

Gas Quality Reports

Cambridge

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5/13/2020 - 8/13/2020

Gas Day	Gross Heating Value (HHV) (Btu/scf)	Net Heating Value (LHV) (Btu/scf)	Specific Gravity	Wobbe Index	Hydrocarbon Dewpoint (HCDP) (deg F)	N2 (mol%)	CO2 (mol%)	Methane (mol%)	Ethane (mol%)	Propane (mol%)	Isobutane (mol%)	N-Butane (mol%)	Isopentane (mol%)	N-Pentane (mol%)	C6 Plus (mol%)
05/13/2020	1,011.7	994.1	0.584	1,324.23	-161.35	2.135	0.496	94.492	2.673	0.163	0.009	0.017	0.003	0.003	0.008
05/14/2020	1,013.3	995.7	0.590	1,319.46	-155.75	2.630	0.485	93.251	3.360	0.217	0.013	0.024	0.006	0.006	0.009
05/15/2020	1,015.6	998.0	0.590	1,322.03	-153.51	2.556	0.466	93.229	3.435	0.241	0.017	0.031	0.007	0.007	0.011
05/16/2020	1,005.3	987.8	0.588	1,310.68	-160.51	2.858	0.558	93.617	2.699	0.194	0.017	0.030	0.008	0.007	0.012
05/17/2020	1,010.7	993.1	0.590	1,316.28	-156.75	2.751	0.496	93.310	3.159	0.216	0.015	0.027	0.007	0.007	0.011
05/18/2020	1,012.8	995.2	0.590	1,318.30	-155.37	2.693	0.490	93.195	3.320	0.238	0.014	0.026	0.006	0.006	0.010
05/19/2020	1,014.3	996.7	0.589	1,321.84	-155.57	2.471	0.489	93.532	3.193	0.253	0.014	0.027	0.006	0.006	0.010
05/20/2020	1,012.0	994.4	0.588	1,320.08	-157.44	2.533	0.471	93.699	3.016	0.219	0.013	0.025	0.006	0.006	0.011
05/21/2020	1,001.9	984.4	0.584	1,311.39	-167.18	2.554	0.604	94.611	2.007	0.161	0.014	0.025	0.006	0.006	0.012
05/22/2020	1,003.9	986.4	0.586	1,311.85	-163.61	2.632	0.595	94.200	2.334	0.175	0.013	0.024	0.006	0.006	0.013
05/23/2020	985.9	968.8	0.582	1,292.80	-199.97	2.968	0.835	95.146	0.880	0.106	0.014	0.024	0.007	0.006	0.014
05/24/2020	985.8	968.6	0.580	1,294.51	-199.97	2.792	0.850	95.518	0.687	0.091	0.013	0.022	0.006	0.006	0.015
05/25/2020	989.5	972.2	0.583	1,296.16	-178.25	2.930	0.791	94.915	1.165	0.129	0.015	0.026	0.007	0.007	0.016
05/26/2020	1,002.9	985.5	0.587	1,309.43	-164.39	2.814	0.578	93.882	2.523	0.156	0.010	0.017	0.004	0.004	0.011
05/27/2020	993.2	975.9	0.583	1,300.97	-175.85	2.819	0.722	94.765	1.535	0.111	0.010	0.018	0.004	0.004	0.011
05/28/2020	1,001.9	984.5	0.584	1,310.76	-167.40	2.572	0.630	94.431	2.186	0.137	0.009	0.016	0.004	0.004	0.010
05/29/2020	995.7	978.3	0.583	1,303.92	-172.51	2.736	0.694	94.724	1.672	0.122	0.011	0.020	0.005	0.005	0.012
05/30/2020	999.3	981.9	0.585	1,306.28	-167.53	2.814	0.634	94.257	2.078	0.157	0.013	0.023	0.006	0.006	0.012
05/31/2020	998.6	981.3	0.586	1,304.79	-167.82	2.991	0.577	94.001	2.256	0.132	0.009	0.016	0.004	0.004	0.010
06/01/2020	1,002.4	984.9	0.584	1,311.43	-166.78	2.579	0.603	94.455	2.159	0.150	0.012	0.021	0.005	0.005	0.011
06/02/2020	1,013.4	995.8	0.587	1,322.30	-157.00	2.388	0.490	93.816	3.014	0.230	0.014	0.025	0.006	0.006	0.011
06/03/2020	1,018.9	1,001.2	0.587	1,330.24	-155.50	2.049	0.454	93.884	3.380	0.194	0.008	0.016	0.003	0.003	0.008
06/04/2020	1,020.1	1,002.4	0.589	1,329.24	-152.50	2.144	0.485	93.550	3.509	0.240	0.016	0.032	0.008	0.008	0.009
06/05/2020	1,017.8	1,000.1	0.589	1,326.57	-154.69	2.171	0.539	93.593	3.425	0.226	0.009	0.018	0.004	0.004	0.010
06/06/2020	1,020.2	1,002.5	0.589	1,328.82	-152.49	2.156	0.503	93.439	3.589	0.260	0.012	0.023	0.005	0.005	0.008
06/07/2020	1,020.4	1,002.7	0.589	1,329.48	-152.07	2.127	0.492	93.564	3.472	0.277	0.016	0.028	0.007	0.006	0.011
06/08/2020	1,021.5	1,003.7	0.589	1,330.60	-151.51	2.079	0.496	93.549	3.511	0.295	0.018	0.031	0.007	0.006	0.009
06/09/2020	1,011.5	993.9	0.586	1,321.19	-159.27	2.217	0.601	94.205	2.690	0.223	0.015	0.027	0.007	0.006	0.010
06/10/2020	1,016.8	999.1	0.589	1,324.83	-154.68	2.261	0.541	93.570	3.314	0.257	0.014	0.023	0.005	0.005	0.010
06/11/2020	1,013.2	995.6	0.587	1,322.09	-157.84	2.301	0.551	93.856	3.031	0.213	0.011	0.019	0.004	0.004	0.010
06/12/2020	1,021.7	1,003.9	0.590	1,329.97	-151.66	2.131	0.505	93.267	3.806	0.251	0.009	0.017	0.003	0.003	0.008
06/13/2020	1,019.7	1,002.0	0.590	1,327.89	-152.83	2.149	0.543	93.414	3.584	0.265	0.012	0.020	0.004	0.003	0.007
06/14/2020	1,021.4	1,003.6	0.589	1,330.60	-151.75	2.001	0.545	93.584	3.551	0.252	0.015	0.026	0.007	0.006	0.012
06/15/2020	1,018.3	1,000.6	0.589	1,326.64	-154.10	2.240	0.506	93.440	3.545	0.224	0.010	0.018	0.004	0.003	0.009
06/16/2020	1,016.9	999.2	0.589	1,325.03	-154.58	2.281	0.523	93.529	3.369	0.239	0.013	0.025	0.006	0.006	0.009
06/17/2020	1,018.9	1,001.1	0.589	1,328.04	-153.12	2.221	0.459	93.610	3.385	0.255	0.016	0.031	0.007	0.007	0.010
06/18/2020	1,017.4	999.7	0.587	1,327.84	-155.21	2.214	0.429	93.834	3.232	0.229	0.013	0.027	0.006	0.006	0.009
06/19/2020	1,016.4	998.7	0.587	1,326.93	-156.00	2.225	0.438	93.922	3.132	0.217	0.015	0.030	0.006	0.007	0.009
06/20/2020	1,011.9	994.3	0.585	1,323.51	-159.80	2.265	0.455	94.342	2.685	0.190	0.013	0.026	0.006	0.006	0.010
06/21/2020	1,016.3	998.6	0.587	1,326.83	-156.02	2.245	0.428	93.895	3.158	0.212	0.013	0.026	0.006	0.007	0.010
06/22/2020	1,016.2	998.5	0.587	1,326.16	-155.59	2.279	0.438	93.849	3.123	0.241	0.016	0.031	0.006	0.007	0.010
06/23/2020	1,015.5	997.8	0.586	1,326.78	-157.39	2.185	0.444	94.069	3.045	0.205	0.012	0.023	0.004	0.005	0.008
06/24/2020	1,012.2	994.6	0.586	1,322.62	-159.23	2.322	0.475	94.105	2.851	0.198	0.011	0.021	0.004	0.005	0.009

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Gas Day	Gross Heating Value (HHV) (Btu/scf)	Net Heating Value (LHV) (Btu/scf)	Specific Gravity	Wobbe Index	Hydrocarbon Dewpoint (HCDP) (deg F)	N2 (mol%)	CO2 (mol%)	Methane (mol%)	Ethane (mol%)	Propane (mol%)	Isobutane (mol%)	N-Butane (mol%)	Isopentane (mol%)	N-Pentane (mol%)	C6 Plus (mol%)
06/25/2020	1,012.4	994.7	0.586	1,323.00	-159.93	2.372	0.427	93.959	3.081	0.132	0.005	0.011	0.002	0.003	0.007
06/26/2020	1,014.3	996.7	0.586	1,325.13	-158.32	2.313	0.414	93.916	3.160	0.158	0.008	0.017	0.003	0.003	0.007
06/27/2020	1,011.2	993.6	0.586	1,320.64	-159.75	2.502	0.433	93.831	3.050	0.146	0.008	0.016	0.003	0.003	0.007
06/28/2020	1,014.9	997.3	0.585	1,326.42	-158.22	2.180	0.449	94.104	3.054	0.166	0.011	0.019	0.005	0.004	0.008
06/29/2020	1,012.6	995.0	0.584	1,325.55	-161.45	2.049	0.508	94.503	2.774	0.133	0.007	0.013	0.003	0.003	0.007
06/30/2020	1,013.9	996.3	0.586	1,324.30	-158.65	2.229	0.500	93.984	3.069	0.185	0.007	0.013	0.003	0.003	0.007
07/01/2020	1,014.3	996.7	0.584	1,327.07	-160.05	2.057	0.474	94.339	2.956	0.145	0.006	0.012	0.002	0.002	0.007
07/02/2020	1,012.0	994.4	0.584	1,324.20	-160.88	2.171	0.483	94.400	2.750	0.151	0.010	0.019	0.004	0.004	0.008
07/03/2020	1,009.3	991.7	0.584	1,320.88	-162.41	2.333	0.470	94.406	2.599	0.147	0.010	0.018	0.004	0.004	0.008
07/04/2020	1,009.3	991.7	0.584	1,320.88	-162.41	2.333	0.470	94.406	2.599	0.147	0.010	0.018	0.004	0.004	0.008
07/05/2020	1,009.3	991.7	0.584	1,320.88	-162.41	2.333	0.470	94.406	2.599	0.147	0.010	0.018	0.004	0.004	0.008
07/06/2020	1,009.3	991.7	0.584	1,320.88	-162.41	2.333	0.470	94.406	2.599	0.147	0.010	0.018	0.004	0.004	0.008
07/07/2020	1,009.3	991.7	0.584	1,320.88	-162.41	2.333	0.470	94.406	2.599	0.147	0.010	0.018	0.004	0.004	0.008
07/08/2020	1,009.3	991.7	0.584	1,320.88	-162.41	2.333	0.470	94.406	2.599	0.147	0.010	0.018	0.004	0.004	0.008
07/09/2020	1,005.5	988.0	0.582	1,318.32	-167.17	2.275	0.526	94.868	2.168	0.122	0.009	0.016	0.004	0.003	0.009
07/10/2020	1,011.8	994.2	0.585	1,322.54	-159.50	2.273	0.498	94.265	2.686	0.215	0.016	0.026	0.006	0.005	0.010
07/11/2020	1,005.4	987.9	0.584	1,315.73	-165.00	2.447	0.552	94.485	2.302	0.161	0.012	0.021	0.005	0.005	0.010
07/12/2020	1,002.7	985.2	0.585	1,310.91	-166.09	2.696	0.565	94.196	2.354	0.147	0.009	0.016	0.003	0.003	0.009
07/13/2020	1,008.1	990.6	0.584	1,319.23	-163.24	2.334	0.523	94.420	2.529	0.158	0.008	0.014	0.003	0.003	0.008
07/14/2020	1,013.2	995.5	0.584	1,325.62	-160.22	2.074	0.506	94.452	2.734	0.193	0.010	0.017	0.003	0.003	0.008
07/15/2020	1,010.5	992.9	0.582	1,324.25	-163.14	2.038	0.519	94.826	2.417	0.157	0.010	0.017	0.004	0.004	0.008
07/16/2020	1,012.9	995.3	0.582	1,327.81	-162.18	1.907	0.487	94.870	2.545	0.154	0.008	0.014	0.003	0.003	0.008
07/17/2020	1,009.2	991.7	0.587	1,317.06	-160.00	2.585	0.512	93.777	2.884	0.198	0.010	0.018	0.004	0.004	0.008
07/18/2020	1,003.8	986.3	0.583	1,314.33	-166.53	2.448	0.576	94.651	2.100	0.173	0.012	0.022	0.005	0.005	0.009
07/19/2020	1,003.4	986.0	0.583	1,314.66	-167.12	2.353	0.608	94.887	1.889	0.206	0.013	0.024	0.005	0.005	0.011
07/20/2020	1,004.5	987.0	0.583	1,316.14	-167.19	2.291	0.603	94.824	2.080	0.161	0.009	0.016	0.003	0.003	0.009
07/21/2020	998.0	980.6	0.584	1,306.02	-170.19	2.761	0.639	94.471	1.959	0.127	0.009	0.016	0.004	0.004	0.010
07/22/2020	1,010.1	992.6	0.584	1,321.67	-161.92	2.233	0.520	94.440	2.573	0.199	0.008	0.014	0.003	0.002	0.008
07/23/2020	1,007.1	989.6	0.582	1,319.61	-165.86	2.214	0.547	94.764	2.290	0.152	0.008	0.013	0.003	0.002	0.007
07/24/2020	1,003.4	986.0	0.582	1,315.46	-168.53	2.325	0.583	94.902	2.019	0.131	0.009	0.016	0.004	0.003	0.009
07/25/2020	1,004.0	986.6	0.582	1,315.58	-167.16	2.372	0.565	94.804	2.052	0.159	0.011	0.019	0.004	0.004	0.010
07/26/2020	998.8	981.4	0.588	1,302.28	-165.23	3.113	0.641	93.666	2.311	0.207	0.014	0.026	0.005	0.005	0.011
07/27/2020	1,004.9	987.4	0.585	1,314.39	-164.36	2.448	0.608	94.513	2.147	0.216	0.016	0.028	0.006	0.006	0.012
07/28/2020	994.9	977.6	0.584	1,301.81	-171.57	2.836	0.720	94.597	1.620	0.165	0.013	0.024	0.006	0.006	0.014
07/29/2020	1,003.7	986.3	0.584	1,313.95	-165.68	2.468	0.581	94.681	1.992	0.210	0.016	0.028	0.006	0.006	0.012
07/30/2020	996.0	978.6	0.581	1,306.44	-173.54	2.543	0.691	95.208	1.328	0.169	0.014	0.024	0.005	0.005	0.013
07/31/2020	1,005.5	988.0	0.586	1,313.97	-163.00	2.628	0.535	94.099	2.507	0.186	0.011	0.018	0.004	0.003	0.010
08/01/2020	1,007.2	989.7	0.584	1,318.33	-163.41	2.280	0.578	94.634	2.250	0.201	0.014	0.024	0.005	0.005	0.010
08/02/2020	1,000.6	983.2	0.582	1,311.28	-169.41	2.459	0.633	94.909	1.782	0.162	0.013	0.023	0.005	0.005	0.011
08/03/2020	1,004.2	986.7	0.582	1,315.96	-167.28	2.300	0.597	94.874	2.022	0.158	0.011	0.020	0.004	0.004	0.010
08/04/2020	1,009.5	991.9	0.581	1,324.22	-165.08	1.974	0.529	95.087	2.210	0.153	0.010	0.019	0.004	0.004	0.010
08/05/2020	1,002.8	985.4	0.581	1,316.09	-169.85	2.200	0.611	95.222	1.788	0.130	0.010	0.019	0.004	0.004	0.010
08/06/2020	1,009.5	991.9	0.581	1,324.41	-165.04	1.984	0.512	95.117	2.183	0.154	0.011	0.020	0.004	0.005	0.010

TSP Name: Southern Star Central Gas Pipeline, Inc.

CSI048

TSP: 007906233

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Gas Day	Gross Heating Value (HHV) (Btu/scf)	Net Heating Value (LHV) (Btu/scf)	Specific Gravity	Wobbe Index	Hydrocarbon Dewpoint (HCDP) (deg F)	N2 (mol%)	CO2 (mol%)	Methane (mol%)	Ethane (mol%)	Propane (mol%)	Isobutane (mol%)	N-Butane (mol%)	Isopentane (mol%)	N-Pentane (mol%)	C6 Plus (mol%)
08/07/2020	1,002.2	984.8	0.581	1,314.33	-169.10	2.326	0.605	95.065	1.792	0.159	0.012	0.021	0.005	0.004	0.011
08/08/2020	998.9	981.5	0.584	1,307.20	-169.53	2.738	0.617	94.470	1.998	0.136	0.009	0.016	0.003	0.003	0.010
08/09/2020	993.7	976.5	0.583	1,301.81	-174.77	2.819	0.693	94.827	1.451	0.153	0.013	0.023	0.005	0.005	0.012
08/10/2020	990.9	973.7	0.581	1,299.99	-179.70	2.774	0.729	95.152	1.191	0.105	0.010	0.018	0.005	0.004	0.012
08/11/2020	987.5	970.3	0.581	1,295.94	-183.47	2.829	0.804	95.314	0.895	0.096	0.013	0.022	0.006	0.006	0.015

NOTES:

Wobbe Index: Interchangeability constant calculated using the Gross (or Higher) Heating Value (HHV) divided by the square root of the Specific Gravity

Hydrocarbon Dewpoint (HCDP): Theoretically determined value using the Redlich-Kwong equation of state (EOS)

Selection: Business Unit ID = 70; Analysis_Key = 63711