

Form 3160-3  
(December 1990)

SUBMIT IN TRIPPLICATE\*  
(Other instructions on  
reverse side)

Form approved.  
Budget Bureau No. 1004-0136  
Expires: December 31, 1991

UNITED STATES  
DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/>		5. LEASE DESIGNATION AND SERIAL NO. USA NM0560352, USA LC062085	
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/> SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONE <input type="checkbox"/>		6. IF INDIAN, ALLOTTEE OR TRIBE NAME	
2. NAME OF OPERATOR Matador Operating Company 14245		7. UNIT AGREEMENT NAME 24108	
3. ADDRESS AND TELEPHONE NO. 8340 Meadow Rd., #158, Dallas, TX 75231, 214-987-7144		8. FARM OR LEASE NAME, WELL NO. Shugart Deep Federal #2 Com #2	
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 660 FNL, 2080 FWL At proposed prod. zone Unit C 85305		9. API WELL NO. 30-015-30549	
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 42 miles west of Hobbs		10. FIELD AND POOL, OR WILDCAT Undesignated Shugart # (Morrow)	
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drig. unit line, if any) 660		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec 31, T18S, R31E	
16. NO. OF ACRES IN LEASE 320 ac		12. COUNTY OR PARISH Eddy	
17. NO. OF ACRES ASSIGNED TO THIS WELL 320 ac		13. STATE NM	
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. NA		19. PROPOSED DEPTH 12,550	
20. ROTARY OR CABLE TOOLS Rotary		21. APPROX. DATE WORK WILL START* 2-1-99	
22. ELEVATIONS (Show whether DF, RT, GR, etc.) 3552' GL			

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8" H-40	48#	500'	360 sx
11" or 12-1/4"	8-5/8" J-55	32#	3500'	1000 sx
7-7/8"	5-1/2" L-80 & S-95	17#	12,550'	700 sx

Drill 12,550' Morrow test. Drill 17-1/2" hole to  $\pm 500'$ . Run and cement 13-3/8" casing to surface. NU BOP stack and drill 11" or 12-1/4" hole to  $\pm 3,500'$ . Run and cement 8-5/8" casing to surface. NU 5M BOP assembly and test. Drill 7-7/8" hole to  $\pm 12,550'$  and evaluate.

Well Location and Acreage Dedication Plat

Application for Permit to Drill (Drilling Program)

Surface Use Plan

Exhibit D, Blowout preventer requirements

Exhibit A, Area Map

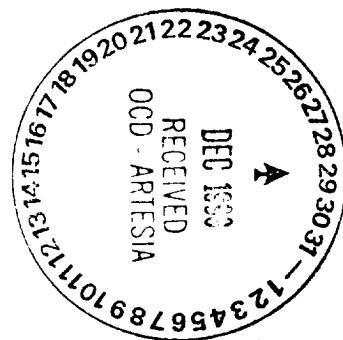
Exhibit E, BOP schematic

Exhibit B, Wellsite Plan

Exhibit F, Choke manifold

Exhibit C, Production Map

Topo Map



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

24. SIGNED [Signature] TITLE Drilling Manager DATE 12-5-98

(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_

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

CONDITIONS OF APPROVAL, IF ANY:

Acting

Assistant Field Office Manager,  
Lands and Minerals

(ORIG. SGD.) ARMANDO A. LOPEZ

APPROVED BY \_\_\_\_\_ TITLE \_\_\_\_\_ DATE DEC 28 1998

\*See Instructions On Reverse Side



**DISTRICT I**  
P. O. Box 1980  
Hobbs, NM 88241-1980

**DISTRICT II**  
P. O. Drawer DD  
Artesia, NM 88211-0719

**DISTRICT III**  
1000 Rio Brazos Rd.  
Aztec, NM 87410

**DISTRICT IV**  
P. O. Box 2088  
Santa Fe, NM 87507-2088

State of New Mexico  
Energy, Minerals, and Natural Resources Department

Form C-102  
Revised 02-10-94

Instructions on back

Submit to the Appropriate  
District Office  
State Lease - 4 copies  
Fee Lease - 3 copies

**OIL CONSERVATION DIVISION**  
P. O. Box 2088  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

1 API Number		2 Pool Code		3 Pool Name Undesignated Shugart N. (Morrow)	
4 Property Code		5 Property Name SHUGART DEEP FEDERAL '31' COM			6 Well Number 2
7 OGRID No. 014245		8 Operator Name MATADOR OPERATING COMPANY			9 Elevation 3552'

**10 SURFACE LOCATION**

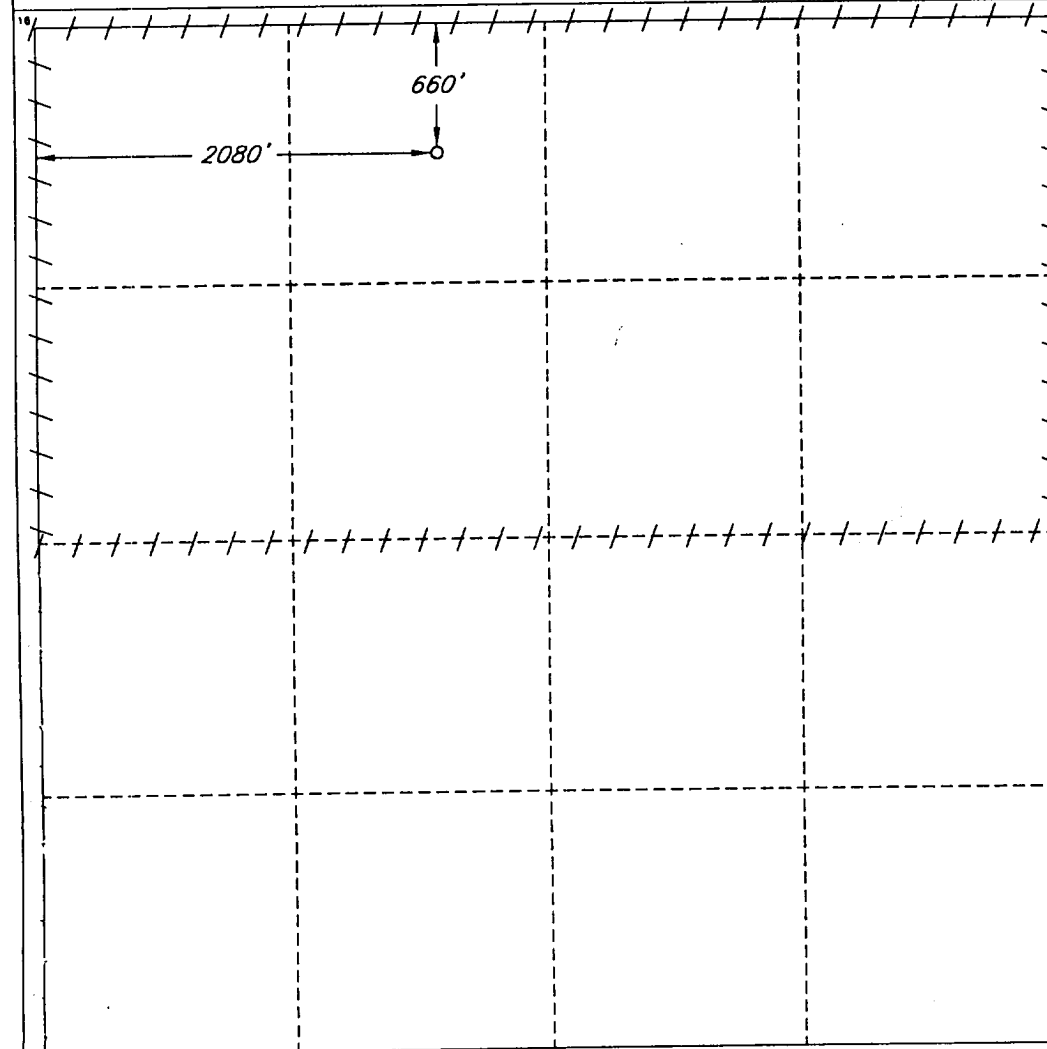
UL or lot no. C	Section 31	Township 18 SOUTH	Range 31 EAST, N.M.P.M.	Lot Ida	Feet from the 660'	North/South line NORTH	Feet from the 2080'	East/West line WEST	County EDDY
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**11 BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE**

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
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12 Dedicated Acres 320	13 Joint or Infill	14 Consolidation Code	15 Order No.
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NO ALLOWABLE WELL 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.

Signature

*John W. Bell*

Printed Name

John W. Bell

Title

Drilling Manager

Date

12-3-98

**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.

Date of Survey

OCTOBER 1998

Signature and Seal of Professional Surveyor

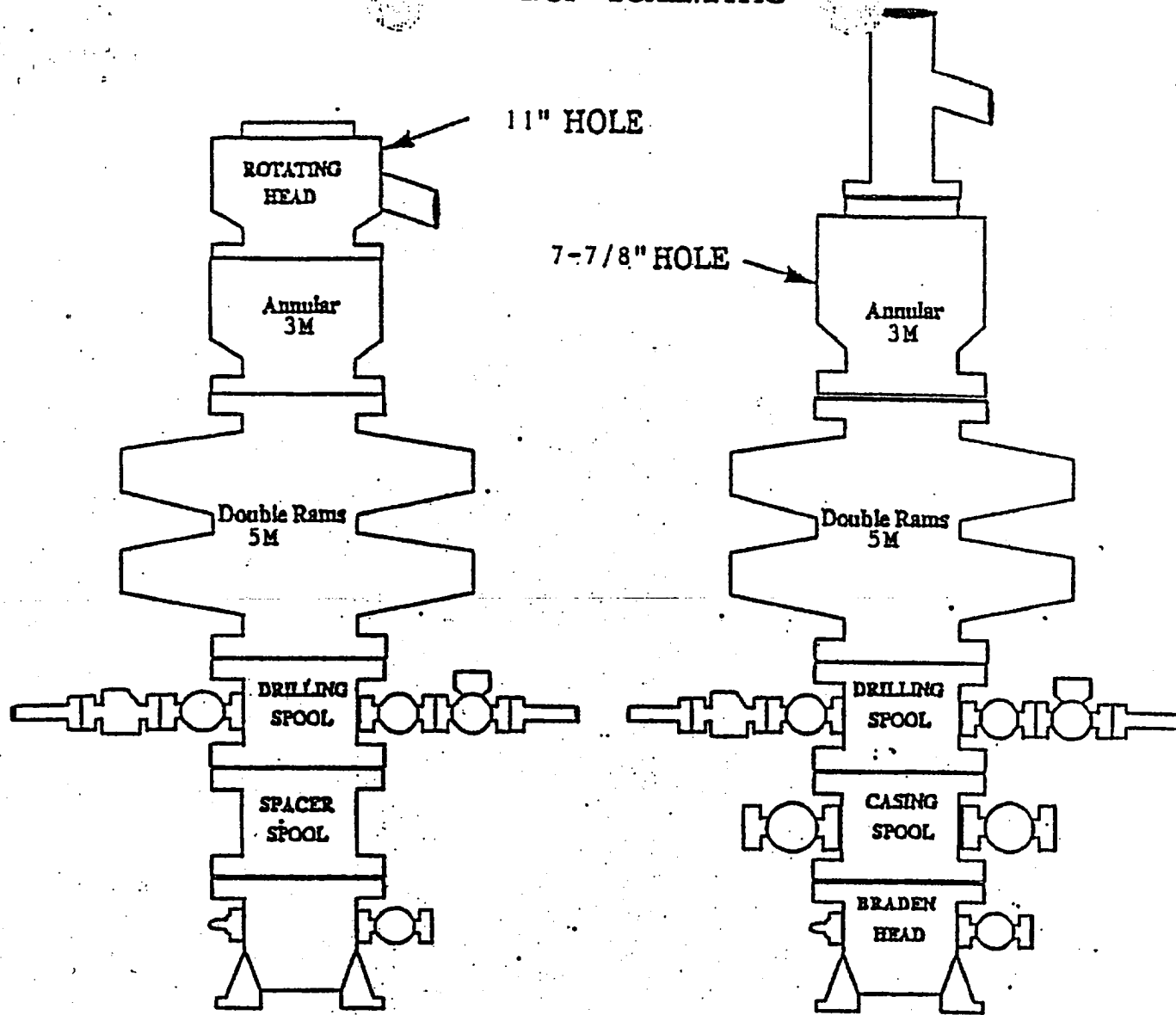
*Roger M. Robbins*  
Professional Surveyor  
12128  
NEW MEXICO  
REGISTERED PROFESSIONAL SURVEYOR

Certificate No.

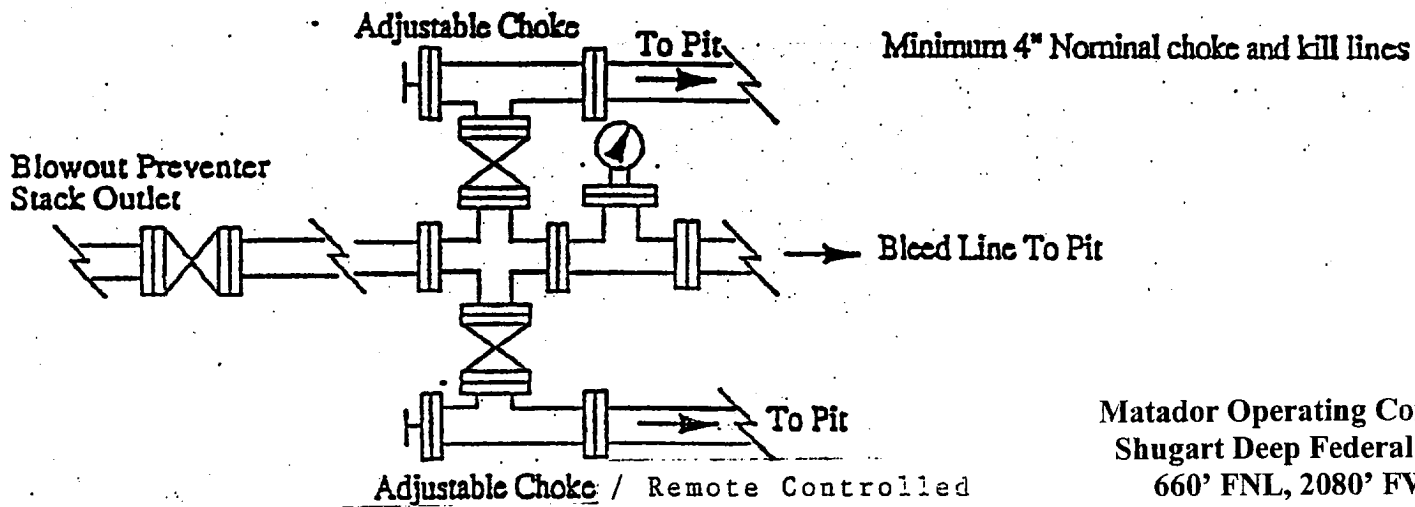
ROGER M. ROBBINS P.S. #12128

JOB #60896 / 73 NW / V.H.B.

# BOP SCHEMATIC



Choke Manifold Requirement (5000 psi WP)



Matador Operating Company  
Shugart Deep Federal 31 Com #2  
660' FNL, 2080' FWL  
Sec 31, T18S, R31E  
Eddy County, New Mexico

Exhibit E  
BOP Schematic

**MINIMUM BLOWOUT PREVENTER REQUIREMENTS**  
5,000 psi Working Pressure

**5 MWP**

Matador Operating Company  
Shugart Deep Federal 31 Com #2  
660' FNL, 2080' FWL  
Sec 31, T18S, R31E  
Eddy County, New Mexico

**Exhibit D**  
**Blowout Preventer Requirements**

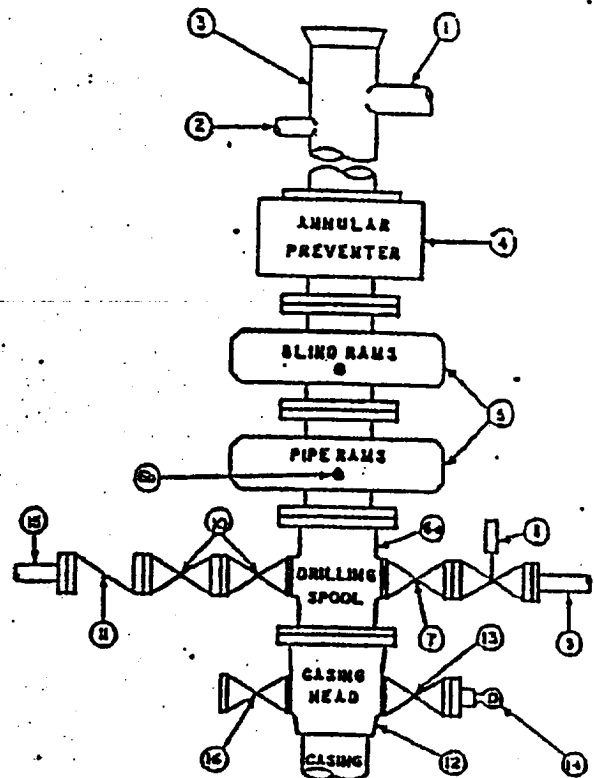
**STACK REQUIREMENTS**

No.	Item	Min. I.D.	Min. Nominal
1	Flowline		
2	Fill up line		2"
3	Drilling nipple		
4	Annular preventer		
5	Two single or one dual hydraulically operated rams		
6a	Drilling spool with 2" min. kill line and 3" min choke line outlets		
6b	2" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above.)		
7	Valve <span style="float:right">Gate <input type="checkbox"/> Plug <input type="checkbox"/></span>	3-1/8"	
8	Gate valve—power operated	3-1/8"	
9	Line to choke manifold		3"
10	Valves <span style="float:right">Gate <input type="checkbox"/> Plug <input type="checkbox"/></span>	2-1/16"	
11	Check valve	2-1/16"	
12	Casing head		
13	Valve <span style="float:right">Gate <input type="checkbox"/> Plug <input type="checkbox"/></span>	1-13/16"	
14	Pressure gauge with needle valve		
15	Kill line to rig mud pump manifold		2"

**OPTIONAL**

16	Flanged valve	1-13/16"	
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CONFIGURATION 1



**CONTRACTOR'S OPTION TO FURNISH:**

1. All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 5,000 psi, minimum.
2. Automatic accumulator (80 gallon, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
3. BOP controls, to be located near drillers position.
4. Kelly equipped with Kelly cock.
5. Inside blowout preventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used.
6. Kelly saver-sub equipped with rubber casing protector at all times.
7. Plug type blowout preventer tester.
8. Extra set pipe rams to fit drill pipe in use on location at all times.
9. Type RX ring gaskets in place of Type R.

**MEC TO FURNISH:**

1. Bradenhead or casinghead and side valves.

**GENERAL NOTES:**

1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2. All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through choke. Valves must be full opening and suitable for high pressure mud service.
3. Controls to be of standard design and each marked, showing opening and closing position.
4. Chokes will be positioned so as not to hamper or delay changing of choke beans. Replaceable parts for adjustable choke, other bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.
5. All valves to be equipped with handwheels or handles ready for immediate use.
6. Choke lines must be suitably anchored

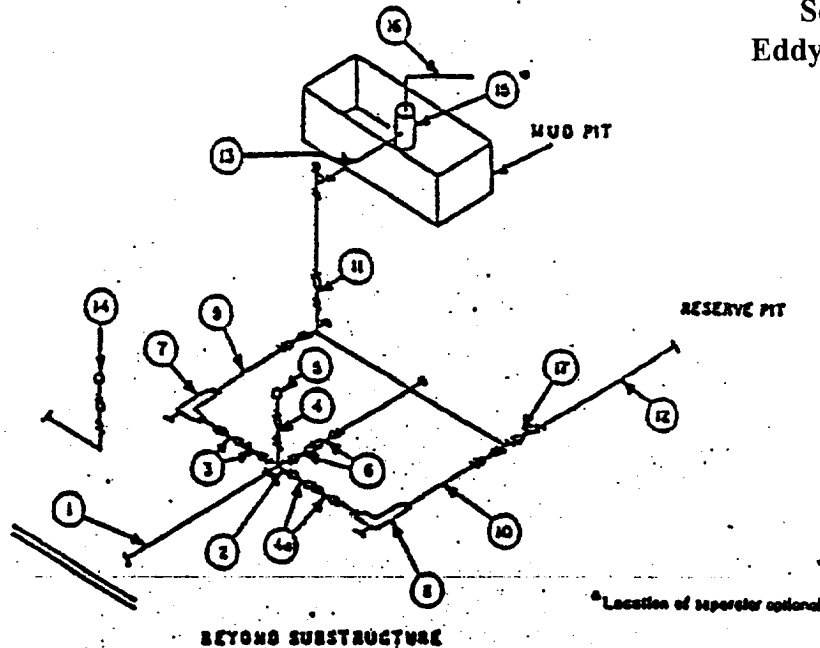
7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
9. All seamless steel control piping (5000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
10. Casinghead connections shall not be used except in case of emergency.
11. Do not use kill line for routine fill-up operations.

**MINIMUM CHOKE MANIFOLD**  
3,000, 5,000 and 10,000 PSI Working Pressure

3 MWP - 5 MWP - 10 MWP

Matador Operating Company  
Shugart Deep Federal 31 Com #1  
660' FNL, 2080' FWL  
Sec 31, T18S, R31E  
Eddy County, New Mexico

**Exhibit F**  
**Choke Manifold**



MINIMUM REQUIREMENTS										
No.		3,000 MWP			5,000 MWP			10,000 MWP		
		I.D.	NOMINAL	RATING	I.D.	NOMINAL	RATING	I.D.	NOMINAL	RATING
1	Line from drilling spool		3"	3,000		3"	5,000		3"	10,000
2	Cross 3"x3"x3"x2"			3,000			5,000			
	Cross 3"x3"x3"x3"									10,000
3	Valves (1) Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
4	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	1-13/16"		3,000	1-13/16"		5,000	1-13/16"		10,000
4a	Valves (1)	2-1/16"		3,000	2-1/16"		5,000	3-1/8"		10,000
5	Pressure Gauge			3,000			5,000			10,000
6	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
7	Adjustable Choke (3)	2"		3,000	2"		5,000	2"		10,000
8	Adjustable Choke	1"		3,000	1"		5,000	2"		10,000
9	Line		3"	3,000		3"	5,000		3"	10,000
10	Line		2"	3,000		2"	5,000		3"	10,000
11	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000
12	Lines		3"	1,000		3"	1,000		3"	2,000
13	Lines		3"	1,000		3"	1,000		3"	2,000
14	Remote reading compound standpipe pressure gauge			3,000			5,000			10,000
15	Gas Separator		2"x5"			2"x5"			2"x5"	
16	Line		4"	1,000		4"	1,000		4"	2,000
17	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/> (2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"		10,000

(1) Only one required in Class 3M.

(2) Gate valves only shall be used for Class 10M.

(3) Remote operated hydraulic chokes required on 5,000 psi and 10,000 psi for drilling.

**EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS**

- All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating.
- All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.
- All lines shall be securely anchored.
- Chokes shall be equipped with tungsten carbide seals and needles, and replacements shall be available.
- Choke manifold pressure and standpipe pressure gauges shall be available at the choke manifold to assist in regulating chokes. As an alternate with automatic chokes, a choke manifold pressure gauge shall be located on the rig floor in conjunction with the standpipe pressure gauge.
- Line from drilling spool to choke manifold should be as straight as possible. Lines downstream from chokes shall make turns by large bends or 90° bends using bull plugged tees.
- Discharge lines from chokes, choke bypass and from top of gas separator should vent as far as practical from the well.