

Form 3160-3
(April 2004)

OCD Artesia

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

5a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER NONOS		5. Lease Serial No. LEI 069144
6a. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other Injection <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
7. Name of Operator BOPCO, L. P.		7. If Unit or CA Agreement, Name and No. NM68294X
8a. Address P. O. Box 2760 Midland, TX 79702		8. Lease Name and Well No. BEU 29 Fed #1 SWD <315062>
8b. Phone No. (include area code) 432-683-2277		9. API Well No. 30-015-43253
9. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface SWSW,UL M, 980' FSL,450' FWL, Lat:N 32.445717,Long:W104.013311 At proposed prod. zone		10. Field and Pool, or Exploratory Wildcat (Devonian)
10. Distance in miles and direction from nearest town or post office* 5 1/2 miles south of Halfway, NM		11. Sec., T. R. M. or Blk. and Survey or Area Sec 29 T21S-R29E, Mer, NMPM
11. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 450'	12. No. of acres in lease 1620.86 2020.26	12. County or Parish Eddy
13. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2092' (BEU #42)	13. Proposed Depth 14,800' TVD	13. State NM
14. Elevations (Show whether DF, KDB, RT, GL, etc.) 3295'	14. Approximate date work will start* 02/01/2012	14. Estimated duration 93 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 <i>William R. Dannels</i>	Name (Printed/Typed) William Dannels	Date 1/6/12
Title Sr Drilling Advisor		

Approved by (Signature) <i>Ed Fernandez for Steve Coffey</i>	Name (Printed/Typed) Ed Fernandez	Date JUL 20 2015
Title FIELD MANAGER		Office CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.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)

Carlsbad Controlled Water Basin

NM OIL CONSERVATION
ARTESIA DISTRICT

JUL 29 2015

AKD
7/31/2015

Approval Subject to General Requirements
& Special Stipulations Attached

RECEIVED
SEE ATTACHED FOR
CONDITIONS OF APPROVAL

BOPCO, L.P.

**P. O. Box 2760
Midland, Texas 79702**

432-683-2277

FAX-432-687-0329

December 20, 2011

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

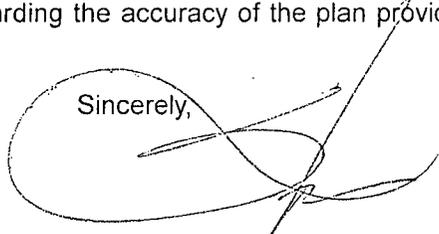
Attn: Mr. Don Peterson – Assistant Field Manager, Minerals

RE: APPLICATION FOR PERMIT TO DRILL
BIG EDDY UNIT 29 FEDERAL #1 SWD
980' FSL, 450' FWL, SEC. 29, T21S, R29E, EDDY COUNTY, NM

Dear Mr. Peterson,

In reference to the above captioned well, 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 attached eight point drilling plan and multi-use surface plan are, to the best of my knowledge, true and correct; and that the work associated with operations proposed herein will be performed by BOPCO, 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.

If you have any questions regarding the accuracy of the plan provided herein, please do not hesitate to contact me at (432) 683-2277.

Sincerely,


Stephen M. Martinez
Division Drilling Superintendent

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

Form C-102
Revised July 16, 2010

Submit one copy to appropriate
District Office

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number 30-015-43253	Pool Code (97864) 96101	Pool Name SWD; Wildcat (Devonian)
Property Code 315062	Property Name BIG EDDY UNIT "29" FEDERAL	Well Number 1 SWD
OGRID No. 260737	Operator Name BOPCO, L.P.	Elevation 3295'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	29	21 S	29 E		980	SOUTH	450	WEST	EDDY

Bottom Hole Location if Different from Surface

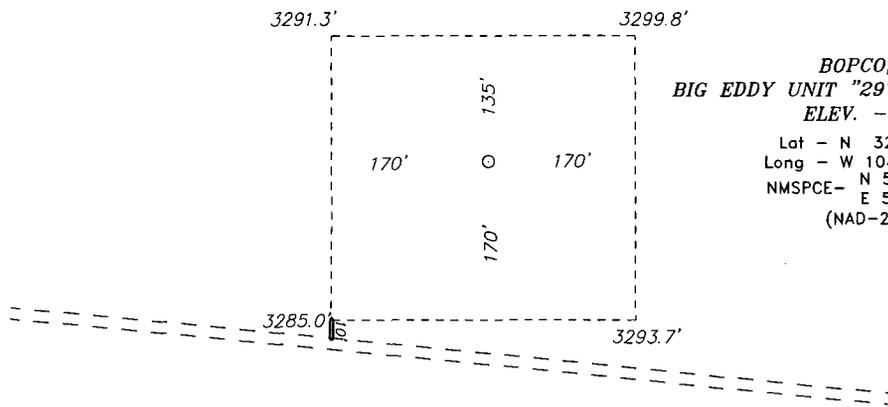
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
0			

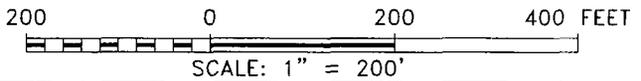
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>450' 980'</p>	<p>SURFACE LOCATION Lat - N 32°26'44.58" Long - W 104°00'47.92" NMSPC- N 526013.133 E 598722.856 (NAD-27)</p>	<p>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 or has a right to drill this well at this 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.</p> <p><i>William L. Dannels 11/13/10</i> Signature Date</p> <p>William Dannels Printed Name WRDannels@basspet.com Email Address</p>
		<p>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.</p>
		<p>NOVEMBER 10 2010 Date Surveyed</p> <p><i>GARY L. JONES</i> Signature & Seal of Professional Surveyor 7977</p>
		<p>Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS 25470</p>

SECTION 29, TOWNSHIP 21 SOUTH, RANGE 29 EAST, N.M.P.M.,
 EDDY COUNTY, WELL PAD LAYOUT NEW MEXICO.



BOPCO, L.P.
BIG EDDY UNIT "29" FEDERAL #1 SWD
 ELEV. - 3295'
 Lat - N 32°26'44.58"
 Long - W 104°00'47.92"
 NMSPCE- N 526013.133
 E 598722.856
 (NAD-27)



Directions to Location:

FROM THE JUNCTION OF 62-180 AND STATE 31, GO SOUTH ON STATE 31 FOR 6.0 MILES TO LEASE ROAD, ON LEASE ROAD GO WESTERLY 5.0 MILES TO PROPOSED LOCATION.

BOPCO, L.P.

REF: BIG EDDY UNIT "29" FEDERAL #1 SWD / WELL PAD TOPO

THE BIG EDDY UNIT "29" FEDERAL #1 SWD LOCATED .980' FROM THE SOUTH LINE AND 450' FROM THE WEST LINE OF SECTION 29, TOWNSHIP 21 SOUTH, RANGE 29 EAST,

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

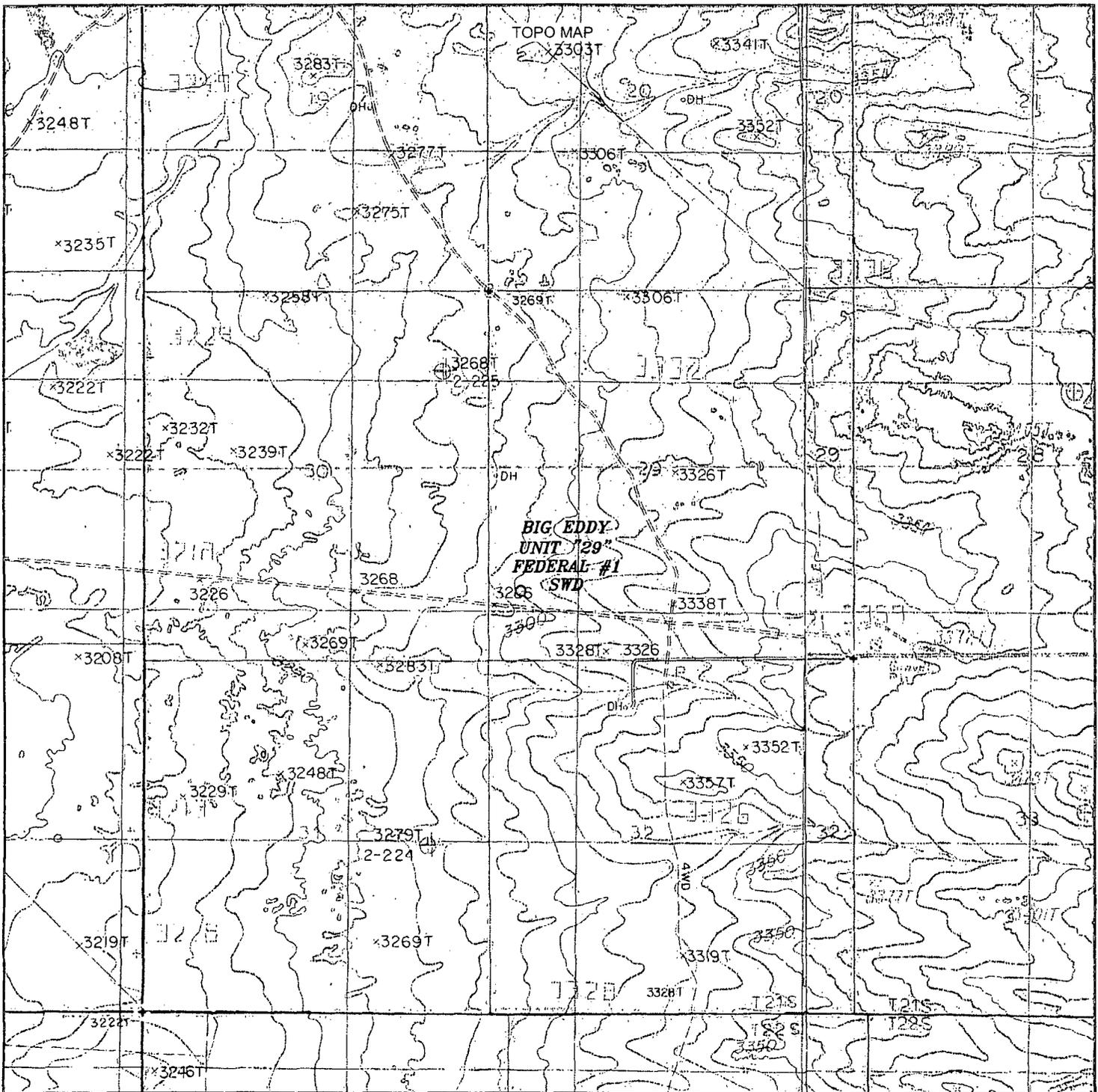
BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 25470 Drawn By: J. SMALL

Date: 11-14-2011 Disk: JMS 25470

Survey Date: 11-04-2011

Sheet 1 of 1 Sheets



BIG EDDY UNIT "29" FEDERAL #1 SWD
 Located 980' FSL and 450' FWL
 Section 29, Township 21 South, Range 29 East,
 N.M.P.M., Eddy County, New Mexico.



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 25470

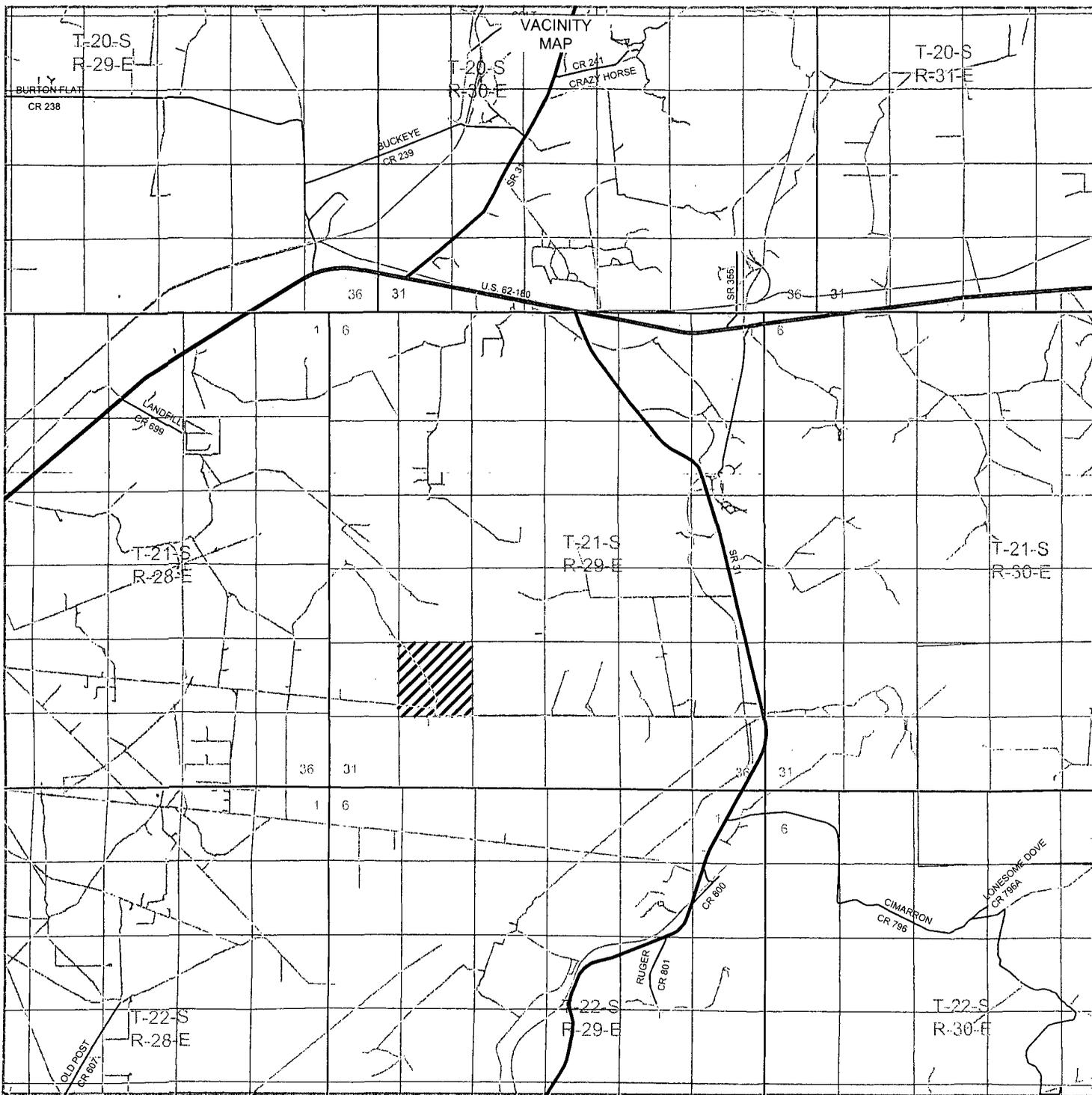
Survey Date: 11-04-2011

Scale: 1" = 2000'

Date: 11-14-2011

BOPCO, L.P.

Sheet 2 of 6 Sheets



BIG EDDY UNIT "29" FEDERAL #1 SWD
 Located 980' FSL and 450' FWL
 Section 29, Township 21 South, Range 29 East,
 N.M.P.M., Eddy County, New Mexico.

basin
surveys
 focused on excellence
 in the oilfield

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

W.O. Number: JMS 25470

Survey Date: 11-04-2011

Scale: 1" = 2 Miles

Date: 11-14-2011

BOPCO, L.P.

Sheet 3 of 6 Sheets

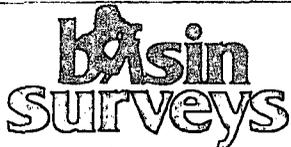
AERIAL MAP

T21S
R29E

**BIG EDDY
UNIT "29"
FEDERAL #1
SWD**

T22S
R29E

BIG EDDY UNIT "29" FEDERAL #1 SWD
Located 980' FSL and 450' FWL
Section 29, Township 21 South, Range 29 East,
N.M.P.M., Eddy County, New Mexico.



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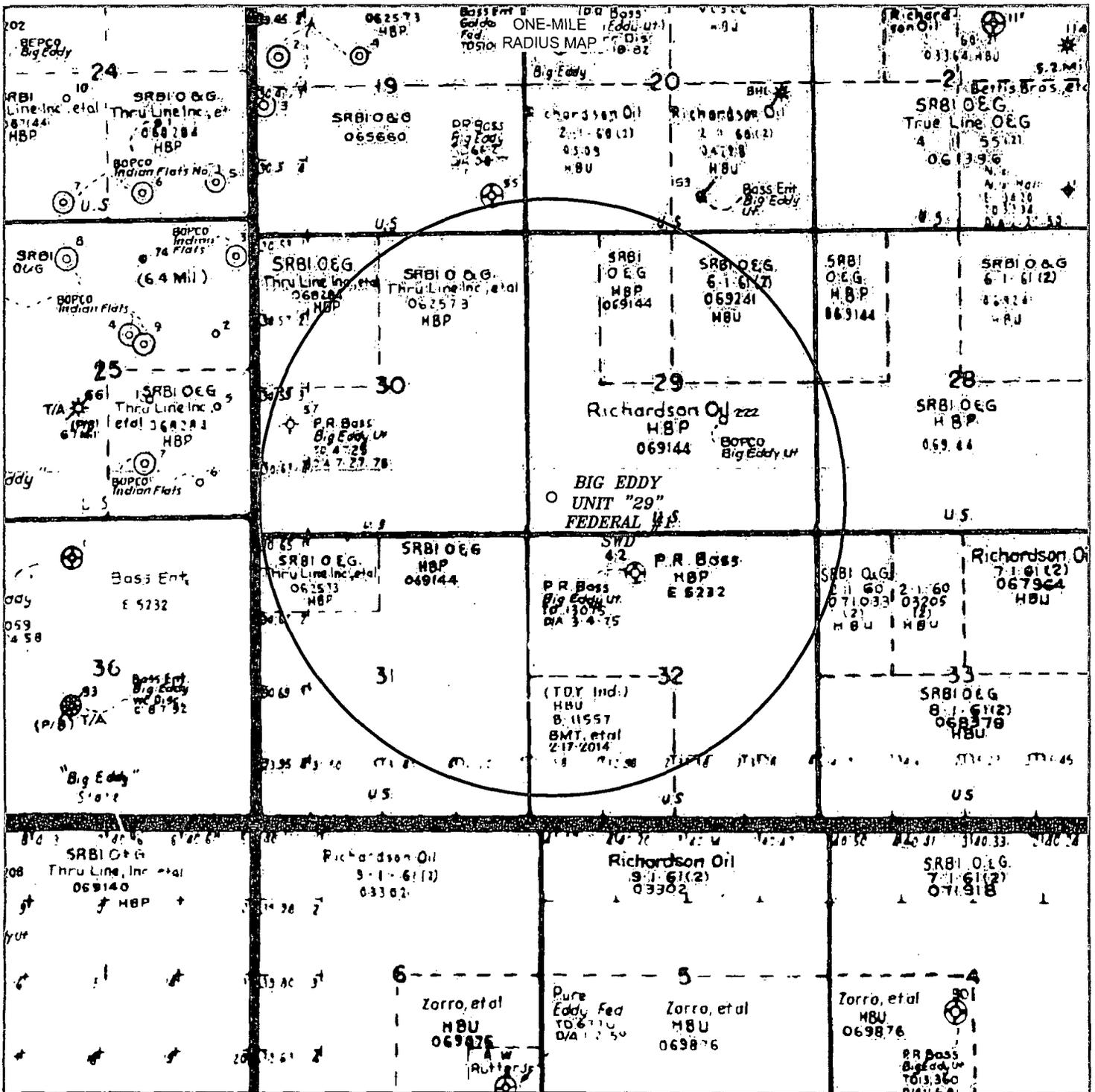
W.O. Number: JMS 25470

Scale: 1" = 2000'

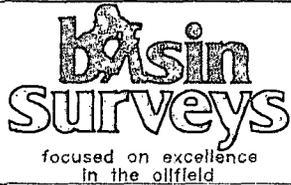
YELLOW TINT - USA LAND
BLUE TINT - STATE LAND
NATURAL COLOR - FEE LAND

BOPCO, L.P.

Sheet 4 of 6 Sheets



BIG EDDY UNIT "29" FEDERAL #1 SWD
 Located 980' FSL and 450' FWL
 Section 29, Township 21 South, Range 29 East,
 N.M.P.M., Eddy County, New Mexico.



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 25470

Scale: None

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

BOPCO, L.P.

Sheet 5 of 6 Sheets

20" OD surface casing is to be set into the Rustler below all fresh water sands at an approximate depth of 480'. Cement will be circulated to surface.

13-3/8" OD intermediate casing will be set below the salt beds and above the Delaware at 2945'.

9-5/8" OD protection/production casing will be set at approximately 10,500' and cemented in two stages with DV Tool set at approximately 6,000'. A 7-5/8" production liner will be set in the top of the Devonian at approximately 14,050' and a 6-1/2" open hole will be drilled to the PTD. Cement will be circulated to surface.

Drilling procedure, BOP diagram, and anticipated tops are attached.

This well is located outside the R111 Potash area and outside the Secretary's Potash area.

The surface location is nonstandard and located inside the Big Eddy Unit.

BOPCO, L.P., at P. O. Box 2760, Midland, TX, 79702 is a subsidiary of BOPCO, L.P., 201 Main Street, Ft. Worth, TX, 76102. Bond No. COB000050 (Nationwide).

EIGHT POINT DRILLING PROGRAM BOPCO, L.P.

NAME OF WELL: Big Eddy Unit 29 Federal SWD #1

LEGAL DESCRIPTION - SURFACE: 210' FSL, 2505' FEL, Section 29, T21S, R29E, 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 3355' (estimated)
GL 3329'

ESTIMATED TOPS

<u>FORMATION/MARKER</u>	<u>FROM KB (FT)</u>	<u>EST SUBSEA</u>	<u>BEARING</u>
	<u>TVD</u>	<u>TOP (FT)</u>	
T/Fresh Water	226	+3,129	Fresh Water
T/Salt	495	+2,860	Barren
B/Salt	2,835	+520	Barren
T/Delaware Mtn Group	2,945	+410	Oil/Gas
T/First Delaware Sand	3,070	+285	Oil/Gas
T/Bone Spring Lime	6,695	-3,340	Oil/Gas
T/Wolfcamp	10,010	-6,655	Oil/Gas
T/Strawn	11,255	-7,900	Oil/Gas
T/Atoka	11,495	-8,140	Oil/Gas
T/Morrow	12,170	-8,815	Oil/Gas
T/Mid Morrow	12,430	-9,075	Oil/Gas
T/Lwr Morrow	12,745	-9,390	Oil/Gas
T/Devonian	14,035	-10,680	Brine Water
PTD	14,800	-11,445	

See COA

POINT 3: CASING PROGRAM

<u>TYPE</u>	<u>INTERVALS (MD)</u>	<u>HOLE SIZE</u>	<u>PURPOSE</u>	<u>CONDITION</u>
30", 157.68#, X52, PE	0'-80'	36"	Conductor	Unspecified
20", 94#, J-55, BTC	0'-480' ⁴²⁰	26"	Surface	New
13-3/8", 68#, HCK55, BTC	0'-2,945'	17-1/2"	Intermediate	New
9-5/8", 53.50#, L-80, LTC	0'-10,500'	12-1/4"	Prot/Production	New
7-5/8", 39#, P-110, Ultra FJ	10,200'-14,050'	8-1/2"	Production Liner	New
Open hole	14,050'-14,800'	6-1/2"	NA	NA

CASING DESIGN SAFETY FACTORS:

<u>TYPE</u>	<u>TENSION</u>	<u>COLLAPSE</u>	<u>BURST</u>
30", 157.68#, X52, PE	238.8	3.30	19.0
20", 94#, J-55, BTC	473.86	2.55	5.28
13-3/8", 68#, HCK55, BTC	8.68	1.73	1.08
9-5/8", 53.50#, L-80, LT&C	2.10	1.16	1.32
7-5/8", 39#, P-110, Ultra FJ	5.82	1.14	1.46

~~4 1/2", 12.75#, L80, RTS-8~~ *open hole completion*

DESIGN CRITERIA AND CASING LOADING ASSUMPTIONS:SURFACE CASING - (20")

Tension	A 1.6 design factor utilizing the effects of buoyancy (9.8 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 (0.51 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 at 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.

INTERMEDIATE CASING - (13-3/8")

Tension	A 1.6 design factor utilizing the effects of buoyancy (10.5 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 (0.55 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. 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.

PROTECTIVE/PRODUCTION CASING - (9-5/8")

Tension	A 1.6 design factor utilizing the effects of buoyancy (10.0 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 (0.52 psi/ft). The effects of axial load on collapse will be considered.
Burst	A 1.25 design factor with anticipated maximum tubing pressure (6000 psig) on top of the maximum anticipated packer fluid gradient. (9.5 ppg or 0.49 psi/ft) Backup on production strings will be formation pore pressure. (0.433 psi/ft) The effects of tension on burst will not be utilized.

PRODUCTION LINER - (7-5/8")

Tension	A 1.6 design factor utilizing the effects of buoyancy (11.2 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 (0.58 psi/ft). The effects of axial load on collapse will be considered.
Burst	A 1.25 design factor with anticipated maximum tubing pressure (6000 psig) on top of the maximum anticipated packer fluid gradient. (0.44 psi/ft) Backup on production strings will be formation pore pressure. (0.58 psi/ft) The effects of tension on burst will not be utilized.

POINT 4: PRESSURE CONTROL EQUIPMENT (SEE ATTACHED DIAGRAM)

The BOPE when rigged up on the 20" surface casing head (17-1/2" open hole) will consist of 20" hydril and diverter system per Diagram 1 (2,000 psi WP). When installed on the surface casing head, the hydril when installed on surface casing will be tested to 1,000 psi.

The BOPE when rigged up on the 13-3/8" intermediate casing spool (12-1/4" open hole) will consist of 13-5/8" x 10,000 psi annular, 13-5/8" x 10,000 psi (double ram pipe and blind rams) with mud cross and 13-5/8" X 10,000# single ram (pipe); choke manifold and chokes as in Diagram 2. The pipe and blind rams, choke, kill lines, kelly cocks, inside BOP, etc will be tested to 5,000 psig by an independent tester. In addition to the high pressure test, a low pressure test (250 psig) test will be required. Hydril will be tested to 2,500 psig.

The BOPE when rigged up on the 9-5/8" intermediate casing spool (8-1/2" open hole) will consist of 11" x 10,000 psi annular, 13-5/8" x 10,000 psi (double ram pipe and blind rams) with mud cross and 13-5/8" X 10,000# single ram (pipe); choke manifold and chokes as in Diagram 3. The pipe and blind rams, choke, kill lines, kelly cocks, inside BOP, etc will be tested to 10,000 psig by an independent tester. In addition to the high pressure test, a low pressure test (250 psig) test will be required. Hydril will be tested to 2,500 psig.

These tests will be performed:

- a) Upon installation
- b) After any component changes
- c) Thirty days after a previous test
- d) As required by well conditions

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

Please refer to Diagrams 2 & 3 for choke manifold and closed loop system layout.

variance
BOPCO, LP is requesting an ~~exception~~ to utilize a 3 1/2" ID, 10,000 psi WP, armored flex hose to be installed between the BOP stack and choke manifold in the drilling of this well. The hose has passed a hydrostatic test to 15,000 psi by Midwest Hose & Specialty, Inc. The 40' hose, serial number 7496, has 10,000 psi swedged fittings. This well will be drilled to a maximum TVD of 14,500' and a maximum surface pressure should be +/- 5,000 psi. We will still be utilizing 10M BOP equipment of Latshaw Rig 7. Please see attached documents for certifications, test reports, BOP Schematic and choke manifold schematic.

POINT 5: MUD PROGRAM

See COA

DEPTH	MUD TYPE	WEIGHT	FV	PV	YP	FL	Ph
0' - 480' <i>420</i>	FW Spud Mud	8.5 - 9.2	38-70	NC	NC	NC	10
480' - 2,945'	Brine Water	9.8 - 10.2	28-30	NC	NC	NC	9.5 - 10.5
2,945' - 10,500'	FW/Gel	8.7 - 9.5	28-36	NC	NC	NC	9.5 - 10.0
10,500' - 14,050'	BW/XCD/Starch	9.5 - 11.2	36-45	10	10	<10	9.5 - 10.0
14,050' - 14,800'	Brine Water	9.8 - 10.2	28-30	NC	NC	NC	10.0 - 11.0

NOTE: May increase vis for logging purposes only.

RECEIVED

2012 JUN 27 AM 10:31

BUREAU OF LAND MGMT
CARLSBAD FIELD OFFICE

POINT 6: TECHNICAL STAGES OF OPERATION

A) TESTING

None anticipated.

B) LOGGING

Resistivity
Run #1 @ 10,500': GR/CNL/LDT - ~~Restively~~-Sonic with GR/CNL to surface.

Run #2 @ 14,050': GR/CNL/LDT - ~~Restively~~-Sonic.

Run #3 @ 14,800': GR/CNL/LDT - ~~Restively~~-Sonic.

Mud Logger: RU mud logger at 100' to pick T/salt and 2500' to TD.

C) CONVENTIONAL CORING

None anticipated.

D) CEMENT

	<u>INTERVAL</u>	<u>SKS</u>	<u>FILL</u>	<u>TYPE</u>	<u>GAL/SK</u>	<u>PPG</u>	<u>FT³/SK</u>
<i>20"</i>	SURFACE: Cement to surface.						
	LEAD: 0' - 180'	330	180	HalCem-C + 4% Bentonite	8.63	13.7	1.66
	EXCESS: 100%						
	TAIL: 180' - 480'	675	300	HalCem-C + 1% CaCl ₂	6.36	14.8	1.34
	EXCESS: 100%						
<i>13 3/8"</i>	INTERMEDIATE: Cement to surface.						
	LEAD: 0' - 2,445'	1880	2445	EconoCem-HLC + 3% Salt	9.65	12.9	1.81
	EXCESS: 100%						
	TAIL: 2,445' - 2,945'	575	500	HalCem-C + 0.4% Halad-9	6.31	14.8	1.33
	EXCESS: 100%						
<i>9 5/8"</i>	PROT/PRODUCTION: Cement to surface.						
	Stage 1:						
	LEAD: 6,000' - 9,500'	730	3500	VersaCem-H + 8% Bentonite + 0.2% HR-800	12.68	11.9	2.26
	EXCESS: 50%						
	TAIL: 9,500' - 10,500'	425	1000	HalCem-H + 0.6% Halad-9 + 0.2% HR-800	4.86	15.85	1.17
	EXCESS: 50%						
	DV Tool @ 6,000'						

Stage 2:

LEAD:	2,500' - 5,500'	450	3000	Tuned Light + 0.15 pps Salt	14.70	9.7	3.21
EXCESS:	50%						
	0						
TAIL:	5,500' - 6,000'	100	500	HalCem-H + 0.47% Halad-9	6.31	14.8	1.33
EXCESS:	50%						
PROD LINER:	10,200' - 14,050'	1000	3850	VersaCem-H + 0.5% Halad-344 + 0.4% HR-601 + 0.3% CFR-3 + 3 pps KCL	5.66	14.4	1.27
EXCESS:	50%						

Cement excesses will be as follows:

Surface – 100% excess with cement circulated to surface.

Intermediate – 50% excess above fluid caliper with cement circulated to surface.

Production – 50% excess above gauge hole or 35% above electric log caliper with cement circulated 500' p into the 9-5/8" intermediate casing in areas outside the SOPA. Cement will be circulated to surface on areas inside the SOPA.

Cement volumes will be adjusted proportionately for depth changes of the multi stage tool.

E) DIRECTIONAL DRILLING

BOPCO, L. P. plans to drill a straight hole to PTD.

F) H₂S Safety Equipment

As stated in the BLM Onshore Order 6, for wells located in the SOPA, H₂S equipment will be rigged up after setting surface casing. For the wells located inside the SOPA the flare pit or ½ steel pits will be located 150' from the location. For wells located outside the SOPA the flare pit or ½ steel pit will be located 100' away from the location. **(See page 6 of Survey plat package)** There is not any H₂S anticipated in the area, although in the event that H₂S is encountered, the H₂S contingency plan attached will be implemented. **(Please refer to diagram 2 for choke manifold and closed loop system layout.)**

POINT 7: ANTICIPATED RESERVOIR CONDITIONS

Normal pressures are anticipated throughout Delaware section. Lost circulation may exist in the Delaware Section from 2945'-6695' TVD. Once in the Bone Spring, pore pressures will gradually increase to the top of the Wolfcamp. 9-5/8" casing will be set in the Middle Wolfcamp and pore pressures will again increase through the Strawn and Atoka sections. A 7-5/8" production liner will be set into the Devonian with mud weights at 11.2 ppg or less. The Devonian can be drilled with 9.5 ppg cut brine water. Maximum bottomhole pressures in the Devonian if productive could be 6079 psi with 7500 ppm H₂S and 5% CO₂; however, we anticipate drilling down dip in a non-productive area. There is no Devonian production within +/- 10 miles.

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

86 days drilling operations

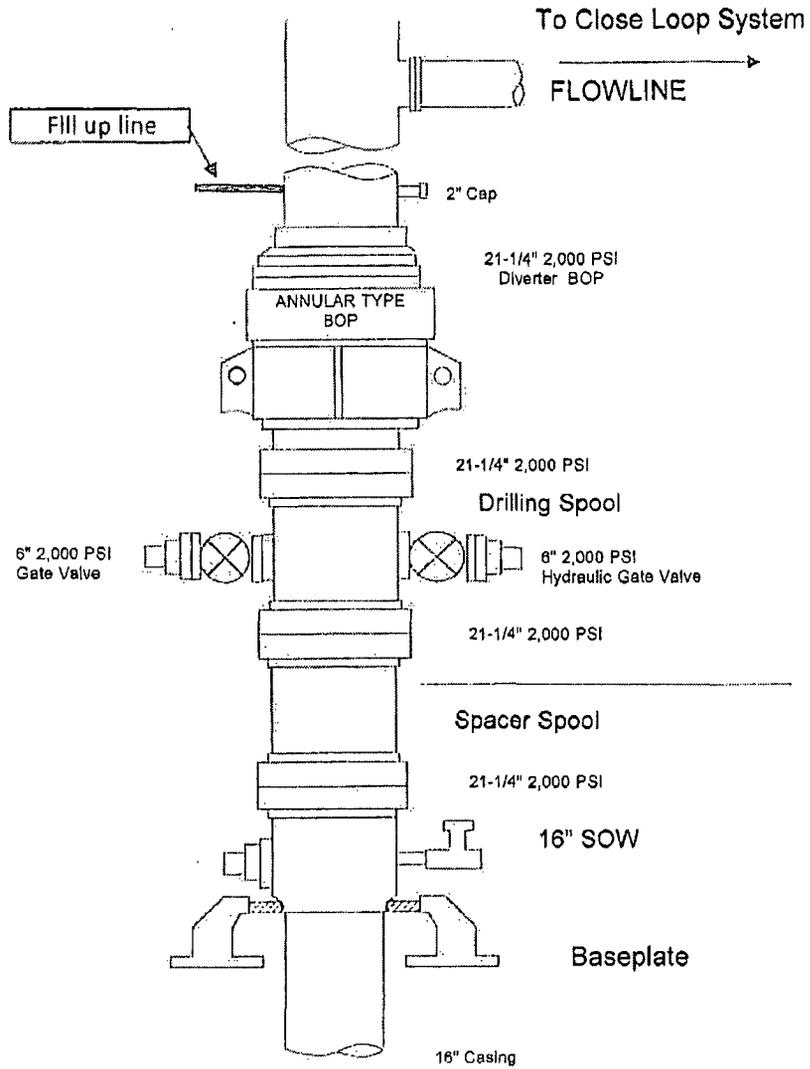
7 days completion operations

WRD/mac

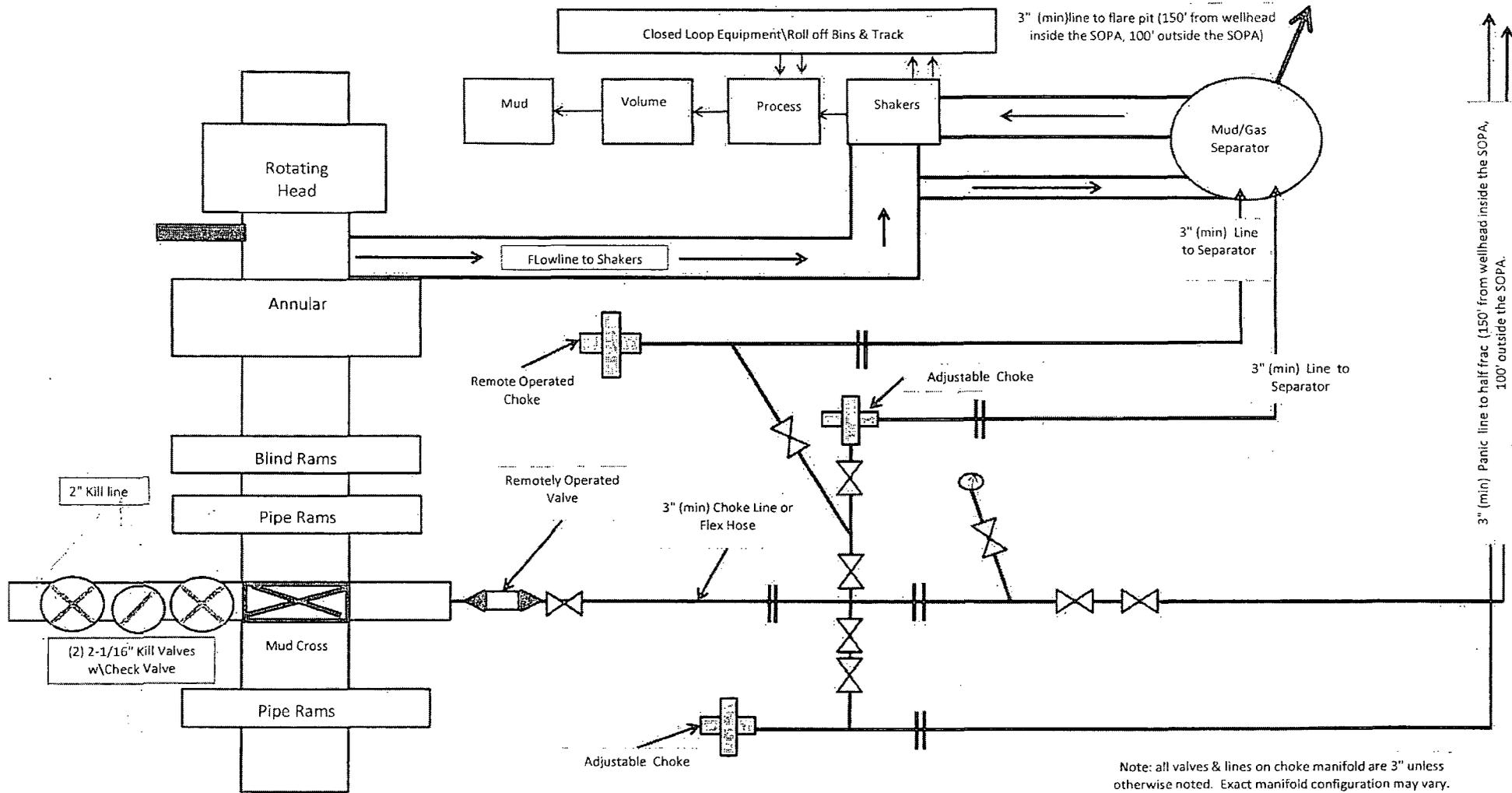
BOPCO, L. P

20" 2,000 PSI Diverter

Diagram Z



Note: Actual lengths of casing heads may vary. Always measure items prior to installing in order to ensure proper spacing.



10M Choke Manifold And Closed Loop System
Diagram 2



Midwest Hose
& Specialty, Inc.

INTERNAL HYDROSTATIC TEST REPORT

Customer: LATSHAW PO#: RIG# 7

HOSE SPECIFICATIONS

Type: C & K Length: 40'

I.D. 3 1/2 INCHES O.D. 5 16/64 - 5 18/64 INCHES

<u>WORKING PRESSURE</u>	<u>TEST PRESSURE</u>	<u>BURST PRESSURE</u>
10,000 PSI	15,000 PSI	PSI

COUPLINGS

<u>Type of Fitting</u>	<u>Type of Coupling</u>
4 1/16 10K	SWAGED

<u>Die Size</u>	<u>Crimp Specification</u>
5.75	5 50/64 - 5 48/64

PROCEDURE

Hose assembly pressure tested with water at ambient temperature.

<u>TIME HELD AT TEST PRESSURE</u>	<u>ACTUAL BURST PRESSURE</u>
15 MINUTES	0 PSI

VERIFICATION

<u>SO#</u>	<u>ASSET#</u>	<u>SERIAL#</u>
110479		7496

COMMENTS:

<u>DATE</u>	<u>TESTED BY</u>	<u>APPROVED BY</u>
12/10/2011	BOBBY FINK	MENDI SMILEY



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Report

June 3, 2011

Customer: Latshaw

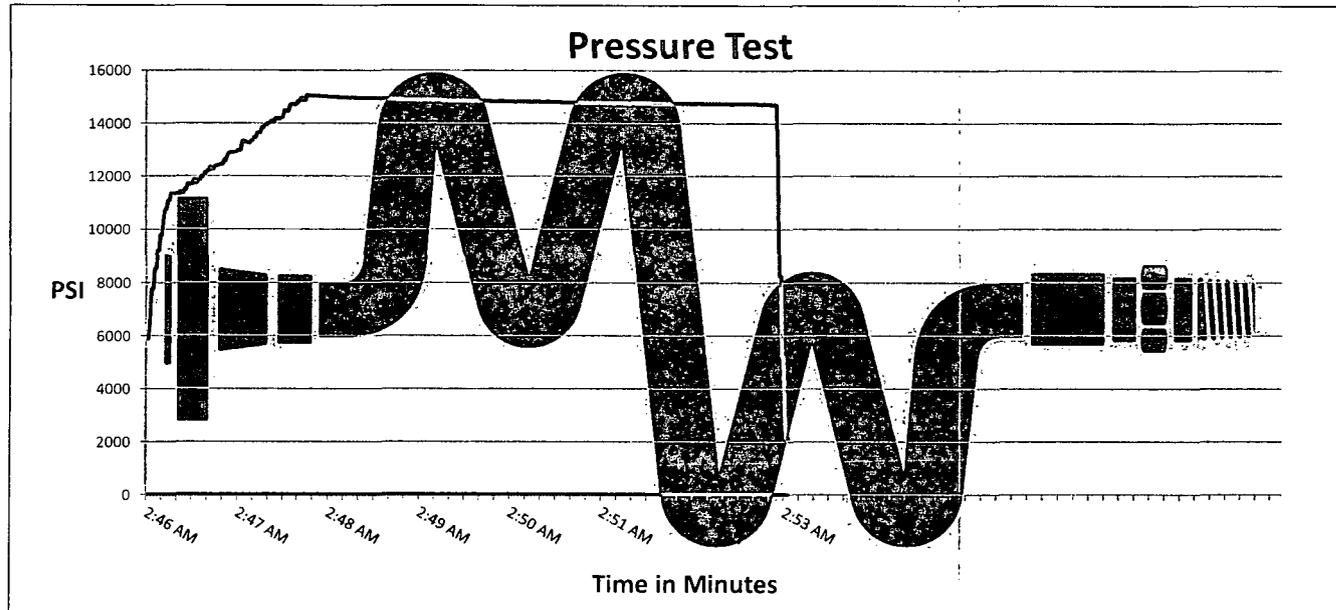
Purchase Order: RIG# 7

Hose Specifications

<u>Hose Type</u>	<u>Length</u>
E	40
<u>I.D.</u>	<u>O.D.</u>
4"	5 1/4
<u>Working Pressure</u>	<u>Burst Pressure</u>
10000 PSI	Standard Safety Multiplier Applies

Verification

<u>Type of Fitting</u>	<u>Coupling Method</u>
4 1/16 10K	Swage
<u>Die Size</u>	<u>Final O.D.</u>
5.75	5 49/64
<u>Serial #</u>	<u>Sales Order</u>
7496	110479



Test Pressure
15000 PSI

Time Held at Test Pressure
2/4 Minutes

Actual Burst Pressure

Peak Pressure
15131 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Donnie Mclemore

Approved By: Kim Thomas

x

x

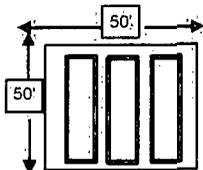
RIG LAYOUT

RIG LAYOUT SCHEMATIC
 INCLUSIVE OF CLOSED-LOOP DESIGN PLAN

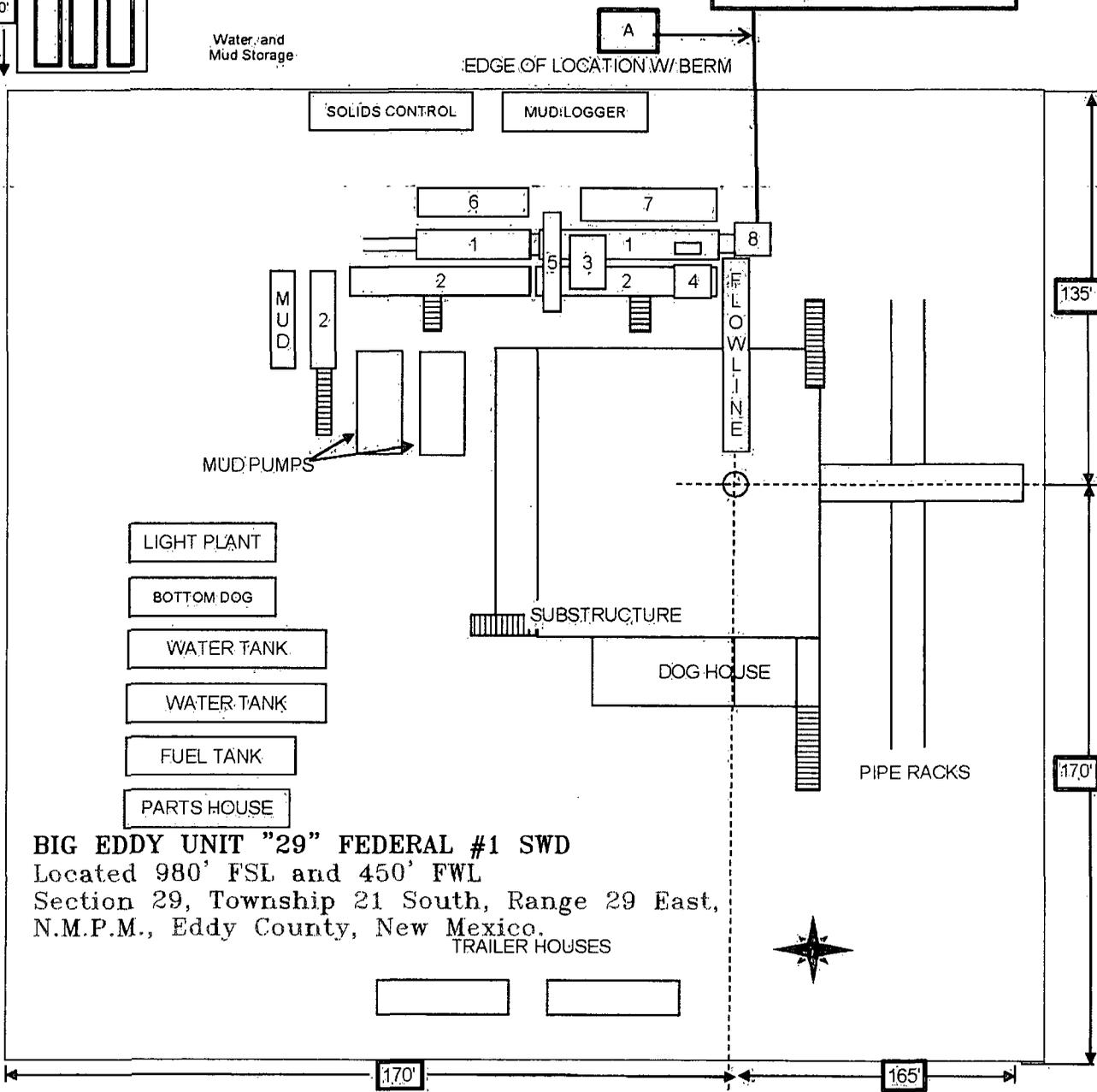
Solids Control Equipment Legend

- | | |
|-----------------------------------|--------------------|
| 1) Roll-Off Bin | 5) Centrifuge |
| 2) Steel Tank | 6) Dewatering Unit |
| 3) Mud Cleaner | 7) Catch Tank |
| 4) Shaker | 8) Choke Manifold |
| A) Bleed line from choke manifold | |

Flare Pit or 1/2 Steel Pit will be located at
 .150' - in H2S areas
 100' - in non-H2S areas
 away from the location.

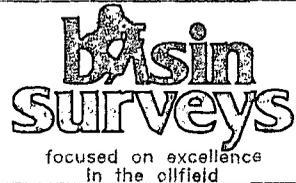


Water and Mud Storage



BIG EDDY UNIT "29" FEDERAL #1 SWD
 Located 980' FSL and 450' FWL
 Section 29, Township 21 South, Range 29 East,
 N.M.P.M., Eddy County, New Mexico.

TRAILER HOUSES



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 25470

Survey Date: 11-04-2011

Scale: 1" = 2000'

Date: 11-14-2011

BOPCO, L.P.

Sheet 6 of 6 Sheets

HYDROGEN SULFIDE (H₂S) CONTINGENCY PLAN

Assumed 100 ppm ROE = 3000'

100 ppm H₂S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H₂S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H₂S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
 - Detection of H₂S, and
 - Measures for protection against the gas,
 - Equipment used for protection and emergency response.

Ignition of Gas source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever this is an ignition of the gas.

Characteristics of H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

BOPCO L.P. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. (Operator Name)'s response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

H₂S CONTINGENCY PLAN EMERGENCY CONTACTS

BOPCO L.P. Midland Office

432-683-2277

Key Personnel

<u>Name</u>	<u>Title</u>	<u>Cell Phone Number</u>
Stephen Martinez	Drilling Supt.	432-556-0262
Buddy Jenkins	Assistant Supt.	432-238-3295
Bill Dannels	Engineer	432-638-9463
Brian Hammit	Engineer	432-638-9460
Charles Warne	Engineer	432-894-1392

Ambulance	911
State Police	575-746-2703
City Police	575-746-2703
Sheriff's Office	575-746-9888
Fire Department	575-746-2701
Local Emergency Planning Committee	575-746-2122
New Mexico Oil Conservation Division	575-748-1283

Carlsbad

Ambulance	911
State Police	575-885-3137
City Police	575-885-2111
Sheriff's Office	575-887-7551
Fire Department	575-887-3798
Local Emergency Planning Committee	575-887-6544
US Bureau of Land Management	575-887-6544

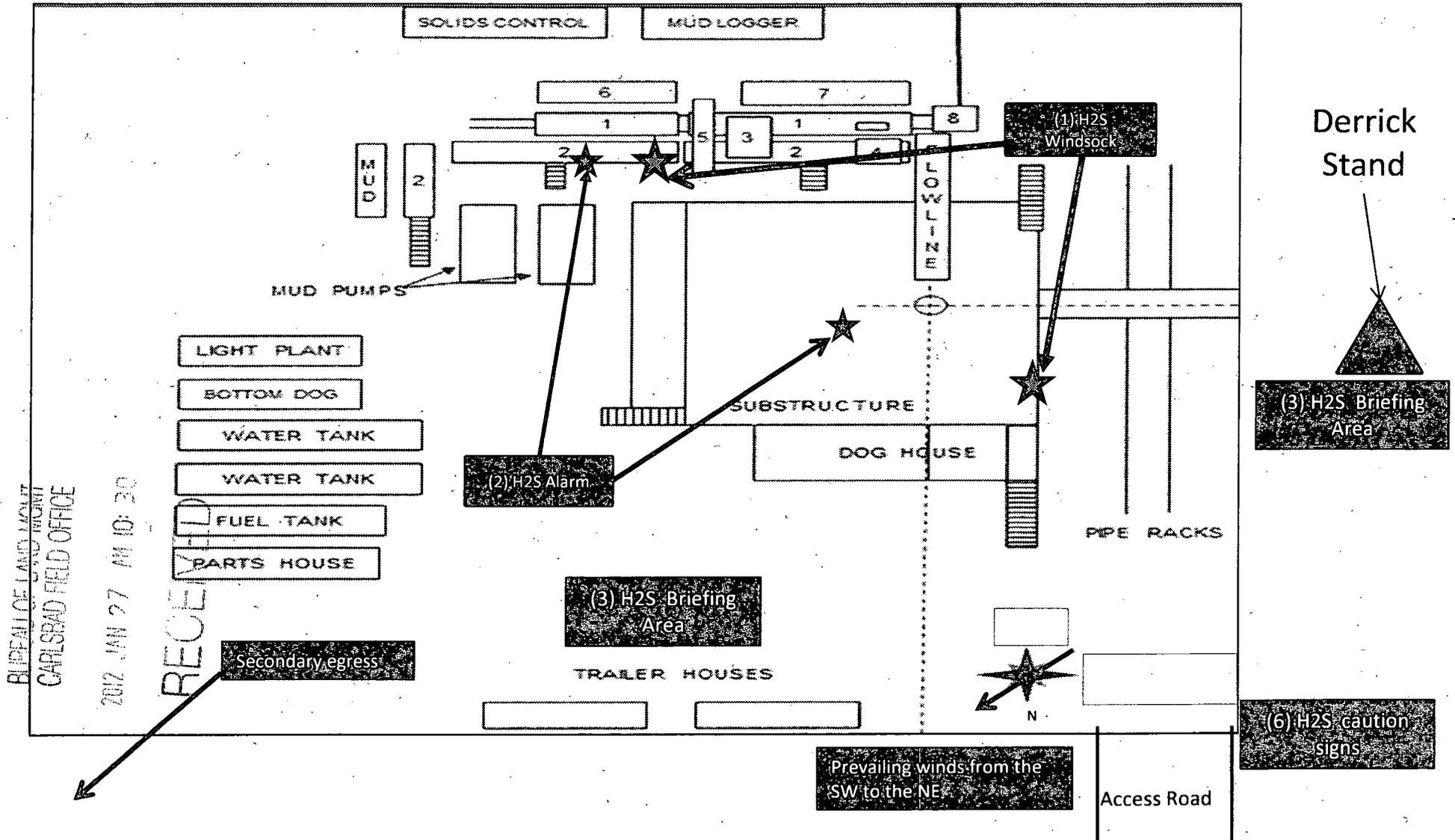
New Mexico Emergency Response Commission (Santa Fe)	505-476-9600
24 Hour	505-827-9126
New Mexico State Emergency Operations Center	505-476-9635
National Emergency Response Center (Washington, DC)	800-424-8802

Other

Boots & Coots IWC	800-256-9688 or 281-931-8884
Cudd PressureControl	432-580-3544 or 432-570-5300
Halliburton	575-746-2757
B. J. Services	575-746-3569
Flight For Life – 4000 24 th St. Lubbock, Texas	806-743-9911
Aerocare – R3, Box 49F, Lubbock, Texas	806-747-8923
Med Flight Air Amb – 2301 Yale Blvd SE #D3, Albuquerque, NM	505-842-4433
S B Air Med Service – 2505 Clark Carr Loop SE, Albuquerque, NM	505-842-4949

Proposed H2S Safety Schematic

- 1) Location of windsocks.
- 2) Location of H2S alarms.
- 3) Location of briefing areas.
- 4) Terrain of surrounding area (Please refer to page 2 of survey plat package also see point 11 of multisurface use plan)
- 5) Location of flare line(s) and pit(s) (Please refer to page 6 of survey plat package and diagram)
- 6) Location of caution and/or danger signs.



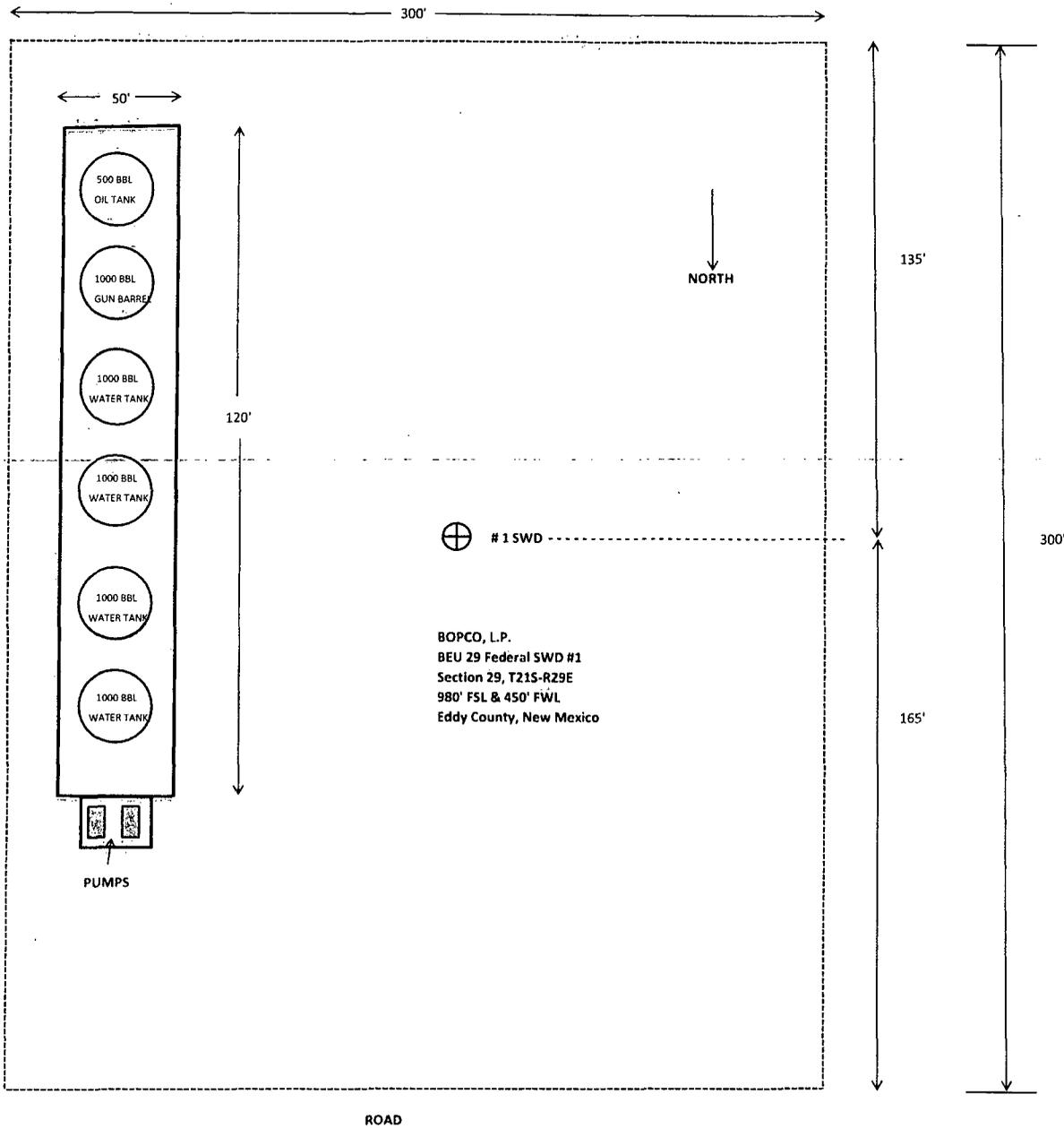


Diagram 3

BOPCO, L. P.
6 DESTA DRIVE, SUITE 3700 (79705)
P. O. BOX 2760
MIDLAND, TEXAS 79702

(432) 683-2277

FAX (432) 687-0329

February 29, 2012

Re: Notice of Application for Authorization
to Dispose
BEU 29 Federal SWD #1
Sec. 29, T21S, 29E
Eddy County, New Mexico
File: 100-WF: BEU29FedSWD1.C108

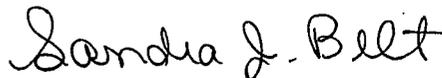
Bureau of Land Management
620 E. Greene Street
Carlsbad NM 88220-6292

Gentlemen:

This letter and attached copy of our injection well application is to notify you, as surface owner, that BOPCO, L.P. is petitioning the Oil Conservation Division to grant permission to dispose of fluid into a zone not productive of oil and gas in the subject wellbore.

If you should have any questions or require additional information, please contact Sandra J. Belt at the above letterhead address, phone number or via email at sjbelt@basspet.com. Any objections or requests for hearing must be filed with the Oil Conservation Division, 1220 South St. Frances Dr., Santa Fe, New Mexico 87505, within 15 days of this letter's date.

Sincerely,



Sandra J. Belt
Sr. Regulatory Clerk

sjb
Attachments

RECEIVED

BUREAU OF LAND MANAGEMENT
OIL CONSERVATION DIVISION

BOPCO, L. P.
6 DESTA DRIVE, SUITE 3700 (79705)
P. O. BOX 2760
MIDLAND, TEXAS 79702

(432) 683-2277

FAX (432) 687-0329

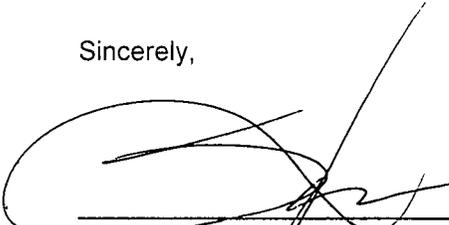
December 20, 2011

Bureau of Land Management
620 E. Greene
Carlsbad, New Mexico 88220
Attn: John Chopp

Dear Mr. Chopp,

BOPCO, L.P. respectfully requests exception to the Prairie Chicken timing restrictions for Big Eddy Unit 29 Federal #1 SWD located 980' FSL, 450' FWL, of Section 29, T21S, R29E, Eddy County, New Mexico.

Sincerely,



Stephen Martinez
Division Drilling Superintendent

SMM/JDB

Location On-Site Notes

Location on-site conducted by Bill Dannels, Buddy Jenkins and Carlos Cruz-BOPCO L.P., Randy Rust-BLM, and Robert Gomez-Basin Survey on 11/3/2011. The Big Eddy Unit 29 Federal #1 SWD was moved to a new location with a footage call of 980' FSL & 450' FWL of Section 29, T21S-R29E. Randy moved the location due to a large sand dune.

MULTI-POINT SURFACE USE PLAN

NAME OF WELL: Big Eddy Unit 29 Federal SWD #1

LEGAL DESCRIPTION - SURFACE: 980' FSL, 450' FWL, Section 29, T21S, R29E, Eddy County, NM.

POINT 1: EXISTING ROADS

A) Proposed Well Site Location:

See Form C-102 (Survey Plat).

B) Existing Roads:

From the junction of 62-180 and State 31, go south on State 31 for 6.0 miles to lease road, on lease road go westerly 5.0 miles to proposed location

C) Existing Road Maintenance or Improvement Plan:

See the Well Pad Layout and Topo Map of the survey plat (Sheet 1 and 2 of plat package)

POINT 2: NEW PLANNED ACCESS ROUTE

A) Route Location:

Approximately 10' of new lease road will be built. (See the Well Pad Layout of the survey plat (Sheet 1 of plat package).

B) Width

14' wide

C) Maximum Grade

Grade to match existing topography or as per BLM requirements.

D) Turnout Ditches

As required by BLM stipulations

E) Culverts, Cattle Guards, and Surfacing Equipment

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

POINT 3: LOCATION OF EXISTING WELLS

The following wells are located within a one-mile radius of the location site. See the One-Mile Radius Map (Sheet 5 of the plat package).

Existing wells..... 3 (three)
Water wells..... 0 (zero)

POINT 4: LOCATION OF EXISTING OR PROPOSED FACILITIES

A) There are no existing production facilities operated by BOPCO, LP located within one mile of the Big Eddy Unit 29 Federal #1 SWD.

B) New Facilities in the Event of Production:

New water station facilities including storage tanks and injection pumps will be installed. Truck water hauling will only occur in the event of any unforeseen issues with the water transfer system. A diagram of the new water station is attached.

C) Rehabilitation of Disturbed Areas Unnecessary for Production:

Following the 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

On-site caliche will be used. If this is not sufficient, caliche will be hauled from a BLM approved pit.

B) Land Ownership

Federally Owned

C) Materials Foreign to the Site

No construction materials foreign to this area are anticipated for this drill site

D) Access Roads

The two existing track roads off of Highway 360 may be upgraded.

POINT 7: METHODS FOR HANDLING WASTE MATERIAL

A) Cuttings

Cuttings will be contained in the roll off bins and disposed at Controlled Recovery Inc. located in Lea County, NM.

B) Drilling Fluids

Drilling fluids will be contained in the steel pits, frac tanks and disposed at licensed disposal sites.

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. Prior to cleanup operations, any hydrocarbon material in the reserve pit will be removed by skimming or burning as the situation would dictate.

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

The "Rig Layout Schematic" (Sheet 6 of plat package) shows the dimensions of the well pad, closed loop system, 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 Access Road

See the Well Pad Layout, Topo Map, and Vicinity Map of the survey plat (Sheet 1, 2, and 3 of plat package).

C) Lining of the Pits

No reserve pits - closed loop system.

POINT 10: PLANS FOR RESTORATION OF THE SURFACE

- A) Reserve Pit Cleanup - Not applicable. Closed loop drilling fluid system will be used

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

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. See diagram 3 for the proposed interim reclamation plat

- 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) On-Site

Location on-site conducted by Bill Dannels, Buddy Jenkins and Carlos Cruz-BOPCO L.P., Randy Rust-BLM, and Robert Gomez-Basin Survey on 11/3/2011. The Big Eddy Unit 29 Federal #1 SWD was moved to a new location with a footage call of 980' FSL & 450' FWL of Section 29, T21S-R29E. Randy moved the location due to a large sand dune.

- B) Soil

Caliche and sand.

- C) Vegetation

Sparse, primarily grasses and mesquite with very little grass.

POINT 11: OTHER INFORMATION – cont'd...

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 three no water wells located within a 1 mile radius of the proposed location. This was verified by the New Mexico Office of the State Engineer and found on the "Point of Diversion by Location" database.

G) Residences and Buildings

None in the immediate vicinity.

H) Historical Sites

None observed.

I) Archeological Resources

No independent archeological survey has been done. This well location is located in the area covered by Memorandum of Agreement – Permian Basin. A Payment of \$1420.00 fee for this project is included in this application. Any location or construction conflicts will be resolved before construction begins. Please see diagram 4 for flowline route.

J) Surface Ownership

The well site is on federally owned land. There will be no new access roads required for this location.

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

L) Open Pits

No open pits will be used for drilling or production. Any open top tanks will be netted.

M) Terrian

Slightly rolling hills.

POINT 12: OPERATOR'S FIELD REPRESENTATIVE

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

DRILLING

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

PRODUCTION

Dean Clemmer
3104 East Green Street
Carlsbad, New Mexico 88220
(575) 887-7329

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

CJL

BEU 29 Federal SWD #1

APPLICATION FOR AUTHORIZATION TO INJECT

- I. PURPOSE: _____ Secondary Recovery _____ Pressure Maintenance _____ Disposal _____ Storage
Application qualifies for administrative approval? _____ Yes _____ No
- II. OPERATOR: BOPCO, L.P.
ADDRESS: P O Box 2760 Midland Tx 79702
CONTACT PARTY: Sandra J. Belt ext. 7379 PHONE: (432)683-2277
- III. WELL DATA: Complete the data required on the reverse side of this form for each well proposed for injection.
Additional sheets may be attached if necessary.
- IV. Is this an expansion of an existing project? _____ Yes _____ No
If yes, give the Division order number authorizing the project: _____
- V. Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.
- VI. Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.
- VII. Attach data on the proposed operation, including:
1. Proposed average and maximum daily rate and volume of fluids to be injected;
 2. Whether the system is open or closed;
 3. Proposed average and maximum injection pressure;
 4. Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water; and,
 5. If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).
- *VIII. Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.
- IX. Describe the proposed stimulation program, if any.
- *X. Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).
- *XI. Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.
- XII. Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.
- XIII. Applicants must complete the "Proof of Notice" section on the reverse side of this form.
- XIV. Certification: I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

NAME: Sandra J. Belt ext. 7379

TITLE: Sr. Regulatory Clerk

SIGNATURE: Sandra J. Belt

DATE: 02/29/2012

E-MAIL ADDRESS: sjbelt@basspet.com

- * If the information required under Sections VI, VIII, X, and XI above has been previously submitted, it need not be resubmitted. Please show the date and circumstances of the earlier submittal: _____

III. WELL DATA

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

- (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
- (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
- (3) A description of the tubing to be used including its size, lining material, and setting depth.
- (4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

- (1) The name of the injection formation and, if applicable, the field or pool name.
- (2) The injection interval and whether it is perforated or open-hole.
- (3) State if the well was drilled for injection or, if not, the original purpose of the well.
- (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,
- (4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	BOPCO, L.P.
LEASE NO.:	NMLC-061944
WELL NAME & NO.:	Big Eddy Unit 29 Federal SWD 1
SURFACE HOLE FOOTAGE:	0980' FSL & 0450' FWL
LOCATION:	Section 29, T. 21 S., R 29 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**
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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, 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 feet 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.

Unit Wells

The well sign for a unit well shall include the unit number in addition to the surface and bottom hole lease numbers. This also applies to participating area numbers.

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) 234-6235 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 in a low profile manner in order to prevent wind/water erosion of the topsoil. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be used for interim and final reclamation.

C. CLOSED LOOP SYSTEM

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

Payment shall be made to the BLM prior to removal of any federal mineral materials. 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 twenty (20) 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

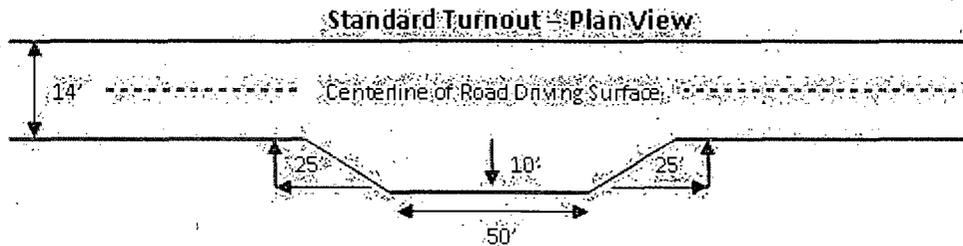
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

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:

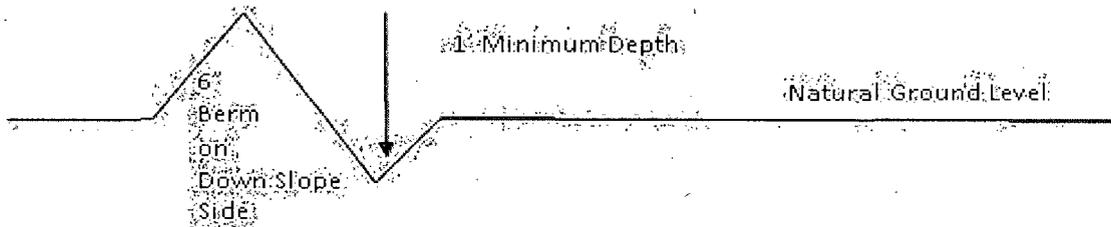


Drainage

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:

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

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

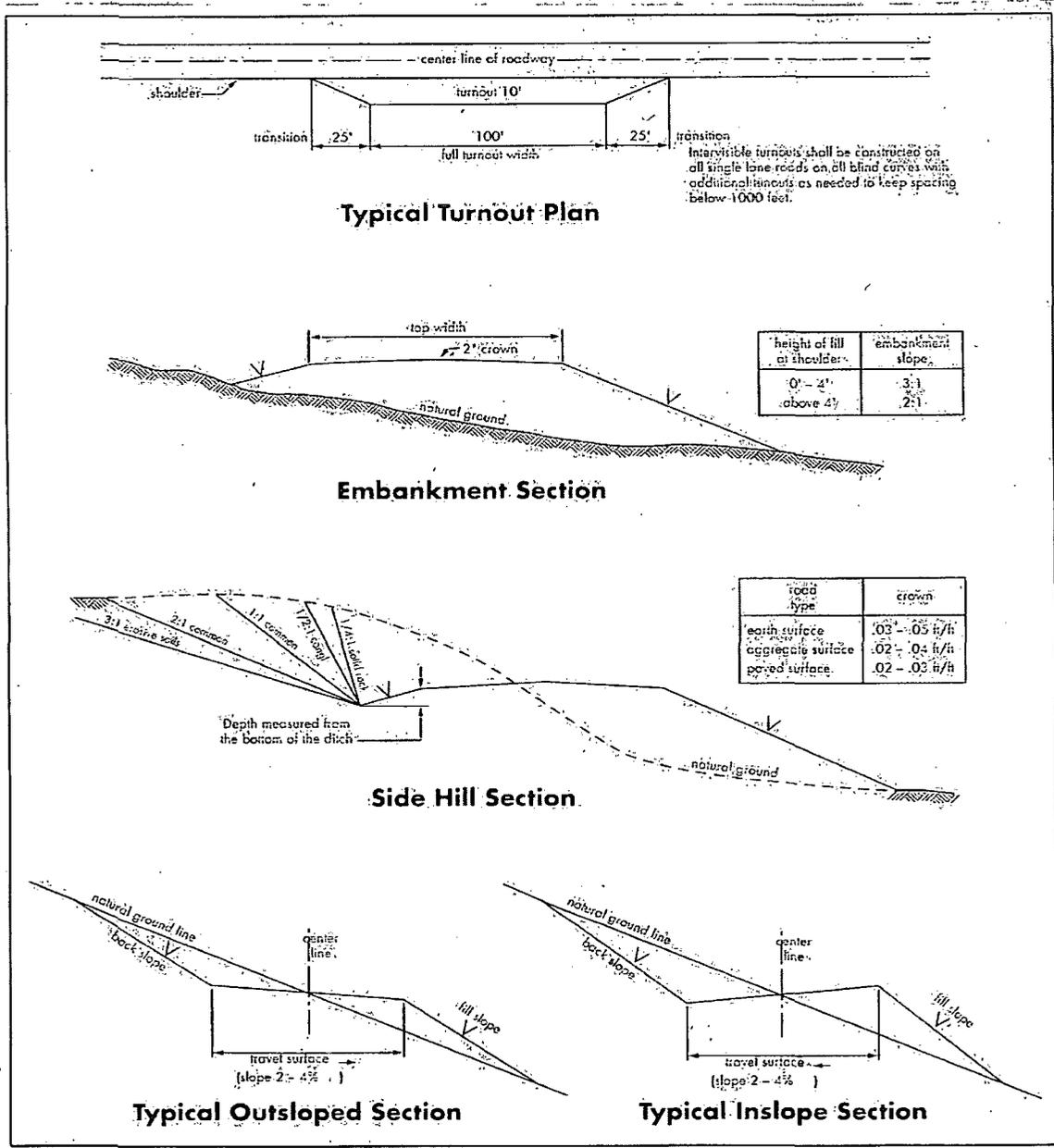
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

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 in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

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 the area, it is always a potential hazard. Operator has stated that they will have monitoring equipment in place prior to drilling out of the surface shoe. If Hydrogen Sulfide is encountered, 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. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
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 is located, this does not include the dog house or stairway area.
4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall 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 program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

The initial wellhead installed on the well will remain on the well with spools used as needed.

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

Wait on cement (WOC) for Water Basin:

After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. 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

Possibility of water flows in the Salado, Wolfcamp, and Strawn.

Possibility of lost circulation in the Rustler and Delaware.

Abnormal pressures will be encountered in the 3rd Bone Spring Sand formation and subsequent formation.

1. The **20 inch** surface casing shall be set at approximately **420 feet** (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**
 - 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 surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - 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 13-3/8 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 cave/karst.**

Formation below the 13-3/8" 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.

3. The minimum required fill of cement behind the 9-5/8 inch production casing is:

Operator has proposed DV tool at depth of 6000', but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

a. First stage to DV tool:

- Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate see B.1.a, c-d above.

Formation below the 9-5/8" 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 and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required through the curve and a minimum of one every other joint.

4. The minimum required fill of cement behind the 7-5/8 inch production liner is:

- Cement as proposed by operator. Operator shall provide method of verification.

Formation below the 7-5/8" 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 and the mud weight for the bottom of the hole. Report results to BLM office.

Open hole completion from 14,050'-14,800'.

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 53.
2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).
3. **A variance is granted for the use of a diverter on the 20" surface casing.**
4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 13-3/8 intermediate casing shoe shall be **5000 (5M) psi. 5M 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.**
5. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9-5/8 intermediate casing shoe shall be **10,000 (10M) 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.**

6. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.
 - c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
 - d. The results of the test shall be reported to the appropriate BLM office.
 - e. 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.**
 - f. 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. This test shall be performed prior to the test at full stack pressure.
 - g. 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.

D. DRILLING MUD

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

E. DRILL STEM TEST

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

F. WELL COMPLETION

A NOI sundry with the completion procedure for this well shall be submitted and approved prior to commencing completion work. The procedure will be reviewed to verify that the completion proposal will allow the operator to:

1. Properly evaluate the injection zone utilizing open hole logs, swab testing and/or any other method to confirm that hydrocarbons cannot be produced in paying quantities. This evaluation shall be reviewed by the BLM prior to injection commencing.
2. Restrict the injection fluid to the approved formation.

If off-lease water will be disposed in this well, the operator shall provide proof of right-of-way approval.

G. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

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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

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.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation 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 that is free of contaminants 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.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

X. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

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.

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:

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:

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