

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

July 26, 2023

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

Re: Case No. PU-23-002 (Therm Billing)
Monthly Report – May 2023

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 June 2023.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our suppliers for the month of May 2023.
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 May 2023.

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
Jun-23

<u>Town</u>	<u>Heat Zone</u>	<u>Therm Factor</u>
MDU-303-ALEXANDER	025	1.1145
MDU-308-ARNEGARD	025	1.1145
MDU-314-APPLE VALLEY	271	1.1472
MDU-318-BEACH	032	1.0341
MDU-319-BELFIELD	032	1.0417
MDU-323-BERTHOLD	262	1.1230
MDU-327-BISMARCK	028	1.1386
MDU-330-BOWMAN	034	0.9219
MDU-337-BURLINGTON	262	1.1472
MDU-343-CARRINGTON	273	1.1453
MDU-344-CLEVELAND	272	1.1382
MDU-364-CAVALIER	273	1.1695
MDU-365-DAWSON	271	1.1392
MDU-368-DES LACS	262	1.1311
MDU-369-DICKINSON	031	1.0315
MDU-374-FT TOTTEN	273	1.1534
MDU-375-DEVILS LAKE	273	1.1534
MDU-379-BARLOW	273	1.1453
MDU-384-EPPING	264	1.1353
MDU-387-ELDRIDGE	272	1.1463
MDU-407-GLADSTONE	031	1.0315
MDU-411-GLEN ULLIN	031	1.0390
MDU-413-GOLVA	032	1.0189
MDU-416-GARRISON	262	1.1311
MDU-417-GRAFTON	273	1.1775
MDU-403-GWINNER	601	1.1370
MDU-429-HEBRON	031	1.0390
MDU-432-HETTINGER	903	2.4049
MDU-449-JAMESTOWN	272	1.0863
MDU-459-KILLDEER	033	1.1136
MDU-463-LANGDON	273	1.1453
MDU-469-LEFOR	031	1.0315
MDU-474-LIGNITE	263	1.0759
MDU-475-LINTON	802	1.0469
MDU-478-LINCOLN	028	1.0787
MDU-488-MCKENZIE	271	1.1472
MDU-494-MEDINA	271	1.1392
MDU-498-MANDAN	028	1.0787
MDU-500-MARMARTH	034	0.9288
MDU-505-MINOT	262	1.1472
MDU-510-MOTT	031	1.0315
MDU-512-MAX	262	1.1472
MDU-513-MILNOR	601	1.1370
MDU-522-NEW ENGLAND	031	1.0240
MDU-524-NEW SALEM	028	1.0560
MDU-532-NEW ROCKFORD	273	1.1453
MDU-539-PARK RIVER	273	1.1695
MDU-540-PALERMO	262	1.1230
MDU-558-RAY	264	1.1353

MDU-561-REGENT	031	1.0315
MDU-563-RHAME	034	0.9151
MDU-564-RICHARDTON	031	1.0240
MDU-568-ROSS	261	1.1103
MDU-572-RUTHVILLE	262	1.1472
MDU-574-SANBORN	272	1.1543
MDU-583-SENTINEL BUTTE	032	1.0341
MDU-588-SOUTH HEART	031	1.0315
MDU-717-SPIRITWOOD	272	1.1543
MDU-590-SPRINGBROOK	264	1.1353
MDU-591-STANLEY	261	1.1183
MDU-593-STEELE	271	1.1392
MDU-594-STERLING	028	1.0787
MDU-598-SHEYENNE	273	1.1534
MDU-605-SURREY	262	1.1472
MDU-610-TAPPEN	271	1.1392
MDU-611-TAYLOR	031	1.0240
MDU-616-TIOGA	260	1.1131
MDU-619-TURTLE LAKE	262	1.1311
MDU-620-TRENTON	024	1.1358
MDU-624-UNDERWOOD	262	1.1311
MDU-625-VALLEY CITY	272	1.1624
MDU-629-WALHALLA	273	1.1695
MDU-632-WATFORD CITY	610	1.0493
MDU-636-WHEELOCK	264	1.1271
MDU-637-WHITE EARTH	261	1.1183
MDU-642-WILLISTON	024	1.1358
MDU-646-WASHBURN	262	1.1392
MDU-647-WILTON	262	1.1230
MDU-664-RIVERDALE	262	1.1311
MDU-691-FAIRVIEW	241	1.1377
MDU-712-MINOT AFB	262	1.1472
MDU-718-FAIRMOUNT	600	1.1336
MDU-732-NEKOMA	273	1.1453
MDU-732-MSR SITE	273	1.1453

Source Daily Summary

May 2023

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	0.7415	1196.8	1218.0	1217.5	1.365	3.303	66.916	24.648	3.307	0.151	0.285	0.015	0.012	0.000	0.000	0.000	0.000	0.000	1414.39	
2	0.7427	1198.9	1220.2	1219.6	1.357	3.293	66.784	24.695	3.402	0.152	0.289	0.015	0.012	0.000	0.000	0.000	0.000	0.000	1415.82	
3	0.7457	1204.3	1225.6	1224.9	1.354	3.251	66.152	25.411	3.350	0.157	0.297	0.015	0.012	0.000	0.000	0.000	0.000	0.000	1419.29	
4	0.7436	1200.1	1221.4	1220.8	1.349	3.311	66.833	24.450	3.541	0.167	0.318	0.017	0.013	0.000	0.000	0.000	0.000	0.000	1416.41	
5	0.7293	1187.7	1208.8	1208.2	0.988	3.277	68.437	24.027	2.909	0.118	0.222	0.012	0.009	0.000	0.000	0.000	0.000	0.000	1415.45	
6	0.7221	1180.0	1200.9	1200.4	0.853	3.283	69.324	23.637	2.597	0.100	0.188	0.010	0.008	0.000	0.000	0.000	0.000	0.000	1413.20	
7	0.7036	1165.3	1185.9	1185.4	0.360	3.187	71.626	22.774	1.900	0.048	0.094	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1413.89	
8	0.7024	1165.1	1185.7	1185.2	0.299	3.179	71.817	22.656	1.891	0.044	0.098	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1414.84	
9	0.7002	1167.1	1187.8	1187.1	0.186	3.030	71.769	23.269	1.667	0.025	0.048	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1419.44	
10	0.6962	1163.2	1183.8	1183.0	0.089	3.033	72.268	23.048	1.522	0.016	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.85	
11	0.6974	1165.1	1185.7	1185.0	0.081	3.050	71.935	23.436	1.473	0.011	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.82	
12	0.6972	1164.4	1185.0	1184.4	0.075	3.077	72.001	23.314	1.506	0.012	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.25	
13	0.6975	1162.6	1183.2	1182.6	0.074	3.223	71.917	23.241	1.520	0.012	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.69	
14	0.6985	1166.1	1186.7	1186.0	0.054	3.135	71.820	23.336	1.625	0.013	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.89	
15	0.6980	1164.9	1185.5	1184.8	0.060	3.154	71.946	23.159	1.651	0.014	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.92	
16	0.7003	1170.8	1191.5	1190.6	0.069	2.994	71.649	23.475	1.779	0.015	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.79	
17	0.7059	1172.5	1193.3	1192.6	0.266	3.107	71.106	23.390	2.010	0.042	0.072	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1420.37	
18	0.7358	1185.1	1206.1	1205.6	1.295	3.578	68.592	22.267	3.683	0.188	0.363	0.020	0.015	0.000	0.000	0.000	0.000	0.000	1406.03	
19	0.7301	1183.4	1204.4	1203.6	1.088	3.461	69.435	21.923	3.553	0.172	0.333	0.019	0.015	0.000	0.000	0.000	0.000	0.000	1409.56	
20	0.7319	1178.8	1199.7	1199.0	1.314	3.561	69.527	21.228	3.806	0.184	0.346	0.019	0.014	0.000	0.000	0.000	0.000	0.000	1402.28	
21	0.7152	1180.7	1201.6	1200.8	0.531	3.078	70.595	22.749	2.738	0.100	0.191	0.010	0.008	0.000	0.000	0.000	0.000	0.000	1421.04	
22	0.7401	1191.2	1212.3	1211.4	1.327	3.550	68.767	21.297	4.292	0.240	0.473	0.029	0.024	0.000	0.000	0.000	0.000	0.000	1409.16	
23	0.7355	1183.8	1204.7	1203.9	1.324	3.578	69.059	21.485	3.914	0.201	0.394	0.024	0.020	0.000	0.000	0.000	0.000	0.000	1404.72	
24	0.7328	1182.2	1203.1	1202.3	1.246	3.551	69.074	21.896	3.707	0.170	0.323	0.018	0.015	0.000	0.000	0.000	0.000	0.000	1405.38	
25	0.7217	1176.0	1196.8	1196.1	0.931	3.360	70.164	22.082	3.060	0.125	0.248	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1408.84	
26	0.7268	1177.6	1198.5	1197.7	1.145	3.415	69.816	21.723	3.444	0.148	0.279	0.016	0.013	0.000	0.000	0.000	0.000	0.000	1405.82	
27	0.7374	1190.1	1211.2	1210.3	1.275	3.446	68.717	21.919	4.001	0.204	0.395	0.023	0.018	0.000	0.000	0.000	0.000	0.000	1410.48	
28	0.7321	1181.5	1202.4	1201.6	1.269	3.486	69.128	22.040	3.529	0.173	0.339	0.020	0.016	0.000	0.000	0.000	0.000	0.000	1405.34	
29	0.7231	1177.3	1198.1	1197.4	0.944	3.398	69.846	22.388	3.016	0.125	0.252	0.016	0.014	0.000	0.000	0.000	0.000	0.000	1408.97	
30	0.7314	1180.0	1200.9	1200.0	1.242	3.550	69.261	21.880	3.499	0.174	0.351	0.023	0.020	0.000	0.000	0.000	0.000	0.000	1404.23	
31	0.7321	1181.9	1202.8	1201.9	1.215	3.546	69.120	22.012	3.540	0.175	0.350	0.022	0.019	0.000	0.000	0.000	0.000	0.000	1405.75	
Avg	0.7209	1179.0	1199.7	1199.0	0.807	3.305	69.852	22.866	2.820	0.112	0.215	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1413.16	

Source Daily Summary

May 2023

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	0.7258	1178.7	1199.6	1199.1	1.120	3.287	70.519	20.887	3.564	0.162	0.391	0.032	0.038	0.000	0.000	0.000	0.000	0.000	1408.05	
2	0.7270	1180.6	1201.5	1201.0	1.117	3.285	70.351	21.004	3.604	0.165	0.400	0.033	0.039	0.000	0.000	0.000	0.000	0.000	1409.20	
3	0.7271	1175.4	1196.3	1195.5	1.088	3.658	70.128	20.990	3.501	0.170	0.394	0.033	0.038	0.000	0.000	0.000	0.000	0.000	1402.92	
4	0.7310	1163.5	1184.1	1183.5	1.205	4.571	69.449	20.575	3.488	0.203	0.429	0.039	0.040	0.000	0.000	0.000	0.000	0.000	1384.98	
5	0.7289	1169.1	1189.8	1189.2	1.080	4.223	69.377	21.430	3.285	0.178	0.363	0.031	0.032	0.000	0.000	0.000	0.000	0.000	1393.70	
6	0.7185	1169.8	1190.5	1190.0	0.838	3.584	70.770	21.364	2.961	0.132	0.296	0.025	0.029	0.000	0.000	0.000	0.000	0.000	1404.50	
7	0.7275	1181.5	1202.4	1201.9	1.126	3.271	70.198	21.199	3.581	0.163	0.391	0.032	0.039	0.000	0.000	0.000	0.000	0.000	1409.69	
8	0.7280	1182.2	1203.1	1202.6	1.132	3.259	70.175	21.188	3.610	0.166	0.398	0.033	0.040	0.000	0.000	0.000	0.000	0.000	1410.12	
9	0.7274	1181.9	1202.8	1202.1	1.130	3.232	70.222	21.217	3.572	0.164	0.391	0.032	0.039	0.000	0.000	0.000	0.000	0.000	1410.24	
10	0.7281	1183.4	1204.3	1203.5	1.126	3.211	70.225	21.130	3.649	0.171	0.412	0.034	0.041	0.000	0.000	0.000	0.000	0.000	1411.36	
11	0.7281	1183.5	1204.5	1203.9	1.136	3.183	70.282	21.080	3.649	0.171	0.415	0.038	0.045	0.000	0.000	0.000	0.000	0.000	1411.58	
12	0.7287	1184.3	1205.3	1204.7	1.140	3.184	70.225	21.101	3.666	0.174	0.421	0.040	0.049	0.000	0.000	0.000	0.000	0.000	1411.95	
13	0.7275	1178.7	1199.6	1199.1	1.131	3.425	70.266	20.944	3.572	0.175	0.406	0.038	0.043	0.000	0.000	0.000	0.000	0.000	1406.47	
14	0.7238	1168.4	1189.0	1188.3	0.903	4.058	70.220	21.009	3.188	0.178	0.373	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1397.73	
15	0.7250	1168.0	1188.7	1188.1	0.920	4.167	70.083	20.931	3.260	0.182	0.383	0.036	0.037	0.000	0.000	0.000	0.000	0.000	1396.11	
16	0.7173	1165.8	1186.4	1185.6	0.720	3.891	70.653	21.491	2.768	0.137	0.286	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1400.87	
17	0.7228	1165.1	1185.7	1185.2	0.886	4.194	70.241	20.971	3.117	0.169	0.353	0.033	0.035	0.000	0.000	0.000	0.000	0.000	1394.78	
18	0.7179	1166.7	1187.4	1187.0	0.716	3.897	70.597	21.476	2.827	0.142	0.291	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1401.47	
19	0.7260	1172.3	1193.0	1192.5	0.911	4.022	69.959	21.121	3.350	0.184	0.382	0.035	0.036	0.000	0.000	0.000	0.000	0.000	1400.17	
20	0.7215	1172.8	1193.6	1193.0	1.099	3.275	70.746	21.209	3.151	0.137	0.323	0.027	0.032	0.000	0.000	0.000	0.000	0.000	1405.22	
21	0.7201	1170.4	1191.1	1190.4	1.154	3.209	70.883	21.225	3.057	0.125	0.295	0.023	0.028	0.000	0.000	0.000	0.000	0.000	1403.67	
22	0.7209	1171.8	1192.6	1191.7	1.144	3.218	70.799	21.231	3.118	0.130	0.307	0.024	0.029	0.000	0.000	0.000	0.000	0.000	1404.54	
23	0.7242	1177.1	1198.0	1197.2	1.148	3.193	70.545	21.181	3.379	0.146	0.346	0.028	0.034	0.000	0.000	0.000	0.000	0.000	1407.71	
24	0.7258	1179.8	1200.7	1199.9	1.143	3.179	70.454	21.118	3.514	0.154	0.369	0.031	0.037	0.000	0.000	0.000	0.000	0.000	1409.44	
25	0.7285	1184.3	1205.3	1204.6	1.139	3.169	70.243	21.086	3.688	0.174	0.422	0.035	0.043	0.000	0.000	0.000	0.000	0.000	1412.13	
26	0.7306	1187.5	1208.5	1207.7	1.138	3.168	70.098	21.038	3.823	0.188	0.459	0.040	0.048	0.000	0.000	0.000	0.000	0.000	1413.90	
27	0.7307	1187.7	1208.7	1207.8	1.138	3.165	70.078	21.055	3.829	0.188	0.459	0.039	0.048	0.000	0.000	0.000	0.000	0.000	1414.06	
28	0.7308	1186.9	1208.0	1207.1	1.142	3.217	70.187	20.792	3.901	0.192	0.475	0.042	0.051	0.000	0.000	0.000	0.000	0.000	1413.01	
29	0.7318	1188.4	1209.4	1208.9	1.152	3.204	70.135	20.758	3.960	0.200	0.495	0.043	0.054	0.000	0.000	0.000	0.000	0.000	1413.82	
30	0.7315	1188.3	1209.3	1208.4	1.149	3.189	70.092	20.868	3.936	0.195	0.479	0.041	0.050	0.000	0.000	0.000	0.000	0.000	1413.97	
31	0.7259	1180.1	1201.0	1200.2	1.143	3.179	70.465	21.069	3.540	0.158	0.377	0.031	0.037	0.000	0.000	0.000	0.000	0.000	1409.59	
Avg	0.7261	1177.0	1198.1	1197.4	1.068	3.483	70.280	21.088	3.455	0.167	0.386	0.033	0.039	0.000	0.000	0.000	0.000	0.000	1406.03	

Gas Composition and Properties

Effective May 1, 2023

Attachment B
Page 3 of 24

Source #: 0602160
Name: FAIRVIEW BORDER

Component	Mole %	Liquid Content	Mass %
Carbon Dioxide, CO2	0.8121		1.7171
Nitrogen, N2	3.2695		4.4003
Methane, C1	69.9584		53.9194
Ethane, C2	22.7008	6.0758	32.7939
Propane, C3	2.8913	0.7972	6.1252
iso-Butane, iC4	0.1227	0.0402	0.3426
n-Butane, nC4	0.2213	0.0698	0.6180
iso-Pentane, iC5	0.0117	0.0043	0.0406
n-Pentane, nC5	0.0112	0.0041	0.0388
Neo-Pentane, neo			
Hexanes Plus, C6+	0.0010	0.0004	0.0041
Argon, Ar			
Carbon Monoxide, CO			
Hydrogen, H2			
Oxygen, O2			
Helium, He			
Water, H2O			
Hydrogen Sulfide, H2S			
Totals	100.0000	6.9910	100.0000

Property	Total Sample	C6 Plus Fraction
Pressure Base	14.730	
Temperature Base	60.00	
HCDP @ Sample Pressure	-16.791	
Cricondentherm	-1.011	
HV, Dry @ Base P, T	1199.99	
HV, Sat @ Base P, T	1179.11	
HV, Sat @ Sample P, T	1199.99	
Relative Density	0.7208	
C6+: 100		

Sample

Date: 05/01/2023 Type:

Tech: Tipton, Joshua

Pressure: 430 psi Temp.: °F

Gauge: Gauge H2O:

Atm. Pressure: H2S:

Remarks:

Analysis

Date: 05/01/2023 Instrument:

Tech: Tipton, Joshua Cylinder: 353

Remarks:

Source Daily Summary

May 2023

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	0.7062	1164.3	1184.9	1184.7	1.049	2.441	73.044	20.528	2.549	0.109	0.240	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1409.96	-6.15
2	0.7107	1167.3	1188.0	1187.7	1.064	2.648	72.656	20.252	2.917	0.127	0.287	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1409.21	-2.31
3	0.7133	1169.1	1189.8	1189.5	1.066	2.778	72.271	20.367	3.033	0.132	0.300	0.024	0.028	0.000	0.000	0.000	0.000	0.000	1408.79	-0.87
4	0.7128	1169.3	1190.0	1189.8	1.058	2.733	72.206	20.633	2.899	0.130	0.291	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1409.54	-1.65
5	0.7141	1172.0	1192.8	1192.5	1.065	2.687	72.035	20.784	2.930	0.135	0.310	0.025	0.030	0.000	0.000	0.000	0.000	0.000	1411.43	-0.47
6	0.7076	1161.7	1182.3	1182.1	1.035	2.741	73.265	19.579	2.896	0.133	0.300	0.024	0.028	0.000	0.000	0.000	0.000	0.000	1405.53	-3.18
7	0.7049	1157.6	1178.1	1177.8	0.995	2.802	73.695	19.145	2.920	0.124	0.275	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1403.17	-4.87
8	0.6996	1149.1	1169.5	1169.2	0.980	2.855	74.357	18.721	2.719	0.105	0.228	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1398.18	-8.89
9	0.7048	1158.9	1179.5	1179.2	1.032	2.668	72.692	21.136	2.181	0.083	0.180	0.013	0.016	0.000	0.000	0.000	0.000	0.000	1404.86	-9.91
10	0.7053	1162.9	1183.5	1183.2	1.020	2.484	72.910	20.869	2.380	0.097	0.207	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1409.24	-7.98
11	0.7077	1163.8	1184.4	1184.2	1.035	2.625	72.745	20.615	2.595	0.107	0.238	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1407.99	-5.77
12	0.7110	1167.1	1187.8	1187.5	1.053	2.705	72.311	20.756	2.757	0.116	0.258	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1408.71	-3.57
13	0.7116	1168.4	1189.1	1188.8	1.062	2.675	72.259	20.796	2.765	0.122	0.275	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1409.60	-2.85
14	0.7126	1169.3	1190.0	1189.7	1.063	2.715	72.170	20.731	2.867	0.124	0.282	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1409.63	-2.02
15	0.7127	1169.7	1190.4	1190.2	1.067	2.691	72.204	20.688	2.880	0.127	0.292	0.023	0.028	0.000	0.000	0.000	0.000	0.000	1410.08	-1.63
16	0.7130	1170.7	1191.4	1191.1	1.058	2.667	72.231	20.631	2.937	0.130	0.292	0.024	0.029	0.000	0.000	0.000	0.000	0.000	1411.00	-1.20
17	0.7079	1161.6	1182.2	1181.9	1.052	2.755	72.875	20.152	2.779	0.110	0.237	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1405.07	-5.29
18	0.7086	1162.4	1183.0	1182.7	1.074	2.737	72.767	20.256	2.775	0.111	0.240	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1405.38	-4.94
19	0.7116	1166.8	1187.4	1187.2	1.089	2.734	72.386	20.442	2.928	0.119	0.259	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1407.62	-2.82
20	0.7053	1159.8	1180.3	1180.0	1.029	2.659	73.317	19.903	2.711	0.108	0.235	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1405.42	-6.38
21	0.7109	1167.8	1188.5	1188.2	1.049	2.661	72.512	20.405	2.964	0.117	0.251	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1409.65	-3.08
22	0.7140	1170.3	1191.0	1190.7	1.091	2.739	72.136	20.503	3.070	0.129	0.282	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1409.47	-0.87
23	0.7147	1172.8	1193.5	1193.2	1.075	2.689	72.145	20.408	3.193	0.137	0.300	0.024	0.029	0.000	0.000	0.000	0.000	0.000	1411.73	0.41
24	0.7085	1170.0	1190.7	1190.4	1.043	2.311	73.112	20.139	2.958	0.124	0.265	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1414.63	-2.92
25	0.7025	1165.2	1185.9	1185.6	1.009	2.087	73.836	20.067	2.656	0.101	0.209	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1414.91	-7.31
26	0.7089	1170.6	1191.3	1191.0	1.029	2.334	73.181	19.935	3.044	0.134	0.292	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1414.92	-1.94
27	0.7232	1183.7	1204.7	1204.3	1.082	2.792	71.403	20.308	3.733	0.180	0.424	0.036	0.043	0.000	0.000	0.000	0.000	0.000	1416.56	7.78
28	0.7120	1175.2	1196.0	1195.7	1.031	2.339	72.911	19.932	3.238	0.150	0.336	0.028	0.034	0.000	0.000	0.000	0.000	0.000	1417.42	1.04
29	0.7036	1167.9	1188.6	1188.2	1.007	2.036	73.908	19.817	2.824	0.120	0.248	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1416.95	-5.16
30	0.7082	1171.5	1192.2	1191.9	1.021	2.225	73.346	19.875	3.055	0.136	0.292	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1416.71	-1.87
31	0.7077	1169.2	1189.9	1189.6	1.023	2.309	73.287	19.966	2.976	0.124	0.270	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1414.55	-3.07
Avg	0.7095	1167.0	1187.6	1187.4	1.045	2.591	72.780	20.269	2.875	0.123	0.271	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1409.93	-3.22

Source Daily Summary

May 2023

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	0.7091	1162.7	1183.3	1183.0	0.979	2.911	72.137	21.198	2.408	0.101	0.228	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1405.27	
2	0.7401	1166.8	1187.4	1187.1	0.928	5.647	67.847	20.383	4.718	0.146	0.296	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1380.36	
3	0.7502	1170.2	1190.9	1190.4	0.897	6.433	66.444	20.231	5.489	0.161	0.313	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1374.97	
4	0.7517	1171.4	1192.1	1191.7	0.894	6.509	66.245	20.236	5.597	0.166	0.320	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1374.97	
5	0.7196	1166.0	1186.7	1186.3	1.009	3.653	70.926	20.721	3.217	0.133	0.295	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1398.97	
6	0.7161	1163.2	1183.8	1183.5	1.010	3.487	71.410	20.665	2.966	0.127	0.287	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1399.04	
7	0.7486	1166.3	1187.0	1186.7	0.894	6.525	66.676	19.955	5.465	0.155	0.299	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1371.89	
8	0.7496	1167.4	1188.0	1187.7	0.890	6.561	66.528	20.009	5.527	0.159	0.297	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1372.19	
9	0.7506	1169.6	1190.3	1189.9	0.893	6.514	66.410	20.121	5.550	0.167	0.313	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1373.90	
10	0.7498	1167.4	1188.0	1187.5	0.892	6.578	66.493	20.028	5.503	0.166	0.308	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1371.98	
11	0.7435	1166.4	1187.0	1186.5	0.914	6.010	67.385	20.211	4.977	0.159	0.309	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1376.71	
12	0.7480	1169.1	1189.8	1189.5	0.902	6.283	66.797	20.132	5.395	0.159	0.300	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1375.76	
13	0.7486	1167.5	1188.2	1187.9	0.897	6.443	66.694	20.021	5.461	0.157	0.296	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1373.33	
14	0.7501	1174.7	1195.5	1195.0	0.908	6.128	66.695	20.138	5.594	0.167	0.332	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1380.43	
15	0.7485	1171.0	1191.7	1191.2	0.906	6.212	66.778	20.115	5.529	0.143	0.286	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1377.48	
16	0.7502	1168.9	1189.6	1189.0	0.892	6.513	66.572	19.874	5.652	0.159	0.305	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1373.51	
17	0.7355	1149.0	1169.3	1169.0	0.849	6.418	68.732	18.598	4.961	0.146	0.267	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1363.50	
18	0.7466	1166.2	1186.9	1186.6	0.902	6.329	66.877	20.128	5.346	0.136	0.255	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1373.65	
19	0.7499	1170.2	1190.9	1190.5	0.904	6.392	66.451	20.284	5.504	0.152	0.283	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1375.28	
20	0.7363	1164.3	1185.0	1184.4	0.933	5.431	68.488	20.078	4.629	0.138	0.271	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1381.15	
21	0.7381	1161.8	1182.4	1181.9	0.908	5.795	68.146	19.957	4.758	0.137	0.266	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1376.34	
22	0.7493	1166.7	1187.4	1186.8	0.905	6.545	66.720	19.770	5.525	0.175	0.327	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1371.72	
23	0.7506	1170.5	1191.2	1190.6	0.898	6.454	66.371	20.257	5.517	0.169	0.303	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1374.92	
24	0.7426	1166.5	1187.2	1186.5	0.925	5.902	67.495	20.277	4.917	0.157	0.293	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1377.71	
25	0.7442	1166.6	1187.2	1186.5	0.908	6.074	67.236	20.285	5.009	0.157	0.298	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1376.20	
26	0.7450	1169.9	1190.6	1190.0	0.910	5.945	67.175	20.407	5.052	0.162	0.312	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1379.41	
27	0.7505	1169.5	1190.3	1189.6	0.896	6.498	66.441	20.111	5.541	0.169	0.312	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1373.96	
28	0.7397	1164.6	1185.2	1184.7	0.938	5.729	68.017	20.054	4.754	0.159	0.310	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1378.15	
29	0.7502	1169.0	1189.7	1189.1	0.901	6.492	66.485	20.095	5.526	0.166	0.303	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1373.56	
30	0.7410	1160.2	1180.7	1180.1	0.916	6.153	67.690	19.884	4.901	0.149	0.277	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1371.68	
31	0.7497	1167.5	1188.2	1187.5	0.902	6.546	66.493	20.064	5.511	0.162	0.293	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1372.23	
Avg	0.7433	1167.0	1187.5	1187.0	0.913	5.971	67.447	20.138	5.048	0.154	0.295	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1377.43	

Source Daily Summary

May 2023

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	0.7517	1168.3	1189.0	1188.7	0.905	6.677	66.227	20.078	5.598	0.167	0.316	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1371.37	
2	0.7522	1169.3	1190.0	1189.7	0.901	6.670	66.154	20.130	5.621	0.171	0.321	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1372.08	
3	0.7529	1170.0	1190.7	1190.4	0.903	6.693	66.086	20.103	5.686	0.170	0.326	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1372.20	
4	0.7528	1168.7	1189.4	1189.1	0.902	6.758	66.088	20.055	5.669	0.171	0.324	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1370.84	
5	0.7541	1175.0	1195.8	1195.5	0.907	6.491	66.121	20.116	5.750	0.192	0.380	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1377.06	
6	0.7505	1164.3	1184.9	1184.6	0.897	6.818	66.399	19.792	5.602	0.159	0.302	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1367.80	
7	0.7514	1167.0	1187.7	1187.4	0.901	6.736	66.275	19.944	5.645	0.165	0.304	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1370.11	
8	0.7512	1166.9	1187.6	1187.3	0.905	6.715	66.308	19.965	5.590	0.172	0.315	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1370.22	
9	0.7519	1167.5	1188.2	1187.9	0.906	6.740	66.241	19.949	5.627	0.176	0.328	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1370.29	
10	0.7520	1168.9	1189.6	1189.3	0.903	6.673	66.204	20.036	5.679	0.167	0.306	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1371.79	
11	0.7509	1166.5	1187.2	1186.8	0.904	6.714	66.340	19.922	5.635	0.161	0.294	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1370.00	
12	0.7544	1172.7	1193.5	1193.2	0.902	6.663	65.964	20.075	5.871	0.170	0.323	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1374.13	
13	0.7523	1169.0	1189.7	1189.4	0.897	6.696	66.180	19.975	5.788	0.148	0.287	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1371.72	
14	0.7522	1169.7	1190.4	1190.1	0.902	6.644	66.224	19.961	5.795	0.151	0.292	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1372.52	
15	0.7487	1161.9	1182.5	1182.1	0.910	6.774	66.672	19.653	5.503	0.161	0.297	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1366.65	
16	0.7539	1170.7	1191.5	1191.1	0.909	6.725	65.937	20.134	5.795	0.166	0.304	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1372.26	
17	0.7514	1166.7	1187.3	1187.0	0.905	6.745	66.212	19.998	5.710	0.141	0.262	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1369.77	
18	0.7536	1171.7	1192.4	1192.1	0.908	6.646	65.960	20.219	5.779	0.162	0.297	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1373.59	
19	0.7516	1167.8	1188.5	1188.1	0.903	6.696	66.197	20.067	5.686	0.151	0.274	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1370.95	
20	0.7536	1172.0	1192.7	1192.4	0.905	6.631	65.993	20.161	5.833	0.158	0.290	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1373.96	
21	0.7529	1170.0	1190.7	1190.4	0.912	6.672	66.205	19.932	5.712	0.185	0.348	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1372.28	
22	0.7533	1171.7	1192.5	1192.1	0.912	6.611	66.031	20.223	5.688	0.178	0.324	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1373.89	
23	0.7526	1170.4	1191.2	1190.7	0.917	6.612	66.122	20.182	5.641	0.176	0.318	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1373.06	
24	0.7535	1172.0	1192.8	1192.4	0.915	6.603	66.055	20.155	5.730	0.179	0.329	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1374.11	
25	0.7528	1171.1	1191.8	1191.4	0.907	6.608	66.139	20.126	5.685	0.177	0.325	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1373.62	
26	0.7538	1171.4	1192.2	1191.7	0.900	6.686	66.001	20.128	5.740	0.181	0.330	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1373.16	
27	0.7511	1166.8	1187.5	1187.0	0.912	6.697	66.321	19.986	5.571	0.172	0.310	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1370.19	
28	0.7509	1167.6	1188.3	1187.9	0.910	6.638	66.379	19.962	5.595	0.173	0.312	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1371.28	
29	0.7499	1165.1	1185.7	1185.3	0.909	6.702	66.446	19.923	5.538	0.164	0.290	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1369.23	
30	0.7512	1167.5	1188.1	1187.7	0.909	6.673	66.283	20.040	5.603	0.167	0.296	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1370.87	
31	0.7506	1166.1	1186.8	1186.3	0.911	6.693	66.373	19.979	5.535	0.171	0.308	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1369.85	
Avg	0.7521	1169.0	1189.6	1189.2	0.906	6.681	66.198	20.031	5.674	0.168	0.311	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1371.64	

Gas Composition and Properties

Effective October 1, 2021

Attachment B
Page 8 of 24

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

May 2023

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	0.7149	1156.8	1177.2	1177.0	0.991	3.805	71.024	21.268	2.481	0.114	0.271	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1392.33	
2	0.7141	1156.3	1176.8	1176.5	0.986	3.762	71.162	21.220	2.440	0.113	0.270	0.021	0.026	0.000	0.000	0.000	0.000	0.000	1392.61	
3	0.7142	1155.5	1175.9	1175.7	0.996	3.811	71.126	21.199	2.444	0.112	0.267	0.020	0.025	0.000	0.000	0.000	0.000	0.000	1391.48	
4	0.7140	1155.8	1176.2	1176.0	0.996	3.772	71.215	21.108	2.478	0.114	0.271	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1392.02	
5	0.7141	1156.0	1176.4	1176.2	0.993	3.772	71.218	21.094	2.493	0.115	0.271	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1392.20	
6	0.7135	1155.6	1176.1	1175.8	0.981	3.758	71.339	20.992	2.500	0.115	0.270	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1392.30	
7	0.7129	1157.0	1177.5	1177.2	0.968	3.636	71.439	21.041	2.490	0.113	0.267	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1394.58	
8	0.7135	1157.4	1177.9	1177.7	0.971	3.665	71.270	21.219	2.453	0.112	0.266	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1394.45	
9	0.7132	1154.7	1175.2	1174.9	0.988	3.772	71.329	21.042	2.447	0.112	0.265	0.020	0.025	0.000	0.000	0.000	0.000	0.000	1391.58	
10	0.7129	1154.0	1174.4	1174.1	0.979	3.809	71.381	20.946	2.464	0.112	0.265	0.020	0.025	0.000	0.000	0.000	0.000	0.000	1390.90	
11	0.7127	1154.8	1175.2	1175.0	0.979	3.730	71.456	20.952	2.458	0.113	0.267	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1392.17	
12	0.7134	1157.5	1178.0	1177.8	0.973	3.648	71.283	21.220	2.456	0.112	0.263	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1394.70	
13	0.7250	1176.2	1197.0	1196.7	0.962	3.608	70.157	21.174	3.666	0.114	0.272	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1405.78	
14	0.7247	1185.6	1206.6	1206.3	0.977	2.976	70.956	20.403	4.235	0.119	0.282	0.022	0.028	0.000	0.000	0.000	0.000	0.000	1417.35	
15	0.7309	1196.0	1217.2	1216.9	0.980	2.917	70.153	20.801	4.698	0.120	0.282	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1423.77	
16	0.7117	1164.0	1184.6	1184.4	1.002	3.037	72.163	20.531	2.848	0.113	0.260	0.020	0.025	0.000	0.000	0.000	0.000	0.000	1404.26	
17	0.7101	1151.2	1171.6	1171.4	0.974	3.719	71.809	20.734	2.377	0.106	0.243	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1390.31	
18	0.7104	1150.3	1170.7	1170.4	0.988	3.780	71.763	20.699	2.376	0.107	0.247	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1388.97	
19	0.7091	1148.3	1168.6	1168.3	0.997	3.771	71.963	20.577	2.297	0.104	0.247	0.020	0.025	0.000	0.000	0.000	0.000	0.000	1387.74	
20	0.7103	1150.8	1171.2	1170.9	0.990	3.744	71.695	20.884	2.302	0.103	0.241	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1389.58	
21	0.7095	1150.6	1171.0	1170.7	0.977	3.698	71.884	20.723	2.328	0.104	0.243	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1390.12	
22	0.7084	1149.4	1169.7	1169.4	0.970	3.681	72.144	20.448	2.370	0.105	0.240	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1389.75	
23	0.7095	1150.3	1170.7	1170.4	0.965	3.728	71.877	20.711	2.333	0.104	0.240	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1389.88	
24	0.7088	1149.4	1169.8	1169.5	0.971	3.712	72.016	20.587	2.328	0.104	0.239	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1389.43	
25	0.7082	1148.4	1168.8	1168.5	0.942	3.762	72.081	20.521	2.308	0.103	0.242	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1388.79	
26	0.7082	1146.5	1166.8	1166.5	0.944	3.871	72.085	20.409	2.298	0.104	0.246	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1386.52	
27	0.7092	1149.6	1170.0	1169.6	0.963	3.753	71.955	20.588	2.343	0.106	0.249	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1389.22	
28	0.7088	1149.8	1170.1	1169.8	0.961	3.708	72.003	20.619	2.318	0.104	0.244	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1389.83	
29	0.7080	1148.7	1169.1	1168.7	0.964	3.688	72.153	20.512	2.297	0.103	0.242	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1389.39	
30	0.7088	1149.4	1169.7	1169.4	0.983	3.697	72.051	20.534	2.345	0.105	0.243	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1389.37	
31	0.7080	1148.0	1168.3	1168.0	0.980	3.710	72.176	20.444	2.299	0.104	0.246	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1388.48	
Avg	0.7126	1156.0	1176.4	1176.1	0.977	3.661	71.559	20.813	2.580	0.109	0.257	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1393.54	

Source Daily Summary

May 2023

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	0.7506	1171.1	1191.8	1190.6	0.856	6.481	66.480	20.024	5.636	0.167	0.326	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1375.63	
2	0.7527	1174.6	1195.4	1194.2	0.855	6.462	66.287	20.043	5.803	0.174	0.344	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1377.84	
3	0.7505	1170.3	1191.0	1189.7	0.855	6.517	66.554	19.857	5.696	0.165	0.325	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1374.83	
4	0.7513	1170.7	1191.4	1190.1	0.856	6.570	66.456	19.844	5.736	0.171	0.335	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1374.53	
5	0.7546	1176.0	1196.8	1195.5	0.852	6.558	66.099	19.973	5.923	0.186	0.372	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1377.78	
6	0.7485	1169.4	1190.1	1188.9	0.860	6.380	66.907	19.726	5.602	0.162	0.331	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1375.58	
7	0.7497	1168.4	1189.1	1188.0	0.852	6.560	66.641	19.776	5.675	0.162	0.307	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1373.39	
8	0.7500	1169.3	1190.0	1188.8	0.853	6.534	66.608	19.826	5.663	0.169	0.320	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1374.15	
9	0.7503	1169.5	1190.2	1189.0	0.856	6.547	66.595	19.795	5.668	0.175	0.335	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1374.08	
10	0.7507	1170.8	1191.6	1190.3	0.855	6.502	66.549	19.835	5.750	0.167	0.314	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1375.27	
11	0.7493	1168.3	1189.0	1187.7	0.854	6.530	66.698	19.762	5.670	0.160	0.300	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1373.56	
12	0.7530	1174.7	1195.5	1194.3	0.852	6.487	66.311	19.890	5.919	0.171	0.338	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1377.71	
13	0.7510	1171.1	1191.9	1190.6	0.853	6.519	66.484	19.836	5.836	0.148	0.296	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1375.33	
14	0.7524	1174.5	1195.2	1193.9	0.856	6.442	66.367	19.894	5.953	0.152	0.307	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1377.93	
15	0.7478	1164.8	1185.5	1183.9	0.863	6.587	66.956	19.494	5.603	0.160	0.310	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1370.87	
16	0.7523	1172.4	1193.2	1191.6	0.859	6.549	66.323	19.904	5.861	0.164	0.311	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1375.68	
17	0.7491	1167.2	1187.9	1186.5	0.857	6.569	66.654	19.778	5.721	0.137	0.261	0.012	0.011	0.000	0.000	0.000	0.000	0.000	1372.54	
18	0.7522	1173.6	1194.4	1193.3	0.855	6.480	66.263	20.091	5.819	0.161	0.304	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1377.12	
19	0.7508	1171.4	1192.1	1191.0	0.853	6.490	66.461	19.937	5.795	0.152	0.287	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1375.75	
20	0.7524	1174.3	1195.1	1193.9	0.855	6.457	66.321	19.956	5.921	0.159	0.302	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1377.72	
21	0.7505	1170.2	1190.9	1189.7	0.866	6.507	66.714	19.610	5.729	0.184	0.358	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1374.69	
22	0.7519	1173.7	1194.5	1193.3	0.860	6.435	66.381	20.031	5.755	0.177	0.331	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1377.52	
23	0.7509	1172.0	1192.8	1191.6	0.863	6.442	66.510	19.946	5.710	0.175	0.325	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1376.45	
24	0.7523	1174.6	1195.4	1194.3	0.861	6.422	66.377	19.971	5.822	0.179	0.338	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1378.14	
25	0.7518	1173.6	1194.4	1193.2	0.859	6.429	66.438	19.951	5.775	0.178	0.338	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1377.56	
26	0.7510	1171.0	1191.7	1190.6	0.854	6.527	66.495	19.871	5.715	0.176	0.331	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1375.15	
27	0.7490	1167.6	1188.3	1187.1	0.865	6.530	66.732	19.777	5.589	0.169	0.313	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1372.99	
28	0.7496	1169.5	1190.3	1189.0	0.865	6.468	66.687	19.815	5.648	0.171	0.318	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1374.72	
29	0.7482	1166.4	1187.0	1185.8	0.865	6.532	66.808	19.750	5.561	0.162	0.297	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1372.28	
30	0.7495	1168.7	1189.4	1188.0	0.864	6.505	66.662	19.834	5.640	0.166	0.304	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1373.91	
31	0.7478	1165.6	1186.2	1184.8	0.864	6.549	66.748	19.771	5.543	0.170	0.315	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1371.72	
Avg	0.7507	1171.0	1191.6	1190.3	0.858	6.502	66.534	19.857	5.734	0.167	0.319	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1375.24	

Source Daily Summary

May 2023

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	0.7514	1169.2	1189.9	1189.7	0.893	6.614	66.333	20.020	5.626	0.168	0.316	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1372.68	
2	0.7513	1169.2	1189.9	1189.8	0.893	6.605	66.338	20.036	5.617	0.168	0.314	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1372.78	
3	0.7539	1173.6	1194.4	1194.3	0.892	6.579	66.026	20.187	5.776	0.175	0.331	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1375.62	
4	0.7518	1169.7	1190.4	1190.3	0.892	6.624	66.264	20.049	5.659	0.167	0.314	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1372.90	
5	0.7529	1170.5	1191.2	1191.0	0.893	6.674	66.142	20.045	5.718	0.173	0.324	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1372.85	
6	0.7523	1174.5	1195.3	1195.2	0.900	6.365	66.316	20.212	5.632	0.182	0.353	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1378.17	
7	0.7506	1166.8	1187.5	1187.3	0.890	6.684	66.499	19.752	5.673	0.162	0.310	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1370.68	
8	0.7511	1168.0	1188.7	1188.6	0.888	6.667	66.369	19.905	5.679	0.164	0.299	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1371.59	
9	0.7513	1168.7	1189.4	1189.2	0.890	6.636	66.357	19.956	5.647	0.172	0.312	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1372.23	
10	0.7518	1169.2	1189.9	1189.7	0.892	6.656	66.302	19.939	5.679	0.176	0.324	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1372.29	
11	0.7522	1170.8	1191.6	1191.4	0.891	6.590	66.246	20.027	5.743	0.169	0.305	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1373.91	
12	0.7507	1167.7	1188.4	1188.2	0.890	6.644	66.433	19.873	5.673	0.163	0.296	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1371.59	
13	0.7542	1174.2	1194.9	1194.8	0.890	6.580	66.040	20.068	5.897	0.171	0.322	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1375.94	
14	0.7523	1170.5	1191.3	1191.1	0.890	6.618	66.234	19.964	5.833	0.148	0.285	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1373.49	
15	0.7532	1172.9	1193.7	1193.5	0.893	6.551	66.172	20.002	5.907	0.152	0.294	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1375.44	
16	0.7492	1164.3	1184.9	1184.7	0.900	6.695	66.666	19.666	5.586	0.161	0.297	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1368.96	
17	0.7533	1171.3	1192.1	1191.8	0.896	6.658	66.066	20.073	5.820	0.163	0.296	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1373.45	
18	0.7511	1167.9	1188.6	1188.4	0.893	6.665	66.295	19.993	5.730	0.141	0.258	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1371.48	
19	0.7536	1173.6	1194.4	1194.2	0.894	6.555	66.016	20.229	5.817	0.164	0.297	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1375.81	
20	0.7529	1172.0	1192.8	1192.6	0.890	6.584	66.106	20.149	5.806	0.156	0.283	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1374.66	
21	0.7537	1173.8	1194.5	1194.3	0.891	6.553	66.041	20.164	5.867	0.161	0.294	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1375.97	
22	0.7524	1170.8	1191.5	1191.3	0.900	6.602	66.345	19.854	5.720	0.189	0.354	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1373.59	
23	0.7535	1173.2	1194.0	1192.9	0.891	6.568	66.051	20.189	5.783	0.175	0.312	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1375.50	
24	0.7532	1173.4	1194.2	1193.9	0.900	6.518	66.104	20.214	5.735	0.178	0.321	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1375.95	
25	0.7535	1173.6	1194.4	1194.2	0.897	6.529	66.117	20.133	5.788	0.178	0.324	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1376.02	
26	0.7532	1173.3	1194.1	1193.8	0.896	6.529	66.148	20.129	5.756	0.181	0.329	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1375.85	
27	0.7512	1168.4	1189.1	1188.8	0.892	6.648	66.355	19.959	5.632	0.174	0.311	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1371.89	
28	0.7507	1167.7	1188.3	1188.1	0.901	6.627	66.408	19.969	5.590	0.171	0.305	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1371.57	
29	0.7506	1168.2	1188.9	1188.7	0.901	6.583	66.458	19.941	5.614	0.171	0.304	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1372.31	
30	0.7492	1165.1	1185.7	1185.5	0.903	6.644	66.577	19.879	5.523	0.163	0.285	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1369.87	
31	0.7509	1168.3	1189.0	1188.7	0.901	6.607	66.371	20.006	5.626	0.167	0.294	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1372.13	
Avg	0.7520	1170.0	1191.1	1190.8	0.894	6.602	66.264	20.019	5.715	0.168	0.309	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1373.46	

Source Daily Summary

May 2023

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	0.7510	1168.4	1189.0	1189.0	0.893	6.627	66.382	19.984	5.603	0.167	0.314	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1372.08	
2	0.7510	1168.6	1189.3	1189.0	0.893	6.615	66.375	20.008	5.598	0.167	0.313	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1372.31	
3	0.7524	1171.1	1191.8	1191.7	0.893	6.599	66.180	20.120	5.694	0.169	0.316	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1373.92	
4	0.7503	1166.9	1187.6	1187.4	0.893	6.655	66.429	19.961	5.573	0.161	0.301	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1370.97	
5	0.7685	1199.6	1220.9	1220.1	0.894	6.352	64.268	21.158	6.644	0.218	0.421	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1392.63	
6	0.7678	1201.3	1222.5	1222.4	0.890	6.196	64.521	21.013	6.651	0.229	0.451	0.024	0.024	0.000	0.000	0.000	0.000	0.000	1395.15	
7	0.7501	1165.8	1186.5	1186.4	0.890	6.701	66.557	19.705	5.651	0.161	0.307	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1369.94	
8	0.7511	1167.8	1188.5	1188.5	0.888	6.672	66.383	19.887	5.677	0.165	0.300	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1371.43	
9	0.7510	1168.2	1188.9	1188.8	0.890	6.645	66.388	19.927	5.637	0.171	0.311	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1371.87	
10	0.7517	1168.8	1189.5	1189.3	0.892	6.669	66.324	19.911	5.672	0.176	0.324	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1371.92	
11	0.7527	1171.7	1192.5	1192.3	0.892	6.587	66.189	20.045	5.772	0.172	0.312	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1374.42	
12	0.7509	1168.0	1188.6	1188.6	0.890	6.644	66.417	19.875	5.685	0.164	0.297	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1371.73	
13	0.7541	1173.9	1194.7	1194.5	0.890	6.587	66.054	20.054	5.888	0.171	0.323	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1375.71	
14	0.7524	1170.7	1191.5	1191.3	0.891	6.618	66.223	19.963	5.840	0.149	0.288	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1373.58	
15	0.7508	1168.1	1188.8	1188.2	0.895	6.619	66.417	19.884	5.741	0.143	0.275	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1372.00	
16	0.7522	1170.8	1191.6	1190.9	0.894	6.592	66.284	19.919	5.831	0.155	0.296	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1373.85	
17	0.7516	1169.0	1189.7	1189.1	0.898	6.641	66.346	19.873	5.748	0.162	0.302	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1372.27	
18	0.7527	1170.6	1191.4	1191.3	0.894	6.643	66.143	20.045	5.807	0.155	0.285	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1373.24	
19	0.7537	1173.6	1194.4	1194.3	0.894	6.559	66.014	20.223	5.819	0.164	0.298	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1375.76	
20	0.7528	1171.8	1192.6	1192.4	0.890	6.592	66.113	20.134	5.805	0.156	0.283	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1374.47	
21	0.7536	1173.6	1194.4	1194.2	0.891	6.559	66.049	20.153	5.865	0.161	0.294	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1375.81	
22	0.7526	1171.1	1191.9	1191.5	0.900	6.600	66.321	19.865	5.732	0.190	0.357	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1373.82	
23	0.7536	1173.0	1193.7	1192.3	0.892	6.589	66.045	20.163	5.794	0.175	0.314	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1375.14	
24	0.7513	1169.5	1190.2	1189.6	0.901	6.573	66.314	20.108	5.591	0.173	0.311	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1373.16	
25	0.7519	1170.7	1191.4	1190.7	0.900	6.561	66.249	20.124	5.653	0.173	0.312	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1373.99	
26	0.7528	1172.4	1193.2	1192.4	0.899	6.540	66.174	20.135	5.725	0.177	0.320	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1375.18	
27	0.7523	1170.7	1191.4	1191.3	0.894	6.605	66.234	20.035	5.710	0.175	0.315	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1373.61	
28	0.7509	1168.0	1188.7	1188.6	0.901	6.627	66.384	19.972	5.607	0.172	0.308	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1371.78	
29	0.7509	1168.9	1189.6	1189.4	0.902	6.575	66.421	19.955	5.636	0.173	0.308	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1372.77	
30	0.7484	1163.5	1184.1	1183.4	0.903	6.665	66.696	19.788	5.471	0.163	0.288	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1368.72	
31	0.7490	1164.7	1185.3	1184.6	0.903	6.648	66.611	19.852	5.506	0.164	0.289	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1369.60	
Avg	0.7528	1172.0	1192.4	1192.0	0.895	6.592	66.178	20.059	5.762	0.170	0.314	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1374.28	

Source Daily Summary

May 2023

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	0.7503	1170.7	1191.4	1190.8	0.856	6.476	66.525	20.002	5.619	0.167	0.325	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1375.45	
2	0.7468	1168.6	1189.3	1188.7	0.860	6.270	67.187	19.630	5.529	0.166	0.328	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1376.27	
3	0.7519	1172.7	1193.4	1192.4	0.855	6.501	66.405	19.920	5.779	0.170	0.338	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1376.36	
4	0.7514	1170.9	1191.6	1190.8	0.855	6.566	66.447	19.851	5.742	0.172	0.336	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1374.71	
5	0.7546	1176.2	1197.1	1196.2	0.852	6.545	66.098	19.983	5.928	0.186	0.371	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1378.03	
6	0.7497	1169.4	1190.1	1189.5	0.857	6.494	66.714	19.725	5.690	0.162	0.327	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1374.52	
7	0.7495	1168.0	1188.7	1188.1	0.852	6.568	66.660	19.762	5.661	0.162	0.307	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1373.08	
8	0.7430	1162.7	1183.3	1182.6	0.857	6.278	67.716	19.303	5.355	0.160	0.303	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1372.77	
9	0.7504	1169.7	1190.4	1189.6	0.856	6.544	66.586	19.803	5.671	0.175	0.335	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1374.21	
10	0.7508	1170.9	1191.6	1190.6	0.855	6.507	66.537	19.838	5.753	0.167	0.314	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1375.26	
11	0.7495	1168.6	1189.3	1188.4	0.854	6.525	66.683	19.768	5.680	0.161	0.302	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1373.81	
12	0.7532	1175.1	1195.9	1195.1	0.852	6.483	66.290	19.900	5.933	0.171	0.338	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1377.96	
13	0.7511	1171.3	1192.0	1191.3	0.853	6.516	66.474	19.846	5.837	0.149	0.297	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1375.45	
14	0.7524	1174.5	1195.3	1194.3	0.856	6.446	66.353	19.906	5.952	0.151	0.306	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1377.90	
15	0.7483	1165.8	1186.4	1185.4	0.861	6.577	66.907	19.515	5.637	0.161	0.313	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1371.52	
16	0.7521	1172.2	1192.9	1191.8	0.861	6.543	66.351	19.893	5.845	0.165	0.312	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1375.58	
17	0.7498	1168.5	1189.2	1188.3	0.857	6.560	66.571	19.818	5.766	0.139	0.265	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1373.34	
18	0.7524	1173.4	1194.2	1193.6	0.856	6.509	66.239	20.062	5.853	0.157	0.297	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1376.70	
19	0.7511	1171.9	1192.6	1191.8	0.854	6.478	66.442	19.953	5.807	0.152	0.288	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1376.14	
20	0.7526	1174.4	1195.2	1194.2	0.855	6.458	66.307	19.963	5.927	0.158	0.302	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1377.80	
21	0.7507	1170.7	1191.4	1190.3	0.866	6.499	66.688	19.624	5.748	0.184	0.358	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1375.05	
22	0.7523	1174.4	1195.2	1194.0	0.860	6.429	66.336	20.055	5.776	0.179	0.335	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1377.98	
23	0.7511	1172.3	1193.1	1191.7	0.863	6.439	66.490	19.959	5.720	0.175	0.325	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1376.66	
24	0.7524	1174.8	1195.6	1194.4	0.861	6.416	66.370	19.978	5.827	0.179	0.338	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1378.34	
25	0.7518	1173.6	1194.4	1193.1	0.859	6.430	66.436	19.954	5.776	0.177	0.336	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1377.53	
26	0.7520	1172.8	1193.6	1192.3	0.853	6.512	66.378	19.932	5.775	0.180	0.338	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1376.36	
27	0.7490	1167.6	1188.3	1187.0	0.865	6.526	66.736	19.778	5.586	0.169	0.313	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1373.03	
28	0.7498	1169.8	1190.6	1189.4	0.865	6.464	66.673	19.822	5.656	0.172	0.319	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1374.94	
29	0.7482	1166.4	1187.0	1186.0	0.865	6.531	66.810	19.747	5.562	0.162	0.297	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1372.28	
30	0.7494	1168.5	1189.2	1187.9	0.865	6.506	66.673	19.834	5.628	0.166	0.304	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1373.78	
31	0.7489	1167.6	1188.3	1187.2	0.864	6.517	66.729	19.822	5.558	0.169	0.314	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1373.15	
Avg	0.7505	1171.0	1191.5	1190.5	0.858	6.488	66.575	19.837	5.728	0.167	0.319	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1375.35	

Source Daily Summary

May 2023

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	0.6457	1067.1	1086.0	1085.8	0.992	2.767	82.828	12.565	0.782	0.023	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1351.51	
2	0.6413	1064.2	1083.1	1082.8	0.936	2.612	83.687	11.940	0.755	0.025	0.042	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1352.47	
3	0.6408	1063.6	1082.5	1082.2	0.938	2.598	83.762	11.894	0.749	0.021	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1352.27	
4	0.6392	1062.1	1080.9	1080.6	0.926	2.568	84.032	11.701	0.718	0.020	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1351.90	
5	0.6385	1061.2	1079.9	1079.7	0.940	2.534	84.176	11.597	0.700	0.019	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1351.49	
6	0.6404	1063.0	1081.8	1081.6	0.938	2.600	83.811	11.870	0.724	0.021	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1351.86	
7	0.6464	1067.1	1086.0	1085.7	0.995	2.833	82.685	12.629	0.794	0.023	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1350.70	
8	0.6491	1069.2	1088.1	1087.9	1.016	2.926	82.147	13.042	0.806	0.022	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1350.57	
9	0.6450	1065.9	1084.7	1084.5	0.977	2.799	82.920	12.487	0.761	0.020	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1350.68	
10	0.6503	1070.8	1089.7	1089.4	1.017	2.937	81.910	13.267	0.808	0.022	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1351.36	
11	0.6453	1065.8	1084.7	1084.4	0.987	2.814	82.864	12.523	0.755	0.021	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1350.31	
12	0.6420	1064.1	1082.9	1082.7	0.960	2.657	83.454	12.177	0.701	0.019	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1351.52	
13	0.6444	1066.1	1085.0	1084.7	0.973	2.739	82.957	12.585	0.697	0.018	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1351.56	
14	0.6439	1066.0	1084.9	1084.6	0.963	2.709	83.078	12.491	0.708	0.019	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1352.01	
15	0.6449	1066.6	1085.5	1085.2	0.949	2.789	83.030	12.293	0.871	0.025	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1351.72	
16	0.6524	1075.0	1094.0	1093.7	0.952	2.974	81.774	13.088	1.128	0.030	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1354.52	
17	0.6509	1074.1	1093.1	1092.8	0.952	2.892	82.039	12.950	1.086	0.029	0.052	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1354.90	
18	0.6471	1068.3	1087.3	1087.0	0.996	2.819	82.532	12.795	0.804	0.020	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1351.58	
19	0.6442	1064.6	1083.5	1083.1	0.993	2.780	82.989	12.515	0.674	0.018	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1349.90	
20	0.6405	1061.2	1079.9	1079.6	0.965	2.680	83.751	11.878	0.674	0.019	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1349.43	
21	0.6438	1064.7	1083.6	1083.1	0.979	2.757	83.104	12.403	0.703	0.020	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1350.44	
22	0.6471	1068.2	1087.1	1086.5	1.003	2.821	82.487	12.889	0.743	0.021	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1351.38	
23	0.6470	1067.7	1086.6	1085.8	0.975	2.881	82.489	12.843	0.754	0.021	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1350.85	
24	0.6501	1072.1	1091.1	1090.4	0.918	2.987	82.289	12.524	1.183	0.035	0.062	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1353.23	
25	0.6439	1065.3	1084.1	1083.5	0.918	2.819	83.287	11.970	0.932	0.027	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1351.10	
26	0.6451	1066.7	1085.6	1085.1	0.915	2.998	82.316	12.563	1.118	0.032	0.058	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1351.63	
27	0.6463	1068.3	1087.2	1086.7	0.915	2.998	82.316	12.563	1.118	0.032	0.058	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1352.36	
28	0.6474	1069.8	1088.7	1088.3	0.916	2.988	82.329	12.562	1.115	0.032	0.057	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1353.08	
29	0.6486	1071.3	1090.2	1089.8	0.944	2.859	82.421	12.697	0.995	0.031	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1353.73	
30	0.6497	1072.0	1091.0	1090.3	0.934	2.928	82.289	12.677	1.079	0.033	0.059	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1353.55	
31	0.6480	1071.2	1090.2	1089.5	0.924	2.831	82.673	12.374	1.100	0.035	0.062	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1354.32	
Avg	0.6455	1067.0	1086.1	1085.7	0.958	2.803	82.853	12.463	0.856	0.024	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1351.87	

Source Daily Summary

May 2023

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	0.6568	1084.3	1103.5	1103.1	1.014	2.733	81.091	13.869	1.178	0.038	0.067	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1361.55	
2	0.6579	1085.7	1104.9	1104.6	1.077	2.646	81.188	13.596	1.343	0.050	0.086	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1362.28	
3	0.6566	1085.0	1104.2	1103.8	1.074	2.572	81.459	13.405	1.347	0.047	0.084	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1362.74	
4	0.6586	1087.1	1106.3	1105.9	1.095	2.601	81.153	13.581	1.417	0.051	0.090	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1363.27	
5	0.6607	1091.5	1110.8	1110.4	1.119	2.496	80.886	13.813	1.518	0.056	0.098	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1366.57	
6	0.6604	1090.9	1110.2	1109.8	1.109	2.512	80.954	13.751	1.502	0.056	0.097	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1366.23	
7	0.6618	1091.8	1111.1	1110.6	1.133	2.554	80.675	13.957	1.511	0.056	0.099	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1365.88	
8	0.6622	1091.4	1110.7	1110.3	1.008	2.816	80.060	14.743	1.244	0.043	0.075	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1364.89	
9	0.6646	1095.9	1115.4	1114.9	0.988	2.791	79.644	15.143	1.297	0.045	0.078	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1368.16	
10	0.6596	1092.2	1111.5	1111.1	0.815	2.820	80.030	15.286	0.965	0.028	0.049	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1368.58	
11	0.6571	1086.6	1105.8	1105.4	0.838	2.890	80.440	14.881	0.880	0.024	0.042	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1364.15	
12	0.6535	1084.2	1103.4	1103.0	0.802	2.751	81.139	14.397	0.838	0.024	0.041	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1364.90	
13	0.6590	1090.7	1110.0	1109.6	0.915	2.701	80.405	14.812	1.066	0.034	0.059	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1367.30	
14	0.6632	1096.4	1115.8	1115.4	0.957	2.685	79.816	15.176	1.238	0.042	0.075	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1370.08	
15	0.6631	1096.5	1115.9	1115.5	0.966	2.650	79.973	14.963	1.306	0.046	0.080	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1370.36	
16	0.6612	1093.8	1113.1	1112.7	0.918	2.706	80.395	14.437	1.399	0.048	0.085	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1368.97	
17	0.6644	1097.2	1116.6	1116.2	0.895	2.837	79.873	14.686	1.547	0.054	0.095	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1369.90	
18	0.6878	1129.7	1149.7	1149.2	1.307	2.424	76.827	16.652	2.474	0.104	0.183	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1386.22	
19	0.6637	1095.8	1115.2	1114.8	1.009	2.683	79.939	14.853	1.370	0.049	0.085	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1368.89	
20	0.6650	1096.5	1115.9	1115.5	1.066	2.678	79.832	14.821	1.440	0.054	0.095	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1368.41	
21	0.6623	1092.1	1111.4	1111.0	1.113	2.617	80.600	13.943	1.544	0.061	0.106	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1365.68	
22	0.6606	1088.4	1107.7	1107.3	1.114	2.677	80.850	13.713	1.475	0.057	0.100	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1362.90	
23	0.6617	1089.8	1109.1	1108.7	1.103	2.720	80.395	14.301	1.336	0.048	0.086	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1363.47	
24	0.6644	1093.4	1112.8	1112.3	1.116	2.731	80.004	14.543	1.446	0.052	0.094	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1365.19	
25	0.6532	1079.9	1099.0	1098.5	1.092	2.537	82.187	12.686	1.349	0.049	0.088	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1359.79	
26	0.6593	1088.3	1107.6	1107.1	1.125	2.545	81.036	13.743	1.394	0.051	0.092	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1364.09	
27	0.6573	1087.3	1106.6	1106.1	1.095	2.462	81.391	13.533	1.366	0.050	0.090	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1364.95	
28	0.6597	1090.2	1109.5	1109.0	1.117	2.482	80.976	13.852	1.412	0.053	0.095	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1366.05	
29	0.6600	1089.8	1109.1	1108.6	1.123	2.527	80.876	13.930	1.387	0.051	0.093	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1365.21	
30	0.6610	1090.5	1109.8	1109.3	1.125	2.573	80.659	14.109	1.378	0.051	0.092	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1365.08	
31	0.6594	1089.2	1108.5	1107.9	1.115	2.524	81.042	13.734	1.416	0.055	0.101	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1365.00	
Avg	0.6612	1092.0	1111.0	1110.6	1.043	2.643	80.510	14.287	1.367	0.049	0.087	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1366.35	

Source Daily Summary

May 2023

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	0.6862	1156.0	1176.5	1175.1	0.000	2.675	73.399	23.221	0.684	0.008	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.26	-25.66
2	0.6894	1159.5	1180.0	1178.6	0.000	2.767	72.686	23.892	0.631	0.008	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1421.19	-24.35
3	0.6916	1163.4	1184.0	1182.4	0.000	2.730	72.334	24.205	0.697	0.010	0.020	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1423.79	-22.77
4	0.6906	1161.6	1182.2	1180.7	0.000	2.747	72.457	24.132	0.642	0.008	0.014	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1422.61	-23.68
5	0.6905	1161.5	1182.1	1180.6	0.000	2.743	72.483	24.105	0.646	0.008	0.014	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1422.60	-23.71
6	0.6902	1161.2	1181.8	1180.1	0.000	2.737	72.489	24.145	0.614	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.49	-24.07
7	0.6901	1161.3	1181.8	1180.0	0.000	2.728	72.540	24.077	0.632	0.008	0.014	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1422.62	-23.90
8	0.6901	1161.7	1182.2	1180.5	0.000	2.697	72.571	24.067	0.641	0.008	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1423.17	-23.81
9	0.6901	1161.6	1182.2	1180.7	0.000	2.704	72.559	24.070	0.644	0.008	0.014	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1423.09	-23.80
10	0.6910	1163.4	1184.0	1182.5	0.000	2.680	72.478	24.070	0.747	0.008	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1424.34	-22.92
11	0.6893	1160.6	1181.2	1179.4	0.000	2.691	72.701	23.948	0.643	0.006	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.66	-24.30
12	0.6899	1160.7	1181.3	1179.5	0.000	2.739	72.585	24.022	0.631	0.008	0.014	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1422.18	-24.05
13	0.6907	1161.3	1181.9	1180.3	0.000	2.777	72.417	24.149	0.633	0.008	0.014	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1422.12	-23.70
14	0.6903	1160.6	1181.2	1179.6	0.000	2.780	72.519	24.032	0.646	0.008	0.014	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1421.68	-23.89
15	0.6905	1162.2	1182.8	1181.2	0.000	2.710	72.507	24.080	0.678	0.008	0.014	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1423.31	-23.48
16	0.6934	1166.5	1187.1	1185.6	0.000	2.718	72.073	24.342	0.849	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.61	-21.61
17	0.6903	1161.2	1181.8	1180.3	0.000	2.743	72.534	24.044	0.655	0.008	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1422.42	-23.76
18	0.6894	1160.3	1180.9	1179.3	0.000	2.716	72.684	23.957	0.619	0.008	0.014	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1422.21	-24.27
19	0.6898	1161.1	1181.6	1180.0	0.000	2.711	72.639	23.965	0.662	0.008	0.014	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1422.68	-23.90
20	0.6899	1161.5	1182.1	1180.5	0.000	2.686	72.689	23.869	0.739	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.20	-23.66
21	0.6900	1161.6	1182.2	1180.3	0.000	2.695	72.670	23.870	0.748	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.15	-23.59
22	0.6913	1163.3	1183.9	1182.3	0.000	2.712	72.457	24.035	0.767	0.010	0.018	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1423.88	-22.76
23	0.6909	1162.3	1182.9	1181.5	0.000	2.739	72.496	23.992	0.743	0.010	0.019	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1423.06	-23.04
24	0.6923	1163.9	1184.5	1183.1	0.000	2.765	72.362	23.981	0.852	0.012	0.024	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1423.66	-21.87
25	0.6922	1164.4	1185.0	1183.5	0.000	2.726	72.477	23.833	0.906	0.017	0.036	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1424.36	-21.42
26	0.6887	1158.6	1179.1	1177.5	0.000	2.752	72.946	23.543	0.731	0.010	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.86	-24.26
27	0.6893	1159.9	1180.5	1178.6	0.000	2.735	72.796	23.722	0.721	0.009	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1421.78	-23.94
28	0.6896	1160.9	1181.4	1179.9	0.000	2.704	72.734	23.819	0.719	0.008	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1422.65	-23.76
29	0.6885	1159.1	1179.6	1178.0	0.000	2.713	72.772	23.943	0.558	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.55	-25.05
30	0.6868	1156.7	1177.2	1175.5	0.000	2.691	73.055	23.761	0.479	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.49	-26.20
31	0.6846	1153.0	1173.5	1171.9	0.000	2.710	73.474	23.345	0.457	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.22	-27.45
Avg	0.6899	1161.0	1181.6	1180.0	0.000	2.723	72.632	23.943	0.678	0.008	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1422.51	-23.83

Source Daily Summary

May 2023

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	0.6390	1058.1	1076.9	1076.2	0.822	2.942	84.585	10.310	1.206	0.045	0.079	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1347.11	
2	0.6179	1028.5	1046.7	1046.0	0.593	3.113	88.159	7.229	0.822	0.032	0.046	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1331.45	
3	0.5723	962.8	979.8	979.1	0.109	3.557	96.006	0.303	0.017	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.26	
4	0.5722	962.7	979.7	978.9	0.109	3.562	96.009	0.297	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.15	
5	0.5723	962.6	979.7	979.0	0.109	3.569	96.003	0.296	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.02	
6	0.5722	962.6	979.7	979.2	0.109	3.566	96.006	0.296	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.07	
7	0.5723	962.6	979.6	979.0	0.108	3.571	96.003	0.295	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.99	
8	0.5722	962.7	979.8	979.2	0.109	3.557	96.014	0.297	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.23	
9	0.5722	962.8	979.8	979.1	0.109	3.553	96.018	0.296	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.30	
10	0.5722	962.9	979.9	979.1	0.110	3.542	96.027	0.297	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.48	
11	0.6023	994.2	1011.8	1011.2	0.212	4.316	90.427	4.503	0.467	0.022	0.046	0.002	0.005	0.000	0.000	0.000	0.000	0.000	1303.87	
12	0.5722	962.9	980.0	979.4	0.110	3.540	96.026	0.299	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.51	
13	0.5722	962.9	979.9	979.4	0.110	3.542	96.026	0.298	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.47	
14	0.5722	962.9	979.9	979.3	0.110	3.543	96.025	0.297	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.46	
15	0.6228	1039.5	1057.9	1057.1	0.503	3.041	86.617	9.353	0.449	0.014	0.021	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1340.09	
16	0.6551	1085.5	1104.7	1103.8	0.710	2.967	80.742	14.592	0.915	0.023	0.045	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1364.85	
17	0.6621	1095.1	1114.5	1113.8	0.684	3.073	79.474	15.602	1.084	0.026	0.051	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1369.68	
18	0.6616	1096.5	1115.9	1115.3	0.708	2.905	79.584	15.669	1.051	0.026	0.050	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1371.96	
19	0.6655	1103.5	1123.0	1122.2	0.596	3.019	78.440	17.024	0.849	0.021	0.044	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1376.62	
20	0.6634	1096.3	1115.7	1114.7	0.589	3.272	78.778	16.489	0.797	0.021	0.047	0.002	0.004	0.000	0.000	0.000	0.000	0.000	1369.79	
21	0.6542	1079.1	1098.2	1097.1	0.718	3.262	80.849	14.242	0.843	0.024	0.055	0.003	0.005	0.000	0.000	0.000	0.000	0.000	1357.70	
22	0.6518	1075.5	1094.6	1093.3	0.716	3.249	81.324	13.805	0.820	0.024	0.053	0.003	0.004	0.000	0.000	0.000	0.000	0.000	1355.78	
23	0.6254	1038.7	1057.1	1055.8	0.570	3.230	86.281	9.295	0.564	0.019	0.035	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1336.49	
24	0.5765	968.7	985.9	984.7	0.138	3.549	95.226	1.014	0.061	0.009	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1298.44	
25	0.5722	962.8	979.9	978.9	0.110	3.551	96.014	0.301	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.35	
26	0.5722	962.8	979.9	978.9	0.110	3.548	96.021	0.297	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.38	
27	0.5722	962.7	979.8	978.8	0.109	3.557	96.014	0.297	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.23	
28	0.5722	962.7	979.8	978.9	0.110	3.557	96.013	0.296	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.21	
29	0.5722	962.8	979.9	979.0	0.110	3.548	96.021	0.298	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.37	
30	0.5722	962.8	979.8	978.8	0.110	3.554	96.016	0.297	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.26	
31	0.5834	978.9	996.2	995.2	0.197	3.494	93.991	2.126	0.171	0.012	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1304.12	
Avg	0.6003	1003.0	1021.2	1020.3	0.310	3.414	90.863	5.042	0.334	0.015	0.019	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1317.67	

May-23

ZONE 550

MANDAN BORDER

NBPL - St Anthony

WBI - Mandan Border

Weighted

Start Date	End Date	NBPL - St Anthony			WBI - Mandan Border			AVG BTU	
		MCF	DK	BTU	MCF	DK	BTU Zone 28		
5/1/2023	5/2/2023	1,232	1,332	1081	943	1,125	1192.1	1129.169	5/1/2023
5/2/2023	5/3/2023	478	514	1076.5	1,231	1,466	1187.9	1156.742	5/2/2023
5/3/2023	5/4/2023	1,751	1,888	1077.7	192	231	1204.3	1090.210	5/3/2023
5/4/2023	5/5/2023	1,035	1,113	1075.7	0	0	1191.6	1075.700	5/4/2023
5/5/2023	5/6/2023	1,062	1,143	1076.5	0	0	1197.1	1076.500	5/5/2023
5/6/2023	5/7/2023	1,288	1,388	1078	152	181	1189.5	1089.769	5/6/2023
5/7/2023	5/8/2023	1,250	1,354	1083.2	328	391	1188.7	1105.129	5/7/2023
5/8/2023	5/9/2023	1,394	1,509	1082.8	97	111	1152.2	1087.315	5/8/2023
5/9/2023	5/10/2023	1,196	1,293	1081.2	0	0	1190.4	1081.200	5/9/2023
5/10/2023	5/11/2023	1,017	1,103	1084.3	0	0	1191.6	1084.300	5/10/2023
5/11/2023	5/12/2023	979	1,058	1080.7	0	0	1189.3	1080.700	5/11/2023
5/12/2023	5/13/2023	1,321	1,426	1079.6	0	0	1195.9	1079.600	5/12/2023
5/13/2023	5/14/2023	1,132	1,223	1080.9	0	0	1192	1080.900	5/13/2023
5/14/2023	5/15/2023	973	1,052	1080.7	0	0	1195.3	1080.700	5/14/2023
5/15/2023	5/16/2023	1,001	1,078	1077.4	0	0	1186.4	1077.400	5/15/2023
5/16/2023	5/17/2023	945	1,022	1081.5	0	0	1192.9	1081.500	5/16/2023
5/17/2023	5/18/2023	1,115	1,205	1080.8	0	0	1189.2	1080.800	5/17/2023
5/18/2023	5/19/2023	1,690	1,826	1080.5	34	41	1193	1082.719	5/18/2023
5/19/2023	5/20/2023	1,208	1,301	1077.1	0	0	1192.9	1077.100	5/19/2023
5/20/2023	5/21/2023	900	968	1075.8	0	0	1195.2	1075.800	5/20/2023
5/21/2023	5/22/2023	875	945	1080.6	0	0	1191.4	1080.600	5/21/2023
5/22/2023	5/23/2023	900	975	1083.4	0	0	1195.2	1083.400	5/22/2023
5/23/2023	5/24/2023	3,554	3,838	1079.5	0	0	1193.1	1079.500	5/23/2023
5/24/2023	5/25/2023	5,800	6,241	1075.8	0	0	1195.6	1075.800	5/24/2023
5/25/2023	5/26/2023	901	969	1075.9	0	0	1194.4	1075.900	5/25/2023
5/26/2023	5/27/2023	792	855	1079.6	0	0	1193.6	1079.600	5/26/2023
5/27/2023	5/28/2023	764	823	1078.4	0	0	1188.3	1078.400	5/27/2023
5/28/2023	5/29/2023	742	802	1079.9	0	0	1190.6	1079.900	5/28/2023
5/29/2023	5/30/2023	825	892	1080.8	0	0	1187	1080.800	5/29/2023
5/30/2023	5/31/2023	883	953	1079.2	0	0	1189.2	1079.200	5/30/2023
5/31/2023	6/1/2023	894	965	1078.9	0	0	1188.3	1078.900	5/31/2023
		39,897	43,054	1079.4806	2,977	3,546	1190.7806	1085.3307	



Alliance Pipeline

DAILY ANALYSIS --- USA
 ND07MD1 --- Hankinson Sales
 May 2023

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	1,148.324	0.6550	85.2207	9.2501	3.2767	0.3443	0.5879	0.0574	0.0447	0.0220	0.8221	0.3657	0.0084
2	1,149.848	0.6559	85.0986	9.3234	3.3138	0.3476	0.5978	0.0576	0.0453	0.0230	0.8234	0.3610	0.0085
3	1,150.413	0.6566	84.9487	9.4187	3.3483	0.3431	0.5923	0.0558	0.0440	0.0222	0.8548	0.3635	0.0084
4	1,151.799	0.6577	84.8711	9.3949	3.3937	0.3542	0.6146	0.0599	0.0481	0.0226	0.8637	0.3689	0.0084
5	1,151.214	0.6569	85.0356	9.2990	3.3569	0.3585	0.6205	0.0626	0.0479	0.0215	0.8062	0.3820	0.0092
6	1,153.761	0.6595	84.7480	9.3340	3.4879	0.3693	0.6536	0.0648	0.0499	0.0195	0.8593	0.4040	0.0097
7	1,153.323	0.6594	84.6797	9.4280	3.4660	0.3619	0.6446	0.0610	0.0468	0.0186	0.8878	0.3963	0.0094
8	1,153.527	0.6595	84.6743	9.4377	3.4549	0.3640	0.6456	0.0619	0.0495	0.0211	0.8929	0.3890	0.0092
9	1,154.322	0.6592	84.8014	9.2743	3.5538	0.3637	0.6440	0.0609	0.0497	0.0211	0.8700	0.3537	0.0073
10	1,156.520	0.6611	84.5588	9.3354	3.6550	0.3717	0.6645	0.0617	0.0511	0.0206	0.9166	0.3563	0.0084
11	1,157.435	0.6616	84.5043	9.4254	3.5919	0.3835	0.6798	0.0668	0.0570	0.0233	0.8919	0.3669	0.0093
12	1,154.453	0.6592	84.7583	9.4177	3.4541	0.3652	0.6385	0.0654	0.0560	0.0260	0.8371	0.3716	0.0101
13	1,154.806	0.6592	84.8491	9.2777	3.4691	0.3795	0.6695	0.0678	0.0556	0.0255	0.8464	0.3500	0.0098
14	1,154.925	0.6589	84.7651	9.4819	3.4106	0.3687	0.6377	0.0672	0.0584	0.0281	0.8279	0.3446	0.0098
15	1,158.533	0.6612	84.4810	9.5806	3.5798	0.3732	0.6551	0.0657	0.0566	0.0249	0.8310	0.3419	0.0102
16	1,157.546	0.6595	84.8296	9.3577	3.5111	0.3823	0.6728	0.0695	0.0590	0.0262	0.7735	0.3088	0.0093
17	1,159.747	0.6615	84.5831	9.4114	3.5910	0.3969	0.7084	0.0713	0.0591	0.0261	0.8446	0.3001	0.0081
18	1,159.109	0.6616	84.5477	9.3546	3.6524	0.3868	0.7008	0.0683	0.0578	0.0247	0.9112	0.2889	0.0068
19	1,155.203	0.6588	84.9130	9.2114	3.4927	0.3832	0.6610	0.0708	0.0622	0.0277	0.8861	0.2853	0.0066
20	1,153.115	0.6573	85.1326	9.0726	3.4531	0.3766	0.6493	0.0682	0.0590	0.0277	0.8666	0.2876	0.0066
21	1,155.162	0.6597	84.8098	9.1385	3.5726	0.3838	0.6859	0.0678	0.0560	0.0239	0.9541	0.3007	0.0071
22	1,153.865	0.6577	85.0204	9.1231	3.5736	0.3618	0.6222	0.0641	0.0530	0.0219	0.8670	0.2856	0.0073
23	1,153.894	0.6574	85.0562	9.1473	3.5528	0.3602	0.6126	0.0641	0.0537	0.0240	0.8429	0.2784	0.0077
24	1,159.354	0.6609	84.8940	8.9931	3.6541	0.4121	0.7384	0.0788	0.0676	0.0298	0.8534	0.2713	0.0075
25	1,157.221	0.6595	85.0326	9.0147	3.5324	0.4060	0.7081	0.0818	0.0708	0.0320	0.8276	0.2861	0.0077
26	1,153.301	0.6570	85.2419	8.9642	3.4472	0.3839	0.6693	0.0727	0.0624	0.0266	0.8471	0.2770	0.0077
27	1,153.075	0.6568	85.3106	8.9472	3.4040	0.3874	0.6688	0.0759	0.0656	0.0290	0.8115	0.2923	0.0077
28	1,154.025	0.6577	85.1786	9.0059	3.4458	0.3887	0.6847	0.0720	0.0614	0.0279	0.8238	0.3045	0.0068
29	1,155.646	0.6584	85.0334	9.1016	3.5589	0.3801	0.6723	0.0638	0.0544	0.0240	0.8136	0.2898	0.0080
30	1,157.150	0.6588	84.9647	9.2017	3.5683	0.3816	0.6683	0.0667	0.0565	0.0253	0.7757	0.2823	0.0089
31	1,156.232	0.6589	84.9336	9.2006	3.5595	0.3757	0.6690	0.0653	0.0542	0.0244	0.8021	0.3064	0.0092
Volume	1,154.124	0.6585	84.9247	9.2301	3.4846	0.3723	0.6520	0.0659	0.0546	0.0243	0.8521	0.3312	0.0083
Weight Avg Energy	1,154.129	0.6585	84.9245	9.2300	3.4848	0.3723	0.6520	0.0659	0.0546	0.0243	0.8521	0.3312	0.0083



Alliance Pipeline

DAILY ANALYSIS --- USA
 ND14MD1 --- Milnor Sales
 May 2023

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	1,148.585	0.6552	85.2036	9.2490	3.2872	0.3465	0.5900	0.0575	0.0453	0.0224	0.8212	0.3691	0.0082
2	1,150.020	0.6561	85.0516	9.3686	3.3175	0.3451	0.5959	0.0571	0.0439	0.0223	0.8278	0.3614	0.0087
3	1,150.305	0.6565	84.9546	9.4258	3.3409	0.3416	0.5896	0.0557	0.0448	0.0223	0.8553	0.3610	0.0084
4	1,152.234	0.6581	84.8441	9.3883	3.4093	0.3576	0.6224	0.0611	0.0484	0.0226	0.8667	0.3713	0.0083
5	1,150.922	0.6566	85.0804	9.2854	3.3497	0.3548	0.6162	0.0616	0.0471	0.0218	0.7896	0.3840	0.0094
6	1,154.719	0.6605	84.6363	9.3465	3.5323	0.3748	0.6695	0.0657	0.0503	0.0191	0.8908	0.4051	0.0096
7	1,151.640	0.6582	84.7948	9.4054	3.4101	0.3537	0.6252	0.0593	0.0457	0.0183	0.8833	0.3943	0.0098
8	1,153.749	0.6596	84.6576	9.4430	3.4622	0.3646	0.6475	0.0622	0.0499	0.0211	0.8929	0.3899	0.0091
9	1,154.336	0.6591	84.8078	9.2649	3.5621	0.3624	0.6430	0.0607	0.0495	0.0211	0.8732	0.3482	0.0071
10	1,157.019	0.6615	84.5115	9.3645	3.6618	0.3744	0.6684	0.0623	0.0520	0.0208	0.9151	0.3604	0.0087
11	1,157.738	0.6617	84.4942	9.4262	3.5989	0.3850	0.6828	0.0675	0.0574	0.0237	0.8899	0.3654	0.0092
12	1,154.923	0.6594	84.7296	9.4457	3.4608	0.3659	0.6407	0.0653	0.0559	0.0262	0.8334	0.3665	0.0101
13	1,154.602	0.6591	84.8867	9.2251	3.4683	0.3850	0.6749	0.0683	0.0553	0.0257	0.8488	0.3524	0.0096
14	1,151.128	0.6566	85.0837	9.2859	3.3557	0.3534	0.6069	0.0609	0.0525	0.0255	0.7997	0.3656	0.0102
15	1,159.419	0.6618	84.4113	9.6135	3.6001	0.3769	0.6626	0.0669	0.0578	0.0255	0.8386	0.3366	0.0102
16	1,157.905	0.6598	84.8070	9.3413	3.5295	0.3869	0.6808	0.0699	0.0592	0.0258	0.7850	0.3055	0.0091
17	1,159.970	0.6619	84.5271	9.4161	3.6076	0.3991	0.7146	0.0717	0.0591	0.0259	0.8672	0.3036	0.0080
18	1,159.696	0.6623	84.4414	9.4092	3.6603	0.3931	0.7083	0.0689	0.0572	0.0255	0.9322	0.2967	0.0073
19	1,155.307	0.6588	84.9425	9.1743	3.4984	0.3859	0.6663	0.0715	0.0626	0.0280	0.8806	0.2834	0.0065
20	1,153.110	0.6569	85.1820	9.0786	3.4255	0.3791	0.6485	0.0690	0.0595	0.0272	0.8382	0.2855	0.0067
21	1,154.676	0.6593	84.8023	9.2064	3.5424	0.3755	0.6749	0.0661	0.0542	0.0222	0.9513	0.2971	0.0076
22	1,152.886	0.6570	85.1043	9.0986	3.5591	0.3548	0.5973	0.0640	0.0532	0.0223	0.8548	0.2842	0.0074
23	1,155.176	0.6583	84.9805	9.1379	3.5819	0.3703	0.6450	0.0646	0.0545	0.0246	0.8576	0.2756	0.0076
24	1,159.712	0.6610	84.9032	8.9783	3.6496	0.4176	0.7444	0.0817	0.0701	0.0307	0.8449	0.2720	0.0075
25	1,156.284	0.6589	85.0949	8.9986	3.5071	0.4009	0.6982	0.0803	0.0696	0.0314	0.8249	0.2864	0.0078
26	1,153.505	0.6570	85.2654	8.9410	3.4460	0.3869	0.6748	0.0742	0.0636	0.0270	0.8397	0.2738	0.0076
27	1,152.896	0.6566	85.3024	8.9805	3.3877	0.3859	0.6654	0.0750	0.0645	0.0284	0.8086	0.2941	0.0076
28	1,153.770	0.6575	85.1842	9.0143	3.4474	0.3846	0.6777	0.0700	0.0601	0.0277	0.8213	0.3058	0.0068
29	1,155.558	0.6583	85.0484	9.0833	3.5657	0.3797	0.6735	0.0626	0.0536	0.0234	0.8155	0.2860	0.0083
30	1,157.129	0.6588	84.9701	9.2011	3.5664	0.3811	0.6668	0.0673	0.0568	0.0255	0.7699	0.2859	0.0090
31	1,156.394	0.6591	84.9051	9.2014	3.5754	0.3760	0.6725	0.0643	0.0534	0.0240	0.8113	0.3073	0.0093
Volume	1,154.823	0.6589	84.8498	9.2859	3.5015	0.3726	0.6537	0.0655	0.0543	0.0242	0.8527	0.3314	0.0085
Weight Avg Energy	1,154.829	0.6589	84.8497	9.2858	3.5017	0.3726	0.6538	0.0655	0.0543	0.0242	0.8527	0.3312	0.0085

May-23

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		
5/1/2023	5/2/2023	127	151	1189.4	301	313	1041.8	1085.597	5/1/2023
5/2/2023	5/3/2023	93	111	1189.4	240	250	1041.8	1083.022	5/2/2023
5/3/2023	5/4/2023	73	87	1189.4	159	165	1041.8	1088.243	5/3/2023
5/4/2023	5/5/2023	31	37	1189.4	162	169	1041.8	1065.508	5/4/2023
5/5/2023	5/6/2023	62	74	1189.4	205	213	1041.8	1076.074	5/5/2023
5/6/2023	5/7/2023	53	63	1189.4	222	231	1041.8	1070.247	5/6/2023
5/7/2023	5/8/2023	55	65	1189.4	268	279	1041.8	1066.933	5/7/2023
5/8/2023	5/9/2023	73	87	1189.4	250	260	1041.8	1075.159	5/8/2023
5/9/2023	5/10/2023	16	18	1189.4	196	204	1041.8	1052.940	5/9/2023
5/10/2023	5/11/2023	32	38	1189.4	158	165	1041.8	1066.659	5/10/2023
5/11/2023	5/12/2023	17	20	1189.4	196	204	1041.8	1053.580	5/11/2023
5/12/2023	5/13/2023	82	97	1189.4	281	293	1041.8	1075.142	5/12/2023
5/13/2023	5/14/2023	114	136	1189.4	302	315	1041.8	1082.248	5/13/2023
5/14/2023	5/15/2023	34	40	1189.4	183	191	1041.8	1064.926	5/14/2023
5/15/2023	5/16/2023	24	28	1189.4	170	177	1041.8	1060.060	5/15/2023
5/16/2023	5/17/2023	28	33	1189.4	133	138	1041.8	1067.470	5/16/2023
5/17/2023	5/18/2023	73	87	1189.4	189	196	1041.8	1082.925	5/17/2023
5/18/2023	5/19/2023	143	171	1189.4	333	347	1041.8	1086.142	5/18/2023
5/19/2023	5/20/2023	69	82	1189.4	183	191	1041.8	1082.214	5/19/2023
5/20/2023	5/21/2023	13	16	1189.4	161	168	1041.8	1052.828	5/20/2023
5/21/2023	5/22/2023	14	17	1189.4	202	210	1041.8	1051.367	5/21/2023
5/22/2023	5/23/2023	14	17	1189.4	149	156	1041.8	1054.477	5/22/2023
5/23/2023	5/24/2023	11	13	1189.4	132	137	1041.8	1053.154	5/23/2023
5/24/2023	5/25/2023	9	11	1189.4	126	131	1041.8	1051.640	5/24/2023
5/25/2023	5/26/2023	9	11	1189.4	156	162	1041.8	1049.851	5/25/2023
5/26/2023	5/27/2023	8	10	1189.4	132	138	1041.8	1050.234	5/26/2023
5/27/2023	5/28/2023	7	8	1189.4	136	141	1041.8	1049.025	5/27/2023
5/28/2023	5/29/2023	11	13	1189.4	118	123	1041.8	1054.386	5/28/2023
5/29/2023	5/30/2023	2	3	1189.4	153	159	1041.8	1043.705	5/29/2023
5/30/2023	5/31/2023	22	26	1189.4	150	156	1041.8	1060.679	5/30/2023
5/31/2023	6/1/2023	6	7	1189.4	143	149	1041.8	1047.744	5/31/2023
		1,325	1,577	1189.4000	5,889	6,131	1041.8000	1064.6509	

Tsp	EffDate	EndDate	Device	GasDay	EndDt	BTU	SpecGrav	CriconTherm	WobbeIndex	CO2	N2	Methane	Ethane	Propane	iButane	nButane	iPentane	nPentane	NeoPentane	C6Plus	Hydrogen	Helium	WaterVapor	TotalSulfur	HydrogenSulfur	Oxygen
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/1/2023	5/2/2023	1081	0.6412	-51.9	1349.984982	0.9501	2.6793	83.3967	11.9163	0.7931	0.0259	0.0444	0.003	0.0024	N/A	0.0004	0.1638	0.0248	N/A	0.0084	0.001	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/2/2023	5/3/2023	1077	0.6368	-55.5	1349.628299	0.9331	2.5468	84.1954	11.3562	0.7291	0.0195	0.0353	0.0015	0.0014	N/A	0	0.1582	0.0238	N/A	0.0087	0.0011	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/3/2023	5/4/2023	1078	0.6372	-55	1350.457364	0.9248	2.5579	84.1254	11.4002	0.7506	0.0203	0.0367	0.0017	0.0015	N/A	0	0.1575	0.0236	N/A	0.0118	0.0015	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/4/2023	5/5/2023	1076	0.6357	-56.3	1349.541256	0.9256	2.5125	84.4128	11.2043	0.7153	0.0186	0.0332	0.0013	0.0012	N/A	0	0.1517	0.0235	N/A	0.012	0.0012	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/5/2023	5/6/2023	1076	0.6361	-56.1	1349.116872	0.9318	2.5028	84.2982	11.248	0.7151	0.0189	0.0335	0.0015	0.0013	N/A	0	0.1276	0.0234	N/A	0.0119	0.001	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/6/2023	5/7/2023	1078	0.6389	-54.2	1348.659503	0.9498	2.622	83.8315	11.6226	0.7482	0.0206	0.0369	0.0017	0.0014	N/A	0	0.1414	0.0241	N/A	0.0116	0.0009	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/7/2023	5/8/2023	1083	0.6453	-50.5	1348.179205	1.0079	2.8625	82.6932	12.4084	0.8224	0.0225	0.0409	0.002	0.0018	N/A	0	0.1123	0.0261	N/A	0.0116	0.001	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/8/2023	5/9/2023	1083	0.6451	-50.9	1348.388176	0.9976	2.8624	82.6747	12.4734	0.792	0.0204	0.0374	0.0017	0.0016	N/A	0	0.1128	0.026	N/A	0.0118	0.0011	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/9/2023	5/10/2023	1081	0.6424	-52.2	1348.723651	0.9807	2.7388	83.18	12.0899	0.7898	0.0203	0.0369	0.0017	0.0015	N/A	0	0.1354	0.025	N/A	0.0117	0.001	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/10/2023	5/11/2023	1084	0.6474	-49.9	1347.23369	1.0265	2.9556	82.2268	12.8105	0.7919	0.0201	0.0366	0.0016	0.0015	N/A	0	0.1021	0.0268	N/A	0.0126	0.0015	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/11/2023	5/12/2023	1081	0.6415	-52.9	1349.669282	0.9735	2.6873	83.3864	11.9963	0.7632	0.0201	0.0361	0.0017	0.0016	N/A	0	0.1088	0.025	N/A	0.0123	0.0011	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/12/2023	5/13/2023	1079	0.6391	-54.8	1349.699341	0.9641	2.595	83.8239	11.7523	0.6962	0.0173	0.0308	0.0014	0.0011	N/A	0	0.0937	0.0243	N/A	0.0119	0.001	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/13/2023	5/14/2023	1081	0.6419	-53.3	1349.248693	0.9691	2.7268	83.2549	12.1712	0.7109	0.0172	0.0309	0.0014	0.001	N/A	0	0.0912	0.0255	N/A	0.0117	0.001	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/14/2023	5/15/2023	1081	0.6412	-53.5	1349.984982	0.9691	2.6578	83.437	12.0595	0.7154	0.0182	0.0324	0.0013	0.0009	N/A	0	0.0837	0.0249	N/A	0.0121	0.0012	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/15/2023	5/16/2023	1077	0.6377	-55.8	1348.675583	0.9507	2.3859	84.1282	11.4755	0.6964	0.0177	0.0308	0.0012	0.0007	N/A	0	0.0884	0.0247	N/A	0.0126	0.0015	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/16/2023	5/17/2023	1081	0.6405	-53.8	1350.722477	0.9603	2.5713	83.5106	12.0874	0.7012	0.0177	0.0311	0.0011	0.0005	N/A	0	0.1148	0.0242	N/A	0.0126	0.0015	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/17/2023	5/18/2023	1081	0.6413	-53	1349.879724	0.9762	2.6474	83.3374	12.0272	0.7757	0.0182	0.0315	0.0008	0.0003	N/A	0	0.161	0.0244	N/A	0.012	0.001	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/18/2023	5/19/2023	1080	0.6429	-52.8	1346.951762	1.0009	2.7956	82.994	12.2512	0.7358	0.0181	0.0313	0.0006	0.0001	N/A	0	0.1471	0.0254	N/A	0.0118	0.0009	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/19/2023	5/20/2023	1078	0.6399	-54.6	1347.605286	0.9853	2.6973	83.5465	11.8507	0.6877	0.0188	0.0323	0.001	0.0004	N/A	0	0.1553	0.0249	N/A	0.0116	0.0009	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/20/2023	5/21/2023	1076	0.6375	-55.9	1347.634674	0.9679	2.6164	84.0703	11.4473	0.6866	0.0184	0.033	0.0011	0.0006	N/A	0	0.1338	0.0246	N/A	0.0116	0.0008	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/21/2023	5/22/2023	1081	0.6423	-52.9	1348.828497	0.9881	2.7379	83.1854	12.1708	0.7278	0.0193	0.0349	0.0014	0.001	N/A	0	0.1081	0.0255	N/A	0.0116	0.0008	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/22/2023	5/23/2023	1083	0.6454	-50.9	1348.074756	1.0147	2.8384	82.5506	12.6105	0.7615	0.0202	0.0363	0.0016	0.0013	N/A	0	0.1391	0.025	N/A	0.0116	0.0008	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/23/2023	5/24/2023	1079	0.6407	-53.9	1348.013007	0.9736	2.7258	83.5413	11.8592	0.7268	0.0195	0.0342	0.0016	0.0012	N/A	0	0.0916	0.0254	N/A	0.0057	0.0009	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/24/2023	5/25/2023	1075	0.6364	-56.2	1347.545316	0.9442	2.5717	84.3548	11.2314	0.708	0.0188	0.0337	0.0016	0.0013	N/A	0	0.1102	0.0244	N/A	0.0036	0.0009	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/25/2023	5/26/2023	1076	0.6364	-56.3	1348.798846	0.9369	2.5567	84.3745	11.2655	0.6997	0.0182	0.0327	0.0014	0.001	N/A	0	0.0895	0.0241	N/A	0.0036	0.0009	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/26/2023	5/27/2023	1079	0.6373	-55.1	1351.604053	0.9177	2.4566	84.2338	11.5032	0.7236	0.0191	0.034	0.0017	0.0014	N/A	0	0.0865	0.0235	N/A	0.0036	0.0009	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/26/2023	5/28/2023	1079	0.6373	-55.1	1351.604053	0.9177	2.4566	84.2338	11.5032	0.7236	0.0191	0.034	0.0017	0.0014	N/A	0	0.0865	0.0235	N/A	0.0036	0.0009	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/26/2023	5/29/2023	1079	0.6373	-55.1	1351.604053	0.9177	2.4566	84.2338	11.5032	0.7236	0.0191	0.034	0.0017	0.0014	N/A	0	0.0865	0.0235	N/A	0.0036	0.0009	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/29/2023	5/30/2023	1081	0.6409	-53.1	1350.300903	0.9543	2.6535	83.4877	11.9551	0.7481	0.0215	0.0387	0.0018	0.0015	N/A	0	0.1129	0.025	N/A	0.0036	0.0009	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/30/2023	5/31/2023	1079	0.6389	-54	1349.910578	0.9433	2.5924	83.9123	11.5887	0.7565	0.0226	0.0414	0.0019	0.0018	N/A	0	0.1149	0.0243	N/A	0.0036	0.0009	0.4936
NBPL	2/28/2023 0:00	6/9/2023 0:00	GLNU1 - GLEN ULLIN	5/31/2023	6/1/2023	1079	0.6375	-54.4	1351.39202	0.9321	2.4855	84.2419	11.3799	0.7623	0.0238	0.044	0.0021	0.0019	N/A	0	0.103	0.0236	N/A	0.0036	0.0009	0.4936

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	MAY23	APR23	MAR23	FEB23	JAN23	DEC22	NOV22	OCT22	SEP22	AUG22	JUL22	JUN22	0
MT/ND	211	Sidney Border - MonDak Trf - Sidney Pt	1201	1200	1204	1208	1191	1203	1206	1202	1201	1198	1205	1200	1198	211
ND	24	Williston Border - Charbonneau Station	1194	1198	1194	1195	1198	1197	1193	1198	1194	1188	1192	1195	1187	24
ND	25	Watford City West Border	1199	1189	1180	1183	1200	1195	1202	1207	1210	1209	1210	1201	1199	25
ND	28	Bismarck Station - Glen Ullin Station	1158	1192	1118	1127	1115	1118	1133	1126	1175	1191	1198	1202	1204	28
ND	31	Dickinson Brd - Belfield Trf - G Ullin Stn	1111	1086	1100	1132	1126	1132	1140	1131	1097	1099	1087	1094	1105	31
ND/MT	32	Cabin Creek Station - Belfied Transfer	1125	1111	1119	1137	1116	1125	1139	1132	1122	1128	1129	1115	1124	32
ND	33	Little Knife Plant	1177	1182	1179	1177	1175	1176	1176	1176	1179	1173	1174	1177	1175	33
ND	34	Badlands Plant/Bowman Border	1046	1021	1005	1071	1086	1079	1086	1077	989	1056	1031	1033	1014	34
ND	43	Watford City East Border	1080	1042	1083	1116	1128	1143	1133	1054	1050	1051	1057	1062	1044	43
ND/MT	241	Fairview Border	1202	1200	1196	1201	1212	1218	1201	1210	1205	1193	1197	1199	1186	241
ND	267	North Tioga Transfer - Nesson Plant	1182	1188	1187	1189	1188	1181	1176	1176	1178	1174	1184	1184	1173	267
ND	261	Tioga Comp Station - Robinson Lake Plan	1189	1188	1184	1185	1184	1176	1176	1182	1194	1196	1196	1201	1200	261
ND	262	Minot Bdr - Palermo Bdr - Bismarck Stn	1193	1190	1189	1187	1187	1188	1189	1186	1195	1198	1196	1203	1205	262
ND	263	Lignite Plant	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	1130	1131	263
ND	264	Epping Border	1196	1195	1202	1200	1208	1202	1198	1194	1198	1196	1192	1188	1182	264
ND	265	Tioga Comp Station - County Line Plant	1179	1176	1182	1183	1181	1182	1169	1182	1180	1178	1178	1180	1176	265
ND	266	County Line Plant	1180	1178	1182	1183	1180	1183	1168	1181	1180	1180	1182	1179	1179	266
ND	271	Bismarck Station - Cleveland Station	1187	1192	1189	1181	1168	1168	1176	1181	1197	1191	1198	1202	1205	271
ND	272	Cleveland Station - Mapleton	1187	1191	1188	1181	1168	1168	1176	1181	1197	1191	1198	1202	1205	272
ND	273	Cleveland Station - Grafton Border	1187	1192	1187	1180	1168	1168	1176	1181	1198	1194	1198	1200	1205	273
ND	550	Mandan Border / NBPL-St Anthony	1141	1085	1101	1118	1109	1109	1127	1107	1173	1189	1194	1182	1201	550
ND	610	MDU-Watford City BTU	1105	1065	1111	1137	1149	1159	1155	1102	1113	1072	1068	1065	1063	610
ND	802	NBPL - Linton	1087	1080	1085	1097	1095	1093	1090	1087	1084	1081	1083	1086	1084	0
ND	903	Hettinger Propane	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	0
ND	600	Alliance Pipeline - Hankinson	1153	1154	1153	1149	1152	1148	1143	1149	1159	1159	1157	1160	1153	0
ND	601	Alliance Pipeline - Minor	1153	1155	1154	1149	1152	1148	1143	1149	1159	1160	1157	1160	1153	0

THERMAL ZONE VARIANCE DOCUMENTATION		
May 2023		
<i>ZONE</i>	<i>BTU VARIANCE</i>	<i>REASON</i>
28	74	Operational
43	41	Blend
610	46	Blend