

WORKSHEET FOR CALCULATION OF ST. IC COLUMN WELLHEAD PRESSURE (P_w)

A-C-122D
Adopted 9-1-65

COMPANY **Black River Corp.** LEASE **B1 MILLER** WELL NO. **1** DATE **Sept**

LOCATION: Unit **L** Section **2** Township **26 S** Range **24 E**

L **6910** **H** **6910** **L/H** **1.0** **G** **0.570** **%CO₂** **%N₂** **%H₂S**

d **2.441** **F₁** **0.010763** **GH** **3938.7** **P_{cr}** **672** **T_{cr}** **346**
64 Flow Rate **3rd Flow Rate** **3rd Flow Rate** **4th Flow Rate**

LINE	1st Trial	2nd Trial	3rd Trial	4th Trial	5th Trial	6th Trial	7th Trial	8th Trial	9th Trial	10th Trial	11th Trial	12th Trial	13th Trial	14th Trial	15th Trial	16th Trial	17th Trial	18th Trial	19th Trial	20th Trial	21st Trial	22nd Trial	23rd Trial
1 Q _m	2.953	2.953	4.691	4.691	6.645	7.674																	
2 T _w (W.H. °R)	532	532	535	535	535	537																	
3 T _s (B.H. °R)	586	586	586	586	586	586																	
4 T = (T _w + T _s)	559	559	568	568	581	562																	
5 Z (Est.)	0.830	0.824	0.837	0.837	0.830	0.835																	
6 T _Z	463.97	460.62	469.56	462.85	465.63	469.27																	
7 GH/T _Z	8.4891	8.5509	8.3891	8.5101	8.4579	8.3932																	
8 e ^s (Table XIV)	1.375	1.378	1.370	1.378	1.373	1.370																	
9 1-e ^s (Table XIV)	0.273	0.274	0.270	0.274	0.272	0.270																	
10 P _t	3338.2	3338.2	2142.2	2142.2	1904.2	1758.2																	
11 P _t 2/1000	5467.18	5467.18	4589.02	4589.02	3625.98	3091.27																	
12 F _t (Table XV)	0.010763	0.010763	0.010763	0.010763	0.010763	0.010763																	
13 F _c = F _t T _Z	4.9937	4.9577	5.0539	4.9814	5.0116	5.0508																	
14 F _c Q _m	14.7464	14.6399	23.7077	23.3677	33.2919	38.7585																	
15 L/H (F _c Q _m) ²	217.457	214.327	562.06	576.05	1108.35	1502.30																	
16 F _w = L/H (F _c Q _m) ² (1-e ^s)	59.3657	58.7257	151.76	149.62	301.47	405.62																	
17 P _w ² = P _t ² + F _w	5526.55	5526.55	4740.78	4738.64	3922.45	3496.89																	
18 P _s ² = e ^s P _w ²	7599.00	7614.7	11944.87	6529.84	5392.39	4790.74																	
19 P _s	2757.0	2759.5	3488.5	2555.3	2322.0	2188.8																	
20 P = (P _t + P _s)	2547.6	2548.85	2345.35	2748.75	2118.1	1973.5																	
21 P _i = (P/P _{cr})	3.79	3.79	3.49	3.50	3.14	2.94																	
22 T _i = (T/T _{cr})	1.62	1.62	1.62	1.62	1.62	1.62																	
23 Z (Table XI)	0.824	0.824	0.825	0.825	0.825	0.825																	

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O. G. G.

ARTESIA, DFW