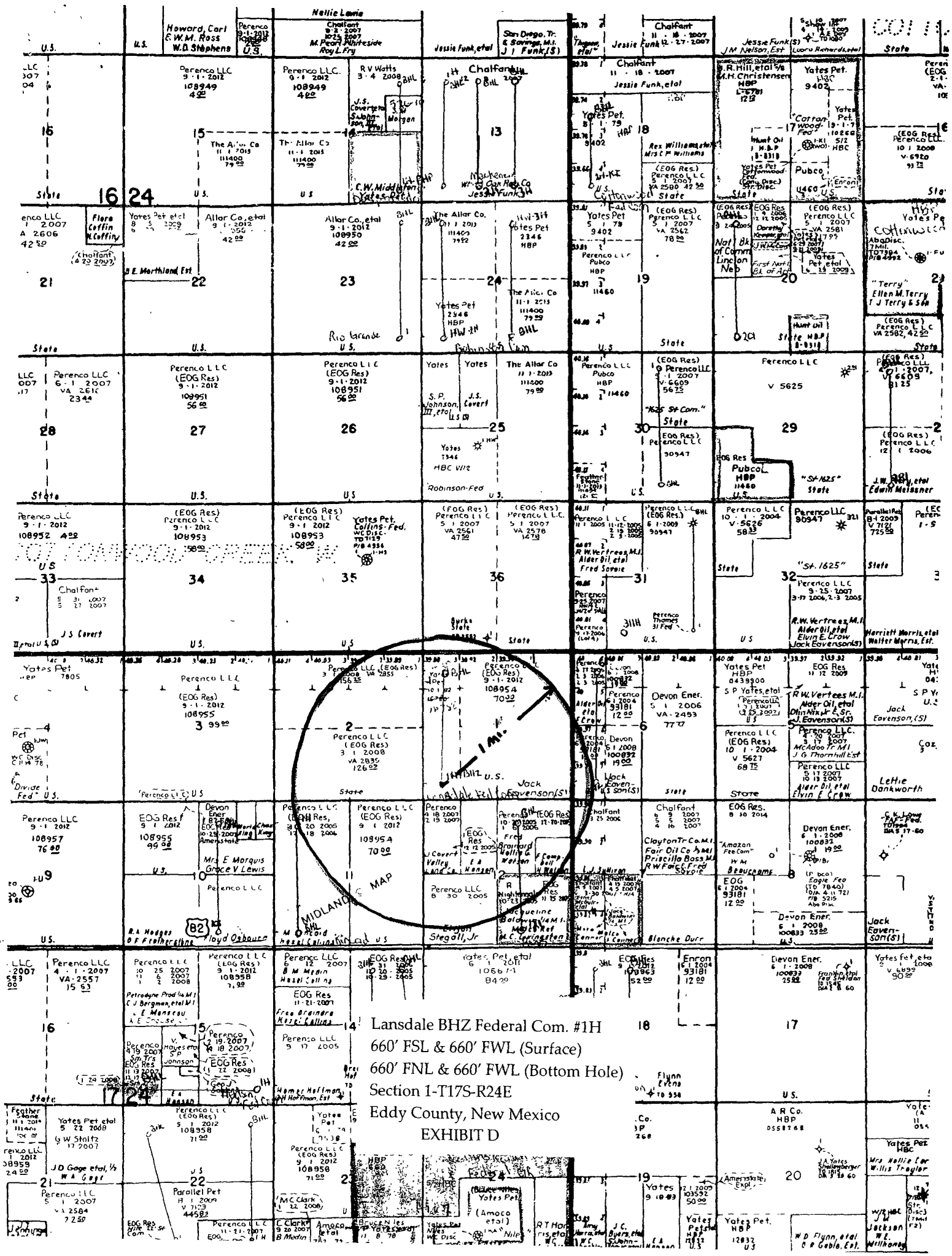
Field Representative (if not above signatory) Tim Bussell, Drilling Supervisor

Address (if different from above) Same as above.

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

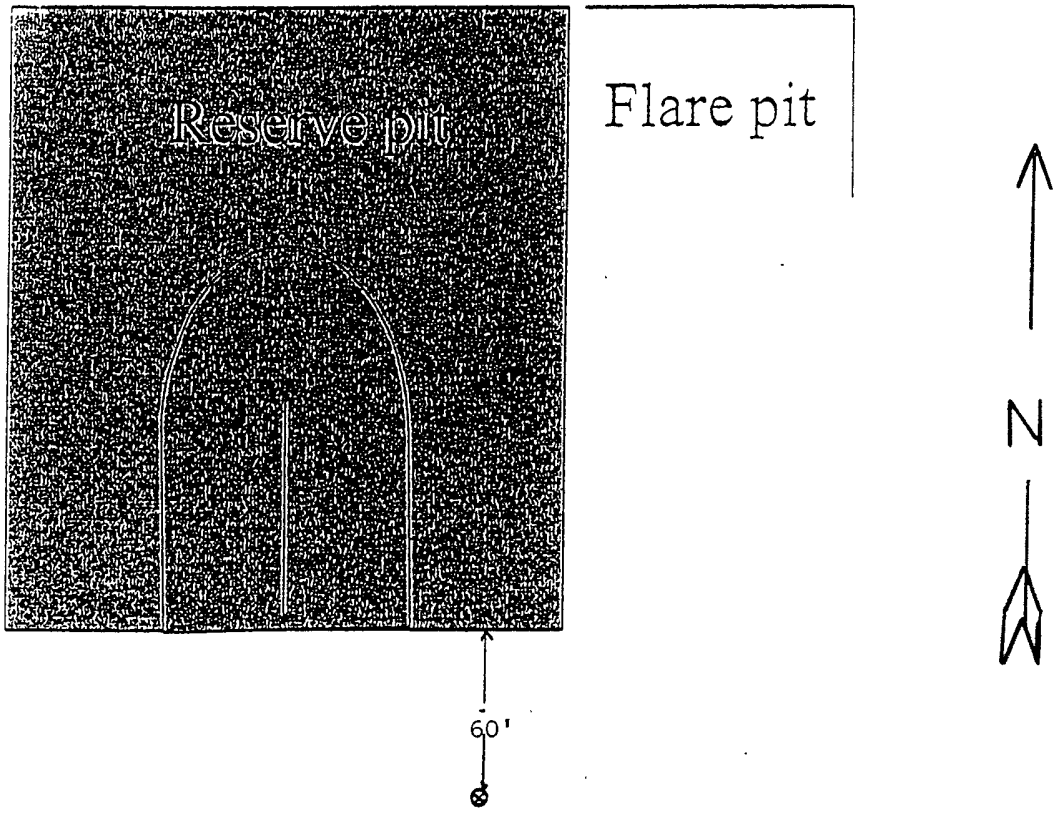
E-mail (optional)


HOPE SE QUADRANGLE
NEW MEXICO-EDDY CO
7 5 MINUTE SERIES (TOPOGRAPHIC)
UNITED STATES
DEPARTMENT OF THE INTERIC
GEOLOGICAL SURVEY
32'30"
R 24 E.
R 25 E.
440 000 FEET
104°30'
BHL
EOG
LANSDALE BHZFED Com 1H
Lansdale BHZ Federal Com. #1H
660' FSL & 660' FWL (Surface)
660' FNL & 660' FWL (Bottom Hole)
Section 1-T17S-R24E
Eddy County, New Mexico
EXHIBIT A
TANK
Highway 82
Highway 7
MADCAP BET FED 1H
SHL
OLD RAILROAD GRADE
Gravel Pit


1 Mi.
MAP
MIDLAND
Lansdale BHZ Federal Com. #1H
660' FSL & 660' FWL (Surface)
660' FNL & 660' FWL (Bottom Hole)
Section 1-T17S-R24E
Eddy County, New Mexico
EXHIBIT D

YATES PETROLEUM CORPORATION
General Plan was approved 4/15/04

The reserve pit will be to the north. The southeast corner of the pit will be approximately 60' north of the well bore. The pit will be a 175' X 150' and 6' deep with a capacity of 28,000 bbls.



Standard reserve pit. All Reserve pits are double
Horse shoe size varies with depth of well

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Yates Petroleum Corporation
LEASE NO.:	NM-16780
WELL NAME & NO.:	Landsdale BHZ Fed. Com. #1H
SURFACE HOLE FOOTAGE:	660' FSL & 660' FWL
BOTTOM HOLE FOOTAGE	660' FNL & 660' FWL
LOCATION:	Section 01, T. 17 S., R 24 E., NMPM
COUNTY:	Eddy County, New Mexico

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Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. 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.

II. 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.)

III. 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.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. 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.

V. SPECIAL REQUIREMENT(S)

Stipulations for Drilling in Aplomado Falcon Habitat

The following well pad construction and reclamation measures will be implemented to provide for minimal long-term disturbance:

No Yuccas over 5 feet in height will be damaged by vehicular use or any other activity associated with this project.

Remove all caliche from well pads and roads that are plugged and abandoned. Reclamation will consist of disking, mulching, seeding (See seed mixture below), and application of water to encourage seed germination.

Well pad size will not exceed 300 ft. x 390 ft. (unless multiple wells are drilled from the same well pad). All unused portions of the well pad associated with producing wells will be reclaimed using the seed mixture below:

Buffalograss (Buchloe dactyloides)	4 lbs/acre
Blue grama (Bouteloua gracilis)	1 lbs/acre
Cane bluestem (Bothriochloa barbinodis)	5 lbs/acre
Sideoats grama (Boutelou curtipendula)	5 lbs/acre
Plains bristlegrass (Setaria macrostachya)	6 lbs/acre

Reserve pits for drilling and disposal are not allowed unless the pit can be effectively netted to the satisfaction of the BLM. Steel tank circulation system must be used if the reserve pit is not netted.

All active raptor nests will be avoided by a minimum of 400 meters by all activities or curtail activities until fledging is complete.

All inactive raptor nests will be avoided by a minimum of 200 meters by all activities.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (505) 234-5972 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 APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall stockpile the topsoil of the well pad. The topsoil to be stripped is approximately 8 inches in depth. The topsoil shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

C. RESERVE PITS

The reserve pit shall be constructed and closed in accordance with the NMOCD rules.

The reserve pit shall be constructed 175' X 150' on the North side of the well pad.

The reserve pit shall be constructed, so that upon completion of drilling operations, the dried pit contents shall be buried a minimum depth of three feet below ground level. Should the pit content level not meet the three foot minimum depth requirement, the excess contents shall be removed until the required minimum depth of three feet below ground level has been met. The operator shall properly dispose of the excess contents at an authorized disposal site.

The reserve pit shall be constructed and maintained so that runoff water from outside the location is not allowed to enter the pit. The berms surrounding the entire perimeter of the pit shall extend a minimum of two (2) feet above ground level. At no time will standing fluids in the pit be allowed to rise above ground level.

The reserve pit shall be fenced on three (3) sides during drilling operations. The fourth side shall be fenced immediately upon rig release.

D. FEDERAL MINERAL MATERIALS PIT

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. Call the Carlsbad Field Office at (505) 234-5972.

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 needs.

F. ON LEASE ACCESS ROADS

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.

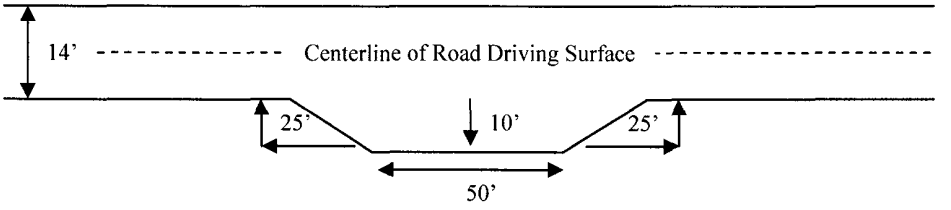
Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching

Ditching shall be required on both sides of the road.

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:

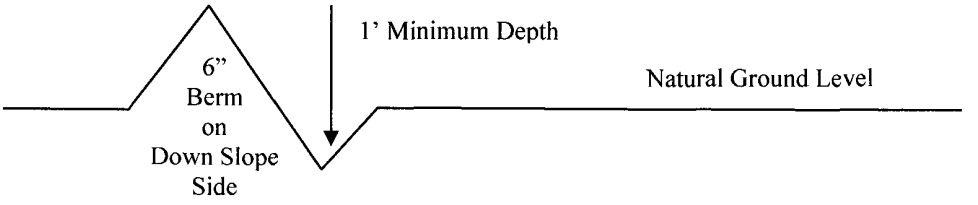
Standard Turnout – Plan View



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 a 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:

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

Culvert Installations
Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

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.

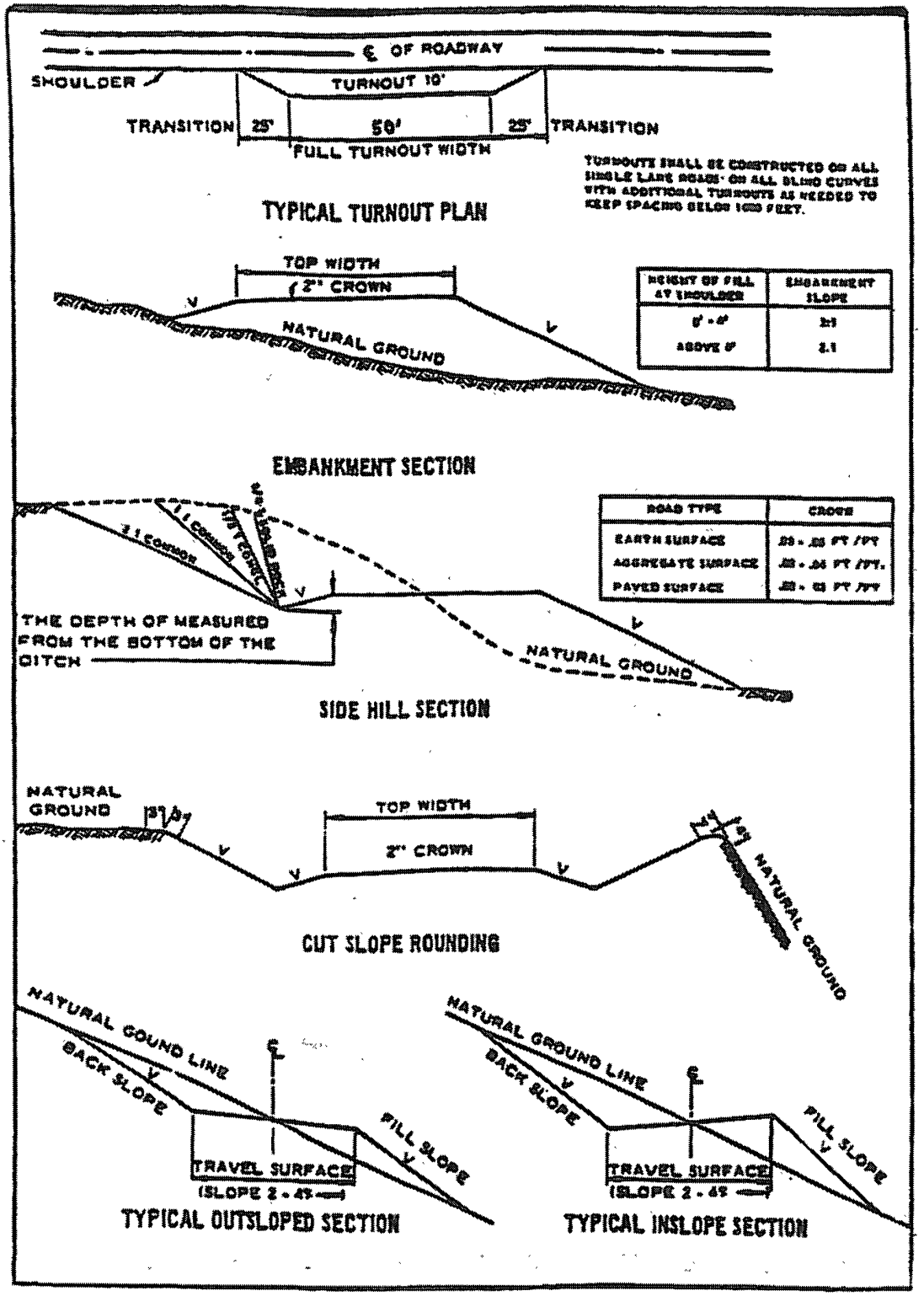
A gate shall be constructed and fastened securely to H-braces.

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



VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

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

a. Spudding well
b. Setting and/or Cementing of all casing strings
c. BOPE tests

☒ **Eddy County**
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

1. **Although Hydrogen Sulfide has not been reported in this section, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts to the BLM.**

2. 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.

3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

B. CASING

1. The **13-3/8** inch surface casing shall be set at **approximately 350** feet and cemented to the surface.

   a. If cement does not circulate to the surface, the appropriate BLM 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, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement). **Please provide WOC times to inspector for cement slurries.**

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 compressive strength, whichever is greater.

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

Possible lost circulation in the Grayburg and San Andres formations.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

   ☒ Cement to surface. If cement does not circulate see B.1.a-d above. **Casing to be set at approximately 1200' to separate oil and gas from water formations. Please provide WOC times to inspector for cement slurries.**

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

   ☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

Contingency casing if hole conditions warrant:

4. The minimum required fill of cement behind the **7** inch intermediate casing is:

   ☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification. **Please provide WOC times to inspector for cement slurries.**

Formation below the 7" shoe to be tested according to Onshore Order 2.III.B.1.i.

5. The minimum required fill of cement behind the **4-1/2** inch production liner is:

   ☒ Cement to come to top of liner. Operator shall provide method of verification.

6. 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.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8"** intermediate casing shoe shall be **3000 (3M)** psi.

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

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

    b. The results of the test shall be reported to the appropriate BLM office.

    c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

    d. 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.

    e. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation **if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days**. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

    f. A variance to test the surface casing and BOP/BOPE to the reduced pressure of **1000** psi with the rig pumps is approved.

D. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

E. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

Engineer on call phone (after hours): Carlsbad: (575) 706-2779
WWI 013108

VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

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
Shale Green, Munsell Soil Color Chart # 5Y 4/2

IX. INTERIM RECLAMATION & RESERVE PIT CLOSURE

A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

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.

At the time reserve pits are to be reclaimed, operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used for road repairs, fire walls or for building other roads and locations. 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.

B. RESERVE PIT CLOSURE

The reserve pit, when dried and closed, shall be recontoured, all trash removed, and reseeded as follows:

Aplomado Falcon Habitat Seed Mixture

Buffalograss (Buchloe dactyloides)) ---------- 4 lbs/acre
Blue grama (Bouteloua gracilis) ---------- 1 lb/acre
Cane bluestem (Bothriochloa barbinodis) ---------- 5 lbs/acre
Sideoats grama (Bouteloua curtipendula) ---------- 5 lbs/acre
Plains bristlegrass (Setaria macrostachya) ---------- 6 lbs/acre

(Insert Seed Mixture Here)

X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.