EXHIBIT #8: PROPOSED SOUTHWEST HUMBLE CITY FORMATION UPPER STRAWN FORMATION POOL: LOTTIE YORK #3 GOR PERFORMANCE TEST:

The Bonneville Fuels Corporation has requested that a special limiting GOR of 8,000 SCF/STBO be assigned to the proposed Southwest Humble City Upper Strawn Fm. Pool by the New Mexico Oil Conservation Division.

On 2/2/96 an allowable of 230 BOPD was assigned to production at the Lottie York #3 well. This allowable was based on the 'limiting GOR allowable' of 2000 SCF/STBO for casinghead gas (445 BOPD @ 2,000 SCF/STBO yields a maximum allowable casinghead gas production of 890 MCFD). Mr. Sexton, N.M.O.C.D. Hobbs District Supervisor, has kindly permitted the Bonneville Fuels Corporation to conduct appropriate production and production testing at rates above this 'limiting GOR' in order to have all 'limiting GOR' issues be appropriately addressed by the N.M.O.C.D. at this hearing.

From 4/1/96 through 4/29/96 a productivity test was conducted at the: Lottie York #3 Well 2030' FSL & 2300' FWL Section 14, T.17S., R.37E. N.M.P.M. Lea County, New Mexico

The procedure was to produce casinghead gas up the well annulus using various choke settings while oil was beam pumped up the tubing - until relatively stabilized Oil Production and Gas Production Rates could be achieved (usually 4-5 day intervals were averaged). The purpose of this performance testing was to determine that choke setting at which Oil Production was optimized relative to Gas Production (i.e. GOR was minimized).

The production data are tabulated in Table 1:

TABLE	1:	Performan	nce Test	@ Lott:	ie York	: #3 V	Vell: 4/1/	96 -	4/29/96:
	CHOKE :		OIL:		GAS:		GOR :		
	64ths	in.:	STBOD:		MCFD:		SCF/S	TBO:	
4/1	25		262		1,136		4,336		
4/2	25		290		1,158		3,993		
4/3	25		252		1,150		4,563		
4/4	25		260		1,166		4,485	•	
4/5	27		297		1,206		4,061		
4/6	27		296		1,271		4,294		
4/7	27		283		1,275		4,505	•	
4/8	27		288		1,279		4,441		
4/9	30		312		1,397		4,478		
4/10	30		356		1,464		4,112		
4/11	30		268		1,468		5,097	•	
4/12	30		329		1,458		4,432		
4/13	30		320		1,459		4,559	i i	
4/14	20		202		1,092		5,406		
4/15	20		161		953		5,919	1	
4/16	20		154		958		6,221		
4/17	20		124		885		7,137		
4/18	20		154		847		5,500	I	
4/19	23		190		921		4,847	,	
4/20	23		189		952		5,037	,	
4/21	23		196		940		4,796		
4/22	23		182		938		5,154		
4/23	23		192		929		4,839	1	
4/24	27		252		1,050		4,167		
$\frac{1}{4}/25$	27		286		1,155		4,038		
4/26	27		287		1,195		4,164		
$\frac{1}{4}/27$	27		292		1,228		4,205	1	
4/28	27		290		1,249		4,307		
Avera	ge GOF	Data:	Perform	ance Te	st:				
Choke	@ 20/	64ths:	CP=440	PSIG:	GOR= 5	5,956	SCF/STBO	(5 DA	YS).
Choke	@ 23/	64ths:	CP=380	PSIG:	GOR = 4	,932	SCF/STBO	(5 DA	YS).
Choke	@ 25/	64ths:	CP = 400	PSIG:	GOR= 4	,333	SCF/STBO	(4 DA	YS).
Choke	@ 27/	64ths:	CP=390	PSIG:	GOR= 4	,322	SCF/STBO	(1st	4 DAYS).
Choke	@ 27/	64ths:	CP=370	PSIG:	GOR= 4	,177	SCF/STBO	(2nd	5 DAYS).
Choke	@ 30/	64ths:	CP=380	PSIG:	GOR= 4	,572	SCF/STBO	(5 DA	YS).

EXHIBIT #8: PROPOSED SOUTHWEST HUMBLE CITY FORMATION UPPER STRAWN FORMATION POOL: LOTTIE YORK #3 GOR PERFORMANCE TEST: CONTINUED:

A performance curve for this Exhibit #8 has been prepared and is attached as Curve I. Several observations can be made by observing the performance curve:

- 1. A minimum producing GOR is reached at a choke setting of 27/64ths inches.
- 2. The repeated GOR tests at a choke setting of 27/64ths inches vary by only 3.5%.
- 3. Low choke settings required to keep gas production below the 'limiting casinghead gas allowable' of 890 MCFD result in significantly higher producing GOR's.

EXHIBIT #8: ENGINEERING CONCLUSIONS:

- An induced 'Gas Cap' was discovered during the drilling of the Lottie York #3 well. A significant amount of 'Free Gas' is thought to remain (3.65 BCFG) in the Southwest Humble City reservoir. This was established in Exhibit #7.
- 2. 'Gas Cap' expansion, 'Free Gas' expansion, and gravitational segregation energy have been used by the Bonneville Fuels Corporation to optimize oil recovery from this reservoir under the primary production (Depletion Drive) mechanism. Minimizing 'Free Gas' Production will maximize gas expansion energy and optimize Oil Recovery from this reservoir.
- 3. In order to minimize Gas Production, optimize Oil Production, and prevent the loss and waste of Oil and Gas the Bonneville Fuels Corporation has requested a 'Special GOR' of 8,000 SCF/STBO. The performance curve for the Lottie York #3 demonstrates conclusively that this can be achieved, currently, by a casing annulus choke setting of 27/64ths inches and results in a minimum GOR. As time progresses other performance tests will be required to optimize Oil Production as GOR increases while reservoir pressure declines.
- 4. In proposing the 'Special GOR' of 8,000 SCF/STBO Bonneville Fuels Corporation is seeking a GOR that will allow optimum reservoir recovery if the reservoir is produced to depletion by the 'Depletion Drive' mechanism. Setting the 'Special GOR' at a realistic value below the remaining estimated recovery GOR will give the Bonneville Fuels Corporation an incentive to take further steps to optimize recovery from this reservoir, as reservoir performance and economics dictate recovery technique. The standard state rule of 2,000 SCF/STBO is just too low for this reservoir at its current condition (only the new Norris #4 well is producing near the 'limiting' GOR of 2,000 SCF/STBO). The use of the standard 2,000 SCF/STBO 'limiting' GOR will only cause premature abandonment of oil reserves and waste if it is not raised.

The production test for GOR determination was conducted in accordance with standard field practice and with due diligence.

ALL OF THE AFORESAID EXHIBIT #8 IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND IS PRESENTED UNDER MY SEAL.

Robert A. Schwering, P.E.

Robert A. Schwering, P.E. Operations Manager: New Mexico Bonneville Fuels Corporation

Cclorado P.E. No. 28108 Petroleum Engineer

4/30 96

