

Gas Quality Reports

LS130 - Kansas Hugoton at Hugoton

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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	1,037.4	1,019.4	0.604	1,334.46	-136.96	3.224	0.047	89.800	6.519	0.404	0.003	0.003	0	0	0
05/14/2020	1,037.6	1,019.5	0.604	1,334.69	-136.89	3.213	0.047	89.808	6.517	0.409	0.003	0.003	0	0	0
05/15/2020	1,037.8	1,019.8	0.604	1,335.20	-136.89	3.183	0.046	89.841	6.518	0.405	0.002	0.003	0	0	0
05/16/2020	1,037.9	1,019.9	0.604	1,335.47	-136.95	3.166	0.046	89.865	6.518	0.400	0.002	0.003	0	0	0
05/17/2020	1,037.5	1,019.5	0.604	1,334.95	-137.10	3.190	0.046	89.858	6.505	0.396	0.002	0.003	0	0	0
05/18/2020	1,035.6	1,017.6	0.605	1,331.65	-137.40	3.376	0.046	89.679	6.499	0.394	0.003	0.004	0	0	0
05/19/2020	1,037.3	1,019.2	0.604	1,334.31	-137.04	3.227	0.049	89.803	6.515	0.401	0.002	0.004	0	0	0
05/20/2020	1,037.7	1,019.6	0.604	1,334.65	-136.77	3.219	0.049	89.778	6.537	0.411	0.002	0.003	0	0	0
05/21/2020	1,034.2	1,016.2	0.603	1,332.20	-139.16	3.247	0.053	90.095	6.256	0.344	0.002	0.003	0	0	0
05/22/2020	1,033.6	1,015.6	0.602	1,332.28	-139.75	3.214	0.052	90.226	6.173	0.329	0.002	0.003	0	0	0
05/23/2020	1,037.2	1,019.1	0.604	1,334.10	-137.02	3.235	0.052	89.803	6.494	0.411	0.002	0.003	0	0	0
05/24/2020	1,037.8	1,019.7	0.604	1,334.93	-136.85	3.198	0.050	89.804	6.539	0.403	0.002	0.003	0	0	0
05/25/2020	1,036.6	1,018.6	0.604	1,333.84	-137.54	3.232	0.050	89.855	6.480	0.377	0.002	0.003	0	0	0
05/26/2020	1,035.7	1,017.7	0.604	1,332.77	-137.93	3.276	0.053	89.835	6.475	0.356	0.002	0.003	0	0	0
05/27/2020	1,036.4	1,018.4	0.604	1,333.62	-137.61	3.238	0.053	89.851	6.479	0.373	0.002	0.003	0	0	0
05/28/2020	1,037.3	1,019.3	0.604	1,334.36	-137.04	3.217	0.054	89.805	6.519	0.398	0.002	0.003	0	0	0
05/29/2020	1,038.1	1,020.0	0.605	1,334.64	-136.40	3.230	0.054	89.703	6.583	0.423	0.002	0.003	0	0	0
05/30/2020	1,037.7	1,019.7	0.605	1,333.83	-136.29	3.283	0.054	89.641	6.576	0.440	0.003	0.004	0	0	0
05/31/2020	1,037.5	1,019.4	0.605	1,333.46	-136.38	3.302	0.054	89.626	6.578	0.435	0.003	0.004	0	0	0
06/01/2020	1,003.9	986.5	0.586	1,311.09	-162.76	3.539	0.044	93.154	3.137	0.121	0.002	0.003	0	0	0
06/02/2020	999.4	982.0	0.584	1,307.25	-167.26	3.637	0.043	93.490	2.732	0.093	0.002	0.003	0	0	0
06/03/2020	995.8	978.4	0.585	1,301.78	-168.81	3.915	0.043	93.320	2.625	0.092	0.002	0.003	0	0	0
06/04/2020	998.5	981.2	0.585	1,305.44	-167.25	3.746	0.043	93.355	2.755	0.096	0.002	0.003	0	0	0
06/05/2020	998.6	981.2	0.585	1,306.03	-167.70	3.697	0.043	93.458	2.709	0.088	0.002	0.003	0	0	0
06/06/2020	998.5	981.1	0.585	1,305.78	-167.64	3.714	0.043	93.426	2.725	0.087	0.002	0.003	0	0	0
06/07/2020	998.9	981.5	0.585	1,306.13	-167.34	3.702	0.044	93.409	2.751	0.089	0.002	0.003	0	0	0
06/08/2020	999.0	981.6	0.585	1,306.12	-167.16	3.709	0.044	93.378	2.774	0.090	0.002	0.003	0	0	0
06/09/2020	996.5	979.2	0.583	1,304.63	-169.90	3.710	0.043	93.688	2.474	0.079	0.002	0.003	0	0	0
06/10/2020	997.8	980.4	0.584	1,305.51	-168.48	3.705	0.042	93.538	2.626	0.084	0.002	0.003	0	0	0
06/11/2020	999.4	982.0	0.585	1,306.83	-167.03	3.673	0.042	93.409	2.782	0.089	0.002	0.003	0	0	0
06/12/2020	999.2	981.8	0.585	1,306.82	-167.26	3.666	0.042	93.447	2.751	0.089	0.002	0.003	0	0	0
06/13/2020	998.8	981.4	0.585	1,305.88	-167.28	3.721	0.042	93.380	2.761	0.090	0.002	0.003	0	0	0
06/14/2020	998.7	981.4	0.585	1,306.02	-167.43	3.708	0.042	93.414	2.742	0.089	0.002	0.003	0	0	0
06/15/2020	998.3	980.9	0.584	1,305.73	-167.95	3.709	0.042	93.472	2.686	0.086	0.002	0.003	0	0	0
06/16/2020	993.9	976.6	0.595	1,288.06	-158.07	4.997	0.041	91.496	3.060	0.305	0.023	0.050	0.009	0.010	0.010
06/17/2020	992.7	975.4	0.676	1,207.39	29.70	12.638	0.041	78.431	5.373	2.381	0.238	0.556	0.103	0.116	0.122
06/18/2020	991.1	973.8	0.584	1,296.93	-171.83	4.094	0.038	93.595	2.141	0.104	0.006	0.013	0.002	0.003	0.003
06/19/2020	992.1	974.8	0.581	1,301.55	-175.77	3.752	0.041	94.155	1.980	0.067	0.002	0.003	0	0	0
06/20/2020	992.8	975.6	0.582	1,301.71	-174.58	3.774	0.041	94.009	2.101	0.069	0.002	0.004	0	0	0
06/21/2020	993.1	975.8	0.582	1,301.70	-173.28	3.784	0.044	93.951	2.147	0.069	0.002	0.004	0	0	0
06/22/2020	993.4	976.1	0.582	1,301.86	-172.92	3.786	0.043	93.913	2.184	0.069	0.002	0.004	0	0	0
06/23/2020	992.9	975.6	0.582	1,301.59	-173.57	3.783	0.043	93.983	2.117	0.068	0.002	0.004	0	0	0
06/24/2020	993.0	975.7	0.582	1,301.14	-172.88	3.832	0.041	93.851	2.200	0.069	0.002	0.004	0	0	0

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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	993.1	975.9	0.583	1,300.99	-172.54	3.853	0.041	93.790	2.241	0.070	0.002	0.004	0	0	0
06/26/2020	992.8	975.6	0.583	1,300.85	-172.96	3.848	0.041	93.837	2.199	0.069	0.002	0.004	0	0	0
06/27/2020	993.4	976.1	0.583	1,301.32	-172.45	3.836	0.041	93.802	2.247	0.069	0.002	0.004	0	0	0
06/28/2020	993.8	976.5	0.583	1,301.79	-172.13	3.816	0.041	93.791	2.276	0.070	0.002	0.004	0	0	0
06/29/2020	996.0	978.7	0.583	1,304.35	-170.52	3.711	0.042	93.752	2.417	0.073	0.002	0.004	0	0	0
06/30/2020	995.9	978.6	0.583	1,304.57	-170.83	3.689	0.041	93.815	2.377	0.073	0.002	0.004	0	0	0
07/01/2020	994.5	977.2	0.582	1,303.60	-172.39	3.700	0.041	93.973	2.210	0.071	0.002	0.004	0	0	0
07/02/2020	993.5	976.3	0.582	1,302.04	-172.72	3.785	0.040	93.896	2.204	0.069	0.002	0.004	0	0	0
07/03/2020	994.1	976.8	0.582	1,302.68	-172.38	3.756	0.041	93.897	2.232	0.070	0.002	0.004	0	0	0
07/04/2020	994.1	976.8	0.582	1,302.82	-172.35	3.749	0.041	93.903	2.233	0.070	0.002	0.004	0	0	0
07/05/2020	995.1	977.8	0.582	1,304.81	-172.35	3.629	0.041	94.055	2.201	0.069	0.002	0.004	0	0	0
07/06/2020	995.2	977.8	0.582	1,304.42	-171.94	3.664	0.041	93.967	2.252	0.071	0.002	0.004	0	0	0
07/07/2020	994.4	977.1	0.582	1,303.36	-172.30	3.717	0.041	93.935	2.231	0.069	0.002	0.004	0	0	0
07/08/2020	995.4	978.1	0.583	1,304.07	-171.19	3.706	0.042	93.831	2.343	0.072	0.002	0.004	0	0	0
07/09/2020	994.7	977.4	0.582	1,303.76	-172.13	3.698	0.041	93.944	2.241	0.070	0.002	0.004	0	0	0
07/10/2020	994.5	977.2	0.582	1,303.53	-172.28	3.707	0.041	93.947	2.230	0.070	0.002	0.004	0	0	0
07/11/2020	995.3	978.0	0.582	1,304.16	-171.49	3.693	0.042	93.882	2.306	0.072	0.002	0.004	0	0	0
07/12/2020	994.8	977.5	0.582	1,303.71	-171.99	3.704	0.042	93.919	2.259	0.070	0.002	0.004	0	0	0
07/13/2020	995.3	978.0	0.582	1,304.16	-171.46	3.692	0.043	93.877	2.311	0.072	0.002	0.004	0	0	0
07/14/2020	995.6	978.3	0.583	1,304.35	-171.13	3.687	0.045	93.848	2.341	0.074	0.002	0.004	0	0	0
07/15/2020	993.9	976.6	0.582	1,302.84	-172.72	3.733	0.043	93.959	2.189	0.070	0.002	0.004	0	0	0
07/16/2020	999.1	981.7	0.584	1,306.95	-166.79	3.558	0.099	93.736	2.423	0.128	0.020	0.022	0.006	0.006	0.002
07/17/2020	996.4	979.0	0.582	1,305.68	-170.91	3.618	0.042	93.916	2.344	0.074	0.002	0.004	0	0	0
07/18/2020	995.7	978.4	0.582	1,304.81	-171.32	3.657	0.042	93.909	2.313	0.073	0.002	0.004	0	0	0
07/19/2020	995.2	977.9	0.582	1,304.76	-172.07	3.638	0.042	94.013	2.230	0.071	0.002	0.004	0	0	0
07/20/2020	995.4	978.1	0.582	1,304.47	-171.57	3.670	0.042	93.920	2.290	0.072	0.002	0.004	0	0	0
07/21/2020	994.9	977.6	0.582	1,303.80	-171.84	3.703	0.042	93.910	2.267	0.073	0.002	0.004	0	0	0
07/22/2020	995.3	977.9	0.583	1,303.54	-171.05	3.742	0.042	93.776	2.358	0.076	0.002	0.004	0	0	0
07/23/2020	996.2	978.9	0.582	1,305.39	-170.94	3.635	0.042	93.897	2.348	0.074	0.002	0.004	0	0	0
07/24/2020	996.8	979.5	0.582	1,306.31	-170.75	3.585	0.042	93.935	2.360	0.072	0.002	0.004	0	0	0
07/25/2020	996.2	978.9	0.582	1,305.50	-171.06	3.626	0.041	93.918	2.339	0.071	0.002	0.004	0	0	0
07/26/2020	994.2	976.9	0.583	1,301.71	-171.38	3.841	0.042	93.689	2.344	0.077	0.002	0.004	0	0	0
07/27/2020	995.2	977.9	0.582	1,304.04	-171.61	3.696	0.042	93.885	2.303	0.070	0.002	0.003	0	0	0
07/28/2020	997.1	979.8	0.583	1,306.11	-170.11	3.617	0.043	93.817	2.446	0.073	0.002	0.003	0	0	0
07/29/2020	996.6	979.3	0.583	1,305.30	-170.27	3.660	0.043	93.780	2.440	0.072	0.002	0.003	0	0	0
07/30/2020	995.7	978.4	0.582	1,304.84	-171.35	3.657	0.042	93.904	2.323	0.070	0.002	0.003	0	0	0
07/31/2020	996.8	979.5	0.583	1,305.44	-170.00	3.661	0.043	93.753	2.465	0.075	0.002	0.003	0	0	0
08/01/2020	1,035.6	1,017.6	0.605	1,331.33	-137.52	3.391	0.054	89.552	6.670	0.328	0.002	0.003	0	0	0
08/02/2020	1,035.1	1,017.1	0.605	1,331.25	-138.03	3.371	0.054	89.655	6.601	0.314	0.002	0.003	0	0	0
08/03/2020	1,035.3	1,017.3	0.605	1,331.46	-137.91	3.365	0.054	89.642	6.619	0.315	0.002	0.003	0	0	0
08/04/2020	1,036.2	1,018.2	0.605	1,332.54	-137.50	3.313	0.057	89.658	6.633	0.334	0.002	0.003	0	0	0
08/05/2020	1,036.2	1,018.2	0.605	1,332.54	-137.50	3.313	0.057	89.658	6.633	0.334	0.002	0.003	0	0	0
08/06/2020	1,036.2	1,018.2	0.605	1,332.54	-137.50	3.313	0.057	89.658	6.633	0.334	0.002	0.003	0	0	0

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	1,036.2	1,018.2	0.605	1,332.54	-137.50	3.313	0.057	89.658	6.633	0.334	0.002	0.003	0	0	0
08/08/2020	1,036.2	1,018.2	0.605	1,332.54	-137.50	3.313	0.057	89.658	6.633	0.334	0.002	0.003	0	0	0
08/09/2020	1,036.2	1,018.2	0.605	1,332.54	-137.50	3.313	0.057	89.658	6.633	0.334	0.002	0.003	0	0	0
08/10/2020	1,036.2	1,018.2	0.605	1,332.54	-137.50	3.313	0.057	89.658	6.633	0.334	0.002	0.003	0	0	0
08/11/2020	1,032.9	1,014.9	0.608	1,324.47	-136.07	3.844	0.054	89.009	6.656	0.397	0.009	0.020	0.003	0.004	0.004

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 = 63331