



A Subsidiary of MDU Resources Group, Inc.

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February 20, 2025

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

Re: Case No. PU-24-002 (Therm Billing)
Monthly Report – December 2024

Mr. Kahl,

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 January 2025.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our suppliers for the month of December 2024.
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 December 2024.

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
Vice President of Regulatory Affairs

Montana-Dakota Utilities Co.
Therm Billing Factors - North Dakota
Jan-25

<u>Town</u>	<u>Heat Zone</u>	<u>Therm Factor</u>
MDU-303-ALEXANDER	025	1.1202
MDU-308-ARNEGARD	025	1.1202
MDU-314-APPLE VALLEY	271	1.1578
MDU-318-BEACH	032	1.0489
MDU-319-BELFIELD	032	1.0566
MDU-323-BERTHOLD	262	1.1400
MDU-327-BISMARCK	028	1.4084
MDU-330-BOWMAN	034	1.0338
MDU-337-BURLINGTON	262	1.1646
MDU-343-CARRINGTON	273	1.1569
MDU-344-CLEVELAND	272	1.1497
MDU-364-CAVALIER	273	1.1813
MDU-365-DAWSON	271	1.1497
MDU-368-DES LACS	262	1.1482
MDU-369-DICKINSON	031	1.0727
MDU-374-FT TOTTEN	273	1.1650
MDU-375-DEVILS LAKE	273	1.1650
MDU-379-BARLOW	273	1.1569
MDU-384-EPPING	264	1.1013
MDU-387-ELDRIDGE	272	1.1578
MDU-407-GLADSTONE	031	1.0727
MDU-411-GLEN ULLIN	031	1.0805
MDU-413-GOLVA	032	1.0335
MDU-416-GARRISON	262	1.1482
MDU-417-GRAFTON	273	1.1894
MDU-403-GWINNER	601	1.1379
MDU-429-HEBRON	031	1.0805
MDU-432-HETTINGER	903	2.4049
MDU-449-JAMESTOWN	272	1.1660
MDU-459-KILLDEER	033	1.0985
MDU-463-LANGDON	273	1.1569
MDU-469-LEFOR	031	1.0727
MDU-474-LIGNITE	263	1.0759
MDU-475-LINTON	802	1.0614
MDU-478-LINCOLN	028	1.1183
MDU-488-MCKENZIE	271	1.1578
MDU-494-MEDINA	271	1.1497
MDU-498-MANDAN	028	1.1183
MDU-500-MARMARTH	034	1.0415
MDU-505-MINOT	262	1.1400
MDU-510-MOTT	031	1.0727
MDU-512-MAX	262	1.1400
MDU-513-MILNOR	601	1.1379
MDU-522-NEW ENGLAND	031	1.0650
MDU-524-NEW SALEM	028	1.1183
MDU-532-NEW ROCKFORD	273	1.1569
MDU-539-PARK RIVER	273	1.1813
MDU-540-PALERMO	262	1.1400
MDU-558-RAY	264	1.1013

MDU-561-REGENT	031	1.0650
MDU-563-RHAME	034	1.0262
MDU-564-RICHARDTON	031	1.0650
MDU-568-ROSS	261	1.1328
MDU-572-RUTHVILLE	262	1.1646
MDU-574-SANBORN	272	1.1660
MDU-583-SENTINEL BUTTE	032	1.0489
MDU-588-SOUTH HEART	031	1.0650
MDU-717-SPIRITWOOD	272	1.1660
MDU-590-SPRINGBROOK	264	1.1013
MDU-591-STANLEY	261	1.1410
MDU-593-STEELE	271	1.1497
MDU-594-STERLING	028	1.1183
MDU-598-SHEYENNE	273	1.1650
MDU-605-SURREY	262	1.1646
MDU-610-TAPPEN	271	1.1497
MDU-611-TAYLOR	031	1.0650
MDU-616-TIOGA	260	1.1168
MDU-619-TURTLE LAKE	262	1.1482
MDU-620-TRENTON	024	1.1216
MDU-624-UNDERWOOD	262	1.1482
MDU-625-VALLEY CITY	272	1.1741
MDU-629-WALHALLA	273	1.1813
MDU-632-WATFORD CITY	610	1.0758
MDU-104-WAHPETON	274	1.0302
MDU-636-WHEELOCK	264	1.0934
MDU-637-WHITE EARTH	261	1.1410
MDU-642-WILLISTON	024	1.1216
MDU-646-WASHBURN	262	1.1564
MDU-647-WILTON	262	1.1400
MDU-664-RIVERDALE	262	1.1482
MDU-691-FAIRVIEW	241	1.1225
MDU-712-MINOT AFB	262	1.1646
MDU-718-FAIRMOUNT	600	1.1356
MDU-732-NEKOMA	273	1.1569
MDU-732-MSR SITE	273	1.5690

Source Daily Summary

December 2024

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

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.7171	1163.4	1184.0	1183.7	1.159	3.348	71.336	20.692	3.030	0.128	0.265	0.017	0.016	0.009	0.000	0.000	0.000	0.000	1398.21	
2	0.7151	1163.0	1183.6	1183.2	1.034	3.380	71.381	20.920	2.901	0.115	0.233	0.014	0.013	0.008	0.000	0.000	0.000	0.000	1399.61	
3	0.6983	1156.2	1176.7	1176.2	0.312	3.319	72.768	21.369	2.112	0.042	0.070	0.003	0.003	0.002	0.000	0.000	0.000	0.000	1408.20	
4	0.6905	1151.6	1172.0	1171.6	0.071	3.225	73.574	20.956	1.990	0.022	0.027	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1410.37	
5	0.6952	1159.6	1180.1	1179.8	0.052	3.214	73.004	21.586	2.087	0.024	0.030	0.000	0.000	0.002	0.000	0.000	0.000	0.000	1415.39	
6	0.6949	1158.8	1179.3	1178.9	0.108	3.152	73.283	21.182	2.190	0.034	0.048	0.001	0.001	0.002	0.000	0.000	0.000	0.000	1414.66	
7	0.6961	1159.3	1179.8	1179.4	0.152	3.166	73.197	21.114	2.275	0.038	0.055	0.001	0.001	0.002	0.000	0.000	0.000	0.000	1414.11	
8	0.6936	1157.5	1178.0	1177.7	0.086	3.137	73.569	20.905	2.211	0.036	0.052	0.001	0.001	0.002	0.000	0.000	0.000	0.000	1414.50	
9	0.6952	1160.5	1181.0	1180.7	0.080	3.124	73.223	21.181	2.308	0.034	0.047	0.001	0.000	0.002	0.000	0.000	0.000	0.000	1416.42	
10	0.6958	1161.0	1181.6	1181.3	0.093	3.117	73.292	21.059	2.327	0.043	0.065	0.002	0.001	0.002	0.000	0.000	0.000	0.000	1416.56	
11	0.6976	1159.1	1179.7	1179.3	0.083	3.416	72.893	21.143	2.358	0.041	0.062	0.001	0.000	0.002	0.000	0.000	0.000	0.000	1412.46	
12	0.7020	1162.5	1183.0	1182.7	0.218	3.422	72.359	21.342	2.510	0.054	0.087	0.003	0.002	0.002	0.000	0.000	0.000	0.000	1412.07	
13	0.7054	1175.9	1196.7	1196.4	0.073	3.141	72.280	21.244	3.006	0.088	0.156	0.005	0.004	0.003	0.000	0.000	0.000	0.000	1424.84	
14	0.7052	1176.0	1196.9	1196.5	0.055	3.136	72.187	21.476	2.899	0.084	0.151	0.005	0.004	0.003	0.000	0.000	0.000	0.000	1425.30	
15	0.7242	1169.3	1190.0	1189.7	1.209	3.576	70.112	21.400	3.295	0.130	0.244	0.013	0.010	0.010	0.000	0.000	0.000	0.000	1398.48	
16	0.7282	1170.7	1191.5	1191.1	1.377	3.612	69.530	21.727	3.322	0.137	0.260	0.013	0.010	0.011	0.000	0.000	0.000	0.000	1396.26	
17	0.7001	1162.4	1183.0	1182.7	0.224	3.238	72.804	21.101	2.437	0.067	0.118	0.004	0.003	0.003	0.000	0.000	0.000	0.000	1413.94	
18	0.6951	1160.0	1180.6	1180.3	0.054	3.174	73.456	20.854	2.300	0.057	0.098	0.003	0.002	0.002	0.000	0.000	0.000	0.000	1416.01	
19	0.6947	1159.2	1179.7	1179.4	0.061	3.174	73.380	20.898	2.327	0.056	0.097	0.003	0.002	0.002	0.000	0.000	0.000	0.000	1415.37	
20	0.6958	1161.0	1181.6	1181.2	0.050	3.189	73.349	20.903	2.350	0.056	0.096	0.003	0.002	0.002	0.000	0.000	0.000	0.000	1416.46	
21	0.6957	1160.8	1181.4	1181.0	0.048	3.193	73.420	20.787	2.385	0.059	0.101	0.003	0.002	0.002	0.000	0.000	0.000	0.000	1416.33	
22	0.6962	1161.9	1182.5	1182.2	0.046	3.169	73.368	20.828	2.419	0.060	0.102	0.003	0.003	0.003	0.000	0.000	0.000	0.000	1417.25	
23	0.6950	1159.8	1180.4	1180.0	0.046	3.186	73.448	20.837	2.320	0.057	0.098	0.003	0.002	0.002	0.000	0.000	0.000	0.000	1415.90	
24	0.6965	1158.8	1179.3	1179.0	0.164	3.213	73.284	20.868	2.306	0.057	0.098	0.004	0.003	0.003	0.000	0.000	0.000	0.000	1413.15	
25	0.6925	1155.2	1175.7	1175.3	0.060	3.213	73.818	20.598	2.177	0.048	0.081	0.002	0.002	0.002	0.000	0.000	0.000	0.000	1412.79	
26	0.6899	1151.2	1171.6	1171.3	0.066	3.205	74.178	20.402	2.015	0.046	0.081	0.003	0.002	0.002	0.000	0.000	0.000	0.000	1410.55	
27	0.7221	1166.3	1187.0	1186.6	1.191	3.596	70.202	21.462	3.143	0.128	0.244	0.013	0.010	0.010	0.000	0.000	0.000	0.000	1396.90	
28	0.7285	1171.3	1192.0	1191.6	1.361	3.641	69.341	22.001	3.223	0.137	0.261	0.014	0.011	0.011	0.000	0.000	0.000	0.000	1396.53	
29	0.7211	1166.8	1187.5	1187.1	1.195	3.463	70.779	20.867	3.251	0.133	0.269	0.017	0.016	0.011	0.000	0.000	0.000	0.000	1398.38	
30	0.7271	1169.9	1190.6	1190.3	1.352	3.602	69.549	21.905	3.171	0.134	0.253	0.013	0.010	0.010	0.000	0.000	0.000	0.000	1396.27	
31	0.7274	1169.5	1190.2	1189.9	1.364	3.634	69.533	21.836	3.221	0.133	0.247	0.013	0.010	0.010	0.000	0.000	0.000	0.000	1395.54	
Avg	0.7043	1163.0	1183.1	1182.8	0.434	3.302	72.319	21.143	2.576	0.073	0.132	0.006	0.005	0.005	0.000	0.000	0.000	0.000	1409.96	

Source Daily Summary

December 2024

Source #: 571
Name: WILLISTON BDR-CHARBN STN

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.7018	1150.9	1171.2	1171.0	0.947	2.998	73.935	18.985	2.743	0.108	0.242	0.018	0.021	0.005	0.000	0.000	0.000	0.000	1398.07	
2	0.7027	1152.6	1173.0	1172.7	0.954	2.967	73.829	19.052	2.802	0.109	0.243	0.018	0.020	0.004	0.000	0.000	0.000	0.000	1399.25	
3	0.7025	1152.9	1173.3	1173.0	0.955	2.922	73.924	18.955	2.851	0.110	0.241	0.017	0.020	0.004	0.000	0.000	0.000	0.000	1399.91	
4	0.7040	1157.0	1177.5	1177.2	1.018	2.714	73.551	19.626	2.712	0.105	0.231	0.017	0.020	0.004	0.000	0.000	0.000	0.000	1403.45	
5	0.7038	1157.7	1178.2	1177.8	0.986	2.711	73.731	19.345	2.809	0.116	0.256	0.019	0.022	0.005	0.000	0.000	0.000	0.000	1404.34	
6	0.7052	1154.0	1174.5	1174.2	0.911	3.177	73.705	18.626	3.114	0.128	0.288	0.021	0.025	0.005	0.000	0.000	0.000	0.000	1398.53	
7	0.7069	1156.9	1177.3	1177.1	0.932	3.126	73.460	18.858	3.143	0.131	0.297	0.023	0.026	0.005	0.000	0.000	0.000	0.000	1400.34	
8	0.7066	1158.5	1179.0	1178.7	0.931	3.005	73.472	19.018	3.102	0.129	0.289	0.022	0.026	0.006	0.000	0.000	0.000	0.000	1402.55	
9	0.7091	1167.7	1188.4	1188.1	0.995	2.574	72.999	19.965	2.996	0.129	0.287	0.023	0.027	0.006	0.000	0.000	0.000	0.000	1411.32	
10	0.7123	1171.3	1192.0	1191.7	1.051	2.577	72.273	20.712	2.947	0.123	0.269	0.020	0.023	0.005	0.000	0.000	0.000	0.000	1412.42	
11	0.7151	1177.1	1198.0	1197.6	1.064	2.472	71.864	21.103	3.027	0.130	0.286	0.022	0.026	0.006	0.000	0.000	0.000	0.000	1416.58	
12	0.7148	1176.6	1197.5	1197.1	1.066	2.470	71.867	21.133	3.019	0.125	0.272	0.020	0.023	0.005	0.000	0.000	0.000	0.000	1416.30	
13	0.7159	1178.2	1199.1	1198.7	1.061	2.478	71.811	21.067	3.096	0.134	0.296	0.023	0.027	0.006	0.000	0.000	0.000	0.000	1417.17	
14	0.7141	1176.4	1197.3	1197.0	1.046	2.440	71.940	21.161	2.977	0.123	0.266	0.019	0.022	0.005	0.000	0.000	0.000	0.000	1416.84	
15	0.7120	1174.9	1195.7	1195.5	1.027	2.367	72.340	20.873	2.955	0.123	0.268	0.020	0.023	0.005	0.000	0.000	0.000	0.000	1417.05	
16	0.7108	1173.8	1194.5	1194.3	1.009	2.351	72.508	20.806	2.891	0.119	0.265	0.021	0.025	0.006	0.000	0.000	0.000	0.000	1416.87	
17	0.7115	1173.8	1194.6	1194.3	0.992	2.440	72.546	20.513	3.044	0.126	0.282	0.022	0.027	0.007	0.000	0.000	0.000	0.000	1416.21	
18	0.7100	1169.8	1190.5	1190.2	1.008	2.518	72.574	20.619	2.872	0.113	0.249	0.019	0.023	0.005	0.000	0.000	0.000	0.000	1412.86	
19	0.7116	1174.8	1195.6	1195.3	1.003	2.376	72.323	20.958	2.917	0.119	0.259	0.019	0.022	0.005	0.000	0.000	0.000	0.000	1417.26	
20	0.7018	1155.3	1175.8	1175.5	0.912	2.776	74.121	18.898	2.881	0.114	0.253	0.019	0.021	0.005	0.000	0.000	0.000	0.000	1403.49	
21	0.7035	1155.4	1175.9	1175.6	0.913	2.931	73.922	18.788	3.008	0.120	0.270	0.020	0.023	0.005	0.000	0.000	0.000	0.000	1401.90	
22	0.7024	1153.6	1174.1	1173.8	0.916	2.931	74.070	18.710	2.943	0.118	0.264	0.020	0.023	0.005	0.000	0.000	0.000	0.000	1400.85	
23	0.7027	1155.4	1175.8	1175.6	0.916	2.850	74.038	18.814	2.952	0.119	0.263	0.020	0.023	0.005	0.000	0.000	0.000	0.000	1402.69	
24	0.7015	1149.5	1169.9	1169.6	0.878	3.153	74.300	18.185	3.051	0.119	0.266	0.020	0.024	0.005	0.000	0.000	0.000	0.000	1396.74	
25	0.7017	1146.6	1166.9	1166.7	0.877	3.342	74.270	18.000	3.075	0.119	0.268	0.020	0.023	0.005	0.000	0.000	0.000	0.000	1393.10	
26	0.7006	1147.3	1167.7	1167.4	0.897	3.172	74.398	18.146	2.961	0.116	0.261	0.020	0.023	0.005	0.000	0.000	0.000	0.000	1394.99	
27	0.7040	1156.7	1177.2	1177.0	0.926	2.879	73.803	18.979	2.985	0.118	0.262	0.020	0.023	0.005	0.000	0.000	0.000	0.000	1402.98	
28	0.7054	1157.4	1177.9	1177.6	0.916	2.978	73.572	19.061	3.037	0.119	0.267	0.020	0.024	0.005	0.000	0.000	0.000	0.000	1402.47	
29	0.7040	1155.0	1175.4	1175.2	0.905	3.015	73.745	18.940	2.973	0.116	0.259	0.020	0.023	0.005	0.000	0.000	0.000	0.000	1400.89	
30	0.7042	1156.7	1177.2	1177.0	0.916	2.912	73.700	19.104	2.941	0.117	0.262	0.020	0.023	0.005	0.000	0.000	0.000	0.000	1402.79	
31	0.7030	1155.8	1176.3	1176.1	0.910	2.859	73.890	19.036	2.881	0.116	0.260	0.020	0.023	0.005	0.000	0.000	0.000	0.000	1402.95	
Avg	0.7066	1161.0	1181.8	1181.6	0.963	2.790	73.306	19.550	2.958	0.120	0.266	0.020	0.023	0.005	0.000	0.000	0.000	0.000	1405.91	

Source Daily Summary

December 2024

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

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.7355	1168.8	1189.5	1189.2	0.984	5.006	68.879	20.158	4.349	0.163	0.387	0.029	0.035	0.009	0.000	0.000	0.000	0.000	1387.00	10.56
2	0.7438	1181.4	1202.3	1202.1	0.976	5.025	67.808	20.630	4.900	0.178	0.410	0.029	0.035	0.009	0.000	0.000	0.000	0.000	1394.14	14.91
3	0.7588	1187.4	1208.4	1208.2	0.930	6.134	65.736	20.437	6.083	0.187	0.428	0.028	0.031	0.007	0.000	0.000	0.000	0.000	1387.29	21.21
4	0.7601	1188.3	1209.3	1209.1	0.936	6.192	65.578	20.455	6.125	0.199	0.447	0.028	0.032	0.008	0.000	0.000	0.000	0.000	1387.13	21.99
5	0.7564	1184.8	1205.8	1205.5	0.941	6.060	66.040	20.416	5.833	0.195	0.447	0.029	0.032	0.008	0.000	0.000	0.000	0.000	1386.35	20.36
6	0.7605	1189.8	1210.9	1210.7	0.934	6.141	65.486	20.660	6.027	0.198	0.476	0.032	0.036	0.009	0.000	0.000	0.000	0.000	1388.53	22.56
7	0.7572	1188.1	1209.1	1208.9	0.966	5.893	66.037	20.531	5.806	0.204	0.483	0.033	0.038	0.010	0.000	0.000	0.000	0.000	1389.50	21.60
8	0.7603	1189.3	1210.4	1210.2	0.954	6.122	65.567	20.585	6.004	0.207	0.483	0.033	0.037	0.009	0.000	0.000	0.000	0.000	1388.12	22.67
9	0.7604	1191.9	1213.0	1212.8	0.956	5.969	65.600	20.699	5.992	0.208	0.494	0.034	0.038	0.010	0.000	0.000	0.000	0.000	1391.06	23.06
10	0.7365	1181.1	1202.1	1201.8	0.947	4.403	69.098	20.218	4.702	0.172	0.393	0.028	0.032	0.008	0.000	0.000	0.000	0.000	1401.06	12.23
11	0.7282	1180.8	1201.7	1201.4	0.981	3.599	70.216	20.580	4.024	0.155	0.368	0.030	0.037	0.011	0.000	0.000	0.000	0.000	1408.40	8.12
12	0.7055	1167.3	1187.9	1187.7	0.972	2.307	73.476	20.006	2.810	0.114	0.258	0.023	0.028	0.008	0.000	0.000	0.000	0.000	1414.29	-3.31
13	0.7194	1173.0	1193.8	1193.6	0.968	3.258	71.485	20.124	3.663	0.136	0.308	0.023	0.027	0.007	0.000	0.000	0.000	0.000	1407.85	3.11
14	0.7073	1169.8	1190.6	1190.3	0.967	2.323	73.456	19.712	3.064	0.128	0.288	0.024	0.030	0.008	0.000	0.000	0.000	0.000	1415.60	-1.21
15	0.7383	1182.4	1203.3	1203.1	0.950	4.345	68.814	20.332	4.792	0.168	0.392	0.028	0.032	0.008	0.000	0.000	0.000	0.000	1400.94	-1.91
16	0.7539	1188.8	1209.9	1209.7	0.952	5.554	66.565	20.499	5.709	0.191	0.454	0.031	0.035	0.009	0.000	0.000	0.000	0.000	1393.61	19.73
17	0.7596	1186.8	1207.8	1207.6	0.940	6.233	65.653	20.394	6.037	0.198	0.471	0.031	0.035	0.009	0.000	0.000	0.000	0.000	1385.82	22.13
18	0.7438	1178.3	1199.2	1199.0	0.942	5.264	68.050	19.850	5.236	0.173	0.415	0.029	0.032	0.008	0.000	0.000	0.000	0.000	1390.80	14.54
19	0.7246	1171.6	1192.3	1192.1	0.962	3.848	70.805	19.766	4.081	0.145	0.335	0.024	0.027	0.007	0.000	0.000	0.000	0.000	1401.08	5.57
20	0.7428	1180.9	1201.8	1201.6	0.986	4.947	68.155	20.236	5.005	0.176	0.422	0.030	0.034	0.009	0.000	0.000	0.000	0.000	1394.45	15.17
21	0.7515	1182.1	1203.0	1202.8	0.951	5.741	66.874	20.139	5.586	0.186	0.450	0.030	0.034	0.008	0.000	0.000	0.000	0.000	1387.79	18.64
22	0.7515	1183.7	1204.6	1204.4	0.935	5.666	67.072	19.886	5.689	0.195	0.474	0.034	0.039	0.010	0.000	0.000	0.000	0.000	1389.65	19.56
23	0.7559	1185.1	1206.1	1205.9	0.930	5.998	66.382	19.998	5.929	0.203	0.480	0.033	0.037	0.010	0.000	0.000	0.000	0.000	1387.28	21.41
24	0.7599	1190.1	1211.2	1211.0	0.950	6.044	65.738	20.399	6.105	0.203	0.482	0.032	0.036	0.009	0.000	0.000	0.000	0.000	1389.39	22.84
25	0.7595	1188.5	1209.6	1209.3	0.944	6.107	65.759	20.381	6.044	0.206	0.482	0.032	0.036	0.009	0.000	0.000	0.000	0.000	1387.95	22.50
26	0.7553	1184.9	1205.9	1205.7	0.961	5.915	66.270	20.403	5.706	0.199	0.469	0.032	0.036	0.009	0.000	0.000	0.000	0.000	1387.58	20.46
27	0.7639	1194.6	1215.7	1215.5	0.944	6.153	65.215	20.568	6.305	0.216	0.513	0.035	0.040	0.010	0.000	0.000	0.000	0.000	1390.98	24.99
28	0.7643	1195.8	1216.9	1216.7	0.943	6.120	65.201	20.590	6.300	0.222	0.531	0.037	0.043	0.012	0.000	0.000	0.000	0.000	1391.97	25.58
29	0.7583	1185.3	1206.3	1206.1	0.945	6.198	65.868	20.274	5.960	0.203	0.476	0.031	0.035	0.009	0.000	0.000	0.000	0.000	1385.21	21.74
30	0.7544	1183.8	1204.8	1204.6	0.958	5.901	66.396	20.354	5.642	0.200	0.471	0.032	0.037	0.009	0.000	0.000	0.000	0.000	1387.10	20.13
31	0.7521	1183.6	1204.6	1204.4	0.963	5.688	66.693	20.468	5.454	0.198	0.459	0.032	0.036	0.009	0.000	0.000	0.000	0.000	1388.99	19.05
Avg	0.7477	1183.0	1204.4	1204.2	0.954	5.295	67.418	20.314	5.321	0.185	0.434	0.030	0.035	0.009	0.000	0.000	0.000	0.000	1393.13	16.45

Source Daily Summary

December 2024

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

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.7571	1183.2	1204.1	1203.9	0.926	6.242	65.854	20.373	5.966	0.177	0.404	0.025	0.028	0.006	0.000	0.000	0.000	0.000	1383.86	
2	0.7596	1188.0	1209.0	1208.8	0.930	6.171	65.596	20.522	6.092	0.191	0.432	0.028	0.031	0.007	0.000	0.000	0.000	0.000	1387.26	
3	0.7588	1187.9	1208.9	1208.7	0.933	6.098	65.717	20.528	6.039	0.189	0.430	0.028	0.031	0.008	0.000	0.000	0.000	0.000	1387.86	
4	0.7589	1187.1	1208.2	1208.0	0.938	6.151	65.702	20.460	6.062	0.190	0.431	0.027	0.031	0.007	0.000	0.000	0.000	0.000	1386.85	
5	0.7577	1185.7	1206.7	1206.5	0.940	6.125	65.880	20.409	5.937	0.199	0.444	0.028	0.031	0.008	0.000	0.000	0.000	0.000	1386.24	
6	0.7583	1186.1	1207.1	1206.9	0.936	6.155	65.751	20.531	5.908	0.191	0.457	0.030	0.033	0.008	0.000	0.000	0.000	0.000	1386.25	
7	0.7596	1189.1	1210.2	1210.0	0.949	6.077	65.658	20.579	5.978	0.202	0.479	0.032	0.037	0.009	0.000	0.000	0.000	0.000	1388.54	
8	0.7609	1191.0	1212.1	1211.9	0.956	6.077	65.528	20.603	6.051	0.210	0.494	0.034	0.039	0.010	0.000	0.000	0.000	0.000	1389.51	
9	0.7599	1188.9	1210.0	1209.8	0.953	6.106	65.642	20.547	5.979	0.208	0.485	0.033	0.037	0.010	0.000	0.000	0.000	0.000	1388.04	
10	0.7593	1187.5	1208.5	1208.4	0.951	6.145	65.664	20.537	5.959	0.199	0.470	0.031	0.035	0.009	0.000	0.000	0.000	0.000	1386.92	
11	0.7592	1187.8	1208.8	1208.6	0.958	6.104	65.695	20.546	5.959	0.200	0.466	0.030	0.034	0.009	0.000	0.000	0.000	0.000	1387.29	
12	0.7602	1189.7	1210.8	1210.6	0.960	6.076	65.567	20.650	5.984	0.205	0.480	0.032	0.036	0.010	0.000	0.000	0.000	0.000	1388.74	
13	0.7578	1185.1	1206.1	1205.9	0.955	6.144	65.846	20.459	5.869	0.195	0.460	0.030	0.034	0.009	0.000	0.000	0.000	0.000	1385.50	
14	0.7597	1188.8	1209.8	1209.6	0.953	6.098	65.645	20.554	6.007	0.197	0.470	0.031	0.035	0.009	0.000	0.000	0.000	0.000	1388.07	
15	0.7594	1188.1	1209.1	1209.0	0.953	6.109	65.664	20.571	5.978	0.195	0.460	0.031	0.035	0.009	0.000	0.000	0.000	0.000	1387.57	
16	0.7592	1187.1	1208.1	1207.9	0.948	6.163	65.717	20.428	6.008	0.196	0.467	0.031	0.034	0.009	0.000	0.000	0.000	0.000	1386.52	
17	0.7610	1190.4	1211.5	1211.3	0.941	6.147	65.522	20.497	6.118	0.205	0.489	0.033	0.037	0.010	0.000	0.000	0.000	0.000	1388.69	
18	0.7598	1188.2	1209.3	1209.1	0.943	6.160	65.643	20.460	6.045	0.198	0.476	0.031	0.035	0.008	0.000	0.000	0.000	0.000	1387.29	
19	0.7608	1190.2	1211.3	1211.1	0.940	6.140	65.539	20.513	6.096	0.202	0.489	0.033	0.038	0.010	0.000	0.000	0.000	0.000	1388.67	
20	0.7618	1192.3	1213.4	1213.2	0.948	6.091	65.464	20.536	6.174	0.208	0.500	0.033	0.037	0.009	0.000	0.000	0.000	0.000	1390.21	
21	0.7611	1190.8	1211.9	1211.7	0.950	6.109	65.534	20.507	6.126	0.202	0.491	0.033	0.038	0.010	0.000	0.000	0.000	0.000	1389.19	
22	0.7529	1180.4	1201.3	1201.1	0.913	6.037	66.777	19.725	5.816	0.192	0.465	0.031	0.035	0.009	0.000	0.000	0.000	0.000	1384.44	
23	0.7604	1190.4	1211.5	1211.3	0.952	6.072	65.668	20.431	6.094	0.206	0.493	0.034	0.039	0.011	0.000	0.000	0.000	0.000	1389.25	
24	0.7611	1191.3	1212.4	1212.2	0.948	6.089	65.574	20.454	6.154	0.208	0.492	0.033	0.038	0.010	0.000	0.000	0.000	0.000	1389.66	
25	0.7587	1186.9	1207.9	1207.7	0.946	6.132	65.851	20.312	6.005	0.203	0.474	0.031	0.035	0.009	0.000	0.000	0.000	0.000	1386.73	
26	0.7607	1189.8	1210.9	1210.7	0.946	6.144	65.605	20.403	6.121	0.210	0.492	0.033	0.037	0.009	0.000	0.000	0.000	0.000	1388.33	
27	0.7596	1187.2	1208.2	1208.0	0.946	6.194	65.710	20.347	6.048	0.202	0.477	0.032	0.036	0.009	0.000	0.000	0.000	0.000	1386.33	
28	0.7671	1201.1	1222.3	1222.1	0.943	6.053	64.889	20.771	6.462	0.230	0.554	0.039	0.046	0.012	0.000	0.000	0.000	0.000	1395.66	
29	0.7578	1184.2	1205.1	1204.9	0.945	6.216	65.930	20.232	5.927	0.202	0.471	0.031	0.035	0.010	0.000	0.000	0.000	0.000	1384.38	
30	0.7585	1185.4	1206.4	1206.2	0.944	6.206	65.862	20.244	5.989	0.204	0.476	0.031	0.035	0.009	0.000	0.000	0.000	0.000	1385.23	
31	0.7580	1183.7	1204.7	1204.5	0.941	6.270	65.915	20.156	5.967	0.206	0.469	0.031	0.035	0.009	0.000	0.000	0.000	0.000	1383.66	
Avg	0.7595	1188.0	1209.2	1209.0	0.945	6.132	65.697	20.448	6.030	0.201	0.472	0.031	0.035	0.009	0.000	0.000	0.000	0.000	1387.51	

Source Daily Summary

December 2024

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

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.7611	1189.1	1210.2	1209.9	0.945	6.222	65.426	20.526	6.163	0.201	0.448	0.029	0.032	0.007	0.000	0.000	0.000	0.000	1387.16	
2	0.7598	1186.7	1207.7	1207.4	0.944	6.254	65.546	20.452	6.127	0.188	0.426	0.027	0.029	0.006	0.000	0.000	0.000	0.000	1385.51	
3	0.7606	1187.8	1208.8	1208.5	0.951	6.253	65.481	20.451	6.161	0.196	0.440	0.028	0.032	0.007	0.000	0.000	0.000	0.000	1386.02	
4	0.7584	1184.1	1205.1	1204.8	0.950	6.271	65.755	20.348	5.961	0.199	0.448	0.029	0.032	0.007	0.000	0.000	0.000	0.000	1383.74	
5	0.7603	1187.1	1208.1	1207.8	0.947	6.266	65.476	20.558	6.018	0.197	0.466	0.030	0.033	0.007	0.000	0.000	0.000	0.000	1385.56	
6	0.7614	1189.6	1210.6	1210.4	0.953	6.213	65.407	20.572	6.084	0.206	0.487	0.033	0.037	0.008	0.000	0.000	0.000	0.000	1387.42	
7	0.7625	1191.7	1212.8	1212.5	0.968	6.163	65.316	20.616	6.137	0.217	0.501	0.034	0.038	0.009	0.000	0.000	0.000	0.000	1388.87	
8	0.7605	1188.0	1209.0	1208.7	0.965	6.209	65.557	20.469	6.020	0.212	0.490	0.033	0.038	0.009	0.000	0.000	0.000	0.000	1386.35	
9	0.7599	1186.2	1207.2	1206.9	0.964	6.266	65.576	20.444	6.004	0.201	0.470	0.031	0.035	0.008	0.000	0.000	0.000	0.000	1384.78	
10	0.7598	1186.2	1207.3	1207.0	0.967	6.247	65.619	20.406	6.005	0.205	0.475	0.031	0.035	0.008	0.000	0.000	0.000	0.000	1384.96	
11	0.7611	1188.3	1209.3	1209.0	0.965	6.240	65.470	20.476	6.085	0.206	0.483	0.032	0.035	0.008	0.000	0.000	0.000	0.000	1386.24	
12	0.7603	1187.4	1208.4	1208.2	0.961	6.230	65.556	20.450	6.049	0.202	0.476	0.031	0.035	0.008	0.000	0.000	0.000	0.000	1385.88	
13	0.7612	1189.2	1210.3	1210.0	0.961	6.209	65.454	20.501	6.116	0.204	0.480	0.032	0.036	0.008	0.000	0.000	0.000	0.000	1387.12	
14	0.7607	1187.7	1208.8	1208.5	0.959	6.250	65.506	20.444	6.089	0.202	0.475	0.031	0.035	0.008	0.000	0.000	0.000	0.000	1385.90	
15	0.7611	1187.9	1208.9	1208.7	0.957	6.275	65.484	20.402	6.115	0.205	0.485	0.032	0.036	0.008	0.000	0.000	0.000	0.000	1385.78	
16	0.7612	1188.2	1209.3	1209.0	0.953	6.275	65.479	20.403	6.116	0.206	0.491	0.033	0.037	0.009	0.000	0.000	0.000	0.000	1386.04	
17	0.7607	1187.4	1208.4	1208.2	0.954	6.273	65.520	20.408	6.086	0.202	0.481	0.032	0.035	0.008	0.000	0.000	0.000	0.000	1385.55	
18	0.7627	1191.7	1212.8	1212.6	0.958	6.195	65.333	20.506	6.209	0.212	0.506	0.034	0.038	0.009	0.000	0.000	0.000	0.000	1388.73	
19	0.7606	1187.7	1208.7	1208.5	0.964	6.234	65.560	20.392	6.089	0.202	0.482	0.032	0.036	0.009	0.000	0.000	0.000	0.000	1385.96	
20	0.7610	1187.6	1208.7	1208.4	0.961	6.278	65.454	20.458	6.101	0.200	0.475	0.031	0.034	0.008	0.000	0.000	0.000	0.000	1385.54	
21	0.7641	1193.5	1214.6	1214.3	0.960	6.221	65.128	20.605	6.279	0.212	0.512	0.035	0.039	0.009	0.000	0.000	0.000	0.000	1389.46	
22	0.7616	1189.6	1210.6	1210.4	0.964	6.216	65.495	20.378	6.151	0.215	0.501	0.033	0.038	0.009	0.000	0.000	0.000	0.000	1387.20	
23	0.7617	1190.1	1211.2	1211.0	0.959	6.192	65.429	20.415	6.195	0.212	0.501	0.034	0.039	0.009	0.000	0.000	0.000	0.000	1387.79	
24	0.7609	1188.2	1209.3	1209.0	0.958	6.235	65.588	20.293	6.154	0.209	0.487	0.032	0.036	0.008	0.000	0.000	0.000	0.000	1386.35	
25	0.7611	1188.5	1209.6	1209.3	0.953	6.247	65.559	20.292	6.167	0.212	0.493	0.032	0.036	0.008	0.000	0.000	0.000	0.000	1386.47	
26	0.7607	1187.5	1208.5	1208.3	0.957	6.266	65.597	20.277	6.129	0.209	0.488	0.032	0.036	0.008	0.000	0.000	0.000	0.000	1385.62	
27	0.7663	1198.1	1219.3	1219.0	0.956	6.150	64.959	20.645	6.419	0.233	0.547	0.038	0.043	0.010	0.000	0.000	0.000	0.000	1392.80	
28	0.7586	1183.4	1204.4	1204.1	0.958	6.316	65.836	20.155	5.973	0.208	0.476	0.032	0.036	0.009	0.000	0.000	0.000	0.000	1382.79	
29	0.7592	1184.2	1205.2	1204.9	0.956	6.327	65.777	20.144	6.030	0.209	0.482	0.032	0.035	0.008	0.000	0.000	0.000	0.000	1383.17	
30	0.7604	1186.5	1207.5	1207.3	0.952	6.303	65.629	20.221	6.132	0.210	0.479	0.032	0.035	0.008	0.000	0.000	0.000	0.000	1384.79	
31	0.7601	1185.8	1206.8	1206.6	0.947	6.329	65.651	20.173	6.159	0.201	0.469	0.030	0.033	0.007	0.000	0.000	0.000	0.000	1384.20	
Avg	0.7610	1188.0	1209.3	1209.0	0.957	6.246	65.504	20.416	6.114	0.206	0.481	0.032	0.036	0.008	0.000	0.000	0.000	0.000	1386.25	

Gas Composition and Properties

Effective October 1, 2021

Attachment B
Page 8 of 25

Source #: 2501030
Name: LIGNITE PLANT

Component	Mole %	Liquid Content	Mass %	Property	Total Sample	C6 Plus Fraction
Carbon Dioxide, CO2	0.2283		0.5237	Pressure Base	14.730	
Nitrogen, N2	2.9631		4.3268	Temperature Base	60.00	
Methane, C1	79.4957		66.4767	HCDP @ Sample Pressure		
Ethane, C2	15.2390	4.0765	23.8852	Cricondentherm	-32.804	
Propane, C3	2.0456	0.5637	4.7019	HV, Dry @ Base P, T	1130.73	
iso-Butane, iC4	0.0244	0.0080	0.0739	HV, Sat @ Base P, T	1111.05	
n-Butane, nC4	0.0039	0.0012	0.0118	HV, Sat @ Sample P, T	1130.73	
iso-Pentane, iC5				Relative Density	0.6640	
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						
				C6+: 100		
Totals	100.0000	4.6490	100.0000			

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

December 2024

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

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.7222	1164.4	1185.1	1184.8	1.022	3.972	70.734	20.351	3.310	0.153	0.381	0.031	0.037	0.009	0.000	0.000	0.000	0.000	1394.44	
2	0.7249	1164.0	1184.6	1184.3	1.023	4.242	70.342	20.278	3.508	0.156	0.375	0.030	0.037	0.010	0.000	0.000	0.000	0.000	1391.41	
3	0.7159	1169.4	1190.1	1189.8	0.997	3.111	71.867	20.312	3.155	0.143	0.342	0.028	0.035	0.010	0.000	0.000	0.000	0.000	1406.59	
4	0.7205	1170.5	1191.2	1190.9	1.015	3.450	71.140	20.417	3.437	0.144	0.334	0.025	0.030	0.009	0.000	0.000	0.000	0.000	1403.34	
5	0.7287	1180.6	1201.5	1201.2	1.054	3.553	69.493	21.887	3.479	0.146	0.334	0.022	0.026	0.007	0.000	0.000	0.000	0.000	1407.43	
6	0.7254	1163.4	1184.0	1183.7	1.021	4.335	70.417	19.953	3.612	0.168	0.418	0.031	0.036	0.009	0.000	0.000	0.000	0.000	1390.12	
7	0.7283	1171.5	1192.3	1192.0	1.033	4.086	70.075	20.393	3.722	0.173	0.434	0.034	0.041	0.010	0.000	0.000	0.000	0.000	1397.10	
8	0.7254	1167.2	1187.9	1187.6	1.026	4.086	70.403	20.290	3.542	0.163	0.406	0.033	0.040	0.010	0.000	0.000	0.000	0.000	1394.80	
9	0.7262	1168.0	1188.7	1188.4	1.025	4.121	70.085	20.666	3.492	0.155	0.378	0.030	0.037	0.010	0.000	0.000	0.000	0.000	1394.89	
10	0.7278	1172.9	1193.6	1193.4	1.026	3.968	69.960	20.777	3.651	0.160	0.385	0.029	0.035	0.010	0.000	0.000	0.000	0.000	1399.22	
11	0.7298	1185.9	1206.9	1206.6	1.131	3.213	69.535	21.962	3.642	0.137	0.320	0.023	0.028	0.008	0.000	0.000	0.000	0.000	1412.70	
12	0.7342	1194.2	1215.3	1215.1	1.185	3.038	68.986	22.470	3.715	0.154	0.373	0.031	0.038	0.010	0.000	0.000	0.000	0.000	1418.25	
13	0.7256	1182.6	1203.6	1203.3	1.142	3.002	69.682	22.635	3.145	0.108	0.243	0.018	0.021	0.005	0.000	0.000	0.000	0.000	1412.89	
14	0.7138	1163.8	1184.4	1184.1	1.103	3.100	71.500	21.229	2.741	0.088	0.196	0.015	0.020	0.007	0.000	0.000	0.000	0.000	1401.88	
15	0.7229	1175.8	1196.6	1196.3	1.130	3.183	70.005	22.292	3.030	0.096	0.217	0.016	0.020	0.007	0.000	0.000	0.000	0.000	1407.35	
16	0.7237	1175.1	1195.9	1195.7	1.068	3.389	70.382	21.195	3.547	0.115	0.259	0.018	0.021	0.006	0.000	0.000	0.000	0.000	1405.79	
17	0.7280	1174.5	1195.3	1195.0	1.007	3.924	70.282	20.102	4.082	0.159	0.380	0.026	0.030	0.008	0.000	0.000	0.000	0.000	1400.85	
18	0.7212	1156.4	1176.9	1176.7	0.993	4.402	71.098	19.333	3.558	0.158	0.387	0.029	0.034	0.008	0.000	0.000	0.000	0.000	1385.86	
19	0.7189	1154.1	1174.6	1174.3	0.987	4.335	71.459	19.153	3.465	0.152	0.374	0.031	0.036	0.008	0.000	0.000	0.000	0.000	1385.31	
20	0.7164	1150.6	1171.0	1170.7	0.996	4.307	71.871	18.832	3.415	0.149	0.359	0.028	0.034	0.009	0.000	0.000	0.000	0.000	1383.44	
21	0.7332	1176.1	1196.9	1196.7	1.014	4.298	69.478	20.218	4.393	0.157	0.377	0.027	0.032	0.008	0.000	0.000	0.000	0.000	1397.84	
22	0.7247	1163.5	1184.1	1183.9	1.007	4.282	70.895	19.147	4.041	0.161	0.395	0.030	0.034	0.008	0.000	0.000	0.000	0.000	1390.99	
23	0.7273	1174.6	1195.4	1195.1	1.008	3.841	70.484	19.939	4.146	0.150	0.363	0.028	0.034	0.008	0.000	0.000	0.000	0.000	1401.74	
24	0.7284	1173.1	1193.8	1193.6	1.024	4.023	70.210	20.032	4.127	0.152	0.363	0.027	0.033	0.008	0.000	0.000	0.000	0.000	1398.77	
25	0.7289	1171.7	1192.4	1192.2	1.036	4.133	69.903	20.514	3.752	0.169	0.415	0.032	0.037	0.009	0.000	0.000	0.000	0.000	1396.68	
26	0.7265	1168.3	1189.0	1188.7	1.040	4.113	70.103	20.624	3.460	0.166	0.411	0.033	0.041	0.010	0.000	0.000	0.000	0.000	1394.91	
27	0.7290	1162.5	1183.1	1182.9	1.036	4.701	69.501	20.627	3.494	0.161	0.398	0.032	0.040	0.011	0.000	0.000	0.000	0.000	1385.71	
28	0.7328	1168.6	1189.3	1189.0	1.041	4.679	68.920	21.059	3.638	0.167	0.415	0.032	0.039	0.010	0.000	0.000	0.000	0.000	1389.34	
29	0.7327	1175.4	1196.3	1196.0	1.039	4.255	69.255	20.939	3.813	0.177	0.438	0.034	0.040	0.010	0.000	0.000	0.000	0.000	1397.56	
30	0.7303	1174.4	1195.2	1194.9	1.040	4.097	69.691	20.730	3.745	0.176	0.435	0.034	0.041	0.010	0.000	0.000	0.000	0.000	1398.52	
31	0.7311	1173.7	1194.5	1194.2	1.033	4.229	69.402	20.945	3.723	0.170	0.415	0.033	0.040	0.010	0.000	0.000	0.000	0.000	1396.99	
Avg	0.7260	1171.0	1191.3	1191.0	1.042	3.918	70.231	20.623	3.599	0.151	0.365	0.028	0.034	0.009	0.000	0.000	0.000	0.000	1398.15	

Source Daily Summary

December 2024

Source #: 043
Name: BISMARCK STN-CLEVELAND STN

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.7283	1161.8	1182.4	1181.7	0.890	4.901	70.085	19.193	4.419	0.143	0.322	0.020	0.022	0.006	0.000	0.000	0.000	0.000	1385.50	
2	0.7328	1165.0	1185.7	1184.9	0.887	5.134	69.409	19.357	4.694	0.143	0.329	0.020	0.021	0.006	0.000	0.000	0.000	0.000	1385.04	
3	0.7407	1172.6	1193.4	1192.5	0.889	5.404	68.379	19.569	5.176	0.159	0.369	0.023	0.024	0.007	0.000	0.000	0.000	0.000	1386.64	
4	0.7306	1162.9	1183.5	1182.7	0.878	5.067	69.655	19.401	4.477	0.147	0.328	0.020	0.021	0.006	0.000	0.000	0.000	0.000	1384.63	
5	0.7279	1158.7	1179.3	1178.4	0.877	5.069	70.120	19.023	4.391	0.140	0.333	0.020	0.021	0.006	0.000	0.000	0.000	0.000	1382.22	
6	0.7355	1167.2	1187.9	1187.1	0.885	5.256	69.156	19.267	4.834	0.159	0.384	0.025	0.026	0.008	0.000	0.000	0.000	0.000	1385.07	
7	0.7472	1179.6	1200.5	1199.7	0.908	5.555	67.580	19.814	5.437	0.188	0.449	0.029	0.032	0.009	0.000	0.000	0.000	0.000	1388.85	
8	0.7476	1179.7	1200.6	1199.8	0.892	5.615	67.382	20.037	5.379	0.186	0.440	0.028	0.031	0.009	0.000	0.000	0.000	0.000	1388.54	
9	0.7375	1169.0	1189.7	1188.9	0.883	5.336	68.708	19.664	4.811	0.159	0.380	0.024	0.026	0.008	0.000	0.000	0.000	0.000	1385.32	
10	0.7343	1165.2	1185.9	1185.1	0.886	5.256	69.240	19.339	4.691	0.158	0.372	0.024	0.026	0.008	0.000	0.000	0.000	0.000	1383.93	
11	0.7292	1159.4	1179.9	1179.2	0.900	5.114	70.012	18.963	4.456	0.149	0.354	0.022	0.024	0.007	0.000	0.000	0.000	0.000	1381.79	
12	0.7320	1164.1	1184.7	1183.9	0.871	5.137	69.580	19.246	4.595	0.152	0.364	0.023	0.025	0.007	0.000	0.000	0.000	0.000	1384.69	
13	0.7324	1164.0	1184.6	1183.9	0.877	5.172	69.488	19.290	4.609	0.151	0.358	0.023	0.024	0.007	0.000	0.000	0.000	0.000	1384.21	
14	0.7337	1166.3	1186.9	1186.1	0.868	5.168	69.325	19.382	4.676	0.155	0.368	0.024	0.026	0.008	0.000	0.000	0.000	0.000	1385.68	
15	0.7391	1170.6	1191.3	1190.5	0.867	5.258	68.693	19.565	4.983	0.163	0.391	0.025	0.026	0.008	0.000	0.000	0.000	0.000	1385.69	
16	0.7413	1174.7	1195.5	1194.7	0.839	5.402	68.237	19.809	5.077	0.169	0.405	0.026	0.028	0.008	0.000	0.000	0.000	0.000	1388.56	
17	0.7340	1165.4	1186.0	1185.2	0.862	5.255	69.287	19.292	4.732	0.153	0.366	0.022	0.024	0.007	0.000	0.000	0.000	0.000	1384.39	
18	0.7330	1166.6	1187.2	1186.4	0.856	5.102	69.419	19.415	4.628	0.153	0.370	0.024	0.025	0.008	0.000	0.000	0.000	0.000	1386.69	
19	0.7328	1166.5	1187.1	1186.4	0.864	5.078	69.497	19.328	4.647	0.154	0.373	0.024	0.026	0.008	0.000	0.000	0.000	0.000	1386.77	
20	0.7278	1159.1	1179.6	1178.9	0.855	5.076	70.085	19.096	4.368	0.139	0.333	0.020	0.022	0.006	0.000	0.000	0.000	0.000	1382.70	
21	0.7378	1171.0	1191.7	1191.0	0.852	5.284	68.782	19.540	4.928	0.161	0.392	0.025	0.027	0.008	0.000	0.000	0.000	0.000	1387.45	
22	0.7374	1171.5	1192.3	1191.5	0.844	5.230	68.824	19.601	4.880	0.165	0.394	0.026	0.028	0.009	0.000	0.000	0.000	0.000	1388.44	
23	0.7400	1173.0	1193.7	1192.9	0.876	5.332	68.522	19.595	5.028	0.173	0.410	0.026	0.029	0.009	0.000	0.000	0.000	0.000	1387.74	
24	0.7426	1174.6	1195.4	1194.6	0.883	5.476	68.103	19.707	5.192	0.171	0.408	0.026	0.028	0.008	0.000	0.000	0.000	0.000	1387.13	
25	0.7428	1175.1	1195.9	1195.1	0.860	5.494	68.078	19.713	5.205	0.175	0.414	0.026	0.028	0.008	0.000	0.000	0.000	0.000	1387.62	
26	0.7457	1177.3	1198.1	1197.3	0.873	5.613	67.706	19.759	5.372	0.181	0.431	0.027	0.029	0.009	0.000	0.000	0.000	0.000	1387.48	
27	0.7517	1186.3	1207.3	1206.4	0.878	5.620	66.984	20.063	5.698	0.200	0.481	0.032	0.035	0.011	0.000	0.000	0.000	0.000	1392.45	
28	0.7489	1179.7	1200.6	1199.8	0.892	5.731	67.286	19.865	5.511	0.191	0.454	0.029	0.032	0.010	0.000	0.000	0.000	0.000	1387.40	
29	0.7450	1174.3	1195.0	1194.2	0.897	5.698	67.742	19.710	5.289	0.179	0.422	0.026	0.028	0.008	0.000	0.000	0.000	0.000	1384.52	
30	0.7397	1170.9	1191.6	1190.8	0.869	5.452	68.396	19.710	4.959	0.167	0.388	0.024	0.026	0.008	0.000	0.000	0.000	0.000	1385.45	
31	0.7361	1168.0	1188.7	1188.0	0.854	5.310	68.922	19.519	4.816	0.157	0.368	0.023	0.024	0.007	0.000	0.000	0.000	0.000	1385.48	
Avg	0.7376	1170.0	1190.4	1189.6	0.874	5.310	68.796	19.511	4.902	0.163	0.385	0.024	0.026	0.008	0.000	0.000	0.000	0.000	1386.07	

Source Daily Summary

December 2024

Source #: 063
Name: CLEVELAND STN-MAPLETON

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.7312	1161.9	1182.5	1181.7	0.955	5.073	69.487	19.579	4.410	0.140	0.303	0.020	0.021	0.010	0.000	0.000	0.000	0.000	1382.80	
2	0.7294	1161.4	1182.0	1181.2	0.929	4.973	69.890	19.279	4.418	0.145	0.314	0.021	0.022	0.010	0.000	0.000	0.000	0.000	1383.91	
3	0.7345	1164.9	1185.6	1184.6	0.924	5.241	69.103	19.505	4.714	0.145	0.318	0.020	0.021	0.010	0.000	0.000	0.000	0.000	1383.34	
4	0.7422	1172.6	1193.3	1192.4	0.928	5.494	68.080	19.750	5.169	0.162	0.358	0.023	0.024	0.011	0.000	0.000	0.000	0.000	1385.12	
5	0.7317	1162.9	1183.5	1182.5	0.914	5.119	69.426	19.573	4.447	0.149	0.320	0.020	0.022	0.010	0.000	0.000	0.000	0.000	1383.56	
6	0.7299	1158.9	1179.4	1178.5	0.917	5.186	69.792	19.147	4.435	0.144	0.326	0.021	0.022	0.009	0.000	0.000	0.000	0.000	1380.50	
7	0.7386	1168.9	1189.6	1188.8	0.925	5.376	68.642	19.549	4.901	0.165	0.379	0.026	0.028	0.011	0.000	0.000	0.000	0.000	1384.26	
8	0.7492	1180.0	1200.9	1200.1	0.946	5.662	67.190	20.064	5.438	0.192	0.435	0.030	0.032	0.012	0.000	0.000	0.000	0.000	1387.42	
9	0.7479	1177.9	1198.8	1198.0	0.931	5.696	67.246	20.140	5.310	0.186	0.420	0.028	0.031	0.012	0.000	0.000	0.000	0.000	1386.14	
10	0.7381	1167.8	1188.5	1187.8	0.915	5.419	68.583	19.694	4.796	0.161	0.368	0.025	0.027	0.012	0.000	0.000	0.000	0.000	1383.32	
11	0.7344	1163.3	1183.9	1183.2	0.928	5.323	69.169	19.380	4.628	0.158	0.354	0.024	0.025	0.012	0.000	0.000	0.000	0.000	1381.49	
12	0.7306	1159.5	1180.0	1179.5	0.929	5.195	69.752	19.110	4.464	0.150	0.342	0.023	0.024	0.011	0.000	0.000	0.000	0.000	1380.58	
13	0.7332	1163.4	1184.0	1183.2	0.912	5.226	69.329	19.397	4.573	0.153	0.350	0.023	0.025	0.011	0.000	0.000	0.000	0.000	1382.80	
14	0.7343	1164.8	1185.4	1184.5	0.912	5.243	69.173	19.474	4.632	0.154	0.352	0.024	0.025	0.011	0.000	0.000	0.000	0.000	1383.42	
15	0.7347	1165.8	1186.5	1185.5	0.904	5.230	69.119	19.524	4.650	0.155	0.356	0.025	0.027	0.011	0.000	0.000	0.000	0.000	1384.27	
16	0.7411	1170.7	1191.4	1190.5	0.902	5.536	68.208	19.726	5.016	0.165	0.383	0.025	0.027	0.011	0.000	0.000	0.000	0.000	1384.02	
17	0.7423	1174.1	1194.9	1194.0	0.871	5.489	68.020	19.931	5.062	0.170	0.392	0.026	0.028	0.012	0.000	0.000	0.000	0.000	1386.94	
18	0.7340	1163.4	1184.0	1183.1	0.905	5.314	69.241	19.300	4.678	0.153	0.351	0.023	0.024	0.011	0.000	0.000	0.000	0.000	1382.01	
19	0.7346	1166.7	1187.3	1186.5	0.894	5.188	69.110	19.612	4.620	0.155	0.358	0.024	0.026	0.012	0.000	0.000	0.000	0.000	1385.32	
20	0.7325	1163.9	1184.5	1183.6	0.905	5.146	69.469	19.347	4.567	0.152	0.352	0.024	0.026	0.012	0.000	0.000	0.000	0.000	1383.98	
21	0.7306	1160.5	1181.1	1180.1	0.887	5.199	69.636	19.307	4.445	0.143	0.329	0.021	0.023	0.010	0.000	0.000	0.000	0.000	1381.79	
22	0.7394	1171.8	1192.6	1191.6	0.888	5.337	68.486	19.738	4.937	0.163	0.384	0.026	0.028	0.012	0.000	0.000	0.000	0.000	1386.85	
23	0.7390	1171.3	1192.1	1191.1	0.881	5.338	68.516	19.767	4.886	0.167	0.381	0.026	0.028	0.012	0.000	0.000	0.000	0.000	1386.69	
24	0.7415	1172.8	1193.5	1192.6	0.917	5.430	68.228	19.750	5.036	0.173	0.396	0.027	0.030	0.012	0.000	0.000	0.000	0.000	1386.02	
25	0.7438	1173.8	1194.6	1193.6	0.920	5.578	67.860	19.831	5.180	0.172	0.393	0.026	0.028	0.011	0.000	0.000	0.000	0.000	1385.12	
26	0.7439	1174.5	1195.3	1194.3	0.895	5.576	67.848	19.861	5.181	0.176	0.398	0.027	0.029	0.011	0.000	0.000	0.000	0.000	1385.95	
27	0.7480	1178.1	1199.0	1198.0	0.910	5.724	67.298	19.977	5.414	0.185	0.421	0.028	0.031	0.011	0.000	0.000	0.000	0.000	1386.31	
28	0.7539	1187.2	1208.2	1207.2	0.916	5.711	66.623	20.244	5.746	0.204	0.472	0.033	0.036	0.013	0.000	0.000	0.000	0.000	1391.50	
29	0.7486	1176.4	1197.2	1196.2	0.933	5.851	67.214	19.890	5.426	0.188	0.426	0.029	0.031	0.012	0.000	0.000	0.000	0.000	1383.70	
30	0.7457	1173.5	1194.2	1193.3	0.932	5.760	67.567	19.841	5.250	0.179	0.405	0.027	0.028	0.011	0.000	0.000	0.000	0.000	1382.94	
31	0.7412	1170.9	1191.6	1190.7	0.906	5.535	68.139	19.833	4.976	0.170	0.377	0.025	0.027	0.011	0.000	0.000	0.000	0.000	1384.07	
Avg	0.7387	1169.0	1189.9	1189.0	0.914	5.393	68.563	19.649	4.884	0.164	0.371	0.025	0.027	0.011	0.000	0.000	0.000	0.000	1384.39	

Source Daily Summary

December 2024

Source #: 061
Name: CLEVELAND STN-GRAFTON BDR

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.7312	1161.7	1182.2	1181.8	0.958	5.079	69.499	19.560	4.408	0.140	0.304	0.020	0.021	0.010	0.000	0.000	0.000	0.000	1382.57	
2	0.7294	1161.3	1181.8	1181.3	0.929	4.976	69.891	19.282	4.410	0.145	0.313	0.021	0.022	0.010	0.000	0.000	0.000	0.000	1383.82	
3	0.7342	1164.5	1185.1	1184.9	0.924	5.236	69.151	19.480	4.695	0.144	0.317	0.020	0.021	0.010	0.000	0.000	0.000	0.000	1383.11	
4	0.7419	1171.8	1192.5	1192.3	0.928	5.509	68.126	19.712	5.151	0.161	0.356	0.023	0.024	0.011	0.000	0.000	0.000	0.000	1384.52	
5	0.7317	1162.5	1183.1	1182.9	0.916	5.135	69.439	19.543	4.447	0.149	0.319	0.020	0.022	0.010	0.000	0.000	0.000	0.000	1383.14	
6	0.7296	1158.5	1179.0	1178.5	0.916	5.187	69.823	19.138	4.415	0.143	0.324	0.021	0.022	0.009	0.000	0.000	0.000	0.000	1380.27	
7	0.7385	1169.0	1189.7	1189.2	0.924	5.368	68.656	19.540	4.901	0.166	0.381	0.026	0.028	0.010	0.000	0.000	0.000	0.000	1384.41	
8	0.7491	1179.9	1200.8	1200.2	0.948	5.661	67.196	20.055	5.438	0.192	0.436	0.030	0.032	0.012	0.000	0.000	0.000	0.000	1387.37	
9	0.7482	1178.2	1199.1	1198.5	0.932	5.705	67.211	20.147	5.323	0.186	0.423	0.029	0.031	0.013	0.000	0.000	0.000	0.000	1386.19	
10	0.7383	1167.9	1188.6	1188.2	0.917	5.422	68.565	19.698	4.802	0.161	0.370	0.025	0.027	0.012	0.000	0.000	0.000	0.000	1383.36	
11	0.7347	1163.5	1184.1	1183.7	0.930	5.339	69.128	19.375	4.650	0.159	0.357	0.024	0.026	0.012	0.000	0.000	0.000	0.000	1381.43	
12	0.7305	1159.2	1179.7	1179.3	0.936	5.197	69.760	19.109	4.449	0.150	0.342	0.023	0.024	0.011	0.000	0.000	0.000	0.000	1380.28	
13	0.7332	1163.4	1184.0	1183.8	0.911	5.232	69.336	19.377	4.579	0.153	0.352	0.024	0.025	0.011	0.000	0.000	0.000	0.000	1382.74	
14	0.7339	1164.1	1184.7	1184.5	0.913	5.251	69.222	19.438	4.614	0.153	0.350	0.024	0.025	0.011	0.000	0.000	0.000	0.000	1382.94	
15	0.7345	1165.6	1186.2	1186.0	0.904	5.231	69.152	19.492	4.646	0.155	0.357	0.025	0.027	0.011	0.000	0.000	0.000	0.000	1384.09	
16	0.7407	1170.0	1190.7	1190.5	0.903	5.543	68.266	19.683	4.995	0.165	0.382	0.025	0.027	0.011	0.000	0.000	0.000	0.000	1383.53	
17	0.7420	1173.4	1194.2	1193.9	0.873	5.498	68.070	19.886	5.045	0.170	0.392	0.027	0.028	0.012	0.000	0.000	0.000	0.000	1386.41	
18	0.7341	1163.4	1184.0	1183.8	0.904	5.325	69.233	19.287	4.687	0.153	0.352	0.023	0.024	0.011	0.000	0.000	0.000	0.000	1381.90	
19	0.7346	1166.4	1187.1	1186.9	0.898	5.194	69.125	19.585	4.622	0.156	0.359	0.025	0.026	0.012	0.000	0.000	0.000	0.000	1385.06	
20	0.7326	1163.8	1184.4	1184.3	0.905	5.156	69.466	19.337	4.570	0.152	0.353	0.024	0.026	0.012	0.000	0.000	0.000	0.000	1383.84	
21	0.7301	1159.7	1180.2	1180.1	0.887	5.203	69.704	19.261	4.422	0.143	0.327	0.021	0.023	0.010	0.000	0.000	0.000	0.000	1381.27	
22	0.7391	1170.9	1191.7	1191.5	0.888	5.357	68.533	19.693	4.919	0.163	0.382	0.026	0.028	0.012	0.000	0.000	0.000	0.000	1386.16	
23	0.7387	1170.8	1191.5	1191.3	0.880	5.343	68.562	19.734	4.869	0.166	0.381	0.026	0.028	0.012	0.000	0.000	0.000	0.000	1386.34	
24	0.7412	1172.0	1192.8	1192.6	0.917	5.440	68.279	19.710	5.017	0.173	0.395	0.027	0.030	0.012	0.000	0.000	0.000	0.000	1385.51	
25	0.7438	1173.8	1194.5	1194.4	0.923	5.570	67.881	19.816	5.175	0.173	0.395	0.026	0.029	0.011	0.000	0.000	0.000	0.000	1385.12	
26	0.7435	1173.4	1194.2	1194.0	0.894	5.609	67.907	19.786	5.165	0.175	0.398	0.027	0.029	0.011	0.000	0.000	0.000	0.000	1384.96	
27	0.7476	1177.2	1198.0	1197.8	0.911	5.738	67.362	19.927	5.389	0.184	0.419	0.028	0.031	0.011	0.000	0.000	0.000	0.000	1385.59	
28	0.7534	1186.2	1207.2	1207.0	0.916	5.726	66.684	20.196	5.721	0.204	0.470	0.033	0.036	0.013	0.000	0.000	0.000	0.000	1390.80	
29	0.7485	1176.2	1197.0	1196.8	0.933	5.857	67.231	19.869	5.422	0.189	0.427	0.029	0.031	0.012	0.000	0.000	0.000	0.000	1383.51	
30	0.7453	1172.6	1193.4	1193.2	0.931	5.771	67.626	19.797	5.226	0.178	0.404	0.027	0.029	0.011	0.000	0.000	0.000	0.000	1382.35	
31	0.7408	1170.0	1190.7	1190.6	0.905	5.547	68.202	19.782	4.956	0.169	0.376	0.025	0.027	0.011	0.000	0.000	0.000	0.000	1383.47	
Avg	0.7385	1169.0	1189.4	1189.2	0.915	5.400	68.590	19.622	4.875	0.164	0.371	0.025	0.027	0.011	0.000	0.000	0.000	0.000	1384.07	

Source Daily Summary

December 2024

Source #: 662
Name: MAPLETON-WAHPETON

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.5889	1029.7	1047.9	1047.5	0.519	0.412	93.590	5.357	0.114	0.004	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1365.58	-90.19
2	0.5902	1030.7	1049.0	1048.6	0.544	0.437	93.328	5.575	0.108	0.004	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1365.40	-89.27
3	0.5931	1035.2	1053.6	1053.1	0.543	0.433	92.745	6.161	0.111	0.004	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1368.07	-86.67
4	0.5924	1034.1	1052.5	1052.1	0.548	0.431	92.891	6.005	0.118	0.004	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1367.39	-87.23
5	0.5919	1033.1	1051.4	1051.0	0.561	0.428	93.002	5.886	0.115	0.004	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1366.58	-87.73
6	0.5939	1036.1	1054.4	1054.0	0.561	0.432	92.703	6.095	0.188	0.010	0.009	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1368.22	-85.12
7	0.5949	1037.6	1056.0	1055.5	0.555	0.441	92.544	6.214	0.217	0.013	0.013	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1369.10	-83.81
8	0.5911	1031.9	1050.2	1049.8	0.549	0.444	93.168	5.704	0.125	0.005	0.004	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1365.93	-88.28
9	0.5904	1031.2	1049.5	1049.1	0.543	0.427	93.286	5.631	0.105	0.004	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1365.84	-89.05
10	0.5905	1031.3	1049.6	1049.2	0.546	0.429	93.259	5.656	0.103	0.004	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1365.81	-88.99
11	0.5905	1031.1	1049.3	1048.9	0.546	0.446	93.255	5.642	0.104	0.004	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1365.47	-89.04
12	0.5908	1031.0	1049.2	1048.8	0.551	0.462	93.217	5.658	0.105	0.004	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1365.12	-88.94
13	0.5907	1031.0	1049.3	1048.8	0.547	0.464	93.218	5.663	0.102	0.004	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1365.18	-88.98
14	0.5908	1031.0	1049.3	1048.8	0.548	0.471	93.206	5.658	0.110	0.004	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1365.09	-88.87
15	0.5911	1031.5	1049.8	1049.4	0.543	0.468	93.157	5.712	0.114	0.004	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1365.52	-88.61
16	0.5910	1031.4	1049.7	1049.3	0.550	0.456	93.176	5.707	0.103	0.004	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1365.47	-88.73
17	0.5903	1030.7	1049.0	1048.5	0.536	0.456	93.296	5.607	0.098	0.004	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1365.31	-89.30
18	0.5902	1030.4	1048.7	1048.3	0.534	0.469	93.307	5.585	0.098	0.004	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1365.03	-89.42
19	0.5899	1029.8	1048.0	1047.6	0.542	0.471	93.368	5.516	0.096	0.004	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1364.51	-89.69
20	0.5903	1030.6	1048.8	1048.4	0.539	0.461	93.297	5.598	0.097	0.004	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1365.12	-89.33
21	0.5909	1031.6	1049.9	1049.5	0.539	0.456	93.174	5.724	0.101	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1365.78	-88.77
22	0.5907	1031.1	1049.4	1049.0	0.532	0.475	93.203	5.687	0.098	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1365.42	-89.02
23	0.5910	1032.1	1050.4	1050.0	0.536	0.437	93.159	5.761	0.101	0.004	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1366.36	-88.60
24	0.5906	1031.7	1050.0	1049.6	0.526	0.442	93.226	5.691	0.108	0.004	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1366.25	-88.86
25	0.5907	1031.7	1050.0	1049.6	0.530	0.449	93.195	5.720	0.100	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1366.09	-88.85
26	0.5905	1031.5	1049.7	1049.4	0.530	0.439	93.244	5.686	0.095	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1366.08	-89.04
27	0.5906	1031.6	1049.8	1049.6	0.537	0.431	93.230	5.702	0.093	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1366.10	-88.97
28	0.5905	1031.7	1049.9	1049.7	0.536	0.418	93.251	5.696	0.093	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1366.33	-89.01
29	0.5902	1031.7	1050.0	1049.7	0.522	0.413	93.287	5.680	0.092	0.004	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1366.69	-89.13
30	0.5901	1031.6	1049.9	1049.6	0.518	0.408	93.327	5.642	0.098	0.004	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1366.77	-89.20
31	0.5905	1031.9	1050.1	1049.9	0.527	0.419	93.246	5.704	0.097	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1366.60	-88.94
Avg	0.5909	1032.0	1050.1	1049.8	0.540	0.443	93.179	5.720	0.110	0.004	0.003	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1366.07	-88.57

Source Daily Summary

December 2024

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

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.6778	1113.5	1133.2	1132.9	0.879	3.130	77.037	17.270	1.527	0.048	0.094	0.006	0.006	0.003	0.000	0.000	0.000	0.000	1376.45	
2	0.6751	1111.8	1131.5	1131.2	0.874	2.991	77.423	17.186	1.383	0.043	0.086	0.005	0.005	0.003	0.000	0.000	0.000	0.000	1377.08	
3	0.6746	1112.0	1131.7	1131.3	0.846	2.970	77.545	17.086	1.409	0.044	0.087	0.005	0.005	0.003	0.000	0.000	0.000	0.000	1377.88	
4	0.7282	1161.6	1182.2	1181.8	0.882	4.914	70.065	19.261	4.355	0.146	0.328	0.020	0.022	0.007	0.000	0.000	0.000	0.000	1385.40	
5	0.7057	1138.5	1158.7	1158.3	0.871	4.233	73.296	18.018	3.203	0.103	0.240	0.015	0.016	0.005	0.000	0.000	0.000	0.000	1379.40	
6	0.6678	1100.1	1119.5	1119.2	0.860	3.035	78.657	16.152	1.178	0.036	0.071	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1370.03	
7	0.6725	1106.0	1125.6	1125.1	0.851	3.130	77.811	16.790	1.281	0.041	0.083	0.005	0.005	0.003	0.000	0.000	0.000	0.000	1372.58	
8	0.6781	1115.2	1135.0	1134.6	0.760	3.233	76.537	18.056	1.295	0.036	0.070	0.004	0.004	0.003	0.000	0.000	0.000	0.000	1378.32	
9	0.6768	1111.4	1131.1	1130.8	0.807	3.275	76.849	17.640	1.312	0.037	0.070	0.004	0.005	0.002	0.000	0.000	0.000	0.000	1374.91	
10	0.6742	1107.2	1126.8	1126.5	0.801	3.293	77.580	16.732	1.442	0.046	0.091	0.006	0.006	0.003	0.000	0.000	0.000	0.000	1372.35	
11	0.6744	1105.8	1125.4	1125.0	0.883	3.271	77.641	16.600	1.454	0.045	0.092	0.006	0.006	0.003	0.000	0.000	0.000	0.000	1370.44	
12	0.6749	1109.0	1128.6	1128.3	0.793	3.267	77.396	16.977	1.417	0.046	0.091	0.006	0.006	0.003	0.000	0.000	0.000	0.000	1373.79	
13	0.6762	1110.8	1130.4	1130.1	0.805	3.264	77.185	17.145	1.439	0.048	0.097	0.007	0.007	0.003	0.000	0.000	0.000	0.000	1374.65	
14	0.6768	1112.4	1132.1	1131.8	0.775	3.262	77.045	17.307	1.453	0.048	0.095	0.006	0.006	0.003	0.000	0.000	0.000	0.000	1376.13	
15	0.6768	1113.0	1132.8	1132.4	0.736	3.280	76.975	17.420	1.438	0.046	0.089	0.006	0.006	0.003	0.000	0.000	0.000	0.000	1376.92	
16	0.6802	1120.3	1140.2	1139.8	0.649	3.295	76.330	17.990	1.584	0.048	0.091	0.005	0.005	0.003	0.000	0.000	0.000	0.000	1382.40	
17	0.6748	1111.8	1131.5	1131.1	0.744	3.156	77.457	17.003	1.497	0.045	0.086	0.005	0.004	0.002	0.000	0.000	0.000	0.000	1377.37	
18	0.6793	1116.3	1136.1	1135.8	0.768	3.271	76.591	17.689	1.529	0.047	0.092	0.006	0.005	0.003	0.000	0.000	0.000	0.000	1378.40	
19	0.6848	1120.2	1140.0	1139.7	0.784	3.527	75.970	17.569	1.939	0.061	0.130	0.008	0.009	0.004	0.000	0.000	0.000	0.000	1377.66	
20	0.6753	1111.0	1130.7	1130.4	0.759	3.229	77.270	17.193	1.407	0.044	0.085	0.005	0.005	0.003	0.000	0.000	0.000	0.000	1375.92	
21	0.6761	1111.8	1131.5	1131.2	0.735	3.289	77.147	17.220	1.458	0.046	0.090	0.006	0.006	0.003	0.000	0.000	0.000	0.000	1376.15	
22	0.6787	1117.3	1137.1	1136.8	0.665	3.310	76.569	17.802	1.508	0.046	0.088	0.005	0.005	0.003	0.000	0.000	0.000	0.000	1380.25	
23	0.6773	1112.4	1132.1	1131.8	0.774	3.313	76.801	17.599	1.387	0.039	0.074	0.005	0.005	0.003	0.000	0.000	0.000	0.000	1375.60	
24	0.6777	1113.5	1133.2	1132.9	0.787	3.263	76.624	17.910	1.310	0.035	0.063	0.003	0.003	0.002	0.000	0.000	0.000	0.000	1376.57	
25	0.6781	1116.7	1136.4	1136.1	0.691	3.249	76.548	18.025	1.364	0.039	0.073	0.004	0.004	0.003	0.000	0.000	0.000	0.000	1380.11	
26	0.6773	1115.2	1135.0	1134.6	0.701	3.250	76.696	17.890	1.340	0.039	0.074	0.004	0.004	0.003	0.000	0.000	0.000	0.000	1379.12	
27	0.6760	1112.9	1132.6	1132.2	0.693	3.287	76.902	17.679	1.318	0.038	0.072	0.004	0.004	0.003	0.000	0.000	0.000	0.000	1377.49	
28	0.6773	1113.3	1133.1	1132.7	0.790	3.235	76.682	17.913	1.264	0.036	0.069	0.004	0.004	0.003	0.000	0.000	0.000	0.000	1376.74	
29	0.6747	1106.3	1125.9	1125.6	0.856	3.315	77.025	17.624	1.106	0.025	0.043	0.002	0.002	0.002	0.000	0.000	0.000	0.000	1370.73	
30	0.6820	1119.6	1139.5	1139.1	0.775	3.317	75.837	18.548	1.403	0.039	0.071	0.004	0.003	0.003	0.000	0.000	0.000	0.000	1379.72	
31	0.7124	1146.8	1167.1	1166.8	0.819	4.433	72.111	18.813	3.421	0.110	0.252	0.016	0.017	0.006	0.000	0.000	0.000	0.000	1382.96	
Avg	0.6804	1116.0	1135.7	1135.3	0.787	3.364	76.503	17.552	1.626	0.050	0.101	0.006	0.006	0.003	0.000	0.000	0.000	0.000	1376.89	

Source Daily Summary

December 2024

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

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.6904	1132.1	1152.1	1151.9	0.830	3.260	74.580	19.465	1.692	0.056	0.105	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1386.58	
2	0.6921	1135.8	1155.9	1155.7	0.783	3.262	74.292	19.710	1.774	0.058	0.109	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1389.45	
3	0.6926	1137.2	1157.3	1157.1	0.789	3.213	73.951	20.317	1.580	0.049	0.091	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1390.69	
4	0.6866	1127.4	1147.3	1147.1	0.775	3.271	75.023	19.095	1.561	0.052	0.097	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1384.60	
5	0.6809	1117.3	1137.0	1136.8	0.807	3.301	76.160	18.181	1.407	0.046	0.087	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1377.98	
6	0.6795	1116.4	1136.2	1135.9	0.792	3.247	76.382	18.076	1.367	0.044	0.083	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1378.32	
7	0.6795	1117.2	1137.0	1136.6	0.749	3.262	76.124	18.537	1.227	0.034	0.062	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1379.33	
8	0.6796	1115.7	1135.4	1135.1	0.808	3.282	76.230	18.279	1.294	0.038	0.066	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1377.31	
9	0.6761	1110.3	1129.9	1129.7	0.767	3.337	77.089	17.259	1.406	0.046	0.086	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1374.22	
10	0.6759	1108.7	1128.4	1128.2	0.868	3.257	77.170	17.227	1.343	0.044	0.082	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1372.53	
11	0.6754	1109.4	1129.0	1128.8	0.781	3.309	77.164	17.264	1.350	0.043	0.080	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1373.76	
12	0.6781	1113.4	1133.1	1132.9	0.802	3.280	76.748	17.610	1.407	0.049	0.092	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1376.06	
13	0.6783	1114.4	1134.1	1133.9	0.768	3.290	76.677	17.697	1.418	0.048	0.091	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1377.10	
14	0.6789	1116.3	1136.1	1135.9	0.727	3.296	76.488	17.927	1.418	0.046	0.087	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1378.82	
15	0.6813	1121.7	1141.5	1141.3	0.646	3.318	76.023	18.345	1.527	0.047	0.086	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1382.99	
16	0.6864	1130.0	1150.1	1149.8	0.594	3.367	75.236	18.843	1.790	0.057	0.103	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1388.09	
17	0.6856	1126.8	1146.7	1146.5	0.685	3.349	75.389	18.727	1.681	0.056	0.102	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1384.92	
18	0.6804	1117.3	1137.1	1136.9	0.751	3.338	76.231	18.089	1.455	0.046	0.082	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1378.54	
19	0.6781	1114.0	1133.7	1133.5	0.754	3.310	76.485	17.861	1.429	0.046	0.085	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1376.79	
20	0.6789	1116.4	1136.2	1136.0	0.709	3.315	76.493	17.904	1.439	0.046	0.085	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1378.94	
21	0.6807	1120.2	1140.1	1139.9	0.661	3.321	76.108	18.302	1.469	0.046	0.084	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1381.89	
22	0.6794	1115.9	1135.7	1135.5	0.746	3.340	76.319	18.089	1.385	0.041	0.073	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1377.82	
23	0.6797	1116.7	1136.5	1136.3	0.768	3.285	76.146	18.415	1.287	0.035	0.060	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1378.48	
24	0.6801	1119.9	1139.8	1139.6	0.671	3.270	76.066	18.537	1.340	0.039	0.070	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1382.11	
25	0.6804	1120.5	1140.3	1140.1	0.678	3.261	76.000	18.606	1.338	0.039	0.071	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1382.41	
26	0.6776	1115.4	1135.2	1135.0	0.665	3.324	76.481	18.140	1.281	0.037	0.067	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1379.04	
27	0.6774	1112.3	1132.0	1131.8	0.801	3.289	76.552	18.074	1.184	0.034	0.060	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1375.34	
28	0.6784	1113.0	1132.8	1132.5	0.816	3.317	76.248	18.409	1.139	0.027	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1375.28	
29	0.6833	1121.2	1141.1	1140.8	0.673	3.351	75.439	19.021	1.321	0.037	0.062	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1380.41	
30	0.6845	1123.2	1143.1	1142.9	0.756	3.359	75.533	18.627	1.575	0.050	0.091	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1381.64	
31	0.6858	1128.2	1148.2	1148.0	0.650	3.341	75.232	18.984	1.640	0.051	0.092	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1386.41	
Avg	0.6813	1119.0	1139.3	1139.1	0.747	3.301	76.002	18.375	1.436	0.045	0.082	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1380.25	

Source Daily Summary

December 2024

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

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.6776	1110.7	1130.4	1129.5	0.836	3.343	77.473	16.280	1.842	0.071	0.138	0.010	0.008	0.000	0.000	0.000	0.000	0.000	1373.25	
2	0.6779	1111.3	1131.0	1130.0	0.831	3.345	77.405	16.348	1.844	0.071	0.138	0.010	0.009	0.000	0.000	0.000	0.000	0.000	1373.62	
3	0.6773	1110.5	1130.2	1129.2	0.831	3.337	77.493	16.297	1.819	0.070	0.135	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1373.25	
4	0.6774	1110.7	1130.3	1129.3	0.823	3.347	77.471	16.314	1.823	0.069	0.135	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1373.35	
5	0.6777	1111.0	1130.7	1129.7	0.823	3.352	77.427	16.341	1.834	0.070	0.136	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1373.52	
6	0.6775	1110.8	1130.4	1129.4	0.814	3.368	77.447	16.312	1.839	0.069	0.134	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1373.35	
7	0.6754	1107.7	1127.3	1126.3	0.819	3.345	77.748	16.153	1.737	0.063	0.120	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1371.71	
8	0.6755	1108.3	1128.0	1127.0	0.812	3.326	77.753	16.151	1.753	0.065	0.125	0.008	0.006	0.000	0.000	0.000	0.000	0.000	1372.43	
9	0.6766	1109.7	1129.4	1128.7	0.801	3.365	77.579	16.223	1.817	0.068	0.131	0.009	0.007	0.000	0.000	0.000	0.000	0.000	1372.99	
10	0.6769	1110.2	1129.8	1129.2	0.786	3.390	77.530	16.237	1.841	0.069	0.131	0.009	0.007	0.000	0.000	0.000	0.000	0.000	1373.22	
11	0.6775	1111.1	1130.8	1130.0	0.787	3.382	77.406	16.382	1.827	0.068	0.131	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1373.84	
12	0.6772	1110.9	1130.5	1129.7	0.779	3.387	77.430	16.374	1.816	0.067	0.129	0.009	0.007	0.000	0.000	0.000	0.000	0.000	1373.76	
13	0.6776	1111.7	1131.4	1130.5	0.767	3.393	77.333	16.480	1.817	0.067	0.127	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1374.38	
14	0.6776	1111.7	1131.4	1130.5	0.751	3.411	77.332	16.463	1.833	0.067	0.127	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1374.47	
15	0.6775	1111.7	1131.4	1130.4	0.740	3.417	77.343	16.460	1.832	0.066	0.126	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1374.56	
16	0.6771	1111.3	1131.0	1130.0	0.736	3.413	77.395	16.431	1.821	0.065	0.123	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1374.46	
17	0.6776	1112.2	1131.9	1131.2	0.729	3.418	77.285	16.541	1.824	0.065	0.123	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1375.03	
18	0.6781	1112.8	1132.5	1131.7	0.724	3.437	77.205	16.577	1.851	0.066	0.125	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1375.26	
19	0.6785	1113.4	1133.1	1132.3	0.715	3.446	77.092	16.679	1.860	0.066	0.125	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1375.68	
20	0.6782	1113.0	1132.7	1131.8	0.709	3.457	77.180	16.582	1.866	0.066	0.125	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1375.39	
21	0.6780	1112.7	1132.4	1131.4	0.706	3.463	77.215	16.545	1.866	0.066	0.124	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1375.21	
22	0.6777	1111.8	1131.5	1130.8	0.728	3.445	77.303	16.470	1.848	0.066	0.125	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1374.56	
23	0.6777	1112.1	1131.8	1130.8	0.708	3.464	77.229	16.523	1.869	0.066	0.125	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1374.79	
24	0.6779	1112.5	1132.2	1131.1	0.704	3.469	77.239	16.511	1.871	0.066	0.124	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1375.04	
25	0.6781	1112.8	1132.5	1131.5	0.700	3.471	77.203	16.548	1.872	0.066	0.124	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1375.27	
26	0.6782	1113.0	1132.8	1131.7	0.696	3.474	77.185	16.555	1.885	0.066	0.124	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1375.46	
27	0.6674	1093.3	1112.6	1111.9	0.870	3.401	78.713	15.657	1.267	0.033	0.053	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1361.92	
28	0.6691	1096.2	1115.6	1114.5	0.832	3.439	78.573	15.598	1.429	0.044	0.076	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1363.83	
29	0.6757	1108.7	1128.3	1127.3	0.750	3.421	77.558	16.356	1.732	0.060	0.110	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1372.63	
30	0.6783	1113.4	1133.1	1132.3	0.676	3.492	77.131	16.614	1.884	0.065	0.122	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1375.79	
31	0.6785	1113.9	1133.6	1132.7	0.664	3.501	77.092	16.641	1.897	0.066	0.122	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1376.15	
Avg	0.6769	1110.0	1130.0	1129.1	0.763	3.410	77.444	16.376	1.804	0.065	0.123	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1373.49	

Source Daily Summary

December 2024

Source #: 111
Name: LITTLE KNIFE PLANT

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.6962	1139.8	1160.0	1157.8	1.102	2.939	72.125	23.383	0.438	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1390.17	-25.25
2	0.6962	1139.4	1159.6	1157.0	1.105	2.946	72.175	23.293	0.467	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1389.83	-25.22
3	0.6955	1138.3	1158.5	1156.7	1.101	2.960	72.251	23.257	0.418	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1389.12	-25.76
4	0.6954	1138.4	1158.5	1156.4	1.109	2.933	72.256	23.306	0.384	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1389.31	-25.91
5	0.6965	1140.4	1160.6	1158.1	1.106	2.920	72.068	23.468	0.424	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1390.62	-25.15
6	0.6969	1140.7	1160.9	1159.0	1.108	2.936	72.161	23.188	0.579	0.009	0.016	0.001	0.001	0.001	0.000	0.000	0.000	0.000	1390.63	-24.03
7	0.6977	1142.4	1162.6	1160.4	1.108	2.905	71.871	23.635	0.467	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1391.92	-24.35
8	0.6989	1144.5	1164.7	1163.2	1.104	2.900	71.949	23.341	0.603	0.024	0.059	0.007	0.009	0.004	0.000	0.000	0.000	0.000	1393.18	-21.43
9	0.6966	1140.8	1161.0	1159.4	1.112	2.897	72.036	23.540	0.395	0.007	0.011	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1391.01	-25.01
10	0.6955	1139.1	1159.3	1157.5	1.106	2.907	72.300	23.248	0.417	0.006	0.009	0.000	0.000	0.008	0.000	0.000	0.000	0.000	1390.04	-24.29
11	0.6961	1139.8	1160.0	1157.5	1.110	2.914	72.104	23.481	0.380	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1390.31	-25.51
12	0.6951	1138.4	1158.6	1156.1	1.095	2.925	72.293	23.297	0.378	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1389.62	-26.03
13	0.6955	1140.1	1160.2	1158.3	1.073	2.893	72.204	23.436	0.382	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1391.28	-25.68
14	0.6975	1143.4	1163.6	1161.3	1.073	2.877	71.866	23.727	0.443	0.005	0.008	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1393.35	-24.29
15	0.6996	1146.5	1166.8	1165.0	1.076	2.886	71.591	23.820	0.613	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1395.00	-22.72
16	0.6984	1144.5	1164.8	1162.9	1.076	2.896	71.794	23.672	0.531	0.008	0.015	0.001	0.001	0.005	0.000	0.000	0.000	0.000	1393.74	-22.63
17	0.6989	1145.1	1165.3	1163.7	1.074	2.908	71.821	23.530	0.620	0.013	0.025	0.002	0.003	0.004	0.000	0.000	0.000	0.000	1393.92	-22.12
18	0.6970	1142.1	1162.3	1160.4	1.082	2.895	71.972	23.594	0.443	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1392.29	-24.71
19	0.6961	1140.0	1160.2	1158.0	1.097	2.922	72.151	23.375	0.442	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1390.55	-25.25
20	0.6962	1140.6	1160.8	1158.4	1.084	2.913	72.144	23.385	0.461	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1391.20	-25.09
21	0.6978	1143.6	1163.8	1161.5	1.073	2.902	71.839	23.674	0.498	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.20	-24.05
22	0.6980	1143.9	1164.2	1162.0	1.079	2.884	71.806	23.731	0.485	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.48	-24.01
23	0.6975	1142.8	1163.0	1160.8	1.084	2.902	71.908	23.598	0.493	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1392.57	-24.26
24	0.6971	1142.3	1162.5	1160.4	1.086	2.891	71.995	23.526	0.487	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1392.35	-24.49
25	0.6967	1141.6	1161.8	1159.8	1.076	2.911	72.045	23.476	0.477	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1391.93	-24.73
26	0.6967	1141.0	1161.2	1158.8	1.107	2.898	72.078	23.432	0.472	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1391.22	-24.82
27	0.6981	1143.9	1164.2	1162.4	1.080	2.892	71.777	23.763	0.475	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.39	-24.02
28	0.6985	1144.5	1164.8	1162.9	1.086	2.890	71.698	23.832	0.481	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.65	-23.78
29	0.6987	1144.5	1164.7	1162.6	1.092	2.899	71.673	23.832	0.489	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.43	-23.69
30	0.6988	1145.6	1165.9	1164.0	1.074	2.870	71.631	23.927	0.483	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1394.65	-23.54
31	0.6981	1144.5	1164.8	1162.6	1.064	2.888	71.751	23.801	0.481	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1394.02	-23.89
Avg	0.6972	1142.0	1162.2	1160.2	1.090	2.906	71.978	23.534	0.471	0.007	0.011	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1391.97	-24.38

Source Daily Summary

December 2024

Source #: 351
Name: BADLANDS PLANT

Pressure Base:	14.730	Contract Day:	1
Temperature Base:	60	Contract Hour:	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	0.6651	1094.6	1114.0	1113.7	0.913	3.039	79.250	15.504	1.170	0.037	0.074	0.005	0.005	0.002	0.000	0.000	0.000	0.000	1365.96	
2	0.6646	1093.7	1113.0	1112.7	0.910	3.049	79.365	15.383	1.166	0.038	0.076	0.005	0.005	0.002	0.000	0.000	0.000	0.000	1365.35	
3	0.6640	1093.3	1112.6	1112.1	0.911	3.023	79.421	15.396	1.131	0.036	0.071	0.004	0.005	0.002	0.000	0.000	0.000	0.000	1365.38	
4	0.6593	1085.1	1104.3	1104.0	0.881	3.123	80.221	14.631	1.039	0.033	0.063	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1360.02	
5	0.6589	1083.7	1102.9	1102.5	0.886	3.167	80.320	14.466	1.052	0.034	0.065	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1358.61	
6	0.6594	1084.4	1103.6	1103.1	0.873	3.188	80.271	14.457	1.093	0.036	0.068	0.005	0.005	0.003	0.000	0.000	0.000	0.000	1359.00	
7	0.6641	1092.7	1112.1	1111.6	0.887	3.099	79.429	15.288	1.176	0.037	0.073	0.005	0.005	0.002	0.000	0.000	0.000	0.000	1364.62	
8	0.6630	1091.5	1110.8	1110.4	0.898	3.058	79.542	15.305	1.092	0.032	0.062	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1364.20	
9	0.6570	1080.9	1100.0	1099.7	0.864	3.190	80.626	14.218	1.002	0.032	0.059	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1357.09	
10	0.6574	1080.8	1100.0	1099.7	0.875	3.211	80.593	14.185	1.032	0.033	0.061	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1356.64	
11	0.6558	1078.1	1097.2	1097.0	0.876	3.226	80.864	13.939	0.995	0.031	0.058	0.004	0.004	0.003	0.000	0.000	0.000	0.000	1354.89	
12	0.6569	1080.1	1099.2	1098.9	0.883	3.194	80.674	14.144	1.005	0.031	0.058	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1356.28	
13	0.6576	1081.6	1100.7	1100.4	0.879	3.181	80.534	14.284	1.022	0.031	0.059	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1357.36	
14	0.6588	1083.9	1103.1	1102.7	0.849	3.193	80.325	14.457	1.072	0.033	0.061	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1359.09	
15	0.6588	1083.8	1103.0	1102.7	0.853	3.189	80.333	14.450	1.070	0.033	0.062	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1359.01	
16	0.6583	1083.4	1102.6	1102.3	0.865	3.158	80.380	14.470	1.028	0.031	0.058	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1358.90	
17	0.6581	1082.9	1102.1	1101.7	0.867	3.161	80.429	14.426	1.020	0.031	0.057	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1358.55	
18	0.6586	1083.4	1102.6	1102.2	0.845	3.212	80.360	14.404	1.073	0.033	0.062	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1358.64	
19	0.6581	1082.1	1101.3	1100.9	0.832	3.263	80.473	14.227	1.095	0.034	0.064	0.004	0.004	0.003	0.000	0.000	0.000	0.000	1357.54	
20	0.6583	1082.4	1101.6	1101.2	0.827	3.268	80.445	14.244	1.106	0.035	0.065	0.004	0.004	0.003	0.000	0.000	0.000	0.000	1357.77	
21	0.6587	1083.6	1102.7	1102.3	0.825	3.246	80.352	14.359	1.109	0.034	0.064	0.004	0.004	0.003	0.000	0.000	0.000	0.000	1358.70	
22	0.6576	1081.6	1100.7	1100.3	0.830	3.249	80.550	14.192	1.072	0.033	0.062	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1357.43	
23	0.6582	1082.8	1101.9	1101.6	0.819	3.257	80.435	14.283	1.098	0.034	0.064	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1358.22	
24	0.6560	1079.0	1098.2	1097.8	0.819	3.278	80.818	13.935	1.047	0.033	0.060	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1355.81	
25	0.6570	1080.7	1099.9	1099.5	0.814	3.273	80.644	14.088	1.074	0.033	0.062	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1356.93	
26	0.6570	1080.8	1099.9	1099.5	0.806	3.283	80.649	14.073	1.082	0.034	0.063	0.004	0.004	0.003	0.000	0.000	0.000	0.000	1356.98	
27	0.6607	1087.6	1106.9	1106.5	0.812	3.205	79.949	14.806	1.120	0.034	0.064	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1361.72	
28	0.6595	1085.4	1104.6	1104.3	0.759	3.302	80.184	14.486	1.154	0.036	0.067	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1360.21	
29	0.6599	1085.9	1105.1	1104.8	0.789	3.268	80.132	14.541	1.156	0.036	0.068	0.004	0.004	0.003	0.000	0.000	0.000	0.000	1360.44	
30	0.6571	1081.2	1100.3	1100.0	0.794	3.288	80.614	14.113	1.084	0.034	0.063	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1357.34	
31	0.6575	1082.3	1101.4	1101.1	0.813	3.230	80.519	14.283	1.053	0.032	0.059	0.004	0.004	0.003	0.000	0.000	0.000	0.000	1358.31	
Avg	0.6591	1084.0	1103.5	1103.1	0.850	3.196	80.281	14.485	1.080	0.034	0.064	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1359.26	

December-24

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	
12/1/2024	12/2/2024	2,564	2,801	1092.5	4,421	5,006	1133.2	1118.260	12/1/2024
12/2/2024	12/3/2024	2,566	2,802	1091.7	4,363	4,937	1131.5	1116.761	12/2/2024
12/3/2024	12/4/2024	2,669	2,920	1093.7	2,163	2,448	1131.7	1110.710	12/3/2024
12/4/2024	12/5/2024	2,573	2,812	1,093	4,814	5,695	1182.2	1151.130	12/4/2024
12/5/2024	12/6/2024	2,341	2,556	1092.1	3,805	4,423	1158.7	1133.332	12/5/2024
12/6/2024	12/7/2024	1,663	1,813	1090	2,279	2,551	1119.5	1107.055	12/6/2024
12/7/2024	12/8/2024	1,257	1,375	1,094	1,994	2,244	1125.6	1113.227	12/7/2024
12/8/2024	12/9/2024	1,637	1,793	1095.8	2,152	2,444	1135	1118.064	12/8/2024
12/9/2024	12/10/2024	2,479	2,717	1,096	2,447	2,767	1131.1	1113.335	12/9/2024
12/10/2024	12/11/2024	2,575	2,818	1,095	4,570	5,147	1126.8	1115.231	12/10/2024
12/11/2024	12/12/2024	7,978	8,706	1093.2	5,652	6,360	1125.4	1106.552	12/11/2024
12/12/2024	12/13/2024	14,958	16,333	1092.4	4,792	5,409	1128.6	1101.183	12/12/2024
12/13/2024	12/14/2024	2,550	2,784	1,092	3,727	4,213	1130.4	1114.719	12/13/2024
12/14/2024	12/15/2024	2,413	2,629	1089.5	2,784	3,152	1132.1	1112.321	12/14/2024
12/15/2024	12/16/2024	2,159	2,356	1091.3	2,667	3,021	1132.8	1114.234	12/15/2024
12/16/2024	12/17/2024	4,727	5,149	1,090	3,400	3,876	1140.2	1110.885	12/16/2024
12/17/2024	12/18/2024	9,994	10,915	1092.6	3,495	3,954	1131.5	1102.679	12/17/2024
12/18/2024	12/19/2024	3,414	3,738	1094.9	3,972	4,513	1136.1	1117.056	12/18/2024
12/19/2024	12/20/2024	5,030	5,510	1,095	5,695	6,496	1140	1119.036	12/19/2024
12/20/2024	12/21/2024	8,251	9,026	1094	4,781	5,402	1130.7	1107.464	12/20/2024
12/21/2024	12/22/2024	2,407	2,633	1,094	3,149	3,564	1131.5	1115.211	12/21/2024
12/22/2024	12/23/2024	1,965	2,144	1,091	2,698	3,068	1137.1	1117.715	12/22/2024
12/23/2024	12/24/2024	2,117	2,309	1090.7	2,526	2,860	1132.1	1113.223	12/23/2024
12/24/2024	12/25/2024	1,751	1,909	1090.1	2,252	2,552	1133.2	1114.347	12/24/2024
12/25/2024	12/26/2024	2,098	2,292	1,092	2,372	2,696	1136.4	1115.749	12/25/2024
12/26/2024	12/27/2024	1,876	2,051	1093.5	2,042	2,317	1135	1115.129	12/26/2024
12/27/2024	12/28/2024	1,970	2,153	1093.4	1,855	2,102	1132.6	1112.411	12/27/2024
12/28/2024	12/29/2024	2,037	2,227	1,094	1,723	1,952	1133.1	1111.701	12/28/2024
12/29/2024	12/30/2024	2,127	2,323	1,092	1,736	1,955	1125.9	1107.069	12/29/2024
12/30/2024	12/31/2024	2,592	2,836	1,094	2,577	2,937	1139.5	1116.684	12/30/2024
12/31/2024	1/1/2025	2,546	2,785	1,094	3,539	4,130	1167.1	1136.431	12/31/2024
		107,284	117,215	1092.7710	100,442	114,191	1135.6968	1115.4486	



Alliance Pipeline

DAILY ANALYSIS --- USA
 ND07MD1 --- Hankinson Sales
 December 2024

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	1,155.491	0.6600	84.3531	9.9926	3.3796	0.3487	0.5840	0.0624	0.0482	0.0168	0.7951	0.4104	0.0091
2	1,154.404	0.6591	84.4677	9.9481	3.3453	0.3455	0.5737	0.0600	0.0472	0.0167	0.7774	0.4094	0.0089
3	1,154.792	0.6593	84.4597	9.9246	3.3761	0.3473	0.5746	0.0605	0.0469	0.0169	0.7753	0.4092	0.0089
4	1,156.354	0.6606	84.2761	10.0358	3.4156	0.3501	0.5829	0.0611	0.0479	0.0170	0.7840	0.4203	0.0090
5	1,155.178	0.6594	84.4508	9.9617	3.3690	0.3487	0.5694	0.0606	0.0483	0.0181	0.7534	0.4109	0.0090
6	1,154.882	0.6592	84.4680	9.9561	3.3517	0.3476	0.5709	0.0615	0.0484	0.0184	0.7556	0.4128	0.0089
7	1,154.856	0.6599	84.3233	10.0296	3.3639	0.3462	0.5711	0.0609	0.0467	0.0175	0.8089	0.4231	0.0088
8	1,155.788	0.6609	84.2006	10.0743	3.3859	0.3501	0.5842	0.0633	0.0492	0.0189	0.8397	0.4248	0.0091
9	1,157.027	0.6616	84.1250	10.0978	3.4219	0.3533	0.6039	0.0631	0.0485	0.0179	0.8334	0.4263	0.0090
10	1,155.613	0.6607	84.2280	10.0660	3.3753	0.3487	0.5892	0.0618	0.0477	0.0182	0.8373	0.4190	0.0089
11	1,155.460	0.6600	84.3319	10.0313	3.3597	0.3488	0.5824	0.0610	0.0492	0.0181	0.7898	0.4188	0.0090
12	1,155.738	0.6606	84.2516	10.0525	3.3857	0.3485	0.5837	0.0614	0.0492	0.0183	0.8117	0.4283	0.0091
13	1,154.589	0.6598	84.3735	9.9937	3.3496	0.3447	0.5743	0.0617	0.0494	0.0181	0.7901	0.4353	0.0095
14	1,156.106	0.6607	84.2411	10.0649	3.3901	0.3470	0.5891	0.0633	0.0485	0.0175	0.8077	0.4215	0.0094
15	1,155.753	0.6608	84.2286	10.0524	3.3871	0.3481	0.5907	0.0632	0.0478	0.0179	0.8246	0.4302	0.0095
16	1,157.928	0.6628	83.9711	10.1525	3.4606	0.3544	0.6124	0.0653	0.0499	0.0188	0.8690	0.4367	0.0092
17	1,155.346	0.6604	84.2786	10.0378	3.3693	0.3454	0.5853	0.0631	0.0492	0.0181	0.8159	0.4290	0.0082
18	1,154.810	0.6601	84.2923	10.0482	3.3692	0.3405	0.5725	0.0597	0.0476	0.0167	0.8158	0.4302	0.0075
19	1,154.814	0.6602	84.2958	10.0247	3.3540	0.3466	0.5845	0.0618	0.0488	0.0175	0.8269	0.4317	0.0076
20	1,154.296	0.6594	84.4214	9.9746	3.3461	0.3433	0.5705	0.0608	0.0477	0.0166	0.7848	0.4267	0.0075
21	1,153.391	0.6581	84.6114	9.8872	3.3145	0.3421	0.5615	0.0604	0.0458	0.0157	0.7410	0.4124	0.0080
22	1,156.225	0.6607	84.2693	10.0283	3.4074	0.3508	0.5883	0.0637	0.0475	0.0170	0.7995	0.4205	0.0078
23	1,155.183	0.6598	84.3818	9.9780	3.3719	0.3476	0.5801	0.0627	0.0480	0.0171	0.7845	0.4206	0.0076
24	1,155.143	0.6600	84.3834	9.9542	3.3734	0.3504	0.5859	0.0629	0.0486	0.0175	0.7899	0.4261	0.0078
25	1,155.816	0.6606	84.2832	10.0085	3.3931	0.3511	0.5889	0.0643	0.0495	0.0177	0.8065	0.4296	0.0078
26	1,155.566	0.6605	84.2918	9.9996	3.3930	0.3495	0.5876	0.0635	0.0486	0.0173	0.8124	0.4290	0.0077
27	1,155.672	0.6606	84.2658	10.0219	3.3916	0.3496	0.5882	0.0631	0.0487	0.0172	0.8203	0.4258	0.0077
28	1,155.961	0.6611	84.1999	10.0320	3.4119	0.3504	0.5966	0.0630	0.0481	0.0170	0.8445	0.4287	0.0078
29	1,156.232	0.6614	84.1518	10.0536	3.4262	0.3503	0.6002	0.0619	0.0474	0.0164	0.8521	0.4324	0.0078
30	1,155.573	0.6607	84.2358	10.0304	3.3964	0.3472	0.5896	0.0624	0.0486	0.0172	0.8420	0.4227	0.0077
31	1,156.247	0.6612	84.1845	10.0557	3.4162	0.3502	0.5946	0.0625	0.0484	0.0169	0.8387	0.4246	0.0077
Volume	1,155.491	0.6603	84.3000	10.0182	3.3823	0.3481	0.5842	0.0622	0.0482	0.0174	0.8073	0.4235	0.0084
Weight Avg Energy	1,155.492	0.6603	84.2999	10.0183	3.3824	0.3481	0.5842	0.0622	0.0482	0.0174	0.8073	0.4235	0.0084



Alliance Pipeline

DAILY ANALYSIS --- USA
 ND14MD1 --- Milnor Sales
 December 2024

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	1,154.999	0.6597	84.3881	9.9790	3.3666	0.3475	0.5787	0.0616	0.0478	0.0166	0.7942	0.4108	0.0092
2	1,154.627	0.6592	84.4598	9.9479	3.3513	0.3465	0.5764	0.0604	0.0475	0.0168	0.7756	0.4090	0.0088
3	1,154.814	0.6593	84.4547	9.9358	3.3761	0.3467	0.5715	0.0603	0.0469	0.0170	0.7733	0.4088	0.0089
4	1,156.453	0.6606	84.2751	10.0308	3.4184	0.3509	0.5855	0.0613	0.0480	0.0172	0.7831	0.4208	0.0090
5	1,155.106	0.6593	84.4566	9.9636	3.3656	0.3485	0.5678	0.0602	0.0482	0.0181	0.7521	0.4103	0.0089
6	1,154.861	0.6592	84.4734	9.9460	3.3522	0.3483	0.5730	0.0616	0.0484	0.0183	0.7579	0.4119	0.0089
7	1,155.021	0.6601	84.2971	10.0485	3.3650	0.3463	0.5716	0.0612	0.0472	0.0178	0.8121	0.4244	0.0088
8	1,155.936	0.6610	84.1813	10.0877	3.3905	0.3497	0.5863	0.0629	0.0486	0.0183	0.8411	0.4245	0.0091
9	1,157.140	0.6617	84.1233	10.0942	3.4244	0.3541	0.6065	0.0633	0.0487	0.0180	0.8339	0.4248	0.0089
10	1,155.730	0.6608	84.2140	10.0762	3.3762	0.3492	0.5891	0.0619	0.0482	0.0185	0.8365	0.4213	0.0089
11	1,155.453	0.6599	84.3482	10.0242	3.3613	0.3488	0.5806	0.0611	0.0491	0.0177	0.7834	0.4169	0.0090
12	1,155.658	0.6606	84.2520	10.0479	3.3856	0.3484	0.5837	0.0614	0.0492	0.0184	0.8140	0.4303	0.0092
13	1,154.628	0.6598	84.3717	9.9991	3.3478	0.3445	0.5743	0.0620	0.0495	0.0180	0.7888	0.4346	0.0096
14	1,155.972	0.6606	84.2544	10.0516	3.3884	0.3473	0.5895	0.0632	0.0483	0.0176	0.8098	0.4206	0.0094
15	1,156.071	0.6611	84.1886	10.0774	3.3944	0.3482	0.5925	0.0635	0.0481	0.0179	0.8274	0.4324	0.0096
16	1,157.940	0.6628	83.9727	10.1506	3.4589	0.3547	0.6134	0.0655	0.0502	0.0189	0.8697	0.4361	0.0092
17	1,154.992	0.6601	84.3163	10.0227	3.3615	0.3439	0.5804	0.0623	0.0488	0.0178	0.8099	0.4283	0.0080
18	1,154.897	0.6602	84.2745	10.0533	3.3715	0.3413	0.5754	0.0597	0.0475	0.0166	0.8209	0.4318	0.0075
19	1,154.604	0.6600	84.3220	10.0139	3.3497	0.3454	0.5808	0.0617	0.0487	0.0174	0.8207	0.4320	0.0077
20	1,154.314	0.6594	84.4252	9.9715	3.3465	0.3439	0.5708	0.0608	0.0477	0.0165	0.7847	0.4250	0.0075
21	1,153.654	0.6582	84.5991	9.8887	3.3233	0.3432	0.5641	0.0608	0.0458	0.0156	0.7390	0.4123	0.0080
22	1,156.333	0.6608	84.2611	10.0292	3.4099	0.3514	0.5893	0.0640	0.0481	0.0173	0.8012	0.4206	0.0077
23	1,155.056	0.6598	84.3882	9.9795	3.3669	0.3469	0.5788	0.0625	0.0478	0.0170	0.7834	0.4215	0.0077
24	1,155.198	0.6600	84.3785	9.9528	3.3757	0.3509	0.5873	0.0630	0.0487	0.0175	0.7911	0.4267	0.0077
25	1,156.011	0.6608	84.2590	10.0226	3.3993	0.3513	0.5895	0.0643	0.0495	0.0177	0.8085	0.4305	0.0078
26	1,155.409	0.6604	84.3020	9.9974	3.3874	0.3487	0.5866	0.0632	0.0485	0.0173	0.8139	0.4273	0.0077
27	1,155.687	0.6606	84.2682	10.0219	3.3923	0.3495	0.5875	0.0631	0.0487	0.0172	0.8181	0.4257	0.0077
28	1,156.158	0.6613	84.1713	10.0450	3.4195	0.3508	0.5985	0.0629	0.0480	0.0169	0.8490	0.4302	0.0078
29	1,156.192	0.6614	84.1616	10.0500	3.4235	0.3503	0.5999	0.0619	0.0474	0.0164	0.8508	0.4305	0.0078
30	1,155.552	0.6606	84.2673	10.0133	3.3883	0.3482	0.5908	0.0634	0.0495	0.0177	0.8316	0.4222	0.0077
31	1,156.359	0.6613	84.1593	10.0794	3.4210	0.3493	0.5918	0.0618	0.0479	0.0167	0.8403	0.4247	0.0077
Volume	1,155.481	0.6603	84.3053	10.0189	3.3806	0.3481	0.5834	0.0619	0.0483	0.0175	0.8046	0.4227	0.0085
Weight Avg Energy	1,155.480	0.6603	84.3054	10.0189	3.3806	0.3480	0.5834	0.0619	0.0483	0.0175	0.8046	0.4228	0.0085

December-24

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		
12/1/2024	12/2/2024	570	680	1193	1,360	1,505	1106.7	1132.188	12/1/2024
12/2/2024	12/3/2024	545	650	1193	1,228	1,359	1106.7	1133.228	12/2/2024
12/3/2024	12/4/2024	430	513	1193	962	1,065	1106.7	1133.359	12/3/2024
12/4/2024	12/5/2024	543	648	1193	1,248	1,381	1106.7	1132.865	12/4/2024
12/5/2024	12/6/2024	438	523	1193	1,059	1,172	1106.7	1131.950	12/5/2024
12/6/2024	12/7/2024	336	401	1193	749	828	1106.7	1133.425	12/6/2024
12/7/2024	12/8/2024	289	344	1193	644	713	1106.7	1133.432	12/7/2024
12/8/2024	12/9/2024	368	439	1193	936	1,036	1106.7	1131.055	12/8/2024
12/9/2024	12/10/2024	395	471	1193	862	954	1106.7	1133.819	12/9/2024
12/10/2024	12/11/2024	530	633	1193	1,240	1,373	1106.7	1132.541	12/10/2024
12/11/2024	12/12/2024	559	667	1193	1,312	1,452	1106.7	1132.484	12/11/2024
12/12/2024	12/13/2024	513	612	1193	1,104	1,221	1106.7	1134.079	12/12/2024
12/13/2024	12/14/2024	473	565	1193	1,031	1,141	1106.7	1133.841	12/13/2024
12/14/2024	12/15/2024	417	497	1193	895	990	1106.7	1134.129	12/14/2024
12/15/2024	12/16/2024	408	487	1193	797	882	1106.7	1135.920	12/15/2024
12/16/2024	12/17/2024	487	581	1193	1,051	1,163	1106.7	1134.026	12/16/2024
12/17/2024	12/18/2024	500	597	1193	1,086	1,202	1106.7	1133.907	12/17/2024
12/18/2024	12/19/2024	521	622	1193	1,135	1,256	1106.7	1133.851	12/18/2024
12/19/2024	12/20/2024	598	713	1193	1,320	1,460	1106.7	1133.607	12/19/2024
12/20/2024	12/21/2024	501	597	1193	1,087	1,203	1106.7	1133.927	12/20/2024
12/21/2024	12/22/2024	400	477	1193	828	916	1106.7	1134.811	12/21/2024
12/22/2024	12/23/2024	375	448	1193	708	783	1106.7	1136.582	12/22/2024
12/23/2024	12/24/2024	346	413	1193	687	760	1106.7	1135.606	12/23/2024
12/24/2024	12/25/2024	300	358	1193	529	586	1106.7	1137.930	12/24/2024
12/25/2024	12/26/2024	330	393	1193	605	669	1106.7	1137.159	12/25/2024
12/26/2024	12/27/2024	322	384	1193	674	746	1106.7	1134.600	12/26/2024
12/27/2024	12/28/2024	318	379	1193	610	675	1106.7	1136.273	12/27/2024
12/28/2024	12/29/2024	327	390	1193	665	736	1106.7	1135.148	12/28/2024
12/29/2024	12/30/2024	341	407	1193	662	733	1106.7	1136.040	12/29/2024
12/30/2024	12/31/2024	432	516	1193	921	1,019	1106.7	1134.255	12/30/2024
12/31/2024	1/1/2025	484	578	1193	1,080	1,195	1106.7	1133.407	12/31/2024
		13,396	15,983	1193.0000	29,075	32,174	1106.7000	1134.1756	

NORTH DAKOTA HEATING VALUE ZONES		
ZONES	MEASURING DEVICE	LOCATION
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
274	Chromatograph	Kindred – Wahpeton
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	DEC24	NOV24	OCT24	SEP24	AUG24	JUL24	JUN24	MAY24	APR24	MAR24	FEB24	JAN24	ZONE
MT/ND	211	Sidney Border - MonDak Tfr - Sidney Plt	1187	1183	1184	1182	1191	1194	1192	1190	1187	1184	1185	1187	1179	211
ND	24	Williston Border - Charbonneau Station	1186	1182	1179	1187	1187	1185	1191	1186	1184	1181	1181	1192	1197	24
ND	25	Watford City West Border	1194	1193	1186	1194	1194	1197	1192	1187	1201	1193	1194	1194	1198	25
ND	28	Bismarck Station - Glen Ullin Station	1170	1136	1159	1171	1204	1203	1200	1202	1200	1160	1147	1126	1131	28
ND	31	Dickinson Brd - Belfield Trf - G Ullin Stn	1123	1139	1144	1111	1106	1111	1115	1108	1106	1133	1147	1127	1127	31
ND/MT	32	Cabin Creek Station - Belfied Transfer	1130	1130	1135	1139	1128	1135	1110	1135	1144	1144	1116	1118	1122	32
ND	33	Little Knife Plant	1168	1162	1163	1165	1162	1165	1173	1170	1170	1173	1173	1171	1169	33
ND	34	Badlands Plant/Bowman Border	1045	1104	1127	1110	1034	980	981	1040	1043	1005	1027	1000	1094	34
ND	43	Watford City East Border	1099	1107	1110	1112	1112	1117	1085	1081	1075	1066	1085	1113	1127	43
ND/MT	241	Fairview Border	1183	1181	1180	1185	1183	1182	1185	1181	1172	1182	1186	1192	1185	241
ND	267	North Tioga Transfer - Nesson Plant	1188	1204	1191	1191	1195	1199	1191	1191	1193	1183	1187	1165	1166	267
ND	261	Tioga Comp Station - Robinson Lake Plant	1197	1209	1208	1208	1195	1200	1195	1197	1195	1196	1195	1192	1178	261
ND	262	Minot Bdr - Palermo Bdr - Bismarck Stn	1201	1209	1207	1210	1203	1201	1199	1200	1199	1195	1195	1196	1198	262
ND	263	Lignite Plant	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	263
ND	264	Epping Border	1180	1174	1166	1183	1188	1182	1179	1172	1168	1176	1172	1193	1204	264
ND	265	Tioga Comp Station - County Line Plant	1182	1191	1180	1175	1179	1181	1183	1174	1188	1195	1192	1179	1169	265
ND	266	County Line Plant	1184	1192	1182	1177	1181	1183	1187	1174	1188	1195	1193	1181	1171	266
ND	271	Bismarck Station - Cleveland Station	1198	1190	1200	1212	1204	1203	1200	1202	1201	1198	1192	1183	1186	271
ND	272	Cleveland Station - Mapleton	1197	1190	1200	1211	1202	1202	1200	1201	1200	1197	1191	1183	1185	272
ND	273	Cleveland Station - Grafton Border	1197	1189	1199	1211	1202	1202	1200	1202	1199	1198	1191	1183	1186	273
ND	274	Felton(Viking) - Kindred-Wahpeton	0	1050	0	0	0	0	0	0	0	0	0	0	0	274
ND	550	Mandan Border / NBPL-St Anthony	1157	1115	1156	1164	1198	1179	1168	1160	1192	1157	1146	1126	1124	550
ND	610	MDU-Watford City BTU	1125	1135	1139	1130	1115	1127	1108	1111	1121	1112	1118	1138	1150	610
ND	802	NBPL - Linton	1104	1093	1100	1099	1103	1108	1100	1100	1104	1109	1114	1114	1103	802
ND	903	Hettinger Propane	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	903
ND	600	Alliance Pipeline - Hankinson	1151	1155	1155	1157	1159	1157	1148	1147	1148	1148	1146	1144	1144	600
ND	601	Alliance Pipeline - Milnor	1151	1155	1155	1157	1160	1157	1149	1147	1149	1148	1146	1144	1144	601

THERMAL ZONE VARIANCE DOCUMENTATION		
December 2024		
<i>ZONE</i>	<i>BTU VARIANCE</i>	<i>REASON</i>
28	-23	Operational
550	-41	Blend
34	-23	Operational / Blend