## APPLICATION TO DRILL

## Samson Resources Co. Red Tank Federal "21-C" Well #1 Sec.21, Unit "C" T22S R32E Lea Co. New Mexico

In response to questions asked under Section II B of Bulletin NTL-6 the following information is provided for your consideration:

- 1. Location: 2310' FWL, & 660' FNL Section 21, T22S-R32E, Lea County New Mexico
- 2. Elevation Above Sea Level: 3696.4 GL
- 3. Geologic Name of Surface Formation: Pleistocene Aeolian deposit
- 4. <u>Drillings Tools And Associated Equipment</u>: Conventional rotary drilling rig using mud for the circulation medium.
- 5. Proposed Drilling Depth: 8800'

6.	Estimated Geologic Mar	ker Tops:		
	Rustler Anhydrite	880'	Cherry Canyon	5745 <b>'</b>
	Top Salt	1070'	Brushy Canyon	7450 <b>'</b>
	Base of Salt	4420'	Bone Springs	8630'
	Lamar Delaware	4730 <b>'</b>		

- 7. <u>Mineral Bearing Formation:</u> Water bearing-none; Oil bearing Cherry Canyon, Brushy Canyon, Bone Springs.
- 8. Casing Program:
  - (A) Surface casing new 13-3/8" 48# H-40 ST&C Set @ 880'+
  - (B) Intermediate casing new 8-5/8" 32# K-55 LT&C Set & 4600'
  - (C) Production casing new  $5-\frac{1}{2}$ " 17# N-80 LT&C set @ 8800'
- 9. Setting depth of casing and cement for same:
  - (A) Set 13-3/8" @ 880'+ cement with 600 sx of lite 6% gel 2% CaCl Tail in with 200 sx Class "C" 2% CaCl. Circulate cement to surface.
  - (B) Set 8-5/8" @ 4600 ± cement with 1250 sx of lite cement plus additives. Tail in with 200 sx Class "C" 2% gel CaCl, circulate cement to surface.
  - (C) Set 5-1/2" @ 8800' cement with 700 sx of lite cement with additives. Tail in with 200 sx of Class "H" cement. Verify top of cement with temp or cement bond. Log top of cement must be at least 200' above intermediate csg. shoe.
- 10. Pressure Control Equipment: Exhibit "E". A Blow-out Preventer (no less than 900 series) consisting of double ram type preventer with bag type preventer. Units will be hydraulically operated. Exhibit "E-1" Choke Manifold and Closing Unit. Blind rams on top, pipe rams on bottom to correspond with size of drill pipe in use. BOP will be nippled up on 13-3/8" casing and remain on well until casing is run and cemented. BOP will be tested as well as choke manifold. BOP will be worked on at least once each day while drilling and blind ram will be worked on trips when no drill pipe is in hole. Flow sensor PVT, full opening stabbing valve and upper kelley cock will be utilized. No pressures greater than 2000 psi anticipated.

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