

DRILLING PROGRAM

SANTA FE ENERGY RESOURCES, INC.

Rio Blanco "4" Fed No. 1

In conjunction with Form 3160-3, Application to Drill the subject well, Santa Fe Energy Resources, Inc. submits the following ten items of pertinent information in accordance with Onshore Oil & Gas Order No. 1.

1. **Geologic Name of Surface Formation:** Alluvium
2. **Estimated Tops of Significant Geologic Markers:**

Rustler	1790'
Salado	1400'
Delaware	5000'
Bone Spring	8450'
Wolfcamp	10970'
Strawn	11900'
Atoka	12100'
Morrow	12700'
Total Depth	13700'

3. **The estimated depths at which water, oil or gas formations are expected:**

Water	None expected in area
Oil	Bone Spring @ 9100'
Gas	Upper Morrow @ 13100'

4. **Proposed Casing Program:** See Form 3160-3 and Exhibit A
5. **Pressure Control Equipment:** See Exhibit B
6. **Drilling Fluid Program:** See Exhibit C
7. **Auxiliary Equipment:** A mud logging unit will be utilized to monitor penetration rate and hydrocarbon shows while drilling below 4600' to TD.
8. **Testing, Logging and Coring Program:**

Drill Stem Tests: (all DST's to be justified on the basis of valid show of oil or gas):

Bone Spring	9100'- 9200'
Atoka	12200'-12250'
Morrow	13100'-13150'

Logging:

Dual Laterolog W/MSFL and Gamma Ray 11850'-13700'

Compensated Neutron/Litho-Density/Gamma Ray 5000'-11850' & 11850'- 13700'

Compensated Neutron/Gamma Ray (thru csg) Surface-5000'

Coring: No conventional cores are planned.

9. **Abnormal Conditions, Pressures, Temperatures & Potential Hazards:**

Abnormally high pressured zones with a bottomhole pressure of approximately 7500 psi could possibly be encountered while drilling the Pennsylvanian interval. Sufficient barite will be on location to enable the weighting up to the estimated 11.5 ppg to control any high pressure zone encountered. Along with the above mentioned primary control, a Blow Out Preventer System as outlined in Exhibit B will be utilized should the need arise to shut the well in prior to running and cementing the drilling liner. The estimated bottom hole temperature is 170°F. No Hydrogen Sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major lost circulation zones have been reported in the offsetting wells.

10. **Anticipated Starting Date and Duration of Operations:**

Road and location work will not begin until approval has been received from the B.L.M. The anticipated spud date is August 25, 1998. Once spudded, the drilling operation should be completed in approximately 70 days. If the well is productive, an additional 30 days will be required for completion and testing before permanent facilities are installed.