

# Gas Quality Reports

LS235 - On Sedalia 20" at Peculiar  
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	1,068.1	1,049.6	0.613	1,364.14	-43.81	1.629	0.420	89.933	6.579	1.206	0.070	0.124	0.016	0.012	0.011
05/18/2019	1,081.9	1,063.1	0.620	1,373.81	-35.91	1.232	0.576	89.088	7.328	1.484	0.088	0.158	0.019	0.015	0.011
05/19/2019	1,093.1	1,074.1	0.629	1,378.29	-29.54	1.101	0.764	87.814	8.276	1.713	0.101	0.180	0.022	0.017	0.012
05/20/2019	1,076.6	1,057.9	0.630	1,356.91	-31.72	2.227	0.709	87.283	7.927	1.524	0.096	0.180	0.023	0.019	0.012
05/21/2019	1,070.9	1,052.2	0.632	1,346.56	-20.16	2.952	0.638	86.619	7.958	1.433	0.102	0.205	0.034	0.031	0.027
05/22/2019	1,062.5	1,044.0	0.616	1,353.79	-50.73	2.217	0.436	88.846	7.407	0.922	0.051	0.090	0.012	0.010	0.009
05/23/2019	1,054.1	1,035.8	0.611	1,348.77	-61.22	2.665	0.152	89.322	6.938	0.809	0.035	0.058	0.008	0.006	0.007
05/24/2019	1,057.9	1,039.5	0.615	1,348.65	-48.69	2.836	0.170	88.667	7.210	0.931	0.052	0.096	0.015	0.013	0.011
05/25/2019	1,064.3	1,045.8	0.617	1,354.68	-41.18	2.449	0.290	88.711	7.236	1.079	0.065	0.122	0.018	0.016	0.014
05/26/2019	1,071.1	1,052.5	0.621	1,359.28	-38.98	2.157	0.442	88.341	7.568	1.239	0.074	0.134	0.018	0.015	0.013
05/27/2019	1,073.4	1,054.7	0.622	1,360.85	-37.81	2.042	0.500	88.220	7.727	1.244	0.076	0.144	0.019	0.016	0.012
05/28/2019	1,067.9	1,049.3	0.620	1,356.48	-44.19	2.161	0.492	88.463	7.532	1.132	0.064	0.119	0.015	0.013	0.010
05/29/2019	1,068.8	1,050.2	0.620	1,357.72	-46.48	2.225	0.412	88.353	7.651	1.158	0.060	0.111	0.013	0.010	0.008
05/30/2019	1,068.5	1,050.0	0.623	1,354.07	-42.33	2.399	0.494	87.940	7.702	1.227	0.070	0.130	0.016	0.013	0.009
05/31/2019	1,069.6	1,051.0	0.622	1,356.05	-45.75	2.189	0.555	88.129	7.659	1.241	0.070	0.127	0.014	0.011	0.006
06/01/2019	1,064.1	1,045.6	0.619	1,352.99	-51.19	2.354	0.442	88.488	7.434	1.100	0.056	0.101	0.011	0.009	0.005
06/02/2019	1,062.4	1,043.9	0.619	1,350.79	-52.49	2.432	0.461	88.456	7.386	1.095	0.054	0.094	0.010	0.008	0.005
06/03/2019	1,065.1	1,046.6	0.620	1,352.93	-47.70	2.442	0.418	88.413	7.254	1.282	0.060	0.105	0.012	0.008	0.007
06/04/2019	1,063.7	1,045.2	0.619	1,351.86	-51.83	2.626	0.314	88.273	7.421	1.199	0.053	0.095	0.009	0.007	0.004
06/05/2019	1,067.4	1,048.9	0.615	1,361.55	-48.53	2.104	0.230	89.255	7.018	1.199	0.064	0.100	0.013	0.008	0.008
06/06/2019	1,076.6	1,057.9	0.616	1,372.07	-37.11	1.721	0.183	89.502	6.845	1.493	0.088	0.123	0.019	0.012	0.014
06/07/2019	1,071.2	1,052.5	0.613	1,368.56	-44.09	1.809	0.152	89.819	6.646	1.390	0.061	0.093	0.012	0.007	0.012
06/08/2019	1,054.7	1,036.4	0.606	1,354.69	-56.47	2.183	0.158	90.509	6.087	0.935	0.040	0.061	0.010	0.006	0.011
06/09/2019	1,058.6	1,040.1	0.606	1,359.80	-51.67	1.856	0.209	90.825	5.904	1.048	0.051	0.076	0.012	0.007	0.012
06/10/2019	1,057.7	1,039.3	0.609	1,355.37	-51.92	2.229	0.184	89.990	6.518	0.940	0.043	0.066	0.011	0.007	0.013
06/11/2019	1,063.7	1,045.2	0.613	1,358.33	-39.52	2.095	0.299	89.493	6.875	1.041	0.055	0.093	0.017	0.012	0.020
06/12/2019	1,046.7	1,028.4	0.609	1,340.76	-60.36	2.885	0.215	89.618	6.392	0.769	0.036	0.062	0.009	0.007	0.009
06/13/2019	1,052.3	1,034.0	0.613	1,343.72	-60.27	2.743	0.325	89.131	6.738	0.932	0.043	0.071	0.008	0.006	0.005
06/14/2019	1,059.9	1,041.4	0.619	1,346.84	-51.33	2.665	0.447	88.341	7.239	1.117	0.060	0.105	0.011	0.009	0.005
06/15/2019	1,067.0	1,048.4	0.619	1,356.00	-47.39	2.318	0.389	88.437	7.471	1.197	0.058	0.100	0.013	0.010	0.008
06/16/2019	1,072.4	1,053.8	0.622	1,360.14	-43.40	2.167	0.429	88.100	7.811	1.298	0.061	0.102	0.013	0.009	0.010
06/17/2019	1,071.3	1,052.7	0.621	1,359.98	-43.03	2.039	0.487	88.403	7.610	1.243	0.067	0.114	0.015	0.011	0.010
06/18/2019	1,072.3	1,053.6	0.622	1,360.10	-44.19	2.090	0.476	88.150	7.841	1.244	0.061	0.104	0.014	0.011	0.009
06/19/2019	1,065.9	1,047.3	0.616	1,357.47	-48.19	2.223	0.331	88.833	7.335	1.100	0.055	0.092	0.013	0.010	0.009
06/20/2019	1,061.4	1,042.9	0.613	1,356.08	-54.82	2.332	0.194	89.299	7.039	0.994	0.046	0.072	0.010	0.007	0.008
06/21/2019	1,075.5	1,056.8	0.621	1,364.53	-45.16	2.167	0.280	88.078	7.932	1.369	0.057	0.093	0.011	0.007	0.008
06/22/2019	1,066.1	1,047.6	0.617	1,357.39	-48.73	2.217	0.349	88.823	7.264	1.175	0.054	0.090	0.012	0.008	0.008
06/23/2019	1,066.8	1,048.2	0.618	1,357.47	-46.59	2.285	0.319	88.768	7.187	1.248	0.060	0.101	0.013	0.009	0.009
06/24/2019	1,062.5	1,044.0	0.612	1,357.71	-54.57	2.066	0.314	89.600	6.782	1.081	0.051	0.084	0.010	0.007	0.006
06/25/2019	1,062.7	1,044.2	0.613	1,357.57	-55.38	2.037	0.348	89.498	6.929	1.041	0.047	0.077	0.010	0.007	0.006
06/26/2019	1,066.9	1,048.3	0.614	1,361.30	-53.11	1.917	0.351	89.273	7.223	1.085	0.050	0.077	0.010	0.007	0.007
06/27/2019	1,062.1	1,043.6	0.612	1,357.28	-58.80	2.321	0.158	89.185	7.293	0.926	0.038	0.059	0.008	0.005	0.006
06/28/2019	1,057.5	1,039.1	0.612	1,352.22	-58.48	2.556	0.140	89.277	6.995	0.912	0.038	0.061	0.008	0.006	0.007

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06/29/2019	1,062.5	1,044.0	0.615	1,355.06	-51.55	2.337	0.284	88.991	7.199	1.039	0.048	0.074	0.011	0.007	0.009
06/30/2019	1,069.2	1,050.6	0.618	1,360.22	-50.88	2.176	0.316	88.557	7.603	1.201	0.050	0.076	0.009	0.006	0.006
07/01/2019	1,064.2	1,045.7	0.616	1,355.45	-55.66	2.278	0.357	88.691	7.503	1.035	0.047	0.070	0.009	0.006	0.005
07/02/2019	1,069.2	1,050.6	0.616	1,362.33	-51.19	2.050	0.280	88.832	7.603	1.090	0.048	0.073	0.010	0.007	0.008
07/03/2019	1,073.4	1,054.7	0.618	1,365.67	-47.39	2.249	0.096	88.463	7.769	1.251	0.057	0.089	0.011	0.007	0.008
07/04/2019	1,069.7	1,051.1	0.615	1,364.45	-52.16	2.181	0.091	88.867	7.665	1.051	0.049	0.073	0.010	0.007	0.007
07/05/2019	1,063.7	1,045.1	0.613	1,358.39	-56.51	2.362	0.119	89.036	7.398	0.953	0.045	0.065	0.009	0.006	0.007
07/06/2019	1,064.6	1,046.1	0.614	1,358.55	-55.87	2.293	0.185	88.960	7.440	0.983	0.048	0.070	0.009	0.006	0.006
07/07/2019	1,069.8	1,051.1	0.615	1,364.27	-53.62	2.075	0.173	88.900	7.654	1.058	0.050	0.069	0.009	0.006	0.006
07/08/2019	1,069.4	1,050.8	0.615	1,364.11	-54.54	2.052	0.186	88.930	7.681	1.009	0.050	0.070	0.010	0.006	0.006
07/09/2019	1,067.4	1,048.8	0.615	1,361.32	-53.63	2.188	0.188	88.859	7.630	0.989	0.050	0.072	0.010	0.007	0.007
07/10/2019	1,069.7	1,051.1	0.615	1,364.18	-52.60	2.031	0.206	88.937	7.634	1.042	0.052	0.075	0.010	0.007	0.007
07/11/2019	1,076.1	1,057.4	0.617	1,370.08	-47.61	1.720	0.282	88.830	7.835	1.155	0.061	0.089	0.012	0.008	0.008
07/12/2019	1,072.8	1,054.1	0.616	1,367.33	-49.20	1.959	0.173	88.900	7.682	1.122	0.056	0.081	0.012	0.007	0.008
07/13/2019	1,064.4	1,045.8	0.613	1,359.41	-55.90	2.311	0.117	89.075	7.404	0.960	0.044	0.066	0.009	0.006	0.007
07/14/2019	1,063.1	1,044.6	0.614	1,356.49	-56.96	2.329	0.229	88.930	7.435	0.937	0.046	0.073	0.009	0.007	0.005
07/15/2019	1,069.4	1,050.8	0.617	1,361.34	-48.71	2.096	0.311	88.738	7.540	1.138	0.056	0.092	0.012	0.008	0.008
07/16/2019	1,084.2	1,065.4	0.623	1,373.14	-34.20	1.923	0.233	88.071	7.943	1.498	0.090	0.198	0.019	0.016	0.010
07/17/2019	1,078.7	1,060.0	0.619	1,370.88	-42.34	1.860	0.227	88.517	7.902	1.246	0.071	0.142	0.015	0.011	0.008
07/18/2019	1,066.7	1,048.2	0.614	1,361.53	-53.60	2.245	0.118	88.999	7.496	0.978	0.051	0.089	0.010	0.007	0.006
07/19/2019	1,065.4	1,046.9	0.615	1,358.72	-55.37	2.301	0.197	88.821	7.543	1.003	0.045	0.069	0.009	0.006	0.006
07/20/2019	1,067.4	1,048.8	0.615	1,360.60	-53.06	2.208	0.217	88.777	7.620	1.040	0.044	0.071	0.010	0.007	0.007
07/21/2019	1,070.8	1,052.2	0.617	1,362.87	-47.48	2.292	0.143	88.451	7.831	1.116	0.049	0.087	0.012	0.010	0.009
07/22/2019	1,064.4	1,045.9	0.615	1,357.45	-57.16	2.272	0.255	88.847	7.520	0.978	0.042	0.068	0.008	0.006	0.005
07/23/2019	1,067.3	1,048.7	0.615	1,361.20	-56.50	2.185	0.193	88.875	7.587	1.024	0.045	0.071	0.009	0.006	0.004
07/24/2019	1,062.1	1,043.7	0.612	1,357.34	-57.90	2.331	0.150	89.180	7.306	0.906	0.041	0.064	0.009	0.007	0.006
07/25/2019	1,068.2	1,049.7	0.618	1,358.67	-50.22	2.272	0.309	88.453	7.655	1.160	0.049	0.078	0.010	0.007	0.007
07/26/2019	1,070.4	1,051.8	0.616	1,363.47	-53.04	2.191	0.163	88.647	7.718	1.141	0.047	0.073	0.009	0.007	0.005
07/27/2019	1,069.0	1,050.4	0.615	1,362.63	-50.93	2.209	0.152	88.820	7.556	1.108	0.051	0.078	0.011	0.008	0.007
07/28/2019	1,066.3	1,047.8	0.614	1,360.45	-54.86	2.306	0.126	88.855	7.583	0.997	0.043	0.067	0.010	0.008	0.007
07/29/2019	1,063.2	1,044.7	0.614	1,356.90	-59.42	2.452	0.128	88.819	7.553	0.926	0.040	0.063	0.009	0.007	0.004
07/30/2019	1,071.9	1,053.3	0.619	1,361.98	-45.13	2.400	0.155	88.292	7.613	1.360	0.057	0.094	0.012	0.009	0.008
07/31/2019	1,068.2	1,049.6	0.617	1,360.16	-50.92	2.273	0.221	88.671	7.526	1.145	0.052	0.086	0.011	0.009	0.006
08/01/2019	1,077.0	1,058.3	0.624	1,363.44	-41.99	2.075	0.450	87.835	8.003	1.424	0.068	0.113	0.014	0.011	0.007
08/02/2019	1,059.6	1,041.2	0.614	1,351.74	-58.61	2.664	0.164	88.697	7.444	0.908	0.038	0.064	0.009	0.008	0.005
08/03/2019	1,050.6	1,032.3	0.612	1,343.22	-67.89	3.101	0.065	88.856	7.138	0.742	0.030	0.051	0.007	0.006	0.003
08/04/2019	1,048.6	1,030.3	0.611	1,341.48	-69.41	3.140	0.071	88.950	7.064	0.686	0.027	0.047	0.007	0.006	0.004
08/05/2019	1,063.7	1,045.2	0.615	1,356.53	-56.82	2.517	0.122	88.715	7.496	1.030	0.038	0.063	0.008	0.006	0.005
08/06/2019	1,076.6	1,057.9	0.622	1,365.29	-38.15	2.358	0.146	88.088	7.614	1.583	0.066	0.106	0.016	0.011	0.012
08/07/2019	1,067.9	1,049.3	0.616	1,360.17	-45.23	2.391	0.135	88.723	7.375	1.209	0.052	0.081	0.013	0.009	0.012
08/08/2019	1,060.9	1,042.4	0.613	1,354.71	-54.47	2.481	0.158	89.082	7.139	1.015	0.039	0.062	0.010	0.007	0.009
08/09/2019	1,061.5	1,043.0	0.614	1,354.53	-54.46	2.513	0.165	88.977	7.148	1.068	0.040	0.065	0.009	0.007	0.007
08/10/2019	1,067.8	1,049.2	0.616	1,360.43	-46.14	2.291	0.183	88.947	7.103	1.303	0.053	0.088	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	1,070.3	1,051.6	0.618	1,361.66	-45.63	2.364	0.144	88.572	7.418	1.339	0.051	0.084	0.012	0.008	0.010
08/12/2019	1,067.3	1,048.8	0.616	1,360.47	-50.18	2.301	0.159	88.888	7.303	1.195	0.047	0.080	0.010	0.008	0.008
08/13/2019	1,076.3	1,057.5	0.621	1,366.14	-41.24	2.264	0.149	88.257	7.613	1.518	0.061	0.104	0.014	0.010	0.009
08/14/2019	1,068.1	1,049.5	0.617	1,360.33	-47.88	2.364	0.150	88.764	7.300	1.251	0.053	0.090	0.012	0.009	0.008
08/15/2019	1,071.3	1,052.7	0.619	1,361.40	-41.98	2.490	0.109	88.380	7.411	1.395	0.067	0.111	0.016	0.012	0.010

**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 = 68421