LM

ATS-09-353
EA-09-543

OCD-ARTESIA

MAY 26 2009

Form 3160-3
(April 2004)

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5 Lease Serial No.
NM 102035

6 If Indian, Allotee or Tribe Name

1a Type of work ☑ DRILL ☐ REENTER

7 If Unit or CA Agreement, Name and No

1b Type of Well ☑ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

8 Lease Name and Well No
Brushy Draw 6 Federal #2

2 Name of Operator
BOPCO, L. P.

9 API Well No.
30-015-37100

3a Address **P. O. Box 2760**
Midland, TX 79702

3b Phone No. *(include area code)*
432-683-2277

10 Field and Pool, or Exploratory
Wildcat

4 Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface **SWNE, UL G, 1980' FNL & 1650' FEL, Lat:N32.07358, Long:103.917367**
At proposed prod zone

11 Sec., T. R M or Blk and Survey or Area
Section 6, T26S, R30E, Mer NMP

14 Distance in miles and direction from nearest town or post office*
20 miles southeast of Malaga

12 County or Parish
Eddy County

13 State
NM

15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig unit line, if any)	16 No of acres in lease	17 Spacing Unit dedicated to this well
1650'	**962.39**	**320**
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft	19 Proposed Depth	20 BLM/BIA Bond No on file
2940'	**12,850'**	**COB000050**
21 Elevations (Show whether DF, KDB, RT, GL, etc)	22 Approximate date work will start*	23. Estimated duration
3096' GL	**05/01/2009**	**38 Days**

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1, shall be attached to this form

1 Well plat certified by a registered surveyor
2 A Drilling Plan
3 A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office)
4 Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5 Operator certification
6 Such other site specific information and/or plans as may be required by the authorized officer.

25 Signature	Name *(Printed/Typed)*	Date
Annette Childers	**Annette Childers**	3-16-09

Title **Administrative Assistant**

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
/s/ Don Peterson		1 MAY 20 2009
Title ACTING **FIELD MANAGER**	Office **CARLSBAD FIELD OFFICE**	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon
Conditions of approval, if any, are attached

APPROVAL FOR TWO YEARS

Title 18 U S C Section 1001 and Title 43 U S C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

**(Instructions on page 2)*

Approval Subject to General Requirements & Special Stipulations Attached

Carlsbad Controlled Water Basin

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

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 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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-37100	~~96794~~	Wildcat (Wolfcamp)

Property Code	Property Name	Well Number
306419	BRUSHY DRAW "6" FEDERAL	2

OGRID No.	Operator Name	Elevation
260737	BOPCO, L.P.	3096'

Surface Location

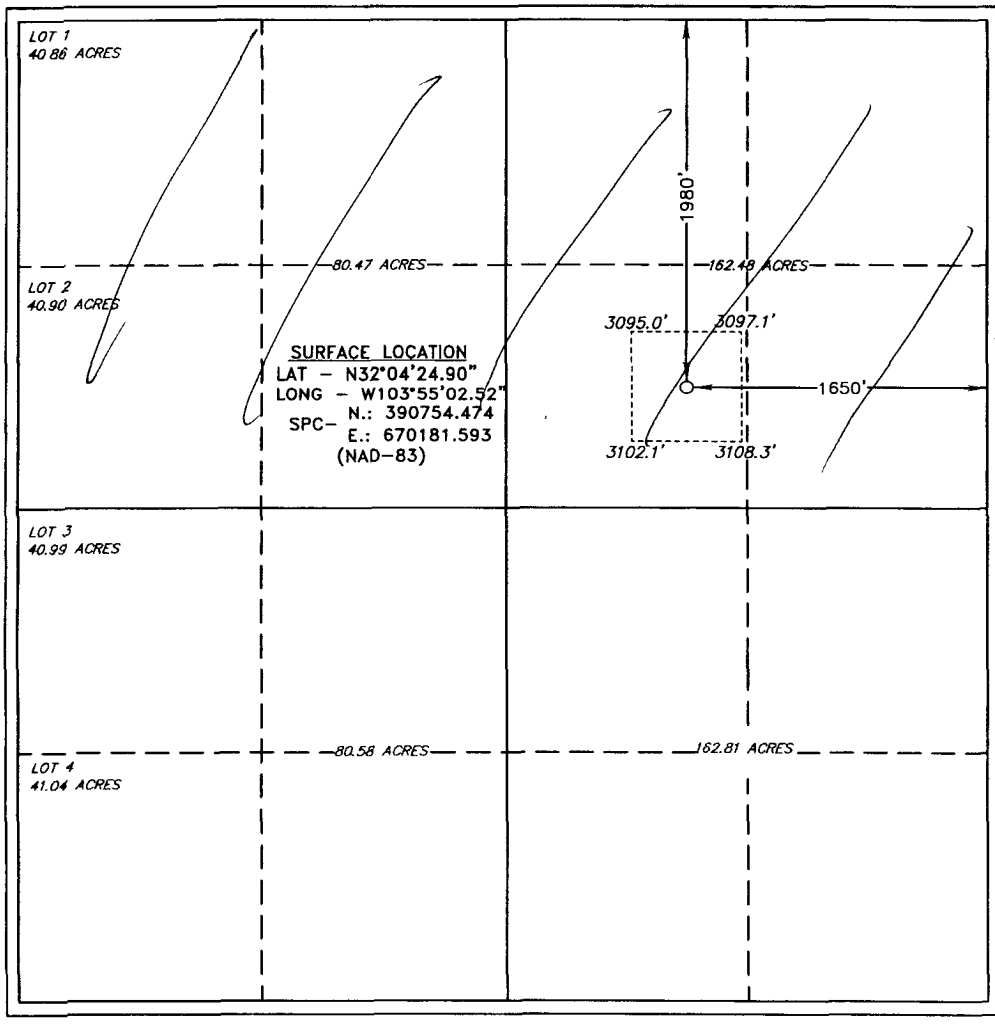
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	6	26 S	30 E		1980	NORTH	1650	EAST	EDDY

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
~~40~~ 320	N		

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 contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Gary E. Gerhard 3/11/09
Signature Date

Gary E. Gerhard
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 supervison, and that the same is true and correct to the best of my belief.

JANUARY 9, 2009
Date Surveyed

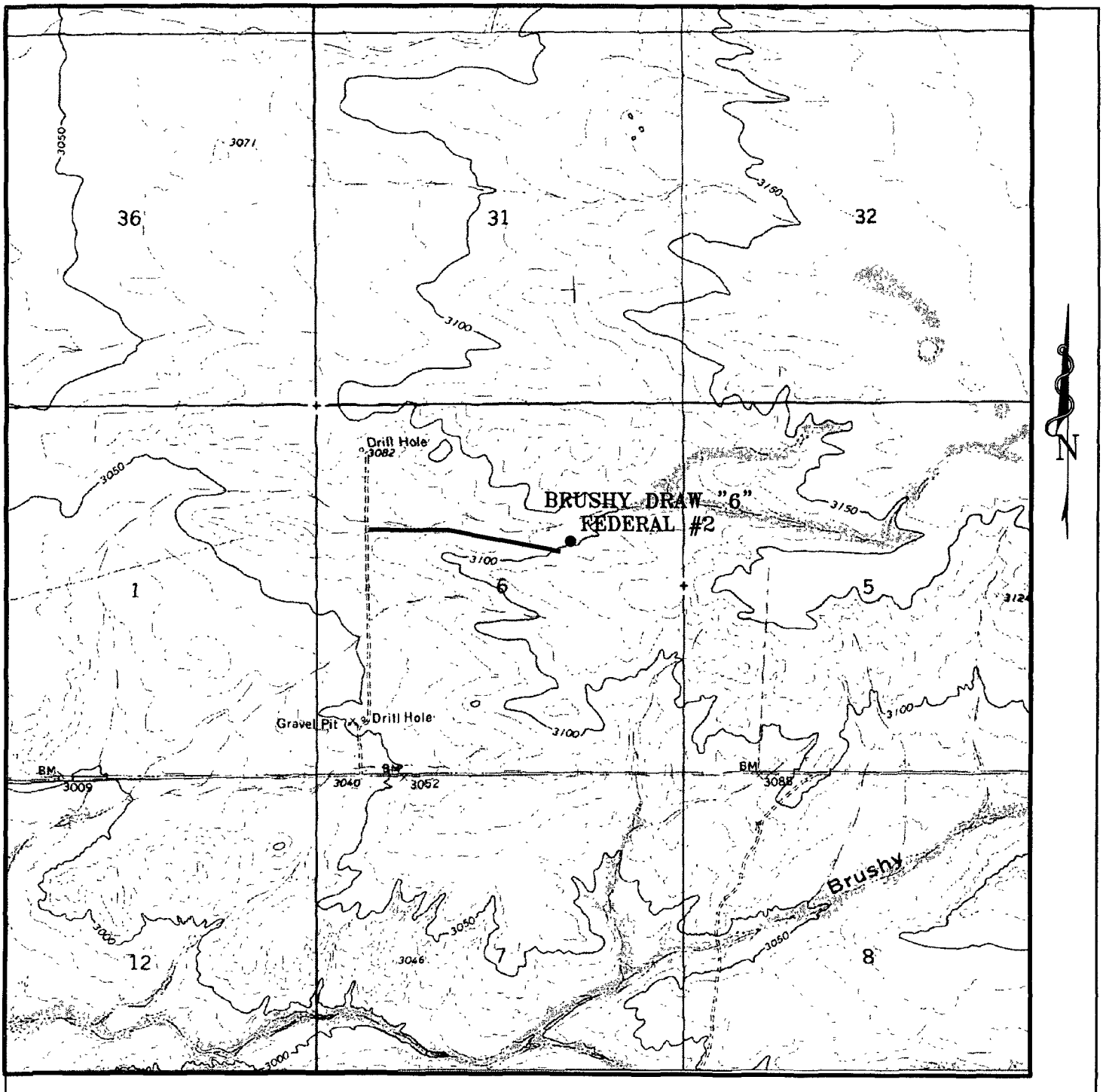
Signature & Seal of Professional Surveyor

GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL LAND SURVEYOR

W.O. No. 20080

Certificate No. Gary L. Jones 7977

BASIN SURVEYS



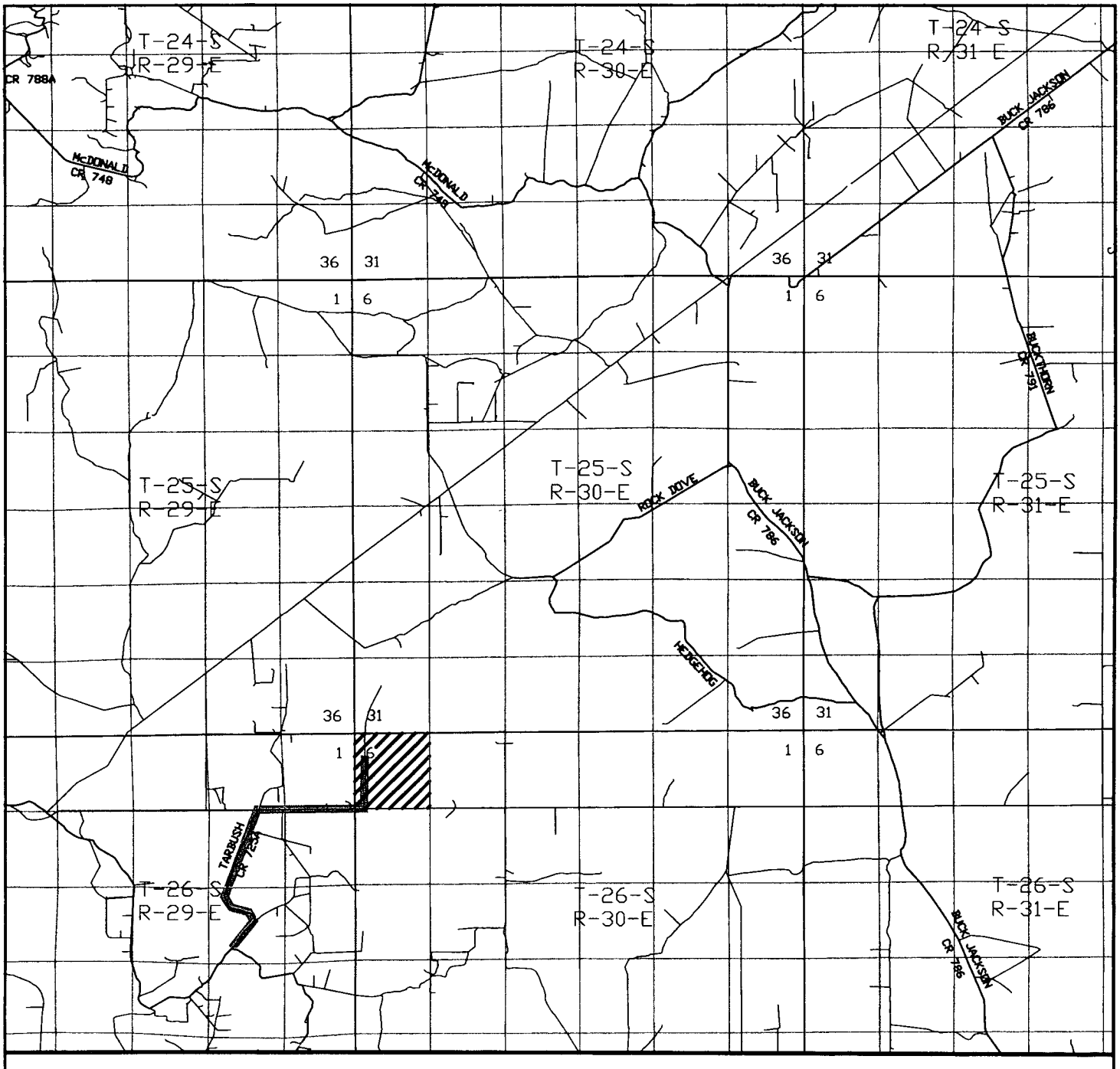
BRUSHY DRAW "6" FEDERAL #2
1980' FNL and 1650' FEL
Section 6, Township 26 South, Range 30 East,
N.M.P.M., Eddy County, New Mexico.

basin surveys
focused on excellence 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

W.O. Number:	JMS 20906
Survey Date:	01-09-2009
Scale:	1" = 2000'
Date:	01-13-2009

BOPCO, L.P.



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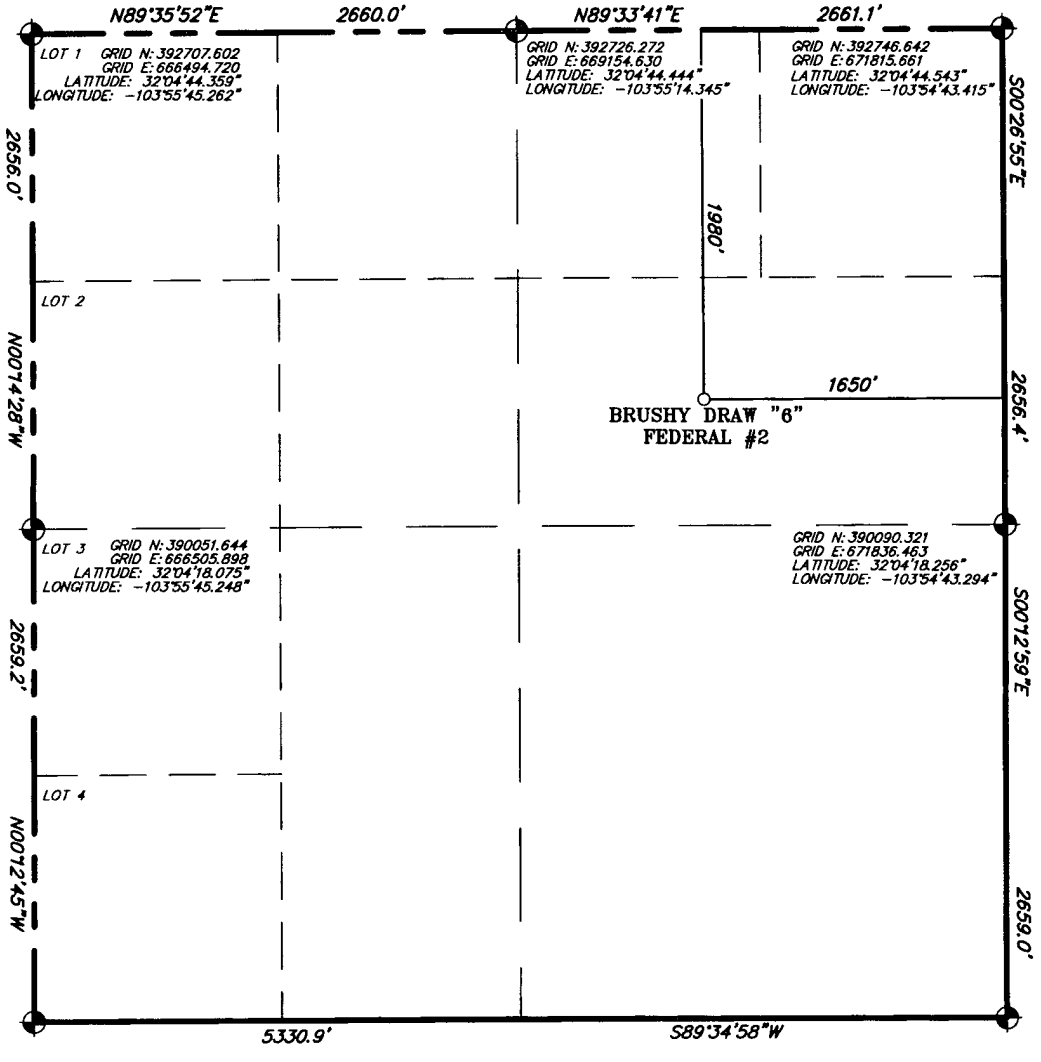
W.O. Number: JMS 20906
Survey Date: 01-09-2009
Scale: 1" = 1000'
Date: 01-13-2009

BOPCO, L.P.

SECTION 6, TOWNSHIP 26 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, **NEW MEXICO.**



BRUSHY DRAW "6" FEDERAL #2
1980' FNL and 1650' FEL
Section 31, Township 25 South, Range 30 East,
N.M.P.M., Eddy County, New Mexico.

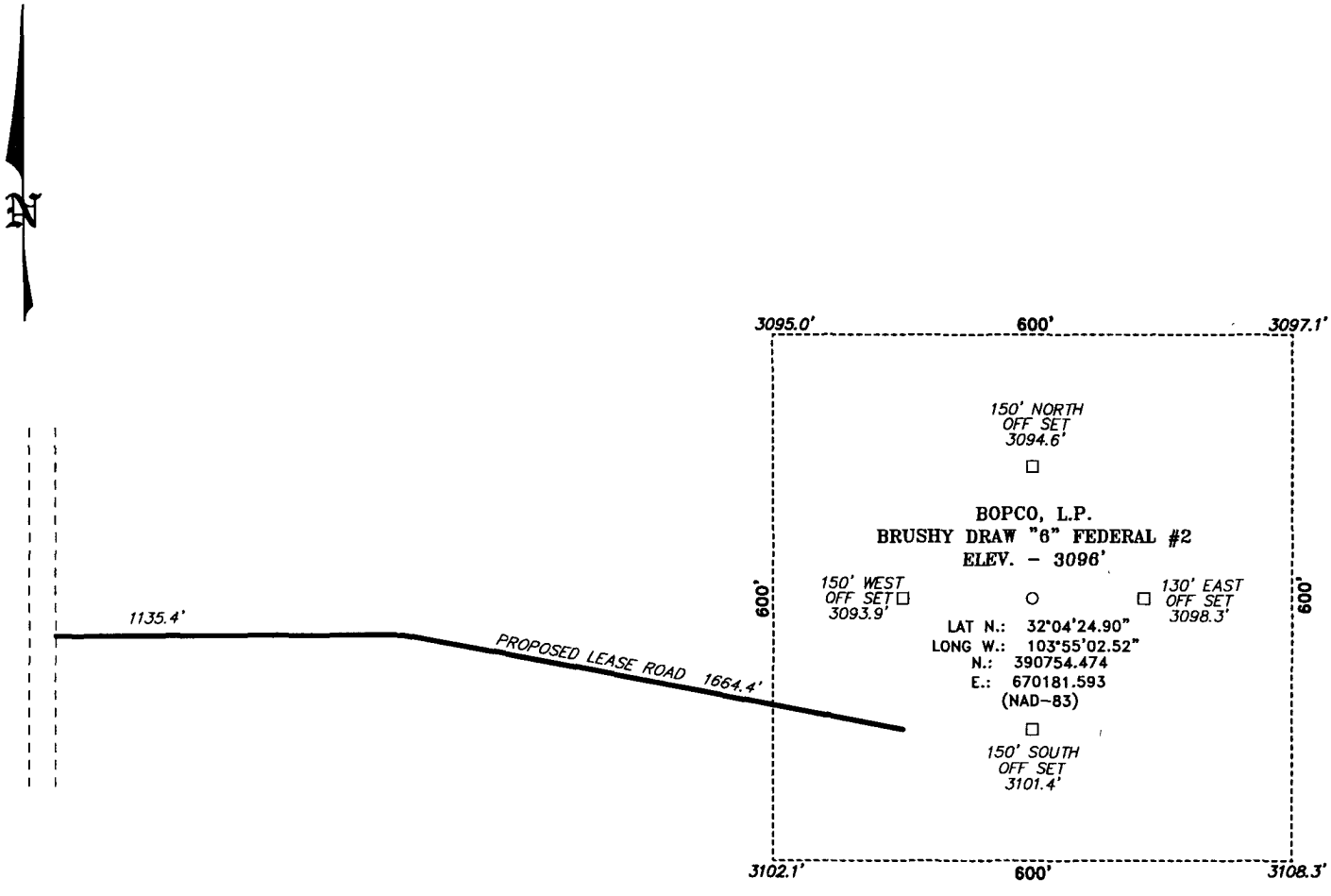
Basin Surveys
focused on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number:	JMS 20589
Survey Date:	09-24-2008
Scale:	1" = 1000'
Date:	10-01-2008

BOPCO, L.P.

SECTION 6, TOWNSHIP 26 SOUTH, RANGE 30 EAST, N.M.P.M.,

EDDY COUNTY, **NEW MEXICO.**



200 0 200 400 FEET

SCALE: 1" = 200'

DIRECTIONS TO LOCATION:

FROM MILE MARKER 4 ON PECOS HWY, GO 0.1 MILES SOUTH TO CO. RD. 725, ON CO. RD. 725 GO 7.4 MILES TO A "Y" STAY ON CO. RD. 725 AND GO 8.9 MILES TO CO. RD. 725A (TARBUSH), ON TARBUSH GO 2.3 MILES TO ELPASO ROAD, ON ELPASO ROAD GO EAST 1.4 MILES TO AN OLD LEASE ROAD, GO NORTH 0.6 MILES TO PROPOSED LOCATION.

BOPCO, L.P.

REF: BRUSHY DRAW "6" FEDERAL #1 / WELL PAD AND TOPO

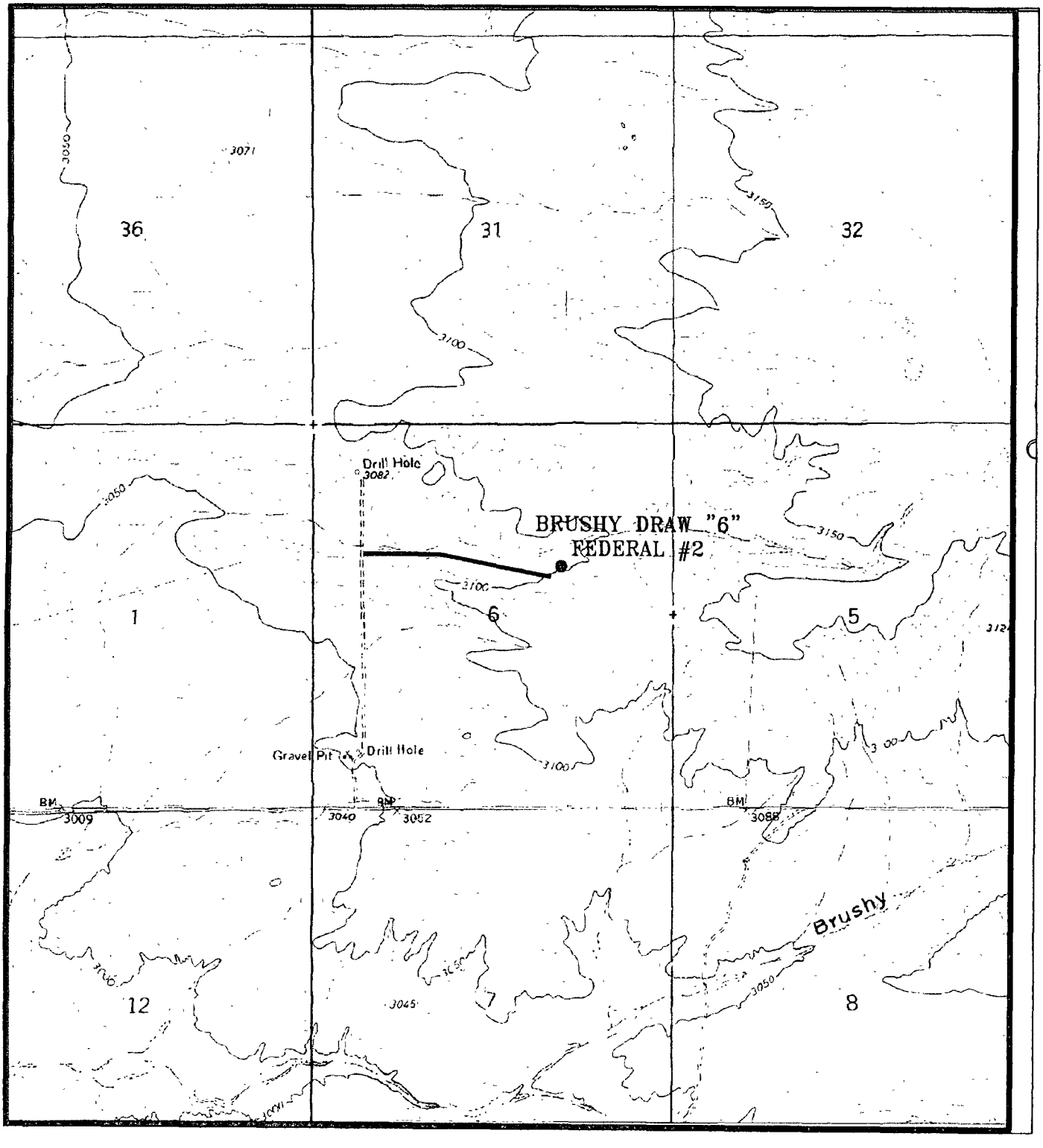
THE BRUSHY DRAW "6" FEDERAL #2 LOCATED 1980' FROM THE NORTH LINE AND 1650' FROM THE EAST LINE OF SECTION 6, TOWNSHIP 26 SOUTH, RANGE 30 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

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

W.O. Number: 20906	Drawn By: J. SMALL		
Date: 01-09-2009	Disk: 20906 JMS	Survey Date: 01-09-2009	Sheet 1 of 1 Sheets

BOPCO, L.P.

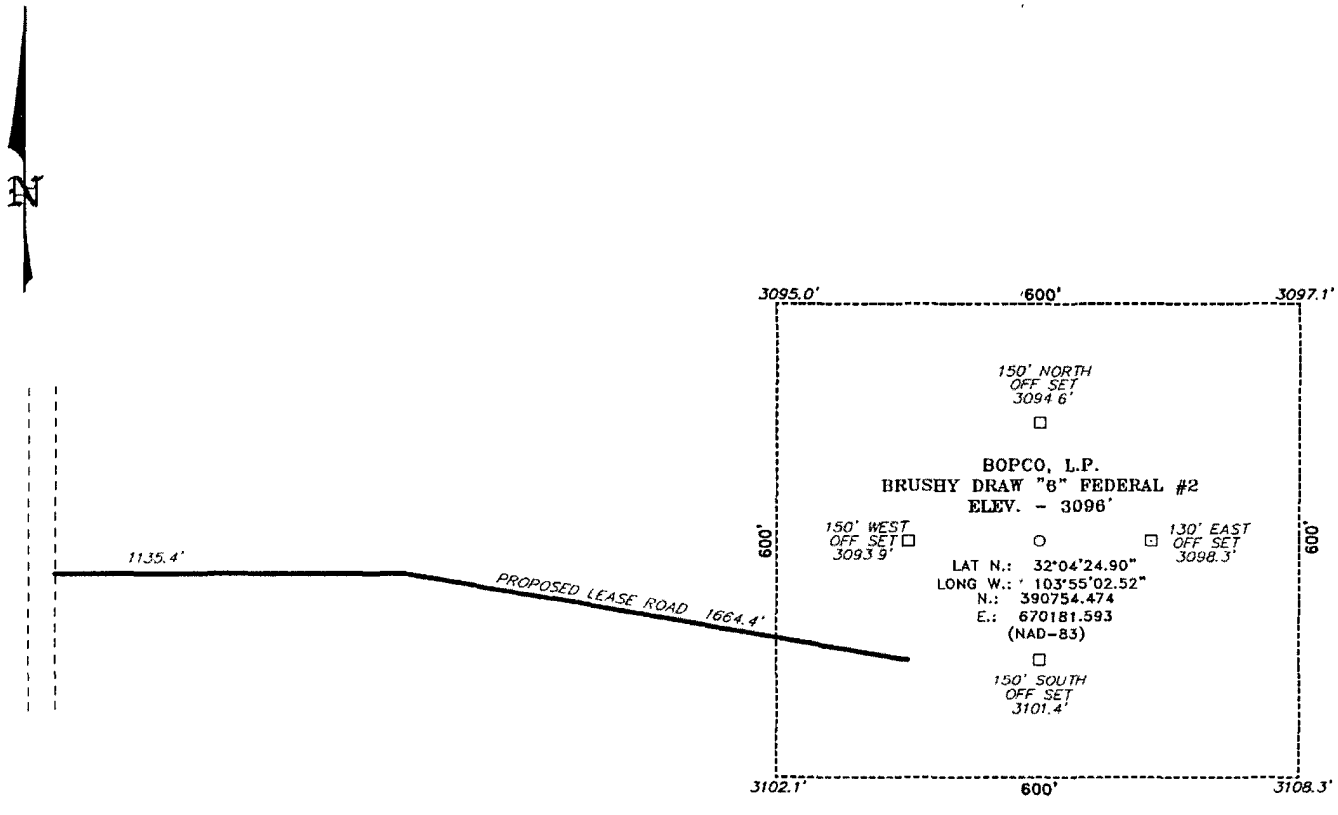
Exhibit 'A'
Proposed Well Site Location



BOPCO, L.P.

Exhibit 'B'
Proposed Access Route

SECTION 6, TOWNSHIP 26 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



200 0 200 400 FEET

SCALE: 1" = 200'

DIRECTIONS TO LOCATION

FROM MILE MARKER 4 ON PECOS HWY, GO 0.1 MILES SOUTH TO CO. RD. 725, ON CO. RD 725 GO 7.4 MILES TO A "Y" STAY ON CO RD 725 AND GO 8.9 MILES TO CO. RD. 725A (TARBUSH), ON TARBUSH GO 2.3 MILES TO ELPASO ROAD, ON ELPASO ROAD GO EAST 1.4 MILES TO AN OLD LEASE ROAD, GO NORTH 0.6 MILES TO PROPOSED LOCATION

BOPCO, L.P.

REF BRUSHY DRAW "6" FEDERAL #1 / WELL PAD AND TOPO

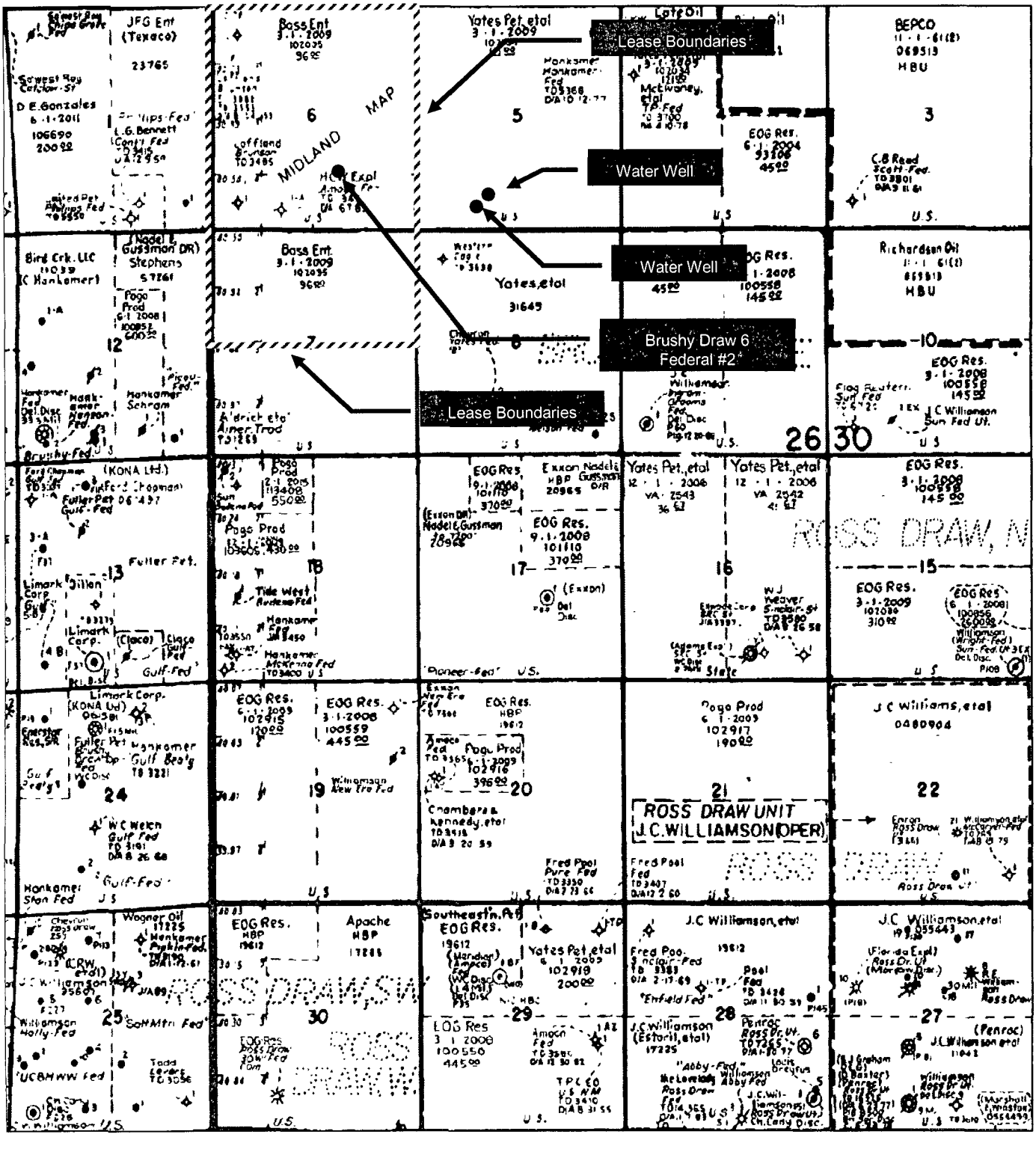
THE BRUSHY DRAW "6" FEDERAL #2 LOCATED 1980'

FROM THE NORTH LINE AND 1650' FROM THE EAST LINE OF

BOPCO L.P.

Exhibit 'C'

Location of Proposed Location, Existing Wells & Water Wells



Surface casing to be set into the Rustler below all fresh water sands.
Production casing will be cemented using Halliburton Class H cement (13.20 ppg & 15.6 ppg) with cement circulated 500' up into the 9-5/8" intermediate casing. Drilling procedure, BOP diagram, anticipated tops and surface plans attached.

This well is located outside the Secretary's Potash area and outside the R-111 Potash area. There are no potash leases within 1 mile of the location.

A Closed Loop Drilling System will be utilized.

Well is orthodox.

EIGHT POINT DRILLING PROGRAM
BOPCO, L.P.

NAME OF WELL: Brushy Draw 6 Federal #2

LEGAL DESCRIPTION - SURFACE: 1980' FNL & 1650' FEL of Section 6, T-26-S, R-30-E, Eddy County, NM.

POINT 1: ESTIMATED FORMATION TOPS

(See No. 2 Below)

POINT 2: WATER, OIL, GAS AND/OR MINERAL BEARING FORMATIONS

Anticipated Formation Tops: KB 3121' (EST) GL 3096'

FORMATION	ESTIMATED TOP FROM KB	ESTIMATED SUBSEA TOP	BEARING
T/Rustler	685'	+2436'	Barren
B/Rustler	1185'	+1936'	Barren
T/Salt	1635'	+1486'	Barren
B/Salt	3185'	-64	Barren
Lamar	3385'	-264'	Oil/Gas
Ramsey Sand	3435'	-314'	Oil/Gas
L. Brushy Canyon	7045'	-3924'	Oil/Gas
Bone Spring Lime	7268'	-4147'	Oil/Gas
Avalon Sand	7408'	-4287'	Oil/Gas
1st Bone Spring Sand	8483'	-5362	Oil/Gas
2nd Bone Spring Sand	9123'	-6011	Oil/Gas
3rd Bone Spring Sand	10384'	-7263	Oil/Gas
T/Wolfcamp	10827'	-7706	Oil/Gas
Middle Wolfcamp A Sand	12084'	-8963	Oil/Gas
Middle Wolfcamp B Sand	12114'	-8993	Oil/Gas
Middle Wolfcamp D Sand	12644'	-9523	Oil/Gas
TD	12850'	-9729'	Oil/Gas

POINT 3: CASING PROGRAM

TYPE	INTERVALS	Hole Size	PURPOSE	CONDITION
16"	0'- 40'	20"	Conductor	Contractor Discretion
11-3/4", 42#, H-40, BT&C	0'- ~~710'~~ see com	14-3/4"	Surface	New
8-5/8", 36#, J-55, LT&C	0'- 3405'	11"	Intermediate	New
5-1/2", 17#, HCP-110, LT&C	0'- 11,600'	7-7/8"	Production	New
5-1/2", 20#, P-110, LT&C	11,600' – 12,850'	7-7/8"	Production	New

CASING DESIGN SAFETY FACTORS:

TYPE	TENSION	COLLAPSE	BURST
11-3/4", 42#, H-40, BT&C	18.65	3.01	5.00
8-5/8", 36#, J-55, LT&C	4.70	1.73	2.35
5-1/2", 17#, HCP-110, LT&C	2.91	1.14	1 95
5-1/2", 20#, P-110, LT&C	28.52	1.61	2.31

DESIGN CRITERIA AND CASING LOADING ASSUMPTIONS:

SURFACE CASING

Tension — A 1.6 design factor utilizing the effects of buoyancy (9.2 ppg).

Collapse — A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0.48 psi/ft). The effects of axial load on collapse will be considered.

Burst — A 1.3 design factor with a surface pressure equal to the fracture gradient at setting depth less a gas gradient to the surface. Internal burst force at the shoe will be fracture pressure a that depth. Backup pressure will be formation pore pressure. In all cases a conservative fracture pressure will be used such that it represents the upper limit of potential fracture resistance up to a 1.0 psi/ft gradient. The effects of tension on burst will not be utilized.

PROTECTIVE CASING

Tension — A 1.6 design factor utilizing the effects of buoyancy (10.2 ppg).

Collapse — A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0 53 psi/ft). The effects of axial load on collapse will be considered.

In the case of development drilling, collapse design should be analyzed using internal evacuation equal to 1/3 the proposed total depth of the well. This criterion will be used when there is absolutely no potential of the protective string being used as a production casing string.

Burst — A 1.0 surface design factor and a 1.3 downhole design factor with a surface pressure equivalent to the fracture gradient at setting depth less a gas gradient to the surface. Internal burst force at the shoe will be fracture pressure at that depth Back pressure will be formation pore pressure. In all cases a conservative fracture pressure will be used such that it represents the upper limit of potential fracture resistance up to a 1.0 psi/ft gradient.

PRODUCTION CASING

Tension — A 1.6 design factor utilizing the effects of buoyancy (10.2 ppg).

Collapse — A 1.0 design factor with full internal evacuation and a collapse force equal to the mud gradient in which the casing will be run (0.48 psi/ft). The effects of axial load on collapse will be considered.

Burst — A 1.25 design factor with anticipated maximum tubing pressure (3529 psig) on top of the maximum anticipated packer fluid gradient. Backup on production strings will be formation pore pressure. The effects of tension on burst will not be utilized.

POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAM) see COA

The blowout preventor equipment will be as shown in the diagram provided and will consist of a double ram type preventer (10,000 psi WP) and a bag type (hydril) annular preventer ~~(5000 psi WP)~~. The same BOPE will be installed on the surface casinghead and on all subsequent casing strings. The BOP stack, choke, kill lines, Kelly cocks, inside BOP, etc. when installed on the surface casinghead will be hydro-tested to 200 psig & 1400 psig by an independent tester. The BOPE when rigged up on the intermediate casing spool will be tested using a test plug to 5000 psig by an independent tester. In addition to the high pressure test, a low pressure test (200 psig) test will be required.

A function test to insure that the preventers are operating correctly will be performed on each trip.

POINT 5: MUD PROGRAM – See COA

DEPTH (see COA)	MUD TYPE	WEIGHT	FV	PV	YP	FL	Ph
0' - ~~710'~~	FW Spud Mud	8.5 - 9.2	38-70	NC	NC	NC	10.0
~~710'~~ - 3405'	Brine Water	9.8 -10.2	28-30	NC	NC	NC	9.5 - 10.5
3405' – 10500'	FW	8.3 – 8.8	28-30	NC	NC	NC	9.5 - 10.5
10500' – 12850'	BW	10.0- 10.2	28-30	NC	NC	NC	9.5 – 10.0

NOTE: May increase vis for logging purposes only.

POINT 6: TECHNICAL STAGES OF OPERATION

A) TESTING

None anticipated.

B) LOGGING

GR-CNL-LDT-AIT from TD to Intermediate casing point. (+/- 3405').
GR-CNL from Intermediate casing point to surface.

C) CONVENTIONAL CORING

None anticipated.

D) CEMENT

INTERVAL	AMOUNT SXS	FILL	TYPE	GALS/SX	PPG	FT^3/SX
SURFACE:						
Lead 0 – 410' (100% excess circ to surface)	230	410	EconoCem HLC + 2.7#/sx Salt	10.25	12.8	1.87
Tail 410' – 710' (100% excess)	215	300	Hal-Cem "C" + 2% $CaCl_2$	6.37	14.8	1.33
INTERMEDIATE:						
Lead 0' – 2905' (100% excess Circ to surface)	825	2905	EconoCem HLC + 2.87 lb/sk salt	10.29	12.8	1.89
Tail 2905' – 3405'	210	500	HalCem C + 1% $CaCl_2$	6.29	14.8	1.35

PRODUCTION: Two stage w/DV tool @ 8000' and circulate cement to 2905'.

Stage 1: Lead 8000' – 9000' (50% excess)	110	1000	Interfill H + 5 pps Gilsonite + 0.125 pps Pol-E-Flake + 0.5% Halad 9 + 0.3% HR-601	13.61	11.90	2.46
Tail 9000' – 12850' (50% excess)	950	3850	Super H + 0.5% Halad 344 + 0.4% CFR3 + 5 pps Gilsonite + 1 pps Salt + 0.3% HR-601	7.73	13.20	1.60
Stage 2: Lead 2905' – 7500' (50% excess)	500	4595	Premium Interfill H + 0.125 pps Pol-E-Flake	14.10	11.90	2.46
Tail 7500' – 8000' (50% excess)	125	500	Premium H Cement + 0.5% Halad 9	5 20	15 6	1 18

POINT 6: TECHNICAL STAGES OF OPERATION - Cont'd

E) DIRECTIONAL DRILLING

No directional services anticipated.

POINT 7: ANTICIPATED RESERVOIR CONDITIONS

Normal pressures are anticipated throughout Delaware section. A BHP of 6815 psi (max) or MWE of 10.2 ppg is expected. Lost circulation may exist in the Delaware Section from 3435'-7268'. No H_sS is anticipated.

POINT 8: OTHER PERTINENT INFORMATION

A) Auxiliary Equipment

Upper and lower kelly cocks. Full opening stab in valve on the rig floor.

B) Anticipated Starting Date

Upon approval

38 days drilling operations

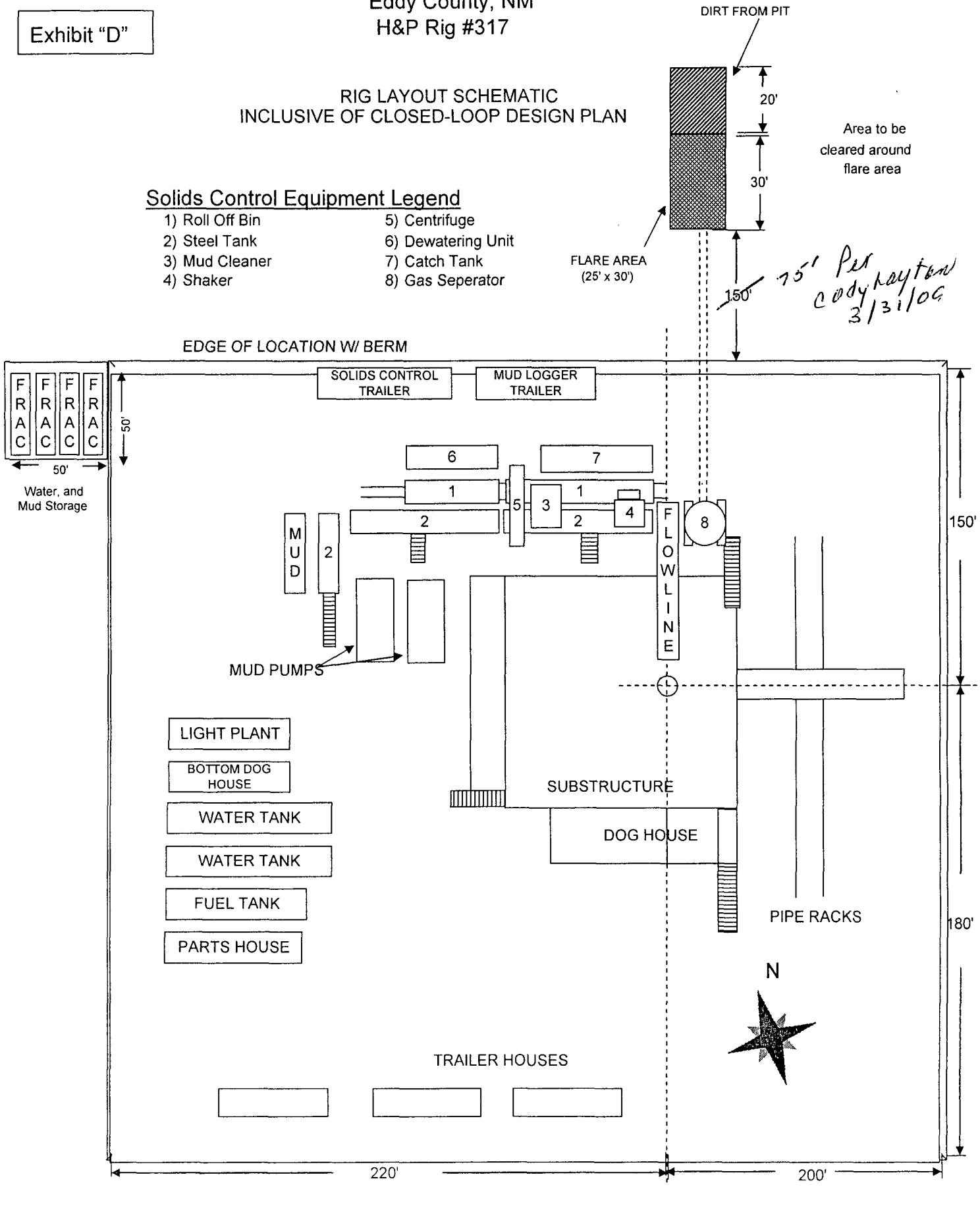
16 days completion operations

GEG/jdb
March 05, 2009

Exhibit "D"

BOPCO, L.P.
Brushy Draw 6 Federal #2
Sec 6, T-26S-R30E
Eddy County, NM
H&P Rig #317

RIG LAYOUT SCHEMATIC
INCLUSIVE OF CLOSED-LOOP DESIGN PLAN

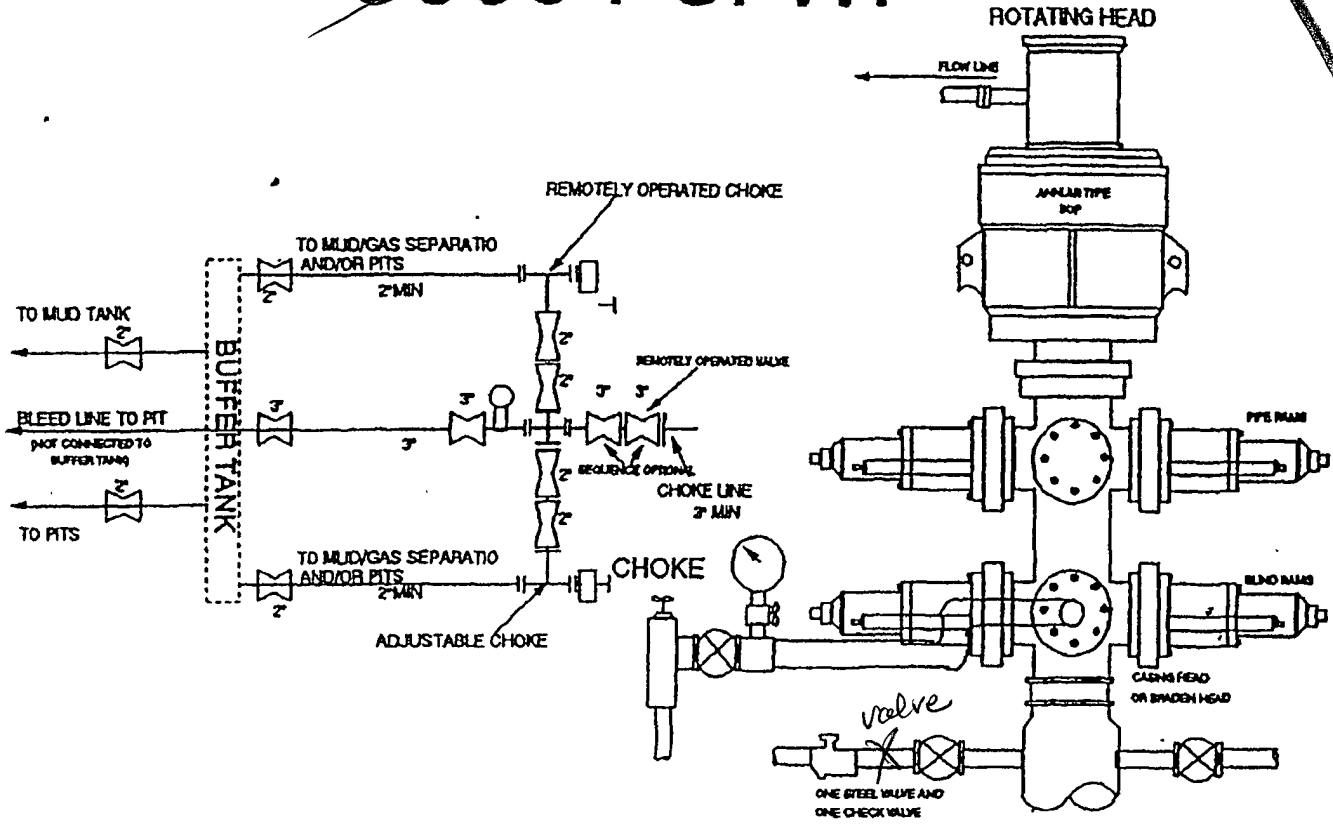


Solids Control Equipment Legend

1) Roll Off Bin
2) Steel Tank
3) Mud Cleaner
4) Shaker
5) Centrifuge
6) Dewatering Unit
7) Catch Tank
8) Gas Seperator

See COA

5000 PSI WP



THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

A. One double gate blowout preventer with lower rams for pipe and upper rams blind, all hydraulically controlled.

B. Opening on preventers between rams to be flanged, studded or clamped and at least two inches in diameter.

C. All connections from operating manifold to preventers to be all steel hose or tube a minimum of one inch in diameter.

D. The available closing pressure shall be at least 15% in excess of that required with sufficient volume to operate (close, open, and re-close) the preventers.

E. All connections to and from preventers to have a pressure rating equivalent to that of the BOP's.

F. Manual controls to be installed before drilling cement plug.

G. Valve to control flow through drill pipe to be located on rig floor.

H. All chokes will be adjustable. Choke spool may be used between rams.

DIAGRAM 1

BOPCO, L.P.

P. O. Box 2760
Midland, Texas 79702

432-683-2277 FAX-432-687-0329

Bureau of Land Management
Carlsbad Field Office
620 East Green Street
Carlsbad, New Mexico 88220-6292

Gentlemen:

BOPCO, L.P. respectfully requests exception to the Prairie Chicken timing restrictions for this location - 1980' FNL, 1650' FEL, of Section 6, T26S, R30E, Eddy County, New Mexico.

Sincerely,

Gary Gerhard,
Drilling Engineer

MULTI-POINT SURFACE USE PLAN

NAME OF WELL: Brushy Draw 6 Federal #2

LEGAL DESCRIPTION - SURFACE: 1980' FNL, 1650' FEL, of Section 6, T-26-S, R-30-E, Eddy County, NM.

POINT 1: EXISTING ROADS

A) Proposed Well Site Location:

See Exhibit A and Survey Plats

B) Existing Roads:

See Survey Plats.

C) Existing Road Maintenance or Improvement Plan:

See Exhibit "B" - the old lease road will have to be improved from the El Paso road to location (Approximately 1/2 mile).

POINT 2: NEW PLANNED ACCESS ROUTE

A) Route Location:

From mile marker 4 on Pecos Hwy, go 0.1 miles south to Co. Rd. 725, on Co Rd 725 go 7.4 miles to a "Y" stay on Co Rd 725 and go 8.9 miles to Co. Rd. 725A (Tarbush), on Tarbush go 2.3 miles to El Paso Road, On El Paso Road go east 1.4 miles to an old lease road, go north 0.6 miles to proposed location.

B) Width

15'

C) Maximum Grade

Grade to match existing topography or as per BLM requirements.

D) Turnout Ditches

Spaced per BLM requirements.

E) Culverts, Cattle Guards, and Surfacing Equipment

If required, culverts and cattle guards will be set per BLM Specs.

F) 2,799.8' of new lease road will have to be built (see Exhibit "B" or survey plats)

POINT 3: LOCATION OF EXISTING WELLS

Exhibit C indicates existing wells within the surrounding area.

POINT 4: LOCATION OF EXISTING OR PROPOSED FACILITIES

A) No existing facilities are located within one mile which are owned or controlled by lessee/operator:

Closest Oil/Gas production facilities are located at Poker Lake Unit #227 wellsite. Poker Lake Unit #227 is located approximately 5 miles northwest of proposed well.

B) New Facilities in the Event of Production:

New production facilities will be built at Brushy Draw 6 Federal #2 wellpad. A separator/treater along with 2-7/8" flowlines will be located on the wellpad. A 2-7/8" gas line will follow existing roads. This gas line is not part of this project and it's approval will be requested at a later date. Initially a gas engine will be used to power pumping unit.

C) Rehabilitation of Disturbed Areas Unnecessary for Production:

Following flowline construction, those access areas required for continued production will be graded to provide drainage and minimize erosion. The areas unnecessary for use will be graded to blend in with the surrounding topography (see Point 10)

POINT 5: LOCATION AND TYPE OF WATER SUPPLY

A) Location and Type of Water Supply

Fresh water will be hauled from Johnson Station 50 miles east of Carlsbad, New Mexico or other commercial facilities. Brine water will be hauled from commercial facilities.

B) Water Transportation System

Water hauling to the location will be over the existing and proposed roads.

POINT 6: SOURCE OF CONSTRUCTION MATERIALS

A) Materials

Caliche will be hauled in from an approved caliche site.

B) Land Ownership

Federally Owned.

C) Materials Foreign to the Site

If onsite caliche is not sufficient, we will haul caliche from a BLM approved site.

D) Access Roads

See Exhibit B.

POINT 7: METHODS FOR HANDLING WASTE MATERIAL

A) Cuttings

Cuttings will be contained in steel pits and hauled to CRI for disposal.

B) Drilling Fluids

Drilling fluids will be contained in steel pits, frac tanks, or will be disposed of at licensed disposed facilities.

C) Produced Fluids

Water production will be contained in the steel pits.

Hydrocarbon fluid or other fluids that may be produced during testing will be retained in test tanks.

D) Sewage

Current laws and regulations pertaining to the disposal of human waste will be complied with.

E) Garbage

Portable containers will be utilized for garbage disposal during the drilling of this well.

F) Cleanup of Well Site

Upon release of the drilling rig, the surface of the drilling pad will be graded to accommodate a completion rig if electric log analysis indicate potential productive zones. Reasonable cleanup will be performed prior to the final restoration of the site.

POINT 8: ANCILLARY FACILITIES

None required.

POINT 9: WELL SITE LAYOUT

A) Rig Orientation and Layout

Exhibit "D" shows the dimensions of the well pad and the location of major rig components. Only minor leveling of the well site will be required. No significant cuts or fills will be necessary.

B) Locations of Closed Loop System and Access Road

See Exhibits "B", "D", & Survey Plats.

C) Lining of the Pits

No reserve pit will be built. Closed loop system will be utilized.

POINT 10: PLANS FOR RESTORATION OF THE SURFACE

A) Reserve Pit Cleanup - Not applicable

The pits will be fenced immediately after construction and shall be maintained until they are backfilled. Previous to backfill operations, any hydrocarbon material on the pits' surfaces shall be removed. The fluids and solids contained in the pits shall be backfilled with soil excavated from the site and soil adjacent to the reserve pits. The restored surface of the pits shall be contoured to prevent impoundment of surface water flow. Water-bars will be constructed as needed to prevent excessive erosion. Topsoil, as available, shall be placed over the restored surface in a uniform layer. The area will be seeded according to the Bureau of Land Management stipulations during the appropriate season following restoration.

B) Restoration Plans - Production Developed

No reserve pits will be used on this location (closed loop system). In addition, those areas not required for production will be graded to blend with the surrounding topography. Topsoil, as available, will be placed upon those areas and seeded. The portion of the site required for production will be graded to minimize erosion and provide access during inclement conditions. Following depletion and abandonment of the site, restoration procedures will be those that follow under Item C.

C) Restoration Plans - No Production Developed

With no production developed, the entire surface disturbed by construction of the well site will be restored. The site will be contoured to blend with the surrounding topography and provide drainage of surface water. The topsoil, as available, shall be replaced in a uniform layer and seeded according to the Bureau of Land Management's stipulations.

D) Rehabilitation's Timetable

Upon completion of drilling operations, the initial cleanup of the site will be performed as soon as weather and site conditions allow economic execution of the work.

POINT 11: OTHER INFORMATION

A) Terrain

Relatively flat.

B) Soil

Caliche and sand.

C) Vegetation

Sparse, primarily grasses and mesquite with very little grass.

D) Surface Use

Primarily grazing.

E) Surface Water

There are no ponds, lakes, streams or rivers within several miles of the wellsite.

F) Water Wells

There are two water wells in Sec 5, T26S, R30E approximately 1-1/2 to 2 miles southeast of Brushy Draw 6 Federal #2. (See Exhibit "C")

G) Residences and Buildings

None in the immediate vicinity.

H) Historical Sites

None observed.

I) Archeological Resources

An archeological survey will be obtained for this area. Before any construction begins, a full and complete archeological survey will be submitted to the Bureau of Land Management. Any location or construction conflicts will be resolved before construction begins.

J) Surface Ownership

The well site is on federally owned land.

K) Well signs will be posted at the drilling site.

L) Open Pits

All pits containing liquid or mud will be fenced and bird-netted.

POINT 12: OPERATOR'S FIELD REPRESENTATIVE

(Field personnel responsible for compliance with development plan for surface use).

DRILLING
William R. Dannels
Box 2760
Midland, Texas 79702
(432) 683-2277

PRODUCTION
Dean Clemmer
3104 East Green Street
Carlsbad, New Mexico 88220
(505) 887-7329

Carlos Cruz
Box 2760
Midland, Texas 79702
(432) 683-2277

3/11/09
Date

Gary E. Gerhard

GEG/jdb

OPERATOR CERTIFICATION

I hereby 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 the plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by BEPCO, L.P. and it's 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.

3/11/09
Date

Gary E. Gerhard
Gary E. Gerhard

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	BOPCO LP
LEASE NO.:	NM102035
WELL NAME & NO.:	2 Brushy Draw 6 Fed
SURFACE HOLE FOOTAGE:	1980' FNL & 1650' FEL
BOTTOM HOLE FOOTAGE	Same
LOCATION:	Section 6, T. 26 S., R 30 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

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**
  - Hydrology
- ☒ **Construction**
  - Notification
  - Topsoil
  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- ☒ **Road Section Diagram**
- ☒ **Drilling**
  - **FIT required below intermediate casing**
  - **10M BOP & BOPE required**
- ☐ **Production (Post Drilling)**
  - Well Structures & Facilities
  - Pipelines
  - Electric Lines
- ☒ **Closed Loop System/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)

Brushy Draw 6 Federal # 2: Closed Loop System- V- Door East

BERMING

The north side of the proposed well pad location will need to be bermed. This will help to prevent any spills or leaks on location from running into the drainage to the north of the pad location.

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 shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

C. Closed Loop System

Brushy Draw 6 Federal # 2: Closed Loop System- V- Door East

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.

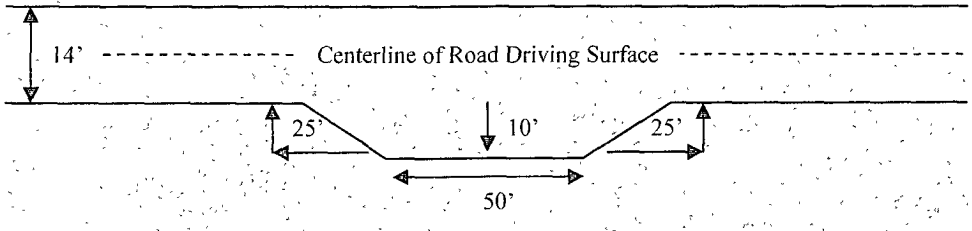
Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

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:

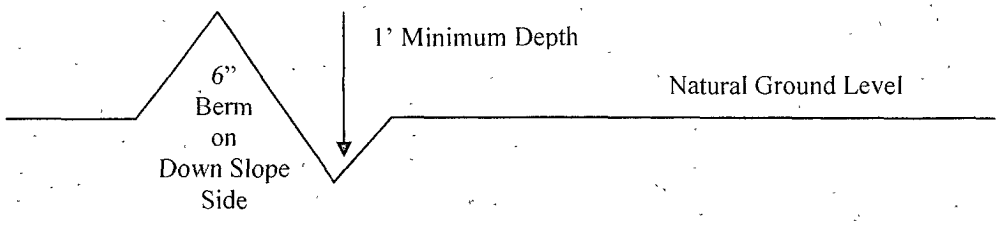
Standard Turnout – Plan View



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.

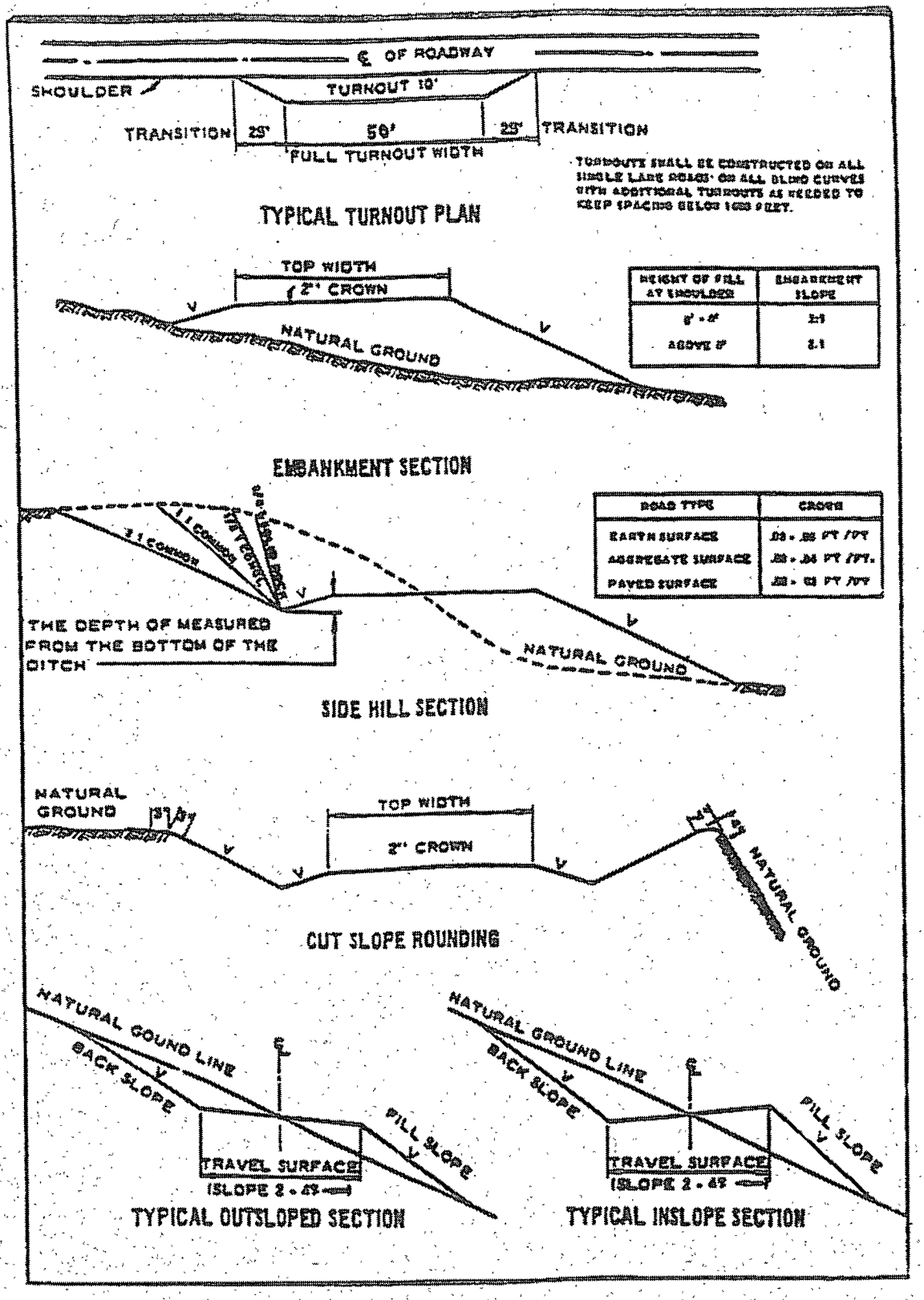
A gate shall be constructed and fastened securely to H-braces.

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 Hydrogen Sulfide has not been reported in this section, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts 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.

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.

Medium cave/karst.
Possible Rustler debris flow.
Possible lost circulation in the Delaware and Bone Spring formations.
High pressure in the Wolfcamp formation.

1. The **11-3/4** inch surface casing shall be set at approximately **900 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface. **Fresh water mud to be used to setting depth of surface casing.**

    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. **To be set in the Lamar Limestone at approximately 3,350 to 3,400 feet. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst concerns.**

Formation below the 8-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

If the formation fails the formation integrity test, then a second string of intermediate casing will be required.

If 75% or greater lost circulation occurs while drilling the intermediate casing hole, the cement on the production casing must come to surface.

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 should tie-back at least **500** feet into previous casing string. Operator shall provide method of verification.

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.

C. PRESSURE CONTROL

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

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

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 8-5/8 intermediate casing shoe shall be **10000 (10M) psi. The BLM geologist has determined that the Wolfcamp formation in this area could reach bottom hole pressures of 8,400 psi with surface pressures possibly reaching 5,600 psi.**

10M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

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

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

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

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

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

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

f. **Effective November 1, 2008, no variances will be granted on reduced pressure tests on the surface casing and BOP/BOPE. Onshore Order 2 requirements will be in effect.**

D. DRILLING MUD

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

Proposed mud weight may not be adequate for drilling through Wolfcamp.

E. DRILL STEM TEST

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

RGH 051509

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

B. PIPELINES

C. ELECTRIC LINES

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.

BLM SERIAL #:
COMPANY REFERENCE:
WELL # & NAME:

Seed Mixture 2, for Sandy 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 see 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
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*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.