

2770

2769

2768

2767

2766

2765

Pwf

2764

2763

2762

2761

2760

47 0700

K&E
10 X 10 TO THE INCH • 10 X 15 INCHES
KEUFFEL & ESSER CO. MADE IN U.S.A.

South Peterson Fusselman Field
Roosevelt County, New Mexico
Enserch Exploration, Inc.
Lambirth No. 1
June 19-22, 1978

BEFORE EXAMINER NUTTER	
OIL CONSERVATION DIVISION	
EXHIBIT NO. <u>5</u>	CASE NO. <u>6210</u>

t, min.

2760

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

2763

2762

2761

2760

2759

2758

2757

2756

2755

2754

2753

Lambirth No. 1
Drawdown (Continued)

47 0700

Pwf

$\beta = .15$ psi/hour

Lost Proper Seal

Regained Seal

Lubricator Leaking

Cont.

t, min.

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

4100

4200

4300

4400

4500

3000

4500

Schlumberger

SIMULTANEOUS COMPENSATED NEUTRON- FORMATION DENSITY

COUNTY <u>ROOSEVELT</u> FIELD <u>WILDCAT</u> LOCATION <u>LAMBIRTH #1</u> WELL <u>WILDCAT</u> COMPANY <u>ENSERCH EXPLORATION</u>	COMPANY <u>ENSERCH EXPLORATION, INC.</u>				
	WELL <u>LAMBIRTH #1</u>				
	FIELD <u>WILDCAT</u>				
	COUNTY <u>ROOSEVELT</u> STATE <u>NEW MEXICO</u>				
	LOCATION <u>1980' FSL & 1980' FWL</u> API SERIAL NO. <u>31</u> SEC. <u>5-S</u> TWP. <u>33-E</u> RANGE <u>33-E</u>				
					Other Services: <u>DLL</u> <u>BHC</u>
Permanent Datum: <u>G.L.</u> ; Elev.: <u>4414</u> Log Measured From <u>K.B.</u> , <u>14</u> Ft. Above Perm. Datum Drilling Measured From <u>K.B.</u>					Elev.: K.B. <u>4428</u> D.F. <u>4414</u> G.L. <u>4414</u>
Date	<u>5-16-78</u>				
Run No.	<u>ONE</u>				
Depth-Driller	<u>7991</u>				
Depth-Logger	<u>7975</u>				
Btm. Log Interval	<u>7974</u>				
Top Log Interval	<u>3300</u>				
Casing-Driller	<u>8 578 @ 3327 @ @ @</u>				
Casing-Logger					
Bit Size	<u>7 7/8</u>				
Type Fluid in Hole	<u>SALT GEL</u>				
Dens.	<u>9.9</u>	<u>42</u>			
Visc.					
pH	<u>8</u>	<u>16</u> ml	<u>ml</u>	<u>ml</u>	
Fluid Loss					
Source of Sample	<u>PIT</u>				
Rm @ Meas. Temp.	<u>.057 @ 92 °F</u>	<u>@ °F</u>	<u>@ °F</u>	<u>@ °F</u>	
Rmf @ Meas. Temp.	<u>.045 @ 92 °F</u>	<u>@ °F</u>	<u>@ °F</u>	<u>@ °F</u>	
Rmc @ Meas. Temp.	<u>@ °F</u>	<u>@ °F</u>	<u>@ °F</u>	<u>@ °F</u>	
Source: Rmf Rmc	<u>M</u>				
Rm @ BHT	<u>@ °F</u>	<u>@ °F</u>	<u>@ °F</u>	<u>@ °F</u>	
Circulation Stopped	<u>1200</u>				
Logger on Bottom	<u>1600</u>				
Max. Rec. Temp.	<u>°F</u>	<u>°F</u>	<u>°F</u>	<u>°F</u>	
Equip.	<u>7646</u>	<u>HOBBS</u>			
Location					
Recorded By	<u>WILSON, MCGINLEY</u>				
Witnessed By Mr.	<u>WILCOX</u>				

South Peterson Fusselman Field
Roosevelt County, New Mexico

Enserch Exploration, Inc.
Lambirth No. 1

Calculations & Results of Reservoir Limit Test

$$\beta L = .15 \text{ psi/hour}$$

$$V_p = .0418 \frac{q_B}{\beta L C}$$

$$V_p = (.0418) \frac{(647) (1.539)}{(.15) (15.62 \times 10^{-6})}$$

$$V_p = 17.76 \times 10^6 \text{ reservoir bbls}$$

$\approx$ 830 acres drainage area

South Peterson-Fuselman Pool
 Roosevelt County, New Mexico
 Enserch Exploration, Inc.
 Lambirth No. 6 Well
 March 24-27, 1979

$p^* = 2794$ psi

Phase Separation in Tubing

$q = 147$ BOPD + 93 BWPD, GOR = 2041

$p_{wf} = 2040$ psi

$m = 18$ psi/cycle

$kh = 162.6 \frac{\text{quB}}{\text{m}}$

$kh = (162.6) (147) (.359) (1.55)$

18

$kh = 739$ md-ft

$h = 28'$

$k = 26.4$ md

$\frac{t+\Delta t}{\Delta t}$

100

1000

Bottom Hole Pressure

Exhibit 6
 Case 6270

06963

W. J. MISSE & ASSOCIATES, INC.