7027

OCD Artesia

R-111-POTASH
WIPP
pc wildlf.

ATS-08-1024 RM
NEPA-08-1366

Form 3160-3
(August 2007)

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

5. Lease Serial No: NM-65417

6. If Indian, Allottee or Tribe Name: N/A

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

1a. Type of Work. [x] DRILL [ ] REENTER

1b. Type of Well. [X] Oil Well [ ] Gas Well [ ] Other [ ] Single Zone [ ] Multiple Zone

8. Lease Name and Well No.: Martha AIK Federal 13 H

2. Name of Operator: Yates Petroleum Corporation 025575

9. API Well No. 30-015-37511

RECEIVED
JAN 11 2010
NMOCD ARTESIA

3a. Address: 105 South Fourth Street, Artesia, NM 88210

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

10. Field and Pool, or Exploratory: Livingston Ridge Delaware

4. Location of well *(Report location clearly and In accordance with any State requirements.*)*
At surface: 1650' FNL ' & 330' FEL, Sec.11-22S-31E, Ut H, SENE
At proposed prod. zone: 1650' FNL & 330' FWL, Sec. 11-22S-31E, Ut E, SWNW

11. Sec., T., R., M., or Blk. And Survey or Area: Section 11-T22S-R31E

14 Distance in miles and direction from the nearest town or post office*: The well is about 34 miles northeast of Loving, NM.

12. County or Parish: Eddy

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any): 330

16. No of acres in lease: 560.00

17. Spacing Unit dedicated to this well: S2N2 of Sec. 11-22S-31E

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: None

19. Proposed Depth: VD-8100' MD-12605'

20. BLM/ BIA Bond No. on file: NATIONWIDE BOND #NMB000434

21 Elevations (Show whether DF, KDB, RT, GL, etc.): 3549' GL

22. Aproximate date work will start*: ASAP

23. Estimated duration: 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 must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by 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 BLM

25. Signature: Cy Cowan — Name *(Printed/ Typed)*: Cy Cowan — Date: 9/3/08

Title: Regulatory Agent

Approved By *(Signature)*: /s/ Jesse J. Juen — Name *(Printed/ Typed)*: /s/ Jesse J. Juen — Date: DEC 16 2009

Title: ACTING STATE DIRECTOR — Office: NM STATE 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 cc 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.C. Section 1212, make it a crime for any person knowingly and wilfully to make to any department or agency of the Unite States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

* *(Instructions on page 2)*

Carlsbad Controlled Water Basin

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements & 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

OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
30-015-37511	39360	Livington Ridge Delaware

Property Code	Property Name	Well Number
12538	MARTHA "AIK" FEDERAL	13H

OGRID No.	Operator Name	Elevation
025575	YATES PETROLEUM CORPORATION	3549'

Surface Location

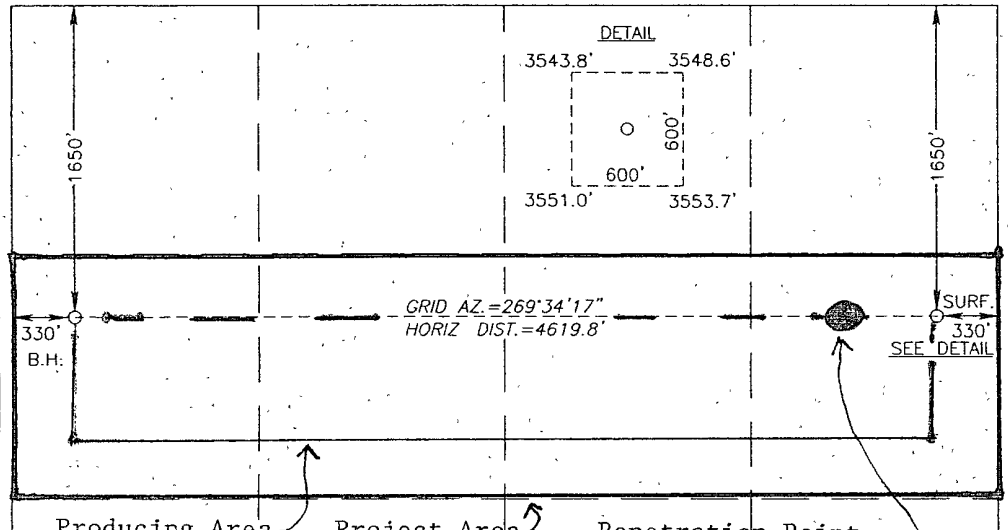
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	11	22-S	31-E		1650	NORTH	330	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	11	22-S	31-E		1650	NORTH	330	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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



OPERATOR CERTIFICATION

I hereby certify that the information 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 a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature Date 9/3/08

Cy Cowan

Printed Name

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.

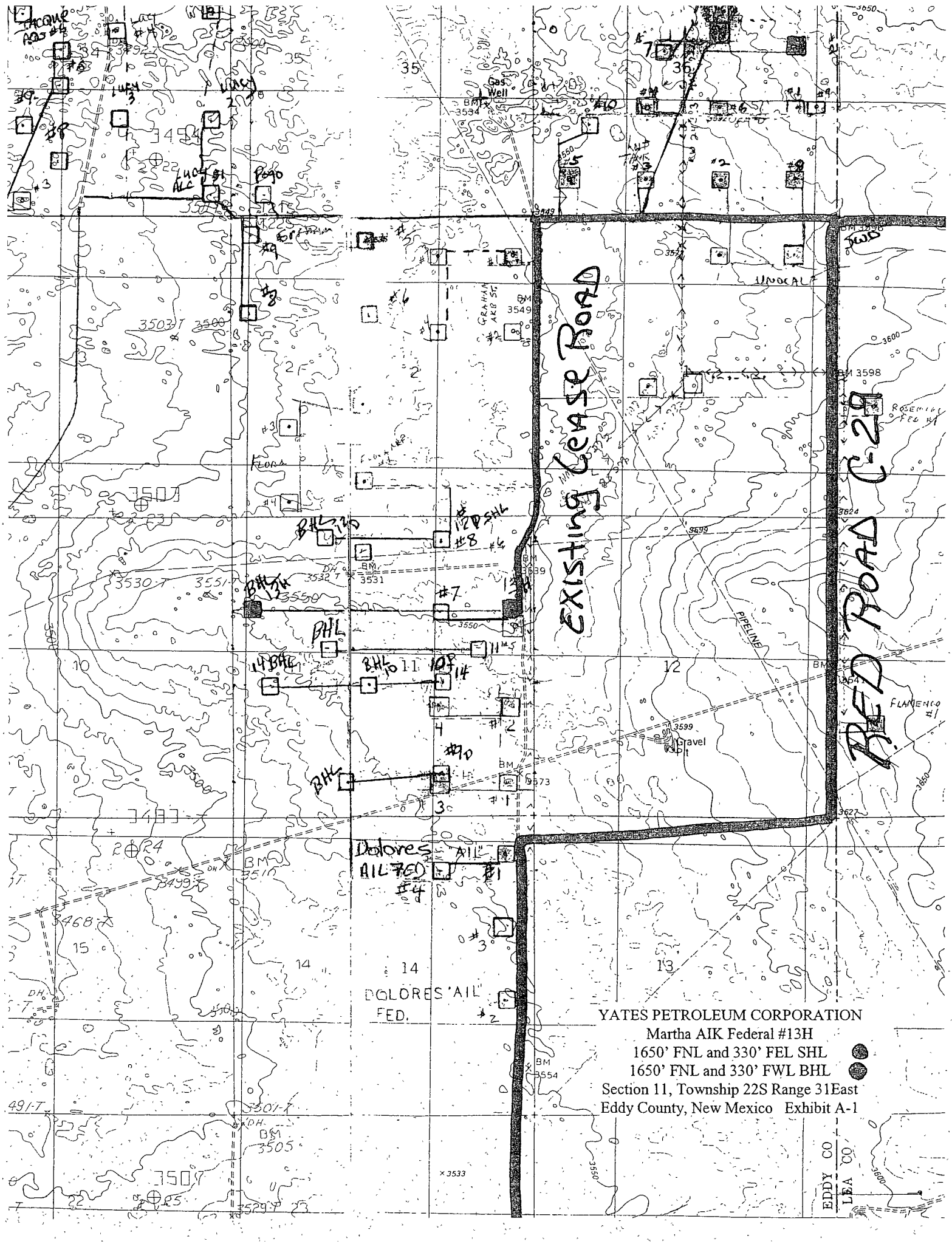
RONALD J. EIDSON 3239 NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR

Date Surveyed: MARCH 14, 2008

Signature & Seal of Professional Surveyor

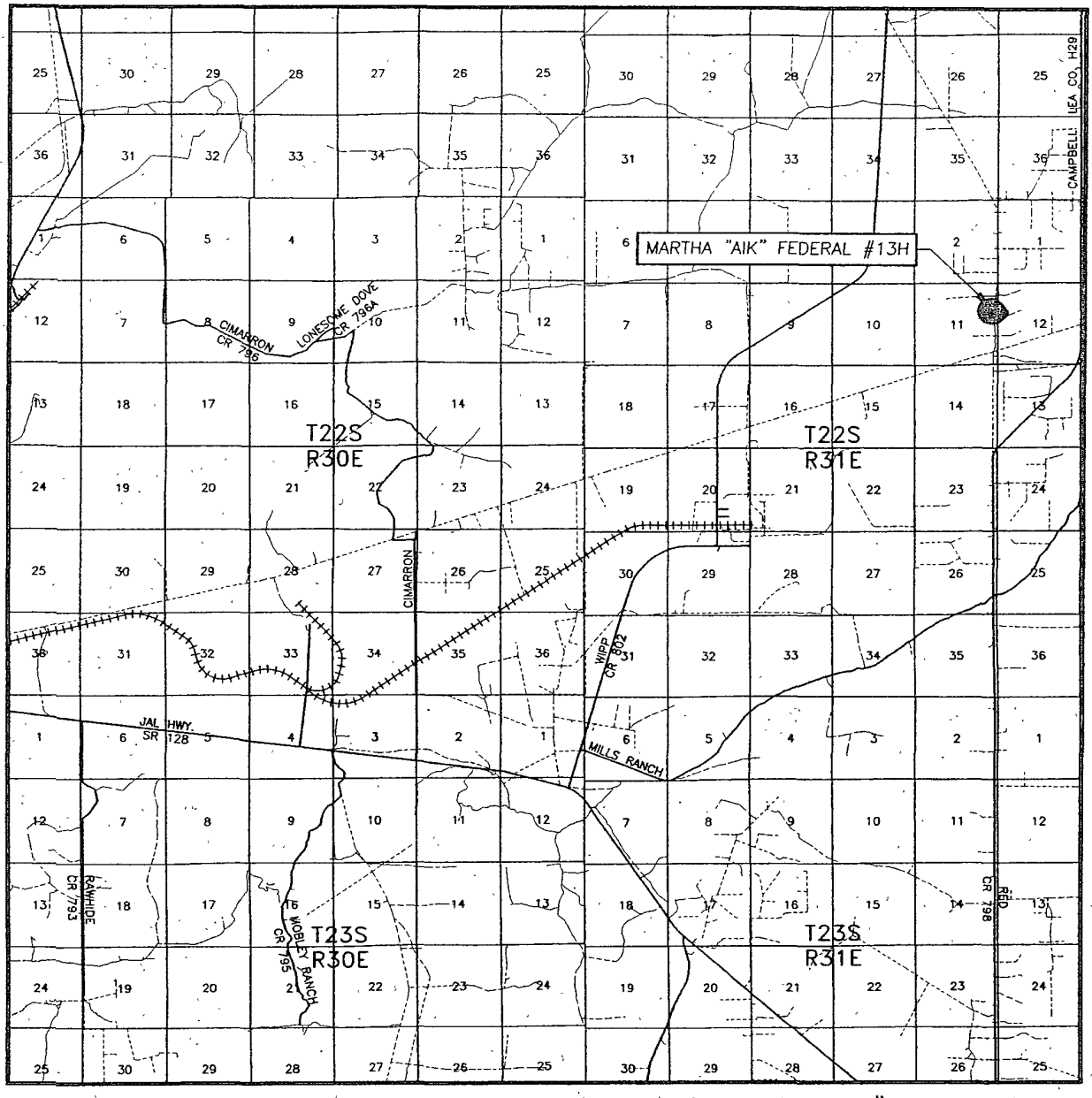
Ronald J. Eidson 08/11/08

Certificate No. GARY EIDSON 12641
RONALD J. EIDSON 3239



YATES PETROLEUM CORPORATION
Martha AIK Federal #13H
1650' FNL and 330' FEL SHL
1650' FNL and 330' FWL BHL
Section 11, Township 22S Range 31East
Eddy County, New Mexico Exhibit A-1

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 11 TWP. 22-S RGE. 31-E

SURVEY N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 1650' FNL & 330' FEL

ELEVATION 3549'

OPERATOR YATES PETROLEUM CORPORATION

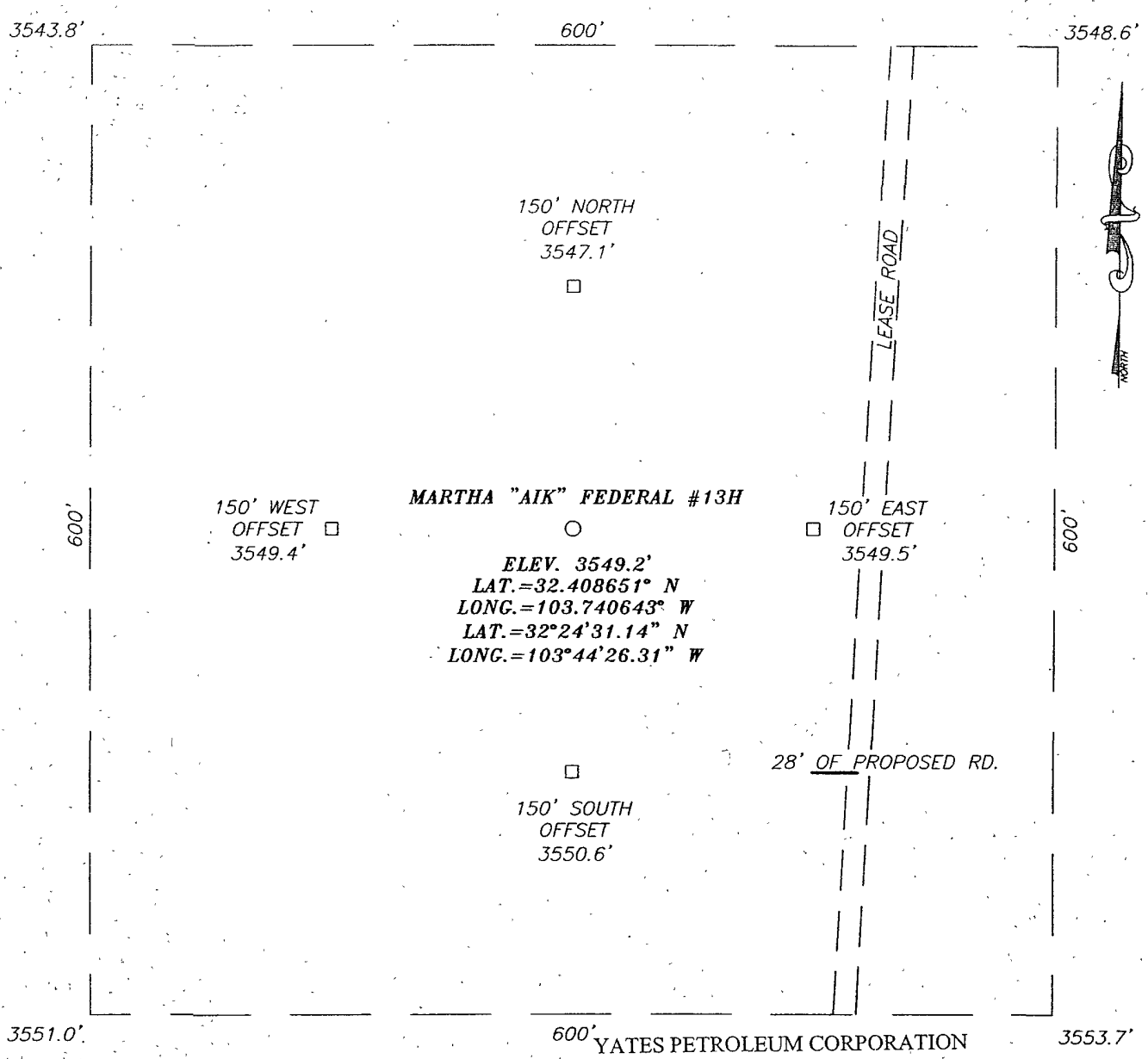
LEASE MARTHA "AIK" FEDERAL

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

YATES PETROLEUM CORPORATION
Martha AIK Federal #13H
1650' FNL and 330' FEL SHL
1650' FNL and 330' FWL BHL
Section 11, Township 22S Range 31East
Eddy County, New Mexico Exhibit A

SECTION 11, TOWNSHIP 22 SOUTH, RANGE 31 EAST, N.M.P.M.,

EDDY COUNTY, NEW MEXICO



YATES PETROLEUM CORPORATION
Martha AIK Federal #13H
1650' FNL and 330' FEL SHL
1650' FNL and 330' FWL BHL
Section 11, Township 22S Range 31East
Eddy County, New Mexico Exhibit A-2

100 0 100 200 Feet

Scale:1"=100'

DIRECTIONS TO LOCATION

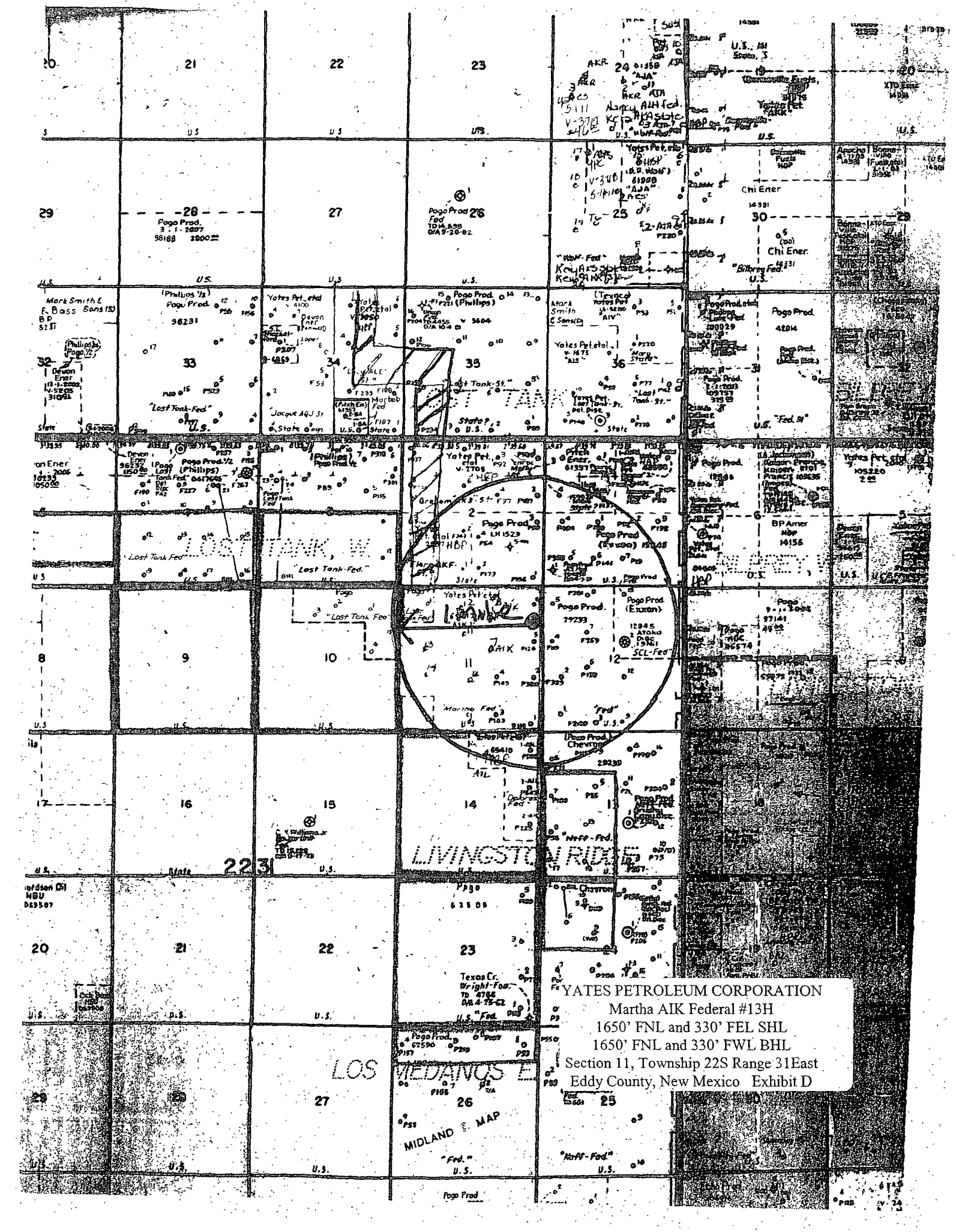
FROM THE INTERSECTION OF U.S. HWY. 62-180 AND CO. RD. #29, GO SOUTH ON CO. RD. #29 APPROX. 8.2 MILES. TURN RIGHT ON LEASE ROAD AND GO WEST APPROX. 1.0 MILE. TURN LEFT AND GO SOUTH APPROX. 1.3 MILES. THIS LOCATION IS APPROX. 190 FEET WEST.

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(505) 393-3117

YATES PETROLEUM CORPORATION

MARTHA "AIK" FEDERAL #13H WELL
LOCATED 1650 FEET FROM THE NORTH LINE
AND 330 FEET FROM THE EAST LINE OF SECTION 11,
TOWNSHIP 22 SOUTH, RANGE 31 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

Survey Date: 7/14/08	Sheet 1 of 1 Sheets		
W.O. Number: 08.11.1117	Dr. By: AR	Rev. 1:N/A	
Date: 7/18/08	Disk:	08111117	Scale:1"=100'


YATES PETROLEUM CORPORATION
Martha AIK Federal #13H
1650' FNL and 330' FEL SHL
1650' FNL and 330' FWL BHL
Section 11, Township 22S Range 31East
Eddy County, New Mexico Exhibit D
LOST TANK W.
LOST TANK
LIVINGSTON RIDGE
LOS MEDANOS E.
MIDLAND E. MAP

YATES PETROLEUM CORPORATION
Martha AIK Federal #13H
1650' FNL and 330' FEL, Surface Hole
1650' FNL and 330' FWL, Bottom Hole
Section 11-T22S-R31E
Eddy County, New Mexico

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

Rustler	650'	Livingston Ridge	6885'	Oil
Top of Salt	948'	Brushy Canyon	7150'	Oil
Base of Salt	3958'	Brushy Canyon Pay	8472'	Oil
Bell Canyon	4480'	TVD	8100'	
Cherry Canyon	5350' Oil	TMD	12605'	

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

Water: 47
Oil or Gas: Oil Zones: 5350', 6885', 7150', 8472'

3. Pressure Control Equipment: A 3000# BOPE will be installed on the 8 5/8" casing. Pressure tests will be conducted before drilling out from under all casing strings, which are set and cemented in place. Blowout Preventer controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventers 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 to be used

See COA

Hole Size	Casing Size	Wt./Ft	Grade	Coupling	Interval	Length
17 1/2"	13 3/8"	48#	H-40	ST&C	0-~~850~~ 800'	~~850~~ 800'
11"	8 5/8"	32#	J-55	ST&C	0-100'	100'
11"	8 5/8"	24#	J-55	ST&C	100-2100'	2000'
11"	8 5/8"	32#	J-55	ST&C	2100-4050'	1950'
7 7/8"	5 1/2"	17#	HCP-110	LT&C	0'-12605'	12605'

Please note: For protection of useable waters in the Rustler Formation 850' of 13 3/8" casing will be run.

This well will be drilled vertically to approximately 7712'. At 7712' the well will be kicked off and directionally drilled at 12 degrees per 100' with a 7 7/8" hole to 12605' MD (8100' TVD). 5 ½" casing will then be set and cemented. Penetration point of producing zone will be encountered 1650' FNL and 818' FEL. Deepest TVD in the well will be 8189'. This is the penetration point of the producing zone. No pilot hole drilled on this well.

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

2. A 3000# BOPE will be nippled up on the 13 3/8" casing and tested to 3000 psi,

B. CEMENTING PROGRAM:

Surface Casing: 450 sacks C Lite(WT 12.6 YLD 1.99). Tail in with 225 sacks 'C' (WT 14.8 YLD 1.32). **TOC to surface**

Intermediate Casing: 900 sacks of Hal LtPr+C (WT 12.6 YLD 1.99) Tail in with 225 sacks 'C' (WT 14.8 YLD 1.32. **TOC surface.**

Production Casing:

Stage One: 975 sacks PecoVILt (WT 13.0 YLD 1.86). DV Tool at 7400'. Top of Cement 7400'.

Stage Two: Lead with 275 sacks Lite Crete (WT 9.9 YLD 3.19). Tail in with 100 sacks PecosVILt (WT 13.0 YLD 1.40). DV Tool at 4500'. Top of Cement 4500'.

Stage Three: Lead in with 450 sacks Lite Crete (WT 9.9 YLD 3.19) Tail in with 100 sacks Pecos VILt (WT 13.0 YLD 1.40). **TOC to surface.**

6. MUD PROGRAM AND AUXILIARY EQUIPMENT:

Interval	Type	Weight	Viscosity	Fluid Loss
0-~~850'~~ 800'	Fresh Water Gel	8.6-9.2	32-34	N/C
~~850'~~-4050'	Brine Water	10.0-10.2	28	N/C
4050'-7712'	Cut Brine	8.7-9.1	28	10.-15
7712'-12605'	Cut Brine (Lateral Section)	8.5-9.1	28	10.-12

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: See COA

Samples: Every 10' from 4200' to TD
Logging: Vertical Section: Platform Express, CMR; Horizontal Section: MWD-GR
Coring: None anticipated
DST's: None Anticipated
Mudlogging: Yes

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

Maximum Anticipated BHP:

0'-850'	400 PSI
850'-4050'	2150 PSI
4050'-8189'	3875 PSI

Abnormal Pressures Anticipated: None
Lost Circulation Zones Anticipated: None.
H2S Zones Anticipated: None Anticipated
Maximum Bottom Hole Temperature: 150 F

9. ANTICIPATED STARTING DATE:

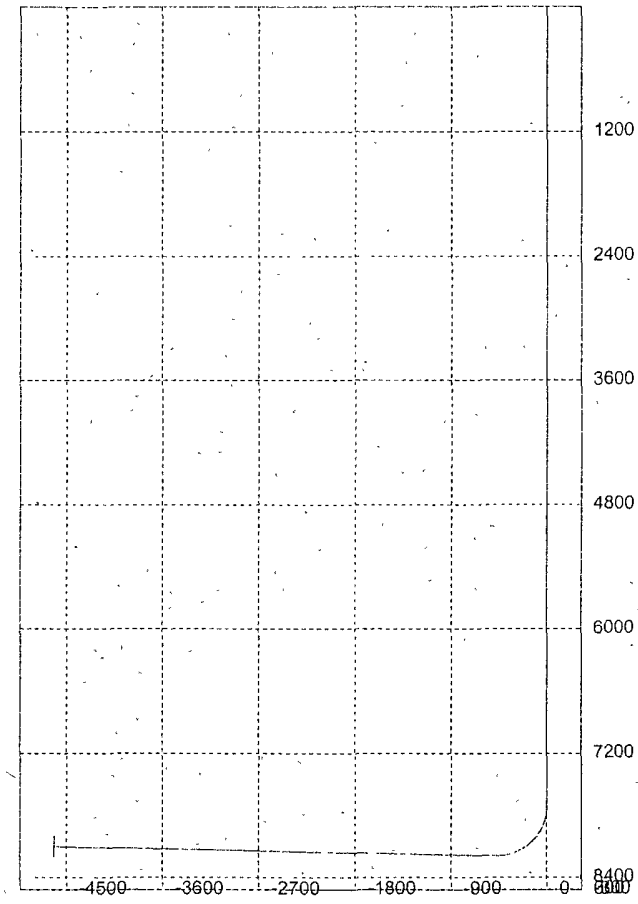
Plans are to drill this well as soon as possible after receiving approval. It should take approximately 45 days to drill the well with completion taking another 20 days.

MD	Inclination	Azimuth	TVD	N+/S-	E+/W-	DLS	ToolFace	TF Ref HS/GN	
0	0	0	0	0	0	0			
650	0	0	650	0	0	0			RUSTLER
948	0	0	948	0	0	0			TOP OF SALT
3958	0	0	3958	0	0	0			BASE OF SALT
4,480	0	0	4,480	0	0	0			BELL CANYON
5350	0	0	5350	0	0	0			CHERRY CANYON
6885	0	0	6885	0	0	0			LIVINGSTON RIDGE
7150	0	0	7150	0	0	0			BRUSHY CANYON
7712	0	0	7712	0	0	12	270	GN	KOP
7725	1.56	270	7725	0	-0.18	12	0	HS	
7750	4.56	270	7749 96	0	-1.51	12	0	HS	
7775	7.56	270	7774 82	0	-4 15	12	0	HS	
7800	10.56	270	7799 5	0	-8.09	12	0	HS	
7825	13.56	270	7823.95	0	-13.31	12	0	HS	
7850	16.56	270	7848 09	0	-19 8	12	0	HS	
7875	19 56	270	7871 85	0	-27.55	12	0	HS	
7900	22 56	270	7895 18	0	-36.54	12	0	HS	
7925	25 56	270	7918 01	0	-46 73	12	0	HS	
7950	28 56	270	7940 27	0	-58.1	12	0	HS	
7975	31.56	270	7961 9	0	-70 62	12	0	HS	
8000	34.56	270	7982.85	0	-84.26	12	0	HS	
8025	37.56	270	8003.06	0	-98 97	12	0	HS	
8050	40.56	270	8022.47	0	-114 72	12	0	HS	
8075	43.56	270	8041.03	0	-131.47	12	0	HS	
8100	46.56	270	8058 69	0	-149.16	12	0	HS	
8125	49.56	270	8075.39	0	-167.76	12	0	HS	
8150	52.56	270	8091.1	0	-187.2	12	0	HS	
8175	55.56	270	8105 77	0	-207 44	12	0	HS	
8200	58.56	270	8119.37	0	-228.42	12	0	HS	
8225	61.56	270	8131.84	0	-250.08	12	0	HS	
8250	64.56	270	8143 17	0	-272.36	12	0	HS	
8275	67 56	270	8153.31	0	-295.21	12	0	HS	
8300	70.56	270	8162.25	0	-318.55	12	0	HS	
8325	73 56	270	8169.95	0	-342.34	12	0	HS	
8350	76.56	270	8176 39	0	-366.49	12	0	HS	
8375	79.56	270	8181.56	0	-390 95	12	0	HS	
8400	82 56	270	8185 45	0	-415 64	12	0	HS	
8425	85.56	270	8188.03	0	-440 5	12	0	HS	
8450	88.56	270	8189.31	0	-465.47	12	0	HS	
8472.33	91.24	270	8189.35	0	-487.79	0			Producing Zone
12605.5	91.24	270	8100	0	-4620	0			Lateral TD

Well will be drilled vertically to approx 7712'. At 7712' well will be kicked off and directionally drilled at 12 degrees per 100' with a 7 7/8" hole to 12,605' MD 8,100' TVD where 5 1/2" casing will be set and cemented. Penetration point of producing zone will be encountered at 1650' FNL and 818' FEL, 11-22S-31E Deepest TVD in the well is 8189' at the penetration point of the producing zone NO PILOT HOLE.

3D³ Directional Drilling Planner - 3D View

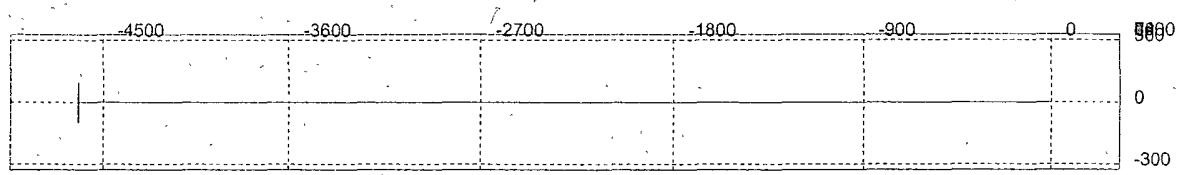
Company: **Yates Petroleum Corporation**
Well: **Martha AIK Federal #13H**



File: C:\Program Files\Drilling Toolbox 2001\Templates\Visual Wellbore\Horizontal\martha13h.wpp

3D³ Directional Drilling Planner - 3D View

Company: **Yates Petroleum Corporation**
Well: **Martha AIK Federal #13H**



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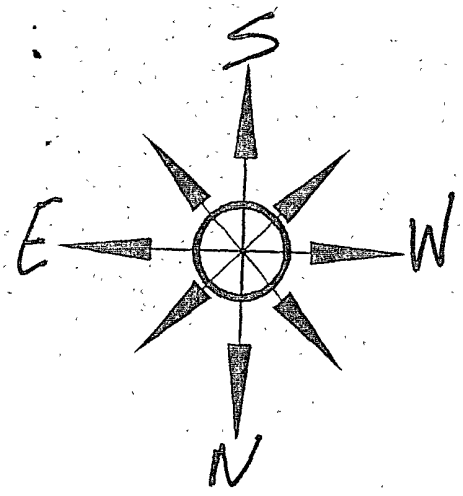
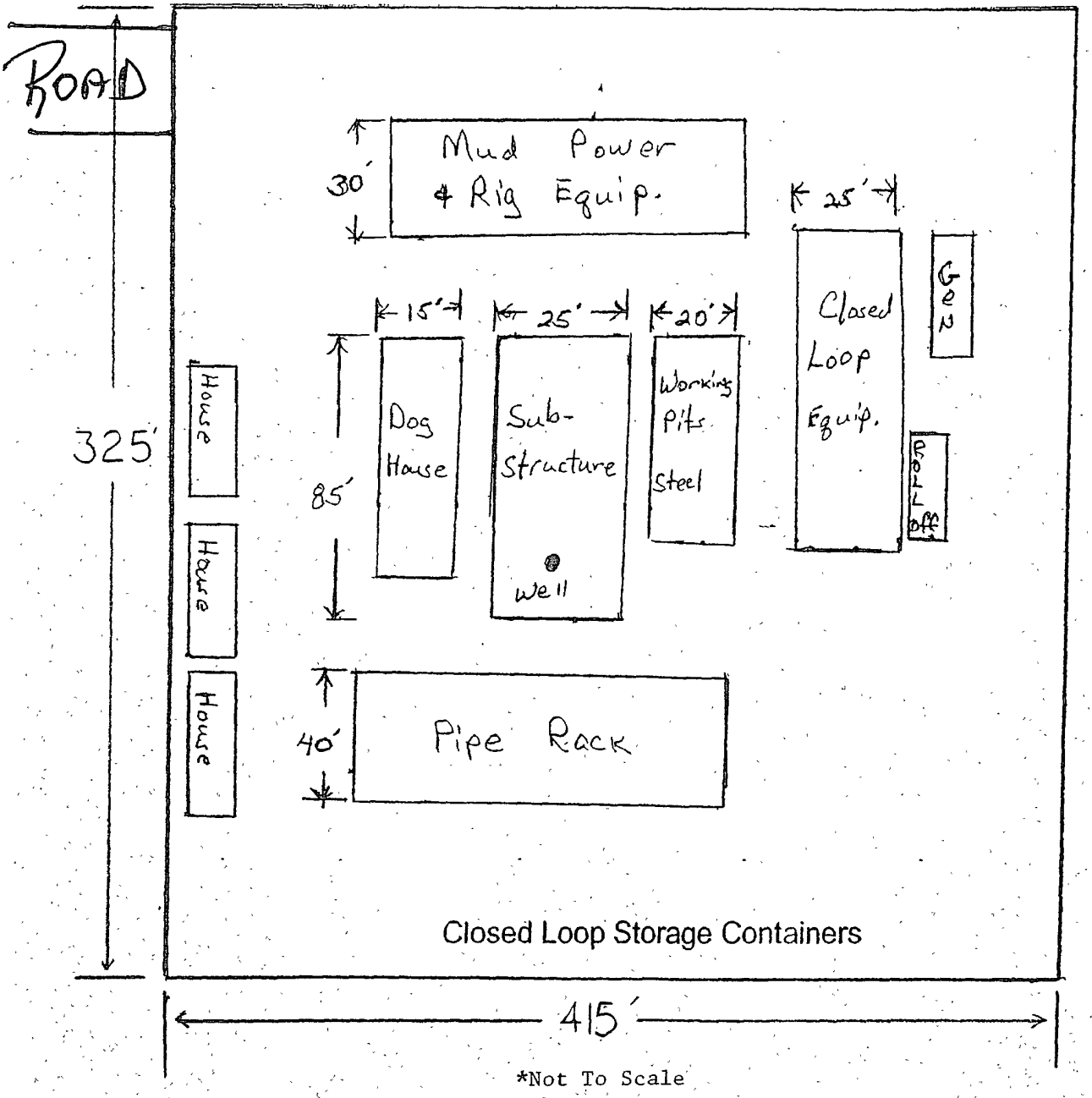


Yates Petroleum Corporation

Location Layout for Permian Basin

YATES PETROLEUM CORPORATION
Martha AIK Federal #13H
1650' FNL and 330' FEL SHL
1650' FNL and 330' FWL BHL
Section 11, Township 22S Range 31East
Eddy County, New Mexico Exhibit B

Closed Loop Design Plan



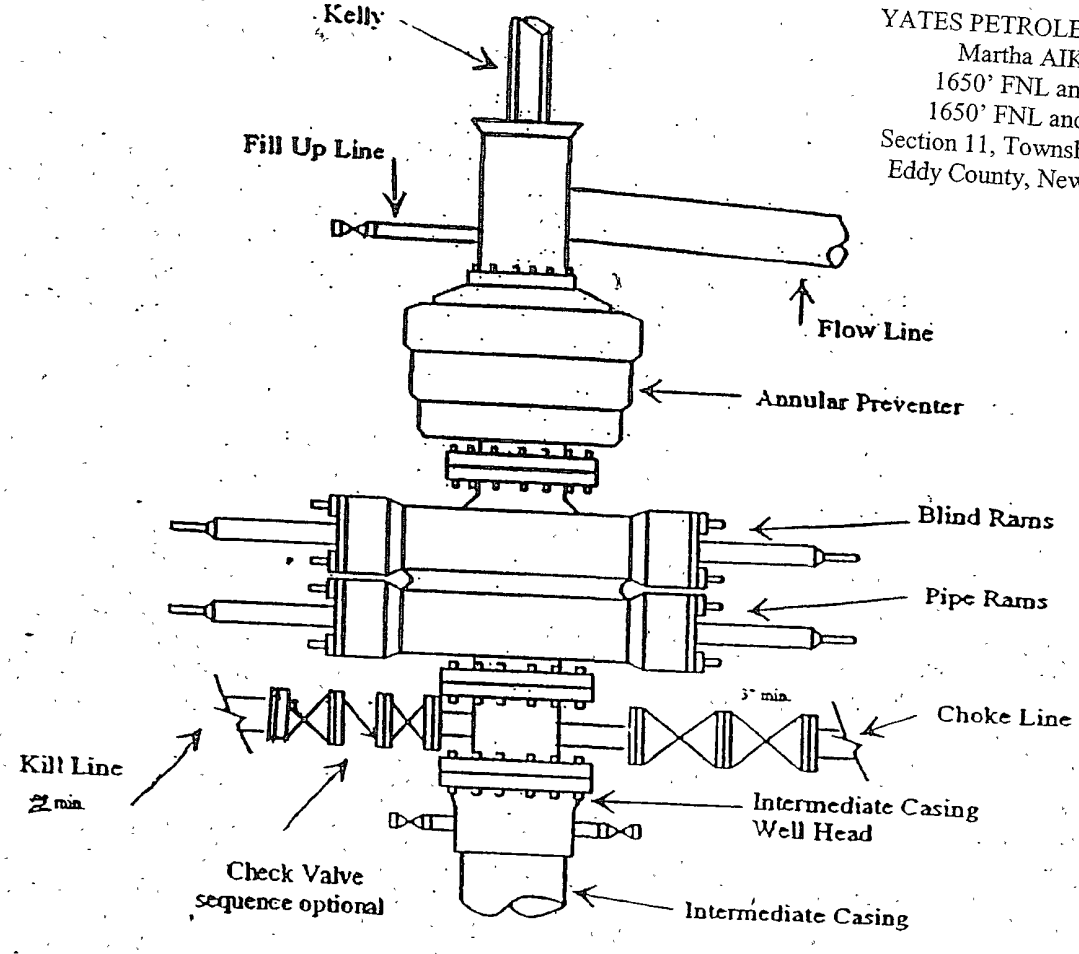
*Not To Scale

Yates Petroleum Corporation

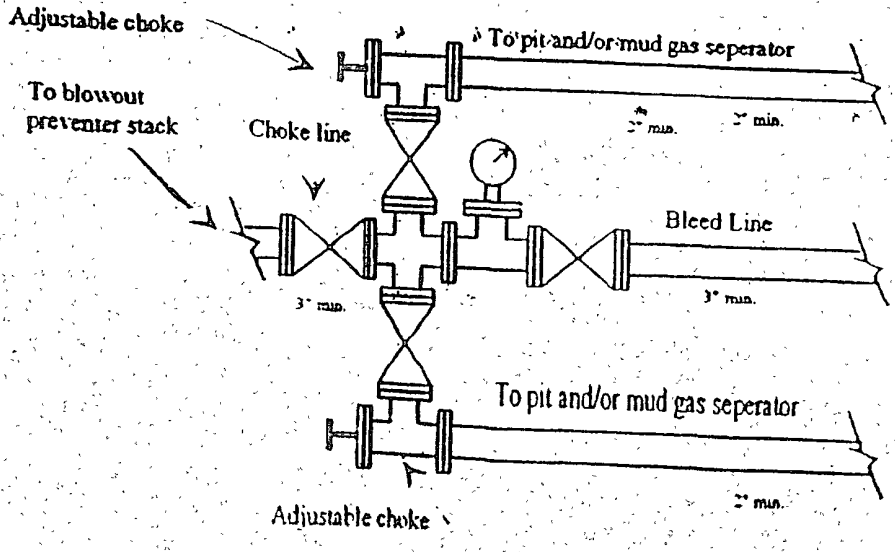
BOP-3

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

YATES PETROLEUM CORPORATION
Martha AIK Federal #13H
1650' FNL and 330' FEL SHL
1650' FNL and 330' FWL BHL
Section 11, Township 22S Range 31East
Eddy County, New Mexico Exhibit C



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



Yates Petroleum Corporation
Closed Loop System

Equipment Design Plan

Closed Loop System will consist of:
1 – double panel shale shaker
1 – (minimum) Centrifuge, certain wells and flow rates may require 2 centrifuges
On certain wells, the Centrifuge will be replaced by a Clackco Settling Tank System
1 – minimum centrifugal pump to transfer fluids
2- 500 bbl. FW Tanks
1 – 500 bbl. BW Tank
1 – half round frac tank – 250 bbl. capacity as necessary to catch cement / excess mud returns generated during a cement job.
1 Set of rail cars / catch bins
Certain wells will use an ASC Auger Tank

Operation Plan

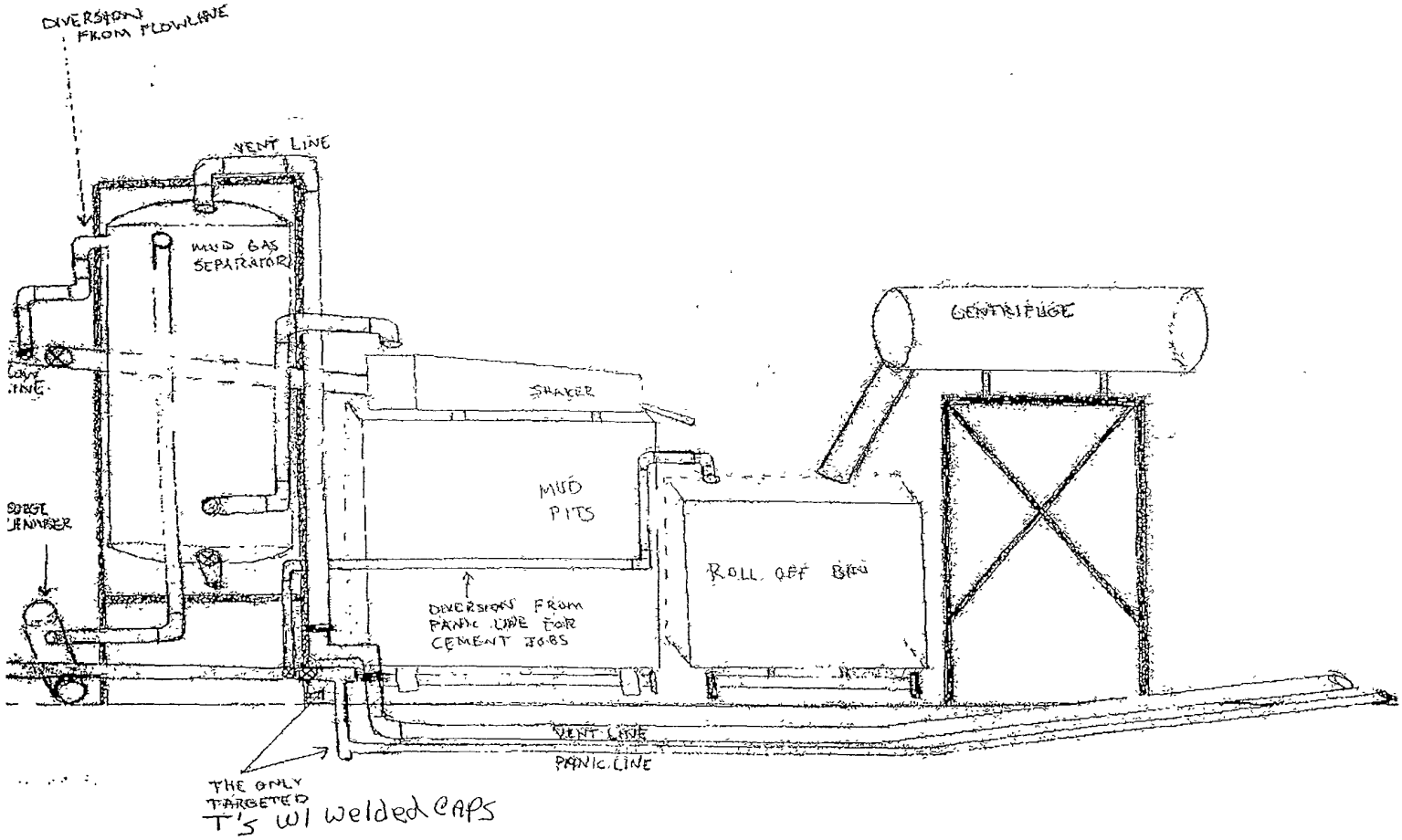
All equipment will be inspected at least hourly by rig personnel and daily by contractors personnel.
Any spills / leaks will be reported to YPC, NMOCD, and cleaned up without delay.

Closure Plan

Drilling with Closed Loop System, haul off bins will be taken to Gandy Marley, Lea Land Farm or CRI.

YATES PETROLEUM CORPORATION
Piping from Choke Manifold
to the Closed-Loop Drilling Mud System

YATES PETROLEUM CORPORATION
Martha AIK Federal #13H
1650' FNL and 330' FEL, Surface Hole
1650' FNL & 330' FWL, Bottom Hole
Section 11-T22S-R32E
Eddy County, New Mexico
EXHIBIT E



MULTI-POINT SURFACE USE AND OPERATIONS PLAN
YATES PETROLEUM CORPORATION
Martha AIK Federal #13H
1650' FNL & 330' FEL, Surface Hole
1650' FNL & 330' FWL, Bottom Hole
Section 11-T22S-R31E
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 38 miles west and north of Jal, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

DIRECTIONS: Go of Carlsbad, New Mexico on Highway 62/180 for approximately 30 miles to Red Road (CR-29). Turn south on Red Road and go approximately 8.2 miles. Turn right on an existing lease road and go west for approximately 1 mile. Turn left here and go south for approximately 1.4 miles. At this point the proposed Martha AIK Federal 13H well location will be just off the west side of the lease road. Little or not new access will be needed to access this location..

2. PLANNED ACCESS ROAD:

A. The proposed new access will be approximately 30' or less in length from the point of origin to the southeast corner of the drilling pad.
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 both sides. No traffic turnouts will be needed.
D. The route of the road is visible.
E. 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.
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 of oil or gas a diesel self-contained unit will be used to provide the necessary power until an electric line can be built, if needed.

5. LOCATION AND TYPE OF WATER SUPPLY:

A. It is planned to drill the proposed well with a brine 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 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. A closed loop system will be used to drill this well and reserve pits will not be used.
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. Form C-144.
C. Drilling fluids will be removed after drilling and completions is 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 B shows the relative location and dimensions of the well pad, the closed loop mud system, location of the drilling equipment, rig orientation and access road approach. The proposed well location will be approximately 350' x 300'. All of the location will be constructed within the 600' x. 600' staked area.
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. Unguarded pits, if any, containing fluids will be fenced until they have dried and been leveled.
C. 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. All pits will be filled level after they have evaporated and dried. Pit reclamation will meet 19.15.17 requirements.

11. SURFACE OWNERSHIP:
Federal Lands under the supervision of the Carlsbad BLM. .

12. OTHER INFORMATION:

A. The primary use of the surface is for grazing.

B. Refer to the archaeological report for a description of the topography, flora, fauna, soil Characteristics, dwellings, and historical and cultural sites.

CERTIFICATION
YATES PETROLEUM CORPORATION
Martha AIK Federal #13 H

I hereby certify that I or the company I represent, have inspected the drill site and access route proposed herein; that the company I represent is familiar with the conditions which currently exist; that 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 the company I represent is 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 3rd day of September, 2008.

Printed Name Cy Cowan

Signature

Position Title Regulatory Agent

Address 105 South Fourth Street, Artesia, NM 88210

Telephone 575-748-4372

E-mail (optional) cyc@ypcnm.com

Field Representative (if not above signatory) Tim Bussell

Address (if different from above) Same

Telephone (if different from above) 575-748-4221

E-mail (optional)

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	YATES PETROLEUM CORPORATION
LEASE NO.:	NM-65417
WELL NAME & NO.:	Martha AIK Federal #13H
SURFACE HOLE FOOTAGE:	1650' FNL & 330' FEL
BOTTOM HOLE FOOTAGE	1650' FNL & 330' FWL
LOCATION:	Section 11, T. 22 S., R 31 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.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
  - Lesser Prairie Chicken
  - Ground Level Abandoned Hole Marker
- ☐ **Construction**
  - Notification
  - Topsoil
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  - Well Pads
  - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
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  - WIPP Requirements
  - Casing Depth Change
- ☐ **Production (Post Drilling)**
  - Well Structures & Facilities
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment/Reclamation**

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)

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. 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 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this 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 ft. from the source of the noise.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

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 (575) 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

Tanks are required for drilling operations: No Pits.
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, 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 (575) 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.

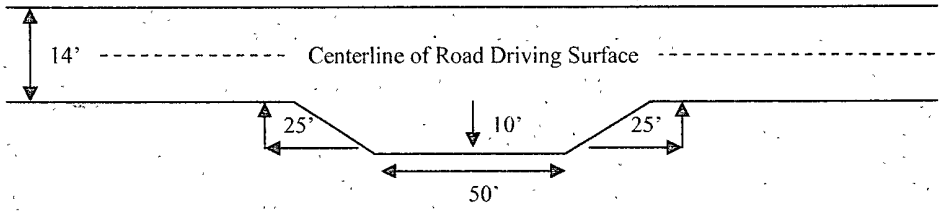
Ditching

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

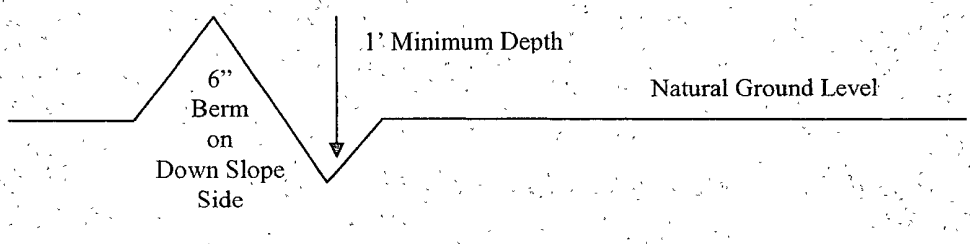


Drainage

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.

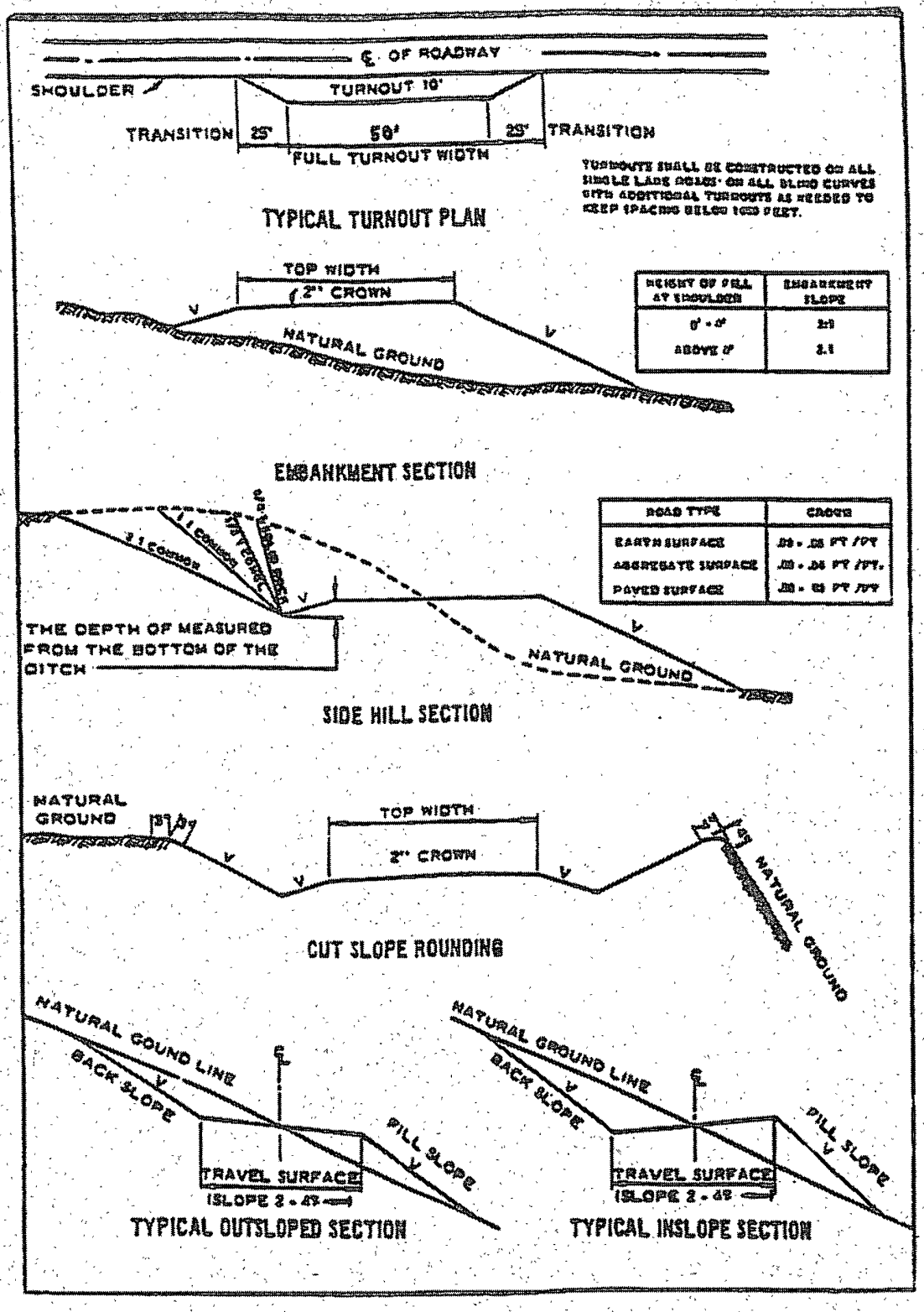
A gate shall be constructed and fastened securely to H-braces.

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 there are no measured amounts of Hydrogen Sulfide reported, it is always a potential hazard. If Hydrogen Sulfide is encountered, please provide measured values and formations 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.

4. **The record of the drilling rate along with the CAL/GR/N well log run from TD to surface will be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

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 for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

WIPP/R-111 Potash
Possible brine and water flows in the Salado and Castile Groups.
Possible lost circulation in the Delaware and Bone Spring Formations.

1. The **13-3/8** inch surface casing shall be set at **approximately 800 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** 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 is to include the lead cement slurry.

    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, remedial cementing will be done prior to drilling out that string.

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

    ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash.**

Centralizers required on horizontal leg, must be type for horizontal service and minimum of one every other joint.

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

   a. First stage to DV tool, cement shall:

   ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job.

   b. Second stage above DV tool, cement shall:

   ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with third stage cement job.

   c. Third stage above DV tool, cement shall:

   ☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

4. 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.

5. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

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 **3000 (3M)** psi. **Piping from choke manifold to flare to be as straight as possible.**

3. 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.

D. DRILL STEM TEST

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

E. WIPP Requirements

The proposed well is located within 330' of the WIPP Land Withdrawal Area boundary. As a result, Yates Petroleum Corporation is requested, but not required to submit daily logs and deviation survey information to the Department of Energy per requirements of the Joint Powers Agreement. Information from this well will be included in the Quarterly Drilling Report. Information will also be provided to the New Mexico Oil Conservation Division after drilling activities have been completed. Any future entry into the well for purposes of completing additional drilling will require supplemental information.

Yates Petroleum Corporation can email the required information to Ms. Susan McCauslin at susan.mccauslin@wipp.ws or fax to her attention at 575-234-6003.

CRW 101309

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.

The 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.

Seed Mixture for LPC Sand/Shinnery Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A
**Four-winged Saltbush	5lbs/A

* This can be used around well pads and other areas where caliche cannot be removed.

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

(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.