



A Subsidiary of MDU Resources Group, Inc.

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December 18, 2024

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 – October 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 November 2024.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our suppliers for the month of October 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 October 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
Director of Regulatory Affairs

Montana-Dakota Utilities Co.
Therm Billing Factors - North Dakota
Nov-24

<u>Town</u>	<u>Heat Zone</u>	<u>Therm Factor</u>
MDU-303-ALEXANDER	025	1.1277
MDU-308-ARNEGARD	025	1.1277
MDU-314-APPLE VALLEY	271	1.1617
MDU-318-BEACH	032	1.0424
MDU-319-BELFIELD	032	1.0501
MDU-323-BERTHOLD	262	1.1362
MDU-327-BISMARCK	028	1.1617
MDU-330-BOWMAN	034	0.9485
MDU-337-BURLINGTON	262	1.1607
MDU-343-CARRINGTON	273	1.1598
MDU-344-CLEVELAND	272	1.1516
MDU-364-CAVALIER	273	1.1843
MDU-365-DAWSON	271	1.1535
MDU-368-DES LACS	262	1.1444
MDU-369-DICKINSON	031	1.0371
MDU-374-FT TOTTEN	273	1.1679
MDU-375-DEVILS LAKE	273	1.1679
MDU-379-BARLOW	273	1.1598
MDU-384-EPPING	264	1.1221
MDU-387-ELDRIDGE	272	1.1598
MDU-407-GLADSTONE	031	1.0371
MDU-411-GLEN ULLIN	031	1.0446
MDU-413-GOLVA	032	1.0271
MDU-416-GARRISON	262	1.1444
MDU-417-GRAFTON	273	1.1924
MDU-403-GWINNER	601	1.1429
MDU-429-HEBRON	031	1.0493
MDU-432-HETTINGER	903	2.4049
MDU-449-JAMESTOWN	272	1.1679
MDU-459-KILLDEER	033	1.0975
MDU-463-LANGDON	273	1.1598
MDU-469-LEFOR	031	1.0371
MDU-474-LIGNITE	263	1.0759
MDU-475-LINTON	802	1.0642
MDU-478-LINCOLN	028	1.1617
MDU-488-MCKENZIE	271	1.1617
MDU-494-MEDINA	271	1.1535
MDU-498-MANDAN	028	1.1617
MDU-500-MARMARTH	034	0.9556
MDU-505-MINOT	262	1.1607
MDU-510-MOTT	031	1.0371
MDU-512-MAX	262	1.1607
MDU-513-MILNOR	601	1.1429
MDU-522-NEW ENGLAND	031	1.0296
MDU-524-NEW SALEM	028	1.1372
MDU-532-NEW ROCKFORD	273	1.1598
MDU-539-PARK RIVER	273	1.1843
MDU-540-PALERMO	262	1.1362
MDU-558-RAY	264	1.1221

MDU-561-REGENT	031	1.0296
MDU-563-RHAME	034	0.9415
MDU-564-RICHARDTON	031	1.0296
MDU-568-ROSS	261	1.1206
MDU-572-RUTHVILLE	262	1.1607
MDU-574-SANBORN	272	1.1679
MDU-583-SENTINEL BUTTE	032	1.0424
MDU-588-SOUTH HEART	031	1.0296
MDU-717-SPIRITWOOD	272	1.1679
MDU-590-SPRINGBROOK	264	1.1221
MDU-591-STANLEY	261	1.1287
MDU-593-STEELE	271	1.1535
MDU-594-STERLING	028	1.1617
MDU-598-SHEYENNE	273	1.1679
MDU-605-SURREY	262	1.1607
MDU-610-TAPPEN	271	1.1535
MDU-611-TAYLOR	031	1.0296
MDU-616-TIOGA	260	1.1206
MDU-619-TURTLE LAKE	262	1.1444
MDU-620-TRENTON	024	1.1292
MDU-624-UNDERWOOD	262	1.1444
MDU-625-VALLEY CITY	272	1.1761
MDU-629-WALHALLA	273	1.1843
MDU-632-WATFORD CITY	610	1.0531
MDU-636-WHEELOCK	264	1.1140
MDU-637-WHITE EARTH	261	1.1287
MDU-642-WILLISTON	024	1.1292
MDU-646-WASHBURN	262	1.1444
MDU-647-WILTON	262	1.1362
MDU-664-RIVERDALE	262	1.1444
MDU-691-FAIRVIEW	241	1.1254
MDU-712-MINOT AFB	262	1.1607
MDU-718-FAIRMOUNT	600	1.1395
MDU-732-NEKOMA	273	1.1598
MDU-732-MSR SITE	273	1.1598

Source Daily Summary

October 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	0.7179	1172.4	1193.2	1192.4	1.109	2.951	71.315	21.065	3.097	0.133	0.282	0.019	0.019	0.009	0.000	0.000	0.000	0.000	1408.22	
2	0.7173	1173.0	1193.8	1193.0	1.097	2.878	71.423	21.077	3.047	0.134	0.291	0.021	0.022	0.010	0.000	0.000	0.000	0.000	1409.52	
3	0.7178	1173.2	1194.0	1193.2	1.095	2.913	71.337	21.112	3.061	0.136	0.293	0.021	0.022	0.010	0.000	0.000	0.000	0.000	1409.28	
4	0.7162	1170.0	1190.8	1189.9	1.090	2.961	71.431	21.180	2.879	0.129	0.280	0.020	0.021	0.009	0.000	0.000	0.000	0.000	1407.09	
5	0.7196	1168.4	1189.0	1188.2	1.179	3.247	70.979	21.073	3.043	0.140	0.288	0.020	0.020	0.010	0.000	0.000	0.000	0.000	1401.76	
6	0.6346	1035.6	1053.9	1053.1	0.530	4.342	85.078	8.690	1.171	0.054	0.113	0.008	0.008	0.005	0.000	0.000	0.000	0.000	1321.23	
7	0.6856	1109.9	1129.5	1128.7	0.968	3.944	76.700	15.666	2.347	0.109	0.228	0.016	0.015	0.008	0.000	0.000	0.000	0.000	1363.05	
8	0.7172	1169.3	1190.1	1189.2	1.130	3.040	71.270	21.199	2.903	0.129	0.280	0.020	0.020	0.009	0.000	0.000	0.000	0.000	1405.24	
9	0.7153	1167.8	1188.4	1187.6	1.109	2.990	71.362	21.417	2.700	0.119	0.258	0.018	0.018	0.009	0.000	0.000	0.000	0.000	1405.22	
10	0.7148	1166.6	1187.3	1186.5	1.106	3.016	71.301	21.590	2.590	0.112	0.243	0.017	0.017	0.008	0.000	0.000	0.000	0.000	1404.37	
11	0.7144	1166.2	1186.9	1186.2	1.098	3.013	71.532	21.232	2.707	0.119	0.256	0.017	0.017	0.009	0.000	0.000	0.000	0.000	1404.28	
12	0.7139	1165.7	1186.3	1185.6	1.101	2.998	71.634	21.150	2.695	0.120	0.259	0.018	0.018	0.009	0.000	0.000	0.000	0.000	1404.09	
13	0.7149	1168.2	1188.8	1188.2	1.102	2.942	71.431	21.404	2.702	0.119	0.256	0.017	0.017	0.008	0.000	0.000	0.000	0.000	1406.04	
14	0.7150	1168.0	1188.7	1188.0	1.102	2.963	71.395	21.431	2.691	0.119	0.256	0.018	0.017	0.009	0.000	0.000	0.000	0.000	1405.75	
15	0.7167	1169.0	1189.7	1188.9	1.124	3.027	71.232	21.356	2.825	0.125	0.265	0.018	0.018	0.009	0.000	0.000	0.000	0.000	1405.26	
16	0.7181	1168.7	1189.4	1188.5	1.123	3.173	70.998	21.394	2.865	0.129	0.273	0.018	0.018	0.009	0.000	0.000	0.000	0.000	1403.63	
17	0.7184	1168.4	1189.1	1188.3	1.147	3.191	70.955	21.379	2.882	0.128	0.271	0.018	0.018	0.010	0.000	0.000	0.000	0.000	1402.87	
18	0.7171	1164.5	1185.1	1184.5	1.169	3.261	71.652	20.229	3.206	0.141	0.294	0.019	0.019	0.011	0.000	0.000	0.000	0.000	1399.51	
19	0.7203	1175.3	1196.2	1195.5	1.119	2.977	71.044	21.162	3.174	0.147	0.321	0.022	0.022	0.010	0.000	0.000	0.000	0.000	1409.43	
20	0.7191	1174.9	1195.7	1195.0	1.099	2.925	71.080	21.366	3.030	0.139	0.306	0.022	0.023	0.010	0.000	0.000	0.000	0.000	1410.07	
21	0.7180	1173.4	1194.1	1193.4	1.096	2.916	71.374	21.034	3.071	0.142	0.311	0.022	0.023	0.010	0.000	0.000	0.000	0.000	1409.32	
22	0.7171	1168.0	1188.6	1188.0	1.114	3.139	71.644	20.396	3.203	0.146	0.308	0.021	0.020	0.009	0.000	0.000	0.000	0.000	1403.65	
23	0.7208	1173.6	1194.4	1193.7	1.163	3.073	70.826	21.353	3.075	0.145	0.313	0.022	0.021	0.009	0.000	0.000	0.000	0.000	1406.76	
24	0.7191	1173.1	1193.9	1193.3	1.130	2.988	71.143	21.163	3.078	0.141	0.306	0.021	0.021	0.009	0.000	0.000	0.000	0.000	1407.90	
25	0.7167	1167.2	1187.9	1187.3	1.143	3.105	71.363	20.996	2.963	0.125	0.262	0.017	0.016	0.008	0.000	0.000	0.000	0.000	1403.13	
26	0.7167	1165.7	1186.4	1185.7	1.148	3.188	71.283	21.070	2.872	0.128	0.270	0.017	0.016	0.008	0.000	0.000	0.000	0.000	1401.37	
27	0.7162	1164.2	1184.8	1184.2	1.138	3.248	71.381	20.914	2.880	0.127	0.269	0.018	0.017	0.008	0.000	0.000	0.000	0.000	1400.01	
28	0.7142	1162.7	1183.3	1182.6	1.144	3.148	71.870	20.459	2.931	0.130	0.273	0.019	0.018	0.008	0.000	0.000	0.000	0.000	1400.11	
29	0.7119	1159.1	1179.6	1179.0	1.137	3.157	72.294	20.054	2.926	0.128	0.264	0.017	0.016	0.008	0.000	0.000	0.000	0.000	1398.08	
30	0.7154	1158.2	1178.7	1178.1	1.203	3.442	71.734	20.148	3.018	0.136	0.278	0.017	0.016	0.009	0.000	0.000	0.000	0.000	1393.57	
31	0.7099	1156.9	1177.4	1176.8	1.097	3.158	72.451	19.919	2.898	0.130	0.273	0.018	0.018	0.009	0.000	0.000	0.000	0.000	1397.36	
Avg	0.7129	1162.0	1182.4	1181.7	1.100	3.139	72.017	20.441	2.856	0.128	0.272	0.019	0.018	0.009	0.000	0.000	0.000	0.000	1400.23	

Source Daily Summary

October 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	0.7104	1171.4	1192.1	1191.6	1.012	2.457	72.305	21.097	2.753	0.106	0.230	0.017	0.019	0.003	0.000	0.000	0.000	0.000	1414.38	
2	0.7105	1172.4	1193.2	1192.7	1.010	2.401	72.309	21.144	2.756	0.107	0.233	0.017	0.019	0.003	0.000	0.000	0.000	0.000	1415.59	
3	0.7101	1170.7	1191.4	1190.9	1.010	2.469	72.372	21.043	2.711	0.110	0.242	0.018	0.020	0.004	0.000	0.000	0.000	0.000	1413.89	
4	0.7092	1168.8	1189.4	1188.9	1.012	2.508	72.239	21.406	2.468	0.103	0.226	0.017	0.019	0.003	0.000	0.000	0.000	0.000	1412.40	
5	0.7080	1168.0	1188.7	1188.1	0.989	2.470	72.340	21.476	2.380	0.098	0.212	0.015	0.017	0.003	0.000	0.000	0.000	0.000	1412.76	
6	0.7160	1168.5	1189.2	1188.4	1.043	3.106	71.753	20.518	3.014	0.156	0.347	0.028	0.030	0.005	0.000	0.000	0.000	0.000	1405.47	
7	0.7146	1168.0	1188.7	1188.0	1.102	2.913	71.780	20.874	2.862	0.129	0.289	0.022	0.025	0.004	0.000	0.000	0.000	0.000	1406.28	
8	0.7104	1169.1	1189.8	1189.3	1.040	2.551	72.109	21.385	2.536	0.106	0.233	0.017	0.020	0.003	0.000	0.000	0.000	0.000	1411.70	
9	0.7079	1165.2	1185.9	1185.4	1.027	2.581	72.159	21.696	2.211	0.092	0.202	0.014	0.017	0.003	0.000	0.000	0.000	0.000	1409.43	
10	0.7078	1164.3	1184.9	1184.5	1.027	2.622	72.072	21.832	2.138	0.087	0.191	0.013	0.015	0.002	0.000	0.000	0.000	0.000	1408.47	
11	0.7080	1166.0	1186.6	1186.2	1.019	2.552	72.212	21.616	2.272	0.094	0.203	0.014	0.016	0.003	0.000	0.000	0.000	0.000	1410.28	
12	0.7086	1167.3	1188.0	1187.5	1.025	2.518	72.147	21.666	2.308	0.095	0.207	0.015	0.017	0.003	0.000	0.000	0.000	0.000	1411.30	
13	0.7082	1167.8	1188.4	1188.0	1.010	2.476	72.191	21.707	2.286	0.094	0.203	0.014	0.016	0.003	0.000	0.000	0.000	0.000	1412.23	
14	0.7082	1167.4	1188.1	1187.6	1.003	2.509	72.165	21.717	2.274	0.094	0.205	0.014	0.017	0.003	0.000	0.000	0.000	0.000	1411.81	
15	0.7091	1169.0	1189.7	1189.2	1.009	2.490	72.128	21.636	2.387	0.098	0.216	0.015	0.018	0.002	0.000	0.000	0.000	0.000	1412.79	
16	0.7087	1168.6	1189.3	1188.7	1.010	2.474	72.219	21.565	2.378	0.099	0.219	0.016	0.018	0.002	0.000	0.000	0.000	0.000	1412.68	
17	0.7128	1174.6	1195.4	1194.9	1.007	2.492	71.885	21.481	2.697	0.121	0.271	0.020	0.023	0.003	0.000	0.000	0.000	0.000	1415.91	
18	0.7142	1177.0	1197.9	1197.4	1.004	2.478	72.101	20.833	3.092	0.136	0.303	0.022	0.026	0.004	0.000	0.000	0.000	0.000	1417.40	
19	0.7150	1178.5	1199.4	1198.9	1.009	2.458	71.759	21.360	2.934	0.132	0.296	0.022	0.025	0.004	0.000	0.000	0.000	0.000	1418.41	
20	0.7133	1176.1	1197.0	1196.5	1.003	2.448	71.912	21.399	2.784	0.125	0.281	0.021	0.024	0.004	0.000	0.000	0.000	0.000	1417.29	
21	0.7107	1172.1	1192.9	1192.4	0.992	2.469	72.550	20.645	2.868	0.131	0.294	0.022	0.026	0.004	0.000	0.000	0.000	0.000	1414.96	
22	0.7098	1169.5	1190.2	1189.8	0.979	2.557	72.694	20.439	2.862	0.129	0.288	0.021	0.025	0.005	0.000	0.000	0.000	0.000	1412.77	
23	0.7125	1175.7	1196.5	1196.0	1.012	2.392	72.161	21.138	2.821	0.130	0.292	0.022	0.026	0.005	0.000	0.000	0.000	0.000	1417.46	
24	0.7105	1172.9	1193.7	1193.3	0.983	2.409	72.398	21.026	2.747	0.120	0.268	0.020	0.024	0.005	0.000	0.000	0.000	0.000	1416.22	
25	0.7044	1161.7	1182.2	1181.8	0.957	2.566	73.096	20.584	2.456	0.096	0.209	0.015	0.017	0.003	0.000	0.000	0.000	0.000	1408.65	
26	0.7038	1159.3	1179.8	1179.4	0.959	2.662	73.049	20.666	2.330	0.094	0.206	0.015	0.017	0.002	0.000	0.000	0.000	0.000	1406.27	
27	0.7019	1155.8	1176.3	1175.9	0.945	2.705	73.505	20.120	2.380	0.097	0.212	0.015	0.018	0.003	0.000	0.000	0.000	0.000	1404.06	
28	0.6962	1150.0	1170.3	1169.9	0.916	2.573	74.850	18.789	2.485	0.108	0.236	0.018	0.021	0.004	0.000	0.000	0.000	0.000	1402.60	
29	0.6910	1140.7	1160.9	1160.5	0.894	2.684	75.872	17.678	2.479	0.110	0.240	0.018	0.020	0.004	0.000	0.000	0.000	0.000	1396.48	
30	0.6884	1134.0	1154.1	1153.7	0.886	2.854	76.331	17.098	2.444	0.107	0.236	0.018	0.021	0.004	0.000	0.000	0.000	0.000	1390.97	
31	0.6978	1153.6	1174.0	1173.6	0.964	2.431	74.754	18.859	2.566	0.118	0.259	0.020	0.024	0.005	0.000	0.000	0.000	0.000	1405.37	
Avg	0.7077	1166.0	1186.6	1186.1	0.995	2.557	72.691	20.790	2.570	0.110	0.244	0.018	0.021	0.003	0.000	0.000	0.000	0.000	1410.53	

Gas Composition and Properties

Effective October 1, 2024

Source #: 0602160
Name: FAIRVIEW BORDER

Component	Mole %	Liquid Content	Mass %	Property	Total Sample	C6 Plus Fraction
Carbon Dioxide, CO2	1.0117		2.1790	Pressure Base	14.730	
Nitrogen, N2	2.6183		3.5895	Temperature Base	60.00	
Methane, C1	72.8433		57.1888	HCDP @ Sample Pressure	-20.540	
Ethane, C2	20.4264	5.4664	30.0580	Cricondentherm	-5.037	
Propane, C3	2.7158	0.7487	5.8606	HV, Dry @ Base P, T	1184.93	
iso-Butane, iC4	0.1031	0.0338	0.2933	HV, Sat @ Base P, T	1164.31	
n-Butane, nC4	0.2387	0.0753	0.6790	HV, Sat @ Sample P, T	1184.93	
iso-Pentane, iC5	0.0196	0.0072	0.0692	Relative Density	0.7075	
n-Pentane, nC5	0.0215	0.0078	0.0759			
Neo-Pentane, neo						
Hexanes Plus, C6+	0.0016	0.0007	0.0067			
Argon, Ar						
Carbon Monoxide, CO						
Hydrogen, H2						
Oxygen, O2						
Helium, He						
Water, H2O						
Hydrogen Sulfide, H2S						
Totals	100.0000	6.3400	100.0000			

C6+: 100

Sample

Date: 10/01/2024 Type:
Tech: Tipton, Joshua
Pressure: 400 psi Temp.: °F
Gauge: Gauge H2O:
Atm. Pressure: H2S:

Remarks:

Analysis

Date: 10/01/2024 Instrument:
Tech: Tipton, Joshua Cylinder: 348

Remarks:

Source Daily Summary

October 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	0.7566	1185.0	1206.0	1205.6	0.936	6.063	65.956	20.534	5.834	0.187	0.422	0.028	0.032	0.008	0.000	0.000	0.000	0.000	1386.56	19.98
2	0.7063	1159.6	1180.1	1179.7	0.977	2.850	72.542	20.860	2.525	0.068	0.150	0.011	0.013	0.003	0.000	0.000	0.000	0.000	1404.20	-8.81
3	0.7124	1155.5	1176.0	1175.6	0.948	3.710	71.887	20.087	2.982	0.105	0.236	0.018	0.021	0.006	0.000	0.000	0.000	0.000	1393.43	-3.94
4	0.7015	1151.9	1172.3	1171.9	0.967	2.880	72.449	21.957	1.545	0.055	0.125	0.009	0.010	0.002	0.000	0.000	0.000	0.000	1399.74	-15.16
5	0.7234	1166.1	1186.8	1186.4	0.971	4.059	69.747	21.743	3.074	0.109	0.252	0.018	0.021	0.005	0.000	0.000	0.000	0.000	1395.62	-1.08
6	0.7115	1164.1	1184.8	1184.3	1.084	2.895	71.790	21.379	2.493	0.098	0.222	0.016	0.019	0.004	0.000	0.000	0.000	0.000	1404.57	-5.35
7	0.7216	1170.1	1190.8	1190.4	1.149	3.377	71.033	20.413	3.534	0.136	0.303	0.022	0.026	0.006	0.000	0.000	0.000	0.000	1401.91	2.92
8	0.7049	1155.4	1175.9	1175.4	0.967	2.994	71.894	22.228	1.707	0.058	0.130	0.009	0.010	0.002	0.000	0.000	0.000	0.000	1400.57	-13.18
9	0.7351	1175.6	1196.4	1196.0	0.951	4.610	68.167	21.952	3.855	0.124	0.293	0.020	0.023	0.006	0.000	0.000	0.000	0.000	1395.72	5.59
10	0.7563	1185.1	1206.1	1205.7	0.935	6.040	66.018	20.569	5.689	0.195	0.467	0.034	0.040	0.011	0.000	0.000	0.000	0.000	1386.80	20.87
11	0.7135	1160.7	1181.3	1180.9	0.960	3.480	70.887	22.034	2.344	0.080	0.183	0.013	0.015	0.004	0.000	0.000	0.000	0.000	1398.73	-7.88
12	0.7008	1151.9	1172.3	1171.9	0.958	2.846	72.373	22.227	1.414	0.051	0.112	0.008	0.009	0.002	0.000	0.000	0.000	0.000	1400.35	-16.10
13	0.7005	1152.6	1173.0	1172.6	0.961	2.766	72.473	22.211	1.405	0.051	0.114	0.008	0.009	0.002	0.000	0.000	0.000	0.000	1401.44	-16.16
14	0.7017	1153.2	1173.6	1173.2	0.966	2.828	72.223	22.402	1.397	0.051	0.114	0.008	0.009	0.002	0.000	0.000	0.000	0.000	1401.03	-15.83
15	0.7112	1158.8	1179.3	1178.9	0.962	3.380	71.218	21.945	2.210	0.077	0.178	0.012	0.014	0.003	0.000	0.000	0.000	0.000	1398.61	-9.03
16	0.7006	1151.0	1171.4	1171.0	0.968	2.861	72.445	22.138	1.402	0.052	0.116	0.008	0.009	0.002	0.000	0.000	0.000	0.000	1399.41	-16.29
17	0.7200	1164.5	1185.1	1184.7	0.960	3.857	70.149	21.817	2.857	0.096	0.226	0.016	0.018	0.004	0.000	0.000	0.000	0.000	1397.03	-3.79
18	0.7304	1168.8	1189.5	1189.1	0.946	4.592	69.321	20.634	4.022	0.129	0.305	0.021	0.024	0.006	0.000	0.000	0.000	0.000	1392.08	4.69
19	0.7003	1150.6	1170.9	1170.6	0.973	2.852	72.495	22.105	1.391	0.051	0.114	0.008	0.009	0.002	0.000	0.000	0.000	0.000	1399.19	-16.48
20	0.7232	1165.6	1186.2	1185.8	0.952	4.106	69.691	21.809	3.066	0.101	0.238	0.016	0.018	0.004	0.000	0.000	0.000	0.000	1395.16	-1.81
21	0.7458	1178.9	1199.7	1199.4	0.946	5.415	67.233	20.886	4.883	0.165	0.402	0.028	0.032	0.008	0.000	0.000	0.000	0.000	1389.43	13.92
22	0.7582	1186.6	1207.7	1207.3	0.915	6.150	65.737	20.589	5.880	0.190	0.462	0.030	0.036	0.010	0.000	0.000	0.000	0.000	1386.90	21.38
23	0.7584	1187.3	1208.3	1208.0	0.920	6.122	65.670	20.702	5.867	0.189	0.456	0.030	0.035	0.009	0.000	0.000	0.000	0.000	1387.48	21.22
24	0.7567	1186.0	1207.0	1206.6	0.924	6.034	65.881	20.730	5.721	0.187	0.452	0.029	0.034	0.008	0.000	0.000	0.000	0.000	1387.54	20.31
25	0.7557	1182.6	1203.5	1203.2	0.933	6.132	65.984	20.605	5.644	0.185	0.446	0.030	0.033	0.008	0.000	0.000	0.000	0.000	1384.52	19.57
26	0.7595	1187.3	1208.4	1208.0	0.927	6.209	65.554	20.639	5.930	0.195	0.471	0.031	0.035	0.008	0.000	0.000	0.000	0.000	1386.55	21.80
27	0.7595	1188.5	1209.6	1209.2	0.928	6.134	65.595	20.657	5.936	0.196	0.476	0.032	0.036	0.009	0.000	0.000	0.000	0.000	1387.95	22.07
28	0.7586	1186.5	1207.6	1207.2	0.930	6.171	65.980	20.115	5.967	0.214	0.532	0.037	0.042	0.011	0.000	0.000	0.000	0.000	1386.39	23.19
29	0.7592	1191.2	1212.3	1211.9	0.937	5.933	65.812	20.587	5.919	0.214	0.510	0.036	0.041	0.011	0.000	0.000	0.000	0.000	1391.28	22.99
30	0.7543	1186.5	1207.5	1207.2	0.932	5.768	66.330	20.644	5.607	0.187	0.455	0.032	0.037	0.010	0.000	0.000	0.000	0.000	1390.32	19.87
31	0.7488	1179.8	1200.6	1200.3	0.923	5.678	67.240	20.000	5.474	0.181	0.431	0.030	0.034	0.009	0.000	0.000	0.000	0.000	1387.60	17.34
Avg	0.7305	1171.0	1191.3	1190.9	0.958	4.477	69.089	21.200	3.793	0.128	0.303	0.021	0.024	0.006	0.000	0.000	0.000	0.000	1394.13	4.09

Source Daily Summary

October 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	0.7569	1184.0	1205.0	1204.5	0.936	6.160	65.849	20.551	5.829	0.186	0.421	0.028	0.032	0.008	0.000	0.000	0.000	0.000	1385.01	
2	0.7537	1182.1	1203.0	1202.6	0.940	5.966	66.358	20.432	5.626	0.188	0.421	0.028	0.032	0.008	0.000	0.000	0.000	0.000	1385.72	
3	0.7548	1181.8	1202.7	1202.4	0.941	6.081	66.306	20.259	5.665	0.206	0.463	0.032	0.037	0.010	0.000	0.000	0.000	0.000	1384.39	
4	0.7607	1190.7	1211.8	1211.3	0.940	6.101	65.459	20.714	6.033	0.204	0.471	0.032	0.036	0.010	0.000	0.000	0.000	0.000	1389.34	
5	0.7589	1186.9	1207.9	1207.5	0.938	6.162	65.671	20.577	5.924	0.199	0.455	0.030	0.035	0.009	0.000	0.000	0.000	0.000	1386.58	
6	0.7621	1192.9	1214.0	1213.6	0.935	6.105	65.200	20.924	6.108	0.204	0.450	0.030	0.035	0.009	0.000	0.000	0.000	0.000	1390.61	
7	0.7603	1189.6	1210.6	1210.2	0.932	6.139	65.446	20.737	6.039	0.198	0.436	0.029	0.034	0.009	0.000	0.000	0.000	0.000	1388.44	
8	0.7604	1189.3	1210.4	1209.8	0.933	6.170	65.398	20.766	6.028	0.192	0.439	0.030	0.034	0.009	0.000	0.000	0.000	0.000	1387.99	
9	0.7570	1184.5	1205.5	1205.0	0.933	6.139	66.013	20.352	5.793	0.202	0.483	0.034	0.040	0.011	0.000	0.000	0.000	0.000	1385.52	
10	0.7588	1187.5	1208.5	1208.1	0.932	6.130	65.713	20.586	5.875	0.199	0.478	0.035	0.041	0.011	0.000	0.000	0.000	0.000	1387.35	
11	0.7623	1194.7	1215.9	1215.5	0.931	6.015	65.120	21.159	6.046	0.191	0.454	0.033	0.039	0.011	0.000	0.000	0.000	0.000	1392.64	
12	0.7590	1188.8	1209.9	1209.5	0.930	6.068	65.440	21.063	5.831	0.177	0.418	0.029	0.034	0.009	0.000	0.000	0.000	0.000	1388.75	
13	0.7584	1187.2	1208.2	1207.9	0.929	6.113	65.529	20.962	5.796	0.176	0.425	0.028	0.033	0.009	0.000	0.000	0.000	0.000	1387.36	
14	0.7580	1186.7	1207.7	1207.4	0.931	6.102	65.588	20.928	5.781	0.176	0.426	0.028	0.032	0.008	0.000	0.000	0.000	0.000	1387.18	
15	0.7579	1186.2	1207.2	1206.8	0.930	6.124	65.684	20.769	5.792	0.183	0.447	0.030	0.034	0.008	0.000	0.000	0.000	0.000	1386.68	
16	0.7587	1187.0	1208.0	1207.6	0.927	6.157	65.563	20.809	5.840	0.185	0.448	0.030	0.034	0.008	0.000	0.000	0.000	0.000	1386.86	
17	0.7598	1189.2	1210.3	1209.9	0.930	6.125	65.510	20.766	5.919	0.195	0.475	0.033	0.038	0.010	0.000	0.000	0.000	0.000	1388.39	
18	0.7587	1188.0	1209.0	1208.7	0.933	6.079	65.628	20.802	5.850	0.185	0.449	0.030	0.035	0.009	0.000	0.000	0.000	0.000	1388.07	
19	0.7573	1185.1	1206.0	1205.7	0.929	6.143	65.749	20.713	5.775	0.180	0.440	0.029	0.033	0.008	0.000	0.000	0.000	0.000	1385.87	
20	0.7580	1186.0	1207.0	1206.6	0.927	6.157	65.668	20.729	5.817	0.183	0.448	0.030	0.034	0.008	0.000	0.000	0.000	0.000	1386.29	
21	0.7592	1187.7	1208.7	1208.3	0.926	6.165	65.803	20.327	5.968	0.209	0.515	0.036	0.041	0.011	0.000	0.000	0.000	0.000	1387.21	
22	0.7566	1183.4	1204.3	1204.0	0.919	6.197	66.029	20.303	5.800	0.197	0.475	0.032	0.038	0.011	0.000	0.000	0.000	0.000	1384.51	
23	0.7587	1188.2	1209.3	1208.9	0.919	6.092	65.666	20.708	5.882	0.191	0.465	0.031	0.036	0.010	0.000	0.000	0.000	0.000	1388.32	
24	0.7569	1185.0	1205.9	1205.6	0.922	6.117	65.857	20.636	5.765	0.186	0.448	0.029	0.033	0.008	0.000	0.000	0.000	0.000	1386.17	
25	0.7562	1182.9	1203.8	1203.5	0.932	6.170	65.903	20.609	5.683	0.185	0.446	0.030	0.034	0.008	0.000	0.000	0.000	0.000	1384.30	
26	0.7573	1184.1	1205.0	1204.7	0.929	6.201	65.812	20.555	5.785	0.190	0.457	0.030	0.034	0.008	0.000	0.000	0.000	0.000	1384.73	
27	0.7579	1186.0	1207.0	1206.7	0.928	6.138	65.774	20.591	5.841	0.191	0.462	0.031	0.035	0.009	0.000	0.000	0.000	0.000	1386.49	
28	0.7583	1186.0	1207.0	1206.6	0.929	6.174	65.979	20.168	5.930	0.210	0.523	0.036	0.041	0.010	0.000	0.000	0.000	0.000	1386.05	
29	0.7600	1190.4	1211.5	1211.1	0.933	6.063	65.778	20.365	6.027	0.218	0.527	0.036	0.042	0.011	0.000	0.000	0.000	0.000	1389.60	
30	0.7598	1190.8	1211.9	1211.6	0.931	6.017	65.562	20.802	5.950	0.195	0.465	0.032	0.036	0.010	0.000	0.000	0.000	0.000	1390.32	
31	0.7582	1186.8	1207.9	1207.6	0.928	6.117	65.724	20.631	5.899	0.187	0.444	0.030	0.033	0.008	0.000	0.000	0.000	0.000	1387.16	
Avg	0.7584	1187.0	1208.1	1207.7	0.931	6.119	65.702	20.655	5.868	0.192	0.457	0.031	0.036	0.009	0.000	0.000	0.000	0.000	1387.22	

Source Daily Summary

October 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	0.7608	1188.7	1209.8	1209.2	0.949	6.219	65.373	20.671	6.083	0.198	0.438	0.029	0.033	0.007	0.000	0.000	0.000	0.000	1386.92	
2	0.7608	1188.5	1209.5	1209.0	0.950	6.223	65.608	20.321	6.097	0.225	0.497	0.033	0.038	0.008	0.000	0.000	0.000	0.000	1386.70	
3	0.7620	1191.2	1212.3	1211.8	0.955	6.167	65.296	20.706	6.112	0.212	0.475	0.032	0.036	0.008	0.000	0.000	0.000	0.000	1388.77	
4	0.7596	1186.3	1207.3	1206.7	0.952	6.250	65.544	20.560	5.972	0.203	0.450	0.030	0.034	0.007	0.000	0.000	0.000	0.000	1385.17	
5	0.7646	1194.9	1216.0	1215.5	0.949	6.192	65.051	20.709	6.286	0.228	0.502	0.035	0.040	0.009	0.000	0.000	0.000	0.000	1390.70	
6	0.7630	1192.7	1213.9	1213.3	0.949	6.179	65.064	20.906	6.185	0.204	0.443	0.029	0.034	0.008	0.000	0.000	0.000	0.000	1389.63	
7	0.7611	1188.9	1210.0	1209.4	0.945	6.240	65.326	20.684	6.095	0.202	0.439	0.029	0.033	0.007	0.000	0.000	0.000	0.000	1386.88	
8	0.7614	1188.6	1209.7	1209.1	0.942	6.284	65.256	20.746	6.047	0.193	0.455	0.031	0.036	0.008	0.000	0.000	0.000	0.000	1386.33	
9	0.7622	1190.7	1211.7	1211.2	0.944	6.239	65.168	20.839	6.054	0.200	0.475	0.034	0.039	0.009	0.000	0.000	0.000	0.000	1387.91	
10	0.7613	1189.9	1211.0	1210.5	0.943	6.195	65.299	20.813	6.001	0.197	0.470	0.033	0.039	0.009	0.000	0.000	0.000	0.000	1387.93	
11	0.7618	1191.4	1212.5	1212.0	0.946	6.150	65.125	21.073	5.995	0.186	0.447	0.032	0.037	0.009	0.000	0.000	0.000	0.000	1389.18	
12	0.7604	1188.8	1209.8	1209.3	0.945	6.180	65.274	21.004	5.907	0.185	0.434	0.030	0.035	0.008	0.000	0.000	0.000	0.000	1387.41	
13	0.7586	1185.5	1206.5	1206.0	0.946	6.210	65.499	20.853	5.824	0.178	0.423	0.028	0.032	0.007	0.000	0.000	0.000	0.000	1385.21	
14	0.7588	1185.5	1206.5	1206.0	0.944	6.230	65.552	20.717	5.855	0.186	0.446	0.030	0.033	0.007	0.000	0.000	0.000	0.000	1385.08	
15	0.7608	1188.3	1209.4	1208.9	0.940	6.255	65.310	20.791	5.972	0.192	0.465	0.031	0.035	0.007	0.000	0.000	0.000	0.000	1386.48	
16	0.7622	1190.7	1211.8	1211.3	0.941	6.240	65.179	20.813	6.067	0.199	0.483	0.033	0.037	0.008	0.000	0.000	0.000	0.000	1387.98	
17	0.7615	1190.6	1211.7	1211.2	0.949	6.165	65.235	20.913	6.001	0.194	0.466	0.032	0.037	0.008	0.000	0.000	0.000	0.000	1388.57	
18	0.7589	1185.4	1206.4	1205.9	0.944	6.243	65.569	20.661	5.872	0.188	0.450	0.030	0.034	0.008	0.000	0.000	0.000	0.000	1384.88	
19	0.7594	1186.5	1207.5	1207.0	0.939	6.235	65.506	20.698	5.904	0.190	0.456	0.030	0.034	0.007	0.000	0.000	0.000	0.000	1385.64	
20	0.7609	1188.9	1209.9	1209.5	0.941	6.223	65.453	20.586	6.020	0.204	0.492	0.034	0.038	0.008	0.000	0.000	0.000	0.000	1387.08	
21	0.7605	1188.0	1209.0	1208.6	0.944	6.240	65.425	20.658	5.986	0.196	0.472	0.033	0.037	0.008	0.000	0.000	0.000	0.000	1386.37	
22	0.7601	1188.2	1209.3	1208.8	0.943	6.192	65.542	20.586	5.966	0.202	0.488	0.034	0.039	0.009	0.000	0.000	0.000	0.000	1386.99	
23	0.7593	1186.6	1207.6	1207.2	0.942	6.208	65.553	20.677	5.888	0.194	0.465	0.031	0.034	0.007	0.000	0.000	0.000	0.000	1385.93	
24	0.7579	1183.5	1204.4	1204.0	0.944	6.266	65.729	20.538	5.794	0.193	0.464	0.031	0.034	0.007	0.000	0.000	0.000	0.000	1383.54	
25	0.7592	1185.6	1206.6	1206.2	0.943	6.263	65.581	20.577	5.895	0.197	0.471	0.031	0.035	0.007	0.000	0.000	0.000	0.000	1384.81	
26	0.7607	1188.5	1209.6	1209.1	0.941	6.233	65.440	20.608	6.014	0.201	0.486	0.032	0.037	0.008	0.000	0.000	0.000	0.000	1386.78	
27	0.7603	1187.7	1208.7	1208.3	0.941	6.243	65.675	20.273	6.049	0.214	0.521	0.035	0.040	0.008	0.000	0.000	0.000	0.000	1386.20	
28	0.7615	1190.8	1211.9	1211.5	0.947	6.158	65.534	20.429	6.096	0.222	0.525	0.037	0.042	0.010	0.000	0.000	0.000	0.000	1388.72	
29	0.7621	1191.1	1212.2	1211.8	0.942	6.198	65.250	20.743	6.114	0.201	0.473	0.033	0.037	0.009	0.000	0.000	0.000	0.000	1388.62	
30	0.7601	1187.8	1208.8	1208.4	0.942	6.218	65.489	20.611	6.019	0.193	0.456	0.030	0.034	0.008	0.000	0.000	0.000	0.000	1386.49	
31	0.7601	1188.1	1209.2	1208.8	0.940	6.198	65.564	20.515	6.028	0.208	0.473	0.031	0.035	0.007	0.000	0.000	0.000	0.000	1386.93	
Avg	0.7607	1189.0	1209.7	1209.2	0.945	6.217	65.402	20.686	6.006	0.199	0.468	0.032	0.036	0.008	0.000	0.000	0.000	0.000	1386.96	

Gas Composition and Properties

Effective October 1, 2021

Attachment B
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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			
Totals	100.0000	4.6490	100.0000

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

October 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	0.7268	1153.4	1173.8	1173.4	0.958	5.174	69.414	20.526	3.447	0.126	0.293	0.023	0.030	0.010	0.000	0.000	0.000	0.000	1376.89	
2	0.7210	1144.7	1164.9	1164.5	0.972	5.146	70.042	20.479	2.880	0.125	0.295	0.024	0.029	0.009	0.000	0.000	0.000	0.000	1371.92	
3	0.7195	1142.9	1163.1	1162.7	0.977	5.106	70.739	19.563	3.032	0.144	0.354	0.031	0.040	0.015	0.000	0.000	0.000	0.000	1371.17	
4	0.7178	1140.9	1161.1	1160.7	0.983	5.051	70.705	19.975	2.767	0.129	0.319	0.026	0.033	0.013	0.000	0.000	0.000	0.000	1370.54	
5	0.7211	1148.1	1168.5	1168.0	0.986	4.920	70.355	20.177	3.010	0.138	0.342	0.028	0.035	0.010	0.000	0.000	0.000	0.000	1375.99	
6	0.7219	1153.5	1173.9	1173.5	1.046	4.576	69.916	21.202	2.789	0.118	0.294	0.023	0.028	0.008	0.000	0.000	0.000	0.000	1381.69	
7	0.7227	1153.6	1174.0	1173.6	0.992	4.724	70.670	19.603	3.334	0.163	0.413	0.037	0.047	0.016	0.000	0.000	0.000	0.000	1380.97	
8	0.7143	1145.9	1166.2	1165.8	0.993	4.403	71.651	19.596	2.811	0.131	0.325	0.029	0.040	0.021	0.000	0.000	0.000	0.000	1379.87	
9	0.7211	1149.6	1169.9	1169.5	0.995	4.820	70.349	20.292	3.003	0.136	0.333	0.027	0.034	0.011	0.000	0.000	0.000	0.000	1377.68	
10	0.7250	1154.1	1174.5	1174.1	1.006	4.889	69.743	20.645	3.167	0.140	0.337	0.028	0.035	0.011	0.000	0.000	0.000	0.000	1379.42	
11	0.7236	1163.3	1183.9	1183.5	1.003	4.202	70.063	21.029	3.197	0.132	0.312	0.024	0.030	0.008	0.000	0.000	0.000	0.000	1391.74	
12	0.7212	1160.1	1180.6	1180.2	1.003	4.173	70.542	20.625	3.125	0.137	0.329	0.026	0.032	0.009	0.000	0.000	0.000	0.000	1390.21	
13	0.7202	1155.0	1175.5	1175.1	0.996	4.393	70.638	20.415	3.012	0.135	0.332	0.027	0.035	0.016	0.000	0.000	0.000	0.000	1385.17	
14	0.7188	1159.6	1180.1	1179.7	1.004	3.970	70.719	20.958	2.865	0.123	0.300	0.024	0.029	0.009	0.000	0.000	0.000	0.000	1391.95	
15	0.7224	1162.1	1182.7	1182.2	1.001	4.160	70.389	20.664	3.292	0.126	0.306	0.024	0.029	0.009	0.000	0.000	0.000	0.000	1391.54	
16	0.7196	1158.9	1179.4	1179.0	1.001	4.097	70.663	20.728	3.043	0.121	0.291	0.022	0.027	0.008	0.000	0.000	0.000	0.000	1390.31	
17	0.7156	1152.4	1172.9	1172.4	1.004	4.114	71.310	20.258	2.815	0.126	0.309	0.025	0.031	0.009	0.000	0.000	0.000	0.000	1386.44	
18	0.7164	1153.4	1173.8	1173.4	0.999	4.134	71.243	20.174	2.989	0.118	0.284	0.023	0.028	0.008	0.000	0.000	0.000	0.000	1386.84	
19	0.7176	1155.0	1175.5	1175.0	1.001	4.144	70.877	20.625	2.915	0.111	0.271	0.022	0.027	0.008	0.000	0.000	0.000	0.000	1387.65	
20	0.7179	1155.6	1176.0	1175.6	0.998	4.144	70.822	20.673	2.918	0.113	0.276	0.022	0.027	0.007	0.000	0.000	0.000	0.000	1388.03	
21	0.7194	1157.8	1178.3	1177.9	0.997	4.153	70.726	20.601	3.031	0.124	0.305	0.025	0.030	0.008	0.000	0.000	0.000	0.000	1389.19	
22	0.7155	1152.5	1172.9	1172.5	0.981	4.139	71.343	20.127	2.955	0.116	0.280	0.022	0.028	0.008	0.000	0.000	0.000	0.000	1386.54	
23	0.7214	1157.6	1178.1	1177.7	0.975	4.381	70.549	20.244	3.395	0.119	0.284	0.021	0.026	0.007	0.000	0.000	0.000	0.000	1387.10	
24	0.7163	1149.7	1170.1	1169.7	0.986	4.368	71.130	20.153	2.897	0.119	0.289	0.022	0.028	0.007	0.000	0.000	0.000	0.000	1382.51	
25	0.7168	1153.1	1173.6	1173.2	0.997	4.191	71.120	20.259	2.980	0.117	0.280	0.022	0.027	0.008	0.000	0.000	0.000	0.000	1386.17	
26	0.7192	1156.1	1176.6	1176.2	0.995	4.238	70.793	20.368	3.144	0.119	0.285	0.022	0.027	0.007	0.000	0.000	0.000	0.000	1387.39	
27	0.7142	1144.5	1164.8	1164.4	0.986	4.488	71.562	19.579	2.922	0.119	0.285	0.023	0.028	0.008	0.000	0.000	0.000	0.000	1378.29	
28	0.7203	1154.6	1175.0	1174.6	0.987	4.443	71.007	19.644	3.323	0.148	0.368	0.030	0.038	0.011	0.000	0.000	0.000	0.000	1384.50	
29	0.7214	1161.0	1181.6	1181.2	0.997	4.142	70.899	19.975	3.388	0.149	0.372	0.030	0.037	0.011	0.000	0.000	0.000	0.000	1391.14	
30	0.7247	1166.2	1186.8	1186.4	1.003	4.130	70.300	20.533	3.419	0.153	0.381	0.031	0.038	0.011	0.000	0.000	0.000	0.000	1394.10	
31	0.7223	1167.3	1188.0	1187.6	1.005	3.827	70.709	20.549	3.313	0.150	0.367	0.030	0.038	0.011	0.000	0.000	0.000	0.000	1397.84	
Avg	0.7199	1154.0	1174.7	1174.3	0.994	4.414	70.677	20.330	3.070	0.130	0.317	0.026	0.032	0.010	0.000	0.000	0.000	0.000	1384.54	

Source Daily Summary

October 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	0.7590	1189.8	1210.9	1209.7	0.896	6.063	65.738	20.492	6.101	0.196	0.447	0.028	0.030	0.009	0.000	0.000	0.000	0.000	1389.85	
2	0.7600	1191.4	1212.5	1211.5	0.899	6.052	65.858	20.190	6.171	0.228	0.519	0.034	0.037	0.011	0.000	0.000	0.000	0.000	1390.83	
3	0.7607	1193.2	1214.3	1213.3	0.902	6.008	65.581	20.590	6.145	0.210	0.487	0.031	0.034	0.010	0.000	0.000	0.000	0.000	1392.22	
4	0.7596	1190.7	1211.8	1210.9	0.900	6.054	65.705	20.499	6.086	0.207	0.476	0.030	0.033	0.009	0.000	0.000	0.000	0.000	1390.41	
5	0.7631	1196.7	1217.9	1216.9	0.895	6.029	65.376	20.556	6.310	0.230	0.521	0.034	0.038	0.011	0.000	0.000	0.000	0.000	1394.13	
6	0.7614	1194.2	1215.4	1214.2	0.896	6.016	65.395	20.765	6.204	0.204	0.452	0.029	0.031	0.009	0.000	0.000	0.000	0.000	1392.84	
7	0.7594	1190.1	1211.2	1210.0	0.894	6.082	65.674	20.529	6.105	0.201	0.449	0.028	0.031	0.008	0.000	0.000	0.000	0.000	1389.89	
8	0.7598	1190.2	1211.3	1210.1	0.891	6.123	65.682	20.425	6.119	0.199	0.483	0.032	0.035	0.010	0.000	0.000	0.000	0.000	1389.56	
9	0.7589	1188.7	1209.8	1208.7	0.892	6.127	65.881	20.257	6.043	0.207	0.508	0.035	0.039	0.012	0.000	0.000	0.000	0.000	1388.66	
10	0.7601	1192.4	1213.5	1212.5	0.891	6.017	65.608	20.656	6.060	0.199	0.488	0.033	0.037	0.011	0.000	0.000	0.000	0.000	1391.85	
11	0.7608	1194.2	1215.4	1214.4	0.893	5.963	65.423	20.908	6.084	0.188	0.465	0.031	0.035	0.010	0.000	0.000	0.000	0.000	1393.42	
12	0.7594	1191.5	1212.6	1211.7	0.892	5.996	65.553	20.873	5.977	0.186	0.451	0.030	0.033	0.009	0.000	0.000	0.000	0.000	1391.59	
13	0.7565	1186.2	1207.2	1206.3	0.893	6.058	65.880	20.679	5.819	0.176	0.431	0.027	0.029	0.008	0.000	0.000	0.000	0.000	1387.89	
14	0.7571	1187.1	1208.1	1207.2	0.893	6.059	65.918	20.516	5.905	0.184	0.456	0.029	0.031	0.008	0.000	0.000	0.000	0.000	1388.40	
15	0.7592	1190.0	1211.0	1210.1	0.887	6.084	65.709	20.535	6.035	0.193	0.482	0.031	0.034	0.009	0.000	0.000	0.000	0.000	1389.88	
16	0.7607	1192.5	1213.6	1212.7	0.889	6.069	65.539	20.604	6.129	0.197	0.495	0.033	0.036	0.010	0.000	0.000	0.000	0.000	1391.44	
17	0.7594	1191.0	1212.1	1211.1	0.895	6.028	65.710	20.582	6.018	0.199	0.490	0.032	0.035	0.010	0.000	0.000	0.000	0.000	1390.88	
18	0.7576	1188.5	1209.6	1208.7	0.893	6.008	65.863	20.621	5.893	0.187	0.464	0.030	0.033	0.009	0.000	0.000	0.000	0.000	1389.73	
19	0.7582	1188.7	1209.8	1208.9	0.889	6.066	65.752	20.637	5.929	0.189	0.467	0.030	0.032	0.009	0.000	0.000	0.000	0.000	1389.33	
20	0.7594	1190.7	1211.7	1210.9	0.889	6.056	65.766	20.454	6.052	0.202	0.501	0.033	0.037	0.011	0.000	0.000	0.000	0.000	1390.51	
21	0.7596	1190.9	1212.0	1211.1	0.892	6.059	65.715	20.495	6.063	0.200	0.496	0.033	0.036	0.010	0.000	0.000	0.000	0.000	1390.58	
22	0.7591	1190.7	1211.7	1210.9	0.891	6.026	65.873	20.364	6.034	0.209	0.519	0.034	0.038	0.011	0.000	0.000	0.000	0.000	1390.77	
23	0.7574	1187.8	1208.8	1207.8	0.892	6.047	65.934	20.470	5.919	0.192	0.475	0.030	0.032	0.009	0.000	0.000	0.000	0.000	1388.91	
24	0.7565	1185.9	1206.9	1206.0	0.894	6.075	66.046	20.409	5.831	0.193	0.481	0.030	0.033	0.009	0.000	0.000	0.000	0.000	1387.53	
25	0.7566	1185.9	1206.9	1206.1	0.892	6.082	66.052	20.372	5.858	0.194	0.479	0.030	0.033	0.009	0.000	0.000	0.000	0.000	1387.50	
26	0.7587	1189.4	1210.4	1209.6	0.890	6.069	65.831	20.424	6.021	0.198	0.492	0.031	0.034	0.009	0.000	0.000	0.000	0.000	1389.63	
27	0.7596	1191.1	1212.2	1211.3	0.891	6.048	65.838	20.303	6.108	0.209	0.522	0.034	0.037	0.010	0.000	0.000	0.000	0.000	1390.80	
28	0.7587	1190.7	1211.7	1210.9	0.895	5.979	66.187	19.961	6.090	0.231	0.564	0.038	0.042	0.013	0.000	0.000	0.000	0.000	1391.14	
29	0.7606	1192.9	1214.1	1213.3	0.890	6.024	65.580	20.601	6.140	0.201	0.487	0.031	0.034	0.010	0.000	0.000	0.000	0.000	1392.12	
30	0.7585	1189.3	1210.4	1209.6	0.890	6.054	65.801	20.502	6.027	0.190	0.466	0.029	0.032	0.009	0.000	0.000	0.000	0.000	1389.77	
31	0.7586	1189.8	1210.9	1210.1	0.889	6.034	65.867	20.401	6.048	0.205	0.484	0.030	0.033	0.009	0.000	0.000	0.000	0.000	1390.25	
Avg	0.7592	1190.0	1211.5	1210.5	0.893	6.047	65.753	20.506	6.043	0.200	0.484	0.031	0.034	0.010	0.000	0.000	0.000	0.000	1390.40	

Source Daily Summary

October 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	0.7557	1181.6	1202.5	1202.2	0.939	6.188	66.055	20.347	5.808	0.183	0.414	0.026	0.029	0.011	0.000	0.000	0.000	0.000	1383.31	
2	0.7595	1187.7	1208.7	1208.4	0.937	6.179	65.594	20.536	6.056	0.197	0.430	0.028	0.031	0.011	0.000	0.000	0.000	0.000	1386.90	
3	0.7611	1190.7	1211.7	1210.9	0.939	6.143	65.610	20.350	6.144	0.229	0.500	0.034	0.038	0.014	0.000	0.000	0.000	0.000	1388.92	
4	0.7626	1193.7	1214.9	1213.6	0.941	6.092	65.273	20.734	6.187	0.215	0.478	0.033	0.036	0.013	0.000	0.000	0.000	0.000	1391.15	
5	0.7602	1188.7	1209.7	1208.6	0.939	6.181	65.619	20.421	6.069	0.215	0.477	0.032	0.035	0.013	0.000	0.000	0.000	0.000	1387.43	
6	0.7655	1198.3	1219.6	1219.2	0.934	6.087	64.899	20.935	6.346	0.227	0.487	0.033	0.037	0.014	0.000	0.000	0.000	0.000	1393.94	
7	0.7620	1192.5	1213.6	1213.3	0.935	6.123	65.227	20.836	6.170	0.204	0.433	0.029	0.031	0.012	0.000	0.000	0.000	0.000	1390.25	
8	0.7601	1188.6	1209.6	1209.3	0.933	6.188	65.484	20.621	6.074	0.201	0.430	0.029	0.031	0.010	0.000	0.000	0.000	0.000	1387.39	
9	0.7603	1188.0	1209.1	1208.8	0.930	6.241	65.540	20.475	6.063	0.201	0.469	0.033	0.036	0.012	0.000	0.000	0.000	0.000	1386.60	
10	0.7602	1188.1	1209.1	1208.9	0.931	6.223	65.601	20.448	6.011	0.208	0.491	0.035	0.039	0.013	0.000	0.000	0.000	0.000	1386.80	
11	0.7625	1194.0	1215.1	1214.1	0.932	6.080	65.173	20.966	6.090	0.201	0.473	0.034	0.038	0.014	0.000	0.000	0.000	0.000	1391.57	
12	0.7621	1193.6	1214.7	1213.6	0.932	6.066	65.134	21.095	6.058	0.189	0.447	0.031	0.035	0.013	0.000	0.000	0.000	0.000	1391.47	
13	0.7606	1190.7	1211.8	1210.8	0.931	6.100	65.288	21.033	5.950	0.187	0.435	0.030	0.032	0.013	0.000	0.000	0.000	0.000	1389.54	
14	0.7582	1186.3	1207.3	1206.3	0.932	6.151	65.568	20.847	5.833	0.179	0.421	0.028	0.030	0.010	0.000	0.000	0.000	0.000	1386.50	
15	0.7588	1187.2	1208.2	1207.9	0.930	6.152	65.580	20.751	5.884	0.187	0.443	0.029	0.032	0.011	0.000	0.000	0.000	0.000	1387.01	
16	0.7598	1188.2	1209.2	1209.0	0.926	6.190	65.478	20.726	5.958	0.192	0.455	0.031	0.033	0.012	0.000	0.000	0.000	0.000	1387.27	
17	0.7620	1191.9	1213.0	1212.1	0.927	6.170	65.255	20.789	6.097	0.201	0.480	0.033	0.036	0.012	0.000	0.000	0.000	0.000	1389.55	
18	0.7617	1192.5	1213.6	1212.6	0.934	6.098	65.297	20.845	6.066	0.201	0.477	0.033	0.036	0.012	0.000	0.000	0.000	0.000	1390.49	
19	0.7582	1186.6	1207.6	1206.6	0.930	6.131	65.710	20.645	5.878	0.188	0.446	0.030	0.032	0.011	0.000	0.000	0.000	0.000	1386.87	
20	0.7597	1188.3	1209.4	1208.4	0.926	6.170	65.501	20.725	5.956	0.192	0.457	0.030	0.033	0.010	0.000	0.000	0.000	0.000	1387.56	
21	0.7606	1190.0	1211.0	1210.0	0.927	6.157	65.535	20.550	6.048	0.206	0.493	0.034	0.038	0.011	0.000	0.000	0.000	0.000	1388.57	
22	0.7607	1189.7	1210.8	1209.8	0.931	6.170	65.572	20.478	6.053	0.209	0.500	0.035	0.039	0.014	0.000	0.000	0.000	0.000	1388.23	
23	0.7611	1191.9	1213.0	1212.7	0.930	6.080	65.406	20.779	6.040	0.202	0.481	0.033	0.036	0.013	0.000	0.000	0.000	0.000	1390.40	
24	0.7592	1187.9	1209.0	1208.1	0.931	6.138	65.603	20.680	5.915	0.195	0.463	0.031	0.033	0.012	0.000	0.000	0.000	0.000	1387.57	
25	0.7576	1184.8	1205.8	1204.8	0.933	6.174	65.811	20.547	5.802	0.194	0.462	0.031	0.033	0.012	0.000	0.000	0.000	0.000	1385.39	
26	0.7590	1186.9	1207.9	1206.9	0.930	6.186	65.653	20.577	5.910	0.198	0.468	0.031	0.033	0.013	0.000	0.000	0.000	0.000	1386.47	
27	0.7605	1189.6	1210.7	1209.7	0.929	6.163	65.506	20.606	6.036	0.201	0.480	0.032	0.035	0.012	0.000	0.000	0.000	0.000	1388.29	
28	0.7607	1190.0	1211.1	1210.1	0.930	6.157	65.704	20.266	6.099	0.221	0.530	0.037	0.041	0.014	0.000	0.000	0.000	0.000	1388.52	
29	0.7613	1192.4	1213.5	1212.6	0.935	6.062	65.612	20.431	6.119	0.226	0.523	0.037	0.041	0.015	0.000	0.000	0.000	0.000	1390.76	
30	0.7599	1188.4	1209.4	1208.5	0.930	6.181	65.682	20.372	6.053	0.217	0.482	0.033	0.036	0.014	0.000	0.000	0.000	0.000	1387.40	
31	0.7599	1188.8	1209.9	1209.0	0.927	6.160	65.557	20.595	6.034	0.196	0.456	0.031	0.033	0.012	0.000	0.000	0.000	0.000	1387.90	
Avg	0.7604	1190.0	1210.7	1209.9	0.932	6.148	65.501	20.645	6.026	0.202	0.467	0.032	0.035	0.012	0.000	0.000	0.000	0.000	1388.39	

Source Daily Summary

October 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	0.7567	1182.9	1203.8	1203.3	0.937	6.210	66.132	20.054	5.919	0.201	0.468	0.032	0.035	0.013	0.000	0.000	0.000	0.000	1383.84	
2	0.7603	1189.2	1210.3	1209.8	0.938	6.154	65.516	20.589	6.087	0.199	0.444	0.029	0.032	0.012	0.000	0.000	0.000	0.000	1388.04	
3	0.7582	1185.2	1206.2	1205.6	0.938	6.202	65.944	20.155	5.994	0.217	0.471	0.031	0.034	0.013	0.000	0.000	0.000	0.000	1385.24	
4	0.7616	1191.8	1212.9	1212.1	0.942	6.109	65.391	20.675	6.125	0.211	0.468	0.032	0.034	0.012	0.000	0.000	0.000	0.000	1389.88	
5	0.7602	1188.5	1209.6	1208.8	0.939	6.184	65.635	20.399	6.066	0.216	0.480	0.032	0.035	0.013	0.000	0.000	0.000	0.000	1387.30	
6	0.7657	1198.8	1220.0	1219.7	0.935	6.081	64.877	20.946	6.358	0.229	0.490	0.033	0.037	0.014	0.000	0.000	0.000	0.000	1394.23	
7	0.7628	1194.0	1215.2	1214.9	0.935	6.105	65.140	20.882	6.215	0.208	0.441	0.029	0.032	0.012	0.000	0.000	0.000	0.000	1391.29	
8	0.7605	1189.0	1210.1	1209.8	0.933	6.191	65.441	20.637	6.092	0.202	0.433	0.029	0.031	0.010	0.000	0.000	0.000	0.000	1387.63	
9	0.7635	1194.0	1215.2	1215.0	0.931	6.173	65.127	20.751	6.246	0.209	0.481	0.034	0.037	0.012	0.000	0.000	0.000	0.000	1390.70	
10	0.7590	1185.7	1206.7	1206.6	0.931	6.254	65.777	20.299	5.955	0.208	0.489	0.035	0.039	0.013	0.000	0.000	0.000	0.000	1385.12	
11	0.7623	1193.6	1214.7	1214.1	0.932	6.086	65.188	20.964	6.076	0.200	0.470	0.034	0.038	0.014	0.000	0.000	0.000	0.000	1391.28	
12	0.7622	1193.7	1214.9	1214.2	0.933	6.066	65.122	21.102	6.061	0.189	0.448	0.032	0.035	0.013	0.000	0.000	0.000	0.000	1391.55	
13	0.7607	1191.0	1212.1	1211.4	0.931	6.098	65.276	21.036	5.957	0.188	0.437	0.030	0.033	0.013	0.000	0.000	0.000	0.000	1389.68	
14	0.7582	1186.2	1207.2	1206.6	0.932	6.153	65.574	20.841	5.830	0.179	0.422	0.028	0.030	0.010	0.000	0.000	0.000	0.000	1386.42	
15	0.7583	1186.4	1207.4	1207.2	0.932	6.151	65.631	20.735	5.856	0.185	0.438	0.029	0.031	0.011	0.000	0.000	0.000	0.000	1386.57	
16	0.7602	1188.9	1209.9	1209.8	0.927	6.185	65.433	20.747	5.982	0.193	0.458	0.031	0.033	0.011	0.000	0.000	0.000	0.000	1387.70	
17	0.7620	1191.8	1212.9	1212.3	0.928	6.172	65.281	20.749	6.100	0.202	0.484	0.034	0.037	0.012	0.000	0.000	0.000	0.000	1389.45	
18	0.7618	1192.8	1213.9	1213.4	0.935	6.088	65.266	20.894	6.063	0.200	0.473	0.033	0.036	0.013	0.000	0.000	0.000	0.000	1390.76	
19	0.7581	1186.3	1207.3	1206.8	0.931	6.137	65.719	20.636	5.871	0.188	0.446	0.030	0.032	0.011	0.000	0.000	0.000	0.000	1386.66	
20	0.7594	1187.9	1208.9	1208.4	0.926	6.172	65.535	20.707	5.940	0.191	0.455	0.030	0.033	0.010	0.000	0.000	0.000	0.000	1387.27	
21	0.7608	1190.3	1211.3	1210.8	0.927	6.155	65.527	20.542	6.061	0.208	0.497	0.035	0.038	0.011	0.000	0.000	0.000	0.000	1388.76	
22	0.7612	1190.8	1211.9	1211.4	0.932	6.154	65.501	20.535	6.075	0.210	0.505	0.036	0.039	0.014	0.000	0.000	0.000	0.000	1388.99	
23	0.7615	1192.4	1213.5	1213.3	0.930	6.084	65.351	20.815	6.055	0.201	0.481	0.033	0.036	0.013	0.000	0.000	0.000	0.000	1390.63	
24	0.7590	1187.6	1208.7	1208.1	0.932	6.139	65.631	20.657	5.906	0.195	0.463	0.031	0.033	0.012	0.000	0.000	0.000	0.000	1387.36	
25	0.7576	1184.9	1205.9	1205.3	0.934	6.174	65.807	20.546	5.805	0.194	0.463	0.031	0.033	0.012	0.000	0.000	0.000	0.000	1385.42	
26	0.7590	1187.0	1208.0	1207.4	0.931	6.185	65.649	20.573	5.915	0.198	0.470	0.031	0.034	0.013	0.000	0.000	0.000	0.000	1386.54	
27	0.7606	1189.8	1210.8	1210.5	0.929	6.162	65.499	20.607	6.039	0.202	0.481	0.033	0.035	0.013	0.000	0.000	0.000	0.000	1388.38	
28	0.7594	1187.8	1208.8	1208.4	0.931	6.171	65.877	20.152	6.035	0.218	0.524	0.037	0.040	0.014	0.000	0.000	0.000	0.000	1387.11	
29	0.7606	1191.2	1212.3	1211.9	0.936	6.071	65.705	20.372	6.081	0.224	0.519	0.037	0.041	0.015	0.000	0.000	0.000	0.000	1389.96	
30	0.7596	1187.8	1208.8	1208.4	0.931	6.188	65.724	20.348	6.029	0.216	0.480	0.033	0.037	0.014	0.000	0.000	0.000	0.000	1386.94	
31	0.7594	1187.7	1208.8	1208.2	0.928	6.175	65.622	20.550	6.000	0.196	0.454	0.031	0.033	0.013	0.000	0.000	0.000	0.000	1387.13	
Avg	0.7603	1190.0	1210.6	1210.1	0.932	6.149	65.513	20.629	6.026	0.202	0.469	0.032	0.035	0.012	0.000	0.000	0.000	0.000	1388.32	

Source Daily Summary

October 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	0.7591	1189.9	1211.0	1210.2	0.896	6.062	65.727	20.503	6.101	0.196	0.447	0.028	0.031	0.009	0.000	0.000	0.000	0.000	1389.92	
2	0.7597	1190.8	1211.9	1211.1	0.899	6.058	65.888	20.179	6.155	0.226	0.514	0.033	0.037	0.011	0.000	0.000	0.000	0.000	1390.43	
3	0.7610	1193.6	1214.8	1214.0	0.902	6.004	65.553	20.604	6.161	0.211	0.489	0.032	0.035	0.010	0.000	0.000	0.000	0.000	1392.51	
4	0.7595	1190.5	1211.6	1210.8	0.901	6.051	65.714	20.508	6.075	0.206	0.472	0.030	0.033	0.009	0.000	0.000	0.000	0.000	1390.33	
5	0.7632	1196.7	1217.9	1217.1	0.895	6.032	65.380	20.537	6.316	0.231	0.525	0.034	0.038	0.011	0.000	0.000	0.000	0.000	1394.12	
6	0.7615	1194.4	1215.6	1214.8	0.896	6.014	65.384	20.769	6.210	0.205	0.454	0.029	0.031	0.009	0.000	0.000	0.000	0.000	1393.00	
7	0.7595	1190.4	1211.5	1210.7	0.894	6.079	65.655	20.539	6.114	0.201	0.450	0.028	0.031	0.008	0.000	0.000	0.000	0.000	1390.08	
8	0.7601	1190.6	1211.7	1210.8	0.892	6.118	65.648	20.456	6.128	0.199	0.482	0.032	0.035	0.010	0.000	0.000	0.000	0.000	1389.83	
9	0.7593	1189.4	1210.5	1209.6	0.892	6.117	65.816	20.322	6.059	0.206	0.504	0.034	0.038	0.012	0.000	0.000	0.000	0.000	1389.15	
10	0.7591	1190.3	1211.4	1210.6	0.891	6.050	65.764	20.512	6.014	0.199	0.488	0.033	0.037	0.012	0.000	0.000	0.000	0.000	1390.33	
11	0.7610	1194.7	1215.9	1215.1	0.893	5.956	65.400	20.918	6.099	0.189	0.468	0.032	0.035	0.011	0.000	0.000	0.000	0.000	1393.78	
12	0.7597	1192.1	1213.2	1212.4	0.892	5.992	65.521	20.887	5.995	0.187	0.454	0.030	0.033	0.009	0.000	0.000	0.000	0.000	1391.92	
13	0.7244	1153.7	1174.2	1173.4	0.923	4.973	70.745	18.574	4.300	0.128	0.310	0.020	0.021	0.006	0.000	0.000	0.000	0.000	1379.87	
14	0.6693	1096.7	1116.1	1115.4	0.979	3.204	79.038	14.928	1.684	0.046	0.106	0.006	0.007	0.003	0.000	0.000	0.000	0.000	1364.32	
15	0.7317	1161.4	1182.0	1181.3	0.916	5.205	69.755	18.868	4.691	0.147	0.364	0.023	0.025	0.007	0.000	0.000	0.000	0.000	1381.97	
16	0.7415	1173.1	1193.9	1193.1	0.910	5.409	68.428	19.400	5.200	0.167	0.419	0.028	0.030	0.008	0.000	0.000	0.000	0.000	1386.70	
17	0.7595	1191.1	1212.2	1211.4	0.895	6.029	65.670	20.636	6.011	0.197	0.485	0.032	0.035	0.010	0.000	0.000	0.000	0.000	1390.92	
18	0.6735	1102.9	1122.5	1121.8	0.983	3.207	78.310	15.558	1.754	0.051	0.118	0.007	0.008	0.003	0.000	0.000	0.000	0.000	1367.99	
19	0.7296	1159.4	1179.9	1179.2	0.923	5.116	69.958	18.976	4.489	0.141	0.345	0.022	0.023	0.006	0.000	0.000	0.000	0.000	1381.66	
20	0.7590	1190.2	1211.3	1210.5	0.889	6.051	65.769	20.502	6.023	0.197	0.490	0.032	0.035	0.010	0.000	0.000	0.000	0.000	1390.32	
21	0.7595	1190.7	1211.7	1211.0	0.892	6.059	65.701	20.542	6.044	0.196	0.487	0.032	0.036	0.010	0.000	0.000	0.000	0.000	1390.45	
22	0.6738	1103.2	1122.7	1122.1	0.966	3.249	78.319	15.426	1.846	0.052	0.121	0.008	0.008	0.003	0.000	0.000	0.000	0.000	1367.97	
23	0.7478	1178.0	1198.8	1198.2	0.899	5.730	67.347	19.904	5.449	0.175	0.432	0.027	0.029	0.008	0.000	0.000	0.000	0.000	1386.45	
24	0.6797	1107.3	1126.9	1126.3	0.978	3.534	77.345	15.873	2.048	0.060	0.141	0.009	0.009	0.003	0.000	0.000	0.000	0.000	1367.07	
25	0.6520	1077.9	1097.0	1096.4	1.004	2.689	81.491	14.030	0.733	0.017	0.032	0.001	0.001	0.002	0.000	0.000	0.000	0.000	1358.52	
26	0.6518	1078.7	1097.8	1097.2	0.996	2.635	81.566	13.982	0.765	0.018	0.034	0.001	0.001	0.001	0.000	0.000	0.000	0.000	1359.74	
27	0.6562	1084.6	1103.8	1103.2	1.001	2.678	80.691	14.785	0.792	0.017	0.032	0.001	0.001	0.001	0.002	0.000	0.000	0.000	1362.63	
28	0.6541	1082.4	1101.5	1100.9	0.991	2.631	81.083	14.487	0.756	0.016	0.031	0.001	0.001	0.001	0.002	0.000	0.000	0.000	1362.00	
29	0.6505	1076.7	1095.8	1095.3	0.973	2.661	81.725	13.905	0.687	0.015	0.030	0.001	0.001	0.001	0.002	0.000	0.000	0.000	1358.68	
30	0.6611	1086.9	1106.2	1105.6	0.949	3.075	80.386	14.028	1.417	0.040	0.091	0.005	0.006	0.002	0.000	0.000	0.000	0.000	1360.50	
31	0.6549	1080.6	1099.8	1099.2	0.956	2.863	81.304	13.666	1.107	0.031	0.064	0.003	0.003	0.002	0.000	0.000	0.000	0.000	1359.02	
Avg	0.7210	1151.0	1171.3	1170.6	0.928	4.824	71.358	18.219	4.169	0.134	0.319	0.021	0.022	0.007	0.000	0.000	0.000	0.000	1379.75	

Source Daily Summary

October 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	0.6522	1079.1	1098.2	1097.6	0.995	2.649	81.380	14.245	0.688	0.016	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1359.80
2	0.6552	1085.5	1104.7	1104.2	1.015	2.510	80.931	14.690	0.806	0.018	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1364.74
3	0.6549	1086.4	1105.6	1105.2	1.010	2.432	80.934	14.846	0.731	0.017	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1366.20
4	0.6559	1087.4	1106.7	1106.2	1.000	2.476	80.724	15.012	0.738	0.018	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1366.52
5	0.6552	1085.2	1104.4	1104.0	1.015	2.527	80.852	14.825	0.732	0.018	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1364.41
6	0.6450	1074.1	1093.2	1092.8	0.990	2.281	82.791	13.313	0.584	0.015	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1361.12
7	0.6559	1084.9	1104.1	1103.6	1.031	2.575	80.949	14.622	0.771	0.019	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1363.34
8	0.6503	1079.4	1098.5	1097.9	1.000	2.444	81.845	13.941	0.719	0.018	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1362.20
9	0.6492	1078.5	1097.6	1097.6	0.995	2.404	82.049	13.798	0.708	0.017	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1362.19
10	0.6492	1077.9	1097.0	1097.0	0.987	2.448	82.023	13.805	0.694	0.016	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1361.48
11	0.6508	1078.0	1097.1	1097.1	1.011	2.557	81.629	14.129	0.639	0.013	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1359.95
12	0.6512	1079.0	1098.1	1098.1	0.995	2.559	81.552	14.201	0.656	0.014	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1360.76
13	0.6524	1080.5	1099.6	1099.6	0.998	2.579	81.416	14.209	0.752	0.017	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1361.36
14	0.6550	1082.9	1102.1	1102.1	1.010	2.658	80.889	14.643	0.756	0.017	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1361.70
15	0.6544	1081.7	1100.8	1100.8	1.018	2.664	80.973	14.589	0.715	0.016	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1360.80
16	0.6498	1078.2	1097.3	1097.3	0.974	2.505	81.869	13.931	0.675	0.017	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1361.24
17	0.6551	1084.4	1103.6	1103.6	0.986	2.606	80.910	14.655	0.787	0.020	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1363.56
18	0.6568	1085.7	1105.0	1105.0	1.007	2.657	80.543	14.975	0.765	0.019	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1363.41
19	0.6552	1084.6	1103.8	1103.8	0.981	2.609	80.919	14.614	0.826	0.019	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1363.73
20	0.6548	1083.7	1102.9	1102.9	0.989	2.623	80.958	14.585	0.801	0.017	0.028	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1362.90
21	0.6525	1080.5	1099.6	1093.1	0.970	2.628	81.399	14.162	0.798	0.016	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1361.29
22	0.6572	1087.9	1107.1	1106.5	0.981	2.599	80.484	15.080	0.814	0.016	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1365.73
23	0.6877	1130.8	1150.8	1150.3	1.010	2.818	73.873	21.721	0.554	0.010	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1387.74
24	0.6624	1092.7	1112.1	1111.7	1.000	2.764	79.438	15.925	0.825	0.018	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1366.39
25	0.6857	1126.1	1146.0	1145.6	1.038	2.870	74.342	21.165	0.557	0.010	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1383.93
26	0.6535	1081.6	1100.8	1100.4	0.992	2.620	81.185	14.410	0.745	0.018	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1361.67
27	0.6572	1086.5	1105.7	1105.3	0.992	2.669	80.427	15.111	0.755	0.017	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1363.98
28	0.6554	1084.5	1103.7	1103.3	0.982	2.638	80.801	14.769	0.761	0.018	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1363.32
29	0.6891	1132.6	1152.6	1152.3	1.016	2.832	73.648	21.940	0.537	0.010	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1388.49
30	0.6976	1143.7	1164.0	1163.7	1.042	2.916	71.949	23.496	0.575	0.008	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.62
31	0.6963	1142.6	1162.8	1162.5	1.035	2.870	72.099	23.372	0.562	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.52
Avg	0.6598	1091.0	1110.5	1110.0	1.002	2.613	79.864	15.767	0.711	0.016	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1367.13

Source Daily Summary

October 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	0.6808	1114.3	1134.1	1133.4	0.978	3.201	77.228	16.322	2.007	0.085	0.168	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1374.50	
2	0.6876	1123.6	1143.5	1142.9	0.974	3.282	76.309	16.772	2.320	0.107	0.220	0.015	0.000	0.000	0.000	0.000	0.000	0.000	1379.00	
3	0.6835	1119.6	1139.5	1138.9	0.977	3.138	76.840	16.656	2.091	0.093	0.192	0.013	0.000	0.000	0.000	0.000	0.000	0.000	1378.25	
4	0.6867	1122.6	1142.5	1141.9	0.968	3.272	76.335	16.892	2.207	0.102	0.210	0.015	0.000	0.000	0.000	0.000	0.000	0.000	1378.66	
5	0.6872	1122.2	1142.1	1141.5	0.953	3.366	76.222	16.910	2.216	0.103	0.214	0.015	0.000	0.000	0.000	0.000	0.000	0.000	1377.67	
6	0.6859	1121.0	1140.8	1140.3	0.958	3.306	76.386	16.901	2.137	0.097	0.201	0.014	0.000	0.000	0.000	0.000	0.000	0.000	1377.54	
7	0.6859	1121.0	1140.8	1140.3	0.958	3.306	76.386	16.901	2.137	0.097	0.201	0.014	0.000	0.000	0.000	0.000	0.000	0.000	1377.54	
8	0.6894	1121.8	1141.7	1141.1	1.002	3.526	75.943	16.844	2.338	0.109	0.224	0.015	0.000	0.000	0.000	0.000	0.000	0.000	1374.93	
9	0.6867	1121.5	1141.4	1140.8	0.984	3.314	76.311	16.885	2.184	0.101	0.207	0.014	0.000	0.000	0.000	0.000	0.000	0.000	1377.32	
10	0.6803	1112.4	1132.1	1131.5	0.982	3.272	77.114	16.556	1.820	0.081	0.164	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1372.58	
11	0.6728	1103.1	1122.6	1122.1	1.016	3.091	78.247	15.949	1.506	0.062	0.122	0.008	0.000	0.000	0.000	0.000	0.000	0.000	1368.57	
12	0.6698	1098.7	1118.1	1117.6	1.033	3.043	78.698	15.706	1.353	0.054	0.106	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1366.25	
13	0.6713	1101.6	1121.2	1120.6	1.029	3.016	78.486	15.851	1.441	0.058	0.113	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1368.35	
14	0.6856	1121.1	1141.0	1140.4	0.982	3.235	76.274	17.236	1.990	0.086	0.174	0.012	0.009	0.000	0.000	0.000	0.000	0.000	1377.99	
15	0.6819	1113.8	1133.5	1132.9	0.979	3.341	76.852	16.692	1.874	0.080	0.160	0.011	0.010	0.000	0.000	0.000	0.000	0.000	1372.67	
16	0.6695	1097.9	1117.3	1116.8	1.084	2.993	78.357	16.429	1.036	0.034	0.061	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1365.55	
17	0.6648	1093.1	1112.5	1111.9	1.043	2.901	79.260	15.691	1.003	0.034	0.061	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1364.43	
18	0.6677	1096.3	1115.7	1115.2	1.016	3.023	78.844	15.809	1.184	0.041	0.074	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1365.38	
19	0.6900	1127.1	1147.1	1146.5	0.933	3.361	75.792	17.208	2.365	0.104	0.210	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1380.88	
20	0.6877	1125.0	1144.9	1144.3	0.984	3.198	76.085	17.268	2.144	0.095	0.198	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1380.56	
21	0.6926	1131.7	1151.7	1151.2	1.006	3.211	75.292	17.874	2.274	0.102	0.211	0.016	0.014	0.000	0.000	0.000	0.000	0.000	1383.94	
22	0.6915	1129.9	1149.9	1149.4	0.877	3.415	75.541	17.357	2.463	0.106	0.212	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1382.83	
23	0.6907	1128.8	1148.8	1148.1	0.897	3.373	75.503	17.549	2.348	0.100	0.203	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1382.28	
24	0.6876	1124.0	1143.9	1143.4	1.011	3.209	75.791	17.792	1.937	0.079	0.158	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1379.47	
25	0.6873	1124.7	1144.7	1144.3	0.905	3.294	75.848	17.632	2.068	0.079	0.152	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1380.68	
26	0.6884	1128.1	1148.1	1147.7	0.723	3.472	75.379	18.116	2.068	0.077	0.146	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1383.73	
27	0.6896	1130.1	1150.1	1149.7	0.699	3.500	75.261	18.100	2.178	0.083	0.160	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1384.97	
28	0.6897	1130.8	1150.9	1150.4	0.695	3.471	75.409	17.845	2.296	0.089	0.173	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1385.72	
29	0.6875	1127.0	1147.0	1146.4	0.766	3.382	75.742	17.714	2.138	0.081	0.157	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1383.35	
30	0.6862	1123.7	1143.6	1142.8	0.902	3.263	75.798	17.960	1.855	0.070	0.135	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1380.51	
31	0.6855	1121.9	1141.8	1140.9	0.936	3.247	75.900	17.914	1.789	0.067	0.129	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1379.12	
Avg	0.6836	1119.0	1138.5	1137.9	0.944	3.259	76.562	17.011	1.960	0.083	0.165	0.011	0.006	0.000	0.000	0.000	0.000	0.000	1376.94	

Source Daily Summary

October 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	0.6992	1145.2	1165.5	1163.8	1.094	2.898	71.507	24.071	0.415	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.82	-23.71
2	0.6989	1144.6	1164.9	1163.0	1.101	2.892	71.572	24.008	0.413	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.46	-23.87
3	0.6989	1144.3	1164.5	1162.8	1.115	2.895	71.585	23.979	0.413	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1392.98	-23.92
4	0.6988	1144.6	1164.9	1163.3	1.099	2.888	71.594	23.985	0.419	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.51	-23.88
5	0.6986	1143.8	1164.0	1162.4	1.109	2.909	71.615	23.950	0.402	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1392.66	-24.09
6	0.6988	1144.1	1164.4	1162.6	1.099	2.920	71.575	23.985	0.406	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1392.89	-24.00
7	0.6982	1144.0	1164.3	1162.7	1.081	2.900	71.693	23.887	0.423	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.32	-24.12
8	0.6984	1144.2	1164.4	1162.8	1.098	2.883	71.676	23.899	0.429	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.32	-24.02
9	0.6997	1145.7	1166.0	1164.4	1.106	2.902	71.422	24.119	0.436	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.87	-23.39
10	0.6990	1144.7	1164.9	1163.3	1.100	2.902	71.561	23.994	0.428	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.39	-23.78
11	0.6988	1143.8	1164.1	1162.4	1.121	2.904	71.617	23.918	0.425	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1392.55	-23.94
12	0.6991	1145.2	1165.5	1163.6	1.097	2.886	71.519	24.075	0.410	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.92	-23.75
13	0.6996	1145.7	1166.0	1163.9	1.106	2.889	71.347	24.308	0.337	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1394.04	-23.78
14	0.6996	1145.7	1166.0	1164.4	1.109	2.880	71.436	24.146	0.414	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1394.07	-23.51
15	0.6996	1145.8	1166.1	1164.3	1.100	2.890	71.428	24.147	0.420	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1394.18	-23.47
16	0.6996	1145.7	1166.0	1164.2	1.102	2.893	71.443	24.114	0.434	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1394.06	-23.44
17	0.6986	1143.9	1164.1	1162.2	1.104	2.904	71.636	23.927	0.415	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1392.85	-24.06
18	0.6991	1144.5	1164.8	1163.0	1.117	2.899	71.543	24.009	0.418	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.04	-23.80
19	0.7002	1143.5	1163.8	1161.6	1.106	3.072	71.296	24.085	0.425	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1390.89	-23.60
20	0.6988	1144.8	1165.1	1163.3	1.094	2.886	71.602	23.973	0.431	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.72	-23.83
21	0.6993	1145.2	1165.5	1163.4	1.099	2.907	71.490	24.058	0.432	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.66	-23.59
22	0.6989	1145.0	1165.3	1163.6	1.092	2.892	71.547	24.045	0.411	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.81	-23.83
23	0.6998	1145.8	1166.1	1164.4	1.113	2.894	71.401	24.153	0.425	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.90	-23.39
24	0.6993	1145.3	1165.6	1163.7	1.093	2.900	71.494	24.071	0.427	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.90	-23.62
25	0.6994	1145.3	1165.6	1163.7	1.106	2.897	71.478	24.073	0.432	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.72	-23.55
26	0.6990	1144.9	1165.2	1163.3	1.104	2.889	71.558	24.001	0.433	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.59	-23.72
27	0.6993	1145.4	1165.7	1164.1	1.107	2.873	71.515	24.062	0.428	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1394.00	-23.60
28	0.6991	1145.3	1165.5	1163.8	1.105	2.868	71.544	24.049	0.421	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1394.02	-23.71
29	0.6971	1141.9	1162.1	1160.4	1.098	2.897	72.089	23.344	0.549	0.007	0.013	0.001	0.001	0.002	0.000	0.000	0.000	0.000	1391.85	-24.05
30	0.6982	1143.6	1163.9	1162.1	1.095	2.899	71.906	23.480	0.599	0.008	0.013	0.000	0.001	0.001	0.000	0.000	0.000	0.000	1392.90	-23.37
31	0.7006	1147.8	1168.2	1166.6	1.095	2.872	71.449	23.929	0.628	0.009	0.016	0.000	0.001	0.002	0.000	0.000	0.000	0.000	1395.57	-21.90
Avg	0.6991	1145.0	1165.1	1163.3	1.102	2.899	71.553	23.995	0.435	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1393.47	-23.69

Source Daily Summary

October 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	0.6417	1055.9	1074.6	1073.7	0.922	3.186	83.436	11.671	0.736	0.018	0.027	0.002	0.002	0.001	0.000	0.000	0.000	0.000	1341.44	
2	0.6421	1056.3	1075.0	1074.0	0.916	3.208	83.407	11.629	0.787	0.019	0.029	0.002	0.002	0.001	0.000	0.000	0.000	0.000	1341.53	
3	0.6222	1029.3	1047.6	1046.7	0.701	3.303	86.985	8.426	0.547	0.016	0.020	0.001	0.000	0.001	0.000	0.000	0.000	0.000	1328.05	
4	0.6360	1053.2	1071.8	1070.9	0.812	2.978	84.375	11.203	0.590	0.015	0.024	0.001	0.001	0.001	0.000	0.000	0.000	0.000	1343.86	
5	0.6594	1091.6	1110.9	1110.2	1.020	2.522	79.997	15.705	0.707	0.016	0.030	0.001	0.001	0.001	0.000	0.000	0.000	0.000	1368.12	
6	0.6571	1087.7	1106.9	1106.2	1.023	2.543	80.378	15.373	0.641	0.014	0.025	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1365.57	
7	0.6498	1080.1	1099.3	1098.5	0.999	2.357	81.859	14.112	0.628	0.015	0.028	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1363.65	
8	0.6588	1088.9	1108.1	1107.3	1.035	2.612	80.149	15.412	0.742	0.017	0.030	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1365.28	
9	0.6571	1088.3	1107.6	1106.7	0.999	2.537	80.576	15.020	0.797	0.022	0.043	0.003	0.003	0.002	0.000	0.000	0.000	0.000	1366.40	
10	0.6583	1089.5	1108.8	1108.0	1.004	2.577	80.296	15.272	0.785	0.020	0.039	0.002	0.002	0.001	0.000	0.000	0.000	0.000	1366.56	
11	0.6584	1088.1	1107.4	1106.7	1.008	2.662	80.314	15.123	0.825	0.021	0.041	0.002	0.002	0.001	0.000	0.000	0.000	0.000	1364.74	
12	0.6596	1086.9	1106.1	1105.4	1.035	2.810	80.022	15.287	0.785	0.019	0.037	0.002	0.002	0.001	0.000	0.000	0.000	0.000	1361.95	
13	0.6593	1087.0	1106.3	1105.7	1.024	2.784	80.118	15.195	0.813	0.020	0.039	0.002	0.002	0.001	0.000	0.000	0.000	0.000	1362.51	
14	0.6595	1089.3	1108.6	1107.9	1.007	2.694	80.073	15.339	0.822	0.020	0.039	0.002	0.002	0.001	0.000	0.000	0.000	0.000	1365.11	
15	0.6656	1096.1	1115.5	1114.8	1.024	2.833	78.888	16.304	0.877	0.023	0.044	0.002	0.002	0.001	0.000	0.000	0.000	0.000	1367.26	
16	0.6672	1095.6	1115.0	1114.2	1.065	2.949	78.624	16.383	0.899	0.025	0.048	0.003	0.003	0.002	0.000	0.000	0.000	0.000	1365.05	
17	0.6622	1091.2	1110.5	1109.9	1.025	2.808	79.542	15.725	0.828	0.023	0.043	0.003	0.002	0.001	0.000	0.000	0.000	0.000	1364.66	
18	0.6635	1092.9	1112.3	1111.7	1.021	2.827	79.307	15.917	0.855	0.023	0.043	0.002	0.002	0.001	0.000	0.000	0.000	0.000	1365.53	
19	0.6634	1094.1	1113.5	1112.9	1.013	2.756	79.366	15.906	0.885	0.024	0.045	0.003	0.002	0.001	0.000	0.000	0.000	0.000	1367.14	
20	0.6619	1092.9	1112.2	1111.5	1.003	2.703	79.664	15.673	0.884	0.023	0.043	0.002	0.002	0.001	0.000	0.000	0.000	0.000	1367.15	
21	0.6622	1089.8	1109.1	1108.3	1.066	2.833	79.575	15.613	0.855	0.019	0.035	0.002	0.002	0.001	0.000	0.000	0.000	0.000	1362.88	
22	0.6690	1098.7	1118.2	1117.7	1.101	2.869	78.323	16.694	0.959	0.019	0.032	0.002	0.001	0.001	0.000	0.000	0.000	0.000	1367.13	
23	0.6708	1098.5	1117.9	1117.2	1.072	3.098	78.241	16.279	1.198	0.035	0.066	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1364.93	
24	0.6800	1112.9	1132.6	1132.0	1.006	3.187	76.704	17.436	1.489	0.053	0.107	0.007	0.007	0.003	0.000	0.000	0.000	0.000	1373.42	
25	0.6744	1102.2	1121.8	1121.1	1.092	3.174	77.648	16.666	1.291	0.040	0.077	0.005	0.005	0.002	0.000	0.000	0.000	0.000	1365.97	
26	0.6820	1117.2	1136.9	1136.3	1.099	2.980	75.382	19.761	0.733	0.015	0.027	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1376.67	
27	0.6792	1113.4	1133.1	1132.5	1.105	2.932	76.099	18.965	0.854	0.016	0.027	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1374.89	
28	0.6751	1107.0	1126.6	1126.0	1.116	2.919	76.972	18.069	0.875	0.017	0.028	0.001	0.001	0.001	0.000	0.000	0.000	0.000	1371.17	
29	0.6730	1102.0	1121.6	1121.0	1.027	3.155	77.779	16.684	1.246	0.035	0.065	0.004	0.004	0.002	0.000	0.000	0.000	0.000	1367.15	
30	0.6786	1111.3	1131.0	1130.4	0.890	3.321	77.060	16.870	1.676	0.056	0.111	0.007	0.007	0.002	0.000	0.000	0.000	0.000	1372.96	
31	0.6789	1112.4	1132.1	1131.5	0.849	3.351	77.036	16.823	1.751	0.060	0.116	0.007	0.007	0.002	0.000	0.000	0.000	0.000	1373.91	
Avg	0.6621	1090.0	1109.6	1108.9	1.003	2.886	79.619	15.501	0.915	0.025	0.045	0.003	0.002	0.001	0.000	0.000	0.000	0.000	1363.63	

October-24

ZONE 550

MANDAN BORDER

Start Date	End Date	NBPL - St Anthony			WBI-MandanBordeWBI			Weighted AVG BTU	
		MCF	DK	BTU	MCF	DK	BTU Zone 28		
10/1/2024	10/2/2024	0	0	0	1,126	1,365	1211	1211.000	10/1/2024
10/2/2024	10/3/2024	0	0	0	1,011	1,227	1211.9	1211.900	10/2/2024
10/3/2024	10/4/2024	0	0	0	1,321	1,606	1214.8	1214.800	10/3/2024
10/4/2024	10/5/2024	0	0	0	1,122	1,360	1211.6	1211.600	10/4/2024
10/5/2024	10/6/2024	0	0	0	1,078	1,313	1217.9	1217.900	10/5/2024
10/6/2024	10/7/2024	0	0	0	1,227	1,492	1215.6	1215.600	10/6/2024
10/7/2024	10/8/2024	206	224	1,095	1,279	1,551	1211.5	1195.311	10/7/2024
10/8/2024	10/9/2024	0	0	0	1,153	1,397	1211.6	1211.600	10/8/2024
10/9/2024	10/10/2024	3,128	3,425	1,095	978	1,184	1210.5	1122.206	10/9/2024
10/10/2024	10/11/2024	0	0	0	1,015	1,229	1211.4	1211.400	10/10/2024
10/11/2024	10/12/2024	0	0	0	1,097	1,334	1215.9	1215.900	10/11/2024
10/12/2024	10/13/2024	0	0	0	1,272	1,545	1213.2	1213.200	10/12/2024
10/13/2024	10/14/2024	0	0	0	1,863	2,165	1174.2	1174.200	10/13/2024
10/14/2024	10/15/2024	46	51	1097.6	2,083	2,323	1116.1	1115.700	10/14/2024
10/15/2024	10/16/2024	0	0	0	2,583	3,054	1182	1182.000	10/15/2024
10/16/2024	10/17/2024	0	0	0	1,579	1,879	1193.9	1193.900	10/16/2024
10/17/2024	10/18/2024	0	0	0	1,438	1,745	1212.2	1212.200	10/17/2024
10/18/2024	10/19/2024	0	0	0	2,508	2,811	1122.5	1122.500	10/18/2024
10/19/2024	10/20/2024	0	0	0	1,808	2,124	1179.9	1179.900	10/19/2024
10/20/2024	10/21/2024	0	0	0	1,324	1,604	1211.3	1211.300	10/20/2024
10/21/2024	10/22/2024	5,269	5,799	1,100	1,344	1,630	1211.7	1122.701	10/21/2024
10/22/2024	10/23/2024	11	13	1,104	2,593	2,902	1122.7	1122.623	10/22/2024
10/23/2024	10/24/2024	13	14	1107.8	1,986	2,369	1198.8	1198.208	10/23/2024
10/24/2024	10/25/2024	20	22	1101.1	2,411	2,706	1126.9	1126.688	10/24/2024
10/25/2024	10/26/2024	0	0	0	2,449	2,687	1097	1097.000	10/25/2024
10/26/2024	10/27/2024	0	0	0	2,169	2,382	1097.8	1097.800	10/26/2024
10/27/2024	10/28/2024	0	0	0	1,755	1,938	1103.8	1103.800	10/27/2024
10/28/2024	10/29/2024	3,944	4,343	1,101	1,771	1,951	1101.5	1101.155	10/28/2024
10/29/2024	10/30/2024	8,020	8,811	1,098	2,467	2,702	1095.8	1097.253	10/29/2024
10/30/2024	10/31/2024	19,820	21,589	1,089	3,253	3,607	1106.2	1091.683	10/30/2024
10/31/2024	11/1/2024	10,633	11,613	1,093	3,536	3,882	1099.8	1094.322	10/31/2024
		51,110	55,904	389.7032	54,599	63,064	1171.3226	1164.4306	



Alliance Pipeline

DAILY ANALYSIS --- USA
 ND07MD1 --- Hankinson Sales
 October 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	1,164.712	0.6665	83.6180	10.2607	3.5895	0.3829	0.6947	0.0757	0.0643	0.0294	0.8986	0.3777	0.0085
2	1,160.353	0.6630	84.0290	10.1359	3.4471	0.3671	0.6330	0.0738	0.0644	0.0282	0.8372	0.3758	0.0085
3	1,163.593	0.6660	83.7197	10.1660	3.5765	0.3853	0.6823	0.0790	0.0668	0.0287	0.8942	0.3936	0.0080
4	1,159.982	0.6638	83.8771	10.1797	3.5001	0.3672	0.6273	0.0676	0.0573	0.0233	0.8747	0.4176	0.0082
5	1,159.149	0.6633	83.8976	10.2002	3.4768	0.3582	0.6160	0.0659	0.0552	0.0235	0.8866	0.4118	0.0084
6	1,156.956	0.6615	84.1370	10.1018	3.3978	0.3526	0.5944	0.0630	0.0558	0.0261	0.8602	0.4031	0.0082
7	1,159.959	0.6633	83.9677	10.1292	3.4963	0.3627	0.6339	0.0667	0.0555	0.0253	0.8643	0.3904	0.0081
8	1,160.229	0.6641	83.8687	10.1068	3.5409	0.3690	0.6414	0.0689	0.0568	0.0241	0.9221	0.3929	0.0083
9	1,157.705	0.6611	84.3796	9.8224	3.4469	0.3701	0.6293	0.0706	0.0582	0.0239	0.8168	0.3742	0.0079
10	1,161.886	0.6652	83.8292	10.0321	3.5960	0.3836	0.6863	0.0699	0.0568	0.0239	0.9158	0.3983	0.0080
11	1,154.895	0.6604	84.3622	9.8473	3.4009	0.3539	0.6001	0.0640	0.0546	0.0239	0.8910	0.3940	0.0080
12	1,157.146	0.6612	84.3607	9.8233	3.4246	0.3668	0.6321	0.0709	0.0589	0.0272	0.8305	0.3971	0.0080
13	1,154.774	0.6596	84.4976	9.8140	3.3845	0.3520	0.5933	0.0634	0.0522	0.0223	0.8119	0.4011	0.0078
14	1,156.275	0.6603	84.3939	9.9033	3.3987	0.3545	0.6021	0.0661	0.0540	0.0232	0.7989	0.3976	0.0078
15	1,155.344	0.6599	84.4403	9.8912	3.3701	0.3522	0.5914	0.0651	0.0542	0.0232	0.7982	0.4066	0.0076
16	1,156.599	0.6613	84.2055	10.0117	3.4274	0.3495	0.5995	0.0646	0.0520	0.0224	0.8534	0.4062	0.0077
17	1,155.457	0.6601	84.3611	9.9541	3.3798	0.3472	0.5925	0.0635	0.0511	0.0203	0.8170	0.4055	0.0077
18	1,154.161	0.6593	84.5169	9.8436	3.3420	0.3477	0.5908	0.0639	0.0509	0.0222	0.7979	0.4161	0.0080
19	1,152.786	0.6585	84.5929	9.8150	3.3020	0.3424	0.5798	0.0621	0.0506	0.0223	0.8112	0.4137	0.0082
20	1,156.652	0.6607	84.3456	9.9011	3.4162	0.3553	0.6139	0.0670	0.0545	0.0230	0.8290	0.3879	0.0065
21	1,153.057	0.6587	84.5628	9.7934	3.3391	0.3446	0.5852	0.0610	0.0490	0.0197	0.8476	0.3912	0.0064
22	1,152.456	0.6582	84.6103	9.7842	3.3119	0.3406	0.5845	0.0605	0.0486	0.0190	0.8476	0.3857	0.0070
23	1,154.466	0.6604	84.2494	9.9935	3.3911	0.3411	0.5860	0.0585	0.0481	0.0182	0.9054	0.4021	0.0066
24	1,157.209	0.6619	84.0414	10.1589	3.4437	0.3457	0.5965	0.0603	0.0485	0.0178	0.8693	0.4111	0.0068
25	1,158.133	0.6622	84.0329	10.1595	3.4554	0.3550	0.6014	0.0616	0.0502	0.0202	0.8545	0.4026	0.0067
26	1,158.677	0.6632	83.8814	10.2275	3.4842	0.3530	0.6047	0.0640	0.0507	0.0198	0.8897	0.4187	0.0065
27	1,157.506	0.6623	83.9903	10.1812	3.4393	0.3490	0.5981	0.0636	0.0514	0.0202	0.8875	0.4132	0.0061
28	1,156.930	0.6622	83.9507	10.2210	3.4320	0.3427	0.5947	0.0611	0.0478	0.0175	0.9095	0.4165	0.0065
29	1,155.823	0.6611	84.0913	10.1902	3.3776	0.3413	0.5782	0.0594	0.0482	0.0183	0.8776	0.4112	0.0066
30	1,158.440	0.6629	83.8914	10.2643	3.4526	0.3493	0.6051	0.0620	0.0509	0.0195	0.8864	0.4121	0.0065
31	1,157.950	0.6624	83.9246	10.2936	3.4280	0.3429	0.5894	0.0619	0.0509	0.0196	0.8703	0.4120	0.0068
Volume	1,156.726	0.6613	84.1957	10.0183	3.4218	0.3529	0.6049	0.0641	0.0525	0.0217	0.8581	0.4027	0.0074
Weight Avg Energy	1,156.731	0.6613	84.1953	10.0185	3.4219	0.3529	0.6049	0.0641	0.0525	0.0217	0.8581	0.4027	0.0074



Alliance Pipeline

DAILY ANALYSIS --- USA
 ND14MD1 --- Milnor Sales
 October 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	1,164.408	0.6662	83.6530	10.2484	3.5797	0.3819	0.6903	0.0754	0.0644	0.0294	0.8917	0.3774	0.0084
2	1,160.105	0.6630	84.0176	10.1444	3.4426	0.3661	0.6306	0.0731	0.0638	0.0280	0.8475	0.3777	0.0086
3	1,164.068	0.6663	83.6894	10.1712	3.5926	0.3872	0.6867	0.0800	0.0674	0.0288	0.8929	0.3957	0.0080
4	1,161.396	0.6647	83.7690	10.2329	3.5284	0.3699	0.6385	0.0713	0.0606	0.0254	0.8828	0.4130	0.0083
5	1,158.997	0.6632	83.9044	10.2003	3.4733	0.3571	0.6136	0.0658	0.0549	0.0235	0.8873	0.4117	0.0083
6	1,156.161	0.6606	84.2621	10.0448	3.3676	0.3513	0.5879	0.0624	0.0555	0.0263	0.8370	0.3969	0.0082
7	1,160.582	0.6639	83.8697	10.1674	3.5225	0.3644	0.6402	0.0671	0.0554	0.0252	0.8875	0.3926	0.0081
8	1,159.951	0.6636	83.9637	10.0455	3.5266	0.3701	0.6439	0.0701	0.0578	0.0243	0.8984	0.3913	0.0084
9	1,157.664	0.6611	84.3717	9.8262	3.4485	0.3700	0.6293	0.0699	0.0576	0.0237	0.8201	0.3752	0.0079
10	1,162.275	0.6655	83.7858	10.0486	3.6093	0.3848	0.6915	0.0696	0.0568	0.0239	0.9231	0.3987	0.0079
11	1,153.739	0.6595	84.4659	9.8124	3.3640	0.3500	0.5852	0.0637	0.0545	0.0235	0.8802	0.3924	0.0081
12	1,157.105	0.6612	84.3668	9.8106	3.4270	0.3674	0.6339	0.0709	0.0587	0.0270	0.8321	0.3974	0.0081
13	1,154.795	0.6595	84.5056	9.8223	3.3807	0.3516	0.5903	0.0635	0.0524	0.0221	0.8056	0.3984	0.0077
14	1,156.566	0.6605	84.3648	9.9207	3.4038	0.3549	0.6050	0.0665	0.0544	0.0234	0.7999	0.3989	0.0078
15	1,155.733	0.6602	84.3987	9.9160	3.3781	0.3527	0.5942	0.0655	0.0546	0.0237	0.8038	0.4052	0.0075
16	1,156.679	0.6613	84.1967	10.0092	3.4339	0.3497	0.6019	0.0646	0.0516	0.0221	0.8564	0.4063	0.0077
17	1,155.556	0.6602	84.3602	9.9489	3.3841	0.3476	0.5943	0.0636	0.0514	0.0205	0.8155	0.4063	0.0076
18	1,154.046	0.6592	84.5247	9.8362	3.3412	0.3471	0.5902	0.0637	0.0507	0.0224	0.7979	0.4177	0.0081
19	1,152.885	0.6584	84.6056	9.8127	3.2970	0.3430	0.5820	0.0625	0.0510	0.0225	0.8108	0.4050	0.0079
20	1,157.093	0.6611	84.3021	9.9133	3.4363	0.3564	0.6174	0.0673	0.0545	0.0227	0.8342	0.3892	0.0065
21	1,152.707	0.6585	84.5844	9.7825	3.3267	0.3441	0.5844	0.0607	0.0489	0.0197	0.8500	0.3921	0.0064
22	1,152.934	0.6586	84.5535	9.8093	3.3302	0.3418	0.5877	0.0607	0.0485	0.0188	0.8552	0.3872	0.0071
23	1,154.831	0.6605	84.2209	10.0253	3.3959	0.3407	0.5849	0.0588	0.0482	0.0182	0.8970	0.4035	0.0066
24	1,157.242	0.6618	84.0611	10.1459	3.4445	0.3474	0.5966	0.0601	0.0485	0.0177	0.8650	0.4065	0.0067
25	1,158.216	0.6623	84.0145	10.1665	3.4594	0.3550	0.6020	0.0619	0.0504	0.0203	0.8586	0.4047	0.0068
26	1,158.264	0.6629	83.9151	10.2054	3.4754	0.3519	0.6026	0.0636	0.0504	0.0196	0.8915	0.4181	0.0063
27	1,157.578	0.6624	83.9677	10.2038	3.4400	0.3480	0.5961	0.0633	0.0513	0.0201	0.8869	0.4165	0.0063
28	1,157.058	0.6623	83.9411	10.2293	3.4331	0.3433	0.5960	0.0611	0.0475	0.0175	0.9103	0.4143	0.0065
29	1,155.780	0.6610	84.1033	10.1889	3.3734	0.3410	0.5773	0.0593	0.0485	0.0183	0.8719	0.4115	0.0067
30	1,158.587	0.6630	83.8728	10.2774	3.4569	0.3489	0.6044	0.0623	0.0512	0.0196	0.8873	0.4126	0.0066
31	1,158.049	0.6624	83.9144	10.2987	3.4303	0.3432	0.5904	0.0621	0.0509	0.0196	0.8719	0.4116	0.0068
Volume	1,157.235	0.6616	84.1664	10.0314	3.4306	0.3549	0.6101	0.0651	0.0536	0.0223	0.8575	0.4008	0.0074
Weight Avg Energy	1,157.238	0.6616	84.1661	10.0316	3.4306	0.3549	0.6101	0.0651	0.0536	0.0223	0.8575	0.4008	0.0074

October-24

ZONE 610

Watford City

		Watford City West Border			Watford City East Border			Weighted	
Start Date	End Date	MCF	DK	BTU	MCF	DK	BTU	AVG BTU	
				Zone 25			Zone 43		
10/1/2024	10/2/2024	27	32	1193.5	186	207	1111.6	1121.982	10/1/2024
10/2/2024	10/3/2024	10	12	1193.5	195	217	1111.6	1115.595	10/2/2024
10/3/2024	10/4/2024	20	24	1193.5	231	256	1111.6	1118.126	10/3/2024
10/4/2024	10/5/2024	10	11	1193.5	147	164	1111.6	1116.817	10/4/2024
10/5/2024	10/6/2024	50	60	1193.5	224	249	1111.6	1126.545	10/5/2024
10/6/2024	10/7/2024	72	86	1193.5	227	252	1111.6	1131.322	10/6/2024
10/7/2024	10/8/2024	35	42	1193.5	201	223	1111.6	1123.746	10/7/2024
10/8/2024	10/9/2024	10	12	1193.5	163	181	1111.6	1116.334	10/8/2024
10/9/2024	10/10/2024	8	10	1193.5	189	210	1111.6	1114.926	10/9/2024
10/10/2024	10/11/2024	18	21	1193.5	227	252	1111.6	1117.617	10/10/2024
10/11/2024	10/12/2024	39	47	1193.5	266	296	1111.6	1122.072	10/11/2024
10/12/2024	10/13/2024	71	85	1193.5	268	298	1111.6	1128.753	10/12/2024
10/13/2024	10/14/2024	144	172	1193.5	335	373	1111.6	1136.221	10/13/2024
10/14/2024	10/15/2024	139	166	1193.5	330	367	1111.6	1135.873	10/14/2024
10/15/2024	10/16/2024	143	171	1193.5	344	382	1111.6	1135.649	10/15/2024
10/16/2024	10/17/2024	70	83	1193.5	212	236	1111.6	1131.930	10/16/2024
10/17/2024	10/18/2024	142	170	1193.5	265	294	1111.6	1140.174	10/17/2024
10/18/2024	10/19/2024	161	192	1193.5	381	424	1111.6	1135.928	10/18/2024
10/19/2024	10/20/2024	72	86	1193.5	234	261	1111.6	1130.871	10/19/2024
10/20/2024	10/21/2024	45	54	1193.5	226	251	1111.6	1125.200	10/20/2024
10/21/2024	10/22/2024	32	38	1193.5	227	252	1111.6	1121.719	10/21/2024
10/22/2024	10/23/2024	197	235	1193.5	497	553	1111.6	1134.848	10/22/2024
10/23/2024	10/24/2024	183	219	1193.5	364	405	1111.6	1139.000	10/23/2024
10/24/2024	10/25/2024	202	241	1193.5	435	483	1111.6	1137.571	10/24/2024
10/25/2024	10/26/2024	199	238	1193.5	420	467	1111.6	1137.930	10/25/2024
10/26/2024	10/27/2024	150	179	1193.5	293	326	1111.6	1139.331	10/26/2024
10/27/2024	10/28/2024	118	141	1193.5	288	320	1111.6	1135.403	10/27/2024
10/28/2024	10/29/2024	145	173	1193.5	249	277	1111.6	1141.741	10/28/2024
10/29/2024	10/30/2024	205	245	1193.5	416	462	1111.6	1138.636	10/29/2024
10/30/2024	10/31/2024	264	315	1193.5	563	625	1111.6	1137.745	10/30/2024
10/31/2024	11/1/2024	260	310	1193.5	528	587	1111.6	1138.623	10/31/2024
		3,241	3,870	1193.5000	9,131	10,150	1111.6000	1129.9429	

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
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	OCT24	SEP24	AUG24	JUL24	JUN24	MAY24	APR24	MAR24	FEB24	JAN24	DEC23	NOV23	ZONE
MT/ND	211	Sidney Border - MonDak Tfr - Sidney Plt	1188	1182	1191	1194	1192	1190	1187	1184	1185	1187	1179	1192	1195	211
ND	24	Williston Border - Charbonneau Station	1188	1187	1187	1185	1191	1186	1184	1181	1181	1192	1197	1194	1194	24
ND	25	Watford City West Border	1195	1194	1194	1197	1192	1187	1201	1193	1194	1194	1198	1197	1198	25
ND	28	Bismarck Station - Glen Ullin Station	1170	1171	1204	1203	1200	1202	1200	1160	1147	1126	1131	1138	1161	28
ND	31	Dickinson Brd - Belfield Trf - G Ullin Str	1123	1111	1106	1111	1115	1108	1106	1133	1147	1127	1127	1134	1147	31
ND/MT	32	Cabin Creek Station - Belfied Transfer	1130	1139	1128	1135	1110	1135	1144	1144	1116	1118	1122	1132	1138	32
ND	33	Little Knife Plant	1169	1165	1162	1165	1173	1170	1170	1173	1173	1171	1169	1168	1174	33
ND	34	Badlands Plant/Bowman Border	1034	1110	1034	980	981	1040	1043	1005	1027	1000	1094	1079	1017	34
ND	43	Watford City East Border	1105	1112	1112	1117	1085	1081	1075	1066	1085	1113	1127	1132	1154	43
ND/MT	241	Fairview Border	1185	1185	1183	1182	1185	1181	1172	1182	1186	1192	1185	1192	1198	241
ND	267	North Tioga Transfer - Nesson Plant	1183	1191	1195	1199	1191	1191	1193	1183	1187	1165	1166	1171	1169	267
ND	261	Tioga Comp Station - Robinson Lake Plant	1196	1208	1195	1200	1195	1197	1195	1196	1195	1192	1178	1201	1203	261
ND	262	Minot Bdr - Palermo Bdr - Bismarck Stn	1200	1210	1203	1201	1199	1200	1199	1195	1195	1196	1198	1202	1204	262
ND	263	Lignite Plant	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	263
ND	264	Epping Border	1186	1183	1188	1182	1179	1172	1168	1176	1172	1193	1204	1206	1206	264
ND	265	Tioga Comp Station - County Line Plant	1181	1175	1179	1181	1183	1174	1188	1195	1192	1179	1169	1183	1175	265
ND	266	County Line Plant	1183	1177	1181	1183	1187	1174	1188	1195	1193	1181	1171	1184	1177	266
ND	271	Bismarck Station - Cleveland Station	1199	1212	1204	1203	1200	1202	1201	1198	1192	1183	1186	1201	1206	271
ND	272	Cleveland Station - Mapleton	1198	1211	1202	1202	1200	1201	1200	1197	1191	1183	1185	1200	1204	272
ND	273	Cleveland Station - Grafton Border	1198	1211	1202	1202	1200	1202	1199	1198	1191	1183	1186	1201	1205	273
ND	550	Mandan Border / NBPL-St Anthony	1159	1164	1198	1179	1168	1160	1192	1157	1146	1126	1124	1138	1161	550
ND	610	MDU-Watford City BTU	1129	1130	1115	1127	1108	1111	1121	1112	1118	1138	1150	1151	1167	610
ND	802	NBPL - Linton	1106	1099	1103	1108	1100	1100	1104	1109	1114	1114	1103	1114	1104	802
ND	903	Hettinger Propane	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	903
ND	600	Alliance Pipeline - Hankinson	1149	1157	1159	1157	1148	1147	1148	1148	1146	1144	1144	1147	1146	600
ND	601	Alliance Pipeline - Milnor	1150	1157	1160	1157	1149	1147	1149	1148	1146	1144	1144	1147	1147	601

THERMAL ZONE VARIANCE DOCUMENTATION		
October 2024		
<i>ZONE</i>	<i>BTU VARIANCE</i>	<i>REASON</i>
28	-33	Operational
34	76	Operational
550	-34	Operational