



A Subsidiary of MDU Resources Group, Inc.

400 North Fourth Street
Bismarck, ND 58501
701-222-7900
www.montana-dakota.com

May 14, 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 – March 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 April 2024.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our suppliers for the month of March 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 March 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
Apr-24

<u>Town</u>	<u>Heat Zone</u>	<u>Therm Factor</u>
MDU-303-ALEXANDER	025	1.1278
MDU-308-ARNEGARD	025	1.1278
MDU-314-APPLE VALLEY	271	1.1414
MDU-318-BEACH	032	1.0332
MDU-319-BELFIELD	032	1.0408
MDU-323-BERTHOLD	262	1.1296
MDU-327-BISMARCK	028	1.0864
MDU-330-BOWMAN	034	0.9173
MDU-337-BURLINGTON	262	1.1540
MDU-343-CARRINGTON	273	1.1414
MDU-344-CLEVELAND	272	1.1334
MDU-364-CAVALIER	273	1.1655
MDU-365-DAWSON	271	1.1334
MDU-368-DES LACS	262	1.1377
MDU-369-DICKINSON	031	1.0568
MDU-374-FT TOTTEN	273	1.1495
MDU-375-DEVILS LAKE	273	1.1495
MDU-379-BARLOW	273	1.1414
MDU-384-EPPING	264	1.1268
MDU-387-ELDRIDGE	272	1.1414
MDU-407-GLADSTONE	031	1.0568
MDU-411-GLEN ULLIN	031	1.0645
MDU-413-GOLVA	032	1.0180
MDU-416-GARRISON	262	1.1377
MDU-417-GRAFTON	273	1.1736
MDU-403-GWINNER	601	1.1271
MDU-429-HEBRON	031	1.0645
MDU-432-HETTINGER	903	2.4049
MDU-449-JAMESTOWN	272	1.1495
MDU-459-KILLDEER	033	1.1060
MDU-463-LANGDON	273	1.1414
MDU-469-LEFOR	031	1.0568
MDU-474-LIGNITE	263	1.0759
MDU-475-LINTON	802	1.0749
MDU-478-LINCOLN	028	1.0864
MDU-488-MCKENZIE	271	1.1414
MDU-494-MEDINA	271	1.1334
MDU-498-MANDAN	028	1.0864
MDU-500-MARMARTH	034	0.9241
MDU-505-MINOT	262	1.1540
MDU-510-MOTT	031	1.0492
MDU-512-MAX	262	1.1296
MDU-513-MILNOR	601	1.1271
MDU-522-NEW ENGLAND	031	1.0492
MDU-524-NEW SALEM	028	1.0635
MDU-532-NEW ROCKFORD	273	1.1414
MDU-539-PARK RIVER	273	1.1655
MDU-540-PALERMO	262	1.1296
MDU-558-RAY	264	1.1268

MDU-561-REGENT	031	1.0568
MDU-563-RHAME	034	0.9106
MDU-564-RICHARDTON	031	1.0492
MDU-568-ROSS	261	1.1178
MDU-572-RUTHVILLE	262	1.1540
MDU-574-SANBORN	272	1.1495
MDU-583-SENTINEL BUTTE	032	1.0332
MDU-588-SOUTH HEART	031	1.0568
MDU-717-SPIRITWOOD	272	1.1495
MDU-590-SPRINGBROOK	264	1.1268
MDU-591-STANLEY	261	1.1258
MDU-593-STEELE	271	1.1334
MDU-594-STERLING	028	1.0864
MDU-598-SHEYENNE	273	1.1495
MDU-605-SURREY	262	1.1540
MDU-610-TAPPEN	271	1.1334
MDU-611-TAYLOR	031	1.0492
MDU-616-TIOGA	260	1.0924
MDU-619-TURTLE LAKE	262	1.1377
MDU-620-TRENTON	024	1.1339
MDU-624-UNDERWOOD	262	1.1377
MDU-625-VALLEY CITY	272	1.1575
MDU-629-WALHALLA	273	1.1655
MDU-632-WATFORD CITY	610	1.0748
MDU-636-WHEELOCK	264	1.1187
MDU-637-WHITE EARTH	261	1.1258
MDU-642-WILLISTON	024	1.1339
MDU-646-WASHBURN	262	1.1377
MDU-647-WILTON	262	1.1296
MDU-664-RIVERDALE	262	1.1377
MDU-691-FAIRVIEW	241	1.1339
MDU-712-MINOT AFB	262	1.1540
MDU-718-FAIRMOUNT	600	1.1248
MDU-732-NEKOMA	273	1.1414
MDU-732-MSR SITE	273	1.1414

Source Daily Summary

March 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	0.7251	1169.5	1190.2	1189.9	1.286	3.538	69.941	21.619	3.201	0.137	0.256	0.013	0.010	0.000	0.000	0.000	0.000	0.000	1397.77	
2	0.7210	1169.6	1190.3	1190.0	1.125	3.389	70.417	21.645	3.045	0.122	0.233	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1401.87	
3	0.7231	1167.6	1188.3	1187.9	1.244	3.532	70.298	21.311	3.210	0.132	0.248	0.013	0.011	0.000	0.000	0.000	0.000	0.000	1397.36	
4	0.7183	1168.8	1189.5	1189.2	0.919	3.503	70.425	21.939	2.912	0.104	0.184	0.007	0.005	0.000	0.000	0.000	0.000	0.000	1403.62	
5	0.7143	1169.0	1189.7	1189.4	0.676	3.486	70.631	22.296	2.679	0.081	0.141	0.006	0.004	0.000	0.000	0.000	0.000	0.000	1407.83	
6	0.7007	1165.6	1186.3	1186.0	0.029	3.403	71.911	22.436	2.157	0.027	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.14	
7	0.7233	1173.2	1194.0	1193.7	1.028	3.538	69.641	22.486	2.979	0.112	0.200	0.009	0.006	0.000	0.000	0.000	0.000	0.000	1404.02	
8	0.7231	1169.9	1190.6	1190.3	1.107	3.606	69.874	22.003	3.055	0.118	0.219	0.010	0.007	0.000	0.000	0.000	0.000	0.000	1400.13	
9	0.7049	1172.5	1193.3	1192.9	0.034	3.367	71.359	22.736	2.428	0.031	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.27	
10	0.7013	1165.7	1186.4	1186.0	0.031	3.447	71.821	22.452	2.182	0.027	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.66	
11	0.6989	1163.8	1184.4	1184.0	0.031	3.346	71.959	22.740	1.887	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.69	
12	0.6982	1162.0	1182.6	1182.2	0.058	3.346	72.078	22.645	1.836	0.017	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.26	
13	0.6983	1162.9	1183.5	1183.1	0.063	3.291	72.146	22.556	1.905	0.018	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.28	
14	0.6968	1161.8	1182.4	1182.1	0.057	3.225	72.400	22.433	1.847	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.47	
15	0.6982	1164.2	1184.8	1184.5	0.049	3.228	72.184	22.562	1.940	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.90	
16	0.6946	1157.9	1178.4	1178.1	0.041	3.283	72.729	22.146	1.769	0.015	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.91	
17	0.6969	1161.3	1181.9	1181.6	0.047	3.281	72.385	22.373	1.879	0.017	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.75	
18	0.6970	1161.0	1181.6	1181.2	0.060	3.289	72.381	22.354	1.878	0.018	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.28	
19	0.6970	1161.0	1181.6	1181.2	0.060	3.289	72.381	22.354	1.878	0.018	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.28	
20	0.6970	1161.0	1181.6	1181.2	0.060	3.289	72.381	22.354	1.878	0.018	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.28	
21	0.6978	1161.9	1182.5	1182.2	0.055	3.319	72.188	22.533	1.868	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.55	
22	0.6979	1164.4	1185.0	1184.7	0.041	3.200	72.257	22.519	1.946	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.43	
23	0.6968	1161.1	1181.7	1181.4	0.048	3.282	72.342	22.478	1.814	0.017	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.60	
24	0.6986	1164.3	1185.0	1184.7	0.047	3.256	72.038	22.748	1.874	0.017	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.72	
25	0.6985	1163.9	1184.5	1184.2	0.048	3.277	72.073	22.669	1.897	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.23	
26	0.6976	1162.4	1183.0	1182.7	0.043	3.285	72.237	22.525	1.874	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.40	
27	0.6968	1161.0	1181.6	1181.3	0.041	3.300	72.378	22.383	1.859	0.018	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.47	
28	0.6981	1163.8	1184.4	1184.1	0.040	3.256	72.112	22.693	1.863	0.017	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.54	
29	0.6983	1164.0	1184.6	1184.3	0.047	3.250	72.125	22.642	1.899	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.61	
30	0.6995	1166.0	1186.7	1186.4	0.050	3.233	72.004	22.663	2.007	0.020	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.86	
31	0.6960	1160.3	1180.9	1180.5	0.042	3.268	72.510	22.316	1.830	0.017	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.42	
Avg	0.7034	1165.0	1185.2	1184.9	0.274	3.342	71.729	22.375	2.170	0.041	0.065	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1413.28	

Source Daily Summary

March 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	0.7054	1166.0	1186.6	1186.4	1.019	2.309	73.073	20.760	2.463	0.106	0.232	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1412.82	
2	0.7109	1173.5	1194.3	1194.0	1.027	2.352	72.573	20.744	2.806	0.136	0.305	0.026	0.031	0.000	0.000	0.000	0.000	0.000	1416.39	
3	0.7089	1169.3	1190.0	1189.7	1.037	2.404	72.464	21.175	2.541	0.108	0.234	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1413.36	
4	0.7072	1167.8	1188.5	1188.3	1.017	2.367	72.815	20.850	2.569	0.110	0.236	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1413.28	
5	0.7033	1163.0	1183.6	1183.3	1.006	2.314	73.308	20.692	2.328	0.101	0.217	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1411.29	
6	0.7045	1164.8	1185.4	1185.2	1.010	2.313	73.158	20.759	2.394	0.105	0.226	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1412.24	
7	0.7077	1169.1	1189.9	1189.6	1.010	2.337	72.833	20.796	2.617	0.115	0.250	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1414.43	
8	0.7083	1169.0	1189.7	1189.5	1.021	2.392	72.670	20.912	2.606	0.113	0.245	0.019	0.021	0.000	0.000	0.000	0.000	0.000	1413.58	
9	0.7046	1165.0	1185.6	1185.3	1.011	2.311	73.159	20.738	2.414	0.104	0.227	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1412.36	
10	0.7022	1160.9	1181.4	1181.2	1.023	2.313	73.540	20.448	2.323	0.099	0.218	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1409.84	
11	0.7028	1161.4	1182.0	1181.8	1.025	2.333	73.393	20.594	2.308	0.099	0.215	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1409.91	
12	0.7034	1161.8	1182.3	1182.1	1.016	2.379	73.324	20.565	2.360	0.101	0.219	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1409.75	
13	0.7031	1159.3	1179.9	1179.6	0.995	2.529	73.464	20.196	2.446	0.105	0.229	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1407.12	
14	0.7012	1157.6	1178.1	1177.9	0.985	2.468	73.785	20.009	2.389	0.103	0.224	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1406.96	
15	0.6970	1152.1	1172.5	1172.2	0.968	2.443	74.666	19.137	2.407	0.107	0.234	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1404.33	
16	0.7008	1158.7	1179.2	1179.0	0.992	2.353	73.956	19.898	2.425	0.106	0.232	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1408.68	
17	0.6993	1157.1	1177.5	1177.3	0.984	2.330	74.087	19.932	2.315	0.100	0.217	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1408.13	
18	0.6990	1156.2	1176.7	1176.5	0.985	2.356	74.121	19.881	2.307	0.100	0.216	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1407.35	
19	0.6991	1154.3	1174.7	1174.5	0.966	2.511	74.142	19.652	2.370	0.102	0.222	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1404.92	
20	0.6997	1156.3	1176.8	1176.6	0.988	2.402	73.938	20.069	2.259	0.098	0.212	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1406.90	
21	0.6998	1155.8	1176.2	1176.0	0.981	2.458	73.912	20.027	2.281	0.098	0.210	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1406.10	
22	0.7018	1159.7	1180.2	1180.0	1.005	2.376	73.588	20.363	2.318	0.100	0.216	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1408.79	
23	0.7007	1159.5	1180.0	1179.8	1.005	2.282	73.747	20.370	2.258	0.097	0.208	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1409.68	
24	0.7003	1159.1	1179.7	1179.4	1.012	2.255	73.777	20.415	2.212	0.094	0.203	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1409.67	
25	0.6992	1157.1	1177.5	1177.3	0.993	2.311	73.989	20.144	2.227	0.096	0.206	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1408.20	
26	0.7002	1157.3	1177.8	1177.6	0.993	2.384	73.868	20.130	2.277	0.099	0.215	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1407.54	
27	0.6997	1156.7	1177.2	1177.0	0.990	2.375	73.944	20.088	2.255	0.098	0.215	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1407.37	
28	0.7001	1156.9	1177.4	1177.2	0.996	2.395	73.856	20.147	2.263	0.098	0.213	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1407.18	
29	0.6991	1156.2	1176.7	1176.4	1.004	2.337	74.151	19.835	2.312	0.102	0.222	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1407.22	
30	0.6962	1151.4	1171.8	1171.6	0.991	2.369	74.674	19.360	2.252	0.101	0.218	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1404.40	
31	0.6960	1151.3	1171.7	1171.5	0.992	2.362	74.672	19.391	2.231	0.100	0.217	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1404.42	
Avg	0.7020	1160.0	1180.7	1180.5	1.002	2.368	73.634	20.261	2.372	0.103	0.224	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1409.17	

Gas Composition and Properties

Effective March 1, 2024

Source #: 0602160
Name: FAIRVIEW BORDER

Component	Mole %	Liquid Content	Mass %	Property	Total Sample	C6 Plus Fraction
Carbon Dioxide, CO2	0.8866		1.8902	Pressure Base	14.730	
Nitrogen, N2	3.4288		4.6532	Temperature Base	60.00	
Methane, C1	70.8602		55.0702	HCDP @ Sample Pressure	-20.522	
Ethane, C2	21.8264	5.8413	31.7939	Cricondentherm	-5.816	
Propane, C3	2.7368	0.7545	5.8463	HV, Dry @ Base P, T	1186.02	
iso-Butane, iC4	0.0854	0.0280	0.2405	HV, Sat @ Base P, T	1165.38	
n-Butane, nC4	0.1601	0.0505	0.4508	HV, Sat @ Sample P, T	1186.02	
iso-Pentane, iC5	0.0091	0.0033	0.0318	Relative Density	0.7148	
n-Pentane, nC5	0.0066	0.0024	0.0231			
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	6.6800	100.0000			

C6+: 100

Sample

Date: 03/01/2024 Type:
Tech: Tipton, Joshua
Pressure: 450 psi Temp.: °F
Gauge: Gauge H2O:
Atm. Pressure: H2S:

Remarks:

Analysis

Date: 03/01/2024 Instrument:
Tech: Tipton, Joshua Cylinder: 383

Remarks:

Source Daily Summary

March 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	0.6917	1147.0	1167.3	1167.1	0.968	2.259	74.927	19.759	1.845	0.071	0.149	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1403.64	-17.01
2	0.6957	1155.0	1175.4	1175.2	0.959	2.154	74.895	19.357	2.216	0.112	0.256	0.024	0.028	0.000	0.000	0.000	0.000	0.000	1409.19	-11.11
3	0.6905	1146.1	1166.4	1166.2	0.987	2.170	75.095	19.811	1.691	0.068	0.145	0.014	0.018	0.000	0.000	0.000	0.000	0.000	1403.64	-17.35
4	0.6987	1148.9	1169.2	1169.1	0.966	2.800	73.855	19.872	2.247	0.076	0.161	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1399.03	-13.26
5	0.6864	1141.5	1161.7	1161.5	0.945	2.129	75.767	19.293	1.639	0.067	0.139	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1402.19	-19.79
6	0.6875	1143.1	1163.3	1163.2	0.955	2.122	75.491	19.618	1.598	0.064	0.132	0.009	0.010	0.000	0.000	0.000	0.000	0.000	1403.00	-19.68
7	0.6909	1146.3	1166.6	1166.4	0.971	2.221	75.185	19.470	1.896	0.075	0.159	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1403.48	-16.55
8	0.6913	1149.5	1169.9	1169.7	0.963	2.069	75.318	19.344	2.015	0.085	0.178	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1407.02	-15.17
9	0.6978	1143.8	1164.1	1163.9	0.991	2.985	74.038	19.505	2.194	0.084	0.178	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1393.87	-14.57
10	0.7547	1174.1	1194.9	1194.7	0.893	6.611	66.702	18.979	5.980	0.240	0.530	0.031	0.035	0.000	0.000	0.000	0.000	0.000	1375.48	20.53
11	0.7497	1170.7	1191.5	1191.3	0.880	6.371	67.401	18.838	5.705	0.229	0.510	0.031	0.034	0.000	0.000	0.000	0.000	0.000	1376.11	18.20
12	0.7562	1176.5	1197.4	1197.2	0.896	6.605	66.441	19.186	6.041	0.238	0.527	0.031	0.034	0.000	0.000	0.000	0.000	0.000	1376.91	21.05
13	0.7567	1177.0	1197.9	1197.7	0.894	6.626	66.271	19.357	6.058	0.228	0.503	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1377.01	20.77
14	0.7550	1177.3	1198.2	1198.0	0.898	6.443	66.389	19.640	5.872	0.222	0.477	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1378.93	19.51
15	0.7516	1177.1	1197.9	1197.7	0.903	6.126	66.844	19.784	5.603	0.215	0.466	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1381.87	17.92
16	0.7512	1177.9	1198.8	1198.6	0.903	6.037	66.951	19.795	5.546	0.219	0.484	0.030	0.034	0.000	0.000	0.000	0.000	0.000	1383.18	18.21
17	0.7368	1172.4	1193.2	1193.0	0.922	5.004	68.657	20.365	4.410	0.180	0.404	0.027	0.031	0.000	0.000	0.000	0.000	0.000	1390.12	10.33
18	0.7447	1173.7	1194.5	1194.3	0.913	5.673	67.613	20.098	5.038	0.192	0.417	0.026	0.029	0.000	0.000	0.000	0.000	0.000	1384.27	13.93
19	0.7459	1176.2	1197.0	1196.8	0.916	5.631	67.520	20.126	5.104	0.201	0.443	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1386.04	15.08
20	0.7556	1177.6	1198.4	1198.3	0.901	6.479	66.340	19.615	5.876	0.227	0.497	0.031	0.034	0.000	0.000	0.000	0.000	0.000	1378.67	20.10
21	0.7572	1178.8	1199.7	1199.5	0.898	6.556	66.059	19.723	6.016	0.215	0.474	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1378.68	20.32
22	0.7537	1173.3	1194.1	1193.9	0.899	6.562	66.484	19.532	5.809	0.206	0.453	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1375.46	18.35
23	0.7479	1170.6	1191.4	1191.2	0.902	6.174	67.329	19.445	5.471	0.196	0.429	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1377.79	15.30
24	0.7552	1174.5	1195.3	1195.2	0.896	6.631	66.280	19.570	5.899	0.208	0.458	0.027	0.030	0.000	0.000	0.000	0.000	0.000	1375.51	19.06
25	0.7530	1172.2	1193.0	1192.8	0.897	6.571	66.587	19.449	5.780	0.205	0.454	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1374.74	18.07
26	0.7529	1171.6	1192.3	1192.1	0.890	6.603	66.924	18.882	5.888	0.229	0.520	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1374.13	19.47
27	0.7555	1175.1	1195.9	1195.7	0.898	6.621	66.411	19.330	5.953	0.225	0.501	0.029	0.032	0.000	0.000	0.000	0.000	0.000	1375.87	20.03
28	0.7558	1174.7	1195.5	1195.3	0.898	6.679	66.379	19.256	6.000	0.223	0.503	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1375.11	20.26
29	0.7557	1174.6	1195.4	1195.2	0.897	6.678	66.413	19.210	6.011	0.223	0.504	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1375.06	20.29
30	0.7566	1175.9	1196.7	1196.6	0.896	6.679	66.369	19.159	6.078	0.230	0.524	0.031	0.034	0.000	0.000	0.000	0.000	0.000	1375.82	21.08
31	0.7543	1171.3	1192.0	1191.9	0.895	6.745	66.606	19.039	5.925	0.226	0.507	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1372.53	19.49
Avg	0.7350	1167.0	1187.3	1187.1	0.919	5.194	69.146	19.497	4.626	0.177	0.390	0.024	0.027	0.000	0.000	0.000	0.000	0.000	1385.30	8.48

Source Daily Summary

March 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	0.7582	1183.1	1204.1	1203.9	0.894	6.394	66.085	19.705	6.122	0.227	0.508	0.031	0.035	0.000	0.000	0.000	0.000	0.000	1382.80	
2	0.7549	1176.6	1197.4	1197.3	0.895	6.484	66.404	19.562	5.916	0.215	0.465	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1378.15	
3	0.7480	1166.5	1187.1	1187.0	0.896	6.456	67.171	19.348	5.488	0.191	0.404	0.022	0.024	0.000	0.000	0.000	0.000	0.000	1372.60	
4	0.7279	1156.1	1176.5	1176.4	0.935	5.148	69.573	19.953	3.942	0.131	0.283	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1379.35	
5	0.7503	1167.3	1188.0	1187.9	0.890	6.620	66.893	19.268	5.682	0.191	0.410	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1371.49	
6	0.7519	1170.3	1191.0	1190.8	0.893	6.587	66.738	19.325	5.770	0.200	0.437	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1373.51	
7	0.7555	1177.2	1198.0	1197.9	0.890	6.508	66.293	19.613	5.977	0.210	0.454	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1378.33	
8	0.7208	1164.7	1185.3	1185.1	0.925	3.964	71.083	19.825	3.712	0.140	0.308	0.020	0.023	0.000	0.000	0.000	0.000	0.000	1396.67	
9	0.7227	1156.6	1177.1	1176.9	0.931	4.625	70.666	19.478	3.826	0.138	0.298	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1384.99	
10	0.7529	1174.5	1195.3	1195.1	0.896	6.418	66.838	19.233	5.824	0.229	0.500	0.029	0.033	0.000	0.000	0.000	0.000	0.000	1377.57	
11	0.7538	1174.3	1195.1	1194.9	0.893	6.525	66.863	18.937	5.935	0.241	0.539	0.032	0.036	0.000	0.000	0.000	0.000	0.000	1376.41	
12	0.7555	1177.8	1198.6	1198.4	0.898	6.456	66.490	19.405	5.934	0.234	0.518	0.031	0.035	0.000	0.000	0.000	0.000	0.000	1379.05	
13	0.7549	1176.1	1197.0	1196.7	0.897	6.496	66.595	19.279	5.920	0.232	0.516	0.031	0.034	0.000	0.000	0.000	0.000	0.000	1377.65	
14	0.7566	1178.3	1199.2	1199.0	0.896	6.533	66.223	19.556	6.022	0.224	0.485	0.029	0.032	0.000	0.000	0.000	0.000	0.000	1378.65	
15	0.7561	1178.4	1199.3	1199.1	0.896	6.480	66.336	19.523	5.969	0.232	0.502	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1379.23	
16	0.7570	1180.0	1200.9	1200.8	0.897	6.464	66.213	19.611	6.017	0.231	0.503	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1380.29	
17	0.7566	1179.0	1199.8	1199.7	0.897	6.491	66.317	19.490	5.982	0.236	0.520	0.032	0.036	0.000	0.000	0.000	0.000	0.000	1379.41	
18	0.7539	1176.6	1197.4	1197.2	0.900	6.375	66.511	19.696	5.779	0.216	0.465	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1379.17	
19	0.7545	1176.0	1196.8	1196.6	0.899	6.477	66.376	19.699	5.818	0.216	0.458	0.027	0.030	0.000	0.000	0.000	0.000	0.000	1377.80	
20	0.7567	1178.3	1199.2	1199.0	0.900	6.534	66.287	19.474	5.984	0.236	0.519	0.031	0.035	0.000	0.000	0.000	0.000	0.000	1378.58	
21	0.7567	1178.5	1199.3	1199.2	0.898	6.535	66.118	19.724	5.971	0.217	0.475	0.029	0.032	0.000	0.000	0.000	0.000	0.000	1378.68	
22	0.7550	1175.0	1195.8	1195.6	0.899	6.581	66.329	19.578	5.887	0.210	0.460	0.027	0.030	0.000	0.000	0.000	0.000	0.000	1376.15	
23	0.7536	1172.8	1193.6	1193.4	0.896	6.588	66.498	19.495	5.808	0.206	0.453	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1374.94	
24	0.7542	1175.0	1195.8	1195.6	0.898	6.510	66.419	19.628	5.824	0.207	0.456	0.027	0.030	0.000	0.000	0.000	0.000	0.000	1376.93	
25	0.7539	1173.5	1194.2	1194.1	0.898	6.576	66.453	19.535	5.823	0.205	0.453	0.027	0.030	0.000	0.000	0.000	0.000	0.000	1375.40	
26	0.7532	1171.8	1192.5	1192.4	0.894	6.612	66.811	19.013	5.874	0.225	0.509	0.029	0.032	0.000	0.000	0.000	0.000	0.000	1374.13	
27	0.7538	1172.9	1193.7	1193.5	0.898	6.584	66.740	19.095	5.879	0.228	0.513	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1374.88	
28	0.7542	1173.5	1194.2	1194.1	0.898	6.599	66.549	19.312	5.882	0.216	0.484	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1375.15	
29	0.7549	1175.0	1195.8	1195.6	0.898	6.577	66.497	19.314	5.936	0.220	0.497	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1376.26	
30	0.7565	1177.8	1198.6	1198.4	0.898	6.551	66.328	19.394	6.029	0.226	0.510	0.031	0.034	0.000	0.000	0.000	0.000	0.000	1378.12	
31	0.7542	1173.2	1193.9	1193.8	0.896	6.616	66.687	19.080	5.912	0.228	0.519	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1374.79	
Avg	0.7516	1174.0	1194.5	1194.4	0.900	6.334	66.883	19.456	5.692	0.211	0.465	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1377.97	

Source Daily Summary

March 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	0.7569	1177.6	1198.5	1198.2	0.904	6.591	66.230	19.447	6.033	0.229	0.501	0.031	0.035	0.000	0.000	0.000	0.000	0.000	1377.56	
2	0.7513	1167.1	1187.7	1187.5	0.904	6.712	66.773	19.212	5.726	0.201	0.423	0.024	0.026	0.000	0.000	0.000	0.000	0.000	1370.29	
3	0.7520	1167.0	1187.7	1187.4	0.901	6.782	66.667	19.180	5.819	0.192	0.410	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1369.60	
4	0.7507	1161.3	1181.9	1181.7	0.894	7.017	66.969	18.575	5.880	0.193	0.427	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1364.11	
5	0.7553	1174.7	1195.5	1195.3	0.905	6.622	66.315	19.494	5.915	0.223	0.471	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1375.55	
6	0.7567	1176.8	1197.6	1197.4	0.901	6.629	66.165	19.496	6.077	0.214	0.462	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1376.74	
7	0.7546	1172.5	1193.3	1193.1	0.903	6.691	66.384	19.364	5.961	0.205	0.440	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1373.69	
8	0.7567	1176.2	1197.1	1196.8	0.904	6.658	66.286	19.264	6.107	0.227	0.494	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1376.09	
9	0.7554	1174.7	1195.5	1195.3	0.904	6.633	66.431	19.269	5.980	0.231	0.492	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1375.45	
10	0.7547	1172.4	1193.2	1192.9	0.900	6.709	66.698	18.865	5.982	0.244	0.536	0.031	0.034	0.000	0.000	0.000	0.000	0.000	1373.43	
11	0.7557	1173.6	1194.4	1194.2	0.905	6.717	66.578	18.912	6.033	0.246	0.542	0.032	0.036	0.000	0.000	0.000	0.000	0.000	1374.00	
12	0.7577	1178.2	1199.0	1198.8	0.914	6.618	66.151	19.440	6.052	0.241	0.520	0.031	0.034	0.000	0.000	0.000	0.000	0.000	1377.47	
13	0.7577	1177.9	1198.7	1198.4	0.911	6.641	66.109	19.470	6.067	0.232	0.505	0.030	0.034	0.000	0.000	0.000	0.000	0.000	1377.11	
14	0.7571	1176.8	1197.6	1197.4	0.906	6.659	66.233	19.340	6.041	0.239	0.517	0.030	0.034	0.000	0.000	0.000	0.000	0.000	1376.36	
15	0.7583	1179.6	1200.5	1200.2	0.909	6.600	66.023	19.563	6.095	0.238	0.509	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1378.53	
16	0.7577	1178.0	1198.8	1198.6	0.909	6.636	66.095	19.514	6.042	0.235	0.505	0.031	0.034	0.000	0.000	0.000	0.000	0.000	1377.25	
17	0.7574	1177.4	1198.2	1198.0	0.908	6.653	66.054	19.578	6.038	0.229	0.482	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1376.75	
18	0.7589	1179.9	1200.8	1200.6	0.909	6.632	65.902	19.636	6.125	0.237	0.500	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1378.41	
19	0.7578	1177.6	1198.4	1198.2	0.910	6.672	66.071	19.498	6.035	0.236	0.511	0.031	0.035	0.000	0.000	0.000	0.000	0.000	1376.67	
20	0.7579	1177.9	1198.7	1198.5	0.907	6.663	65.976	19.633	6.058	0.220	0.481	0.029	0.032	0.000	0.000	0.000	0.000	0.000	1376.96	
21	0.7554	1173.2	1194.0	1193.7	0.907	6.716	66.282	19.438	5.918	0.215	0.466	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1373.74	
22	0.7558	1174.0	1194.8	1194.6	0.907	6.703	66.224	19.493	5.929	0.216	0.471	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1374.37	
23	0.7557	1174.1	1194.9	1194.6	0.909	6.687	66.226	19.518	5.921	0.213	0.466	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1374.50	
24	0.7552	1172.8	1193.6	1193.4	0.911	6.718	66.326	19.384	5.920	0.214	0.469	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1373.45	
25	0.7535	1169.0	1189.7	1189.5	0.904	6.795	66.796	18.768	5.933	0.229	0.513	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1370.59	
26	0.7563	1175.1	1195.9	1195.7	0.912	6.677	66.343	19.251	6.004	0.232	0.517	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1375.14	
27	0.7553	1172.8	1193.5	1193.3	0.912	6.730	66.421	19.197	5.957	0.224	0.499	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1373.29	
28	0.7557	1173.4	1194.2	1194.0	0.911	6.724	66.374	19.231	5.980	0.224	0.496	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1373.73	
29	0.7568	1175.4	1196.2	1196.0	0.908	6.708	66.278	19.248	6.051	0.230	0.514	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1375.08	
30	0.7552	1172.1	1192.9	1192.7	0.907	6.766	66.571	18.932	5.991	0.235	0.532	0.031	0.034	0.000	0.000	0.000	0.000	0.000	1372.61	
31	0.7537	1169.6	1190.3	1190.1	0.911	6.770	66.636	19.040	5.863	0.227	0.497	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1371.09	
Avg	0.7558	1174.0	1194.9	1194.7	0.907	6.695	66.341	19.298	5.985	0.225	0.489	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1374.50	

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

March 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	0.7244	1175.8	1196.6	1196.4	0.950	3.591	69.988	21.729	3.245	0.133	0.315	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1406.01	
2	0.7232	1172.7	1193.4	1193.2	0.952	3.673	70.041	21.744	3.109	0.128	0.303	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1403.35	
3	0.7229	1171.9	1192.7	1192.5	0.955	3.685	70.073	21.714	3.103	0.127	0.295	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1402.74	
4	0.7274	1163.1	1183.7	1183.5	0.926	4.691	69.310	21.105	3.543	0.114	0.269	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1387.87	
5	0.7100	1152.6	1173.0	1172.8	0.934	3.688	71.784	20.854	2.339	0.108	0.250	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1392.10	
6	0.7130	1160.5	1181.0	1180.8	0.942	3.474	71.529	21.030	2.586	0.119	0.276	0.020	0.023	0.000	0.000	0.000	0.000	0.000	1398.66	
7	0.7135	1160.6	1181.2	1181.0	0.952	3.493	71.497	20.996	2.611	0.121	0.285	0.021	0.024	0.000	0.000	0.000	0.000	0.000	1398.39	
8	0.7138	1160.9	1181.5	1181.3	0.951	3.504	71.490	20.945	2.652	0.123	0.290	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1398.46	
9	0.7165	1164.0	1184.6	1184.4	0.955	3.570	71.048	21.195	2.767	0.123	0.293	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1399.45	
10	0.7188	1165.8	1186.4	1186.2	0.949	3.684	70.803	21.113	2.964	0.130	0.307	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1399.37	
11	0.7192	1167.9	1188.5	1188.3	0.949	3.593	70.801	21.154	3.013	0.131	0.309	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1401.49	
12	0.7205	1170.7	1191.4	1191.2	0.951	3.541	70.634	21.283	3.096	0.133	0.313	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1403.59	
13	0.7218	1170.7	1191.4	1191.2	0.953	3.656	70.346	21.462	3.091	0.132	0.310	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1402.37	
14	0.7218	1174.9	1195.7	1195.5	0.955	3.394	70.428	21.605	3.127	0.132	0.309	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1407.44	
15	0.7241	1177.9	1198.8	1198.5	0.953	3.431	70.111	21.729	3.278	0.134	0.313	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1408.78	
16	0.7227	1178.6	1199.4	1199.2	0.948	3.271	70.256	21.880	3.164	0.130	0.302	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1410.90	
17	0.7168	1165.5	1186.1	1185.9	0.940	3.529	71.148	21.013	2.882	0.131	0.307	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1400.93	
18	0.7190	1166.6	1187.3	1187.1	0.944	3.659	70.870	20.985	3.038	0.135	0.317	0.024	0.028	0.000	0.000	0.000	0.000	0.000	1400.17	
19	0.7210	1170.7	1191.4	1191.2	0.943	3.599	70.586	21.211	3.158	0.134	0.317	0.024	0.028	0.000	0.000	0.000	0.000	0.000	1403.12	
20	0.7205	1169.6	1190.3	1190.1	0.959	3.591	70.637	21.223	3.096	0.132	0.312	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1402.33	
21	0.7216	1170.9	1191.6	1191.4	0.959	3.618	70.432	21.374	3.129	0.130	0.308	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1402.77	
22	0.7210	1171.0	1191.7	1191.5	0.960	3.551	70.557	21.314	3.136	0.129	0.304	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1403.52	
23	0.7220	1173.8	1194.6	1194.4	0.963	3.475	70.373	21.544	3.172	0.127	0.299	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1405.87	
24	0.7225	1175.0	1195.8	1195.6	0.949	3.460	70.471	21.270	3.385	0.125	0.295	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1406.91	
25	0.7233	1173.5	1194.3	1194.1	0.954	3.629	70.241	21.354	3.349	0.128	0.299	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1404.30	
26	0.7218	1170.2	1191.0	1190.7	0.955	3.680	70.387	21.322	3.183	0.127	0.298	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1401.83	
27	0.7240	1177.3	1198.1	1197.9	0.949	3.474	70.266	21.327	3.517	0.127	0.295	0.021	0.024	0.000	0.000	0.000	0.000	0.000	1408.09	
28	0.7302	1187.3	1208.4	1208.1	0.941	3.455	69.556	21.507	4.074	0.126	0.295	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1414.05	
29	0.7352	1195.6	1216.7	1216.5	0.941	3.410	68.868	21.926	4.396	0.123	0.288	0.021	0.026	0.000	0.000	0.000	0.000	0.000	1419.06	
30	0.7251	1180.7	1201.6	1201.3	0.936	3.386	70.207	21.330	3.676	0.128	0.294	0.021	0.024	0.000	0.000	0.000	0.000	0.000	1411.05	
31	0.7242	1176.0	1196.8	1196.6	0.952	3.564	70.012	21.725	3.262	0.130	0.307	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1406.31	
Avg	0.7213	1171.0	1192.1	1191.9	0.949	3.581	70.476	21.354	3.166	0.127	0.299	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1403.59	

Source Daily Summary

March 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	0.7458	1174.0	1194.8	1194.1	0.793	5.941	67.837	19.172	5.527	0.207	0.466	0.028	0.029	0.000	0.000	0.000	0.000	0.000	1383.53	
2	0.7380	1161.4	1181.9	1181.2	0.800	5.976	68.655	18.923	5.050	0.177	0.379	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1375.80	
3	0.7359	1160.0	1180.5	1179.8	0.813	5.837	68.897	18.999	4.896	0.165	0.355	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1376.21	
4	0.7285	1150.8	1171.2	1170.5	0.779	5.761	69.878	18.547	4.546	0.142	0.315	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1372.16	
5	0.7343	1161.4	1181.9	1181.2	0.770	5.675	69.152	19.010	4.819	0.167	0.368	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1379.26	
6	0.7358	1162.9	1183.5	1182.8	0.749	5.750	69.073	18.818	5.007	0.176	0.383	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1379.67	
7	0.7313	1157.9	1178.4	1177.7	0.732	5.655	69.700	18.550	4.805	0.162	0.355	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1378.04	
8	0.7389	1164.6	1185.2	1184.5	0.756	5.925	68.689	18.791	5.202	0.183	0.409	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1378.88	
9	0.7454	1169.1	1189.8	1189.0	0.812	6.178	67.968	18.717	5.585	0.213	0.472	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1378.08	
10	0.7545	1177.6	1198.4	1197.6	0.855	6.441	66.869	18.903	6.066	0.246	0.554	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1379.71	
11	0.7542	1175.9	1196.8	1195.9	0.854	6.512	66.931	18.772	6.057	0.248	0.559	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1378.08	
12	0.7558	1179.2	1200.1	1199.2	0.862	6.452	66.596	19.166	6.073	0.244	0.544	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1380.44	
13	0.7542	1176.3	1197.1	1196.2	0.861	6.485	66.724	19.151	5.961	0.232	0.523	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1378.44	
14	0.7549	1177.6	1198.5	1197.6	0.854	6.559	67.170	18.996	6.021	0.113	0.257	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1379.37	
15	0.7566	1180.8	1201.7	1200.9	0.860	6.438	66.382	19.399	6.101	0.237	0.523	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1381.55	
16	0.7573	1182.1	1203.1	1202.3	0.861	6.420	66.315	19.437	6.129	0.241	0.534	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1382.48	
17	0.7554	1178.6	1199.5	1198.7	0.860	6.462	66.447	19.421	6.038	0.227	0.490	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1380.06	
18	0.7562	1181.3	1202.3	1201.5	0.851	6.383	66.372	19.529	6.065	0.233	0.508	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1382.52	
19	0.7560	1179.9	1200.8	1200.0	0.860	6.442	66.494	19.302	6.068	0.240	0.531	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1380.96	
20	0.7400	1169.6	1190.3	1189.6	0.739	5.758	68.209	19.691	4.985	0.178	0.393	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1383.65	
21	0.7437	1169.8	1190.6	1189.9	0.773	6.033	67.904	19.269	5.363	0.189	0.420	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1380.52	
22	0.7449	1169.4	1190.2	1189.5	0.786	6.149	67.744	19.225	5.428	0.191	0.427	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1378.95	
23	0.7451	1170.4	1191.1	1190.4	0.799	6.087	67.781	19.207	5.448	0.194	0.434	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1379.89	
24	0.7441	1168.0	1188.7	1188.1	0.811	6.117	67.885	19.143	5.384	0.188	0.421	0.024	0.026	0.000	0.000	0.000	0.000	0.000	1378.08	
25	0.7423	1165.4	1186.1	1185.4	0.798	6.126	68.227	18.847	5.316	0.195	0.441	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1376.68	
26	0.7429	1168.7	1189.4	1188.8	0.798	5.979	68.283	18.845	5.355	0.208	0.476	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1380.01	
27	0.7428	1167.3	1188.0	1187.3	0.804	6.049	68.129	19.022	5.316	0.193	0.437	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1378.46	
28	0.7511	1173.5	1194.3	1193.5	0.842	6.396	67.132	19.024	5.826	0.219	0.503	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1378.01	
29	0.7552	1177.2	1198.1	1197.3	0.862	6.521	66.628	19.099	6.065	0.230	0.533	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1378.65	
30	0.7553	1177.3	1198.1	1197.4	0.861	6.531	66.673	18.997	6.090	0.236	0.548	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1378.59	
31	0.7536	1173.9	1194.7	1193.9	0.861	6.573	66.788	19.017	5.956	0.230	0.521	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1376.23	
Avg	0.7468	1171.0	1191.8	1191.0	0.817	6.181	67.662	19.064	5.566	0.203	0.454	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1379.13	

Source Daily Summary

March 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	0.7373	1166.5	1187.2	1186.2	0.798	5.598	68.836	19.185	4.976	0.177	0.382	0.023	0.025	0.000	0.000	0.000	0.000	0.000	1382.55	
2	0.7465	1173.8	1194.6	1193.8	0.816	5.986	67.680	19.299	5.499	0.208	0.453	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1382.64	
3	0.7397	1161.5	1182.1	1181.4	0.840	6.066	68.353	19.093	5.057	0.179	0.370	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1374.39	
4	0.7389	1160.8	1181.4	1180.6	0.847	6.019	68.441	19.111	5.016	0.172	0.355	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1374.38	
5	0.7293	1150.4	1170.8	1170.0	0.814	5.807	69.713	18.662	4.523	0.143	0.304	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1370.96	
6	0.7344	1159.6	1180.1	1179.3	0.798	5.750	69.084	19.040	4.773	0.165	0.350	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1377.05	
7	0.7379	1163.3	1183.9	1183.1	0.788	5.857	68.721	18.998	5.034	0.181	0.377	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1378.30	
8	0.7324	1157.4	1177.9	1176.9	0.766	5.741	69.489	18.659	4.797	0.164	0.344	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1376.36	
9	0.7358	1159.4	1180.0	1179.0	0.768	5.931	69.044	18.671	5.001	0.174	0.367	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1375.67	
10	0.7456	1168.7	1189.4	1188.3	0.830	6.192	67.901	18.812	5.538	0.213	0.458	0.028	0.029	0.000	0.000	0.000	0.000	0.000	1377.42	
11	0.7549	1175.9	1196.7	1195.6	0.892	6.531	66.665	19.103	5.979	0.242	0.522	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1377.31	
12	0.7551	1174.7	1195.5	1194.4	0.891	6.620	66.756	18.819	6.046	0.251	0.548	0.033	0.035	0.000	0.000	0.000	0.000	0.000	1375.77	
13	0.7567	1177.8	1198.7	1197.6	0.898	6.571	66.365	19.288	6.050	0.243	0.521	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1377.98	
14	0.7558	1176.1	1197.0	1195.9	0.898	6.589	66.540	19.105	6.037	0.242	0.525	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1376.80	
15	0.7571	1178.4	1199.2	1198.2	0.897	6.574	66.239	19.421	6.079	0.234	0.496	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1378.27	
16	0.7573	1179.0	1199.9	1199.0	0.899	6.553	66.231	19.429	6.083	0.238	0.506	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1378.83	
17	0.7588	1181.9	1202.8	1202.0	0.899	6.519	66.069	19.522	6.154	0.245	0.525	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1380.81	
18	0.7564	1177.4	1198.3	1197.3	0.897	6.570	66.232	19.534	6.011	0.227	0.472	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1377.79	
19	0.7564	1179.3	1200.2	1199.2	0.887	6.472	66.223	19.673	5.975	0.230	0.480	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1379.95	
20	0.7581	1180.6	1201.5	1200.5	0.897	6.534	66.131	19.516	6.094	0.244	0.519	0.031	0.034	0.000	0.000	0.000	0.000	0.000	1379.96	
21	0.7411	1169.1	1189.8	1189.0	0.772	5.837	67.990	19.837	4.957	0.179	0.380	0.023	0.025	0.000	0.000	0.000	0.000	0.000	1382.09	
22	0.7443	1168.6	1189.3	1188.6	0.803	6.118	67.728	19.408	5.306	0.188	0.401	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1378.55	
23	0.7451	1167.8	1188.5	1187.8	0.814	6.228	67.625	19.329	5.357	0.190	0.407	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1376.82	
24	0.7459	1168.7	1189.4	1188.8	0.834	6.213	67.569	19.318	5.406	0.194	0.415	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1377.18	
25	0.7464	1169.6	1190.3	1189.7	0.844	6.193	67.494	19.386	5.425	0.191	0.414	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1377.73	
26	0.7434	1165.6	1186.2	1185.6	0.831	6.174	67.948	19.105	5.282	0.192	0.416	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1375.80	
27	0.7421	1164.7	1185.4	1184.7	0.831	6.102	68.330	18.765	5.251	0.208	0.458	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1376.03	
28	0.7439	1167.4	1188.1	1187.3	0.833	6.111	67.894	19.193	5.299	0.195	0.423	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1377.43	
29	0.7495	1169.9	1190.7	1189.8	0.869	6.419	67.231	19.106	5.639	0.212	0.467	0.028	0.029	0.000	0.000	0.000	0.000	0.000	1375.34	
30	0.7557	1175.1	1195.9	1195.0	0.900	6.637	66.464	19.191	6.011	0.229	0.506	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1375.73	
31	0.7574	1178.3	1199.2	1198.2	0.900	6.607	66.292	19.250	6.121	0.237	0.528	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1377.88	
Avg	0.7471	1170.0	1190.6	1189.8	0.847	6.230	67.525	19.188	5.509	0.206	0.442	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1377.54	

Source Daily Summary

March 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	0.7292	1156.2	1176.7	1176.3	0.796	5.474	69.823	18.903	4.491	0.152	0.323	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1377.91	
2	0.7472	1174.3	1195.1	1194.5	0.828	6.008	67.562	19.363	5.522	0.208	0.451	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1382.49	
3	0.7403	1162.3	1182.9	1182.3	0.842	6.068	68.287	19.120	5.085	0.181	0.375	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1374.79	
4	0.7395	1161.5	1182.1	1181.5	0.847	6.037	68.360	19.125	5.056	0.174	0.360	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1374.61	
5	0.7296	1150.4	1170.8	1170.3	0.816	5.833	69.675	18.648	4.544	0.144	0.307	0.017	0.016	0.000	0.000	0.000	0.000	0.000	1370.68	
6	0.7349	1160.1	1180.6	1180.1	0.803	5.760	69.018	19.062	4.798	0.166	0.352	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1377.17	
7	0.7380	1163.4	1184.0	1183.5	0.789	5.864	68.702	18.999	5.041	0.181	0.378	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1378.27	
8	0.7331	1158.2	1178.7	1178.1	0.769	5.755	69.385	18.699	4.835	0.166	0.349	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1376.66	
9	0.7377	1161.8	1182.4	1181.6	0.776	5.955	68.785	18.781	5.104	0.179	0.376	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1376.65	
10	0.7481	1172.3	1193.1	1192.3	0.837	6.198	67.594	18.933	5.682	0.221	0.476	0.029	0.030	0.000	0.000	0.000	0.000	0.000	1379.32	
11	0.7565	1178.7	1199.5	1198.7	0.893	6.505	66.483	19.196	6.074	0.248	0.533	0.032	0.035	0.000	0.000	0.000	0.000	0.000	1379.16	
12	0.7560	1176.1	1196.9	1196.1	0.893	6.611	66.657	18.867	6.091	0.254	0.557	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1376.64	
13	0.7576	1179.4	1200.3	1199.5	0.899	6.556	66.260	19.345	6.099	0.246	0.529	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1379.02	
14	0.7564	1177.2	1198.1	1197.3	0.899	6.576	66.468	19.155	6.064	0.244	0.529	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1377.55	
15	0.7580	1180.1	1201.0	1200.3	0.898	6.551	66.129	19.492	6.127	0.238	0.504	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1379.50	
16	0.7578	1179.9	1200.8	1200.1	0.900	6.543	66.177	19.459	6.107	0.240	0.511	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1379.41	
17	0.7590	1182.2	1203.1	1202.5	0.900	6.516	66.053	19.531	6.160	0.246	0.527	0.032	0.035	0.000	0.000	0.000	0.000	0.000	1380.98	
18	0.7568	1178.0	1198.8	1198.2	0.899	6.572	66.186	19.546	6.035	0.229	0.476	0.028	0.029	0.000	0.000	0.000	0.000	0.000	1378.04	
19	0.7575	1180.7	1201.6	1201.2	0.891	6.481	66.105	19.701	6.040	0.234	0.489	0.029	0.030	0.000	0.000	0.000	0.000	0.000	1380.62	
20	0.7577	1179.5	1200.4	1200.1	0.899	6.557	66.203	19.440	6.073	0.244	0.519	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1379.05	
21	0.7407	1169.2	1189.9	1189.4	0.766	5.803	68.029	19.873	4.922	0.179	0.380	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1382.62	
22	0.7446	1169.1	1189.8	1189.3	0.804	6.117	67.686	19.430	5.321	0.189	0.404	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1378.81	
23	0.7455	1168.6	1189.3	1188.8	0.814	6.218	67.582	19.352	5.380	0.192	0.412	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1377.37	
24	0.7468	1170.0	1190.7	1190.2	0.838	6.214	67.461	19.363	5.451	0.197	0.423	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1377.84	
25	0.7469	1170.2	1190.9	1190.4	0.843	6.199	67.433	19.410	5.452	0.193	0.417	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1378.04	
26	0.7436	1166.0	1186.7	1186.2	0.833	6.167	67.908	19.148	5.287	0.192	0.415	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1376.11	
27	0.7426	1165.3	1185.9	1185.4	0.831	6.113	68.273	18.778	5.276	0.209	0.463	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1376.20	
28	0.7446	1168.5	1189.2	1188.6	0.833	6.106	67.814	19.232	5.335	0.198	0.430	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1378.13	
29	0.7508	1172.1	1192.8	1192.1	0.872	6.407	67.088	19.162	5.715	0.217	0.480	0.029	0.030	0.000	0.000	0.000	0.000	0.000	1376.65	
30	0.7563	1176.3	1197.1	1196.4	0.900	6.626	66.393	19.224	6.049	0.231	0.513	0.031	0.032	0.000	0.000	0.000	0.000	0.000	1376.51	
31	0.7578	1179.0	1199.9	1199.2	0.901	6.599	66.244	19.281	6.139	0.239	0.532	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1378.34	
Avg	0.7475	1171.0	1191.3	1190.7	0.849	6.225	67.478	19.213	5.528	0.207	0.445	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1377.91	

Source Daily Summary

March 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	0.6754	1118.4	1138.2	1137.9	0.398	3.338	76.790	17.971	1.405	0.034	0.058	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1384.99	
2	0.6753	1117.5	1137.3	1137.0	0.495	3.236	76.932	17.842	1.383	0.038	0.067	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1383.97	
3	0.6855	1127.8	1147.7	1147.5	0.538	3.499	75.443	18.479	1.885	0.051	0.095	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1386.35	
4	0.6785	1119.8	1139.6	1139.4	0.618	3.215	76.370	18.322	1.366	0.037	0.066	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1383.49	
5	0.6753	1117.5	1137.3	1137.1	0.511	3.206	76.864	18.018	1.289	0.036	0.066	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1384.05	
6	0.6683	1108.1	1127.7	1127.4	0.386	3.314	78.141	16.765	1.288	0.036	0.063	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1379.50	
7	0.6948	1128.4	1148.4	1148.1	0.549	4.313	74.627	17.430	2.780	0.089	0.188	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1378.09	
8	0.6732	1112.5	1132.2	1131.9	0.335	3.591	77.523	16.720	1.675	0.048	0.095	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1379.88	
9	0.6680	1107.8	1127.5	1127.2	0.365	3.339	78.244	16.590	1.346	0.038	0.069	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1379.43	
10	0.6732	1115.9	1135.7	1135.4	0.378	3.309	77.304	17.454	1.436	0.040	0.070	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1384.18	
11	0.7081	1145.6	1165.9	1165.5	0.513	4.570	72.525	18.739	3.237	0.121	0.264	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1386.06	
12	0.7383	1168.8	1189.5	1189.1	0.694	5.712	68.615	19.329	4.992	0.190	0.419	0.023	0.025	0.000	0.000	0.000	0.000	0.000	1384.68	
13	0.7389	1165.7	1186.4	1186.0	0.773	5.832	68.552	19.192	4.996	0.188	0.417	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1380.35	
14	0.6821	1126.7	1146.7	1146.3	0.367	3.511	75.395	19.311	1.208	0.158	0.045	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1388.42	
15	0.6955	1137.2	1157.3	1156.9	0.429	4.035	73.718	19.324	2.275	0.067	0.136	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1387.78	
16	0.6827	1133.8	1153.9	1153.5	0.207	3.378	74.853	20.249	1.264	0.019	0.028	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1396.56	
17	0.6848	1133.7	1153.8	1153.4	0.345	3.378	74.767	20.028	1.392	0.030	0.056	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1394.30	
18	0.6796	1129.5	1149.5	1149.1	0.358	3.120	75.536	19.813	1.128	0.016	0.026	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1394.39	
19	0.6857	1122.2	1142.1	1141.7	0.760	3.528	75.417	18.444	1.689	0.050	0.101	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1379.39	
20	0.6830	1130.6	1150.6	1150.3	0.377	3.345	75.054	19.857	1.293	0.026	0.044	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1392.27	
21	0.6735	1119.1	1139.0	1138.7	0.246	3.351	76.838	18.202	1.297	0.024	0.038	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1387.80	
22	0.7002	1139.8	1160.0	1159.7	0.429	4.312	73.416	18.734	2.820	0.085	0.182	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1386.71	
23	0.6782	1119.0	1138.8	1138.5	0.397	3.566	76.532	17.695	1.671	0.044	0.085	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1383.01	
24	0.6751	1118.3	1138.1	1137.8	0.417	3.294	76.870	17.915	1.408	0.033	0.057	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1385.07	
25	0.6756	1119.3	1139.1	1138.8	0.422	3.273	76.745	18.081	1.382	0.033	0.056	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1385.80	
26	0.6798	1126.0	1145.9	1145.6	0.476	3.169	76.263	18.364	1.598	0.044	0.076	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1389.84	
27	0.7006	1138.6	1158.8	1158.5	0.555	4.226	73.491	18.626	2.797	0.090	0.192	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1384.87	
28	0.6769	1122.5	1142.4	1142.1	0.356	3.294	76.485	18.325	1.439	0.034	0.060	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1388.55	
29	0.6772	1122.9	1142.8	1142.5	0.351	3.310	76.270	18.642	1.352	0.027	0.044	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1388.64	
30	0.6772	1123.3	1143.2	1142.9	0.392	3.222	76.299	18.693	1.316	0.028	0.046	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1389.16	
31	0.6787	1127.6	1147.6	1147.2	0.257	3.301	75.898	19.094	1.383	0.024	0.038	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1392.99	
Avg	0.6851	1127.0	1147.2	1146.9	0.442	3.648	75.412	18.460	1.864	0.057	0.105	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1386.15	

Source Daily Summary

March 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	0.6793	1121.8	1141.7	1141.5	0.526	3.308	76.123	18.531	1.399	0.040	0.068	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1385.15	
2	0.6781	1122.3	1142.2	1142.0	0.466	3.249	76.342	18.410	1.428	0.038	0.063	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1387.06	
3	0.6812	1121.8	1141.7	1141.5	0.652	3.292	75.868	18.671	1.406	0.040	0.067	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1383.26	
4	0.6780	1122.2	1142.1	1141.9	0.508	3.192	76.240	18.689	1.262	0.037	0.065	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1386.93	
5	0.6739	1116.6	1136.4	1136.2	0.420	3.278	76.989	17.923	1.290	0.036	0.060	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1384.26	
6	0.6680	1107.5	1127.1	1126.9	0.382	3.333	78.060	16.926	1.202	0.034	0.058	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1379.05	
7	0.6657	1104.9	1124.4	1124.2	0.320	3.373	78.485	16.494	1.231	0.034	0.056	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1378.10	
8	0.6694	1110.1	1129.8	1129.6	0.344	3.361	77.864	17.012	1.312	0.037	0.062	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1380.85	
9	0.6758	1125.0	1144.9	1144.7	0.272	3.173	76.379	18.873	1.213	0.033	0.055	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1392.65	
10	0.6835	1135.0	1155.1	1154.9	0.299	3.245	75.088	19.794	1.480	0.035	0.056	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1397.11	
11	0.6842	1128.2	1148.2	1148.0	0.432	3.525	75.018	19.449	1.496	0.031	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1388.02	
12	0.6837	1133.6	1153.7	1153.5	0.306	3.334	74.824	20.150	1.330	0.023	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1395.29	
13	0.6780	1125.1	1145.0	1144.9	0.249	3.404	75.830	19.218	1.242	0.023	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1390.60	
14	0.6836	1135.0	1155.1	1154.9	0.203	3.403	74.592	20.537	1.219	0.019	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1397.01	
15	0.6850	1144.1	1164.4	1164.2	0.074	3.176	73.938	21.815	0.969	0.013	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1406.83	
16	0.6851	1142.6	1162.8	1162.7	0.097	3.242	74.050	21.490	1.089	0.015	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1404.86	
17	0.6845	1137.2	1157.3	1157.1	0.258	3.272	74.390	20.901	1.134	0.018	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1398.78	
18	0.6844	1141.0	1161.2	1161.0	0.260	3.023	74.098	21.803	0.779	0.015	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1403.66	
19	0.6835	1133.0	1153.1	1152.9	0.373	3.253	74.698	20.526	1.098	0.021	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1394.75	
20	0.6782	1126.1	1146.0	1145.8	0.234	3.393	75.835	19.177	1.303	0.024	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1391.51	
21	0.6764	1124.2	1144.1	1143.9	0.223	3.345	76.241	18.810	1.317	0.025	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1391.12	
22	0.6743	1117.2	1137.0	1136.8	0.361	3.362	76.791	18.136	1.271	0.030	0.047	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1384.67	
23	0.6780	1124.1	1144.0	1143.8	0.384	3.263	76.187	18.696	1.382	0.033	0.052	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1389.29	
24	0.6754	1119.1	1138.9	1138.7	0.381	3.320	76.649	18.252	1.313	0.032	0.051	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1385.86	
25	0.6796	1125.3	1145.2	1145.0	0.444	3.242	76.061	18.683	1.463	0.039	0.063	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1389.20	
26	0.6803	1126.9	1146.9	1146.7	0.434	3.228	75.887	18.890	1.454	0.038	0.062	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1390.44	
27	0.6787	1126.1	1146.0	1145.9	0.406	3.173	76.073	18.887	1.369	0.034	0.054	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1391.06	
28	0.6787	1125.3	1145.2	1145.1	0.342	3.315	75.898	19.059	1.316	0.028	0.041	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1390.13	
29	0.6783	1124.9	1144.9	1144.7	0.379	3.241	76.007	19.017	1.283	0.028	0.043	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1390.13	
30	0.6811	1133.6	1153.7	1153.5	0.204	3.250	75.241	19.931	1.321	0.022	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1397.86	
31	0.6885	1143.6	1163.9	1163.7	0.271	3.226	74.052	20.855	1.526	0.028	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1402.70	
Avg	0.6791	1127.0	1146.5	1146.3	0.339	3.284	75.800	19.213	1.287	0.029	0.046	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1391.23	

Source Daily Summary

March 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	0.6662	1100.9	1120.4	1119.4	0.409	3.525	78.744	15.742	1.457	0.041	0.073	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1372.62	
2	0.6641	1097.9	1117.4	1116.8	0.452	3.436	79.163	15.449	1.381	0.040	0.070	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1371.17	
3	0.6639	1098.1	1117.5	1117.0	0.435	3.442	79.168	15.455	1.381	0.040	0.070	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1371.49	
4	0.6666	1100.7	1120.2	1119.3	0.410	3.573	78.721	15.675	1.471	0.057	0.084	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1372.00	
5	0.6644	1098.0	1117.4	1116.2	0.409	3.525	79.101	15.413	1.429	0.042	0.072	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1370.95	
6	0.6636	1096.8	1116.2	1115.2	0.408	3.531	79.239	15.284	1.415	0.042	0.072	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1370.19	
7	0.6636	1096.9	1116.3	1115.2	0.412	3.518	79.236	15.300	1.411	0.042	0.072	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1370.36	
8	0.6640	1096.9	1116.3	1115.1	0.403	3.566	79.180	15.292	1.432	0.042	0.074	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1369.93	
9	0.6431	1057.6	1076.3	1075.3	0.323	4.113	83.262	10.867	1.262	0.053	0.098	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1342.12	
10	0.6592	1079.5	1098.6	1098.0	0.483	4.054	80.462	13.189	1.652	0.053	0.091	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1353.01	
11	0.6523	1070.5	1089.4	1088.8	0.416	4.055	81.719	12.094	1.558	0.054	0.088	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1348.78	
12	0.6404	1054.6	1073.2	1072.2	0.289	4.093	83.706	10.541	1.213	0.050	0.089	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1341.17	
13	0.6612	1091.3	1110.6	1109.7	0.422	3.613	79.703	14.764	1.379	0.039	0.068	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1365.83	
14	0.6698	1105.6	1125.2	1123.9	0.385	3.608	78.016	16.361	1.521	0.037	0.063	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1374.84	
15	0.6634	1099.9	1119.3	1118.2	0.388	3.356	79.072	15.815	1.284	0.030	0.049	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1374.23	
16	0.6709	1103.2	1122.7	1122.2	0.580	3.564	77.806	16.590	1.363	0.033	0.057	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1370.75	
17	0.6682	1098.1	1117.6	1117.3	0.660	3.497	78.334	16.157	1.259	0.032	0.055	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1367.22	
18	0.6670	1099.3	1118.8	1117.7	0.493	3.567	78.501	15.995	1.346	0.034	0.057	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1369.88	
19	0.6700	1103.0	1122.5	1121.4	0.533	3.570	77.941	16.481	1.380	0.033	0.056	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1371.31	
20	0.6650	1097.2	1116.6	1115.4	0.421	3.613	78.996	15.397	1.449	0.042	0.073	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1369.31	
21	0.6653	1098.7	1118.2	1116.9	0.404	3.577	78.934	15.497	1.462	0.042	0.074	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1370.88	
22	0.6665	1100.7	1120.1	1119.1	0.409	3.562	78.721	15.700	1.483	0.042	0.074	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1372.09	
23	0.6660	1100.2	1119.7	1119.0	0.411	3.542	78.799	15.661	1.462	0.042	0.073	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1372.02	
24	0.6658	1100.1	1119.6	1118.8	0.408	3.533	78.829	15.657	1.449	0.042	0.073	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1372.10	
25	0.6656	1099.8	1119.3	1118.6	0.407	3.531	78.864	15.632	1.442	0.042	0.073	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1371.99	
26	0.6658	1099.6	1119.1	1118.4	0.419	3.547	78.853	15.594	1.461	0.043	0.074	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1371.48	
27	0.6655	1099.3	1118.7	1117.9	0.404	3.567	78.889	15.551	1.463	0.043	0.074	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1371.30	
28	0.6647	1098.3	1117.7	1116.8	0.418	3.521	79.096	15.375	1.461	0.043	0.076	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1371.01	
29	0.6600	1092.2	1111.5	1110.5	0.508	3.324	79.958	14.812	1.282	0.039	0.068	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1368.13	
30	0.6806	1121.9	1141.7	1140.6	0.549	3.387	76.289	17.873	1.771	0.045	0.076	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1383.90	
31	0.6884	1135.0	1155.1	1154.4	0.598	3.243	74.982	19.071	1.965	0.050	0.082	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1392.22	
Avg	0.6645	1097.0	1115.9	1115.0	0.441	3.586	79.106	15.299	1.443	0.042	0.073	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1368.85	

Source Daily Summary

March 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	0.6835	1153.6	1174.0	1172.2	0.000	2.571	73.988	22.716	0.702	0.008	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.04	-26.68
2	0.6829	1152.5	1172.9	1171.2	0.000	2.577	74.075	22.664	0.659	0.009	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1419.35	-27.13
3	0.6821	1151.2	1171.5	1170.1	0.000	2.583	74.267	22.463	0.645	0.012	0.026	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1418.54	-27.32
4	0.6837	1152.9	1173.4	1171.5	0.000	2.625	73.856	22.885	0.612	0.008	0.013	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1419.08	-27.07
5	0.6845	1154.4	1174.9	1172.9	0.000	2.610	73.744	22.966	0.656	0.008	0.014	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1420.07	-26.44
6	0.6837	1153.5	1174.0	1172.2	0.000	2.592	73.894	22.840	0.651	0.008	0.014	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1419.79	-26.81
7	0.6838	1153.3	1173.7	1171.7	0.000	2.614	73.932	22.734	0.688	0.010	0.020	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1419.39	-26.54
8	0.6844	1154.5	1174.9	1173.1	0.000	2.601	73.895	22.712	0.741	0.014	0.031	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1420.19	-25.71
9	0.6835	1152.9	1173.4	1171.5	0.000	2.610	73.972	22.712	0.675	0.010	0.019	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1419.24	-26.72
10	0.6832	1152.4	1172.8	1171.2	0.000	2.615	74.061	22.582	0.717	0.009	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1418.88	-26.85
11	0.6844	1152.4	1172.8	1171.2	0.000	2.729	73.728	22.865	0.655	0.008	0.013	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1417.64	-26.76
12	0.6837	1150.1	1170.5	1168.8	0.000	2.801	73.845	22.691	0.643	0.007	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.56	-27.37
13	0.6848	1150.6	1171.0	1169.3	0.000	2.876	73.458	23.145	0.506	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.05	-27.52
14	0.6850	1150.3	1170.7	1168.8	0.000	2.914	73.373	23.235	0.466	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.45	-27.70
15	0.6850	1150.0	1170.4	1168.6	0.000	2.935	73.384	23.179	0.489	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.06	-27.63
16	0.6836	1149.3	1169.7	1167.8	0.000	2.837	73.679	23.003	0.468	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.76	-28.25
17	0.6839	1151.2	1171.6	1169.6	0.000	2.749	73.643	23.118	0.476	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.78	-27.85
18	0.6835	1150.7	1171.0	1169.1	0.000	2.753	73.754	22.960	0.518	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.41	-27.88
19	0.6835	1150.8	1171.1	1169.2	0.000	2.741	73.733	23.026	0.486	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.61	-28.00
20	0.6831	1149.9	1170.3	1168.7	0.000	2.763	73.770	22.994	0.459	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.88	-28.32
21	0.6839	1148.4	1168.7	1166.5	0.000	2.927	73.574	23.043	0.443	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.23	-28.38
22	0.6849	1152.6	1173.0	1170.6	0.000	2.766	73.415	23.332	0.473	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.38	-27.34
23	0.6847	1152.8	1173.2	1171.2	0.000	2.734	73.457	23.332	0.464	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.83	-27.42
24	0.6851	1153.9	1174.3	1172.6	0.000	2.701	73.411	23.393	0.481	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.79	-27.10
25	0.6843	1152.6	1173.0	1170.6	0.000	2.705	73.557	23.256	0.468	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.03	-27.56
26	0.6845	1152.7	1173.1	1171.3	0.000	2.715	73.512	23.295	0.464	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.99	-27.51
27	0.6851	1153.7	1174.1	1171.7	0.000	2.716	73.416	23.360	0.494	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.50	-27.08
28	0.6845	1152.1	1172.5	1170.4	0.000	2.755	73.538	23.191	0.501	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.20	-27.44
29	0.6842	1152.2	1172.7	1170.5	0.000	2.718	73.604	23.162	0.501	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.68	-27.52
30	0.6848	1153.2	1173.6	1171.3	0.000	2.718	73.509	23.233	0.525	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.19	-27.12
31	0.6848	1153.3	1173.7	1171.5	0.000	2.714	73.509	23.228	0.534	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.33	-27.05
Avg	0.6841	1152.0	1172.5	1170.5	0.000	2.718	73.695	23.010	0.557	0.007	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.58	-27.29

Source Daily Summary

March 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	0.5721	963.2	980.3	979.9	0.112	3.513	96.047	0.305	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.99	
2	0.5721	963.2	980.3	980.0	0.113	3.507	96.052	0.305	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1296.07	
3	0.5721	963.1	980.2	980.0	0.112	3.520	96.040	0.305	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.86	
4	0.5721	963.1	980.1	979.9	0.112	3.523	96.037	0.305	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.79	
5	0.6167	1024.4	1042.5	1042.2	0.332	3.647	87.856	7.463	0.632	0.025	0.040	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1327.33	
6	0.6355	1050.7	1069.3	1069.0	0.457	3.624	84.437	10.507	0.879	0.033	0.054	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1341.32	
7	0.6367	1052.9	1071.6	1071.3	0.470	3.574	84.233	10.737	0.887	0.033	0.054	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1342.99	
8	0.6409	1060.9	1079.7	1079.4	0.488	3.463	83.444	11.574	0.932	0.033	0.055	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1348.62	
9	0.6449	1067.8	1086.7	1086.3	0.500	3.401	82.705	12.306	0.988	0.033	0.057	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1353.20	
10	0.6423	1062.9	1081.7	1081.3	0.459	3.518	83.177	11.761	0.984	0.033	0.058	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1349.58	
11	0.5721	963.2	980.3	979.9	0.113	3.513	96.041	0.310	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1296.00	
12	0.5741	958.3	975.2	974.9	0.112	4.008	95.551	0.306	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1287.44	
13	0.5721	963.2	980.3	979.9	0.112	3.511	96.048	0.306	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1296.02	
14	0.5721	963.2	980.3	980.0	0.113	3.508	96.050	0.306	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1296.06	
15	0.5721	963.3	980.4	980.0	0.114	3.498	96.058	0.307	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1296.22	
16	0.5721	963.2	980.3	980.0	0.113	3.507	96.051	0.306	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1296.06	
17	0.5721	963.2	980.3	980.0	0.113	3.511	96.048	0.306	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1296.01	
18	0.5721	963.1	980.1	979.7	0.112	3.524	96.037	0.304	0.014	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.77	
19	0.5721	963.1	980.2	979.9	0.112	3.518	96.043	0.305	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.91	
20	0.5721	963.2	980.3	980.0	0.112	3.509	96.050	0.306	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1296.06	
21	0.5721	963.2	980.3	980.0	0.113	3.507	96.050	0.307	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1296.06	
22	0.5951	993.0	1010.6	1010.3	0.225	3.687	91.812	3.906	0.330	0.018	0.020	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1309.91	
23	0.6193	1026.2	1044.4	1044.1	0.367	3.724	87.414	7.748	0.667	0.028	0.044	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1327.09	
24	0.6383	1049.5	1068.1	1067.8	0.457	3.958	83.941	10.567	0.958	0.037	0.070	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1337.17	
25	0.6413	1059.5	1078.3	1078.0	0.476	3.604	83.386	11.457	0.970	0.035	0.062	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1346.45	
26	0.6415	1059.9	1078.6	1078.4	0.474	3.604	83.347	11.496	0.972	0.035	0.061	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1346.68	
27	0.6416	1059.8	1078.5	1078.2	0.472	3.617	83.340	11.485	0.978	0.035	0.062	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1346.52	
28	0.6415	1061.1	1079.8	1079.5	0.472	3.532	83.347	11.576	0.969	0.034	0.059	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1348.23	
29	0.6398	1058.8	1077.6	1077.3	0.471	3.507	83.667	11.316	0.938	0.034	0.057	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1347.21	
30	0.6482	1070.5	1089.4	1089.1	0.498	3.547	82.148	12.599	1.095	0.037	0.065	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1353.13	
31	0.6494	1075.2	1094.2	1093.9	0.491	3.382	81.902	13.031	1.088	0.035	0.060	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1357.89	
Avg	0.6051	1009.0	1026.8	1026.5	0.284	3.567	90.012	5.617	0.467	0.021	0.028	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1319.83	

March-24

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		
3/1/2024	3/2/2024	0	0	0	3,346	3,811	1138.2	1138.200	3/1/2024
3/2/2024	3/3/2024	0	0	0	4,539	5,161	1137.3	1137.300	3/2/2024
3/3/2024	3/4/2024	15	17	1109.6	6,460	7,419	1147.7	1147.612	3/3/2024
3/4/2024	3/5/2024	1,884	2,078	1,103	3,841	4,378	1139.6	1127.588	3/4/2024
3/5/2024	3/6/2024	265	290	1103.3	6,082	6,916	1137.3	1135.880	3/5/2024
3/6/2024	3/7/2024	0	0	0	6,201	6,988	1127.7	1127.700	3/6/2024
3/7/2024	3/8/2024	0	0	0	6,115	7,050	1148.4	1148.400	3/7/2024
3/8/2024	3/9/2024	0	0	0	4,872	5,527	1132.2	1132.200	3/8/2024
3/9/2024	3/10/2024	0	0	0	3,466	3,908	1127.3	1127.300	3/9/2024
3/10/2024	3/11/2024	0	0	0	3,026	3,440	1135.7	1135.700	3/10/2024
3/11/2024	3/12/2024	0	0	0	3,096	3,613	1165.9	1165.900	3/11/2024
3/12/2024	3/13/2024	257	288	1,120	2,811	3,342	1189.5	1183.695	3/12/2024
3/13/2024	3/14/2024	918	1,029	1,126	2,695	3,195	1186.4	1170.952	3/13/2024
3/14/2024	3/15/2024	0	0	0	4,156	4,765	1146.7	1146.700	3/14/2024
3/15/2024	3/16/2024	0	0	0	3,261	3,772	1157.3	1157.300	3/15/2024
3/16/2024	3/17/2024	0	0	0	4,131	4,769	1153.9	1153.900	3/16/2024
3/17/2024	3/18/2024	0	0	0	5,699	6,579	1153.8	1153.800	3/17/2024
3/18/2024	3/19/2024	0	0	0	3,300	3,794	1149.5	1149.500	3/18/2024
3/19/2024	3/20/2024	0	0	0	4,114	4,721	1142.1	1142.100	3/19/2024
3/20/2024	3/21/2024	0	0	0	5,424	6,241	1150.6	1150.600	3/20/2024
3/21/2024	3/22/2024	0	0	0	5,552	6,324	1139	1139.000	3/21/2024
3/22/2024	3/23/2024	0	0	0	5,193	6,045	1160	1160.000	3/22/2024
3/23/2024	3/24/2024	0	0	0	5,815	6,626	1138.8	1138.800	3/23/2024
3/24/2024	3/25/2024	0	0	0	6,222	7,077	1138.1	1138.100	3/24/2024
3/25/2024	3/26/2024	0	0	0	6,247	7,116	1139.1	1139.100	3/25/2024
3/26/2024	3/27/2024	0	0	0	6,667	7,643	1145.9	1145.900	3/26/2024
3/27/2024	3/28/2024	0	0	0	5,726	6,659	1158.8	1158.800	3/27/2024
3/28/2024	3/29/2024	0	0	0	4,246	4,854	1142.4	1142.400	3/28/2024
3/29/2024	3/30/2024	0	0	0	4,155	4,749	1142.8	1142.800	3/29/2024
3/30/2024	3/31/2024	0	0	0	4,293	4,907	1143.2	1143.200	3/30/2024
3/31/2024	4/1/2024	0	0	0	3,979	4,567	1147.6	1147.600	3/31/2024
		3,339	3,702	179.4129	144,730	165,956	1147.1871	1146.0654	



Alliance Pipeline

DAILY ANALYSIS --- USA
 ND07MD1 --- Hankinson Sales
 March 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	1,144.761	0.6537	85.0460	9.6390	3.0893	0.3235	0.5087	0.0542	0.0396	0.0150	0.8959	0.3785	0.0103
2	1,145.631	0.6544	84.9111	9.7686	3.0715	0.3256	0.5164	0.0547	0.0409	0.0147	0.8989	0.3869	0.0107
3	1,148.661	0.6566	84.5508	10.0242	3.1042	0.3358	0.5415	0.0563	0.0425	0.0147	0.9410	0.3779	0.0110
4	1,142.113	0.6503	85.4878	9.5574	2.9167	0.3151	0.4798	0.0529	0.0398	0.0144	0.7579	0.3672	0.0108
5	1,147.697	0.6553	84.8151	9.8137	3.1396	0.3290	0.5291	0.0548	0.0400	0.0148	0.8852	0.3679	0.0107
6	1,146.519	0.6542	84.8889	9.8728	3.0610	0.3256	0.5044	0.0539	0.0397	0.0147	0.8698	0.3586	0.0107
7	1,146.844	0.6539	84.9567	9.8299	3.0704	0.3299	0.5046	0.0540	0.0391	0.0153	0.8406	0.3488	0.0106
8	1,145.679	0.6534	85.0283	9.7861	3.0447	0.3279	0.4907	0.0542	0.0396	0.0161	0.8390	0.3625	0.0109
9	1,146.500	0.6548	84.8566	9.7837	3.1202	0.3250	0.5129	0.0556	0.0412	0.0148	0.9027	0.3767	0.0107
10	1,147.062	0.6553	84.8078	9.8063	3.1208	0.3283	0.5275	0.0565	0.0414	0.0148	0.9075	0.3784	0.0106
11	1,145.723	0.6549	84.8462	9.7617	3.0899	0.3312	0.5215	0.0559	0.0411	0.0147	0.9484	0.3787	0.0107
12	1,144.221	0.6536	84.9695	9.7665	3.0128	0.3263	0.5013	0.0545	0.0404	0.0153	0.9323	0.3704	0.0107
13	1,143.255	0.6531	85.0308	9.7329	2.9711	0.3265	0.5040	0.0547	0.0397	0.0152	0.9465	0.3679	0.0107
14	1,145.353	0.6546	84.8542	9.7954	3.0472	0.3291	0.5229	0.0559	0.0407	0.0161	0.9555	0.3723	0.0107
15	1,146.449	0.6549	84.8498	9.8019	3.0507	0.3397	0.5295	0.0597	0.0448	0.0172	0.9291	0.3668	0.0108
16	1,146.534	0.6550	84.8023	9.8554	3.0593	0.3348	0.5198	0.0577	0.0432	0.0176	0.9373	0.3619	0.0107
17	1,148.926	0.6569	84.5265	9.9796	3.1688	0.3323	0.5324	0.0572	0.0425	0.0157	0.9610	0.3730	0.0109
18	1,147.134	0.6554	84.7955	9.7725	3.1362	0.3324	0.5309	0.0580	0.0431	0.0155	0.9454	0.3603	0.0102
19	1,146.814	0.6549	84.8233	9.8401	3.1089	0.3246	0.5095	0.0560	0.0419	0.0150	0.8980	0.3719	0.0108
20	1,148.637	0.6565	84.6362	9.8991	3.1650	0.3328	0.5328	0.0583	0.0438	0.0159	0.9255	0.3800	0.0107
21	1,147.436	0.6555	84.7708	9.8361	3.1281	0.3270	0.5239	0.0578	0.0436	0.0159	0.9070	0.3794	0.0104
22	1,147.122	0.6554	84.7210	9.9463	3.0752	0.3259	0.5141	0.0566	0.0426	0.0163	0.9045	0.3871	0.0105
23	1,145.390	0.6545	84.8323	9.8567	3.0416	0.3253	0.5044	0.0563	0.0419	0.0157	0.9336	0.3818	0.0104
24	1,148.039	0.6560	84.6342	9.9797	3.1200	0.3341	0.5091	0.0562	0.0422	0.0161	0.9215	0.3767	0.0102
25	1,145.369	0.6540	84.9189	9.8244	3.0467	0.3268	0.4917	0.0552	0.0415	0.0151	0.8927	0.3764	0.0105
26	1,146.538	0.6548	84.8185	9.8583	3.0846	0.3290	0.5074	0.0557	0.0415	0.0153	0.9061	0.3730	0.0105
27	1,145.911	0.6545	84.8325	9.8717	3.0606	0.3263	0.4981	0.0555	0.0416	0.0153	0.9174	0.3704	0.0105
28	1,147.174	0.6555	84.6960	9.9242	3.1109	0.3283	0.5089	0.0552	0.0421	0.0155	0.9370	0.3713	0.0105
29	1,146.715	0.6555	84.7407	9.8414	3.1176	0.3291	0.5158	0.0570	0.0434	0.0158	0.9534	0.3754	0.0103
30	1,147.794	0.6561	84.6825	9.8642	3.1603	0.3287	0.5217	0.0571	0.0433	0.0158	0.9324	0.3837	0.0105
31	1,148.090	0.6562	84.6163	9.9704	3.1216	0.3298	0.5242	0.0565	0.0427	0.0155	0.9349	0.3777	0.0105
Volume	1,146.446	0.6548	84.8305	9.8339	3.0842	0.3286	0.5142	0.0559	0.0417	0.0155	0.9119	0.3731	0.0106
Weight Avg Energy	1,146.448	0.6548	84.8304	9.8340	3.0842	0.3286	0.5142	0.0560	0.0417	0.0155	0.9119	0.3731	0.0106



Alliance Pipeline

DAILY ANALYSIS --- USA
 ND14MD1 --- Milnor Sales
 March 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	1,144.976	0.6538	85.0283	9.6503	3.0940	0.3244	0.5096	0.0545	0.0399	0.0149	0.8974	0.3764	0.0104
2	1,146.337	0.6548	84.8352	9.8359	3.0794	0.3263	0.5183	0.0545	0.0408	0.0147	0.8974	0.3868	0.0108
3	1,147.689	0.6561	84.6454	9.9297	3.0921	0.3352	0.5434	0.0566	0.0427	0.0147	0.9522	0.3771	0.0108
4	1,142.245	0.6501	85.5090	9.5797	2.9065	0.3141	0.4749	0.0526	0.0395	0.0144	0.7339	0.3645	0.0109
5	1,148.218	0.6558	84.7351	9.8412	3.1655	0.3301	0.5329	0.0550	0.0402	0.0149	0.9081	0.3662	0.0107
6	1,146.261	0.6539	84.9315	9.8557	3.0460	0.3259	0.5042	0.0539	0.0395	0.0147	0.8645	0.3535	0.0107
7	1,146.839	0.6540	84.9407	9.8394	3.0758	0.3294	0.5015	0.0536	0.0388	0.0153	0.8391	0.3559	0.0106
8	1,145.886	0.6535	85.0116	9.7968	3.0533	0.3268	0.4912	0.0541	0.0397	0.0158	0.8389	0.3609	0.0108
9	1,146.807	0.6553	84.8023	9.7975	3.1352	0.3260	0.5183	0.0558	0.0413	0.0148	0.9152	0.3829	0.0106
10	1,146.784	0.6549	84.8491	9.8005	3.1003	0.3283	0.5250	0.0566	0.0414	0.0150	0.8974	0.3758	0.0106
11	1,145.690	0.6549	84.8432	9.7649	3.0886	0.3314	0.5207	0.0556	0.0411	0.0148	0.9511	0.3780	0.0107
12	1,143.875	0.6533	85.0056	9.7508	3.0014	0.3252	0.4987	0.0543	0.0402	0.0152	0.9282	0.3698	0.0107
13	1,143.328	0.6531	85.0254	9.7352	2.9721	0.3266	0.5054	0.0548	0.0397	0.0153	0.9479	0.3668	0.0107
14	1,145.569	0.6547	84.8363	9.8016	3.0542	0.3297	0.5241	0.0562	0.0412	0.0165	0.9570	0.3725	0.0107
15	1,146.393	0.6549	84.8617	9.7975	3.0450	0.3402	0.5300	0.0599	0.0449	0.0172	0.9264	0.3663	0.0108
16	1,146.528	0.6551	84.7905	9.8573	3.0659	0.3338	0.5183	0.0577	0.0430	0.0176	0.9409	0.3642	0.0107
17	1,148.954	0.6568	84.5578	9.9481	3.1763	0.3330	0.5337	0.0573	0.0427	0.0158	0.9580	0.3667	0.0106
18	1,147.345	0.6555	84.7619	9.8146	3.1342	0.3310	0.5288	0.0576	0.0429	0.0154	0.9430	0.3604	0.0103
19	1,147.030	0.6550	84.8028	9.8540	3.1137	0.3250	0.5101	0.0561	0.0420	0.0152	0.8986	0.3717	0.0107
20	1,148.867	0.6566	84.6224	9.9117	3.1697	0.3332	0.5333	0.0583	0.0438	0.0157	0.9219	0.3793	0.0107
21	1,147.264	0.6554	84.7852	9.8341	3.1182	0.3268	0.5227	0.0578	0.0437	0.0162	0.9054	0.3796	0.0104
22	1,146.874	0.6553	84.7432	9.9309	3.0679	0.3263	0.5136	0.0565	0.0424	0.0162	0.9067	0.3858	0.0105
23	1,145.379	0.6546	84.8239	9.8614	3.0436	0.3248	0.5035	0.0561	0.0418	0.0156	0.9348	0.3841	0.0104
24	1,148.836	0.6565	84.5925	9.9893	3.1463	0.3398	0.5128	0.0569	0.0427	0.0165	0.9185	0.3745	0.0101
25	1,144.687	0.6535	84.9688	9.8081	3.0241	0.3224	0.4875	0.0547	0.0412	0.0149	0.8907	0.3769	0.0106
26	1,146.684	0.6549	84.8039	9.8626	3.0914	0.3294	0.5083	0.0558	0.0415	0.0153	0.9098	0.3715	0.0105
27	1,146.037	0.6546	84.8213	9.8782	3.0639	0.3266	0.4988	0.0556	0.0417	0.0153	0.9180	0.3701	0.0105
28	1,147.096	0.6555	84.7067	9.9156	3.1079	0.3283	0.5094	0.0555	0.0424	0.0155	0.9362	0.3720	0.0104
29	1,146.892	0.6556	84.7289	9.8436	3.1264	0.3293	0.5170	0.0568	0.0433	0.0158	0.9530	0.3756	0.0103
30	1,148.124	0.6563	84.6469	9.8965	3.1663	0.3287	0.5214	0.0569	0.0430	0.0156	0.9288	0.3853	0.0105
31	1,147.886	0.6561	84.6323	9.9629	3.1123	0.3300	0.5236	0.0567	0.0428	0.0156	0.9374	0.3761	0.0104
Volume	1,146.492	0.6548	84.8349	9.8374	3.0834	0.3285	0.5133	0.0559	0.0416	0.0155	0.9074	0.3717	0.0106
Weight Avg Energy	1,146.492	0.6548	84.8351	9.8373	3.0833	0.3285	0.5133	0.0559	0.0416	0.0155	0.9073	0.3717	0.0106

March-24

ZONE 610

Watford City

Watford City West Border

Watford City East Border

Weighted

Start Date	End Date	BTU			BTU			AVG BTU	
		MCF	DK	Zone 25	MCF	DK	Zone 43		
3/1/2024	3/2/2024	279	333	1193.8	643	698	1085.3	1118.132	3/1/2024
3/2/2024	3/3/2024	385	460	1193.8	853	926	1085.3	1119.042	3/2/2024
3/3/2024	3/4/2024	490	585	1193.8	1,056	1,146	1085.3	1119.689	3/3/2024
3/4/2024	3/5/2024	521	623	1193.8	1,226	1,331	1085.3	1117.657	3/4/2024
3/5/2024	3/6/2024	490	585	1193.8	1,161	1,260	1085.3	1117.502	3/5/2024
3/6/2024	3/7/2024	503	601	1193.8	1,209	1,312	1085.3	1117.178	3/6/2024
3/7/2024	3/8/2024	450	537	1193.8	1,152	1,250	1085.3	1115.778	3/7/2024
3/8/2024	3/9/2024	374	446	1193.8	845	917	1085.3	1118.589	3/8/2024
3/9/2024	3/10/2024	260	310	1193.8	585	635	1085.3	1118.685	3/9/2024
3/10/2024	3/11/2024	239	285	1193.8	519	563	1085.3	1119.510	3/10/2024
3/11/2024	3/12/2024	248	296	1193.8	575	624	1085.3	1117.995	3/11/2024
3/12/2024	3/13/2024	251	299	1193.8	573	622	1085.3	1118.350	3/12/2024
3/13/2024	3/14/2024	243	290	1193.8	495	537	1085.3	1121.026	3/13/2024
3/14/2024	3/15/2024	338	404	1193.8	847	919	1085.3	1116.248	3/14/2024
3/15/2024	3/16/2024	261	312	1193.8	557	604	1085.3	1119.919	3/15/2024
3/16/2024	3/17/2024	321	384	1193.8	755	819	1085.3	1117.668	3/16/2024
3/17/2024	3/18/2024	371	443	1193.8	820	890	1085.3	1119.098	3/17/2024
3/18/2024	3/19/2024	248	296	1193.8	510	553	1085.3	1120.799	3/18/2024
3/19/2024	3/20/2024	327	390	1193.8	800	869	1085.3	1116.781	3/19/2024
3/20/2024	3/21/2024	429	512	1193.8	902	979	1085.3	1120.271	3/20/2024
3/21/2024	3/22/2024	420	501	1193.8	910	987	1085.3	1119.563	3/21/2024
3/22/2024	3/23/2024	393	469	1193.8	875	950	1085.3	1118.928	3/22/2024
3/23/2024	3/24/2024	425	507	1193.8	953	1,034	1085.3	1118.763	3/23/2024
3/24/2024	3/25/2024	450	537	1193.8	973	1,056	1085.3	1119.611	3/24/2024
3/25/2024	3/26/2024	463	553	1193.8	1,097	1,190	1085.3	1117.502	3/25/2024
3/26/2024	3/27/2024	477	569	1193.8	1,108	1,202	1085.3	1117.953	3/26/2024
3/27/2024	3/28/2024	396	472	1193.8	916	994	1085.3	1118.048	3/27/2024
3/28/2024	3/29/2024	337	402	1193.8	782	849	1085.3	1117.976	3/28/2024
3/29/2024	3/30/2024	336	401	1193.8	728	790	1085.3	1119.563	3/29/2024
3/30/2024	3/31/2024	301	360	1193.8	722	783	1085.3	1117.224	3/30/2024
3/31/2024	4/1/2024	326	389	1193.8	759	824	1085.3	1117.900	3/31/2024
		11,352	13,551	1193.8000	25,906	28,113	1085.3000	1118.4823	

Tsp	EffDate	EndDate	Device	GasDay	EndDt	BTU	SpecGrav	CriconTherm	WobbeIndex	CO2	N2	Methane	Ethane	Propane	iButane	nButane	iPentane	nPentane	Neopentane	COPlus	Hydrogen	Helium	WaterVapor	TotalSulfur	HydrogenSulfur	Oxygen
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/1/2024	3/2/2024	1113	0.6644	-39.7	1365.464308	1.0209	2.8638	78.8722	16.3619	0.759	0.0203	0.0398	0.0022	0.0022	0	0	0.0317	0.0262	0.2701	0.1179	0.0775	0.0012
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/2/2024	3/3/2024	1115	0.6672	-38.3	1365.044623	1.0296	2.9949	78.2143	16.8112	0.7729	0.0206	0.0406	0.0023	0.0023	0	0	0.0845	0.0271	0.2488	0.1122	0.0733	0.0012
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/3/2024	3/4/2024	1111	0.6648	-39.4	1362.60053	1.0265	2.9986	78.4172	16.5079	0.7484	0.0204	0.0409	0.0024	0.0023	0	0	0.2091	0.0265	0.2593	0.1071	0.0683	0.0012
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/4/2024	3/5/2024	1104	0.6587	-43.4	1360.270381	1.0033	2.8944	79.5589	15.8051	0.6512	0.0172	0.0342	0.0018	0.0016	0	0	0.2069	0.0257	0.276	0.1011	0.0617	0.0012
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/5/2024	3/6/2024	1104	0.6608	-42.1	1358.107214	1.0196	3.03	79.0762	15.8365	0.6984	0.0185	0.0362	0.0017	0.0016	0	0	0.2547	0.0266	0.3185	0.0911	0.0537	0.2741
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/6/2024	3/7/2024	1111	0.6663	-38.5	1361.065897	1.0338	3.1334	78.1938	16.5261	0.8157	0.0217	0.0429	0.0024	0.0024	0	0	0.2005	0.0274	0.3237	0.1001	0.0564	0.2741
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/7/2024	3/8/2024	1108	0.662	-40.8	1361.79196	1.0049	2.9519	79.1188	15.8848	0.7844	0.021	0.0404	0.0022	0.0022	0	0	0.1629	0.0267	0.3417	0.1065	0.0598	0.2741
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/8/2024	3/9/2024	1104	0.6593	-42.9	1359.651279	0.994	2.9651	79.3347	15.6904	0.6851	0.0173	0.0321	0.0013	0.0011	0	0	0.2523	0.0267	0.3537	0.1663	0.0834	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/9/2024	3/10/2024	1105	0.6607	-42.3	1359.440251	1.0233	2.9484	79.2071	15.8641	0.6888	0.0172	0.0316	0.0011	0.0009	0	0	0.1914	0.0262	0.3387	0.1379	0.0967	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/10/2024	3/11/2024	1120	0.6708	-36.4	1367.481613	1.0411	2.988	77.5074	17.4932	0.8068	0.0183	0.0344	0.0016	0.0013	0	0	0.0811	0.0269	0.3129	0.1479	0.1015	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/11/2024	3/12/2024	1121	0.6695	-36.8	1370.030772	1.0205	2.8447	77.8878	17.3176	0.812	0.0188	0.0362	0.0019	0.0018	0	0	0.0329	0.026	0.3198	0.1416	0.1019	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/12/2024	3/13/2024	1119	0.6679	-37	1370.223565	1.0049	2.8372	78.0683	17.0151	0.8563	0.0206	0.0401	0.0022	0.0022	0	0	0.1278	0.0256	0.3356	0.1439	0.1049	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/13/2024	3/14/2024	1126	0.6749	-33.5	1370.625087	1.0472	3.0274	76.707	18.1151	0.8906	0.0216	0.0428	0.0024	0.0024	0	0	0.1169	0.0268	0.2988	0.1485	0.1041	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/14/2024	3/15/2024	1125	0.6741	-33.9	1370.220179	1.0391	2.9895	76.9161	17.9516	0.9111	0.0202	0.0402	0.0023	0.0024	0	0	0.101	0.0267	0.3009	0.1378	0.1009	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/15/2024	3/16/2024	1126	0.6742	-33.7	1371.33644	1.0478	2.9362	76.8627	18.0424	0.8971	0.0203	0.0407	0.0023	0.0024	0	0	0.1222	0.0261	0.2944	0.1304	0.0953	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/16/2024	3/17/2024	1124	0.6738	-34.3	1369.308936	1.0544	3.0451	76.7986	18.0048	0.8469	0.02	0.0405	0.0023	0.0024	0	0	0.1581	0.0269	0.2987	0.1224	0.0825	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/17/2024	3/18/2024	1124	0.6735	-34.3	1369.61187	1.0534	2.9721	76.8877	17.993	0.8512	0.0202	0.0406	0.0023	0.0024	0	0	0.1508	0.0263	0.2923	0.1224	0.079	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/18/2024	3/19/2024	1122	0.6716	-34.8	1369.107385	1.0358	2.9619	77.2907	17.5316	0.9057	0.024	0.0464	0.0024	0.0025	0	0	0.1727	0.0263	0.3246	0.129	0.0925	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/19/2024	3/20/2024	1124	0.6729	-33.9	1370.22235	1.0436	2.9729	77.0572	17.6971	0.9375	0.0255	0.0486	0.0025	0.0025	0	0	0.1864	0.0262	0.3156	0.1368	0.097	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/20/2024	3/21/2024	1118	0.6697	-36.1	1366.160279	1.0359	3.0224	77.6793	17.1091	0.8925	0.0236	0.0448	0.0024	0.0024	0	0	0.1609	0.027	0.3215	0.1165	0.074	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/21/2024	3/22/2024	1110	0.6624	-41	1363.838094	1.009	2.8841	78.9656	16.2226	0.6825	0.0195	0.0387	0.0022	0.0022	0	0	0.1476	0.0262	0.3334	0.1107	0.0713	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/22/2024	3/23/2024	1112	0.6644	-40.1	1364.237475	1.0197	2.925	78.7039	16.4879	0.693	0.0196	0.039	0.0022	0.0023	0	0	0.0807	0.0268	0.3264	0.1228	0.0794	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/23/2024	3/24/2024	1112	0.6644	-40	1364.237475	1.0176	2.8911	78.7484	16.4697	0.7111	0.0196	0.0387	0.0022	0.0021	0	0	0.0731	0.0266	0.3272	0.1081	0.0652	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/24/2024	3/25/2024	1113	0.6651	-39.7	1364.745561	1.0193	2.9131	78.5966	16.6039	0.7073	0.0195	0.0386	0.0021	0.0022	0	0	0.0711	0.0264	0.3179	0.089	0.0366	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/25/2024	3/26/2024	1112	0.6639	-40.4	1364.7511	1.0176	2.8776	78.7804	16.4608	0.6901	0.0185	0.0361	0.0019	0.0018	0	0	0.0895	0.026	0.3121	0.0645	0.0011	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/26/2024	3/27/2024	1109	0.6617	-41.4	1363.32996	1.0087	2.842	79.1646	16.1043	0.6725	0.0198	0.0396	0.0023	0.0023	0	0	0.1183	0.0257	0.3192	0.0292	0.0232	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/27/2024	3/28/2024	1107	0.6604	-42.1	1362.210077	1.0134	2.8205	79.6126	15.6932	0.7154	0.0204	0.0405	0.0023	0.0023	0	0	0.0536	0.0258	0.3412	0.0703	0.0442	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/28/2024	3/29/2024	1107	0.6609	-42.2	1361.694693	1.0243	2.8986	79.4446	15.7979	0.683	0.0194	0.0385	0.0022	0.0022	0	0	0.0632	0.0263	0.3309	0.0726	0.0446	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/29/2024	3/30/2024	1108	0.6632	-41	1360.559383	1.0369	2.9813	78.9855	16.135	0.6979	0.0198	0.0394	0.0023	0.0024	0	0	0.0731	0.0267	0.3349	0.0752	0.05	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/30/2024	3/31/2024	1109	0.6645	-40.3	1360.4546	1.0564	3.055	78.6993	16.2926	0.7125	0.0206	0.0414	0.0023	0.0024	0	0	0.0903	0.0274	0.3321	0.0791	0.0531	0.0008
NBPL	2/28/2024 0:00	4/19/2024 0:00	GLNU1 - GLEN ULLIN	3/31/2024	4/1/2024	1109	0.6648	-40.2	1360.147604	1.0561	3.0391	78.6501	16.3914	0.6965	0.0199	0.0397	0.0022	0.0023	0	0	0.0756	0.0272	0.3159	0.0835	0.0575	0.0008

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	MAR24	FEB24	JAN24	DEC23	NOV23	OCT23	SEP23	AUG23	JUL23	JUN23	MAY23	APR23	Zone
MT/ND	211	Sidney Border - MonDak Tfr - Sidney Plt	1194	1185	1187	1179	1192	1195	1194	1196	1198	1199	1195	1200	1204	211
ND	24	Williston Border - Charbonneau Station	1193	1181	1192	1197	1194	1194	1188	1188	1195	1195	1196	1198	1194	24
ND	25	Watford City West Border	1198	1194	1194	1198	1197	1198	1207	1212	1210	1210	1190	1189	1180	25
ND	28	Bismarck Station - Glen Ullin Station	1163	1147	1126	1131	1138	1161	1154	1202	1199	1194	1195	1192	1118	28
ND	31	Dickinson Brd - Belfield Trf - G Ullin Stn	1123	1147	1127	1127	1134	1147	1138	1121	1124	1118	1107	1086	1100	31
ND/MT	32	Cabin Creek Station - Belfield Transfer	1126	1116	1118	1122	1132	1138	1135	1135	1134	1124	1124	1111	1119	32
ND	33	Little Knife Plant	1175	1173	1171	1169	1168	1174	1173	1177	1181	1174	1180	1182	1179	33
ND	34	Badlands Plant/Bowman Border	1017	1027	1000	1094	1079	1017	980	984	980	980	1040	1021	1005	34
ND	43	Watford City East Border	1108	1085	1113	1127	1132	1154	1119	1124	1120	1118	1081	1042	1083	43
ND/MT	241	Fairview Border	1193	1186	1192	1185	1192	1198	1192	1195	1200	1193	1189	1200	1196	241
ND	267	North Tioga Transfer - Nesson Plant	1176	1187	1165	1166	1171	1169	1169	1166	1176	1181	1185	1188	1187	267
ND	261	Tioga Comp Station - Robinson Lake Plan	1191	1195	1192	1178	1201	1203	1203	1187	1191	1186	1189	1188	1184	261
ND	262	Minot Bdr - Palermo Bdr - Bismarck Stn	1197	1195	1196	1198	1202	1204	1206	1202	1197	1192	1193	1190	1189	262
ND	263	Lignite Plant	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	1131	263
ND	264	Epping Border	1193	1172	1193	1204	1206	1206	1191	1183	1195	1190	1181	1195	1202	264
ND	265	Tioga Comp Station - County Line Plant	1175	1192	1179	1169	1183	1175	1171	1174	1170	1165	1168	1176	1182	265
ND	266	County Line Plant	1177	1193	1181	1171	1184	1177	1172	1179	1171	1166	1168	1178	1182	266
ND	271	Bismarck Station - Cleveland Station	1195	1192	1183	1186	1201	1206	1204	1202	1199	1194	1195	1192	1189	271
ND	272	Cleveland Station - Mapleton	1195	1191	1183	1185	1200	1204	1205	1201	1199	1194	1194	1191	1188	272
ND	273	Cleveland Station - Grafton Border	1195	1191	1183	1186	1201	1205	1204	1202	1198	1194	1194	1192	1187	273
ND	550	Mandan Border / NBPL-St Anthony	1143	1146	1126	1124	1138	1161	1142	1188	1173	1172	1160	1085	1101	550
ND	610	MDU-Watford City BTU	1129	1118	1138	1150	1151	1167	1152	1150	1131	1123	1091	1065	1111	610
ND	802	NBPL - Linton	1103	1114	1114	1103	1114	1104	1106	1110	1105	1104	1102	1080	1085	802
ND	903	Hettinger Propane	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	903
ND	600	Alliance Pipeline - Hankinson	1151	1146	1144	1144	1147	1146	1153	1149	1159	1155	1157	1154	1153	600
ND	601	Alliance Pipeline - Milnor	1151	1146	1144	1144	1147	1147	1154	1149	1160	1155	1157	1155	1154	601

THERMAL ZONE VARIANCE DOCUMENTATION		
March 2024		
<i>ZONE</i>	<i>BTU VARIANCE</i>	<i>REASON</i>
28	21	Operational
31	20	Operational
34	27	Operational
43	-28	Blend
264	-21	Operational
550	20	Blend
610	-20	Blend