

400 North Fourth Street  
Bismarck, ND 58501  
701-222-7900

September 20, 2022

Executive Secretary  
North Dakota Public Service Commission  
State Capitol Building  
Bismarck, ND 58505-0480

Re: Case No. PU-22-002 (Therm Billing)  
Monthly Report – July 2022

Montana-Dakota Utilities Co. herewith electronically submits the following information, pursuant to the Ordering paragraphs one and two of the Order issued in Case No. 11,006, dated October 20, 1987 and pursuant to the North Dakota Administrative Code 69-09-01-02, part 2.

1. Attachment A is a schedule showing the thermal billing factors by community that reflect the BTU values shown on Attachment B and were used for billing purposes in August 2022.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our suppliers for the month of July 2022.
3. Attachment C is a listing which states the type of measuring device in place at each zone.
4. Attachment D is a monthly list of the heating value data, by zone, for the most recent 12-month period and an average thereof. It is being provided pursuant to a Staff request.
5. Attachment E provides a brief explanation of the thermal variances, where applicable, for the month of July 2022.

Montana-Dakota respectfully requests this electronic filing, in lieu of an original and one copy, be accepted as being in full compliance with the filing requirements of this Commission.

Sincerely,

*/s/ Travis R. Jacobson*

Travis R. Jacobson  
Director of Regulatory Affairs

**Montana-Dakota Utilities Co.**  
**Therm Billing Factors - North Dakota**  
**Aug-22**

<u>Town</u>	<u>Heat Zone</u>	<u>Therm Factor</u>
MDU-303-ALEXANDER	025	1.1325
MDU-308-ARNEGARD	025	1.1325
MDU-314-APPLE VALLEY	271	1.1627
MDU-318-BEACH	032	1.0387
MDU-319-BELFIELD	032	1.0464
MDU-323-BERTHOLD	262	1.1381
MDU-327-BISMARCK	028	1.1627
MDU-330-BOWMAN	034	0.9302
MDU-337-BURLINGTON	262	1.1627
MDU-343-CARRINGTON	273	1.1627
MDU-344-CLEVELAND	272	1.1545
MDU-364-CAVALIER	273	1.1872
MDU-365-DAWSON	271	1.1545
MDU-368-DES LACS	262	1.1463
MDU-369-DICKINSON	031	1.0362
MDU-374-FT TOTTEN	273	1.1708
MDU-375-DEVILS LAKE	273	1.1708
MDU-379-BARLOW	273	1.1627
MDU-384-EPPING	264	1.1164
MDU-387-ELDRIDGE	272	1.1627
MDU-407-GLADSTONE	031	1.0362
MDU-411-GLEN ULLIN	031	1.0437
MDU-413-GOLVA	032	1.0235
MDU-416-GARRISON	262	1.1463
MDU-417-GRAFTON	273	1.1954
MDU-403-GWINNER	601	1.1360
MDU-429-HEBRON	031	1.0437
MDU-432-HETTINGER	903	2.4049
MDU-449-JAMESTOWN	272	1.1708
MDU-459-KILLDEER	033	1.1098
MDU-463-LANGDON	273	1.1627
MDU-469-LEFOR	031	1.0362
MDU-474-LIGNITE	263	1.0759
MDU-475-LINTON	802	1.0459
MDU-478-LINCOLN	028	1.1617
MDU-488-MCKENZIE	271	1.1627
MDU-494-MEDINA	271	1.1545
MDU-498-MANDAN	028	1.1617
MDU-500-MARMARTH	034	0.9371
MDU-505-MINOT	262	1.1627
MDU-510-MOTT	031	1.0362
MDU-512-MAX	262	1.1381
MDU-513-MILNOR	601	1.1360
MDU-522-NEW ENGLAND	031	1.0287
MDU-524-NEW SALEM	028	1.1372
MDU-532-NEW ROCKFORD	273	1.1627
MDU-539-PARK RIVER	273	1.1872
MDU-540-PALERMO	262	1.1381
MDU-558-RAY	264	1.1164

MDU-561-REGENT	031	1.0362
MDU-563-RHAME	034	0.9233
MDU-564-RICHARDTON	031	1.0287
MDU-568-ROSS	261	1.1253
MDU-572-RUTHVILLE	262	1.1627
MDU-574-SANBORN	272	1.1708
MDU-583-SENTINEL BUTTE	032	1.0387
MDU-588-SOUTH HEART	031	1.0287
MDU-717-SPIRITWOOD	272	1.1708
MDU-590-SPRINGBROOK	264	1.1164
MDU-591-STANLEY	261	1.1334
MDU-593-STEELE	271	1.1545
MDU-594-STERLING	028	1.1617
MDU-598-SHEYENNE	273	1.1708
MDU-605-SURREY	262	1.1627
MDU-610-TAPPEN	271	1.1545
MDU-611-TAYLOR	031	1.0287
MDU-616-TIOGA	260	1.0999
MDU-619-TURTLE LAKE	262	1.1463
MDU-620-TRENTON	024	1.1292
MDU-624-UNDERWOOD	262	1.1463
MDU-625-VALLEY CITY	272	1.1790
MDU-629-WALHALLA	273	1.1872
MDU-632-WATFORD CITY	610	1.0040
MDU-636-WHEELOCK	264	1.1140
MDU-637-WHITE EARTH	261	1.1334
MDU-642-WILLISTON	024	1.1292
MDU-646-WASHBURN	262	1.1545
MDU-647-WILTON	262	1.1381
MDU-664-RIVERDALE	262	1.1463
MDU-691-FAIRVIEW	241	1.1282
MDU-712-MINOT AFB	262	1.1627
MDU-718-FAIRMOUNT	600	1.1336
MDU-732-NEKOMA	273	1.1627
MDU-732-MSR SITE	273	1.1627

# Source Daily Summary

July 2022

Source #: 251  
Name: SDNY BDR-MNDK JNCTN-SDNY PLT

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7255	1177.9	1198.7	1197.7	1.176	3.231	69.945	21.986	3.175	0.146	0.300	0.020	0.019	0.000	0.000	0.000	0.000	0.000	1407.33	
2	0.7199	1172.7	1193.5	1192.5	1.116	3.111	70.977	21.197	3.122	0.141	0.295	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1406.61	
3	0.7243	1179.5	1200.4	1199.5	1.123	3.101	70.137	21.998	3.154	0.145	0.301	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1410.43	
4	0.7255	1179.0	1199.9	1199.0	1.161	3.178	69.918	22.121	3.126	0.147	0.306	0.021	0.020	0.000	0.000	0.000	0.000	0.000	1408.80	
5	0.7249	1176.8	1197.7	1196.7	1.185	3.222	70.057	21.897	3.152	0.146	0.301	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1406.72	
6	0.7316	1181.4	1202.3	1201.1	1.262	3.460	69.061	22.257	3.456	0.157	0.311	0.019	0.017	0.000	0.000	0.000	0.000	0.000	1405.65	
7	0.7044	1170.9	1191.7	1190.6	0.185	3.183	72.045	21.903	2.415	0.083	0.167	0.010	0.009	0.000	0.000	0.000	0.000	0.000	1419.94	
8	0.6992	1167.6	1188.2	1187.2	0.026	3.139	72.631	21.789	2.201	0.068	0.133	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1421.07	
9	0.7038	1175.9	1196.7	1195.6	0.025	3.069	71.979	22.231	2.464	0.074	0.143	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1426.46	
10	0.7039	1169.0	1189.7	1188.6	0.213	3.214	71.877	22.218	2.279	0.066	0.121	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1418.10	
11	0.7336	1185.3	1206.2	1205.1	1.194	3.520	68.395	23.069	3.345	0.151	0.294	0.017	0.014	0.000	0.000	0.000	0.000	0.000	1408.32	
12	0.7289	1182.0	1203.0	1201.9	1.094	3.425	69.271	22.410	3.309	0.148	0.302	0.020	0.019	0.000	0.000	0.000	0.000	0.000	1409.01	
13	0.7299	1184.3	1205.2	1204.1	1.135	3.319	69.360	22.221	3.424	0.158	0.334	0.024	0.024	0.000	0.000	0.000	0.000	0.000	1410.68	
14	0.7325	1179.7	1200.6	1199.4	1.287	3.608	68.942	22.158	3.482	0.162	0.321	0.021	0.018	0.000	0.000	0.000	0.000	0.000	1402.80	
15	0.7318	1176.6	1197.4	1196.2	1.314	3.690	69.150	21.797	3.516	0.166	0.329	0.020	0.017	0.000	0.000	0.000	0.000	0.000	1399.74	
16	0.7324	1177.6	1198.5	1197.2	1.314	3.680	69.154	21.686	3.621	0.171	0.338	0.019	0.016	0.000	0.000	0.000	0.000	0.000	1400.43	
17	0.7336	1184.5	1205.5	1204.0	1.180	3.583	68.766	22.291	3.670	0.161	0.314	0.019	0.016	0.000	0.000	0.000	0.000	0.000	1407.46	
18	0.7134	1172.3	1193.1	1191.8	0.576	3.346	71.030	21.945	2.790	0.101	0.192	0.010	0.009	0.000	0.000	0.000	0.000	0.000	1412.74	
19	0.7243	1176.3	1197.1	1196.1	0.972	3.530	69.836	22.019	3.203	0.140	0.270	0.016	0.013	0.000	0.000	0.000	0.000	0.000	1406.69	
20	0.7322	1178.4	1199.3	1198.2	1.295	3.650	69.021	22.028	3.453	0.172	0.340	0.021	0.018	0.000	0.000	0.000	0.000	0.000	1401.50	
21	0.7343	1181.2	1202.1	1201.0	1.307	3.655	68.637	22.367	3.496	0.167	0.331	0.021	0.018	0.000	0.000	0.000	0.000	0.000	1402.83	
22	0.7379	1192.2	1213.3	1212.0	1.229	3.433	68.702	21.989	3.921	0.211	0.449	0.034	0.031	0.000	0.000	0.000	0.000	0.000	1412.37	
23	0.7252	1176.4	1197.3	1196.2	1.159	3.315	70.069	21.714	3.245	0.150	0.307	0.021	0.020	0.000	0.000	0.000	0.000	0.000	1405.93	
24	0.7239	1175.0	1195.8	1194.6	1.186	3.242	70.452	21.314	3.294	0.152	0.316	0.022	0.021	0.000	0.000	0.000	0.000	0.000	1405.43	
25	0.7249	1176.8	1197.7	1196.6	1.167	3.253	70.034	21.897	3.171	0.142	0.294	0.021	0.020	0.000	0.000	0.000	0.000	0.000	1406.69	
26	0.7236	1176.2	1197.1	1196.0	1.173	3.153	70.453	21.471	3.247	0.148	0.309	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1407.26	
27	0.7216	1175.0	1195.8	1194.9	1.159	3.059	70.860	21.183	3.233	0.149	0.313	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1407.78	
28	0.7246	1180.4	1201.3	1200.3	1.163	3.011	70.236	21.855	3.234	0.146	0.309	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1411.26	
29	0.7264	1183.5	1204.5	1203.4	1.162	2.993	69.924	22.150	3.262	0.148	0.314	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1413.22	
30	0.7352	1193.2	1214.4	1213.2	1.184	3.188	68.526	22.991	3.563	0.161	0.337	0.025	0.025	0.000	0.000	0.000	0.000	0.000	1416.32	
31	0.7372	1194.0	1215.2	1214.1	1.246	3.236	67.971	23.551	3.502	0.154	0.305	0.018	0.016	0.000	0.000	0.000	0.000	0.000	1415.35	
Avg	0.7249	1179.0	1200.0	1198.9	1.031	3.316	69.917	22.055	3.211	0.143	0.290	0.019	0.018	0.000	0.000	0.000	0.000	0.000	1409.51	

# Source Daily Summary

July 2022

Source #: 571  
Name: WILLISTON BDR-CHARBN STN

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7113	1172.0	1192.8	1192.1	1.007	2.505	72.070	21.439	2.542	0.118	0.270	0.022	0.027	0.000	0.000	0.000	0.000	0.000	1414.32	
2	0.7113	1172.4	1193.2	1192.6	1.009	2.486	72.080	21.429	2.555	0.119	0.272	0.022	0.027	0.000	0.000	0.000	0.000	0.000	1414.72	
3	0.7117	1172.5	1193.3	1192.7	1.011	2.514	72.078	21.323	2.622	0.122	0.278	0.023	0.028	0.000	0.000	0.000	0.000	0.000	1414.43	
4	0.7125	1173.7	1194.5	1193.9	1.014	2.505	72.092	21.177	2.738	0.129	0.292	0.024	0.029	0.000	0.000	0.000	0.000	0.000	1415.16	
5	0.7136	1174.8	1195.6	1194.9	1.016	2.543	71.943	21.210	2.803	0.130	0.298	0.025	0.030	0.000	0.000	0.000	0.000	0.000	1415.30	
6	0.7229	1181.4	1202.4	1201.5	1.053	2.956	70.514	21.802	3.123	0.142	0.342	0.030	0.038	0.000	0.000	0.000	0.000	0.000	1414.13	
7	0.7211	1179.5	1200.4	1199.6	1.051	2.898	70.862	21.541	3.108	0.141	0.334	0.029	0.036	0.000	0.000	0.000	0.000	0.000	1413.68	
8	0.7218	1181.5	1202.4	1201.5	1.053	2.850	70.901	21.392	3.229	0.149	0.354	0.032	0.038	0.000	0.000	0.000	0.000	0.000	1415.21	
9	0.7218	1181.0	1201.9	1201.0	1.051	2.882	70.864	21.421	3.217	0.146	0.349	0.031	0.039	0.000	0.000	0.000	0.000	0.000	1414.66	
10	0.7219	1180.1	1201.0	1200.1	1.060	2.929	70.726	21.614	3.129	0.140	0.335	0.029	0.037	0.000	0.000	0.000	0.000	0.000	1413.51	
11	0.7196	1178.8	1199.7	1198.8	1.045	2.810	71.270	21.144	3.173	0.146	0.344	0.030	0.037	0.000	0.000	0.000	0.000	0.000	1414.26	
12	0.7200	1178.6	1199.5	1198.7	1.049	2.856	71.190	21.154	3.196	0.145	0.342	0.029	0.037	0.000	0.000	0.000	0.000	0.000	1413.62	
13	0.7188	1178.8	1199.6	1198.9	1.040	2.752	71.347	21.179	3.139	0.143	0.335	0.029	0.035	0.000	0.000	0.000	0.000	0.000	1414.94	
14	0.7177	1178.9	1199.8	1198.9	1.038	2.637	71.541	21.159	3.081	0.144	0.336	0.029	0.036	0.000	0.000	0.000	0.000	0.000	1416.27	
15	0.7191	1181.7	1202.6	1201.7	1.032	2.604	71.487	21.124	3.148	0.156	0.369	0.035	0.044	0.000	0.000	0.000	0.000	0.000	1418.25	
16	0.7192	1180.9	1201.8	1200.9	1.035	2.666	71.302	21.329	3.098	0.148	0.350	0.032	0.039	0.000	0.000	0.000	0.000	0.000	1417.12	
17	0.7206	1183.4	1204.3	1203.2	1.041	2.626	71.676	20.479	3.504	0.176	0.414	0.037	0.046	0.000	0.000	0.000	0.000	0.000	1418.78	
18	0.7128	1174.0	1194.8	1193.8	1.029	2.497	72.307	20.738	2.917	0.138	0.314	0.027	0.033	0.000	0.000	0.000	0.000	0.000	1415.11	
19	0.7082	1167.9	1188.6	1187.8	1.021	2.448	72.602	21.035	2.483	0.114	0.253	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1412.38	
20	0.7061	1165.6	1186.3	1185.5	1.010	2.410	72.695	21.258	2.256	0.103	0.227	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1411.70	
21	0.7076	1167.5	1188.1	1187.3	1.001	2.455	72.332	21.634	2.200	0.102	0.233	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1412.40	
22	0.7111	1172.2	1193.0	1192.1	1.026	2.448	72.564	20.588	2.889	0.132	0.298	0.025	0.030	0.000	0.000	0.000	0.000	0.000	1414.70	
23	0.7095	1169.3	1190.0	1189.2	1.033	2.468	72.591	20.769	2.711	0.119	0.264	0.021	0.024	0.000	0.000	0.000	0.000	0.000	1412.71	
24	0.7095	1170.3	1191.0	1190.2	1.026	2.421	72.406	21.156	2.589	0.112	0.247	0.020	0.023	0.000	0.000	0.000	0.000	0.000	1413.94	
25	0.7089	1169.1	1189.8	1189.0	1.027	2.434	72.441	21.188	2.517	0.109	0.241	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1413.11	
26	0.7098	1169.3	1190.0	1189.2	1.040	2.485	72.627	20.630	2.771	0.124	0.274	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1412.45	
27	0.7091	1169.6	1190.3	1189.6	1.033	2.411	72.875	20.384	2.837	0.129	0.282	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1413.48	
28	0.7098	1169.6	1190.3	1189.7	1.039	2.468	72.724	20.476	2.833	0.128	0.283	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1412.81	
29	0.7103	1170.7	1191.4	1190.8	1.040	2.440	72.778	20.342	2.915	0.134	0.298	0.024	0.029	0.000	0.000	0.000	0.000	0.000	1413.69	
30	0.7113	1172.1	1192.9	1192.1	1.041	2.449	72.679	20.337	2.988	0.139	0.311	0.026	0.031	0.000	0.000	0.000	0.000	0.000	1414.38	
31	0.7076	1167.9	1188.6	1187.8	1.023	2.385	72.857	20.716	2.597	0.118	0.259	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1413.01	
Avg	0.7141	1174.0	1195.2	1194.4	1.032	2.588	71.949	21.070	2.868	0.132	0.303	0.026	0.031	0.000	0.000	0.000	0.000	0.000	1414.33	

# Gas Composition and Properties

Effective July 1, 2022

Source #: 0602160  
Name: FAIRVIEW BORDER

Component	Mole %	Liquid Content	Mass %	Property	Total Sample	C6 Plus Fraction
Carbon Dioxide, CO2	1.0824		2.2898	Pressure Base	14.730	
Nitrogen, N2	2.8672		3.8608	Temperature Base	60.00	
Methane, C1	70.9973		54.7480	HCDP @ Sample Pressure	-24.337	
Ethane, C2	21.3508	5.7145	30.8595	Cricondentherm	2.881	
Propane, C3	3.1768	0.8759	6.7335	HV, Dry @ Base P, T	1199.17	
iso-Butane, iC4	0.1547	0.0507	0.4322	HV, Sat @ Base P, T	1178.30	
n-Butane, nC4	0.3163	0.0998	0.8837	HV, Sat @ Sample P, T	1199.17	
iso-Pentane, iC5	0.0239	0.0087	0.0829	Relative Density	0.7204	
n-Pentane, nC5	0.0254	0.0092	0.0881			
Neo-Pentane, neo						
Hexanes Plus, C6+	0.0052	0.0021	0.0215			
Argon, Ar						
Carbon Monoxide, CO						
Hydrogen, H2						
Oxygen, O2						
Helium, He						
Water, H2O						
Hydrogen Sulfide, H2S						
				C6+: 100		
<b>Totals</b>	<b>100.0000</b>	<b>6.7610</b>	<b>100.0000</b>			

## Sample

Date: 07/01/2022                      Type:  
Tech: Tipton, Joshua  
Pressure:                      270 psi      Temp.:                      °F  
Gauge:                              Gauge                      H2O:  
Atm. Pressure:                      H2S:

Remarks:

## Analysis

Date: 07/01/2022                      Instrument:  
Tech: Tipton, Joshua                      Cylinder:                      370

Remarks:



# Source Daily Summary

July 2022

Source #: 602  
Name: TIOGA STN-N TIOGA TRANSFER

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6910	1177.8	1198.7	1198.3	0.982	0.291	74.448	23.036	1.095	0.042	0.092	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1442.06	-17.55
2	0.6923	1179.2	1200.1	1199.7	0.981	0.333	74.117	23.381	1.041	0.040	0.091	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1442.36	-17.25
3	0.6925	1179.4	1200.3	1199.9	0.983	0.337	74.162	23.254	1.111	0.043	0.096	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1442.39	-16.82
4	0.6916	1180.4	1201.3	1200.9	0.991	0.183	74.258	23.400	1.025	0.040	0.089	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1444.54	-17.35
5	0.6923	1181.3	1202.2	1201.8	0.977	0.213	74.167	23.417	1.085	0.040	0.089	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1444.92	-16.90
6	0.6952	1184.4	1205.4	1205.0	0.993	0.268	74.378	22.446	1.673	0.069	0.151	0.011	0.013	0.000	0.000	0.000	0.000	0.000	1445.70	-12.15
7	0.7036	1160.6	1181.1	1180.7	0.972	2.539	72.700	21.522	1.979	0.081	0.178	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1408.16	-11.03
8	0.7016	1160.7	1181.3	1180.8	0.976	2.339	72.910	21.711	1.804	0.074	0.160	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1410.30	-12.41
9	0.7029	1162.0	1182.6	1182.1	0.975	2.382	72.856	21.534	1.970	0.080	0.175	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1410.56	-10.97
10	0.7026	1162.0	1182.6	1182.1	0.979	2.351	72.998	21.357	2.014	0.085	0.183	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1410.80	-10.62
11	0.7006	1159.2	1179.7	1179.3	0.981	2.330	72.927	21.885	1.627	0.071	0.154	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1409.48	-13.62
12	0.7015	1160.9	1181.5	1181.0	0.983	2.315	72.867	21.839	1.729	0.076	0.164	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1410.56	-12.57
13	0.7017	1161.4	1181.9	1181.5	0.966	2.332	72.693	22.103	1.656	0.071	0.154	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1410.94	-13.04
14	0.7021	1161.6	1182.2	1181.7	0.942	2.396	72.097	23.134	1.199	0.058	0.142	0.014	0.017	0.000	0.000	0.000	0.000	0.000	1410.79	-14.62
15	0.7061	1167.6	1188.3	1187.9	0.947	2.391	71.893	22.898	1.527	0.082	0.209	0.023	0.031	0.000	0.000	0.000	0.000	0.000	1414.13	-9.63
16	0.7053	1166.7	1187.4	1186.9	0.941	2.380	72.052	22.760	1.523	0.082	0.208	0.023	0.031	0.000	0.000	0.000	0.000	0.000	1413.81	-9.93
17	0.7039	1164.4	1185.0	1184.5	0.956	2.373	72.314	22.412	1.658	0.076	0.176	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1412.44	-11.33
18	0.6986	1155.6	1176.1	1175.6	0.944	2.429	72.624	22.640	1.218	0.041	0.090	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1407.03	-17.80
19	0.7013	1159.1	1179.7	1179.2	0.955	2.451	72.382	22.619	1.374	0.061	0.135	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1408.69	-14.94
20	0.6980	1154.4	1174.8	1174.3	0.959	2.427	72.549	22.915	1.007	0.041	0.089	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1406.14	-18.89
21	0.6947	1139.6	1159.8	1159.3	0.909	3.084	74.006	20.030	1.734	0.067	0.149	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1391.39	-17.25
22	0.7042	1164.5	1185.2	1184.7	0.948	2.398	72.020	22.779	1.681	0.050	0.108	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1412.30	-13.23
23	0.7057	1167.1	1187.8	1187.3	0.951	2.376	72.115	22.412	1.892	0.068	0.158	0.013	0.016	0.000	0.000	0.000	0.000	0.000	1413.92	-10.52
24	0.7055	1166.8	1187.5	1187.0	0.927	2.413	71.893	22.780	1.790	0.056	0.123	0.008	0.009	0.000	0.000	0.000	0.000	0.000	1413.76	-11.91
25	0.7018	1160.1	1180.7	1180.2	0.960	2.423	72.258	22.770	1.413	0.049	0.109	0.008	0.009	0.000	0.000	0.000	0.000	0.000	1409.37	-15.26
26	0.6987	1156.6	1177.1	1176.6	0.999	2.281	73.580	21.048	1.813	0.079	0.172	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1408.21	-13.35
27	0.6978	1154.3	1174.8	1174.3	0.967	2.401	72.597	22.888	1.001	0.042	0.090	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1406.27	-18.95
28	0.6990	1156.5	1177.0	1176.5	0.954	2.393	72.729	22.435	1.307	0.052	0.112	0.008	0.009	0.000	0.000	0.000	0.000	0.000	1407.77	-16.65
29	0.6994	1157.6	1178.1	1177.7	0.928	2.398	72.483	22.833	1.194	0.046	0.101	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1408.77	-17.16
30	0.6986	1159.7	1180.3	1179.8	0.787	2.415	72.547	22.845	1.233	0.049	0.106	0.008	0.009	0.000	0.000	0.000	0.000	0.000	1412.07	-16.89
31	0.6973	1156.6	1177.1	1176.6	0.841	2.405	72.583	23.018	1.010	0.041	0.089	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1409.57	-18.85
Avg	0.6996	1164.0	1184.4	1184.0	0.953	2.002	72.910	22.455	1.464	0.060	0.134	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1416.10	-14.50

\*\*\* End of Report \*\*\*

# Source Daily Summary

July 2022

Source #: 601  
Name: TIOGA STN-ROBINSON LAKE PLNT

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7550	1178.8	1199.7	1199.0	0.906	6.336	66.022	20.482	5.536	0.192	0.462	0.030	0.034	0.000	0.000	0.000	0.000	0.000	1380.75	
2	0.7573	1185.4	1206.3	1205.7	0.906	6.161	65.768	20.746	5.665	0.198	0.487	0.032	0.036	0.000	0.000	0.000	0.000	0.000	1386.20	
3	0.7538	1178.6	1199.5	1198.8	0.908	6.241	66.106	20.616	5.447	0.182	0.441	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1381.50	
4	0.7556	1181.2	1202.1	1201.4	0.914	6.236	65.876	20.746	5.525	0.187	0.455	0.029	0.033	0.000	0.000	0.000	0.000	0.000	1383.00	
5	0.7557	1184.5	1205.5	1204.8	0.915	6.040	65.953	20.810	5.570	0.189	0.461	0.029	0.032	0.000	0.000	0.000	0.000	0.000	1386.74	
6	0.7546	1181.6	1202.6	1201.7	0.924	6.105	66.111	20.631	5.512	0.190	0.463	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1384.35	
7	0.7553	1178.9	1199.8	1199.1	0.924	6.336	66.015	20.443	5.547	0.198	0.474	0.030	0.034	0.000	0.000	0.000	0.000	0.000	1380.51	
8	0.7554	1179.5	1200.4	1199.6	0.921	6.315	66.057	20.386	5.564	0.201	0.487	0.032	0.036	0.000	0.000	0.000	0.000	0.000	1381.10	
9	0.7570	1181.9	1202.8	1201.9	0.923	6.312	65.882	20.444	5.660	0.206	0.502	0.033	0.037	0.000	0.000	0.000	0.000	0.000	1382.46	
10	0.7535	1174.6	1195.4	1194.7	0.915	6.446	66.203	20.260	5.473	0.190	0.454	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1377.08	
11	0.7468	1171.6	1192.3	1191.7	0.944	5.954	67.018	20.509	4.937	0.173	0.410	0.026	0.029	0.000	0.000	0.000	0.000	0.000	1379.82	
12	0.7517	1178.7	1199.6	1198.9	0.935	5.995	66.507	20.574	5.275	0.190	0.459	0.031	0.035	0.000	0.000	0.000	0.000	0.000	1383.69	
13	0.7499	1175.6	1196.5	1195.7	0.907	6.051	66.930	20.052	5.333	0.193	0.467	0.032	0.036	0.000	0.000	0.000	0.000	0.000	1381.70	
14	0.7577	1185.1	1206.1	1205.2	0.915	6.191	65.821	20.564	5.736	0.204	0.496	0.034	0.038	0.000	0.000	0.000	0.000	0.000	1385.64	
15	0.7552	1181.7	1202.7	1201.7	0.931	6.143	66.107	20.509	5.569	0.198	0.476	0.031	0.035	0.000	0.000	0.000	0.000	0.000	1383.94	
16	0.7562	1182.8	1203.8	1202.7	0.925	6.174	65.977	20.556	5.622	0.199	0.477	0.032	0.037	0.000	0.000	0.000	0.000	0.000	1384.29	
17	0.7550	1178.9	1199.7	1198.5	0.902	6.347	66.090	20.306	5.644	0.193	0.455	0.030	0.034	0.000	0.000	0.000	0.000	0.000	1380.71	
18	0.7493	1174.3	1195.1	1194.1	0.920	6.063	66.740	20.421	5.212	0.177	0.411	0.027	0.030	0.000	0.000	0.000	0.000	0.000	1380.69	
19	0.7559	1179.2	1200.1	1199.5	0.888	6.422	66.098	20.079	5.760	0.209	0.479	0.030	0.034	0.000	0.000	0.000	0.000	0.000	1380.39	
20	0.7585	1184.9	1205.8	1205.1	0.901	6.305	65.712	20.469	5.846	0.212	0.487	0.032	0.036	0.000	0.000	0.000	0.000	0.000	1384.57	
21	0.7345	1150.7	1171.0	1170.3	0.846	6.225	68.960	18.703	4.728	0.157	0.341	0.019	0.021	0.000	0.000	0.000	0.000	0.000	1366.40	
22	0.7557	1181.1	1202.1	1201.2	0.895	6.279	65.970	20.494	5.645	0.202	0.455	0.028	0.032	0.000	0.000	0.000	0.000	0.000	1382.80	
23	0.7545	1180.1	1201.0	1200.4	0.897	6.231	66.163	20.389	5.608	0.200	0.452	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1382.63	
24	0.7570	1184.3	1205.3	1204.6	0.886	6.218	65.898	20.492	5.750	0.213	0.480	0.029	0.033	0.000	0.000	0.000	0.000	0.000	1385.35	
25	0.7548	1183.2	1204.2	1203.4	0.768	6.259	66.172	20.340	5.710	0.219	0.474	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1386.03	
26	0.7395	1173.1	1193.9	1193.3	0.836	5.350	67.825	20.979	4.446	0.165	0.355	0.021	0.024	0.000	0.000	0.000	0.000	0.000	1388.34	
27	0.7445	1172.4	1193.2	1192.6	0.739	6.001	67.596	19.773	5.230	0.194	0.416	0.024	0.027	0.000	0.000	0.000	0.000	0.000	1382.84	
28	0.7533	1182.6	1203.6	1202.9	0.668	6.308	66.274	20.339	5.691	0.210	0.453	0.027	0.030	0.000	0.000	0.000	0.000	0.000	1386.75	
29	0.7531	1188.2	1209.3	1208.4	0.546	6.134	66.267	20.648	5.652	0.216	0.473	0.030	0.034	0.000	0.000	0.000	0.000	0.000	1393.48	
30	0.7552	1200.5	1221.7	1220.8	0.151	6.187	66.016	20.754	6.055	0.238	0.528	0.034	0.038	0.000	0.000	0.000	0.000	0.000	1405.82	
31	0.7537	1198.4	1219.6	1219.0	0.118	6.215	66.222	20.604	6.025	0.232	0.515	0.032	0.036	0.000	0.000	0.000	0.000	0.000	1404.86	
Avg	0.7531	1180.0	1201.3	1200.5	0.828	6.180	66.334	20.423	5.515	0.198	0.460	0.029	0.033	0.000	0.000	0.000	0.000	0.000	1384.34	

# Source Daily Summary

July 2022

Source #: 091  
Name: MNT BRD-PLRMO BRD-BIS STN

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7568	1179.5	1200.4	1199.9	0.911	6.460	65.800	20.421	5.661	0.200	0.479	0.031	0.035	0.000	0.000	0.000	0.000	0.000	1379.85	
2	0.7592	1184.8	1205.8	1205.3	0.909	6.363	65.516	20.651	5.789	0.206	0.496	0.033	0.037	0.000	0.000	0.000	0.000	0.000	1383.88	
3	0.7557	1178.3	1199.2	1198.7	0.914	6.427	65.863	20.520	5.567	0.190	0.455	0.030	0.034	0.000	0.000	0.000	0.000	0.000	1379.46	
4	0.7578	1181.8	1202.7	1202.1	0.918	6.406	65.579	20.698	5.672	0.196	0.467	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1381.58	
5	0.7570	1180.7	1201.6	1201.1	0.918	6.395	65.697	20.632	5.635	0.195	0.465	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1381.09	
6	0.7577	1180.0	1200.9	1200.3	0.931	6.481	65.666	20.491	5.680	0.202	0.482	0.031	0.035	0.000	0.000	0.000	0.000	0.000	1379.66	
7	0.7558	1177.2	1198.0	1197.5	0.929	6.482	66.005	20.191	5.639	0.204	0.484	0.031	0.034	0.000	0.000	0.000	0.000	0.000	1378.04	
8	0.7570	1178.9	1199.8	1199.2	0.925	6.491	65.869	20.247	5.696	0.209	0.496	0.032	0.036	0.000	0.000	0.000	0.000	0.000	1379.00	
9	0.7583	1181.5	1202.4	1201.8	0.929	6.450	65.693	20.390	5.752	0.210	0.505	0.033	0.037	0.000	0.000	0.000	0.000	0.000	1380.84	
10	0.7560	1174.4	1195.2	1194.6	0.928	6.674	65.871	20.161	5.638	0.199	0.467	0.029	0.032	0.000	0.000	0.000	0.000	0.000	1374.58	
11	0.7590	1180.3	1201.2	1200.6	0.927	6.589	65.572	20.315	5.822	0.209	0.498	0.032	0.035	0.000	0.000	0.000	0.000	0.000	1378.79	
12	0.7602	1183.0	1203.9	1203.3	0.929	6.539	65.462	20.380	5.890	0.214	0.513	0.034	0.038	0.000	0.000	0.000	0.000	0.000	1380.80	
13	0.7610	1186.3	1207.3	1206.7	0.927	6.415	65.387	20.528	5.934	0.215	0.518	0.035	0.040	0.000	0.000	0.000	0.000	0.000	1383.94	
14	0.7622	1188.8	1209.8	1209.2	0.926	6.381	65.248	20.596	6.033	0.217	0.522	0.035	0.040	0.000	0.000	0.000	0.000	0.000	1385.71	
15	0.7599	1183.5	1204.5	1203.9	0.921	6.491	65.549	20.295	5.957	0.212	0.502	0.033	0.037	0.000	0.000	0.000	0.000	0.000	1381.70	
16	0.7581	1180.8	1201.7	1201.0	0.918	6.493	65.754	20.232	5.846	0.205	0.483	0.032	0.037	0.000	0.000	0.000	0.000	0.000	1380.15	
17	0.7582	1181.2	1202.1	1201.4	0.910	6.487	65.684	20.329	5.857	0.201	0.466	0.030	0.034	0.000	0.000	0.000	0.000	0.000	1380.57	
18	0.7593	1181.0	1201.9	1201.2	0.913	6.596	65.529	20.307	5.911	0.205	0.473	0.031	0.035	0.000	0.000	0.000	0.000	0.000	1379.35	
19	0.7578	1179.8	1200.7	1200.1	0.918	6.522	65.937	19.923	5.908	0.222	0.503	0.031	0.035	0.000	0.000	0.000	0.000	0.000	1379.31	
20	0.7591	1182.7	1203.6	1203.0	0.905	6.490	65.548	20.424	5.886	0.212	0.471	0.030	0.034	0.000	0.000	0.000	0.000	0.000	1381.47	
21	0.7610	1186.2	1207.2	1206.5	0.908	6.448	65.290	20.620	5.973	0.217	0.480	0.030	0.034	0.000	0.000	0.000	0.000	0.000	1383.86	
22	0.7577	1181.6	1202.5	1201.8	0.908	6.427	65.741	20.378	5.803	0.211	0.470	0.029	0.032	0.000	0.000	0.000	0.000	0.000	1381.39	
23	0.7580	1182.5	1203.5	1202.8	0.913	6.385	65.790	20.289	5.865	0.214	0.479	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1382.26	
24	0.7596	1183.6	1204.5	1203.9	0.906	6.476	65.633	20.222	5.969	0.232	0.499	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1382.10	
25	0.7580	1183.1	1204.1	1203.4	0.914	6.343	65.791	20.343	5.848	0.224	0.477	0.028	0.032	0.000	0.000	0.000	0.000	0.000	1383.02	
26	0.7582	1183.9	1204.8	1204.2	0.917	6.316	65.789	20.337	5.876	0.226	0.481	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1383.67	
27	0.7557	1178.4	1199.3	1198.6	0.908	6.431	66.006	20.230	5.697	0.215	0.456	0.027	0.030	0.000	0.000	0.000	0.000	0.000	1379.53	
28	0.7590	1183.6	1204.6	1203.9	0.906	6.420	65.649	20.368	5.868	0.229	0.496	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1382.66	
29	0.7615	1188.8	1209.8	1209.2	0.907	6.341	65.372	20.562	5.978	0.243	0.526	0.033	0.037	0.000	0.000	0.000	0.000	0.000	1386.37	
30	0.7615	1189.4	1210.5	1209.9	0.905	6.299	65.427	20.519	6.000	0.243	0.534	0.034	0.039	0.000	0.000	0.000	0.000	0.000	1387.20	
31	0.7593	1186.6	1207.6	1207.0	0.904	6.272	65.700	20.410	5.892	0.237	0.517	0.032	0.036	0.000	0.000	0.000	0.000	0.000	1385.84	
Avg	0.7586	1182.0	1203.3	1202.7	0.916	6.445	65.659	20.387	5.824	0.213	0.489	0.031	0.035	0.000	0.000	0.000	0.000	0.000	1381.54	

# Gas Composition and Properties

Effective October 1, 2021

Source #: 2501030  
Name: LIGNITE PLANT

Component	Mole %	Liquid Content	Mass %
Carbon Dioxide, CO2	0.2283		0.5237
Nitrogen, N2	2.9631		4.3268
Methane, C1	79.4957		66.4767
Ethane, C2	15.2390	4.0765	23.8852
Propane, C3	2.0456	0.5637	4.7019
iso-Butane, iC4	0.0244	0.0080	0.0739
n-Butane, nC4	0.0039	0.0012	0.0118
iso-Pentane, iC5			
n-Pentane, nC5			
Neo-Pentane, neo			
Hexanes Plus, C6+			
Argon, Ar			
Carbon Monoxide, CO			
Hydrogen, H2			
Oxygen, O2			
Helium, He			
Water, H2O			
Hydrogen Sulfide, H2S			
<b>Totals</b>	<b>100.0000</b>	<b>4.6490</b>	<b>100.0000</b>

Property	Total Sample	C6 Plus Fraction
Pressure Base	14.730	
Temperature Base	60.00	
HCDP @ Sample Pressure		
Cricondentherm	-32.804	
HV, Dry @ Base P, T	1130.73	
HV, Sat @ Base P, T	1111.05	
HV, Sat @ Sample P, T	1130.73	
Relative Density	0.6640	
C6+: 100		

**Sample**

Date: 10/01/2021                      Type:

Tech: Wayne Sampson

Pressure:                                      Temp.:

Gauge:    H2O:

Atm. Pressure:                                      H2S:

Remarks:

**Analysis**

Date:    Instrument:

Tech:    Cylinder:

Remarks:



# Source Daily Summary

July 2022

Source #: 603  
Name: TIOGA STN-COUNTY LINE PLANT

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7125	1168.9	1189.6	1189.2	1.163	2.577	71.957	21.249	2.685	0.099	0.232	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1409.32	
2	0.7129	1162.0	1182.5	1182.1	1.145	3.062	71.622	21.292	2.501	0.100	0.239	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1400.60	
3	0.7114	1164.2	1184.8	1184.4	1.157	2.768	72.034	21.095	2.574	0.099	0.234	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1404.77	
4	0.7111	1169.3	1190.0	1189.6	1.152	2.437	72.221	21.175	2.636	0.101	0.239	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1411.22	
5	0.7064	1182.3	1203.2	1202.8	1.183	1.155	73.190	21.680	2.421	0.099	0.235	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1431.63	
6	0.7073	1189.4	1210.5	1210.0	1.210	0.767	73.184	21.951	2.502	0.102	0.243	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1439.28	
7	0.7154	1160.6	1181.1	1180.7	1.184	3.329	71.092	21.504	2.518	0.100	0.235	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1396.42	
8	0.7152	1160.2	1180.7	1180.3	1.169	3.356	71.190	21.323	2.583	0.101	0.238	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1396.14	
9	0.7172	1161.1	1181.7	1181.3	1.177	3.473	70.966	21.233	2.775	0.101	0.238	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1395.34	
10	0.7163	1159.9	1180.5	1180.0	1.177	3.459	71.081	21.207	2.699	0.101	0.238	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1394.80	
11	0.7146	1157.7	1178.2	1177.8	1.172	3.444	71.387	20.956	2.667	0.100	0.235	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1393.79	
12	0.7149	1157.8	1178.3	1177.9	1.178	3.455	71.300	21.054	2.640	0.101	0.235	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1393.62	
13	0.7120	1152.9	1173.3	1172.9	1.184	3.480	71.699	20.814	2.446	0.101	0.238	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1390.47	
14	0.7132	1155.5	1175.9	1175.5	1.164	3.458	71.401	21.205	2.396	0.101	0.237	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1392.49	
15	0.7137	1155.4	1175.9	1175.4	1.199	3.462	71.328	21.234	2.399	0.101	0.238	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1391.84	
16	0.7129	1153.4	1173.8	1173.4	1.183	3.524	71.515	20.972	2.425	0.101	0.239	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1390.31	
17	0.7144	1156.1	1176.6	1176.1	1.180	3.515	71.229	21.225	2.474	0.101	0.238	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1392.00	
18	0.7149	1157.6	1178.1	1177.6	1.153	3.506	71.231	21.127	2.611	0.099	0.234	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1393.34	
19	0.7104	1149.0	1169.4	1168.9	1.184	3.563	72.022	20.399	2.459	0.100	0.235	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1387.36	
20	0.7128	1153.7	1174.1	1173.7	1.169	3.530	71.378	21.227	2.325	0.100	0.234	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1390.64	
21	0.7115	1151.5	1171.9	1171.5	1.156	3.559	71.712	20.800	2.392	0.102	0.239	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1389.29	
22	0.7123	1152.8	1173.2	1172.8	1.162	3.543	71.654	20.782	2.477	0.102	0.240	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1390.10	
23	0.7137	1155.5	1176.0	1175.5	1.150	3.531	71.353	21.102	2.488	0.101	0.236	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1391.94	
24	0.7127	1154.0	1174.5	1174.0	1.159	3.512	71.535	20.971	2.442	0.102	0.240	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1391.17	
25	0.7123	1153.6	1174.0	1173.6	1.168	3.484	71.734	20.687	2.552	0.100	0.234	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1391.03	
26	0.7127	1154.5	1174.9	1174.5	1.178	3.454	71.562	20.980	2.450	0.101	0.237	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1391.73	
27	0.7133	1155.2	1175.7	1175.2	1.178	3.464	71.514	20.938	2.535	0.100	0.234	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1392.06	
28	0.7152	1158.2	1178.8	1178.3	1.180	3.459	71.207	21.168	2.609	0.101	0.237	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1393.79	
29	0.7154	1159.4	1180.0	1179.5	1.183	3.400	71.142	21.324	2.580	0.100	0.235	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1395.04	
30	0.7149	1160.3	1180.8	1180.4	1.140	3.367	71.309	21.128	2.687	0.099	0.233	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1396.53	
31	0.7137	1158.7	1179.2	1178.8	1.119	3.382	71.480	21.016	2.632	0.099	0.234	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1395.83	
Avg	0.7131	1159.0	1179.9	1179.5	1.170	3.209	71.588	21.123	2.535	0.100	0.237	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1397.22	

# Source Daily Summary

July 2022

Source #: 043  
Name: BISMARCK STN-CLEVELAND STN

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7560	1180.4	1201.3	1200.2	0.893	6.358	65.953	20.407	5.639	0.202	0.484	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1381.65	
2	0.7580	1184.9	1205.9	1204.9	0.891	6.279	65.719	20.588	5.749	0.208	0.499	0.032	0.035	0.000	0.000	0.000	0.000	0.000	1385.03	
3	0.7552	1179.7	1200.6	1199.7	0.896	6.326	65.986	20.494	5.581	0.194	0.463	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1381.51	
4	0.7572	1183.1	1204.1	1203.0	0.900	6.303	65.735	20.643	5.677	0.200	0.480	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1383.64	
5	0.7564	1181.8	1202.8	1201.8	0.901	6.297	65.839	20.603	5.625	0.198	0.474	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1382.96	
6	0.7561	1179.5	1200.4	1199.0	0.913	6.396	65.924	20.393	5.627	0.203	0.483	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1380.44	
7	0.7546	1177.4	1198.2	1196.9	0.910	6.388	66.214	20.138	5.593	0.205	0.488	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1379.36	
8	0.7565	1180.5	1201.4	1200.3	0.906	6.382	66.005	20.215	5.700	0.213	0.510	0.033	0.036	0.000	0.000	0.000	0.000	0.000	1381.27	
9	0.7571	1181.6	1202.5	1201.3	0.912	6.364	65.893	20.331	5.718	0.211	0.504	0.033	0.035	0.000	0.000	0.000	0.000	0.000	1381.97	
10	0.7546	1174.2	1195.0	1193.9	0.908	6.580	66.144	20.029	5.604	0.202	0.474	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1375.67	
11	0.7574	1179.9	1200.8	1199.7	0.909	6.495	65.813	20.271	5.740	0.209	0.499	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1379.80	
12	0.7583	1182.0	1202.9	1201.8	0.911	6.453	65.750	20.282	5.810	0.213	0.512	0.033	0.036	0.000	0.000	0.000	0.000	0.000	1381.36	
13	0.7598	1186.3	1207.3	1206.2	0.906	6.334	65.581	20.485	5.887	0.215	0.519	0.035	0.038	0.000	0.000	0.000	0.000	0.000	1385.06	
14	0.7614	1189.7	1210.8	1209.7	0.907	6.278	65.429	20.533	6.026	0.221	0.532	0.035	0.038	0.000	0.000	0.000	0.000	0.000	1387.56	
15	0.7587	1183.5	1204.4	1203.2	0.902	6.410	65.789	20.174	5.931	0.216	0.509	0.033	0.036	0.000	0.000	0.000	0.000	0.000	1382.73	
16	0.7571	1181.6	1202.6	1201.3	0.899	6.382	65.938	20.190	5.831	0.208	0.487	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1382.03	
17	0.7570	1181.0	1201.9	1200.5	0.891	6.425	65.932	20.152	5.857	0.205	0.476	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1381.33	
18	0.7577	1180.4	1201.3	1200.2	0.894	6.514	65.805	20.182	5.857	0.207	0.477	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1380.09	
19	0.7580	1182.5	1203.4	1202.5	0.898	6.408	66.028	19.886	5.948	0.235	0.530	0.032	0.035	0.000	0.000	0.000	0.000	0.000	1382.23	
20	0.7064	1131.2	1151.2	1150.0	0.939	4.633	73.781	16.564	3.620	0.131	0.293	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1370.28	
21	0.7589	1185.7	1206.7	1205.6	0.889	6.313	65.659	20.475	5.889	0.219	0.491	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1385.17	
22	0.7564	1181.4	1202.3	1201.1	0.890	6.344	65.969	20.292	5.761	0.212	0.473	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1382.38	
23	0.7567	1182.5	1203.4	1202.3	0.894	6.293	65.966	20.315	5.781	0.213	0.477	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1383.42	
24	0.7588	1184.8	1205.8	1204.7	0.887	6.363	65.785	20.225	5.926	0.238	0.513	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1384.21	
25	0.7562	1182.4	1203.4	1202.2	0.896	6.252	66.040	20.288	5.776	0.223	0.470	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1383.78	
26	0.7572	1184.4	1205.3	1204.2	0.897	6.222	65.966	20.305	5.838	0.229	0.485	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1385.17	
27	0.7556	1180.2	1201.1	1200.1	0.889	6.339	66.086	20.202	5.754	0.218	0.458	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1381.77	
28	0.7591	1185.8	1206.8	1205.6	0.888	6.325	65.742	20.291	5.957	0.233	0.501	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1385.12	
29	0.7621	1191.7	1212.8	1211.5	0.889	6.248	65.417	20.472	6.118	0.248	0.537	0.034	0.037	0.000	0.000	0.000	0.000	0.000	1389.26	
30	0.7610	1190.0	1211.1	1209.7	0.890	6.245	65.606	20.310	6.102	0.245	0.533	0.033	0.036	0.000	0.000	0.000	0.000	0.000	1388.30	
31	0.7599	1189.9	1211.0	1209.6	0.889	6.153	65.734	20.372	6.016	0.242	0.528	0.032	0.035	0.000	0.000	0.000	0.000	0.000	1389.13	
Avg	0.7560	1181.0	1202.2	1201.1	0.899	6.294	66.104	20.197	5.740	0.213	0.489	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1382.70	

# Source Daily Summary

July 2022

Source #: 063  
Name: CLEVELAND STN-MAPLETON

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7610	1186.5	1207.5	1207.2	0.903	6.440	65.330	20.613	5.902	0.219	0.522	0.035	0.037	0.000	0.000	0.000	0.000	0.000	1384.21	
2	0.7550	1178.2	1199.1	1198.7	0.900	6.392	66.016	20.402	5.573	0.196	0.461	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1379.95	
3	0.7589	1185.2	1206.2	1205.8	0.901	6.327	65.590	20.606	5.796	0.210	0.501	0.033	0.036	0.000	0.000	0.000	0.000	0.000	1384.60	
4	0.7556	1179.9	1200.8	1200.4	0.902	6.341	65.927	20.516	5.597	0.195	0.461	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1381.38	
5	0.7572	1182.1	1203.1	1202.7	0.908	6.345	65.683	20.680	5.659	0.197	0.467	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1382.56	
6	0.7567	1180.9	1201.8	1201.5	0.912	6.371	65.772	20.574	5.638	0.199	0.471	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1381.50	
7	0.7549	1176.7	1197.5	1197.2	0.922	6.439	66.052	20.297	5.564	0.199	0.466	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1378.28	
8	0.7572	1181.3	1202.3	1201.9	0.916	6.376	65.890	20.323	5.709	0.212	0.504	0.034	0.037	0.000	0.000	0.000	0.000	0.000	1381.67	
9	0.7570	1180.3	1201.2	1200.9	0.915	6.427	65.895	20.264	5.714	0.213	0.504	0.033	0.035	0.000	0.000	0.000	0.000	0.000	1380.57	
10	0.7562	1178.3	1199.2	1198.9	0.922	6.464	65.924	20.273	5.670	0.204	0.480	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1378.99	
11	0.7537	1171.7	1192.5	1192.2	0.916	6.641	66.152	20.070	5.525	0.193	0.448	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1373.53	
12	0.7597	1183.2	1204.1	1203.8	0.918	6.503	65.540	20.366	5.870	0.216	0.515	0.035	0.037	0.000	0.000	0.000	0.000	0.000	1381.44	
13	0.7596	1184.2	1205.1	1204.8	0.917	6.429	65.576	20.406	5.872	0.215	0.513	0.035	0.037	0.000	0.000	0.000	0.000	0.000	1382.75	
14	0.7614	1188.7	1209.8	1209.5	0.913	6.326	65.355	20.619	5.974	0.218	0.520	0.036	0.039	0.000	0.000	0.000	0.000	0.000	1386.44	
15	0.7596	1185.4	1206.4	1206.1	0.915	6.358	65.639	20.335	5.956	0.217	0.511	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1384.21	
16	0.7598	1184.6	1205.5	1205.3	0.908	6.435	65.561	20.364	5.950	0.213	0.499	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1383.06	
17	0.7581	1182.5	1203.5	1203.2	0.903	6.414	65.756	20.296	5.872	0.208	0.483	0.032	0.035	0.000	0.000	0.000	0.000	0.000	1382.15	
18	0.7565	1178.3	1199.2	1198.1	0.899	6.521	65.889	20.192	5.783	0.199	0.455	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1378.77	
19	0.7590	1182.6	1203.5	1202.5	0.908	6.485	65.817	19.978	5.997	0.230	0.517	0.033	0.035	0.000	0.000	0.000	0.000	0.000	1381.41	
20	0.7126	1137.5	1157.6	1156.5	0.942	4.823	72.863	16.958	3.906	0.144	0.321	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1371.90	
21	0.7533	1177.7	1198.6	1197.4	0.900	6.260	66.455	20.028	5.636	0.206	0.456	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1380.97	
22	0.7577	1183.0	1203.9	1202.6	0.898	6.352	65.737	20.478	5.793	0.213	0.469	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1383.11	
23	0.7575	1183.0	1204.0	1202.9	0.901	6.327	65.834	20.365	5.826	0.213	0.474	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1383.31	
24	0.7593	1185.9	1206.9	1205.9	0.895	6.330	65.626	20.446	5.916	0.228	0.496	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1385.06	
25	0.7580	1183.6	1204.5	1203.5	0.898	6.346	65.834	20.269	5.867	0.233	0.493	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1383.50	
26	0.7576	1184.1	1205.1	1204.0	0.905	6.270	65.822	20.420	5.835	0.224	0.468	0.028	0.029	0.000	0.000	0.000	0.000	0.000	1384.45	
27	0.7566	1182.4	1203.3	1202.3	0.900	6.287	65.957	20.321	5.795	0.221	0.464	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1383.37	
28	0.7580	1183.3	1204.3	1203.3	0.894	6.366	65.799	20.295	5.886	0.225	0.477	0.029	0.030	0.000	0.000	0.000	0.000	0.000	1383.24	
29	0.7607	1187.9	1208.9	1208.5	0.898	6.331	65.530	20.398	6.029	0.237	0.509	0.032	0.035	0.000	0.000	0.000	0.000	0.000	1386.13	
30	0.7634	1193.3	1214.5	1214.1	0.897	6.253	65.282	20.496	6.199	0.252	0.547	0.035	0.038	0.000	0.000	0.000	0.000	0.000	1390.00	
31	0.7612	1189.9	1211.0	1210.7	0.899	6.258	65.583	20.299	6.111	0.246	0.534	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1387.97	
Avg	0.7566	1181.0	1202.3	1201.7	0.907	6.330	65.990	20.256	5.755	0.213	0.484	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1382.27	

# Source Daily Summary

July 2022

Source #: 061  
Name: CLEVELAND STN-GRAFTON BDR

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7602	1185.3	1206.3	1205.5	0.905	6.438	65.411	20.566	5.895	0.215	0.504	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1383.52	
2	0.7562	1179.9	1200.8	1200.4	0.901	6.395	65.901	20.427	5.635	0.201	0.477	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1380.87	
3	0.7590	1185.3	1206.3	1206.1	0.901	6.329	65.580	20.604	5.803	0.211	0.503	0.033	0.036	0.000	0.000	0.000	0.000	0.000	1384.65	
4	0.7618	1190.4	1211.5	1210.8	0.905	6.273	65.273	20.775	5.954	0.219	0.526	0.036	0.039	0.000	0.000	0.000	0.000	0.000	1388.03	
5	0.7577	1183.1	1204.0	1203.5	0.910	6.331	65.639	20.693	5.695	0.199	0.471	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1383.20	
6	0.7559	1179.7	1200.6	1200.1	0.911	6.368	65.863	20.543	5.593	0.196	0.463	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1380.91	
7	0.7548	1176.5	1197.4	1197.2	0.922	6.444	66.063	20.281	5.563	0.199	0.467	0.030	0.031	0.000	0.000	0.000	0.000	0.000	1378.14	
8	0.7580	1182.9	1203.9	1203.4	0.916	6.359	65.812	20.354	5.752	0.216	0.517	0.036	0.039	0.000	0.000	0.000	0.000	0.000	1382.73	
9	0.7574	1181.0	1201.9	1201.7	0.915	6.421	65.864	20.266	5.738	0.215	0.512	0.033	0.036	0.000	0.000	0.000	0.000	0.000	1381.04	
10	0.7561	1178.1	1199.0	1198.9	0.922	6.468	65.939	20.258	5.666	0.204	0.479	0.031	0.032	0.000	0.000	0.000	0.000	0.000	1378.84	
11	0.7539	1172.0	1192.8	1192.7	0.916	6.640	66.134	20.072	5.538	0.194	0.450	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1373.72	
12	0.7596	1182.8	1203.7	1203.6	0.918	6.508	65.560	20.351	5.863	0.216	0.514	0.034	0.037	0.000	0.000	0.000	0.000	0.000	1381.18	
13	0.7595	1183.9	1204.8	1204.7	0.917	6.434	65.595	20.388	5.866	0.215	0.512	0.035	0.037	0.000	0.000	0.000	0.000	0.000	1382.54	
14	0.7611	1188.2	1209.2	1209.1	0.914	6.334	65.388	20.591	5.962	0.218	0.518	0.036	0.039	0.000	0.000	0.000	0.000	0.000	1386.05	
15	0.7595	1185.1	1206.1	1205.9	0.915	6.366	65.665	20.307	5.949	0.217	0.512	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1383.92	
16	0.7593	1183.6	1204.5	1204.4	0.907	6.450	65.624	20.315	5.926	0.212	0.496	0.033	0.036	0.000	0.000	0.000	0.000	0.000	1382.36	
17	0.7579	1181.9	1202.9	1202.7	0.901	6.425	65.798	20.256	5.862	0.208	0.482	0.032	0.035	0.000	0.000	0.000	0.000	0.000	1381.74	
18	0.7554	1176.3	1197.1	1196.1	0.901	6.545	66.018	20.110	5.724	0.196	0.447	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1377.33	
19	0.7590	1182.5	1203.4	1202.7	0.909	6.487	65.821	19.975	5.993	0.230	0.517	0.033	0.035	0.000	0.000	0.000	0.000	0.000	1381.32	
20	0.7117	1136.3	1156.4	1155.6	0.944	4.811	72.986	16.896	3.863	0.142	0.316	0.020	0.022	0.000	0.000	0.000	0.000	0.000	1371.34	
21	0.6841	1106.6	1126.2	1125.4	0.961	4.007	77.146	14.929	2.649	0.091	0.194	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1362.10	
22	0.7575	1182.7	1203.6	1202.7	0.898	6.356	65.755	20.467	5.785	0.212	0.467	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1382.90	
23	0.7565	1181.1	1202.0	1201.3	0.901	6.348	65.953	20.299	5.763	0.210	0.467	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1382.01	
24	0.7591	1185.4	1206.4	1205.7	0.895	6.338	65.661	20.419	5.902	0.227	0.495	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1384.67	
25	0.7576	1182.8	1203.8	1203.1	0.898	6.354	65.884	20.237	5.846	0.232	0.490	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1382.99	
26	0.7555	1180.8	1201.7	1201.0	0.904	6.275	66.022	20.378	5.728	0.211	0.433	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1382.51	
27	0.7549	1179.1	1200.0	1199.3	0.901	6.323	66.113	20.278	5.687	0.211	0.436	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1381.14	
28	0.7573	1182.1	1203.0	1202.3	0.895	6.377	65.884	20.247	5.844	0.223	0.472	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1382.38	
29	0.7632	1191.9	1213.0	1212.2	0.894	6.329	65.255	20.472	6.200	0.246	0.533	0.034	0.037	0.000	0.000	0.000	0.000	0.000	1388.50	
30	0.7631	1192.3	1213.4	1212.4	0.897	6.293	65.282	20.491	6.178	0.249	0.539	0.035	0.037	0.000	0.000	0.000	0.000	0.000	1389.00	
31	0.7629	1192.3	1213.4	1212.6	0.898	6.269	65.355	20.432	6.180	0.251	0.543	0.035	0.037	0.000	0.000	0.000	0.000	0.000	1389.23	
Avg	0.7544	1179.0	1200.0	1199.5	0.909	6.261	66.330	20.086	5.665	0.209	0.476	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1381.64	

# Source Daily Summary

July 2022

Source #: 041  
Name: BISMARCK STN-GLEN ULLIN STN

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7558	1180.1	1201.0	1200.2	0.893	6.363	65.974	20.392	5.631	0.202	0.482	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1381.41	
2	0.7577	1184.3	1205.3	1204.4	0.891	6.286	65.757	20.560	5.734	0.207	0.498	0.032	0.035	0.000	0.000	0.000	0.000	0.000	1384.62	
3	0.7552	1179.5	1200.4	1199.5	0.895	6.332	65.978	20.516	5.565	0.193	0.461	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1381.37	
4	0.7571	1182.8	1203.8	1202.9	0.899	6.306	65.753	20.630	5.670	0.200	0.479	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1383.46	
5	0.7563	1181.7	1202.7	1201.8	0.900	6.296	65.847	20.606	5.619	0.197	0.473	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1382.92	
6	0.7561	1179.6	1200.4	1199.6	0.912	6.393	65.933	20.383	5.628	0.203	0.485	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1380.52	
7	0.7543	1176.7	1197.6	1196.7	0.910	6.394	66.253	20.117	5.574	0.204	0.484	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1378.92	
8	0.7567	1180.9	1201.8	1200.9	0.906	6.372	65.992	20.225	5.711	0.214	0.512	0.033	0.036	0.000	0.000	0.000	0.000	0.000	1381.61	
9	0.7569	1181.3	1202.2	1201.2	0.911	6.363	65.926	20.309	5.707	0.211	0.505	0.033	0.035	0.000	0.000	0.000	0.000	0.000	1381.81	
10	0.7546	1174.3	1195.1	1194.2	0.909	6.573	66.147	20.030	5.605	0.202	0.475	0.029	0.030	0.000	0.000	0.000	0.000	0.000	1375.81	
11	0.7570	1179.3	1200.2	1199.3	0.908	6.498	65.861	20.243	5.721	0.208	0.496	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1379.39	
12	0.7585	1182.3	1203.3	1202.4	0.911	6.451	65.727	20.292	5.820	0.214	0.514	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1381.58	
13	0.7596	1186.0	1207.0	1206.0	0.907	6.334	65.612	20.462	5.879	0.215	0.518	0.035	0.038	0.000	0.000	0.000	0.000	0.000	1384.87	
14	0.7612	1189.3	1210.4	1209.4	0.907	6.282	65.451	20.523	6.013	0.220	0.530	0.035	0.038	0.000	0.000	0.000	0.000	0.000	1387.30	
15	0.7583	1182.8	1203.8	1202.8	0.903	6.407	65.848	20.146	5.908	0.214	0.507	0.033	0.035	0.000	0.000	0.000	0.000	0.000	1382.40	
16	0.7570	1181.4	1202.3	1201.2	0.899	6.388	65.955	20.171	5.826	0.208	0.487	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1381.80	
17	0.7569	1181.0	1201.9	1200.7	0.891	6.416	65.946	20.154	5.850	0.205	0.475	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1381.42	
18	0.7574	1180.0	1200.9	1199.8	0.893	6.519	65.832	20.164	5.845	0.207	0.476	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1379.82	
19	0.7602	1186.0	1207.0	1206.1	0.894	6.403	65.727	20.070	6.056	0.237	0.542	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1384.37	
20	0.7068	1131.7	1151.7	1150.8	0.938	4.641	73.732	16.578	3.645	0.132	0.296	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1370.52	
21	0.7577	1183.6	1204.6	1203.7	0.889	6.330	65.794	20.410	5.821	0.214	0.480	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1383.81	
22	0.7562	1181.1	1202.0	1201.0	0.889	6.345	65.994	20.280	5.750	0.212	0.472	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1382.21	
23	0.7564	1182.0	1203.0	1202.0	0.894	6.294	66.001	20.293	5.770	0.212	0.475	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1383.16	
24	0.7587	1184.6	1205.5	1204.6	0.886	6.366	65.798	20.220	5.919	0.237	0.511	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1384.05	
25	0.7561	1182.2	1203.1	1202.2	0.896	6.253	66.067	20.268	5.768	0.223	0.470	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1383.64	
26	0.7569	1184.0	1204.9	1204.0	0.898	6.223	65.999	20.285	5.827	0.228	0.484	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1384.92	
27	0.7556	1180.4	1201.3	1200.3	0.889	6.329	66.087	20.211	5.754	0.218	0.458	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1381.96	
28	0.7589	1185.5	1206.5	1205.6	0.887	6.326	65.763	20.280	5.949	0.232	0.500	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1384.98	
29	0.7616	1190.9	1212.0	1211.0	0.889	6.251	65.480	20.443	6.087	0.246	0.533	0.034	0.037	0.000	0.000	0.000	0.000	0.000	1388.72	
30	0.7609	1190.0	1211.1	1210.0	0.890	6.236	65.619	20.319	6.093	0.244	0.532	0.033	0.036	0.000	0.000	0.000	0.000	0.000	1388.37	
31	0.7596	1189.1	1210.2	1209.3	0.888	6.171	65.776	20.328	6.003	0.241	0.526	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1388.52	
Avg	0.7559	1181.0	1202.0	1201.1	0.899	6.295	66.117	20.191	5.734	0.213	0.488	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1382.59	

# Source Daily Summary

July 2022

Source #: 271  
Name: DCKSN BRD-BLFD TSF-G.U. STN

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6540	1081.1	1100.2	1099.4	0.941	2.769	81.749	13.103	1.301	0.041	0.086	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1360.52
2	0.6592	1085.5	1104.7	1103.9	0.954	2.849	81.212	13.429	1.407	0.044	0.094	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1360.58
3	0.6633	1085.6	1104.8	1104.0	0.941	2.769	81.749	13.104	1.301	0.041	0.086	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1356.53
4	0.6607	1084.3	1103.5	1102.5	0.941	2.769	81.749	13.104	1.301	0.041	0.086	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1357.59
5	0.6582	1082.9	1102.1	1101.6	0.941	2.769	81.749	13.104	1.301	0.041	0.086	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1358.45
6	0.6556	1081.6	1100.8	1100.2	0.941	2.769	81.749	13.104	1.301	0.041	0.086	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1359.53
7	0.6530	1080.5	1099.6	1099.0	0.951	2.700	81.807	13.247	1.177	0.036	0.074	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1360.75
8	0.6494	1077.3	1096.4	1095.8	0.941	2.572	82.393	12.937	1.056	0.032	0.064	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1360.50
9	0.6457	1074.1	1093.1	1092.6	0.941	2.415	83.004	12.638	0.921	0.027	0.051	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1360.40
10	0.6474	1076.1	1095.2	1094.7	0.954	2.436	82.680	12.908	0.944	0.027	0.050	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1361.12
11	0.6451	1072.7	1091.7	1091.2	0.948	2.435	83.039	12.653	0.859	0.023	0.042	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1359.23
12	0.6431	1071.1	1090.0	1089.5	0.955	2.340	83.403	12.429	0.811	0.022	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1359.24
13	0.6457	1073.5	1092.5	1091.9	0.949	2.440	82.991	12.625	0.919	0.026	0.048	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1359.64
14	0.6495	1076.0	1095.0	1094.4	0.970	2.613	82.378	12.903	1.050	0.028	0.055	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1358.75
15	0.6471	1074.7	1093.8	1093.1	0.955	2.493	82.790	12.684	0.995	0.028	0.053	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1359.64
16	0.6519	1079.1	1098.2	1097.6	0.968	2.651	81.964	13.204	1.109	0.033	0.066	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1360.24
17	0.6509	1078.6	1097.7	1097.0	0.937	2.639	82.199	12.943	1.175	0.034	0.067	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1360.60
18	0.6557	1083.7	1102.9	1102.2	0.929	2.785	81.599	13.065	1.466	0.047	0.097	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1362.07
19	0.6456	1073.9	1093.0	1092.3	0.951	2.404	83.133	12.418	1.000	0.033	0.059	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1360.24
20	0.6473	1078.0	1097.1	1096.4	0.963	2.290	83.055	12.454	1.075	0.061	0.086	0.009	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1363.67
21	0.6484	1076.1	1095.1	1094.5	0.965	2.466	83.111	12.646	0.761	0.019	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1359.96
22	0.6395	1064.7	1083.6	1082.9	0.949	2.390	84.084	11.750	0.774	0.019	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1355.06
23	0.6396	1063.9	1082.7	1082.1	0.953	2.454	84.058	11.695	0.786	0.020	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1353.77
24	0.6385	1063.2	1082.0	1081.5	0.955	2.389	84.213	11.681	0.714	0.017	0.030	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1354.07
25	0.6427	1066.8	1085.7	1085.2	0.993	2.501	83.456	12.212	0.785	0.019	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1354.30
26	0.6400	1064.5	1083.4	1082.7	0.980	2.411	83.924	11.926	0.712	0.017	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1354.18
27	0.6400	1065.4	1084.3	1083.7	0.988	2.340	83.961	11.947	0.716	0.017	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1355.35
28	0.6396	1065.2	1084.0	1083.5	0.977	2.329	84.087	11.804	0.747	0.020	0.035	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1355.50
29	0.6397	1064.3	1083.1	1082.7	0.975	2.394	84.049	11.777	0.753	0.019	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1354.30
30	0.6434	1067.5	1086.4	1085.8	0.969	2.559	83.488	11.974	0.932	0.027	0.049	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1354.47
31	0.6550	1080.5	1099.6	1099.1	0.962	2.869	81.746	12.801	1.468	0.048	0.096	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1358.68
Avg	0.6482	1075.0	1093.6	1093.0	0.956	2.549	82.793	12.589	1.020	0.031	0.058	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1358.35

# Source Daily Summary

July 2022

Source #: 051  
Name: CABIN CRK STN-BELFIELD TRSFR

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6751	1110.9	1130.6	1130.0	0.618	3.425	77.750	16.146	1.834	0.070	0.139	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1376.02	
2	0.6782	1115.6	1135.4	1134.7	0.655	3.374	77.343	16.411	1.962	0.077	0.156	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1378.66	
3	0.6817	1120.2	1140.1	1139.5	0.669	3.397	76.785	16.808	2.076	0.081	0.163	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1380.85	
4	0.6813	1119.1	1138.9	1138.3	0.643	3.474	76.757	16.850	2.011	0.081	0.164	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1379.79	
5	0.6835	1121.6	1141.5	1140.9	0.630	3.544	76.408	17.025	2.120	0.083	0.169	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1380.72	
6	0.6792	1114.7	1134.4	1133.8	0.569	3.656	77.153	16.281	2.070	0.082	0.166	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1376.48	
7	0.6498	1068.8	1087.7	1087.1	0.453	3.869	82.043	12.147	1.326	0.051	0.098	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1349.08	
8	0.6372	1050.7	1069.3	1068.7	0.312	4.002	84.033	10.533	1.011	0.035	0.066	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1339.52	
9	0.6321	1043.7	1062.1	1061.5	0.251	4.047	84.826	9.910	0.879	0.029	0.053	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1335.89	
10	0.6364	1051.7	1070.3	1069.7	0.284	3.910	84.121	10.602	0.989	0.031	0.056	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1341.49	
11	0.6640	1096.5	1115.9	1115.2	0.421	3.567	79.249	15.143	1.478	0.047	0.086	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1369.32	
12	0.6771	1114.3	1134.1	1133.4	0.600	3.434	77.305	16.591	1.854	0.069	0.132	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1378.22	
13	0.6785	1116.9	1136.7	1136.1	0.615	3.383	77.168	16.679	1.916	0.074	0.147	0.010	0.009	0.000	0.000	0.000	0.000	0.000	1380.01	
14	0.6693	1102.1	1121.6	1120.9	0.513	3.577	78.551	15.518	1.649	0.060	0.117	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1370.97	
15	0.6660	1098.3	1117.7	1117.0	0.425	3.639	78.901	15.353	1.534	0.049	0.089	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1369.59	
16	0.6677	1100.8	1120.2	1119.6	0.439	3.622	78.683	15.487	1.610	0.053	0.096	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1370.98	
17	0.6617	1094.0	1113.3	1112.6	0.312	3.667	79.513	14.956	1.433	0.041	0.071	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1368.67	
18	0.6600	1087.7	1107.0	1106.3	0.424	3.717	80.114	14.087	1.502	0.052	0.094	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1362.53	
19	0.6605	1094.9	1114.3	1113.5	0.246	3.595	79.640	15.030	1.378	0.037	0.067	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1371.07	
20	0.6654	1096.1	1115.5	1114.7	0.493	3.612	79.090	15.155	1.484	0.054	0.100	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1367.47	
21	0.6565	1084.2	1103.4	1102.7	0.387	3.664	80.431	14.173	1.228	0.040	0.070	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1361.76	
22	0.6670	1098.2	1117.6	1116.8	0.531	3.572	78.966	15.151	1.597	0.059	0.111	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1368.48	
23	0.6654	1097.2	1116.6	1116.0	0.528	3.485	79.243	15.032	1.529	0.058	0.112	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1368.94	
24	0.6644	1094.2	1113.6	1112.9	0.601	3.463	79.551	14.650	1.543	0.060	0.117	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1366.20	
25	0.6606	1083.9	1103.1	1102.4	0.697	3.592	80.293	13.785	1.443	0.059	0.116	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1357.20	
26	0.6599	1080.6	1099.7	1099.0	0.765	3.627	80.640	13.212	1.541	0.066	0.131	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1353.69	
27	0.6610	1084.5	1103.7	1103.0	0.786	3.452	80.538	13.417	1.581	0.068	0.137	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1357.57	
28	0.6664	1093.6	1113.0	1112.3	0.842	3.324	79.665	14.219	1.709	0.073	0.147	0.011	0.010	0.000	0.000	0.000	0.000	0.000	1363.35	
29	0.6751	1106.2	1125.8	1125.1	0.886	3.304	78.182	15.469	1.888	0.081	0.166	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1370.21	
30	0.6777	1110.3	1129.9	1129.2	0.847	3.362	77.844	15.598	2.032	0.092	0.194	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1372.53	
31	0.6713	1103.2	1122.8	1122.1	0.640	3.508	78.206	15.844	1.625	0.058	0.107	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1370.32	
Avg	0.6655	1095.0	1114.7	1114.0	0.551	3.576	79.322	14.750	1.607	0.060	0.117	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1366.37	

# Source Daily Summary

July 2022

Source #: 111  
Name: LITTLE KNIFE PLANT

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6866	1155.2	1175.7	1173.9	0.000	2.766	73.060	23.705	0.454	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.82	-26.52
2	0.6872	1156.4	1176.8	1175.4	0.000	2.754	72.978	23.755	0.496	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.59	-26.01
3	0.6889	1159.2	1179.8	1177.9	0.000	2.738	72.836	23.715	0.690	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.37	-24.38
4	0.6897	1159.9	1180.4	1178.5	0.000	2.767	72.729	23.748	0.733	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.39	-23.92
5	0.6885	1158.6	1179.1	1177.4	0.000	2.733	72.818	23.847	0.584	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.09	-25.01
6	0.6874	1156.7	1177.2	1175.6	0.000	2.749	72.926	23.835	0.473	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.83	-26.01
7	0.6872	1156.3	1176.8	1175.1	0.000	2.756	72.946	23.820	0.463	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.56	-26.15
8	0.6862	1154.6	1175.0	1173.6	0.000	2.762	73.172	23.574	0.476	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.52	-26.66
9	0.6860	1154.6	1175.0	1173.5	0.000	2.750	73.181	23.595	0.458	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.65	-26.76
10	0.6863	1154.6	1175.0	1173.5	0.000	2.772	73.137	23.613	0.462	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.41	-26.68
11	0.6878	1157.1	1177.6	1176.2	0.000	2.765	72.906	23.788	0.511	0.010	0.018	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1419.88	-25.45
12	0.6939	1166.4	1187.0	1185.8	0.000	2.766	72.553	23.435	1.071	0.047	0.105	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1424.95	-18.84
13	0.6869	1155.7	1176.2	1174.4	0.000	2.759	73.004	23.773	0.448	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.18	-26.40
14	0.6872	1156.1	1176.6	1174.9	0.000	2.765	72.959	23.786	0.474	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.35	-26.14
15	0.6889	1158.4	1178.9	1177.2	0.000	2.780	72.862	23.704	0.581	0.019	0.045	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1420.43	-24.14
16	0.6868	1155.4	1175.8	1174.3	0.000	2.773	73.016	23.743	0.451	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.85	-26.45
17	0.6866	1154.9	1175.4	1173.6	0.000	2.783	73.064	23.676	0.461	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.47	-26.53
18	0.6872	1156.0	1176.5	1174.8	0.000	2.775	72.943	23.802	0.465	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.20	-26.18
19	0.6871	1155.8	1176.3	1174.4	0.000	2.773	72.953	23.812	0.447	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.11	-26.32
20	0.6862	1154.3	1174.8	1173.1	0.000	2.780	73.132	23.629	0.444	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.20	-26.81
21	0.6871	1156.3	1176.8	1174.9	0.000	2.744	72.997	23.763	0.480	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.66	-26.15
22	0.6866	1155.3	1175.7	1173.7	0.000	2.763	73.074	23.681	0.467	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.89	-26.47
23	0.6865	1155.0	1175.4	1173.6	0.000	2.769	73.079	23.683	0.452	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.67	-26.59
24	0.6864	1154.5	1175.0	1173.2	0.000	2.785	73.104	23.646	0.449	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.23	-26.71
25	0.6878	1159.3	1179.8	1178.1	0.000	2.626	73.132	23.498	0.716	0.010	0.017	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1422.60	-24.52
26	0.6877	1159.6	1180.1	1178.5	0.000	2.595	73.160	23.504	0.714	0.009	0.017	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1423.12	-24.51
27	0.6867	1158.1	1178.6	1177.0	0.000	2.601	73.286	23.418	0.677	0.007	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.21	-25.27
28	0.6846	1154.2	1174.7	1172.7	0.000	2.638	73.564	23.263	0.509	0.008	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1419.65	-26.87
29	0.6849	1155.1	1175.5	1173.7	0.000	2.611	73.465	23.425	0.485	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.46	-26.97
30	0.6844	1154.3	1174.8	1172.9	0.000	2.608	73.562	23.341	0.475	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.06	-27.28
31	0.6843	1154.2	1174.7	1172.9	0.000	2.608	73.552	23.370	0.456	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.02	-27.37
Avg	0.6871	1157.0	1177.0	1175.3	0.000	2.729	73.069	23.644	0.533	0.009	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1419.95	-25.81

# Source Daily Summary

July 2022

Source #: 351  
Name: BADLANDS PLANT

<b>Pressure Base:</b>	14.730	<b>Contract Day:</b>	1
<b>Temperature Base:</b>	60	<b>Contract Hour:</b>	9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.5955	989.9	1007.4	1006.4	0.310	3.787	91.816	3.693	0.350	0.016	0.025	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1305.43	
2	0.6189	1027.8	1046.0	1044.9	0.506	3.380	87.663	7.700	0.672	0.024	0.047	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1329.62	
3	0.6287	1044.6	1063.1	1061.9	0.689	2.996	86.148	9.197	0.870	0.033	0.058	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1340.77	
4	0.6376	1059.1	1077.9	1076.7	0.808	2.769	84.804	10.356	1.129	0.045	0.078	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1349.88	
5	0.6345	1054.2	1072.8	1071.6	0.775	2.826	85.251	10.025	1.007	0.039	0.068	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1346.89	
6	0.6339	1053.7	1072.3	1071.1	0.778	2.800	85.357	9.952	0.998	0.039	0.067	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1346.85	
7	0.6334	1052.7	1071.4	1070.1	0.758	2.840	85.422	9.881	0.984	0.039	0.066	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1346.18	
8	0.6313	1048.8	1067.3	1066.0	0.735	2.917	85.751	9.561	0.928	0.036	0.062	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1343.37	
9	0.6308	1047.9	1066.4	1065.0	0.735	2.924	85.852	9.457	0.925	0.036	0.062	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1342.76	
10	0.6319	1050.0	1068.6	1067.3	0.759	2.862	85.637	9.726	0.912	0.035	0.060	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1344.32	
11	0.6341	1053.0	1071.7	1070.5	0.780	2.855	85.267	10.029	0.959	0.037	0.064	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1345.80	
12	0.6364	1056.9	1075.6	1074.3	0.804	2.794	84.921	10.336	1.024	0.040	0.071	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1348.38	
13	0.6190	1031.0	1049.2	1047.9	0.611	3.030	87.904	7.627	0.742	0.030	0.049	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1333.55	
14	0.6036	1007.3	1025.1	1023.8	0.447	3.282	90.536	5.185	0.490	0.022	0.032	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1319.24	
15	0.6364	1056.5	1075.2	1073.6	0.804	2.819	84.912	10.320	1.027	0.039	0.068	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1347.83	
16	0.6301	1047.2	1065.8	1064.2	0.747	2.883	85.990	9.356	0.917	0.036	0.061	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1342.62	
17	0.6329	1051.6	1070.2	1068.3	0.772	2.837	85.569	9.702	1.001	0.040	0.068	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1345.29	
18	0.6217	1034.8	1053.2	1051.7	0.660	2.977	87.454	8.033	0.785	0.031	0.051	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1335.66	
19	0.5725	962.6	979.7	978.5	0.107	3.590	95.960	0.316	0.018	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.79	
20	0.5731	963.8	980.9	979.6	0.117	3.565	95.847	0.433	0.029	0.008	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.66	
21	0.5895	966.5	983.6	982.4	0.124	4.932	92.929	1.458	0.448	0.029	0.069	0.004	0.009	0.000	0.000	0.000	0.000	0.000	1282.94	
22	0.5723	962.4	979.4	978.1	0.109	3.588	95.986	0.293	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.66	
23	0.5918	990.9	1008.5	1007.2	0.323	3.358	92.615	3.342	0.323	0.017	0.020	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1310.72	
24	0.5739	964.9	982.0	980.6	0.125	3.561	95.716	0.545	0.042	0.009	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1296.18	
25	0.5726	962.8	979.9	978.7	0.111	3.588	95.930	0.343	0.020	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.89	
26	0.5758	967.1	984.2	983.1	0.144	3.578	95.369	0.826	0.069	0.010	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1297.00	
27	0.5759	967.7	984.8	983.8	0.146	3.541	95.373	0.854	0.073	0.010	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1297.79	
28	0.5751	966.5	983.6	982.4	0.138	3.554	95.511	0.724	0.060	0.009	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1297.02	
29	0.5753	966.8	983.9	982.7	0.141	3.544	95.482	0.756	0.063	0.009	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1297.30	
30	0.6047	1002.5	1020.3	1018.6	0.447	3.676	90.276	5.031	0.512	0.021	0.032	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1311.81	
31	0.6273	1042.0	1060.4	1059.0	0.720	2.981	86.541	8.725	0.922	0.038	0.063	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1338.87	
Avg	0.6087	1015.0	1032.6	1031.3	0.491	3.246	89.671	5.928	0.591	0.026	0.041	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1323.36	



July-22

ZONE 550

MANDAN BORDER

NBPL - St Anthony

WBI - Mandan Border

Weighted

Start Date	End Date	MCF	DK	BTU	MCF	DK	BTU Zone 28	AVG BTU	
7/1/2022	7/2/2022	0	0	0	754	905	1201	1201.000	7/1/2022
7/2/2022	7/3/2022	0	0	0	672	810	1205.3	1205.300	7/2/2022
7/3/2022	7/4/2022	0	0	0	646	775	1200.4	1200.400	7/3/2022
7/4/2022	7/5/2022	0	0	0	692	833	1203.8	1203.800	7/4/2022
7/5/2022	7/6/2022	1,554	1,695	1090.8	826	994	1202.7	1129.636	7/5/2022
7/6/2022	7/7/2022	0	0	0	774	928	1200.4	1200.400	7/6/2022
7/7/2022	7/8/2022	0	0	0	854	1,022	1197.6	1197.600	7/7/2022
7/8/2022	7/9/2022	0	0	0	720	866	1201.8	1201.800	7/8/2022
7/9/2022	7/10/2022	0	0	0	716	861	1202.2	1202.200	7/9/2022
7/10/2022	7/11/2022	0	0	0	714	854	1195.1	1195.100	7/10/2022
7/11/2022	7/12/2022	0	0	0	823	987	1200.2	1200.200	7/11/2022
7/12/2022	7/13/2022	0	0	0	953	1,145	1203.3	1203.300	7/12/2022
7/13/2022	7/14/2022	850	925	1088.3	866	1,045	1207	1148.203	7/13/2022
7/14/2022	7/15/2022	0	0	0	801	970	1210.4	1210.400	7/14/2022
7/15/2022	7/16/2022	0	0	0	908	1,092	1203.8	1203.800	7/15/2022
7/16/2022	7/17/2022	0	0	0	668	804	1202.3	1202.300	7/16/2022
7/17/2022	7/18/2022	0	0	0	677	814	1201.9	1201.900	7/17/2022
7/18/2022	7/19/2022	11,650	12,664	1,088	764	917	1200.9	1094.667	7/18/2022
7/19/2022	7/20/2022	9,917	10,800	1,091	965	1,165	1207	1101.287	7/19/2022
7/20/2022	7/21/2022	7,194	7,791	1,083	930	1,068	1151.7	1090.864	7/20/2022
7/21/2022	7/22/2022	9509	10323	1085.3	794	956	1204.6	1094.494	7/21/2022
7/22/2022	7/23/2022	4,624	4,992	1,080	898	1,079	1202	1099.672	7/22/2022
7/23/2022	7/24/2022	0	0	0	718	864	1203	1203.000	7/23/2022
7/24/2022	7/25/2022	0	0	0	729	879	1205.5	1205.500	7/24/2022
7/25/2022	7/26/2022	2	2	1081.8	948	1,140	1203.1	1202.845	7/25/2022
7/26/2022	7/27/2022	0	0	0	848	1,021	1204.9	1204.900	7/26/2022
7/27/2022	7/28/2022	0	0	0	815	979	1201.3	1201.300	7/27/2022
7/28/2022	7/29/2022	0	0	0	850	1,025	1206.5	1206.500	7/28/2022
7/29/2022	7/30/2022	0	0	0	885	1,071	1212	1212.000	7/29/2022
7/30/2022	7/31/2022	0	0	0	651	788	1211.1	1211.100	7/30/2022
7/31/2022	8/1/2022	0	0	0	708	857	1210.2	1210.200	7/31/2022



# Alliance Pipeline

DAILY ANALYSIS --- USA  
ND07MD1 --- Hankinson Sales  
July 2022

DAY	Heating Value (BTU/ft3)	Relative Density	C1 Mol%	C2 Mol%	C3 Mol%	IC4 Mol%	NC4 Mol%	IC5 Mol%	NC5 Mol%	C6+ Mol%	N2 Mol%	CO2 Mol%	Hel Mol%
1	1,152.951	0.6585	84.6739	9.5146	3.4780	0.3375	0.5751	0.0648	0.0530	0.0295	0.9523	0.3118	0.0094
2	1,154.596	0.6599	84.5758	9.4358	3.5999	0.3452	0.5972	0.0654	0.0524	0.0288	0.9664	0.3234	0.0094
3	1,153.538	0.6584	84.8121	9.3583	3.5012	0.3466	0.5944	0.0694	0.0566	0.0320	0.9070	0.3128	0.0096
4	1,152.249	0.6574	84.9400	9.2594	3.5199	0.3397	0.5823	0.0635	0.0515	0.0272	0.8981	0.3089	0.0096
5	1,154.711	0.6586	84.7856	9.4376	3.5319	0.3475	0.5939	0.0648	0.0515	0.0241	0.8170	0.3364	0.0097
6	1,156.506	0.6599	84.6123	9.5066	3.5872	0.3529	0.6101	0.0665	0.0537	0.0252	0.8461	0.3300	0.0095
7	1,158.189	0.6615	84.4151	9.4738	3.8119	0.3452	0.5693	0.0674	0.0554	0.0263	0.9000	0.3261	0.0095
8	1,162.198	0.6640	84.1849	9.6257	3.7493	0.3742	0.6598	0.0774	0.0671	0.0348	0.8901	0.3272	0.0094
9	1,160.751	0.6637	84.1378	9.6243	3.7842	0.3661	0.6474	0.0694	0.0562	0.0267	0.9499	0.3285	0.0094
10	1,157.185	0.6606	84.4491	9.6380	3.5846	0.3509	0.6062	0.0685	0.0549	0.0278	0.9031	0.3073	0.0096
11	1,161.387	0.6632	84.1719	9.7220	3.7829	0.3623	0.5951	0.0740	0.0607	0.0279	0.8690	0.3250	0.0091
12	1,160.565	0.6626	84.2625	9.6835	3.6902	0.3698	0.6320	0.0726	0.0587	0.0274	0.8774	0.3169	0.0089
13	1,161.932	0.6633	84.3087	9.5575	3.7129	0.3867	0.6771	0.0768	0.0626	0.0316	0.8584	0.3186	0.0091
14	1,159.683	0.6620	84.4296	9.5450	3.6328	0.3782	0.6679	0.0709	0.0573	0.0279	0.8544	0.3270	0.0091
15	1,160.424	0.6625	84.4289	9.4634	3.6955	0.3801	0.6782	0.0725	0.0600	0.0286	0.8564	0.3274	0.0091
16	1,161.890	0.6635	84.2245	9.6766	3.6687	0.3838	0.6913	0.0721	0.0584	0.0273	0.8626	0.3257	0.0089
17	1,159.057	0.6620	84.2960	9.7228	3.5868	0.3675	0.6576	0.0656	0.0530	0.0237	0.8795	0.3379	0.0095
18	1,160.971	0.6629	84.2978	9.6380	3.6671	0.3800	0.6796	0.0682	0.0544	0.0252	0.8433	0.3374	0.0090
19	1,161.517	0.6634	84.2740	9.5756	3.6962	0.3849	0.6992	0.0714	0.0589	0.0262	0.8724	0.3326	0.0087
20	1,162.836	0.6643	84.1673	9.6216	3.7566	0.3892	0.7047	0.0680	0.0566	0.0252	0.8704	0.3316	0.0088
21	1,163.003	0.6647	84.1132	9.6290	3.7635	0.3910	0.7081	0.0707	0.0585	0.0263	0.8954	0.3351	0.0091
22	1,162.403	0.6637	84.2396	9.6170	3.7128	0.3870	0.6903	0.0726	0.0607	0.0299	0.8667	0.3146	0.0088
23	1,160.653	0.6630	84.2575	9.6794	3.6456	0.3778	0.6666	0.0712	0.0583	0.0277	0.8657	0.3411	0.0091
24	1,160.186	0.6626	84.3202	9.6129	3.6418	0.3797	0.6728	0.0717	0.0582	0.0256	0.8723	0.3354	0.0094
25	1,159.277	0.6623	84.3554	9.5624	3.6475	0.3749	0.6681	0.0700	0.0551	0.0256	0.8952	0.3363	0.0096
26	1,158.771	0.6617	84.4162	9.5697	3.6396	0.3697	0.6480	0.0673	0.0535	0.0246	0.8629	0.3392	0.0093
27	1,161.267	0.6633	84.2479	9.6382	3.6889	0.3856	0.6707	0.0717	0.0573	0.0272	0.8576	0.3461	0.0089
28	1,160.617	0.6629	84.3005	9.5968	3.6845	0.3807	0.6646	0.0718	0.0575	0.0275	0.8669	0.3403	0.0088
29	1,161.791	0.6638	84.2136	9.6110	3.7064	0.3885	0.6851	0.0747	0.0603	0.0293	0.8864	0.3356	0.0090
30	1,162.299	0.6643	84.2133	9.5498	3.7190	0.3991	0.7049	0.0786	0.0628	0.0299	0.8971	0.3364	0.0092
31	1,160.389	0.6630	84.3429	9.5445	3.6368	0.3909	0.6822	0.0765	0.0632	0.0307	0.8786	0.3442	0.0094
<b>Volume</b>	<b>1,159.537</b>	<b>0.6622</b>	<b>84.3646</b>	<b>9.5729</b>	<b>3.6630</b>	<b>0.3718</b>	<b>0.6518</b>	<b>0.0706</b>	<b>0.0574</b>	<b>0.0277</b>	<b>0.8819</b>	<b>0.3289</b>	<b>0.0092</b>
<b>Weight Avg Energy</b>	<b>1,159.545</b>	<b>0.6622</b>	<b>84.3641</b>	<b>9.5731</b>	<b>3.6632</b>	<b>0.3718</b>	<b>0.6519</b>	<b>0.0706</b>	<b>0.0574</b>	<b>0.0277</b>	<b>0.8819</b>	<b>0.3289</b>	<b>0.0092</b>



# Alliance Pipeline

DAILY ANALYSIS --- USA  
ND14MD1 --- Milnor Sales  
July 2022

DAY	Heating Value (BTU/ft3)	Relative Density	C1 Mol%	C2 Mol%	C3 Mol%	IC4 Mol%	NC4 Mol%	IC5 Mol%	NC5 Mol%	C6+ Mol%	N2 Mol%	CO2 Mol%	Hel Mol%
1	1,152.922	0.6585	84.6318	9.5822	3.4545	0.3352	0.5701	0.0642	0.0530	0.0307	0.9562	0.3127	0.0094
2	1,154.438	0.6597	84.6030	9.4197	3.5870	0.3456	0.5984	0.0664	0.0538	0.0296	0.9660	0.3211	0.0094
3	1,153.102	0.6580	84.8640	9.3346	3.4903	0.3454	0.5909	0.0685	0.0556	0.0313	0.8989	0.3109	0.0097
4	1,152.551	0.6577	84.8949	9.2683	3.5583	0.3390	0.5849	0.0606	0.0481	0.0234	0.8909	0.3220	0.0096
5	1,155.036	0.6588	84.7428	9.4822	3.5245	0.3480	0.5961	0.0656	0.0522	0.0241	0.8183	0.3364	0.0097
6	1,156.406	0.6599	84.6136	9.5011	3.5901	0.3524	0.6071	0.0666	0.0539	0.0254	0.8516	0.3285	0.0095
7	1,158.717	0.6618	84.3804	9.4986	3.8178	0.3474	0.5747	0.0676	0.0559	0.0265	0.8953	0.3263	0.0095
8	1,161.668	0.6636	84.2150	9.6555	3.6954	0.3729	0.6565	0.0781	0.0685	0.0362	0.8881	0.3243	0.0094
9	1,159.492	0.6629	84.2037	9.6119	3.7437	0.3612	0.6384	0.0680	0.0544	0.0249	0.9589	0.3254	0.0095
10	1,158.297	0.6613	84.3724	9.6669	3.6293	0.3555	0.6039	0.0701	0.0565	0.0284	0.8864	0.3210	0.0096
11	1,160.895	0.6628	84.2153	9.7070	3.7622	0.3613	0.5945	0.0734	0.0600	0.0273	0.8675	0.3225	0.0091
12	1,160.789	0.6628	84.2512	9.6650	3.7064	0.3721	0.6383	0.0723	0.0584	0.0273	0.8817	0.3183	0.0089
13	1,161.992	0.6633	84.3084	9.5660	3.7055	0.3874	0.6798	0.0767	0.0624	0.0316	0.8539	0.3192	0.0091
14	1,159.450	0.6619	84.4522	9.5236	3.6314	0.3773	0.6675	0.0705	0.0573	0.0281	0.8569	0.3262	0.0090
15	1,160.565	0.6626	84.4089	9.4852	3.6955	0.3802	0.6768	0.0727	0.0601	0.0283	0.8547	0.3285	0.0092
16	1,162.173	0.6636	84.2069	9.6862	3.6695	0.3856	0.6953	0.0729	0.0589	0.0280	0.8608	0.3270	0.0091
17	1,159.240	0.6622	84.3035	9.6941	3.6049	0.3699	0.6586	0.0661	0.0535	0.0239	0.8720	0.3442	0.0093
18	1,161.494	0.6633	84.2626	9.6327	3.6868	0.3827	0.6884	0.0692	0.0553	0.0256	0.8509	0.3368	0.0090
19	1,161.910	0.6636	84.2612	9.5803	3.7084	0.3862	0.7008	0.0716	0.0591	0.0265	0.8662	0.3308	0.0088
20	1,162.532	0.6641	84.1731	9.6194	3.7499	0.3885	0.7021	0.0677	0.0561	0.0249	0.8770	0.3323	0.0088
21	1,162.872	0.6645	84.1339	9.6248	3.7554	0.3906	0.7059	0.0709	0.0586	0.0265	0.8905	0.3338	0.0091
22	1,162.460	0.6637	84.2237	9.6350	3.7086	0.3859	0.6899	0.0728	0.0611	0.0304	0.8690	0.3147	0.0088
23	1,160.787	0.6630	84.2535	9.6812	3.6492	0.3786	0.6666	0.0711	0.0583	0.0283	0.8649	0.3392	0.0090
24	1,159.232	0.6621	84.3695	9.5895	3.6275	0.3748	0.6661	0.0688	0.0552	0.0245	0.8869	0.3276	0.0095
25	1,158.732	0.6620	84.4001	9.5320	3.6376	0.3733	0.6642	0.0697	0.0549	0.0255	0.8940	0.3391	0.0096
26	1,159.621	0.6622	84.3528	9.6042	3.6584	0.3734	0.6537	0.0682	0.0542	0.0251	0.8601	0.3407	0.0093
27	1,161.067	0.6632	84.2584	9.6337	3.6863	0.3844	0.6685	0.0711	0.0569	0.0272	0.8602	0.3446	0.0089
28	1,160.709	0.6630	84.2911	9.6045	3.6837	0.3812	0.6648	0.0723	0.0578	0.0279	0.8671	0.3408	0.0088
29	1,161.407	0.6636	84.2302	9.6060	3.6938	0.3862	0.6837	0.0744	0.0601	0.0293	0.8923	0.3348	0.0092
30	1,160.732	0.6632	84.2935	9.5571	3.6864	0.3878	0.6830	0.0728	0.0569	0.0273	0.8932	0.3327	0.0092
31	1,160.323	0.6630	84.3205	9.5714	3.6422	0.3878	0.6779	0.0746	0.0614	0.0294	0.8687	0.3564	0.0097
<b>Volume</b>	<b>1,159.746</b>	<b>0.6623</b>	<b>84.3578</b>	<b>9.5801</b>	<b>3.6698</b>	<b>0.3724</b>	<b>0.6520</b>	<b>0.0703</b>	<b>0.0571</b>	<b>0.0272</b>	<b>0.8731</b>	<b>0.3309</b>	<b>0.0092</b>
<b>Weight Avg Energy</b>	<b>1,159.753</b>	<b>0.6623</b>	<b>84.3577</b>	<b>9.5806</b>	<b>3.6696</b>	<b>0.3724</b>	<b>0.6521</b>	<b>0.0703</b>	<b>0.0571</b>	<b>0.0272</b>	<b>0.8728</b>	<b>0.3309</b>	<b>0.0092</b>

July-22

ZONE 610

Watford City

Watford City West Border

Watford City East Border

Weighted

Start Date	End Date	BTU			BTU			AVG BTU	
		MCF	DK	Zone 25	MCF	DK	Zone 43		
7/1/2022	7/2/2022	3	4	1201.1	101	107	1062.1	1066.110	7/1/2022
7/2/2022	7/3/2022	0	0	1201.1	114	121	1062.1	1062.100	7/2/2022
7/3/2022	7/4/2022	0	0	1201.1	102	109	1062.1	1062.100	7/3/2022
7/4/2022	7/5/2022	0	0	1201.1	109	116	1062.1	1062.100	7/4/2022
7/5/2022	7/6/2022	2	2	1201.1	115	123	1062.1	1064.476	7/5/2022
7/6/2022	7/7/2022	4	5	1201.1	154	164	1062.1	1065.619	7/6/2022
7/7/2022	7/8/2022	6	7	1201.1	125	133	1062.1	1068.466	7/7/2022
7/8/2022	7/9/2022	1	1	1201.1	119	127	1062.1	1063.258	7/8/2022
7/9/2022	7/10/2022	0	0	1201.1	117	125	1062.1	1062.100	7/9/2022
7/10/2022	7/11/2022	1	2	1201.1	118	125	1062.1	1063.268	7/10/2022
7/11/2022	7/12/2022	8	9	1201.1	122	130	1062.1	1070.654	7/11/2022
7/12/2022	7/13/2022	2	2	1201.1	120	128	1062.1	1064.379	7/12/2022
7/13/2022	7/14/2022	1	1	1201.1	112	119	1062.1	1063.330	7/13/2022
7/14/2022	7/15/2022	1	1	1201.1	113	120	1062.1	1063.319	7/14/2022
7/15/2022	7/16/2022	0	0	1201.1	127	135	1062.1	1062.100	7/15/2022
7/16/2022	7/17/2022	0	0	1201.1	103	109	1062.1	1062.100	7/16/2022
7/17/2022	7/18/2022	0	0	1201.1	97	103	1062.1	1062.100	7/17/2022
7/18/2022	7/19/2022	8	10	1201.1	117	124	1062.1	1070.996	7/18/2022
7/19/2022	7/20/2022	13	16	1201.1	115	123	1062.1	1076.217	7/19/2022
7/20/2022	7/21/2022	2	3	1201.1	139	147	1062.1	1064.072	7/20/2022
7/21/2022	7/22/2022	1	2	1201.1	103	109	1062.1	1063.437	7/21/2022
7/22/2022	7/23/2022	3	3	1201.1	94	100	1062.1	1066.399	7/22/2022
7/23/2022	7/24/2022	0	0	1201.1	106	113	1062.1	1062.100	7/23/2022
7/24/2022	7/25/2022	2	2	1201.1	125	133	1062.1	1064.289	7/24/2022
7/25/2022	7/26/2022	3	3	1201.1	107	114	1062.1	1065.891	7/25/2022
7/26/2022	7/27/2022	4	5	1201.1	113	120	1062.1	1066.852	7/26/2022
7/27/2022	7/28/2022	5	6	1201.1	114	121	1062.1	1067.940	7/27/2022
7/28/2022	7/29/2022	0	0	1201.1	125	133	1062.1	1062.100	7/28/2022
7/29/2022	7/30/2022	0	0	1201.1	97	103	1062.1	1062.100	7/29/2022
7/30/2022	7/31/2022	1	2	1201.1	108	115	1062.1	1063.375	7/30/2022
7/31/2022	8/1/2022	2	2	1201.1	109	115	1062.1	1064.605	7/31/2022
		73	88	1201.1000	3,540	3,764	1062.1000	1064.7726	

Tsp	EffDate	EndDate	Device	GasDay	EndDt	BTU	SpecGrav	CriconTherm	WobbeIndex	CO2	N2	Methane	Ethane	Propane	iButane	nButane	iPentane	nPentane	NeoPentane	C6Plus	Hydrogen	Helium	WaterVapor	TotalSulfur	HydrogenSulfur	Oxygen
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	6/30/2022	7/1/2022	1086	0.642	-50.8	1355.383865	0.9734	2.4132	83.351	12.1312	0.8734	0.0223	0.0418	0.0018	0.0018	N/A	0	0.1662	0.0241	0.425	0.0838	0.0628	0.0008
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/1/2022	7/2/2022	1086	0.6416	-50.8	1355.8063	0.968	2.4267	83.3575	12.073	0.8883	0.0226	0.0419	0.0019	0.0015	N/A	0	0.1997	0.024	0.4205	0.0908	0.066	0.001
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/3/2022	7/4/2022	1091	0.6462	-48.2	1357.191946	1.0051	2.4529	82.6241	12.7952	0.8983	0.0238	0.044	0.0021	0.0019	N/A	0.0001	0.1286	0.024	0.421	0.1068	0.0797	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/4/2022	7/5/2022	1091	0.6461	-48.3	1357.296972	1.0006	2.4938	82.6618	12.7066	0.9199	0.0232	0.0441	0.002	0.0019	N/A	0	0.1216	0.0248	0.4179	0.0935	0.072	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/5/2022	7/6/2022	1090	0.6454	-49.1	1356.788074	1.0103	2.4766	82.7753	12.6508	0.8698	0.0219	0.0409	0.0017	0.0016	N/A	0	0.1154	0.0248	0.4195	0.0964	0.0729	0.0013
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/6/2022	7/7/2022	1088	0.644	-50	1355.769819	1.0064	2.4257	83.0161	12.494	0.8507	0.0207	0.0387	0.0018	0.0016	N/A	0	0.1202	0.0242	0.4275	0.0933	0.0697	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/7/2022	7/8/2022	1089	0.6442	-50	1356.805263	0.9973	2.3848	82.9675	12.6412	0.8096	0.0205	0.0386	0.002	0.002	N/A	0.0001	0.1135	0.0231	0.0941	0.0952	N/A	N/A
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/8/2022	7/9/2022	1087	0.6431	-50.1	1355.471184	0.9972	2.4158	83.204	12.2721	0.8747	0.0229	0.0437	0.0021	0.0018	N/A	0	0.1422	0.0238	0.4451	0.0881	0.0649	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/9/2022	7/10/2022	1090	0.6449	-48.5	1357.31394	1.0065	2.4362	82.9445	12.4293	0.9516	0.0252	0.0479	0.0024	0.0022	N/A	0	0.1299	0.0244	0.4422	0.0952	0.0681	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/10/2022	7/11/2022	1090	0.6452	-48.6	1356.998347	1.0149	2.4462	82.8244	12.5432	0.9275	0.0238	0.0435	0.0022	0.002	N/A	0	0.148	0.0245	0.4328	0.0976	0.0702	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/10/2022	7/12/2022	1090	0.6452	-48.6	1356.998347	1.0149	2.4462	82.8244	12.5432	0.9275	0.0238	0.0435	0.0022	0.002	N/A	0	0.148	0.0245	0.4328	0.0976	0.0702	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/10/2022	7/13/2022	1090	0.6452	-48.6	1356.998347	1.0149	2.4462	82.8244	12.5432	0.9275	0.0238	0.0435	0.0022	0.002	N/A	0	0.148	0.0245	0.4328	0.0976	0.0702	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/14/2022	7/15/2022	1087	0.644	-49.9	1354.523707	1.0157	2.4927	83.0386	12.318	0.9123	0.0206	0.0368	0.0017	0.0017	N/A	0	0.137	0.0252	0.437	0.0922	0.0602	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/15/2022	7/16/2022	1088	0.6441	-49.7	1355.664569	1.0091	2.4417	83.0798	12.3675	0.9034	0.022	0.04	0.0019	0.0019	N/A	0	0.1079	0.0249	0.4356	0.0913	0.061	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/16/2022	7/17/2022	1088	0.6445	-49.7	1355.243817	1.0132	2.4543	83.075	12.4077	0.8951	0.0213	0.0383	0.002	0.0019	N/A	0.0001	0.0662	0.0251	0.4246	0.0965	0.0598	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/17/2022	7/18/2022	1087	0.6431	-49.4	1355.471184	1.006	2.4266	83.3548	12.0323	0.9612	0.0251	0.0443	0.0027	0.0026	N/A	0.0003	0.1196	0.0247	0.4529	0.0629	0.0629	0.0013
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/18/2022	7/19/2022	1087	0.6432	-49.3	1355.36581	1.0048	2.3919	83.3847	12.0156	0.9888	0.0258	0.0469	0.0019	0.0018	N/A	0	0.1124	0.0245	0.4325	0.1032	0.0654	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/19/2022	7/20/2022	1091	0.6449	-45.9	1358.559182	0.9976	2.357	83.1752	12.2296	1.0042	0.0413	0.068	0.005	0.0039	N/A	0.0015	0.0936	0.0233	0.4176	0.1268	0.0647	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/20/2022	7/21/2022	1082	0.6394	-53.3	1353.13443	0.9799	2.3867	83.86	11.8064	0.7655	0.0201	0.0372	0.0016	0.0014	N/A	0	0.1178	0.0235	0.4352	0.1072	0.0625	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/21/2022	7/22/2022	1084	0.6421	-52.2	1352.782409	1.0054	2.4955	83.2524	12.2615	0.7716	0.0178	0.0314	0.0012	0.0008	N/A	0	0.1385	0.024	0.4209	0.1109	0.0638	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/22/2022	7/23/2022	1079	0.6378	-54.4	1351.074158	0.9806	2.4271	84.1201	11.4398	0.7991	0.0188	0.0329	0.0011	0.0007	N/A	0	0.1562	0.0237	0.446	0.1053	0.0625	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/23/2022	7/24/2022	1080	0.6396	-53.8	1350.422073	0.989	2.5335	83.7203	11.7415	0.7842	0.0176	0.0309	0.0008	0.0005	N/A	0	0.1577	0.0241	0.4397	0.1011	0.0616	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/24/2022	7/25/2022	1080	0.6386	-54.3	1351.478989	0.985	2.4346	83.9135	11.6851	0.755	0.0174	0.0309	0.0009	0.0009	N/A	0	0.1537	0.0232	0.4271	0.1013	0.0632	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/25/2022	7/26/2022	1081	0.6401	-53.5	1351.144446	0.9996	2.5099	83.6048	11.8739	0.7707	0.0176	0.0308	0.0008	0.0005	N/A	0	0.1677	0.0239	0.4294	0.043	0.0454	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/26/2022	7/27/2022	1081	0.6395	-54.5	1351.778142	1.0064	2.4497	83.7287	11.9063	0.7022	0.0154	0.027	0.0005	0.0002	N/A	0	0.1381	0.0236	0.4253	0.0402	0.0403	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/27/2022	7/28/2022	1082	0.639	-53.6	1353.55738	0.9956	2.3789	83.902	11.7373	0.7705	0.0194	0.0359	0.0016	0.0012	N/A	0.0001	0.1445	0.0231	0.4382	0.0954	0.0294	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/28/2022	7/29/2022	1081	0.6384	-54.4	1352.942236	0.99	2.3707	83.9898	11.6818	0.7504	0.0174	0.0304	0.0007	0.0005	N/A	0	0.1455	0.023	0.4304	0.0905	0.0326	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/28/2022	7/30/2022	1081	0.6384	-54.4	1352.942236	0.99	2.3707	83.9898	11.6818	0.7504	0.0174	0.0304	0.0007	0.0005	N/A	0	0.1455	0.023	0.4304	0.0905	0.0326	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/28/2022	7/31/2022	1081	0.6384	-54.4	1352.942236	0.99	2.3707	83.9898	11.6818	0.7504	0.0174	0.0304	0.0007	0.0005	N/A	0	0.1455	0.023	0.4304	0.0905	0.0326	0.0012
NBPL	6/30/2022 0:00	8/1/2022 0:00	GLNU1 - GLEN ULLIN	7/28/2022	8/1/2022	1081	0.6384	-54.4	1352.942236	0.99	2.3707	83.9898	11.6818	0.7504	0.0174	0.0304	0.0007	0.0005	N/A	0	0.1455	0.023	0.4304	0.0905	0.0326	0.0012

<b>NORTH DAKOTA HEATING VALUE ZONES</b>		
<b>ZONES</b>	<b>MEASURING DEVICE</b>	<b>LOCATION</b>
211	Chromatograph	Sidney Border
24	Chromatograph	Williston Border
241	Accumulated Sample	Fairview Border
25	Accumulated Sample	Watford City West Border
260	Chromatograph	North Tioga Transfer
261	Chromatograph	Tioga Comp Station – Robinson Lake Plant
262	Chromatograph	Minot Border
263	Accumulated Sample	Lignite Plant
264	Accumulated Sample	Epping Border
265	Chromatograph	Tioga Comp Station – County Line Plant
271	Chromatograph	Bismarck – Cleveland
272	Chromatograph	Cleveland – Mapleton
273	Chromatograph	Cleveland – Grafton
28	Chromatograph	Bismarck Station
31	Chromatograph	Dickinson Border
32	Chromatograph	Cabin Creek Station
33	Chromatograph	Little Knife Plant
34	Chromatograph	Bowman Border
43	Accumulated Sample	Watford City East Border
550	Accumulated Sample & Chromatograph	Mandan Border
600	Chromatograph	Hankinson Area
601	Chromatograph	Milnor Area
610	Accumulated Sample & Chromatograph	Watford City
802	Chromatograph	Linton

MONTANA DAKOTA UTILITIES CO  
NORTH DAKOTA  
HEATING VALUE DATA

STATE	ZONE	ZONE BOUNDARY	12 MONTH AVERAGE	JUL22	JUN22	MAY22	APR22	MAR22	FEB22	JAN22	DEC21	NOV21	OCT21	SEP21	AUG21	ZONE
MT/ND	211	Sidney Border - MonDak Tfr - Sidney Plt	1199	1200	1198	1185	1191	1196	1196	1171	1215	1208	1201	1213	1216	211
ND	24	Williston Border - Charbonneau Station	1174	1195	1187	1185	1188	1189	1180	1155	1152	1161	1159	1167	1173	24
ND	25	Watford City West Border	1202	1201	1199	1195	1200	1197	1200	1198	1202	1208	1206	1205	1211	25
ND	28	Bismarck Station - Glen Ullin Station	1161	1202	1204	1196	1087	1131	1131	1126	1142	1135	1185	1196	1202	28
ND	31	Dickinson Brd - Belfield Trf - G Ullin Stn	1129	1094	1105	1100	1108	1130	1132	1132	1143	1141	1141	1130	1191	31
ND/MT	32	Cabin Creek Station - Belfied Transfer	1128	1115	1124	1138	1126	1095	1122	1127	1131	1129	1132	1136	1162	32
ND	33	Little Knife Plant	1177	1177	1175	1175	1176	1178	1176	1173	1176	1182	1177	1179	1182	33
ND	34	Badlands Plant/Bowman Border	1043	1033	1014	1019	1021	1070	1087	1097	1093	981	1022	1059	1025	34
ND	43	Watford City East Border	1061	1062	1044	1036	1042	1108	1108	1094	1042	1047	1060	1062	1088	43
ND/MT	241	Fairview Border	1192	1199	1186	1178	1191	1191	1197	1200	1208	1197	1162	1193	1201	241
ND	267	North Tioga Transfer - Nesson Plant	1155	1184	1173	1172	1176	1172	1157	1122	1122	1137	1135	1145	1159	267
ND	261	Tioga Comp Station - Robinson Lake Plan	1186	1201	1200	1200	1191	1191	1155	1175	1161	1176	1197	1192	1194	261
ND	262	Minot Bdr - Palermo Bdr - Bismarck Stn	1199	1203	1205	1202	1202	1194	1187	1180	1199	1198	1211	1203	1202	262
ND	263	Lignite Plant	1131	1130	1131	1131	1131	1131	1131	1131	1131	1131	1131	1134	1129	263
ND	264	Epping Border	1169	1188	1182	1188	1188	1185	1173	1145	1147	1152	1145	1164	1167	264
ND	265	Tioga Comp Station - County Line Plant	1164	1180	1176	1163	1170	1167	1150	1157	1152	1159	1166	1165	1163	265
ND	266	County Line Plant	1176	1179	1179	1167	1173	1172	1166	1175	1178	1183	1174	1185	1175	266
ND	271	Bismarck Station - Cleveland Station	1190	1202	1205	1205	1164	1185	1169	1162	1188	1198	1208	1197	1202	271
ND	272	Cleveland Station - Mapleton	1191	1202	1205	1204	1175	1184	1167	1161	1189	1198	1211	1196	1202	272
ND	273	Cleveland Station - Grafton Border	1189	1200	1205	1202	1168	1176	1166	1161	1188	1198	1210	1195	1202	273
ND	550	Mandan Border / NBPL-St Anthony	1153	1182	1201	1189	1087	1103	1119	1116	1136	1135	1173	1196	1196	550
ND	610	MDU-Watford City BTU	1100	1065	1063	1086	1093	1087	1138	1129	1095	1110	1130	1098	1106	610
ND	802	NBPL - Linton	1084	1086	1084	1074	1067	1073	1088	1091	1085	1086	1089	1094	1090	802
ND	903	Hettinger Propane	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	903
ND	600	Alliance Pipeline - Hankinson	1155	1160	1153	1151	1155	1157	1152	1149	1155	1158	1158	1158	1153	600
ND	601	Alliance Pipeline - Milnor	1155	1160	1153	1151	1154	1157	1152	1149	1154	1157	1158	1158	1153	602

<b>THERMAL ZONE VARIANCE DOCUMENTATION</b>		
<b>July 2022</b>		
<b><i>ZONE</i></b>	<b><i>BTU VARIANCE</i></b>	<b><i>REASON</i></b>
No Variance		