EXHIBIT #1

MINIMUM BLOWOUT PREVENTER REQUIREMENTS

3,000 psi Working Pressure

3 MWP

STACK	REQUIREMENTS
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No.	Nem		Min. I.D.	Min. Nominal
1	Flowine			
2	Fill up line			2*
3	Drilling nipple			
4	Annular preventer			
5	Two single or one dual hyd operated rams	raulically		
64	Drilling speel with 2° min. I 3° min choice line autiets	hill line and		
66	2" min. till line and 3" min. choke line outlets in ram. (Alternate to 6a above.)			h.
7	Valve	Gale D Plug D	3-1/8*	
8	Gate valve-power operated		3-1/8"	•
9	Line to choke manifold			3.
10	Vaives	Gate D Plug D	2-1/16*	
11	Check valve		2.1/16"	
12	Casing head			
13	Valve	Gale D Plug D	1-13/16*	
14	Pressure gauge with needle	veive		
15	Kill line to rig mud pump me		1	2.



OPTIONAL					
16	Flanged valve	1-13/16"			

CONTRACTOR'S OPTION TO FURNISH:

- All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 3,000 pcl, minimum.
- 2.Automatic accumulator (80 gallon, minimum) capable of closing BOP in 30 seconds or isse 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 prevventer or its equivalent on derrick floor at all times with proper threads to lit pipe being used.
- 6.Kelly saver-sub equipped with rubber casing protector at all times.
- 7.Plug type blowout preventer tester.
- S.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 FURMISH:

- 1.Bradenhead or casinghead and side valves.
- 2.Wear bushing, Il required.

GENERAL NOTES:

- 1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
- 2.All connections, valves, littings, piping, etc., subject to well or pump pressure must be flanged (suitable clemp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through chore. 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. Choixee will be positioned so as not to hamper or delay changing of choke beans. Replaceable parts for edjustable choke, other bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.
- 5.All values to be equipped with handwheels or handles ready for immediate use.
- 6. Choke lines must be suitably enchored.

- 7.Handwheels and extensions to be connected and ready for use.
- Valves adjacent to drilling speci to be kept open. Use outside valves except for emergency.
- All assemiess steel centrel piping (3000 pei working preseure) to have flexible joints to avoid stress. House will be permitted.
- 10. Casinghead connections shall not be used except in case of emergency.
- 11.Do not use kill line for routine III-up operations.