FORM WS-1
Rev. 58

WORK SHEET FOR CALCULATING EQUIVALENT STATIC WELLHEAD PRESSURE

LEASE GRIFFIN WELL NO. 1-15 FIELD FLANK NW (TOPEKA) COUNTY BACA DATE 4-16-73

% CO_2 .05 G_m .762 P_{cr} 624 T_{cr} 341 FLOW STRING 2 7/8

% N_2 25.38 H 3153 G_mH 2403 L/H 1.000 I.D. 2.441

LINE	RATE TRIAL	1									
1	Q_m, M^2cfd	.068									
2	T_w	520									
3	T_s	560									
4	T_e	540									
5	Z_e	.984									
5a	$T_e Z_e$	531.4									
6	$G_m H/T_e Z_e$	4.522									
7	e^s	1.185									
8	$(1-e^{-s})$	.156									
9	P_t or P_c	116.4									
10	P_t^2 or P_c^2 (thous.)	13.5									
11	F_c	5.667									
12	$F_1 = F_c T_e Z_e / 540$	5.576									
13	$F_1 Q_m$	.3792									
14	$Y = (F_1 Q_m)^2 L/H$	.144									
15	$R^2 = Y(1-e^{-s})$	.022									
16	$P_w^2 = P_t^2 + R^2$	13.6									
17	$P_s^2 = e^s P_w^2$ (thous.)	16.1									
17a	—or— $P_f^2 = e^s P_c^2$ (thous.)										
18	P_s or P_f	126.8									
19	P_e	121.6									
20	P_r	.19									
21	T_r	1.58									
22	Z_e	.984									

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