YATES DRILLING COMPANY Gecko Federal #1 1980' FNL and 660' FWL Sec. 30-T19S-R32E Lea County, New Mexico

1. The estimated tops of geologic markers are as follows:

Anhydrite	805′
Salt (Top)	960′
Salt (Base)	2,330′
Yates	2,470′
Captain Reef	2,920′
Delaware (1st Sand)	4,400′
Bone Spring	7,140′
T.D.	7,300′

2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Water: Fresh water possible at 150' Oil or Gas: Possible in Yates and Delaware

3. Pressure Control Equipment: BOPE will be installed on the 8 5/8" casing and rated for 3000 BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout Preventor controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventors will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit B.

Auxiliary Equipment:

- A. Auxiliary Equipment: Kelly cock, pit level indicators, flow sensor equipment and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.
- 4. THE PROPOSED CASING AND CEMENTING PROGRAM:
  - A. Casing Program: (All New)

<u>Hole Size</u>	Casing Size	<u>Wt./Ft</u>	<u>Grade</u>	Thread	Coupling	Interval	<u>Length</u>
17 1/2"	13 3/8	54.50#	J55	8R	ST&C	0-825'	825'
12 1/4"	8 5/8"	32#	J55	8R	ST&C	0-4320'	4320'
7 7/8"	5 1/2"	15.5#	J55	8R	LT&C	0-7300'	7300'

Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Joint Strength 1.5

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### B. CEMENTING PROGRAM:

Surface casing: Lead - 500 sacks Howco Lite with 1/4#/sack Cello Flakes + 2% CaCl2. Tail - 250 sacks Howco Lite with 2% CaCl2. 750 total sacks.

Intermediate Casing: Two Stage - Stage tool between 2,400'-2,900'. 1st Stage: Lead 500 sacks Howco Lite + 5# Gilsonite, + 1/4# Flocele + 2% CaCl2. Tail w/ 100 sacks "C" + 2% CaCl2. 2nd Stage: Lead 300 sacks Howco Lite + 12% NuCl + 2% CaCl. Tail w/ 100 sacks C + 2% CaCl2.

Production Casing: Lead 300 sacks Howco Lite + 6#/SL Salt, 1/4# sx Flocele 0.3% Halad 322. Tail w/ 200 sacks "H" + 3#/SA salt, 0.4% Halad - 322 + 10#/SL Micro Bond. 500 total sacks.

5. Mud Program and Auxiliary Equipment:

Interval	Туре	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-825'	FW	8.3-8.6	NC	N/C
825'-2920'	Brine	10	NC	N/C
2920'-4320'	FW	8.3-8.6	NC	N/C (REEF)
4320'-6800'	Cut Brine	9.2	28-32	< 20
6800′-7300′	Cut Brine	9.2	32-34	<10

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. Mud will be checked hourly by rig personnel.

## 6. EVALUATION PROGRAM:

Samples:Every 10' from under surface casing.Logging:CNL/LDT.Coring:None.DST's:Possible in Yates and Delaware.

7. Abnormal Conditions, Bottom hole pressure and potential hazards: Apticipated BHP:

825'	Anticipated Max. BHP:	<u> </u>	PSI
4320'	Anticipated Max. BHP:		PSI
 7300'	Anticipated Max. BHP:		

Abnormal Pressures Anticipated: None

Lost Circulation Zones Anticipated: Yes - In Reef.

H2S Zones Anticipated: None

Maximum Bottom Hole Temperature: 140 F

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# 8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 20 days to drill the well with completion taking another 10 days.

YATES DRILLING COMPANY 105 SOUTH FOURTH STREET ARTESIA, NEW MEXICO 88210



typical choke manifold assemby for 14 rated working pressure service-surface installation

#### EXHIBIT B

## THE FOLLOWING CONSTITUES THE MINIMUM BLOWOUT PREVENTER REQUIREMENTS FOR 3000 PSI WP SYSTEMS

- 1. All preventers to be hydraulically operated with secondary manual controls installed prior to drilling out from under casing.
- 2. Choke outlet to be a minimum of 3" diameter.
- 3. Kill line to be of all steel construction of 3" minimum diameter.
- 4. All connections from operating manifolds to preventers to be all steel. Hole or tube to be a minimum of one inch in diameter.
- 5. The available closing pressure shall be at least 15% in excess of that required with sufficient volume to operate the B.O.P.'s.
- 6. All connections to and from preventer to have a pressure rating equivalent to that of the B.O.P.'s.
- 7. Inside blowout preventer to be available on rig floor.
- 8. Operating controls to be located a safe distance from the rig floor.
- 9. Hole must be kept filled on trips below intermediate casing.

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