

Gas Quality Reports

LS235 - On Sugar Creek 16"

5/17/2019 - 8/17/2019

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%)
05/17/2019	1,068.2	1,049.7	0.613	1,364.07	-43.00	1.639	0.420	89.909	6.585	1.210	0.071	0.125	0.017	0.013	0.012
05/18/2019	1,080.2	1,061.4	0.620	1,372.33	-36.39	1.287	0.568	89.169	7.234	1.454	0.086	0.156	0.019	0.015	0.012
05/19/2019	1,092.3	1,073.3	0.628	1,378.21	-30.17	1.104	0.740	87.942	8.194	1.692	0.099	0.178	0.021	0.017	0.012
05/20/2019	1,079.1	1,060.3	0.627	1,362.25	-33.35	1.871	0.718	87.687	7.928	1.486	0.091	0.168	0.021	0.018	0.012
05/21/2019	1,070.2	1,051.6	0.633	1,345.50	-20.87	3.014	0.636	86.567	7.941	1.446	0.102	0.204	0.033	0.030	0.026
05/22/2019	1,062.5	1,044.1	0.616	1,353.84	-52.20	2.211	0.438	88.841	7.422	0.920	0.050	0.089	0.012	0.010	0.008
05/23/2019	1,053.9	1,035.6	0.611	1,348.67	-61.88	2.660	0.155	89.347	6.919	0.805	0.035	0.058	0.008	0.006	0.006
05/24/2019	1,047.6	1,029.4	0.605	1,346.51	-60.53	2.322	0.295	90.602	5.928	0.713	0.040	0.071	0.011	0.009	0.009
05/25/2019	1,061.0	1,042.5	0.615	1,353.39	-44.80	2.418	0.275	89.132	6.965	0.999	0.059	0.109	0.017	0.014	0.013
05/26/2019	1,070.0	1,051.3	0.620	1,358.62	-39.61	2.184	0.424	88.438	7.494	1.209	0.073	0.133	0.018	0.015	0.012
05/27/2019	1,072.8	1,054.1	0.622	1,360.66	-38.42	2.033	0.498	88.304	7.664	1.237	0.075	0.142	0.019	0.016	0.012
05/28/2019	1,068.1	1,049.6	0.620	1,356.80	-44.11	2.150	0.491	88.457	7.545	1.135	0.064	0.119	0.016	0.013	0.010
05/29/2019	1,068.6	1,050.1	0.619	1,357.91	-46.92	2.207	0.407	88.420	7.612	1.153	0.060	0.110	0.013	0.010	0.008
05/30/2019	1,064.2	1,045.7	0.620	1,351.18	-46.37	2.505	0.448	88.200	7.522	1.114	0.061	0.115	0.015	0.012	0.008
05/31/2019	1,069.5	1,050.9	0.622	1,355.92	-46.04	2.192	0.557	88.129	7.654	1.242	0.070	0.126	0.014	0.011	0.005
06/01/2019	1,063.5	1,045.0	0.618	1,352.41	-51.74	2.380	0.437	88.505	7.411	1.086	0.055	0.100	0.011	0.009	0.005
06/02/2019	1,062.0	1,043.5	0.618	1,350.68	-52.95	2.421	0.460	88.520	7.353	1.077	0.054	0.093	0.010	0.008	0.005
06/03/2019	1,063.3	1,044.8	0.619	1,351.67	-48.78	2.448	0.429	88.545	7.161	1.230	0.059	0.102	0.011	0.008	0.007
06/04/2019	1,061.8	1,043.3	0.618	1,350.47	-53.46	2.640	0.321	88.408	7.318	1.149	0.051	0.092	0.009	0.007	0.004
06/05/2019	1,067.0	1,048.4	0.614	1,361.22	-48.67	2.117	0.227	89.272	7.007	1.186	0.063	0.099	0.013	0.008	0.008
06/06/2019	1,074.3	1,055.6	0.615	1,370.01	-38.51	1.770	0.193	89.588	6.767	1.437	0.084	0.118	0.018	0.011	0.014
06/07/2019	1,069.7	1,051.1	0.612	1,367.26	-45.64	1.845	0.153	89.860	6.622	1.338	0.060	0.090	0.012	0.007	0.011
06/08/2019	1,044.4	1,026.2	0.598	1,350.00	-69.00	1.870	0.294	91.968	5.083	0.683	0.032	0.048	0.008	0.005	0.009
06/09/2019	1,057.8	1,039.3	0.606	1,359.21	-52.15	1.859	0.215	90.885	5.861	1.028	0.049	0.073	0.012	0.007	0.012
06/10/2019	1,057.1	1,038.7	0.609	1,355.03	-52.18	2.237	0.178	90.055	6.462	0.930	0.042	0.065	0.011	0.007	0.013
06/11/2019	1,062.7	1,044.2	0.613	1,357.59	-41.96	2.125	0.288	89.537	6.835	1.026	0.053	0.089	0.016	0.011	0.018
06/12/2019	1,045.4	1,027.2	0.609	1,339.90	-62.14	2.905	0.209	89.715	6.312	0.742	0.034	0.059	0.009	0.007	0.008
06/13/2019	1,053.0	1,034.7	0.613	1,345.33	-60.58	2.653	0.316	89.255	6.720	0.925	0.042	0.070	0.008	0.006	0.005
06/14/2019	1,056.7	1,038.3	0.618	1,344.34	-53.48	2.747	0.431	88.528	7.047	1.069	0.056	0.098	0.011	0.008	0.005
06/15/2019	1,065.6	1,047.0	0.618	1,354.94	-48.71	2.329	0.395	88.537	7.394	1.164	0.057	0.096	0.012	0.009	0.007
06/16/2019	1,070.8	1,052.2	0.621	1,358.95	-45.02	2.185	0.431	88.216	7.726	1.251	0.059	0.101	0.013	0.010	0.009
06/17/2019	1,071.2	1,052.6	0.620	1,359.92	-43.14	2.039	0.486	88.419	7.596	1.243	0.066	0.114	0.015	0.012	0.010
06/18/2019	1,058.0	1,039.6	0.610	1,354.78	-56.27	1.832	0.486	90.195	6.395	0.939	0.047	0.079	0.011	0.008	0.008
06/19/2019	1,065.3	1,046.7	0.616	1,356.99	-48.73	2.232	0.334	88.862	7.310	1.088	0.054	0.089	0.013	0.010	0.009
06/20/2019	1,060.7	1,042.3	0.612	1,355.72	-55.78	2.336	0.191	89.352	7.009	0.971	0.045	0.071	0.010	0.007	0.007
06/21/2019	1,071.2	1,052.5	0.619	1,361.66	-48.41	2.192	0.287	88.416	7.694	1.248	0.053	0.086	0.010	0.007	0.007
06/22/2019	1,064.6	1,046.1	0.616	1,356.40	-49.76	2.249	0.335	88.927	7.186	1.136	0.052	0.087	0.011	0.008	0.008
06/23/2019	1,065.2	1,046.7	0.617	1,356.47	-47.68	2.293	0.321	88.886	7.111	1.202	0.059	0.098	0.013	0.009	0.009
06/24/2019	1,062.4	1,043.9	0.612	1,357.65	-54.89	2.065	0.313	89.620	6.762	1.082	0.051	0.084	0.010	0.007	0.006
06/25/2019	1,056.4	1,038.0	0.608	1,355.04	-60.83	1.892	0.382	90.412	6.280	0.904	0.042	0.067	0.009	0.006	0.006
06/26/2019	1,065.6	1,047.0	0.614	1,360.35	-54.42	1.930	0.353	89.393	7.110	1.066	0.049	0.076	0.010	0.007	0.006
06/27/2019	1,062.4	1,043.9	0.612	1,357.71	-58.58	2.271	0.177	89.229	7.271	0.934	0.039	0.060	0.008	0.005	0.006
06/28/2019	1,057.2	1,038.8	0.611	1,352.12	-58.74	2.550	0.141	89.310	6.976	0.904	0.038	0.060	0.008	0.006	0.007

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06/29/2019	1,061.4	1,043.0	0.614	1,354.48	-51.93	2.340	0.280	89.108	7.103	1.019	0.048	0.073	0.011	0.008	0.009
06/30/2019	1,067.9	1,049.3	0.617	1,359.41	-51.97	2.181	0.316	88.671	7.530	1.159	0.048	0.074	0.009	0.006	0.006
07/01/2019	1,058.6	1,040.2	0.612	1,353.51	-60.19	2.134	0.381	89.559	6.881	0.921	0.042	0.063	0.008	0.006	0.005
07/02/2019	1,069.1	1,050.5	0.616	1,362.61	-51.16	2.012	0.285	88.921	7.553	1.082	0.049	0.073	0.010	0.007	0.008
07/03/2019	1,069.9	1,051.3	0.616	1,363.16	-49.92	2.280	0.105	88.696	7.605	1.151	0.054	0.083	0.011	0.007	0.008
07/04/2019	1,069.9	1,051.3	0.615	1,364.76	-52.12	2.167	0.090	88.872	7.668	1.057	0.049	0.072	0.010	0.007	0.007
07/05/2019	1,063.4	1,044.9	0.613	1,358.27	-56.86	2.369	0.113	89.057	7.386	0.945	0.044	0.065	0.009	0.006	0.006
07/06/2019	1,064.3	1,045.8	0.614	1,358.32	-56.38	2.295	0.187	88.985	7.419	0.977	0.047	0.069	0.009	0.006	0.006
07/07/2019	1,069.6	1,051.0	0.615	1,364.23	-54.32	2.073	0.172	88.916	7.649	1.051	0.049	0.068	0.009	0.006	0.006
07/08/2019	1,069.3	1,050.6	0.614	1,364.07	-54.88	2.050	0.185	88.949	7.667	1.008	0.050	0.069	0.010	0.006	0.006
07/09/2019	1,062.3	1,043.8	0.611	1,359.10	-58.03	2.062	0.232	89.603	7.071	0.897	0.045	0.066	0.010	0.007	0.007
07/10/2019	1,069.2	1,050.6	0.614	1,363.95	-52.96	2.023	0.206	89.016	7.575	1.031	0.051	0.074	0.010	0.007	0.007
07/11/2019	1,075.6	1,056.9	0.616	1,369.99	-48.16	1.715	0.276	88.900	7.790	1.144	0.060	0.087	0.012	0.008	0.008
07/12/2019	1,071.9	1,053.2	0.615	1,366.57	-49.96	1.974	0.178	88.938	7.648	1.101	0.055	0.079	0.011	0.007	0.008
07/13/2019	1,064.2	1,045.7	0.613	1,359.46	-56.28	2.298	0.119	89.115	7.378	0.958	0.044	0.066	0.009	0.006	0.007
07/14/2019	1,062.9	1,044.4	0.614	1,356.39	-57.46	2.330	0.228	88.949	7.421	0.933	0.045	0.072	0.009	0.007	0.005
07/15/2019	1,068.2	1,049.6	0.616	1,360.82	-50.39	2.083	0.310	88.848	7.512	1.085	0.052	0.082	0.011	0.008	0.008
07/16/2019	1,083.7	1,064.8	0.623	1,372.57	-34.53	1.933	0.240	88.095	7.902	1.498	0.090	0.197	0.019	0.016	0.009
07/17/2019	1,078.3	1,059.6	0.619	1,370.61	-42.74	1.864	0.228	88.547	7.876	1.241	0.071	0.140	0.015	0.011	0.008
07/18/2019	1,066.5	1,048.0	0.614	1,361.42	-54.62	2.245	0.117	89.020	7.481	0.974	0.050	0.088	0.010	0.007	0.006
07/19/2019	1,063.8	1,045.3	0.614	1,357.26	-56.48	2.348	0.195	88.885	7.475	0.967	0.043	0.066	0.008	0.006	0.006
07/20/2019	1,066.2	1,047.7	0.615	1,359.93	-54.70	2.216	0.211	88.889	7.537	1.016	0.043	0.067	0.009	0.006	0.007
07/21/2019	1,070.6	1,051.9	0.617	1,362.88	-48.23	2.278	0.143	88.495	7.821	1.098	0.049	0.085	0.012	0.010	0.009
07/22/2019	1,064.3	1,045.8	0.615	1,357.43	-57.60	2.270	0.254	88.861	7.510	0.977	0.042	0.067	0.008	0.006	0.005
07/23/2019	1,066.8	1,048.2	0.615	1,360.82	-56.76	2.195	0.193	88.901	7.563	1.014	0.044	0.070	0.009	0.006	0.004
07/24/2019	1,062.0	1,043.5	0.612	1,357.20	-58.24	2.338	0.148	89.179	7.308	0.901	0.041	0.063	0.009	0.007	0.006
07/25/2019	1,067.8	1,049.2	0.618	1,358.65	-50.66	2.260	0.304	88.528	7.620	1.141	0.048	0.076	0.010	0.007	0.007
07/26/2019	1,069.5	1,050.9	0.616	1,362.63	-53.64	2.209	0.168	88.697	7.661	1.124	0.047	0.073	0.009	0.007	0.005
07/27/2019	1,067.9	1,049.4	0.615	1,361.82	-51.58	2.224	0.154	88.890	7.497	1.082	0.050	0.076	0.011	0.008	0.007
07/28/2019	1,066.4	1,047.8	0.614	1,360.59	-55.06	2.298	0.125	88.865	7.579	0.999	0.043	0.067	0.010	0.008	0.006
07/29/2019	1,062.9	1,044.4	0.614	1,356.76	-59.75	2.453	0.127	88.839	7.539	0.921	0.039	0.062	0.008	0.007	0.004
07/30/2019	1,071.7	1,053.0	0.619	1,361.88	-45.36	2.398	0.155	88.315	7.601	1.352	0.056	0.092	0.012	0.009	0.008
07/31/2019	1,058.9	1,040.5	0.609	1,356.46	-57.39	1.895	0.382	90.137	6.519	0.911	0.046	0.082	0.011	0.010	0.006
08/01/2019	1,076.0	1,057.3	0.623	1,363.07	-42.60	2.048	0.456	87.979	7.912	1.395	0.067	0.111	0.014	0.011	0.007
08/02/2019	1,059.7	1,041.3	0.614	1,351.89	-58.83	2.649	0.169	88.711	7.436	0.913	0.038	0.065	0.009	0.008	0.005
08/03/2019	1,049.9	1,031.6	0.608	1,346.41	-67.08	2.472	0.276	89.918	6.526	0.690	0.033	0.062	0.009	0.008	0.005
08/04/2019	1,047.7	1,029.4	0.611	1,340.82	-70.49	3.153	0.070	89.006	7.025	0.659	0.026	0.045	0.006	0.006	0.003
08/05/2019	1,062.1	1,043.7	0.614	1,355.94	-57.84	2.428	0.164	88.982	7.321	0.985	0.037	0.063	0.008	0.007	0.005
08/06/2019	1,075.6	1,056.8	0.621	1,364.96	-38.97	2.289	0.176	88.273	7.515	1.541	0.064	0.105	0.016	0.011	0.012
08/07/2019	1,065.8	1,047.3	0.615	1,359.26	-46.74	2.272	0.197	89.056	7.164	1.142	0.051	0.082	0.014	0.010	0.012
08/08/2019	1,060.6	1,042.1	0.613	1,354.69	-55.29	2.463	0.161	89.141	7.108	1.003	0.038	0.061	0.009	0.007	0.008
08/09/2019	1,060.9	1,042.4	0.614	1,354.15	-55.13	2.518	0.164	89.018	7.120	1.051	0.040	0.064	0.009	0.007	0.007
08/10/2019	1,067.4	1,048.8	0.616	1,359.92	-46.17	2.319	0.179	88.933	7.104	1.293	0.053	0.087	0.013	0.009	0.010

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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%)
08/11/2019	1,069.4	1,050.8	0.617	1,361.06	-46.31	2.372	0.145	88.634	7.370	1.318	0.050	0.082	0.011	0.008	0.009
08/12/2019	1,067.0	1,048.4	0.615	1,360.29	-50.71	2.293	0.163	88.935	7.273	1.184	0.047	0.079	0.010	0.008	0.007
08/13/2019	1,076.1	1,057.4	0.621	1,366.05	-41.34	2.264	0.149	88.274	7.601	1.514	0.061	0.104	0.014	0.010	0.009
08/14/2019	1,068.0	1,049.4	0.616	1,360.43	-48.30	2.345	0.153	88.806	7.279	1.247	0.052	0.089	0.012	0.009	0.008
08/15/2019	1,065.6	1,047.0	0.615	1,358.83	-46.81	2.235	0.237	89.183	6.965	1.183	0.059	0.102	0.015	0.012	0.009

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 = 68423