

CMS-300™ CONVENTIONAL PLUG ANALYSIS

Sample Number	Depth (ft)	Confining Stress (psi)	Porosity %	Permeability		b(air) psi	Beta ft (-1)	Alpha (microns)	Saturation			Gas Filled Porosity (%)	Grain Density (g/cm ³)	Bulk Density (g/cm ³)	Footnote
				Klinkenberg (md)	Kair (md)				Oil	Water	Gas				
Prairie Canyon Formation															
33	7712.45	800	4.89	0.616	0.630	0.53	1.49E+11	3.14E+02	0.5	61.3	38.2	1.9	2.718	2.616	(1b), (2)
		2150	4.80	0.040	0.098	33.3	8.59E+12	1.15E+03							
		2900	4.77	0.019	0.055	42.8	2.16E+13	1.60E+03							
		3800	4.31	0.011	0.037	51.9	5.27E+13	2.41E+03							
38	7742.40	800	5.44	0.077	0.152	25.6	3.40E+12	8.27E+02	1.4	57.4	41.2	2.2	2.719	2.606	(1a), (2)
		2150	5.41	0.013	0.039	51.2	4.92E+13	2.33E+03							
		2900	5.36	0.007	0.024	69.4	2.18E+14	4.70E+03							
		3800	4.44	0.003	0.014	83.2	5.54E+14	7.31E+03							
42	7766.85	800	5.58	0.670	0.761	3.08	6.88E+11	1.47E+03	2.6	52.0	45.4	2.5	2.714	2.586	(1b), (2)
		2150	4.94	0.096	0.194	23.0	2.33E+12	7.24E+02							
44	7778.90	800	4.91	0.317	0.394	5.70	1.89E+12	1.94E+03	4.8	58.2	37.0	1.8	2.708	2.600	(1a), (2)
		2150	4.31	0.037	0.091	35.0	1.03E+13	1.23E+03							
51	8406.35	800	5.43	1.77	1.94	2.04	2.55E+10	1.46E+02	5.6	73.5	20.8	1.1	2.739	2.629	(1b), (2)
		2150	4.91	0.342	0.414	4.49	3.25E+11	3.60E+02							
54	8424.30	800	5.40	8.44	8.59	0.35	1.14E+10	3.09E+02	0.8	80.8	18.4	1.0	2.738	2.631	(1b), (2)
		2150	4.82	2.24	2.35	1.01	5.07E+09	3.69E+01							
58	8448.20	800	5.24	0.953	1.07	2.78	6.81E+10	2.07E+02	0.3	95.0	4.7	0.2	2.730	2.640	(1b), (2)
		2150	4.66	0.066	0.147	27.0	4.08E+12	8.83E+02							

Footnotes:

- (1a) Denotes hairline fracture - part way along length. Permeability and/or porosity may be optimistic.
 (1b) Hairline fracture - extends along entire length. Permeability and/or porosity may be optimistic.
 (2) Denotes laminations within sample

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				Klinkenberg					Oil	Water	Gas				
				(md)	(md)										
Buck Tongue Formation															
7	6504.30	800	5.26	0.008	0.024	65.9	1.68E+14	4.16E+03	3.9	62.3	33.9	1.8	2.722	2.614	
		2150	4.57	0.001	0.007	120.	4.02E+15	1.87E+04							
9	6516.15	800	3.92	0.006	0.019	74.2	3.08E+14	5.54E+03	2.7	88.0	9.4	0.4	2.754	2.683	(1a)
		2150	3.67	0.002	0.007	115.	3.18E+15	1.67E+04							
11	6528.35	800	6.04	0.046	0.100	32.3	7.70E+12	1.11E+03	1.9	97.9	0.2	0.0	2.755	2.634	(1a)
		2150	5.79	0.009	0.030	60.6	1.11E+14	3.43E+03							
14	6546.70	800	6.29	0.014	0.038	52.5	5.56E+13	2.47E+03	2.7	70.5	26.8	1.7	2.760	2.633	(1a)
		2150	6.18	0.002	0.011	99.2	1.40E+15	1.14E+04							
Castlegate Formation															
18	6963.50	800	7.23	4.79	4.99	0.84	3.55E+10	5.49E+02	0.5	89.7	9.8	0.7	2.734	2.593	(1b), (2)
		2150	6.10	0.504	0.597	3.73	1.76E+11	2.89E+02							
20	6975.00	800	5.22	3.46	3.72	1.38	1.81E+09	8.26E+01	0.4	96.0	3.6	0.2	2.746	2.656	(1b), (2)
		2150	4.76	0.470	0.558	1.51	9.74E+09	1.04E+02							
		2900	4.58	0.182	0.231	3.85	1.97E+11	3.01E+02							
		3800	4.42	0.067	0.159	5.52	6.43E+11	4.58E+02							
23	6993.50	800	4.98	0.785	0.817	28.2	4.76E+12	9.32E+02	0.7	82.9	16.4	0.8	2.733	2.636	(1b), (2)
		2150	4.74	0.114	0.224	0.92	3.70E+10	8.73E+01							
		2900	4.51	0.054	0.124	21.6	1.87E+12	6.69E+02							
		3800	3.66	0.027	0.075	29.1	5.29E+12	9.68E+02							
27	7017.00	800	5.78	0.495	0.576	39.7	1.64E+13	1.45E+03	0.7	88.8	10.5	0.6	2.730	2.623	(1b), (2)
		2150	5.21	0.031	0.081	37.7	1.34E+13	1.35E+03							