## APPLICATION FOR DRILLING

DEVON SFS OPERATING, INC. Strawberry "7" Federal Com., Well No. 1 660' FNL & 1750' FWL, Sec. 7-T19S-R31E Eddy County, New Mexico Lease No.: NM-100561 (Development Well)

8-5/8"

casing to

be set between 1800 and

2300 feet due to NMOCD Order R-111-P

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Devon SFS Operating, Inc. submits the following items of pertinent information in accordance with BLM requirements:

1. The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.

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

Yates	2,200'	Strawn	10,800'	
Queen	3,100'	Atoka	11,000'	
Delaware	4.050'	Morrow Clastic	11,600'	
Bone Spring	6.210'	Lower Morrow	12,000'	
Avalon SD	6,400'	T.D.	12,500'	
Wolfcamp	9,900'			

- 3. The estimated depths at which water, oil or gas formations are anticipated to be encountered: Water: Surface water between 100' - 300'.
  - Oil: Possible in the Queen, Delaware and Bone Spring
  - Gas: Possible in the Atoka below 11,000' and the Morrow below 11,600'.

4. Propose	d Casing Pro	gram:	<del>*</del> H-40			
HOLE SIZE	•	•	GRADE	JOINT	SETTING DEPTH	QUANTITY OF CEMENT
MATHER	13 3/8"	48.0#	***	ST&C	0" - 450'	Circ. 450 sx "C" + add.
THE REAL		32.0#	J-55	ST&C	0'- 3 <del>;200'</del>	<b>2300'</b> Circ.1300 sx "C" cement
7 7/8"	5 1/2"	20.0#	L-80	LT&C	0' - 2,400'	
7 7/8"	5 1/2"	17.0#	L-80	LT&C	2,400' - 9,600'	
7 7/8"	5 1/2"	20.0#	L-80	LT&C	9,600' - 12,500'	1500 sx of "H" + add.

## 5. Minimum Specifications for Pressure Control Equipment:

The blowout preventer equipment (BOP) will consist of a double ram type preventer and a bag-type (Hydril) preventer. Both units will be hydraulically operated and the ram type BOP will be equipped with blind rams and 5 ½" drill pipe rams. A 3000 psi WP BOP will be installed on the 13 3/8" casing and tested per order #2. This BOP will be utilized until the 8 5/8" casing is run. A 5000 psi WP BOP will be installed on the 8 5/8" surface casing and utilized continuously until total depth is reached. As per BLM Drilling Operations Order #2, prior to drilling out the 8 5/8" casing shoe, the BOP's and Hydril will be tested.

Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drillers log. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines and choke manifold having 5000 psi WP rating. See Exhibit "E".

б.	MUD PROGRAM:	MUD WEIGHT	VIS.	W/L CONTROL
	0' - 450': Fresh water mud:	8.4 - 8.5 ppg	32 - 38	No W/L control
	450' - 3200': Brine mud:	10.0 - 10.1 ppg	32 - 38	No W/L control
ł	3200' - 9700': Fresh water mud:	8.4 - 8.5 ppg	32 - 38	No W/L control
ł	9700' – 10,600': Cut Brine mud:	9.2 - 9.5 ppg	32 - 38	No W/L control
1	10,600' - 11,500': Brine (starch) mud	: 9.5 - 9.7 ppg	35 - 38	W/L control 12 cc +/-
	11,500' - 12,500': Controlled Brine	9.5 - 9.7 ppg	38 - 42	W/L control 8 cc +/-