

Hydrogen Sulfide Drilling Operations Plan

Mewbourne Oil Company
Bradley "29" Federal Com #4H
510' FNL & 150' FWL
Sec 29-T18S-R30E
Eddy County, New Mexico

**1. General Requirements**

Rule 118 does not apply to this well because MOC has researched this area and no high concentrations of H₂S were found. MOC will have on location and working all H₂S safety equipment before the Yates formation for purposes of safety and insurance requirements.

2. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will have received training from a qualified instructor in the following areas prior to entering the drilling pad area of the well:

1. The hazards and characteristics of hydrogen sulfide gas.
2. The proper use of personal protective equipment and life support systems.
3. The proper use of hydrogen sulfide detectors, alarms, warning systems, briefing areas, evacuation procedures.
4. The proper techniques for first aid and rescue operations.

Additionally, supervisory personnel will be trained in the following areas:

- 1 The effects of hydrogen sulfide on metal components. If high tensile tubular systems are utilized, supervisory personnel will be trained in their special maintenance requirements.
- 2 Corrective action and shut in procedures, blowout prevention, and well control procedures while drilling a well.
- 3 The contents of the Hydrogen Sulfide Drilling Operations Plan.

There will be an initial training session prior to encountering a known hydrogen sulfide source. The initial training session shall include a review of the site specific Hydrogen Sulfide Drilling Operations Plan.

3. Hydrogen Sulfide Safety Equipment and Systems

All hydrogen sulfide safety equipment and systems will be installed, tested, and operational prior to drilling below the intermediate casing.

1. Well Control Equipment

- A. Flare line with automatic igniter or continuous ignition source.
- B. Choke manifold with minimum of one adjustable choke.
- C. Blowout preventers equipped with blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment including annular type blowout preventer.

2. Protective Equipment for Essential Personnel

Thirty minute self contained work unit located at briefing area as indicated on wellsite diagram.

3. Hydrogen Sulfide Protection and Monitoring Equipment

Two portable hydrogen sulfide monitors positioned on location for optimum coverage and detection. The units shall have audible sirens to notify personnel when hydrogen sulfide levels exceed 20 PPM.

4. Visual Warning Systems

A. Wind direction indicators as indicated on the wellsite diagram.

B. Caution signs shall be posted on roads providing access to location. Signs shall be painted a high visibility color with lettering of sufficient size to be readable at reasonable distances from potentially contaminated areas.

4. **Mud Program**

The mud program has been designed to minimize the amount of hydrogen sulfide entrained in the mud system. Proper mud weight, safe drilling practices, and the use of hydrogen sulfide scavengers will minimize hazards while drilling the well.

5. **Metallurgy**

All tubular systems, wellheads, blowout preventers, drilling spools, kill lines, choke manifolds, and valves shall be suitable for service in a hydrogen sulfide environment when chemically treated.

6. **Communications**

State & County Officials phone numbers are posted on rig floor and supervisors trailer. Communications in company vehicles and toolpushers are either two way radios or cellular phones.

7. **Well Testing**

Drill stem testing is not an anticipated requirement for evaluation of this well. A drill stem test is required, it will be conducted with a minimum number of personnel in the immediate vicinity. The test will be conducted during daylight hours only.

8. **Emergency Phone Numbers**

Eddy County Sheriff's Office	911 or 575-887-7551
Ambulance Service	911 or 575-885-2111
Carlsbad Fire Dept	911 or 575-885-2111
Loco Hills Volunteer Fire Dept.	911 or 575-677-3266
Closest Medical Facility - Columbia Medical Center of Carlsbad	575-492-5000

Mewbourne Oil Company	Hobbs District Office	575-393-5905
	Fax	575-397-6252
	2 nd Fax	575-393-7259

District Manager	Micky Young	575-390-0999
Drilling Superintendent	Frosty Lathan	575-390-4103
Engineer	Charles Martin	575-441-2081
Drilling Foreman	Wesley Noseff	575-441-0729
Drilling Foreman	George Smith	575-390-4365

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

MEWBOURNE OIL COMPANY

Bradley "29" Federal Com #4H

510' FNL & 150' FWL (SHL)

Sec 29-T18S-R30E

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 restoring the surface so that a complete appraisal can be made of the environmental impact associated with the proposed operations.

1. Existing Roads:

- A. Exhibit #3 is a road map showing the location of the proposed well. Existing roads are highlighted in black. Exhibits #3-#3C are maps showing the location of the proposed well and access road. Existing and proposed roads are highlighted in black.
- B. Directions to location: Go NE on Hwy 62/180 for 15 miles to Hwy 360. Turn North and go 13 miles to Grubbs Rd (CR 250). Turn right and go 1 mile. Turn left (West) on lease Road 0.2 mile. Turn right (North) and go 1.5 miles. Turn left (West) and go 0.5 miles. Turn right (North) 0.3 miles to location.
- C. Existing roads will be maintained in a condition the same as or better than before operations begin.

2. Proposed Access Road:

- A. Approx 60' of new road will be needed.
- B. The maximum width of the driving surface will be 14 feet. The road will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1 foot deep with 3:1 slopes. The road will be surfaced with rolled and compacted caliche.
- C. Mewbourne Oil Co. will cooperate with other operators in the maintenance of lease roads.

3. Location of Existing Wells:

There are producing wells within the immediate vicinity of the well site. Exhibit #4 shows the proposed well and existing wells within a one mile radius.

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, production facilities will be located on the well pad east of the wellbore.
- C. Production vessels that will remain on this location will be painted to conform to BLM painting stipulations within 180 days of installation.

5. Location and Type of Water Supply

The well will be drilled with a combination of fresh water and brine water based mud systems. The water will be obtained from commercial suppliers in the area and/or hauled to the location by

transport trucks over existing and proposed roads as indicated in Exhibit #3.

6. Source of Construction Materials

All material required for construction of the drill pad and access roads will be obtained from private, state, or federal pits. The construction contractor will be solely responsible for securing construction materials required for this operation and paying any royalties that may be required on those materials.

7. Methods of Handling Waste Disposal:

- A. Drill cuttings not retained for evaluation purposed will be hauled to an off-site permitted facility.
- B. Water produced during operations will be hauled to an off-site permitted SWD in the area.
- C. If any liquid hydrocarbons are produced during operations, those liquids will be stored in suitable tanks until sold.
- D. Sewage and gray water will be safely contained on-site, and then waste will be disposed at an approved off-site facility.
- E. All trash, junk, and other waste materials will be stored in proper containers to prevent dispersal and will be removed to an appropriate facility within one week of cessation of drilling and completion activities.

8. Ancillary Facilities

There are no ancillary facilities within the immediate vicinity of the proposed well site.

9. Well Site Layout

- A. A diagram of the drill pad is shown in Exhibit #5. Dimensions of the pad and location of major rig components are shown.
- B. The pad dimension of 280' x 320' has been staked and flagged.
- C. An archaeological survey has been conducted on the proposed location pad.

10. Plans for Restoration of Surface

- A. Within 90 days of cessation of drilling and completion operations, all equipment not necessary for production operations will be removed. The location will be cleaned of all trash and junk to assure the well site is left as aesthetically pleasing as reasonably possible.
- B. Interim reclamation:
 - i. All areas not needed for production operations will be reclaimed.
 - ii. Caliche will be removed, the land will be recontoured, the top soil from stockpile will be spread over these areas.
 - iii. The disturbed area will be restored by re-seeding during the proper growing season.
 - iv. Any additional caliche required for production facilities will be obtained from the area shown in exhibit #6 as interim reclamation.

C. Final Reclamation:

- i. Upon cessation of the proposed operations, if the well is abandoned, all equipment and trash will be removed and taken to a proper facility.
- ii. The location and road surfacing material will be removed and used to patch area lease roads. The entire location will be restored to the original contour as much as reasonable possible. The top soil used for interim reclamation will be spread over the entire location. All restoration work will be completed within 180 days of cessation of activities.

11. Surface Ownership:

The surface is owned by BLM.

12. Other Information:

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

13. Operator's Representative:

- A. Through APD approval, drilling, completion and production operations:

N.M. Young, District Manager
Mewbourne Oil Company
PO Box 5270
Hobbs, NM 88241
575-393-5905

**United States Department of the Interior
Bureau of Land Management
Roswell Field Office
2909 West Second Street
Roswell, New Mexico 88201-1287**

Statement Accepting Responsibility for Operations

Operator Name: Mewbourne Oil Company
Street or Box: P.O. Box 5270
City, State: Hobbs, New Mexico
Zip Code: 88241

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

Lease Number: Lease Number #NM-27279 & NM-27280

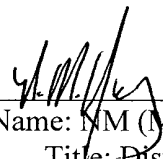
Legal Description of Land: Section 29, T-18S, R-30E Eddy County, New Mexico.
Location @ 510' FNL & 150' FWL.

Formation (if applicable): Bone Springs

Bond Coverage: \$150,000

BLM Bond File: NM1693, Nationwide

Authorized Signature: _____


Name: NM (Micky) Young

Title: District Manager

Date: 10/21/10

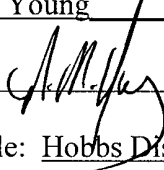
Mewbourne Oil Company

PO Box 5270
Hobbs, NM 88241
(575) 393-5905

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; that I have 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 21 day of October, 2010.

Name: NM Young

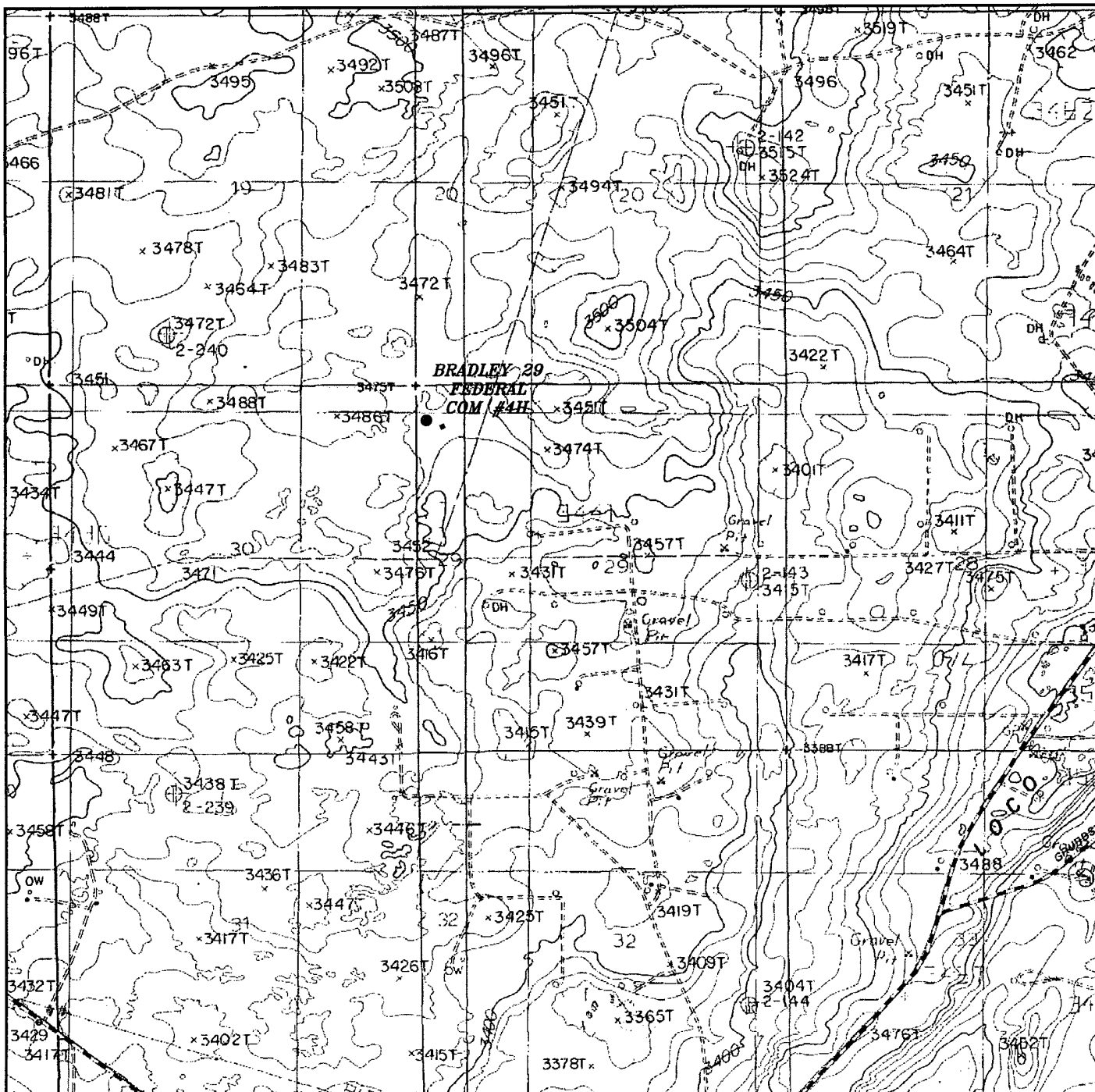
Signature: 

Position Title: Hobbs District Manager

Address: PO Box 5270, Hobbs NM 88241

Telephone: 575-393-5905

E-mail: myoung@mewbourne.com



BRADLEY "29" FEDERAL COM #4H *Exhibit 3A*
 Located 510' FNL and 150' FWL
 Section 29, Township 18 South, Range 30 East,
 N.M.P.M., Eddy County, New Mexico.

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 in the oilfield

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

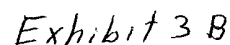
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Survey Date: 04-30-2010

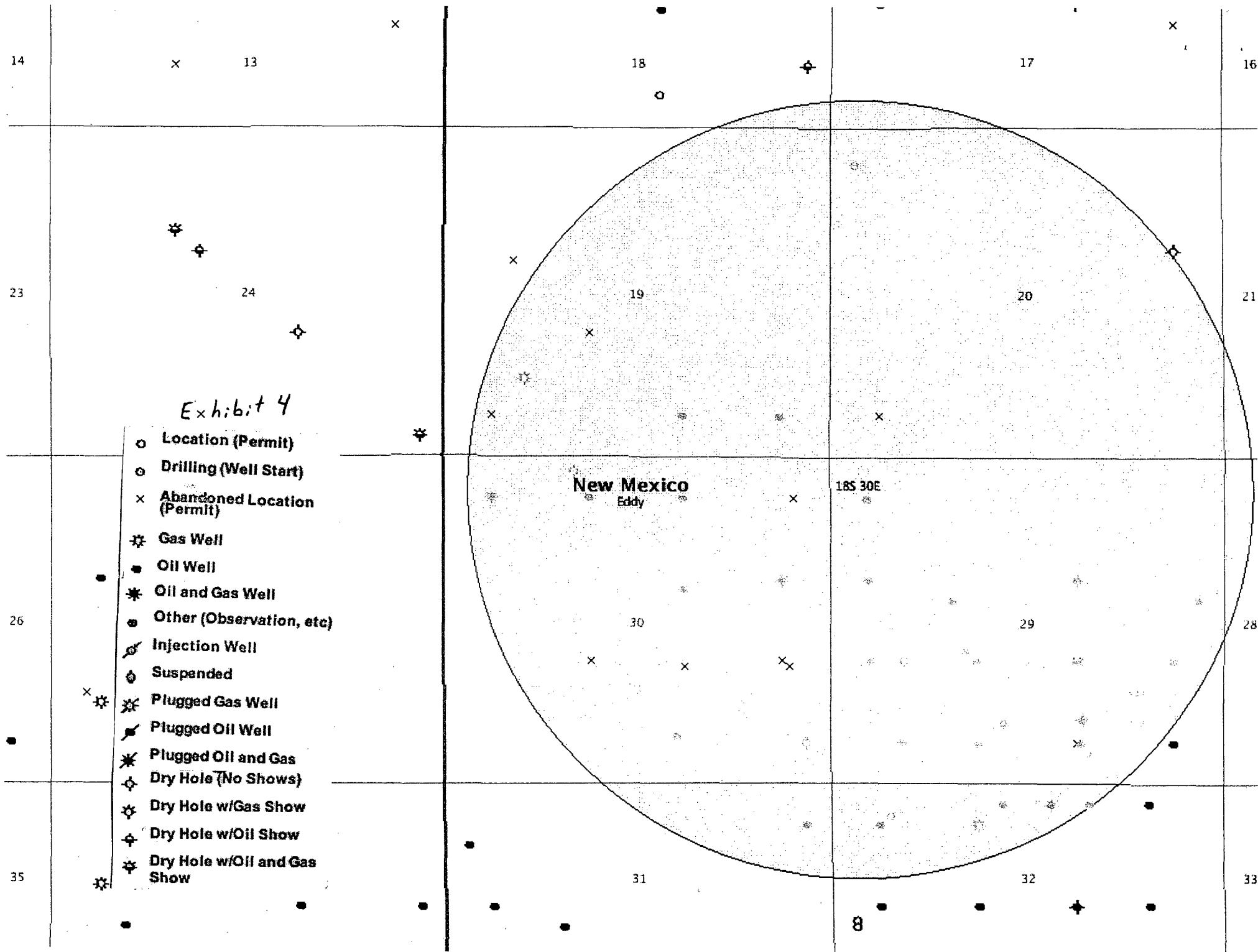
Scale: 1" = 2000'

Date: 05-03-2010

MEWBOURNE
OIL COMPANY



MEWBOURNE
OIL COMPANY



SECTION 29, TOWNSHIP 18 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

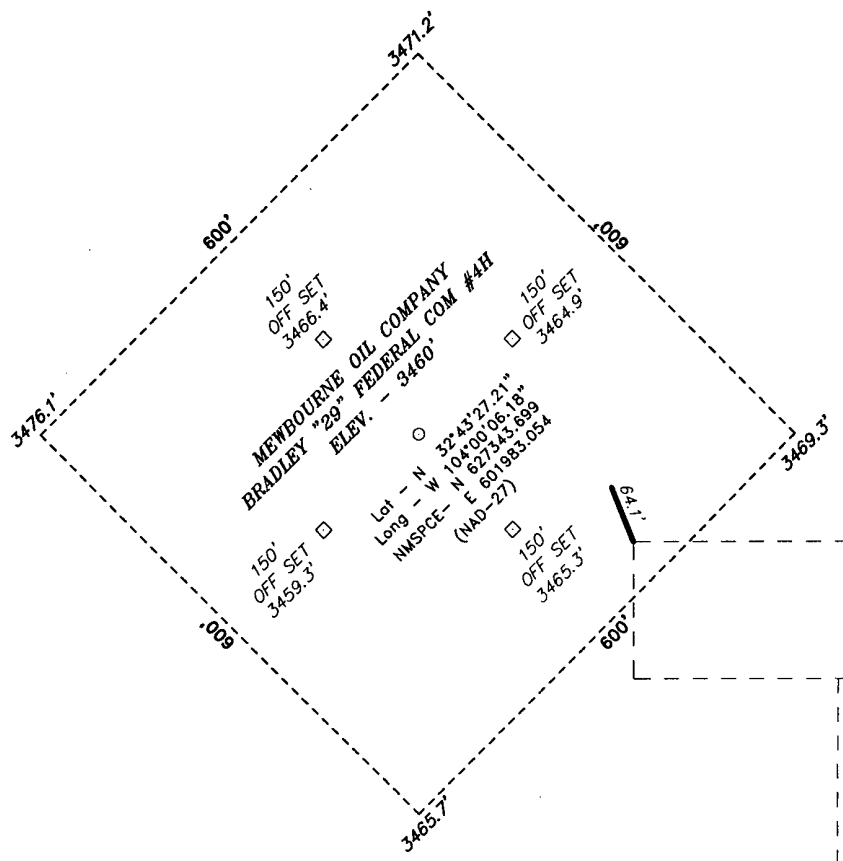
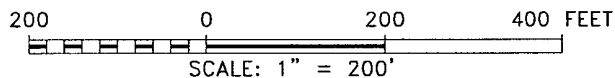


Exhibit 3



Directions to Location:

FROM THE JUNCTION OF GRUBBS AND DUVAL SHAFT,
GO NORTH ON DUVAL SHAFT FOR 1.1 MILES TO
LEASE ROAD, ON LEASE ROAD GO WEST 1.8 MILES
TO LEASE ROAD, GO NORTH TO WELL PAD AND
PROPOSED LEASE ROAD.

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

W.O. Number: 22653

Drawn By: J. SMALL

Date: 05-03-2010

Disk: JMS 22653

MEWBOURNE OIL COMPANY

REF: BRADLEY "29" FEDERAL COM #4H / WELL PAD TOPO

THE BRADLEY "29" FEDERAL COM #4H LOCATED 510'

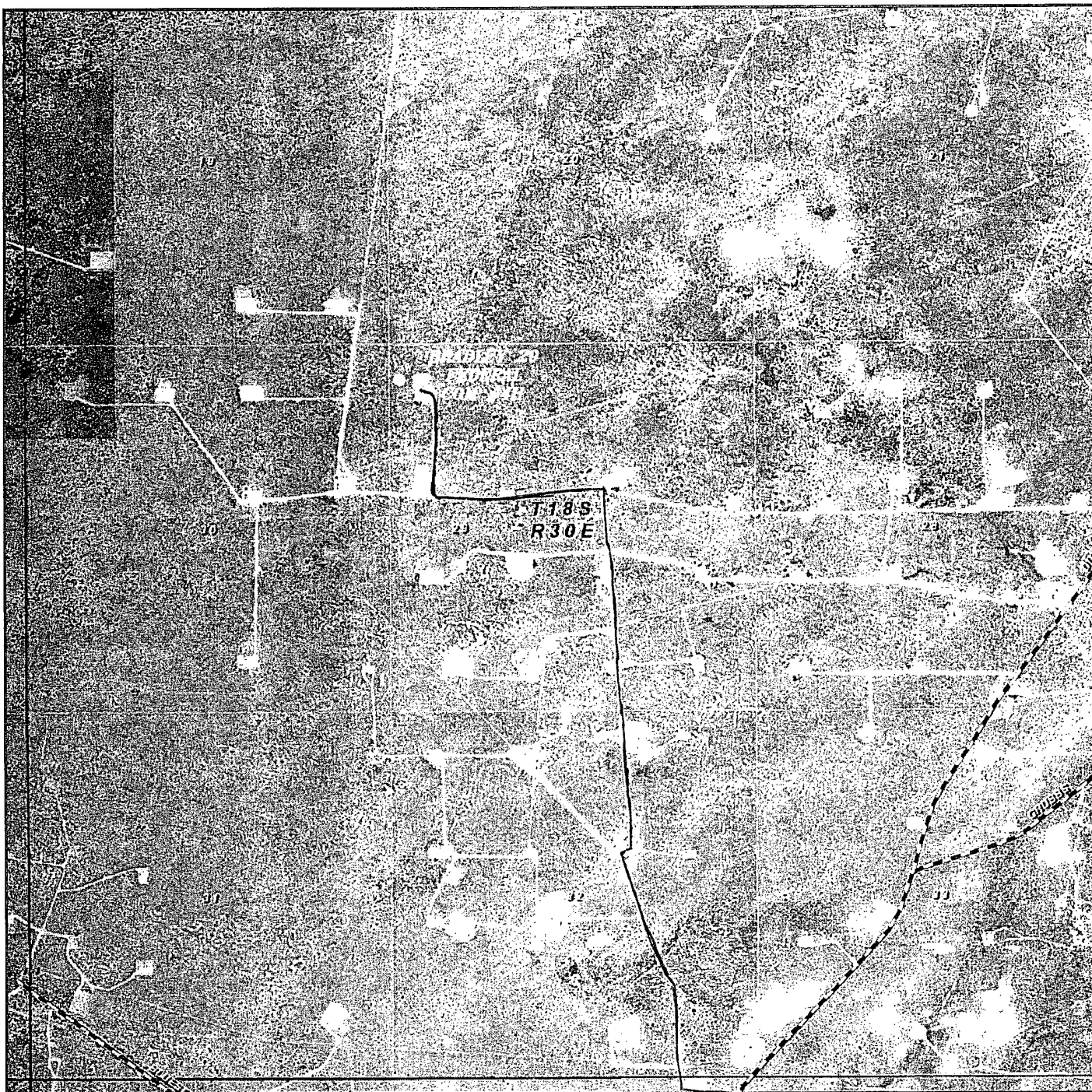
FROM THE NORTH LINE AND 150' FROM THE WEST LINE OF

SECTION 29, TOWNSHIP 18 SOUTH, RANGE 30 EAST,

N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 04-30-2010

Sheet 1 of 1 Sheets



BRADLEY "29" FEDERAL COM #4H *Exhibit 3C*
 Located 510' FNL and 150' FWL
 Section 29, Township 18 South, Range 30 East,
 N.M.P.M., Eddy County, New Mexico.

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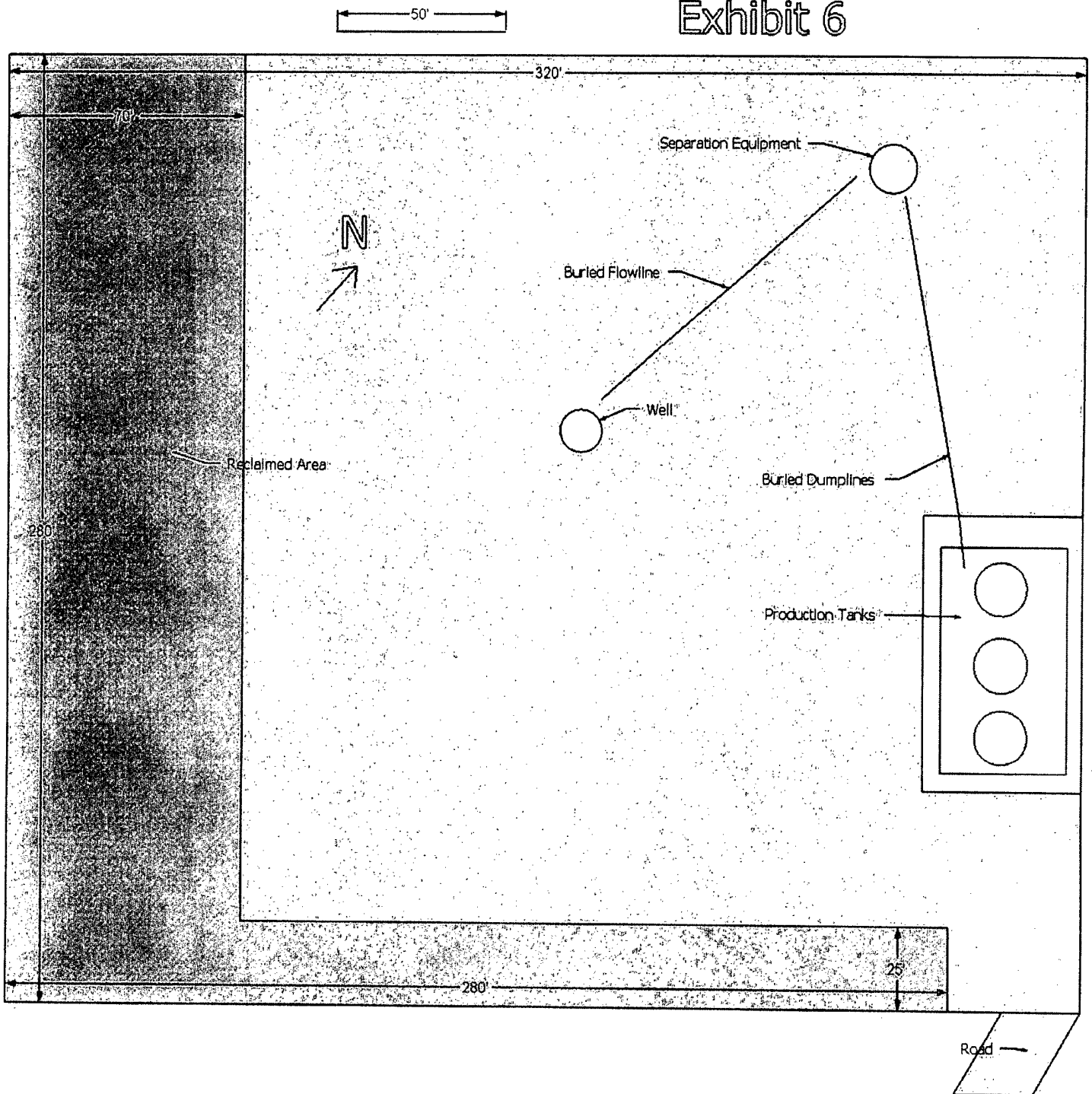
W.O. Number: JMS 22653

Scale: 1" = 2000'

YELLOW TINT - USA LAND
 BLUE TINT - STATE LAND
 NATURAL COLOR - FEE LAND

MEWBOURNE
OIL COMPANY

Exhibit 6



Closed Loop Pad Dimensions 280' x 320'

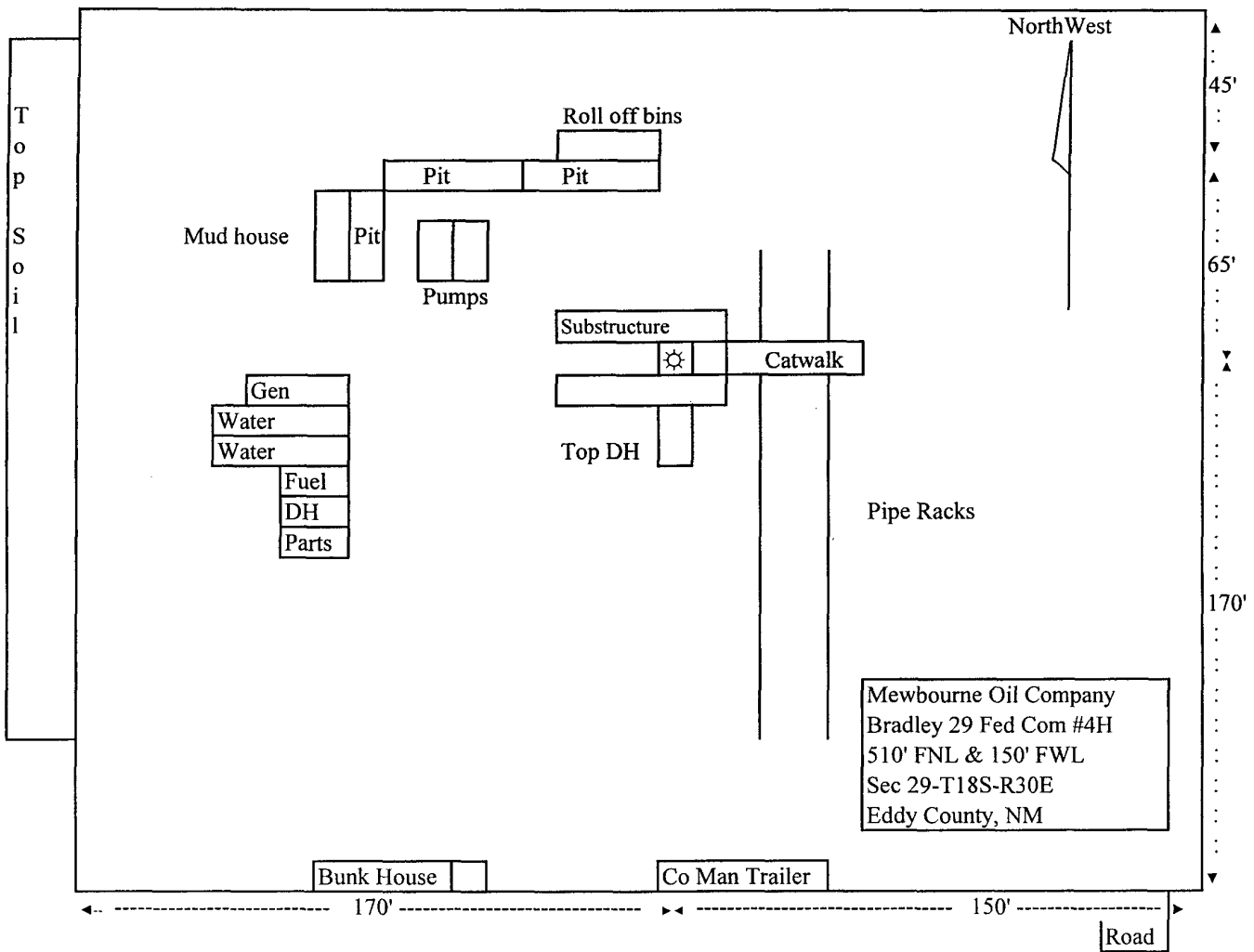


Exhibit 5