EXHIBIT 3

BEFORE THE
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO
CASE 1365 EXHIBIT No. 3
Cabot Carbon Co.

COMPARISON OF CLEARANCE USING VARIOUS SIZES OF TUBING IN 5-1/2" 23#/FT CASING

5-1/2 Inch Casing		1.	2.	3.	4.	5.		
Wt/Ft	Drift ID	Joint OD of 1-1/2" Tbg. w/Hydril CS Couplings	Joint OD of 1-1/2" Non Upset Tubing	Joint OD of 1-1/2" EUE Tbg.	Joint OD of 1-3/4" Special Tubing (Camco)	Joint OD of 2-1/16" Tbg. w/Hydril CS Joints	Combinations of 1,2,3,4,5	Clearance - Inches
23	4.545"	2.113"	2.200"	2.500"	2.500"	2.330"	1 & 1	4.545 - (2.113 + 2.113) = 0.319 (1
							1 & 2	4.545 - (2.113 + 2.200) = 0.232 (2
							1 & 3	4.545 - (2.113 + 2.500) = -0.068
							1 & 4	4.545 - (2.113 + 2.500) = -0.068
							1 & 5	4.545 - (2.113 + 2.330) = 0.102 (3
							2 & 2	4.545 - (2.200 + 2.200) = 0.145 (4
							2 & 3	4.545 - (2.200 + 2.500) = -0.155
							2 & 4	4.545 - (2.200 + 2.500) = -0.155
							2 & 5	4.545 - (2.200 + 2.330) = 0.015 (5
							3 & 3	4.545 - (2.500 + 2.500) = -0.455
							3 & 4	4.545 - (2.500 + 2.500) = -0.455
							3 & 5	4.545 - (2.500 + 2.330) = -0.285
							4 & 4	4.545 - (2.500 + 2.500) = -0.455
							4 & 5	4.545 - (2.500 + 2.330) = -0.285
							5 & 5	4.545 - (2.330 + 2.330) = -0.115

(1 If gas lift valves, circulating subs, etc., are run (Joint OD = 2.250). Clearance = 4.545 - (2.113 + 2.250) = 0.182

(2 Prefer to using Hydril CS joint over Non Upset because of greater joint tension factor and greater clearance

(3 If gas lift valves, circulating subs, etc., are used on 1-1/2" string (Joint OD = 2.250) Clearance = 4.545 - (2.250 + 2.330) = -0.035

(4 If gas lift valves, circulating subs, etc., are used on one string (Joint OD = 2.250) Clearance = 4.545 - (2.250 + 2.200) = 0.095

(5 If gas lift valves, circulating subs, etc., are used on 1-1/2" string (Joint OD = 2.250) Clearance = 4.545 - (2.250 + 2.330) = -0.035

JMD:mn
4-2-58