

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☐ DEEPEN ☒

b. TYPE OF WELL

OIL WELL ☒ GAS WELL ☐ OTHER ☐ SINGLE ZONE ☒ MULTIPLE ZONE ☐

2. NAME OF OPERATOR

HARVEY E. YATES COMPANY

3. ADDRESS AND TELEPHONE NO.

P.O. BOX 1933, ROSWELL, NEW MEXICO 88202 505-623-6601

4. LOCATION OF WELL (REPORT LOCATION CLEARLY AND IN ACCORDANCE WITH ANY STATE REQUIREMENTS)

AT SURFACE Sec 10 660' FNL & 1,980' FWL

AT PROPOSED PROD. ZONE Sec 9 1,480' FNL & 1,320' FWL

SUBJECT TO LIKE APPROVAL BY STATE

5. LEASE DESIGNATION AND SERIAL NO.

NMMN 16350A

6. IF INDIAN, ALLOTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

YOUNG DEEP UNIT

8. FARM OR LEASE NAME, WELL NO.

9. API WELL NO.

30-025-27121

10. FIELD AND POOL, OR WILDCAT

N. YOUNG BONE SPRING

11. SEC., T., R., M., OR BLK

AND SURVEY OR AREA

SEC 10, T18S, R32E

12. COUNTY OR PARISH

LEA

13. STATE

NM

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

20 MILES SE OF LOCO HILLS, NM

15. DISTANCE FROM PROPOSED

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

660

16. NO. OF ACRES IN LEASE

280

17. NO. OF ACRES ASSIGNED

TO THIS WELL

280

18. DISTANCE FROM PROPOSED LOCATION

TO NEAREST WELL DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

900

19. PROPOSED DEPTH

9,570' TVD

20. ROTARY OR CABLE TOOLS

ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

3853.8

APPROX. DATE WORK WILL START

ASAP

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WT PER FT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8" J-55	48#	660'	IN PLACE CEMENT CIRCULATED
12 1/4"	8 5/8" J-55	24, 28, & 32#	4,640'	IN PLACE CEMENT CIRCULATED
7 7/8"	5 1/2" J-55	15.5# & 17#	9,620'	300 sx
4 3/4"	3 1/2" P-110	9.3#	8,900' TVD + 1,660' HORIZ	135 SX

ALL CASING WILL BE NEW, OR USED MEETING BLM SPECS.

CEMENT QUANTITIES AND ADDITIVES ARE SUBJECT TO CHANGE DUE TO HOLE CONDITIONS.

3 1/2" LINER CEMENT 135 SX CLASS H, W/ SODIUM METASILICATE, DISPERSANT AND FLUID LOSS

THIS IS A RE-ENTRY OF THE PLUGGED AND ABANDONED YOUNG DEEP UNIT #2. SEE ATTACHED PROCEDURE

PROPOSED MUD PROGRAM

0-8,200'	FRESH WATER
8,200' TO 1,000' HORIZ.	MUD UP WITH BARAZAN D, MW 9.4-9.8 VIS 34-36

MUD PROGRAM SUBJECT TO CHANGE DUE TO HOLE CONDITIONS

SEE ATTACHED PROCEDURE FOR HORIZONTAL DRILLING

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

SIGNED Bob Williams Bob Williams TITLE Drilling Superintendent DATE 10/11/05

(THIS SPACE FOR FEDERAL OR STATE OFFICE USE)

PERMIT NO. _____ APPROVAL DATE _____

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:

ACTING

APPROVED BY

/s/ Joe G. Lara

TITLE

FIELD MANAGER

DATE

JAN 19 2006

TITLE 18 U.S.C. SECTION 1001, MAKES IT A CRIME FOR ANY PERSONS KNOWINGLY AND WILLFULLY TO MAKE TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES ANY FALSE OR FRAUDULENT STATEMENTS OR REPRESENTATIONS AS TO ANY MATTER WITHIN ITS JURISDICTION

APPROVAL FOR 1 YEAR

GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

KE

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 June 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-27121	² Pool Code 65350	³ Pool Name NORTH YOUNG BONE SPRING
⁴ Property Code 012993	⁵ Property Name YOUNG DEEP UNIT	⁶ Well Number 2H
⁷ OGRID No. 01017	⁸ Operator Name Harvey E. Yates Company	⁹ Elevation 3853.8

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
C	10	18S	32E		660'	FNL	1,980'	FWL	LEA

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
H	9	18S	32E		1,480'	FNL	1,320'	FEL	LEA
¹² Dedicated Acres 280	¹³ Joint or Infill I	¹⁴ Consolidation Code U	¹⁵ Order No. N/A	¹⁶ 1340 per BW					

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

¹⁰				¹⁷ OPERATOR CERTIFICATION	
				I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
				Signature <i>Bob Williams</i>	
				Printed Name Bob Williams	
				Drilling Supt. bwilliams@heyco.org	
				Title and E-mail Address	
				Date 10-11-05	
				Date	
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.					
original -					
Date of Survey					
Signature and Seal of Professional Surveyor:					
orig by					
Certificate Number					

T-18S R32E

NEW MEXICO OIL CONSERVATION COMMISSION
WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

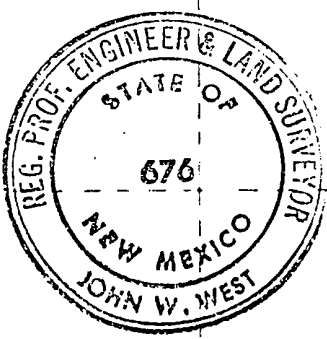
Harvey E. Yates Co.			Young Deep Unit			Well No.
C	10	18 South	32 East	Lea		
660	North		1980	West		
3853.8	Bone Springs		Feet	Dedicated Acreage:		40 Acres

- Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling, etc?

☐ Yes ☒ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.

1980'	Heyco, et al	
	U.S.A/NM-16350-1	
		

CERTIFICATION

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

Bob Wilton

Name

DALG. SUPT

Position

10-11-05

Company

Harvey E. Yates Company

Date

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 knowledge and belief.

10-10-80

Registered Professional Engineer
in Civil and Surveying

John W. West
Certificate No. JOHN W. WEST 676
PATRICK A. ROMERO 5063
Ronald J. Eidson 3239

District I

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⁷ OGRID No. 010174	⁷ Operator Name Harvey E. Yates Company	⁷ Elevation 3853.8

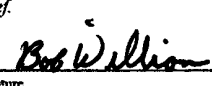
¹⁰ Surface Location

UL or lot no. C	Section 10	Township 18S	Range 32E	Lot Idn	Feet from the 660'	North/South line FNL	Feet from the 1,980'	East/West line FWL	County LEA
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. G/H?	Section 9	Township 18S	Range 32E	Lot Idn	Feet from the 1,480'	North/South line FNL	Feet from the 1,320'	East/West line FEL	County LEA
¹² Dedicated Acres 280	¹² Joint or Infill I	¹² Consolidation Code U	¹² Order No. N/A						

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

¹⁶				¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature Bob Williams Printed Name Drilling Supt. bwilliams@heyco.org Title and E-mail Address 10-11-05 Date
NMNM9018	NMLG-064009-B	NMNM-14789-A	NMNM16350-A	
EAST 1/2 SECTION 9	WEST HALF SECTION 10			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. original - Date of Survey Signature and Seal of Professional Surveyor: orig by Certificate Number

United States Department of the Interior

**BUREAU OF LAND MANAGEMENT
Roswell Resource Area
P.O. Drawer 1857
Roswell, New Mexico 88202-1857**

Statement Accepting Responsibilities for Operations

**Operator Name: Harvey E. Yates Company
Street or Box: P.O. Box 1933
City, State: Roswell, New Mexico
Zip Code: 88202**

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.:

Lease Name: Young Deep Unit 2H

Legal description of land: T18S, R32E, Lea County, New Mexico

	Section 9		SECTION 10
NMNM-9018	NW/NE & SW/NE	NMNM-14789A	NW/NW
NMLC-064009D	NE/NE & SE/NE	NMNM-12567	SW/NW
		NMNM-16350A	NE/NW

Formation(s) (if applicable): Bone Springs 2nd Sand

Bond Coverage: State Wide Bond

BLM Bond No.:NMB000317

Authorized Signature: *Bob Williams*

Title: Drilling Superintendent

DATE: 10/21/05

United States Department of the Interior

BUREAU OF LAND MANAGEMENT

Roswell Resource Area

P.O. Drawer 1857

Roswell, New Mexico 88202-1857

Statement Accepting Responsibilities for Operations

Operator Name: Harvey E. Yates Company

Street or Box: P.O. Box 1933

City, State: Roswell, New Mexico

Zip Code: 88202

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.:

Lease Name: Young Deep Unit 2H

Legal description of land: Sec 10, T18S, R32E, Lea County, New Mexico

Formation(s) (if applicable): Bone Springs 2nd Sand

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

BLM Bond File No.:

Authorized Signature: Bob Williams

Title: Drilling Superintendent

DATE: 10/11/05

**Young Deep Unit #2H
660' FNL & 1,980' FWL
Sec 10, T18S, R32E
Lea County, NM**

Drilling Procedure

- 1. Smooth off location and add additional caliche on North side of location for closed loop system.**
- 2. Install anchors and MIRU rig.**
- 3. Dig out wellhead and remove dry hole marker.**
- 4. Install 8 5/8" SOW x 11" 3M casing head. NU 11" 3M x 7 1/16" 5M tubing head**
- 5. NU BOP stack and drill out all cement plugs to 4 1/2" casing stub plug @ 7,200'**
- 6. Dress off top of casing stub plug.**
- 7. RU Scientific Drilling and run gyro survey.**
- 8. RU Baken Enteq & GIH with 7 7/8" bit, mud motor, & bent sub.**
- 9. Start building angle and drill @ 256° azimuth, being @ 90° @ 9,950'.**
- 10. After 90° achieved, drill 50'**
- 11. Run and cement 5 1/2" 17# J-55 casing, bringing cement up into 8 5/8" casing.**
- 12. WOC 18 hours.**
- 13. Drill out cement & float equipment.**
- 14. Continue drilling 1,000' of horizontal hole with a slight build to TVD of 8935 @ end of lateral.**
- 15. Run and cement 3 1/2" 9.3# P-110 flush jt liner, bringing cement back into 5 1/2" casing.**
- 16. Perforate and frac "C" bench.**

Application
Harvey E. Yates Company
Young Deep Unit #2H
SEC 10, T18S, R32E
Eddy County, New Mexico

In conjunction with Form 3160-3, Application For Permit To Drill Or Deepen subject well, Harvey E. Yates Company submits the following ten items of pertinent information in accordance with Onshore Oil & Gas Order No 10.

1. Geologic Name of Surface Formation:

Quaternary alluvium and bolson deposits.

2. Estimated Tops of Significant Geologic Markers:

Rustler	1,240	BSPG A Zone	7,830	
Yates	2,720	BSPG 1st Sand	7,970	
Seven Rivers	3,150	B-Zone	8,165	
Bowers	3,610	Kick Off Point		T.V.D.
Queen	3,860	BSPG 2nd Sand	8,513	8,440
Penrose	4,110	Base A Bench	8,565	8,500
Grayburg	4,400	Top B Bench	8,703	8,655
San Andres	4,890	Top C Bench	9,080	8,860
Delaware	4,960	1st Horz. Point	9,570	8,956
BSPG LS	6,275	BHL Target @TD	11,660	8,935

3. Estimated Depths at which Water, Oil, or Gas Formations are expected:

Oil: 9,570

Gas: 9,570

4. Proposed Casing Program:

See Form 3160-3

5. Pressure Control Equipment:

This well will be rated 2M, but actual BOP Stack will be rated 5M

6. Drilling Fluid Program:

See Form 3160-3

7. Auxiliary Equipment:

No auxiliary equipment

8. Testing, Logging, and Coring Program:

Mud Log and Gamma Ray MWD

9. Abnormal Conditions, Pressures, Temperature, or Potential Hazards:

No abnormal conditions are anticipated in this wellbore

BHST 150° F

BHP 1500 psi

No H2S is present in this well.

10. Anticipated Starting Date & Duration of Operation:

Start Date: Approximately Dec 15, 2005. Duration of this project will be approximately 40 days from start of construction of drilling pad until finish of completion operations.

Surface Use Plan
Harvey E. Yates Company
Young Deep Unit 2H
Section 10, T18S, R32E
Lea County, New Mexico

1 Existing Roads:

Exhibit A is a portion of a New Mexico map showing the location of the proposed location. The location is approximately 16 miles Southeast of Loco Hills, NM. Leave Artesia on US 82 & travel 31 miles east to the junction of NM 529. Turn Southeast and go 7 miles. Turn south on NM 126. Go 1.7 miles and turn left on caliche road. Go .9 miles to 5 way intersection. Turn left & go .8 miles. Turn left & go .4 miles. Turn right in front of waterflood station. Go .3 miles & turn left into location.

2 Planned Access Roads:

No new road will be built to access this location.

3 Location of Existing Wells:

See EXHIBIT B

4 Location of Tank Batteries, Electric Lines, Etc:

In the event a producing well is drilled, a tank battery will be built on the location.

5 Location and Type of Water Supply:

Water will be obtained from commercial sources.

6 Source of Construction Material:

We will use materials from a state approved caliche pit to build the location.

7 Methods of Handling Waste Disposal:

Waste will be handled in an approved manner. The wellsite will be cleaned of all waste within 30 days of final completion of the well.

8 Ancillary Facilities:

N/A

9 Wellsite Layout:

- a. EXHIBIT D shows the relative location and dimensions of the well pad, reserve pits, and major rig components.
- b. The land is rolling and sandy
- c. The pad and pit area have been staked.

10 Plan for Restoration of the Surface:

- a. After drilling and completion operations are completed, all equipment and other materials not needed for further operations will be removed. Pits will be back filled and the location cleaned of all trash to leave the wellsite as pleasant in appearance as possible.
- b. If the proposed operation is nonproductive, all restoration and/or vegetation requirements of the BLM will be complied with, and will be accomplished as quickly as possible. All pits will be filled and leveled within 90 days after abandonment.

11 Other Information:

- a. The surface and mineral owner is the Federal Government. The grazing Lessee is Williams & Son Cattle Company, and they will be contacted regarding operations.
- b. The topography consists of sandy soil with native grasses. No wildlife was observed, but the usual inhabitants of this region are Jackrabbits, Reptiles, Coyotes, etc.
- c. There are no ponds, lakes, or rivers in this area.
- d. An Archaeological Survey will be done a copy has been sent to the Carlsbad BLM office. There are no occupied dwellings or windmills in the area.
- e. Should any incidental oil be recovered during testing of this well, this oil will be considered waste oil and not sellable due to contamination by drilling and/or completion fluids.

12 Operator's Representative:

I certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; that the work associated with operations proposed herein will be performed by Harvey E. Yates Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

10/11/05



Bob Williams Drilling Superintendent
Harvey E. Yates Company
P.O. Box 1933
Roswell, NM
505-623-6601

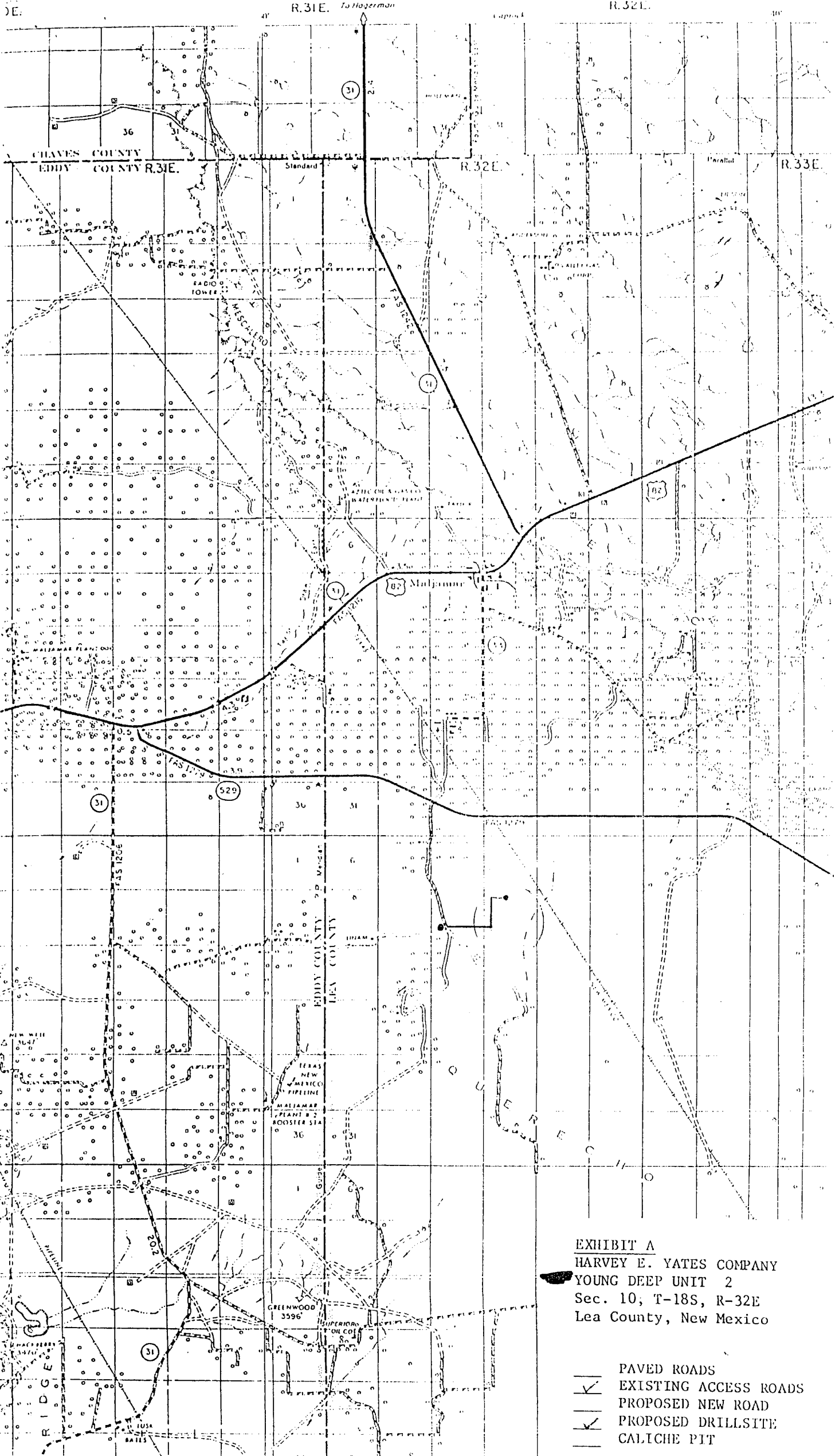


EXHIBIT A
HARVEY E. YATES COMPANY
YOUNG DEEP UNIT 2
Sec. 10; T-18S, R-32E
Lea County, New Mexico

- PAVED ROADS
- EXISTING ACCESS ROADS
- PROPOSED NEW ROAD
- PROPOSED DRILLSITE
- CALICHE PIT

EXHIBIT "C" BOP STACK

Young Deep Unit 2H
660' FNL & 1,980' FWL
Sec 10, T18S, R32E
Lea County, NM

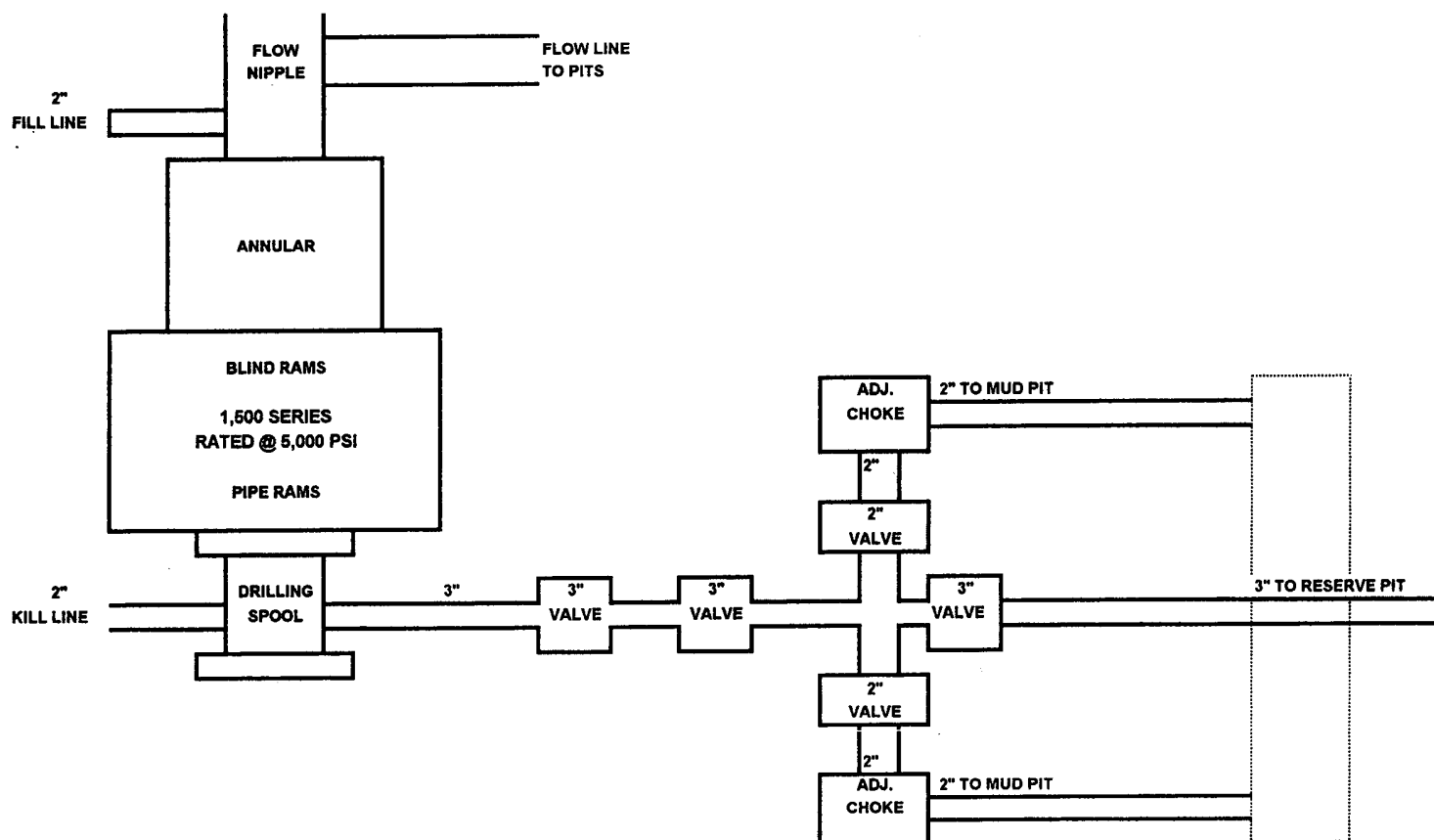
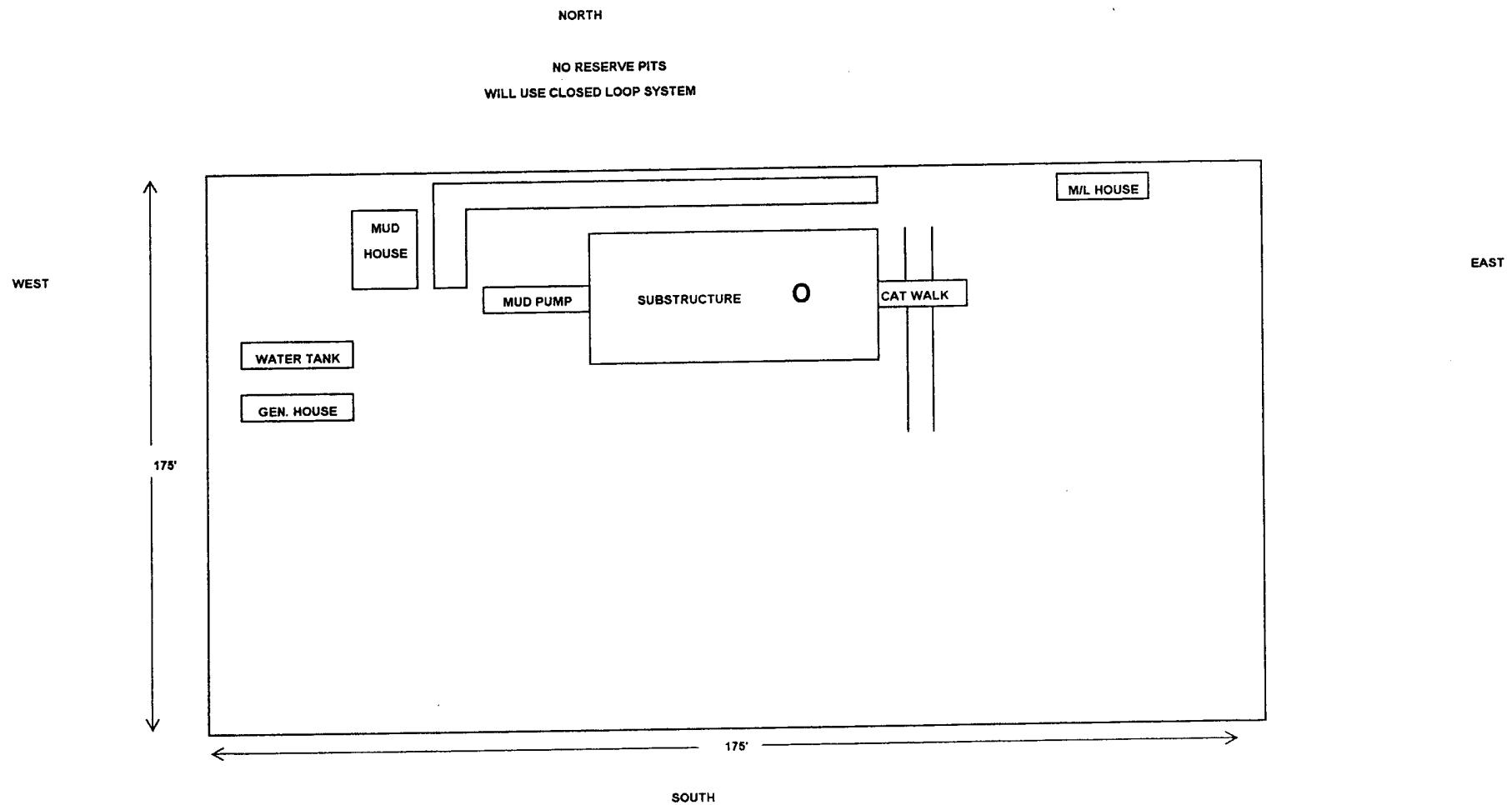


EXHIBIT "D" LOCATION DIAGRAM

Young Deep Unit 2H
660' FNL & 1,980' FWL
Sec 10, T18S, R32E
Lea County, NM



III. Pressure Control (continued):

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the test.

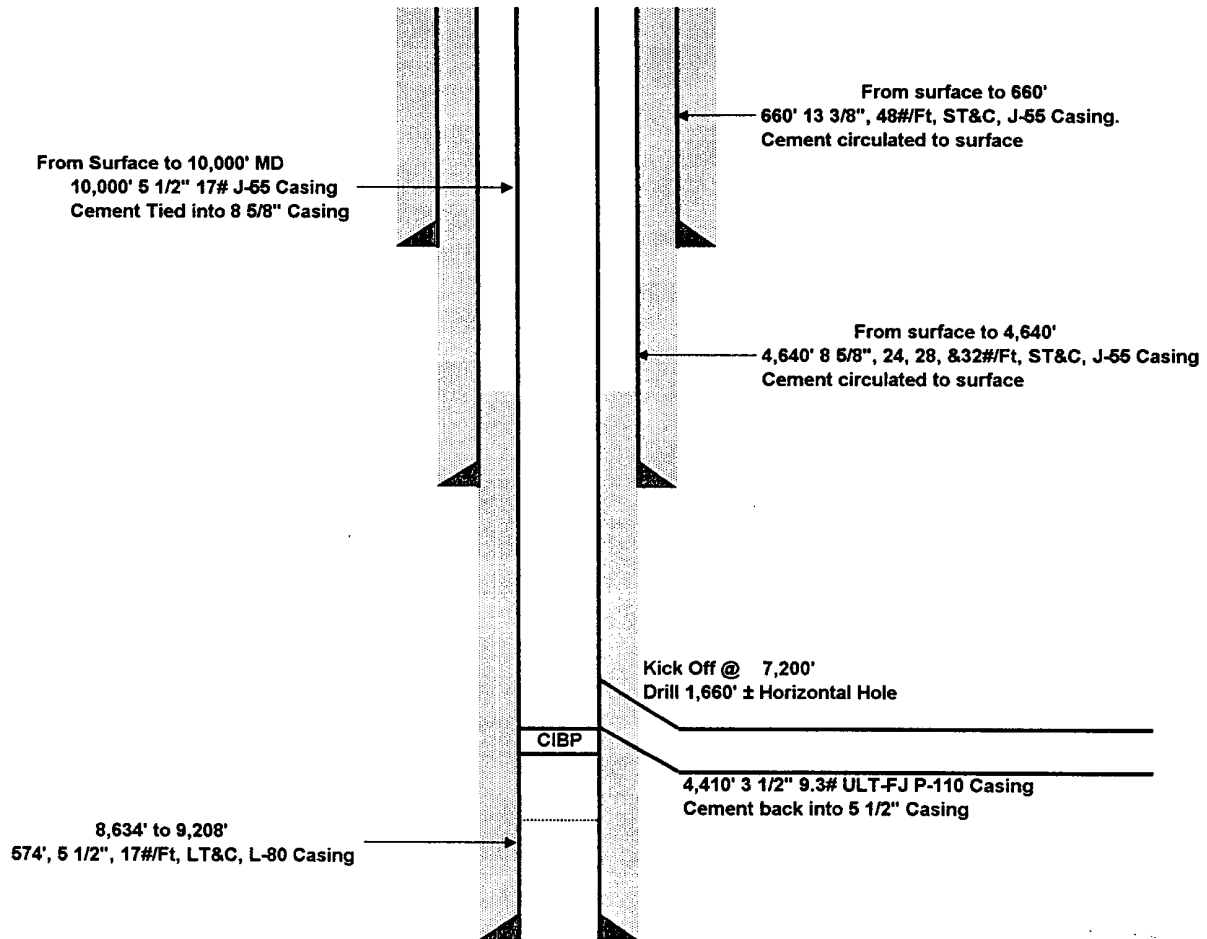
- The test shall be done by an independent service company
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures.
- Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in safe workman-like manner. Hard line connections shall be required.
- Both low pressure and high pressure testing of BOPE is required.

G Gourley 10/26/05

EXHIBIT "E" CASING DESIGN

Young Deep Unit 2H
660' FNL & 1,980' FWL
Sec 10, T18S, R32E
Lea County, NM

13 3/8", 8 5/8" Casings are in place and cemented.



SPECIAL DRILLING STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

Operator's Name Harvey E. Yates Co. Well Name & No. Young Deep Unit #2 H
Location 660 F N L & 1980 F W L Sec. 10, T. 18 S, R 32 E. SHL
Lease No. NM-16350-A County Lea State New Mexico
Location 1480' FNL & 1320' FEL, Sec. 10, T. 18S., R. 32E. BHL 32

The Special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office.
EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CRF 3165.3 AND 3165.4.

This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.

I. SPECIAL ENVIRONMENT REQUIREMENTS

- (X) Lesser Prairie Chicken (stips attached) () Flood plain (stips attached)
() San Simon Swale (stips attached) () Other

II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING

(X) The BLM will monitor construction of this drill site. Notify the (X) Carlsbad Field Office at (505) 234-5972 () Hobbs Office (505) 393-3612, at least 3 working days prior to commencing construction.

(X) Roads and the drill pad for this well must be surfaced with 6 inches of compacted caliche.

() All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximately _____ inches in depth. Approximately _____ cubic yards of topsoil material will be stockpiled for reclamation.

(X) Other.

III. WELL COMPLETION REQUIREMENTS

() A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the BLM. The effective date of the agreement must be prior to any sales.

(X) Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when dry, and cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at depth of ½ inch) with the following seed mixture, in pounds of Pure Live Seed (PLS), per acre.

- | | |
|---|---|
| () A. Seed Mixture 1 (Loamy Sites) | (x) B. Seed Mixture 2 (Sandy Sites) |
| Side Oats Grama (<i>Bouteloua curtipendula</i>) 5.0 | Sand Dropseed (<i>Sporobolus crptandrus</i>) 1.0 |
| Sand Dropseed (<i>Sporobolus cryptandrus</i>) 1.0 | Sand Lovegrass (<i>Eragostis trichodes</i>) 1.0 |
| | Plains Bristlegrass (<i>Setaria magrostachya</i>) 2.0 |
| () C. Seed Mixture 3 (Shallow Sites) | () D. Seed Mixture 4 (Gypsum Sites) |
| Side oats Grama (<i>Boute curtipendula</i>) 1.0 | Alkali Sacaton (<i>Sporobollud airoides</i>) 1.0 |
| | Four-Wing Saltbush (<i>Atriplex canescens</i>) 5.0 |

() OTHER SEE ATTACHED SEED MIXTURE

Seeding should be done either late in the fall (September 15 - November 15, before freeze up, or early as possible the following spring to take advantage of available ground moisture.

() Other.

RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6 mil plastic.

Mineral material extracted during construction of the reserve pit may be used for development of the pad and access road as needed. Removal of any additional material on location must be purchased from BLM.

Reclamation: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.

The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

OPTIONAL PIT CONSTRUCTION STANDARDS

The reserve pit may be constructed in predominantly fill material if:

- (1) Lined as specified above and
- (2) A borrow/caliche/gravel pit can be constructed immediately adjacent to the reserve pit and it capable of containing all reserve pit contents. The mineral material removed in the process can be used for pad and access road construction. However, a material sales contract must be purchased from the BLM prior to removal of the material.

Reclamation of the reserve pit consists of bulldozing all reserve pit contents and contaminants into the borrow pit and covering with a minimum of 3 feet of clean soil material. The entire area must be recontoured, all trash removed, and reseeded as specified in this permit.

CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to processed by BLM.

TRASH PIT STIPS

All trash, junk, and other waste material shall 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 permitted.

PRAIRIE CHICKENS

No surface use is allowed during the following time periods; unless otherwise specified, this stipulation does not apply to operation and maintenance of production facilities.

On the lands described below: All of Section 10 T. 18 S., R. 32 E.

For the purpose of: Protecting Prairie Chickens:

Drilling for oil and gas, and 3-D geophysical exploration operations will not be allowed in Lesser Prairie Chicken Habitat during the period of March 15 through June 15, each year. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 a.m. and 9:00 a.m. The 3:00 a.m. and 9:00 a.m. restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during the period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Bureau of Land Management
Carlsbad Field Office

SENM-S-22
December 1997

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Harvey E. Yates Company

Well Name & No: Young Deep Unit No 2 H

Surface Location: 660' FNL & 1980' FWL, Sec.10, T. 18 S., R. 32 E.

Bottom Hole Location: 1480' FNL & 1320' FEL, *Sec 9, T. 18 S., R. 32 E. (52)*

Lease: NMNM 16350-A

Lea County, New Mexico

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell, NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822 for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

A. Spudding

B. Cementing casing: Existing sting. A 5 ½ inch casing segment will be set from the vertical hole into the horizontal angle, then a 3 ½ inch liner will be set into the horizontal segment and both pipes cementing.

C. BOP Tests

2. A Hydrogen Sulfide (H₂S) Drilling Plan is not required for this wellbore.

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. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.

5. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

II. CASING:

1. The existing casing string is as follows: 13 ¾ inch @ 660 ft., 8 ¾ inch @ 4640 ft., 5 ½ inch 9620 ft., *and cemented. (52)*
2. A 3 ½ inch liner will be run from 8900 ft. into the horizontal leg of the hole to TD and cemented.

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling out of existing hole.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2 M psi. Operator is going to nipple up a 3 M BOPE.

BLM Serial Number: NM-16350-A
Company Reference: Harvey E. Yates Co.
Well No. & Name: Young Deep Unit #2H

STANDARD STIPULATIONS FOR PERMANENT RESOURCE ROADS
CARLSBAD FIELD OFFICE

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

The holder/grantee/permittee shall hereafter be identified as the holder in these stipulations. The Authorized Officer is the person who approves the Application for Permit to Drill (APD) and/or Right-of-Way (ROW).

GENERAL REQUIREMENTS

A. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

B. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, *et. seq.*) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

C. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, *et. seq.* or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, *et. seq.*) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

D. If, during any phase of the construction, operation, maintenance, or termination of the road, any oil or other pollutant should be discharged, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages to Federal lands resulting there from the Authorized Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any liability or responsibility.

E. The holder shall minimize disturbance to existing fences and other improvements on public domain surface. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times.

The holder will make a documented good-faith effort to contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence.

F. The Holder shall ensure that the entire right-of-way, including the driving surface, ditching and drainage control structures, road verges and any construction sites or zones, will be kept free of the following plant species: Malta starthistle, African rue, Scotch thistle and salt cedar. The Holder agrees to comply with the following stipulations:

1. ROAD WIDTH AND GRADE

The road will have a driving surface of 14 feet (all roads shall have a minimum driving surface of 12 feet, unless local conditions dictate a different width). The maximum grade is 10 percent unless the box below is checked. Maximum width of surface disturbance from construction will be 30 feet.

☐ Those segments of road where grade is in excess of 10% for more than 300 feet shall be designed by a professional engineer.

2. CROWNING AND DITCHING

Crowning with materials on site and ditching on one side of the road on the uphill side will be required. The road cross-section will conform to the cross section diagrams in Figure 1. If conditions dictate, ditching may be required for both sides of the road; if local conditions permit, a flat-bladed road may be considered (if these conditions exist, check the appropriate box below). The crown shall have a grade of approximately 2% (i.e., 1" crown on a 12' wide road).

☒ Ditching will be required on both sides of the roadway as shown on the attached map or as staked in the field.

☐ Flat-blading is authorized on segment(s) delineated on the attached map.

3. DRAINAGE

Drainage control shall be ensured over the entire road through the use of borrow ditches, out-sloping, in-sloping, natural rolling topography, lead-off (turnout) ditches, culverts, and/or drainage dips.

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

SPACING INTERVAL FOR TURNOUT DITCHES

Percent slope	Spacing interval
0% - 4%	400' - 150'
4% - 6%	250' - 125'
6% - 8%	200' - 100'
8% - 10%	150' - 75'

A typical lead-off ditch has a minimum depth of 1 foot below and a berm 6 inches above natural ground level. The berm will be on the down-slope side of the lead-off ditch. The ditch end will tie into vegetation whenever possible.

For this road the spacing interval for lead-off ditches shall be at

☒ 400 foot intervals.

☐ _____ foot intervals.

☐ locations staked in the field as per spacing intervals above.

☐ locations delineated on the attached map.

B. Culvert pipes shall be used for cross drains where drainage dips or low water crossings are not feasible. The minimum culvert diameter must be 18 inches. Any culvert pipe installed shall be of sufficient diameter to pass the anticipated flow of water. Culvert location and required diameter are shown on the attached map (Further details can be obtained from the Roswell District Office or the appropriate Resource Area Office).

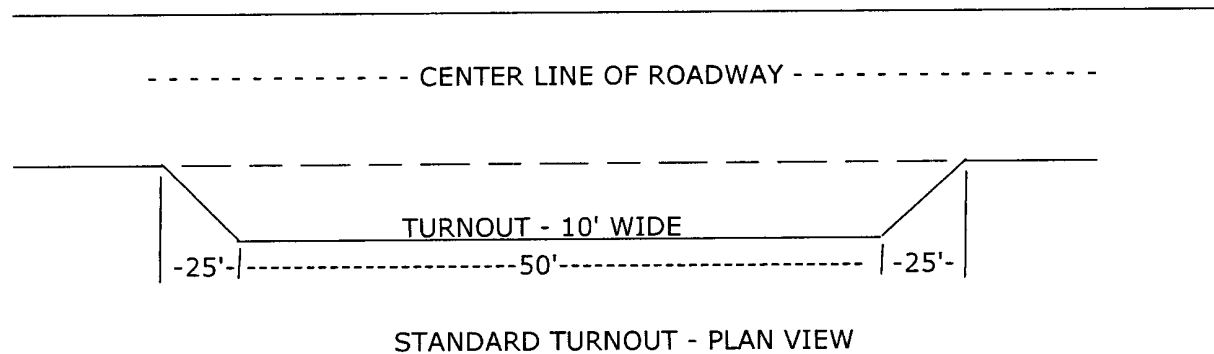
C. On road slopes exceeding 2%, drainage dips shall drain water into an adjacent lead-off ditch. Drainage dip location and spacing shall be determined by the formula:

$$\text{spacing interval} = \frac{400'}{\text{road slope in \%}} + 100'$$

Example: 4% slope: spacing interval = $\frac{400}{4} + 100 = 200$ feet

4. TURNOUTS

Unless otherwise approved by the Authorized Officer, vehicle turnouts will be required. Turnouts will be located at 2000-foot intervals, or the turnouts will be intervisible, whichever is less. Turnouts will conform to the following diagram:



5. SURFACING

Surfacing of the road or those portions identified on the attached map may, at the direction of the Authorized Officer, be required, if necessary, to maintain traffic within the right-of-way with caliche, gravel, or other surfacing material which shall be approved by the Authorized Officer. When surfacing is required, surfacing materials will be compacted to a minimum thickness of six inches with caliche material. The width of surfacing shall be no less than the driving surface. Prior to using any mineral materials from an existing or proposed Federal source, authorization must be obtained from the Authorized Officer.

A sales contract for the removal of mineral materials (caliche, sand, gravel, fill dirt, etc.) from an authorized pit, site, or on location must be obtained from the BLM prior to using any such mineral material from public lands. Contact the BLM solid minerals staff for the various options to purchase mineral material.

6. CATTLEGUARDS

Where used, all cattleguard grids and foundation designs and construction shall meet the American Association of State Highway and Transportation Officials (AASHTO) Load Rating H-20, although AASHTO U-80 rated grids shall be required where heavy loads (exceeding H-20 loading), are anticipated (See BLM standard drawings for cattleguards). Cattleguard grid length shall not be less than 8 feet and width of not less than 14 feet. A wire gate (16-foot minimum width) will be provided on one side of the cattleguard unless requested otherwise by the surface user.

7. MAINTENANCE

The holder shall maintain the road in a safe, usable condition. A maintenance program shall include, but not be limited to blading, ditching, culvert installation, culvert cleaning, drainage installation, cattleguard maintenance, and surfacing.

8. PUBLIC ACCESS

Public access along this road will not be restricted by the holder without specific written approval being granted by the Authorized Officer. Gates or cattleguards on public lands will not be locked or closed to public use unless closure is specifically determined to be necessary and is authorized in writing by the Authorized Officer.

9. CULTURAL RESOURCES

Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the authorized officer. The holder 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 will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the authorized officer after consulting with the holder.

10. SPECIAL STIPULATIONS: