

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

July 19, 2022

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

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

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

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

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

Sincerely,

/s/ Travis R. Jacobson

Travis R. Jacobson
Director of Regulatory Affairs

Montana-Dakota Utilities Co.
Therm Billing Factors - North Dakota
Jun-22

<u>Town</u>	<u>Heat Zone</u>	<u>Therm Factor</u>
MDU-303-ALEXANDER	025	1.1249
MDU-308-ARNEGARD	025	1.1249
MDU-314-APPLE VALLEY	271	1.1231
MDU-318-BEACH	032	1.0119
MDU-319-BELFIELD	032	1.0482
MDU-323-BERTHOLD	262	1.1353
MDU-324-BEULAH	032	1.0194
MDU-327-BISMARCK	028	1.0488
MDU-330-BOWMAN	034	0.9366
MDU-337-BURLINGTON	262	1.1598
MDU-343-CARRINGTON	273	1.1270
MDU-344-CLEVELAND	272	1.1257
MDU-364-CAVALIER	273	1.1508
MDU-365-DAWSON	271	1.1152
MDU-368-DES LACS	262	1.1435
MDU-369-DICKINSON	031	1.0390
MDU-374-FT TOTTEN	273	1.1349
MDU-375-DEVILS LAKE	273	1.1349
MDU-379-BARLOW	273	1.1270
MDU-384-EPPING	264	1.1221
MDU-387-ELDRIDGE	272	1.1337
MDU-407-GLADSTONE	031	1.0390
MDU-411-GLEN ULLIN	031	1.0465
MDU-413-GOLVA	032	1.0253
MDU-416-GARRISON	262	1.1435
MDU-417-GRAFTON	273	1.1587
MDU-403-GWINNER	601	1.1370
MDU-429-HEBRON	031	1.0465
MDU-432-HETTINGER	903	2.3875
MDU-449-JAMESTOWN	272	1.1417
MDU-459-KILLDEER	033	1.1107
MDU-463-LANGDON	273	1.1270
MDU-469-LEFOR	031	1.0390
MDU-474-LIGNITE	263	1.0759
MDU-475-LINTON	802	1.0295
MDU-478-LINCOLN	028	1.0488
MDU-488-MCKENZIE	271	1.1231
MDU-494-MEDINA	271	1.1152
MDU-498-MANDAN	028	1.0488
MDU-500-MARMARTH	034	0.9435
MDU-505-MINOT	262	1.1598
MDU-510-MOTT	031	1.0596
MDU-512-MAX	262	1.1598
MDU-513-MILNOR	601	1.1370
MDU-522-NEW ENGLAND	031	1.0315
MDU-524-NEW SALEM	028	1.0267
MDU-532-NEW ROCKFORD	273	1.1270
MDU-539-PARK RIVER	273	1.1508
MDU-540-PALERMO	262	1.1353

MDU-558-RAY	264	1.1221
MDU-561-REGENT	031	1.0315
MDU-563-RHAME	034	0.9297
MDU-564-RICHARDTON	031	1.0315
MDU-568-ROSS	261	1.1168
MDU-572-RUTHVILLE	262	1.1598
MDU-574-SANBORN	272	1.1417
MDU-583-SENTINEL BUTTE	032	1.0406
MDU-588-SOUTH HEART	031	1.0315
MDU-717-SPIRITWOOD	272	1.1417
MDU-590-SPRINGBROOK	264	1.1221
MDU-591-STANLEY	261	1.1249
MDU-593-STEELE	271	1.1152
MDU-594-STERLING	028	1.0488
MDU-598-SHEYENNE	273	1.1680
MDU-605-SURREY	262	1.1598
MDU-610-TAPPEN	271	1.1152
MDU-611-TAYLOR	031	1.0519
MDU-616-TIOGA	260	1.1027
MDU-619-TURTLE LAKE	262	1.1435
MDU-620-TRENTON	024	1.1301
MDU-624-UNDERWOOD	262	1.1435
MDU-625-VALLEY CITY	272	1.1497
MDU-629-WALHALLA	273	1.1508
MDU-632-WATFORD CITY	610	1.0323
MDU-636-WHEELOCK	264	1.1140
MDU-637-WHITE EARTH	261	1.1249
MDU-642-WILLISTON	024	1.1301
MDU-646-WASHBURN	262	1.1516
MDU-647-WILTON	262	1.1353
MDU-664-RIVERDALE	262	1.1435
MDU-691-FAIRVIEW	241	1.1330
MDU-712-MINOT AFB	262	1.1598
MDU-718-FAIRMOUNT	600	1.1356
MDU-732-NEKOMA	273	1.1270
MDU-732-MSR SITE	273	1.1270

Source Daily Summary

May 2022

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	0.7180	1169.0	1189.7	1189.4	0.757	3.705	69.876	22.897	2.465	0.094	0.185	0.011	0.010	0.000	0.000	0.000	0.000	0.000	1404.12	
2	0.7097	1155.2	1175.6	1175.2	0.857	3.619	71.913	20.676	2.583	0.108	0.217	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1395.45	
3	0.7124	1162.5	1183.1	1182.7	0.842	3.454	71.186	21.723	2.475	0.099	0.197	0.012	0.011	0.000	0.000	0.000	0.000	0.000	1401.63	
4	0.7186	1174.0	1194.7	1194.3	0.850	3.321	69.949	23.103	2.453	0.101	0.199	0.012	0.011	0.000	0.000	0.000	0.000	0.000	1409.42	
5	0.7180	1175.4	1196.2	1195.6	0.888	3.119	70.480	22.439	2.703	0.115	0.227	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1411.70	
6	0.7158	1169.5	1190.2	1189.6	0.875	3.291	70.959	21.747	2.749	0.116	0.232	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1406.76	
7	0.7151	1169.0	1189.7	1189.2	0.908	3.210	71.134	21.625	2.745	0.116	0.232	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1406.80	
8	0.7088	1168.6	1189.3	1188.8	0.672	2.998	71.746	21.869	2.410	0.091	0.188	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1412.65	
9	0.7053	1168.5	1189.2	1188.8	0.570	2.825	72.301	21.691	2.296	0.092	0.196	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1416.07	
10	0.7021	1164.9	1185.5	1185.0	0.446	2.942	72.455	21.811	2.095	0.073	0.153	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1414.83	
11	0.7041	1168.1	1188.7	1188.2	0.379	3.036	72.247	21.732	2.335	0.081	0.164	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1416.67	
12	0.7043	1166.1	1186.8	1186.2	0.463	3.043	72.204	21.793	2.222	0.080	0.167	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1414.14	
13	0.7034	1164.2	1184.8	1184.3	0.664	2.771	72.791	21.156	2.302	0.090	0.194	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1412.69	
14	0.6998	1159.3	1179.8	1179.3	0.475	3.020	72.917	21.265	2.083	0.070	0.147	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1410.38	
15	0.7022	1162.4	1183.0	1182.3	0.438	3.118	72.588	21.352	2.228	0.081	0.169	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1411.65	
16	0.7052	1167.3	1188.0	1187.3	0.470	3.046	72.329	21.390	2.444	0.094	0.195	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1414.64	
17	0.7001	1159.8	1180.4	1179.7	0.473	3.017	72.955	21.177	2.100	0.080	0.170	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1410.74	
18	0.7034	1165.8	1186.5	1185.9	0.410	3.060	72.467	21.431	2.347	0.084	0.173	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1414.65	
19	0.7009	1161.1	1181.6	1181.2	0.367	3.175	72.632	21.466	2.100	0.076	0.159	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1411.47	
20	0.7027	1162.2	1182.8	1182.4	0.626	2.885	72.866	21.034	2.256	0.093	0.203	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1410.98	
21	0.7011	1161.4	1182.0	1181.4	0.556	2.889	72.804	21.415	2.067	0.077	0.165	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1411.64	
22	0.7011	1161.4	1182.0	1181.4	0.652	2.742	72.948	21.300	2.078	0.080	0.171	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1411.64	
23	0.7009	1159.2	1179.7	1179.2	0.524	3.053	72.626	21.578	1.989	0.067	0.141	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1409.19	
24	0.7035	1163.3	1183.9	1183.3	0.630	2.883	72.529	21.521	2.142	0.083	0.181	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1411.57	
25	0.7000	1158.9	1179.4	1178.8	0.638	2.815	73.009	21.329	1.932	0.078	0.170	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1409.69	
26	0.7053	1156.2	1176.6	1175.9	0.895	3.090	72.604	20.787	2.285	0.101	0.208	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1401.06	
27	0.7161	1164.3	1184.9	1184.3	1.129	3.244	71.224	21.229	2.776	0.122	0.244	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1400.30	
28	0.7185	1164.4	1185.1	1184.4	1.176	3.394	70.797	21.415	2.812	0.127	0.248	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1398.05	
29	0.7238	1166.3	1187.0	1186.3	1.249	3.666	69.899	21.835	2.921	0.137	0.263	0.016	0.013	0.000	0.000	0.000	0.000	0.000	1395.21	
30	0.7193	1166.1	1186.8	1186.2	1.179	3.364	70.715	21.466	2.861	0.128	0.255	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1399.30	
31	0.7191	1168.0	1188.7	1188.2	1.157	3.263	70.761	21.524	2.884	0.127	0.253	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1401.77	
Avg	0.7083	1165.0	1185.2	1184.7	0.717	3.131	71.868	21.573	2.392	0.095	0.196	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1408.29	

Source Daily Summary

May 2022

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	0.7107	1149.9	1170.3	1169.9	0.874	4.004	72.503	18.912	3.280	0.123	0.269	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1388.16	
2	0.6821	1116.0	1135.8	1135.5	0.769	3.541	77.021	16.136	2.222	0.088	0.193	0.013	0.016	0.000	0.000	0.000	0.000	0.000	1375.12	
3	0.6910	1143.1	1163.3	1163.1	0.839	2.617	75.672	18.109	2.431	0.096	0.205	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1399.49	
4	0.7067	1174.6	1195.4	1195.1	0.934	2.025	73.320	20.392	2.909	0.124	0.255	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1421.97	
5	0.7088	1174.7	1195.5	1195.2	0.946	2.208	72.906	20.649	2.823	0.133	0.285	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1419.90	
6	0.7079	1170.4	1191.2	1190.9	0.996	2.303	73.120	20.300	2.818	0.130	0.281	0.023	0.028	0.000	0.000	0.000	0.000	0.000	1415.70	
7	0.7066	1169.4	1190.1	1189.8	0.986	2.264	72.885	20.978	2.497	0.111	0.238	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1415.71	
8	0.7072	1169.0	1189.7	1189.4	0.988	2.342	72.642	21.241	2.411	0.106	0.230	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1414.65	
9	0.7076	1170.4	1191.2	1190.8	0.979	2.300	72.614	21.287	2.432	0.109	0.237	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1416.07	
10	0.7091	1172.1	1192.9	1192.4	0.992	2.315	72.609	21.038	2.613	0.121	0.262	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1416.62	
11	0.7089	1168.9	1189.6	1189.1	1.012	2.475	72.299	21.448	2.380	0.106	0.231	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1412.79	
12	0.7100	1171.5	1192.2	1191.8	1.035	2.377	72.610	20.809	2.704	0.128	0.276	0.028	0.032	0.000	0.000	0.000	0.000	0.000	1414.90	
13	0.7075	1169.9	1190.7	1190.3	1.003	2.283	73.113	20.342	2.845	0.116	0.259	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1415.55	
14	0.7086	1166.7	1187.3	1186.9	1.026	2.553	72.781	20.467	2.772	0.109	0.252	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1410.47	
15	0.7100	1172.0	1192.7	1192.2	1.011	2.382	72.660	20.702	2.776	0.128	0.292	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1415.49	
16	0.7082	1171.2	1191.9	1191.5	1.004	2.268	72.969	20.575	2.726	0.129	0.279	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1416.39	
17	0.7071	1165.2	1185.8	1185.3	1.044	2.481	72.657	21.098	2.330	0.106	0.238	0.020	0.025	0.000	0.000	0.000	0.000	0.000	1410.14	
18	0.7097	1172.0	1192.8	1192.4	1.011	2.348	72.696	20.740	2.737	0.130	0.286	0.024	0.028	0.000	0.000	0.000	0.000	0.000	1415.92	
19	0.7104	1169.5	1190.2	1189.9	1.025	2.547	72.431	20.891	2.654	0.123	0.276	0.024	0.029	0.000	0.000	0.000	0.000	0.000	1412.16	
20	0.7067	1167.9	1188.6	1188.2	0.998	2.344	72.814	21.029	2.416	0.112	0.243	0.020	0.023	0.000	0.000	0.000	0.000	0.000	1413.85	
21	0.7059	1167.7	1188.4	1187.9	0.994	2.285	72.943	20.998	2.386	0.111	0.240	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1414.43	
22	0.7025	1161.1	1181.6	1181.2	1.001	2.359	73.102	21.206	2.014	0.089	0.195	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1409.85	
23	0.7045	1163.7	1184.3	1183.8	1.005	2.386	72.952	21.097	2.204	0.098	0.218	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1410.94	
24	0.7063	1166.5	1187.2	1186.7	1.009	2.373	72.863	20.986	2.370	0.110	0.244	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1412.60	
25	0.7038	1163.5	1184.1	1183.6	0.994	2.344	73.026	21.143	2.143	0.097	0.213	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1411.47	
26	0.7017	1159.9	1180.4	1180.0	0.997	2.363	73.134	21.277	1.927	0.084	0.185	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1409.24	
27	0.7011	1159.3	1179.8	1179.4	0.992	2.355	73.161	21.321	1.888	0.079	0.174	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1409.06	
28	0.7027	1161.9	1182.5	1182.0	0.997	2.338	73.014	21.345	1.995	0.087	0.186	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1410.60	
29	0.7029	1162.6	1183.2	1182.7	0.989	2.326	73.029	21.286	2.051	0.089	0.194	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1411.27	
30	0.7031	1162.9	1183.5	1183.1	0.988	2.327	73.020	21.276	2.063	0.091	0.199	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1411.45	
31	0.7028	1162.2	1182.8	1182.4	0.987	2.342	73.099	21.167	2.082	0.091	0.198	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1410.92	
Avg	0.7052	1164.0	1185.0	1184.6	0.981	2.444	73.086	20.653	2.448	0.108	0.236	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1411.06	

Gas Composition and Properties

Effective May 1, 2022

Attachment B
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Source #: 0602160
Name: FAIRVIEW BORDER

Component	Mole %	Liquid Content	Mass %	Property	Total Sample	C6 Plus Fraction
Carbon Dioxide, CO2	0.5648		1.2293	Pressure Base	14.730	
Nitrogen, N2	3.0148		4.1766	Temperature Base	60.00	
Methane, C1	73.1211		58.0114	HCDP @ Sample Pressure	-26.104	
Ethane, C2	20.8360	5.5756	30.9837	Cricondentherm	-10.982	
Propane, C3	2.1714	0.5986	4.7352	HV, Dry @ Base P, T	1178.08	
iso-Butane, iC4	0.0881	0.0288	0.2532	HV, Sat @ Base P, T	1157.58	
n-Butane, nC4	0.1719	0.0542	0.4941	HV, Sat @ Sample P, T	1178.08	
iso-Pentane, iC5	0.0132	0.0048	0.0471	Relative Density	0.7001	
n-Pentane, nC5	0.0149	0.0054	0.0532			
Neo-Pentane, neo						
Hexanes Plus, C6+	0.0038	0.0016	0.0162			
Argon, Ar						
Carbon Monoxide, CO						
Hydrogen, H2						
Oxygen, O2						
Helium, He						
Water, H2O						
Hydrogen Sulfide, H2S						
Totals	100.0000	6.2700	100.0000			

C6+: 100

Sample

Date: 05/01/2022 Type:
Tech: Tipton, Joshua
Pressure: 400 psi Temp.: °F
Gauge: Gauge H2O:
Atm. Pressure: H2S:

Remarks:

Analysis

Date: 05/01/2022 Instrument:
Tech: Tipton, Joshua Cylinder: 101

Remarks:

Source Daily Summary

May 2022

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	0.7408	1163.6	1184.3	1184.0	0.968	5.846	68.006	19.788	4.801	0.177	0.374	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1375.88	10.75
2	0.7029	1137.0	1157.1	1156.9	1.034	3.818	73.176	19.296	2.326	0.096	0.222	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1380.10	-11.53
3	0.6988	1131.7	1151.7	1151.5	0.993	3.819	73.917	18.645	2.284	0.094	0.216	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1377.63	-13.74
4	0.7025	1147.0	1167.4	1167.1	1.028	3.188	73.610	19.204	2.613	0.101	0.222	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1392.73	-9.09
5	0.6989	1157.0	1177.5	1177.2	1.013	2.248	74.761	18.780	2.827	0.108	0.228	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1408.45	-7.92
6	0.6840	1133.2	1153.3	1153.1	0.893	2.478	76.671	17.665	2.005	0.082	0.176	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1394.29	-19.84
7	0.6980	1155.3	1175.8	1175.5	0.973	2.341	73.325	21.530	1.627	0.060	0.125	0.009	0.010	0.000	0.000	0.000	0.000	0.000	1407.30	-15.53
8	0.7018	1160.8	1181.4	1181.1	0.943	2.414	72.433	22.399	1.638	0.051	0.107	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1410.21	-14.44
9	0.7023	1161.3	1181.9	1181.7	0.947	2.415	72.349	22.492	1.621	0.052	0.109	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1410.33	-14.35
10	0.7011	1158.6	1179.1	1178.8	0.939	2.486	72.450	22.446	1.507	0.050	0.107	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1408.17	-15.35
11	0.7004	1160.8	1181.3	1181.1	0.970	2.233	73.049	21.758	1.769	0.064	0.136	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1411.56	-13.59
12	0.7059	1168.4	1189.1	1188.8	0.985	2.252	73.388	20.055	2.992	0.094	0.201	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1415.31	-5.36
13	0.7031	1139.3	1159.5	1159.3	1.170	3.486	73.692	18.616	2.679	0.098	0.221	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1382.78	-9.28
14	0.7030	1147.9	1168.2	1168.0	1.088	3.069	73.967	18.594	2.911	0.105	0.230	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1393.35	-7.62
15	0.7047	1166.6	1187.2	1186.9	0.992	2.243	73.941	19.246	3.201	0.108	0.232	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1414.22	-4.28
16	0.7044	1164.4	1185.1	1184.8	0.993	2.343	73.912	19.274	3.082	0.113	0.245	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1411.95	-4.59
17	0.6966	1153.2	1173.6	1173.3	0.999	2.292	73.952	20.691	1.813	0.073	0.156	0.011	0.013	0.000	0.000	0.000	0.000	0.000	1406.17	-14.68
18	0.6948	1150.1	1170.5	1170.2	0.972	2.363	73.624	21.520	1.351	0.049	0.105	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1404.15	-18.65
19	0.6973	1155.6	1176.1	1175.9	0.963	2.269	73.565	21.314	1.656	0.068	0.143	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1408.43	-15.13
20	0.6947	1149.5	1169.9	1169.6	0.951	2.419	73.481	21.748	1.251	0.044	0.093	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1403.57	-19.48
21	0.6947	1148.6	1169.0	1168.7	0.961	2.452	73.554	21.576	1.302	0.045	0.096	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1402.54	-19.35
22	0.6943	1147.9	1168.2	1167.9	0.962	2.461	73.605	21.543	1.277	0.044	0.094	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1402.00	-19.66
23	0.6950	1148.5	1168.8	1168.5	0.957	2.503	73.551	21.455	1.373	0.047	0.101	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1401.99	-18.86
24	0.6946	1148.1	1168.4	1168.1	0.956	2.490	73.577	21.500	1.319	0.046	0.099	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1401.92	-19.30
25	0.6774	1121.0	1140.8	1140.5	0.763	2.816	76.649	18.487	1.137	0.042	0.092	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1385.81	-29.49
26	0.7128	1160.0	1180.6	1180.2	0.943	3.484	71.301	21.381	2.553	0.098	0.214	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1398.72	-7.88
27	0.6981	1151.6	1172.0	1171.6	0.953	2.602	73.035	21.765	1.467	0.052	0.112	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1402.81	-17.26
28	0.6961	1149.8	1170.1	1169.8	0.957	2.522	73.363	21.601	1.392	0.048	0.103	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1402.52	-18.32
29	0.6955	1149.5	1169.9	1169.5	0.951	2.502	73.407	21.625	1.349	0.048	0.103	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1402.76	-18.59
30	0.6955	1150.0	1170.4	1170.1	0.946	2.466	73.408	21.696	1.321	0.048	0.100	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1403.45	-18.74
31	0.6949	1149.0	1169.4	1169.0	0.958	2.453	73.619	21.409	1.396	0.048	0.103	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1402.83	-18.68
Avg	0.6995	1151.0	1171.5	1171.3	0.972	2.735	73.430	20.616	1.995	0.073	0.157	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1400.77	-13.86

*** End of Report ***

Source Daily Summary

May 2022

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	0.7579	1184.1	1205.1	1204.9	0.927	6.256	66.029	19.983	6.036	0.229	0.487	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1384.24	
2	0.7579	1184.1	1205.1	1204.9	0.927	6.256	66.029	19.983	6.036	0.229	0.487	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1384.24	
3	0.7394	1159.4	1179.9	1179.7	0.842	6.156	68.737	18.343	5.264	0.197	0.417	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1372.11	
4	0.7423	1160.5	1181.1	1180.8	0.864	6.332	68.148	18.712	5.286	0.196	0.417	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1370.74	
5	0.7552	1179.3	1200.2	1199.8	0.916	6.303	66.346	19.857	5.824	0.223	0.478	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1381.10	
6	0.7440	1170.9	1191.6	1191.2	0.808	5.940	68.471	18.345	5.632	0.232	0.511	0.029	0.032	0.000	0.000	0.000	0.000	0.000	1381.30	
7	0.7644	1193.9	1215.0	1214.6	0.919	6.278	65.247	20.345	6.322	0.258	0.563	0.032	0.035	0.000	0.000	0.000	0.000	0.000	1389.67	
8	0.7608	1187.1	1208.1	1207.8	0.921	6.353	65.542	20.312	6.049	0.243	0.525	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1385.08	
9	0.7582	1182.7	1203.6	1203.4	0.931	6.367	65.849	20.165	5.901	0.236	0.501	0.027	0.024	0.000	0.000	0.000	0.000	0.000	1382.28	
10	0.7481	1175.7	1196.5	1196.1	0.955	5.811	67.034	20.402	5.107	0.203	0.439	0.023	0.025	0.000	0.000	0.000	0.000	0.000	1383.44	
11	0.7577	1184.0	1204.9	1204.6	0.919	6.261	66.000	20.132	5.909	0.230	0.499	0.024	0.026	0.000	0.000	0.000	0.000	0.000	1384.21	
12	0.7560	1177.4	1198.2	1197.9	0.918	6.503	66.101	19.955	5.763	0.225	0.485	0.024	0.026	0.000	0.000	0.000	0.000	0.000	1378.09	
13	0.7560	1177.3	1198.2	1197.9	0.909	6.518	66.107	19.906	5.813	0.223	0.473	0.024	0.026	0.000	0.000	0.000	0.000	0.000	1378.03	
14	0.7555	1176.5	1197.4	1197.0	0.924	6.501	66.164	19.893	5.779	0.222	0.469	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1377.54	
15	0.7573	1179.3	1200.2	1199.8	0.922	6.505	65.979	19.928	5.894	0.229	0.493	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1379.10	
16	0.7592	1182.9	1203.8	1203.4	0.922	6.461	65.763	20.085	5.941	0.240	0.530	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1381.56	
17	0.7579	1180.9	1201.8	1201.2	0.924	6.458	65.905	20.042	5.875	0.234	0.511	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1380.45	
18	0.7646	1192.5	1213.6	1213.2	0.918	6.388	65.155	20.353	6.292	0.258	0.571	0.031	0.034	0.000	0.000	0.000	0.000	0.000	1387.86	
19	0.7582	1181.5	1202.5	1202.2	0.922	6.443	65.912	19.996	5.927	0.234	0.510	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1380.98	
20	0.7600	1184.3	1205.3	1205.1	0.923	6.448	65.685	20.093	6.024	0.241	0.529	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1382.53	
21	0.7580	1181.0	1201.9	1201.6	0.923	6.461	65.889	20.019	5.931	0.231	0.492	0.025	0.028	0.000	0.000	0.000	0.000	0.000	1380.50	
22	0.7567	1177.1	1198.0	1197.6	0.924	6.578	66.003	19.907	5.816	0.228	0.492	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1377.13	
23	0.7519	1172.1	1192.9	1192.5	0.925	6.429	66.522	19.959	5.457	0.210	0.451	0.022	0.024	0.000	0.000	0.000	0.000	0.000	1375.67	
24	0.7564	1178.3	1199.2	1198.8	0.915	6.482	66.072	19.962	5.795	0.228	0.495	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1378.88	
25	0.7383	1159.3	1179.8	1179.3	0.808	6.110	68.908	18.343	5.119	0.207	0.456	0.023	0.026	0.000	0.000	0.000	0.000	0.000	1373.13	
26	0.7557	1179.5	1200.4	1199.7	0.910	6.351	66.267	19.903	5.780	0.231	0.504	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1380.85	
27	0.7585	1183.1	1204.0	1203.4	0.927	6.376	65.837	20.140	5.924	0.235	0.508	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1382.47	
28	0.7570	1180.3	1201.2	1200.5	0.927	6.400	65.981	20.109	5.811	0.228	0.492	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1380.66	
29	0.7585	1183.5	1204.4	1203.8	0.928	6.348	65.849	20.173	5.891	0.237	0.518	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1382.95	
30	0.7585	1182.8	1203.7	1203.2	0.925	6.400	65.825	20.134	5.914	0.234	0.510	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1382.08	
31	0.7583	1182.6	1203.5	1203.1	0.925	6.385	65.847	20.138	5.930	0.230	0.493	0.025	0.028	0.000	0.000	0.000	0.000	0.000	1382.14	
Avg	0.7554	1179.0	1200.0	1199.6	0.911	6.350	66.297	19.859	5.808	0.228	0.494	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1380.68	

Source Daily Summary

May 2022

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	0.7555	1177.5	1198.3	1198.1	0.929	6.436	66.223	19.812	5.881	0.217	0.452	0.024	0.026	0.000	0.000	0.000	0.000	0.000	1378.63	
2	0.7533	1172.8	1193.5	1193.3	0.929	6.518	66.435	19.713	5.714	0.211	0.436	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1375.11	
3	0.7553	1174.3	1195.1	1194.9	0.927	6.607	66.201	19.708	5.843	0.216	0.450	0.023	0.025	0.000	0.000	0.000	0.000	0.000	1375.16	
4	0.7596	1182.4	1203.3	1203.1	0.930	6.518	65.725	19.957	6.082	0.235	0.499	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1380.63	
5	0.7642	1191.9	1213.0	1212.7	0.931	6.364	65.284	20.180	6.367	0.257	0.554	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1387.53	
6	0.7625	1187.0	1208.0	1207.8	0.929	6.507	65.382	20.144	6.180	0.251	0.541	0.030	0.034	0.000	0.000	0.000	0.000	0.000	1383.41	
7	0.7629	1187.4	1208.4	1208.2	0.928	6.517	65.284	20.245	6.177	0.251	0.540	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1383.57	
8	0.7601	1182.9	1203.8	1203.5	0.928	6.539	65.609	20.083	6.035	0.240	0.511	0.026	0.029	0.000	0.000	0.000	0.000	0.000	1380.74	
9	0.7596	1181.9	1202.8	1202.5	0.929	6.550	65.658	20.065	6.000	0.238	0.507	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1380.05	
10	0.7615	1184.9	1205.9	1205.6	0.929	6.542	65.455	20.098	6.169	0.243	0.510	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1381.86	
11	0.7603	1182.4	1203.4	1203.0	0.928	6.582	65.596	20.046	6.017	0.246	0.529	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1380.07	
12	0.7562	1174.8	1195.6	1195.3	0.929	6.664	66.056	19.773	5.823	0.227	0.479	0.023	0.025	0.000	0.000	0.000	0.000	0.000	1374.88	
13	0.7586	1178.0	1198.8	1198.5	0.925	6.698	65.726	19.923	5.964	0.231	0.483	0.024	0.026	0.000	0.000	0.000	0.000	0.000	1376.45	
14	0.7580	1177.5	1198.3	1198.0	0.929	6.665	65.834	19.867	5.944	0.231	0.481	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1376.38	
15	0.7575	1177.6	1198.5	1198.2	0.934	6.599	65.946	19.853	5.880	0.236	0.501	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1377.04	
16	0.7545	1171.5	1192.2	1191.9	0.933	6.696	66.248	19.698	5.682	0.223	0.472	0.023	0.025	0.000	0.000	0.000	0.000	0.000	1372.58	
17	0.7621	1186.1	1207.1	1206.7	0.931	6.524	65.375	20.189	6.136	0.251	0.538	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1382.69	
18	0.7652	1190.1	1211.1	1210.8	0.929	6.571	65.056	20.219	6.332	0.261	0.568	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1384.53	
19	0.7605	1182.7	1203.6	1203.4	0.933	6.578	65.604	19.989	6.068	0.245	0.526	0.027	0.030	0.000	0.000	0.000	0.000	0.000	1380.18	
20	0.7589	1179.3	1200.2	1199.9	0.931	6.640	65.757	19.884	6.005	0.235	0.496	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1377.68	
21	0.7596	1180.7	1201.6	1201.3	0.934	6.610	65.684	19.953	6.017	0.239	0.510	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1378.73	
22	0.7567	1175.4	1196.2	1195.9	0.933	6.665	66.003	19.802	5.831	0.229	0.488	0.024	0.026	0.000	0.000	0.000	0.000	0.000	1375.15	
23	0.7558	1174.6	1195.4	1195.1	0.936	6.630	66.100	19.806	5.768	0.227	0.484	0.023	0.025	0.000	0.000	0.000	0.000	0.000	1374.99	
24	0.7581	1178.4	1199.3	1198.9	0.937	6.605	65.837	19.929	5.911	0.234	0.496	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1377.42	
25	0.7615	1185.0	1206.0	1205.6	0.932	6.530	65.465	20.125	6.113	0.248	0.531	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1382.02	
26	0.7600	1182.6	1203.5	1203.1	0.936	6.535	65.672	20.020	5.994	0.247	0.538	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1380.50	
27	0.7599	1182.7	1203.7	1203.2	0.937	6.511	65.667	20.055	6.009	0.243	0.522	0.026	0.029	0.000	0.000	0.000	0.000	0.000	1380.80	
28	0.7587	1180.9	1201.9	1201.3	0.937	6.507	65.767	20.079	5.918	0.236	0.504	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1379.81	
29	0.7603	1183.5	1204.5	1204.0	0.933	6.509	65.597	20.120	6.010	0.245	0.528	0.027	0.030	0.000	0.000	0.000	0.000	0.000	1381.34	
30	0.7603	1183.4	1204.3	1203.8	0.934	6.519	65.608	20.078	6.040	0.243	0.521	0.027	0.030	0.000	0.000	0.000	0.000	0.000	1381.15	
31	0.7604	1183.6	1204.6	1204.1	0.931	6.517	65.587	20.081	6.083	0.240	0.506	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1381.36	
Avg	0.7593	1181.0	1202.0	1201.7	0.931	6.563	65.724	19.984	6.000	0.238	0.506	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1379.43	

Gas Composition and Properties

Effective October 1, 2021

Attachment B
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Source #: 2501030
Name: LIGNITE PLANT

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

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

Sample

Date: 10/01/2021 Type:

Tech: Wayne Sampson

Pressure: Temp.:

Gauge: H2O:

Atm. Pressure: H2S:

Remarks:

Analysis

Date: Instrument:

Tech: Cylinder:

Remarks:

Gas Composition and Properties

Effective May 1, 2022

Attachment B
Page 9 of 24

Source #: 3002013
Name: EPPING BORDER

Component	Mole %	Liquid Content	Mass %	Property	Total Sample	C6 Plus Fraction
Carbon Dioxide, CO2	0.9650		2.0606	Pressure Base	14.730	
Nitrogen, N2	3.0680		4.1700	Temperature Base	60.00	
Methane, C1	71.6660		55.7829	HCDP @ Sample Pressure		
Ethane, C2	21.0190	5.6252	30.6653	Cricondentherm	-2.872	
Propane, C3	2.8790	0.7937	6.1596	HV, Dry @ Base P, T	1188.40	
iso-Butane, iC4	0.1160	0.0380	0.3271	HV, Sat @ Base P, T	1167.72	
n-Butane, nC4	0.2500	0.0789	0.7050	HV, Sat @ Sample P, T	1188.40	
iso-Pentane, iC5	0.0170	0.0062	0.0595	Relative Density	0.7138	
n-Pentane, nC5	0.0200	0.0073	0.0700			
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	6.5490	100.0000			

Sample

Date: _____ Type: _____

Tech: _____

Pressure: _____ Temp.: _____

Gauge: _____ H2O: _____

Atm. Pressure: _____ H2S: _____

Remarks: _____

Analysis

Date: _____ Instrument: _____

Tech: _____ Cylinder: _____

Remarks: _____

*** End of Report ***

Source Daily Summary

May 2022

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	0.7100	1147.2	1167.5	1167.3	1.113	3.743	71.902	20.513	2.350	0.102	0.241	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1385.57	
2	0.7093	1147.5	1167.9	1167.7	1.125	3.641	71.994	20.569	2.310	0.098	0.229	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1386.66	
3	0.7101	1149.7	1170.1	1169.9	1.124	3.587	71.862	20.719	2.352	0.097	0.225	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1388.47	
4	0.7078	1146.4	1166.7	1166.5	1.104	3.604	72.324	20.259	2.346	0.099	0.229	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1386.70	
5	0.7071	1145.8	1166.0	1165.8	1.122	3.548	72.475	20.154	2.350	0.096	0.221	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1386.64	
6	0.6948	1128.5	1148.5	1148.3	1.006	3.616	74.540	18.416	2.102	0.087	0.201	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1377.69	
7	0.7078	1146.3	1166.5	1166.3	1.120	3.584	72.334	20.254	2.352	0.097	0.224	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1386.57	
8	0.7078	1146.2	1166.5	1166.3	1.123	3.576	72.297	20.331	2.331	0.095	0.216	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1386.59	
9	0.7080	1146.9	1167.2	1167.0	1.131	3.549	72.297	20.320	2.345	0.100	0.227	0.013	0.016	0.000	0.000	0.000	0.000	0.000	1387.14	
10	0.7097	1150.5	1170.9	1170.7	1.120	3.502	72.020	20.605	2.383	0.101	0.233	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1389.90	
11	0.7130	1157.5	1178.0	1177.8	1.128	3.363	72.086	19.956	3.122	0.094	0.219	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1395.16	
12	0.7151	1159.6	1180.2	1179.9	1.114	3.457	71.650	20.297	3.127	0.097	0.222	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1395.59	
13	0.7063	1142.3	1162.5	1162.3	1.180	3.584	73.245	18.783	2.840	0.100	0.230	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1383.26	
14	0.7014	1132.2	1152.2	1152.0	1.194	3.722	73.862	18.354	2.529	0.092	0.213	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1375.82	
15	0.7021	1135.4	1155.5	1155.3	1.104	3.727	73.755	18.415	2.658	0.093	0.213	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1379.07	
16	0.7094	1145.6	1165.9	1165.6	1.060	3.859	72.482	19.331	2.917	0.095	0.222	0.015	0.019	0.000	0.000	0.000	0.000	0.000	1384.26	
17	0.7092	1143.5	1163.7	1163.4	1.070	3.955	72.636	18.978	2.984	0.100	0.240	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1381.82	
18	0.7131	1153.1	1173.5	1173.2	1.035	3.789	72.243	19.144	3.422	0.098	0.232	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1389.62	
19	0.7068	1143.5	1163.8	1163.5	1.027	3.790	73.085	18.759	2.965	0.101	0.235	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1384.28	
20	0.7031	1136.4	1156.5	1156.3	1.021	3.887	73.600	18.380	2.730	0.103	0.240	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1379.25	
21	0.7093	1139.1	1159.2	1159.0	1.015	4.319	72.465	18.893	2.921	0.104	0.244	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1376.43	
22	0.7187	1115.7	1135.5	1135.3	0.989	6.667	70.510	18.170	3.264	0.107	0.251	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1339.41	
23	0.7162	1119.1	1139.0	1138.7	0.995	6.217	70.993	18.226	3.178	0.105	0.246	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1345.82	
24	0.7144	1132.7	1152.8	1152.5	1.023	5.168	71.596	18.603	3.221	0.105	0.245	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1363.82	
25	0.7040	1134.1	1154.2	1153.9	0.993	4.159	73.340	18.401	2.732	0.097	0.236	0.019	0.024	0.000	0.000	0.000	0.000	0.000	1375.54	
26	0.7062	1134.5	1154.6	1154.3	0.978	4.365	72.721	18.936	2.633	0.098	0.229	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1373.90	
27	0.7154	1152.2	1172.6	1172.3	1.072	4.003	71.663	19.672	3.161	0.113	0.266	0.022	0.028	0.000	0.000	0.000	0.000	0.000	1386.36	
28	0.7148	1153.9	1174.3	1174.1	1.093	3.814	71.740	19.870	3.045	0.114	0.273	0.022	0.028	0.000	0.000	0.000	0.000	0.000	1388.97	
29	0.7095	1145.7	1166.0	1165.7	1.103	3.794	72.528	19.322	2.878	0.100	0.234	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1384.31	
30	0.7103	1148.1	1168.4	1168.1	1.100	3.733	72.361	19.563	2.863	0.102	0.237	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1386.37	
31	0.7098	1147.3	1167.6	1167.3	1.091	3.744	72.366	19.652	2.760	0.105	0.243	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1385.94	
Avg	0.7091	1143.0	1163.0	1162.8	1.080	3.970	72.419	19.414	2.747	0.100	0.233	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1381.19	

Source Daily Summary

May 2022

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	0.7855	1220.5	1242.1	1241.0	0.272	7.632	62.870	20.141	6.650	0.011	2.421	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1400.95	
2	0.7544	1177.2	1198.1	1197.0	0.912	6.370	66.387	19.793	5.820	0.218	0.453	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1379.38	
3	0.7563	1179.2	1200.1	1199.1	0.908	6.434	66.151	19.846	5.909	0.226	0.476	0.024	0.026	0.000	0.000	0.000	0.000	0.000	1379.95	
4	0.7598	1185.3	1206.3	1205.2	0.911	6.392	65.781	19.977	6.126	0.242	0.515	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1383.81	
5	0.7654	1196.6	1217.8	1216.7	0.911	6.222	65.266	20.197	6.470	0.273	0.593	0.033	0.035	0.000	0.000	0.000	0.000	0.000	1391.94	
6	0.7623	1189.4	1210.4	1209.5	0.905	6.397	65.285	20.216	6.308	0.263	0.562	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1386.24	
7	0.7618	1187.9	1209.0	1208.0	0.910	6.412	65.476	20.211	6.138	0.253	0.545	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1385.18	
8	0.7597	1184.7	1205.7	1204.6	0.909	6.419	65.705	20.112	6.041	0.243	0.517	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1383.26	
9	0.7585	1182.6	1203.6	1202.4	0.911	6.428	65.836	20.088	5.930	0.240	0.514	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1381.95	
10	0.7606	1185.8	1206.8	1205.3	0.910	6.433	65.622	20.085	6.138	0.244	0.515	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1383.74	
11	0.7598	1184.2	1205.2	1203.6	0.910	6.460	65.715	20.055	6.018	0.250	0.537	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1382.55	
12	0.7557	1176.4	1197.2	1195.7	0.910	6.546	66.193	19.766	5.816	0.231	0.490	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1377.21	
13	0.7571	1177.8	1198.7	1197.2	0.904	6.604	65.952	19.880	5.896	0.231	0.485	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1377.57	
14	0.7561	1177.7	1198.5	1197.4	0.894	6.532	66.134	19.788	5.905	0.227	0.475	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1378.35	
15	0.7580	1181.2	1202.1	1201.0	0.914	6.466	65.959	19.905	5.936	0.245	0.523	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1380.71	
16	0.7561	1177.0	1197.8	1196.6	0.913	6.539	66.148	19.809	5.802	0.236	0.503	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1377.56	
17	0.7586	1182.2	1203.2	1201.9	0.914	6.457	65.865	19.989	5.949	0.246	0.527	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1381.40	
18	0.7678	1198.3	1219.5	1218.2	0.895	6.361	64.875	20.368	6.548	0.278	0.607	0.033	0.035	0.000	0.000	0.000	0.000	0.000	1391.79	
19	0.7603	1184.4	1205.4	1204.4	0.912	6.489	65.678	20.000	6.078	0.251	0.537	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1382.37	
20	0.7602	1184.5	1205.4	1204.4	0.913	6.469	65.676	20.052	6.055	0.249	0.531	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1382.56	
21	0.7591	1182.6	1203.6	1202.4	0.915	6.482	65.790	19.985	6.019	0.243	0.514	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1381.37	
22	0.7569	1178.5	1199.4	1198.1	0.914	6.529	66.045	19.850	5.872	0.236	0.504	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1378.54	
23	0.7545	1174.5	1195.3	1194.3	0.917	6.540	66.327	19.734	5.718	0.229	0.488	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1376.12	
24	0.7579	1180.8	1201.8	1200.7	0.917	6.473	65.938	19.944	5.925	0.240	0.512	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1380.41	
25	0.7606	1185.8	1206.8	1205.7	0.914	6.422	65.655	20.076	6.088	0.251	0.539	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1383.80	
26	0.7601	1185.5	1206.5	1205.4	0.917	6.391	65.744	20.042	6.053	0.253	0.544	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1383.88	
27	0.7588	1183.2	1204.2	1203.0	0.918	6.405	65.864	20.013	5.981	0.245	0.522	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1382.42	
28	0.7569	1180.1	1201.0	1199.7	0.918	6.419	66.074	19.928	5.869	0.237	0.505	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1380.50	
29	0.7591	1183.7	1204.6	1203.3	0.915	6.415	65.831	20.024	5.977	0.248	0.535	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1382.62	
30	0.7587	1183.0	1204.0	1202.6	0.915	6.419	65.845	20.044	5.958	0.244	0.523	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1382.22	
31	0.7591	1183.6	1204.5	1203.1	0.913	6.424	65.762	20.105	5.998	0.239	0.507	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1382.51	
Avg	0.7599	1184.0	1205.3	1204.1	0.891	6.483	65.724	20.001	6.032	0.236	0.581	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1382.67	

Source Daily Summary

May 2022

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	0.7571	1181.6	1202.6	1202.4	0.928	6.336	66.072	19.955	5.952	0.229	0.477	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1382.02	
2	0.7573	1182.1	1203.0	1202.9	0.921	6.329	66.054	19.966	5.982	0.227	0.471	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1382.47	
3	0.7537	1175.1	1195.9	1195.7	0.920	6.430	66.437	19.750	5.759	0.216	0.444	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1377.44	
4	0.7566	1178.9	1199.8	1199.5	0.916	6.471	66.098	19.856	5.902	0.228	0.478	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1379.29	
5	0.7593	1183.3	1204.3	1204.1	0.919	6.448	65.812	19.942	6.084	0.237	0.501	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1382.04	
6	0.7678	1199.0	1220.2	1220.1	0.917	6.288	64.905	20.381	6.569	0.276	0.594	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1392.57	
7	0.7610	1185.9	1206.9	1206.2	0.920	6.449	65.535	20.180	6.087	0.248	0.526	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1383.51	
8	0.7615	1186.8	1207.9	1206.9	0.917	6.446	65.456	20.230	6.126	0.247	0.523	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1384.12	
9	0.7611	1186.4	1207.4	1206.5	0.921	6.427	65.522	20.213	6.085	0.248	0.528	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1384.01	
10	0.7592	1182.8	1203.7	1203.5	0.920	6.477	65.717	20.094	6.009	0.237	0.495	0.025	0.025	0.000	0.000	0.000	0.000	0.000	1381.42	
11	0.7612	1186.0	1207.0	1206.8	0.922	6.462	65.513	20.165	6.114	0.248	0.522	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1383.38	
12	0.7586	1181.1	1202.0	1201.8	0.918	6.527	65.806	20.004	5.937	0.242	0.513	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1379.99	
13	0.7565	1176.5	1197.4	1197.2	0.919	6.598	66.043	19.841	5.843	0.230	0.478	0.024	0.024	0.000	0.000	0.000	0.000	0.000	1376.67	
14	0.7571	1177.4	1198.3	1198.1	0.916	6.612	65.940	19.891	5.891	0.229	0.474	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1377.10	
15	0.7578	1179.1	1200.0	1199.9	0.919	6.565	65.910	19.893	5.938	0.235	0.490	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1378.48	
16	0.7596	1182.9	1203.9	1203.7	0.922	6.500	65.727	20.028	5.989	0.248	0.531	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1381.24	
17	0.7585	1180.9	1201.9	1201.7	0.923	6.517	65.831	19.993	5.928	0.242	0.515	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1379.94	
18	0.7629	1189.2	1210.3	1210.1	0.921	6.429	65.333	20.260	6.189	0.258	0.553	0.028	0.029	0.000	0.000	0.000	0.000	0.000	1385.57	
19	0.7663	1193.8	1215.0	1214.3	0.919	6.458	64.985	20.305	6.419	0.270	0.580	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1387.95	
20	0.7601	1183.6	1204.6	1203.6	0.924	6.499	65.677	20.026	6.049	0.247	0.523	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1381.62	
21	0.7594	1182.0	1202.9	1202.3	0.921	6.536	65.728	19.990	6.032	0.240	0.502	0.026	0.026	0.000	0.000	0.000	0.000	0.000	1380.38	
22	0.7606	1184.3	1205.3	1205.1	0.925	6.500	65.598	20.084	6.064	0.248	0.526	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1382.04	
23	0.7565	1177.0	1197.8	1197.6	0.922	6.572	66.058	19.846	5.825	0.234	0.493	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1377.15	
24	0.7568	1177.2	1198.0	1197.8	0.926	6.574	66.018	19.874	5.835	0.233	0.491	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1377.19	
25	0.7550	1174.6	1195.4	1195.2	0.924	6.572	66.225	19.793	5.735	0.227	0.478	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1375.76	
26	0.7598	1183.7	1204.7	1204.4	0.924	6.468	65.696	20.077	6.005	0.247	0.529	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1382.00	
27	0.7609	1186.0	1207.0	1206.8	0.925	6.423	65.588	20.144	6.083	0.250	0.531	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1383.72	
28	0.7590	1182.9	1203.8	1203.7	0.926	6.433	65.789	20.087	5.953	0.243	0.516	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1381.84	
29	0.7600	1184.9	1205.9	1205.7	0.925	6.407	65.667	20.168	6.002	0.247	0.528	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1383.27	
30	0.7580	1181.0	1201.9	1201.7	0.922	6.468	65.881	20.030	5.907	0.238	0.502	0.025	0.027	0.000	0.000	0.000	0.000	0.000	1380.46	
31	0.7604	1184.9	1205.9	1205.7	0.923	6.446	65.618	20.146	6.047	0.246	0.520	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1382.91	
Avg	0.7594	1183.0	1203.9	1203.6	0.921	6.473	65.750	20.039	6.011	0.242	0.511	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1381.53	

Source Daily Summary

May 2022

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	0.7573	1181.8	1202.8	1202.6	0.928	6.338	66.053	19.962	5.960	0.229	0.478	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1382.12	
2	0.7574	1182.4	1203.3	1203.2	0.922	6.324	66.034	19.983	5.987	0.228	0.473	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1382.66	
3	0.7543	1176.0	1196.8	1196.7	0.921	6.420	66.375	19.784	5.792	0.217	0.446	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1378.08	
4	0.7567	1179.2	1200.1	1199.9	0.917	6.464	66.078	19.879	5.906	0.228	0.477	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1379.52	
5	0.7590	1182.8	1203.7	1203.6	0.919	6.452	65.850	19.924	6.066	0.236	0.498	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1381.69	
6	0.7596	1186.2	1207.2	1206.7	0.919	6.301	65.839	20.012	6.119	0.243	0.511	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1385.06	
7	0.7604	1184.8	1205.8	1205.3	0.920	6.457	65.593	20.163	6.051	0.245	0.517	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1382.80	
8	0.7616	1187.0	1208.0	1207.3	0.917	6.443	65.455	20.228	6.128	0.248	0.525	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1384.21	
9	0.7611	1186.3	1207.3	1206.6	0.921	6.431	65.528	20.209	6.079	0.248	0.528	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1383.87	
10	0.7579	1180.3	1201.2	1200.8	0.924	6.498	65.845	20.073	5.892	0.233	0.486	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1379.73	
11	0.7599	1183.7	1204.6	1204.1	0.923	6.477	65.639	20.130	6.043	0.239	0.499	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1381.92	
12	0.7605	1184.6	1205.6	1205.1	0.920	6.478	65.595	20.130	6.057	0.246	0.520	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1382.48	
13	0.7580	1179.8	1200.7	1200.2	0.920	6.539	65.885	19.954	5.915	0.237	0.498	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1379.10	
14	0.7544	1173.0	1193.8	1193.5	0.918	6.618	66.256	19.763	5.736	0.219	0.448	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1374.46	
15	0.7546	1173.2	1194.0	1193.9	0.921	6.618	66.243	19.748	5.763	0.219	0.447	0.021	0.020	0.000	0.000	0.000	0.000	0.000	1374.55	
16	0.7555	1175.6	1196.4	1196.3	0.924	6.561	66.132	19.869	5.773	0.227	0.471	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1376.42	
17	0.7567	1177.4	1198.3	1198.1	0.923	6.559	66.016	19.902	5.830	0.233	0.489	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1377.48	
18	0.7569	1178.4	1199.3	1199.2	0.923	6.515	65.924	20.049	5.858	0.226	0.465	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1378.53	
19	0.7637	1189.3	1210.3	1209.9	0.920	6.493	65.226	20.229	6.282	0.255	0.539	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1385.00	
20	0.7601	1183.5	1204.4	1203.8	0.924	6.502	65.686	20.017	6.046	0.247	0.523	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1381.52	
21	0.7591	1181.4	1202.4	1201.9	0.921	6.542	65.754	19.975	6.021	0.239	0.497	0.025	0.025	0.000	0.000	0.000	0.000	0.000	1380.01	
22	0.7614	1185.7	1206.7	1206.5	0.924	6.492	65.541	20.084	6.105	0.254	0.541	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1382.89	
23	0.7569	1177.6	1198.4	1198.2	0.922	6.570	66.020	19.861	5.844	0.235	0.498	0.025	0.025	0.000	0.000	0.000	0.000	0.000	1377.49	
24	0.7560	1175.7	1196.5	1196.2	0.925	6.593	66.106	19.827	5.788	0.230	0.483	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1376.15	
25	0.7545	1173.6	1194.4	1194.1	0.925	6.587	66.279	19.762	5.702	0.226	0.474	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1375.01	
26	0.7608	1185.2	1206.2	1205.7	0.925	6.464	65.598	20.113	6.049	0.253	0.543	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1382.87	
27	0.7612	1186.6	1207.6	1207.2	0.925	6.424	65.544	20.159	6.105	0.252	0.536	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1384.05	
28	0.7584	1181.8	1202.7	1202.6	0.926	6.449	65.854	20.048	5.920	0.241	0.511	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1381.05	
29	0.7599	1184.7	1205.7	1205.6	0.925	6.412	65.675	20.162	6.000	0.247	0.526	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1383.11	
30	0.7579	1180.6	1201.5	1201.4	0.923	6.473	65.905	20.011	5.898	0.237	0.502	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1380.20	
31	0.7581	1180.7	1201.6	1201.3	0.925	6.487	65.879	20.006	5.904	0.239	0.507	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1380.08	
Avg	0.7584	1181.0	1202.2	1201.9	0.922	6.483	65.852	20.001	5.955	0.237	0.499	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1380.45	

Source Daily Summary

May 2022

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	0.7901	1228.7	1250.4	1250.0	0.221	7.616	62.562	20.443	6.661	0.009	2.485	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1406.51	
2	0.7544	1177.5	1198.3	1197.9	0.913	6.362	66.381	19.801	5.827	0.218	0.452	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1379.59	
3	0.7567	1180.1	1201.0	1200.6	0.908	6.421	66.105	19.874	5.930	0.229	0.482	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1380.59	
4	0.7594	1184.4	1205.3	1205.0	0.910	6.404	65.842	19.935	6.101	0.241	0.511	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1383.18	
5	0.7645	1195.0	1216.1	1215.7	0.911	6.233	65.360	20.175	6.405	0.268	0.582	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1390.88	
6	0.7650	1194.3	1215.5	1214.9	0.908	6.326	65.180	20.309	6.374	0.265	0.571	0.031	0.034	0.000	0.000	0.000	0.000	0.000	1389.64	
7	0.7615	1187.5	1208.6	1208.1	0.910	6.408	65.515	20.197	6.119	0.252	0.542	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1384.97	
8	0.7590	1183.8	1204.7	1204.3	0.899	6.428	65.789	20.060	6.027	0.238	0.508	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1382.78	
9	0.7576	1182.3	1203.3	1202.8	0.884	6.406	65.928	20.073	5.924	0.233	0.500	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1382.40	
10	0.7598	1184.5	1205.5	1204.9	0.910	6.442	65.703	20.048	6.098	0.241	0.506	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1382.90	
11	0.7599	1184.3	1205.2	1204.6	0.910	6.456	65.713	20.059	6.020	0.250	0.537	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1382.63	
12	0.7558	1176.7	1197.5	1196.9	0.910	6.541	66.177	19.777	5.823	0.232	0.493	0.024	0.024	0.000	0.000	0.000	0.000	0.000	1377.46	
13	0.7571	1177.8	1198.7	1198.2	0.904	6.603	65.955	19.875	5.898	0.231	0.486	0.024	0.024	0.000	0.000	0.000	0.000	0.000	1377.59	
14	0.7565	1177.5	1198.3	1197.7	0.909	6.556	66.065	19.833	5.881	0.230	0.480	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1377.76	
15	0.7579	1180.9	1201.8	1201.2	0.914	6.468	65.978	19.893	5.932	0.243	0.519	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1380.51	
16	0.7567	1178.2	1199.1	1198.4	0.913	6.528	66.076	19.841	5.841	0.239	0.510	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1378.38	
17	0.7566	1178.2	1199.1	1198.4	0.914	6.515	66.092	19.847	5.834	0.238	0.510	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1378.51	
18	0.7497	1171.1	1191.8	1191.1	0.912	6.308	67.170	19.285	5.576	0.224	0.477	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1376.53	
19	0.6428	1066.6	1085.5	1085.0	0.945	2.596	83.695	11.674	0.986	0.032	0.065	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1353.94	
20	0.6862	1108.7	1128.3	1127.9	0.938	4.111	76.996	14.732	2.862	0.112	0.225	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1362.78	
21	0.6936	1117.3	1137.0	1136.6	0.932	4.292	76.004	15.079	3.261	0.135	0.268	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1365.75	
22	0.7571	1178.9	1199.8	1199.4	0.914	6.521	66.027	19.859	5.883	0.238	0.507	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1378.87	
23	0.7540	1173.6	1194.4	1194.0	0.917	6.552	66.378	19.703	5.695	0.227	0.482	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1375.47	
24	0.7565	1179.6	1200.5	1200.0	0.891	6.453	66.116	19.852	5.910	0.233	0.495	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1380.28	
25	0.7605	1185.8	1206.7	1206.1	0.914	6.422	65.667	20.068	6.080	0.252	0.542	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1383.77	
26	0.7602	1185.8	1206.8	1206.0	0.917	6.388	65.730	20.046	6.067	0.253	0.544	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1384.05	
27	0.7588	1183.4	1204.3	1203.6	0.918	6.400	65.864	20.013	5.983	0.245	0.523	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1382.54	
28	0.7563	1179.0	1199.9	1199.3	0.918	6.430	66.143	19.898	5.828	0.235	0.498	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1379.73	
29	0.7589	1183.5	1204.4	1203.9	0.916	6.406	65.865	20.007	5.970	0.248	0.534	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1382.58	
30	0.7586	1182.7	1203.7	1203.1	0.914	6.424	65.860	20.040	5.944	0.243	0.521	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1382.00	
31	0.7588	1182.9	1203.9	1203.3	0.913	6.431	65.797	20.091	5.974	0.238	0.505	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1382.08	
Avg	0.7510	1175.0	1196.0	1195.4	0.891	6.208	67.088	19.367	5.636	0.218	0.544	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1380.22	

Source Daily Summary

May 2022

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	0.6246	1054.2	1072.9	1072.6	0.884	1.731	86.879	9.941	0.531	0.013	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1357.53	
2	0.6249	1054.2	1072.8	1072.5	0.884	1.763	86.861	9.885	0.572	0.014	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1357.13	
3	0.6596	1110.4	1130.1	1129.7	0.390	2.354	79.125	17.576	0.529	0.011	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1391.33	
4	0.6498	1094.3	1113.7	1113.1	0.524	2.211	81.285	15.426	0.528	0.011	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1381.30	
5	0.6851	1113.7	1133.4	1132.6	0.848	3.840	77.158	14.925	2.878	0.107	0.221	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1369.90	
6	0.6365	1063.7	1082.6	1081.8	0.921	2.209	84.976	10.841	0.958	0.032	0.059	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1356.97	
7	0.6305	1057.6	1076.3	1075.5	0.908	2.043	85.792	10.565	0.647	0.017	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1355.49	
8	0.6306	1057.2	1075.9	1075.3	0.920	2.057	85.748	10.625	0.609	0.016	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1354.88	
9	0.6303	1056.5	1075.2	1074.8	0.922	2.071	85.772	10.605	0.590	0.015	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1354.33	
10	0.6344	1060.5	1079.2	1078.7	0.934	2.198	85.075	11.031	0.706	0.020	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1354.99	
11	0.6431	1069.1	1088.1	1087.6	0.935	2.486	83.729	11.657	1.088	0.035	0.067	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1356.77	
12	0.6424	1068.0	1086.9	1086.4	0.949	2.465	83.834	11.619	1.028	0.035	0.065	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1356.10	
13	0.6320	1057.7	1076.5	1075.9	0.946	2.124	85.501	10.741	0.641	0.018	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1354.00	
14	0.6302	1055.6	1074.3	1073.7	0.933	2.101	85.789	10.564	0.574	0.015	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1353.23	
15	0.6314	1056.8	1075.5	1074.9	0.940	2.133	85.525	10.802	0.562	0.014	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1353.45	
16	0.6350	1061.1	1079.9	1079.1	0.937	2.212	84.936	11.167	0.693	0.020	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1355.15	
17	0.6347	1060.2	1079.0	1078.2	0.931	2.247	84.947	11.163	0.661	0.018	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1354.34	
18	0.6348	1059.2	1078.0	1077.3	0.941	2.301	84.816	11.330	0.573	0.014	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1352.96	
19	0.6346	1060.0	1078.7	1078.3	0.941	2.239	85.014	11.071	0.672	0.025	0.035	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1354.09	
20	0.6365	1063.6	1082.5	1082.0	0.935	2.192	84.907	11.025	0.829	0.042	0.059	0.006	0.004	0.000	0.000	0.000	0.000	0.000	1356.86	
21	0.6365	1063.0	1081.8	1081.3	0.921	2.260	84.675	11.347	0.725	0.023	0.044	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1355.99	
22	0.6375	1064.5	1083.3	1082.9	0.920	2.262	84.369	11.734	0.672	0.016	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1356.84	
23	0.6528	1093.1	1112.4	1111.9	0.640	2.391	81.037	15.115	0.774	0.016	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1376.47	
24	0.7415	1166.2	1186.9	1186.0	0.882	5.882	68.301	19.107	5.140	0.207	0.438	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1378.61	
25	0.7367	1161.4	1182.0	1181.1	0.906	5.687	69.162	18.571	5.001	0.202	0.428	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1377.14	
26	0.7062	1132.4	1152.4	1151.7	0.928	4.563	73.799	16.611	3.628	0.142	0.299	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1371.37	
27	0.6909	1134.7	1154.8	1154.0	0.519	3.613	74.626	18.961	2.024	0.077	0.164	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1389.44	
28	0.6577	1089.9	1109.2	1108.7	0.765	2.846	80.632	14.485	1.153	0.038	0.076	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1367.75	
29	0.6389	1063.5	1082.4	1081.8	0.914	2.467	84.058	11.826	0.683	0.018	0.033	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1354.11	
30	0.6581	1100.6	1120.1	1119.5	0.516	2.622	79.564	16.708	0.553	0.013	0.023	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1380.55	
31	0.6648	1113.3	1133.0	1132.3	0.393	2.665	78.033	18.343	0.534	0.012	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1389.61	
Avg	0.6511	1081.0	1100.3	1099.7	0.833	2.653	82.127	13.076	1.186	0.041	0.079	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1363.83	

Source Daily Summary

May 2022

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	0.6811	1119.1	1138.9	1138.5	0.415	3.804	75.762	18.366	1.507	0.048	0.088	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1380.05	
2	0.6787	1116.6	1136.3	1135.9	0.440	3.700	76.276	17.942	1.489	0.049	0.092	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1379.28	
3	0.6740	1110.0	1129.6	1129.5	0.424	3.683	77.119	17.226	1.407	0.046	0.085	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1375.93	
4	0.6794	1120.2	1140.1	1139.8	0.392	3.610	75.968	18.511	1.386	0.043	0.079	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1383.19	
5	0.6804	1122.3	1142.2	1141.8	0.419	3.542	75.938	18.451	1.500	0.049	0.091	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1384.67	
6	0.6799	1119.1	1138.9	1138.5	0.444	3.650	76.238	17.860	1.633	0.056	0.106	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1381.22	
7	0.6757	1114.7	1134.4	1134.0	0.484	3.467	77.029	17.336	1.521	0.053	0.098	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1379.98	
8	0.6719	1111.3	1131.0	1130.5	0.472	3.323	77.785	16.764	1.510	0.048	0.088	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1379.83	
9	0.6674	1107.8	1127.4	1126.8	0.397	3.232	78.490	16.374	1.369	0.043	0.084	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1380.01	
10	0.6597	1096.6	1116.0	1115.4	0.438	3.134	79.743	15.495	1.096	0.030	0.056	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1373.96	
11	0.6665	1105.5	1125.0	1124.6	0.377	3.321	78.768	15.894	1.495	0.046	0.087	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1378.03	
12	0.6703	1111.2	1130.8	1130.4	0.258	3.511	77.787	16.845	1.472	0.041	0.076	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1381.23	
13	0.6686	1107.5	1127.1	1126.6	0.298	3.516	77.836	17.071	1.173	0.033	0.064	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1378.44	
14	0.6744	1119.0	1138.8	1138.3	0.304	3.357	76.855	18.033	1.333	0.036	0.071	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1386.67	
15	0.6744	1117.5	1137.3	1136.7	0.228	3.561	76.978	17.574	1.526	0.043	0.080	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1384.82	
16	0.6746	1120.3	1140.1	1139.6	0.288	3.320	77.090	17.588	1.571	0.046	0.086	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1388.03	
17	0.6779	1129.9	1149.9	1149.3	0.278	3.059	76.022	19.288	1.269	0.028	0.049	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1396.60	
18	0.6763	1126.3	1146.2	1145.7	0.412	2.923	76.802	18.258	1.483	0.040	0.074	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1393.77	
19	0.6706	1117.6	1137.4	1136.8	0.453	2.855	77.754	17.571	1.266	0.033	0.061	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1388.90	
20	0.6793	1130.5	1150.5	1149.9	0.284	3.147	75.860	19.249	1.360	0.033	0.058	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1395.84	
21	0.6651	1105.5	1125.0	1124.4	0.313	3.289	78.491	16.698	1.130	0.025	0.045	0.003	0.004	0.000	0.000	0.000	0.000	0.000	1379.49	
22	0.6669	1104.9	1124.5	1124.0	0.464	3.262	78.559	16.285	1.298	0.040	0.080	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1376.92	
23	0.6736	1118.8	1138.6	1138.1	0.347	3.225	76.968	18.102	1.259	0.032	0.059	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1387.31	
24	0.6823	1133.9	1154.0	1153.5	0.258	3.254	75.242	19.765	1.365	0.036	0.071	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1397.14	
25	0.6997	1142.2	1162.4	1161.9	0.404	4.163	73.166	19.493	2.483	0.087	0.184	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1389.62	
26	0.7012	1141.2	1161.4	1161.0	0.502	4.209	73.220	19.049	2.698	0.096	0.203	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1386.99	
27	0.6887	1126.6	1146.6	1146.0	0.588	3.792	75.126	18.210	2.037	0.076	0.153	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1381.67	
28	0.6838	1124.7	1144.6	1144.0	0.520	3.561	75.788	18.091	1.835	0.065	0.127	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1384.15	
29	0.6726	1108.2	1127.8	1127.3	0.526	3.504	77.597	16.767	1.460	0.049	0.088	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1375.16	
30	0.6735	1109.8	1129.5	1129.2	0.615	3.347	77.666	16.653	1.555	0.053	0.098	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1376.33	
31	0.6770	1115.2	1134.9	1134.8	0.657	3.291	77.295	16.771	1.792	0.062	0.116	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1379.29	
Avg	0.6763	1118.0	1137.7	1137.2	0.410	3.439	76.814	17.664	1.525	0.047	0.090	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1383.37	

Source Daily Summary

May 2022

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	0.6867	1154.7	1175.2	1173.7	0.000	2.806	73.091	23.573	0.512	0.007	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.11	-26.32
2	0.6874	1155.6	1176.0	1174.5	0.000	2.823	72.956	23.676	0.526	0.007	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.39	-25.94
3	0.6886	1157.3	1177.8	1176.0	0.000	2.823	72.763	23.827	0.568	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.39	-25.19
4	0.6892	1158.3	1178.8	1177.0	0.000	2.826	72.718	23.784	0.651	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.86	-24.56
5	0.6880	1155.8	1176.3	1174.6	0.000	2.855	72.853	23.737	0.537	0.007	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.20	-25.71
6	0.6867	1153.7	1174.1	1172.7	0.000	2.865	73.007	23.681	0.431	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.90	-26.80
7	0.6867	1153.9	1174.3	1172.9	0.000	2.855	72.994	23.711	0.425	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.13	-26.78
8	0.6865	1153.7	1174.1	1172.4	0.000	2.851	73.029	23.686	0.419	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.04	-26.89
9	0.6859	1152.4	1172.8	1171.3	0.000	2.867	73.146	23.566	0.407	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.17	-27.31
10	0.6872	1154.8	1175.2	1173.7	0.000	2.850	72.905	23.792	0.437	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.67	-26.46
11	0.6863	1153.4	1173.8	1172.0	0.000	2.854	73.068	23.640	0.423	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.82	-26.98
12	0.6858	1152.6	1173.0	1171.7	0.000	2.852	73.160	23.562	0.411	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.43	-27.27
13	0.6875	1155.0	1175.4	1173.9	0.000	2.867	72.978	23.567	0.569	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.57	-25.83
14	0.6882	1156.2	1176.7	1175.0	0.000	2.856	72.952	23.493	0.678	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.36	-25.06
15	0.6883	1156.4	1176.9	1175.1	0.000	2.853	72.955	23.466	0.704	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.52	-24.89
16	0.6877	1155.3	1175.7	1174.0	0.000	2.863	72.979	23.536	0.603	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.79	-25.62
17	0.6880	1155.8	1176.3	1174.6	0.000	2.860	72.905	23.621	0.595	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.13	-25.48
18	0.6871	1154.3	1174.7	1173.2	0.000	2.863	73.048	23.528	0.543	0.007	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.24	-26.17
19	0.6864	1153.2	1173.7	1172.0	0.000	2.869	73.155	23.436	0.522	0.007	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.59	-26.59
20	0.6868	1154.0	1174.5	1172.7	0.000	2.856	73.081	23.521	0.524	0.007	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.18	-26.36
21	0.6865	1153.4	1173.8	1172.0	0.000	2.865	73.153	23.429	0.534	0.007	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.71	-26.49
22	0.6885	1159.6	1180.1	1178.3	0.000	2.677	73.148	23.261	0.884	0.011	0.018	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1422.19	-23.64
23	0.6877	1158.0	1178.5	1176.8	0.000	2.694	73.183	23.346	0.744	0.011	0.020	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1421.12	-24.56
24	0.6908	1162.2	1182.8	1181.4	0.000	2.727	72.874	23.290	1.069	0.014	0.024	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1423.13	-21.84
25	0.6913	1161.7	1182.2	1180.6	0.000	2.808	72.798	23.249	1.104	0.015	0.025	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1421.92	-21.63
26	0.6864	1155.1	1175.6	1173.9	0.000	2.756	73.272	23.329	0.623	0.008	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.86	-25.94
27	0.6853	1151.4	1171.7	1170.1	0.000	2.879	73.283	23.394	0.429	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.44	-27.55
28	0.6857	1152.0	1172.4	1170.6	0.000	2.879	73.182	23.500	0.423	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.80	-27.33
29	0.6852	1151.2	1171.6	1169.8	0.000	2.875	73.299	23.391	0.419	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.39	-27.64
30	0.6852	1151.1	1171.5	1170.0	0.000	2.882	73.290	23.400	0.412	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.27	-27.69
31	0.6840	1150.1	1170.5	1168.9	0.000	2.830	73.603	23.077	0.468	0.007	0.012	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1415.28	-27.85
Avg	0.6872	1155.0	1175.4	1173.7	0.000	2.835	73.059	23.518	0.568	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.89	-25.95

Source Daily Summary

May 2022

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	0.5723	962.5	979.5	979.1	0.106	3.581	95.995	0.295	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.86	
2	0.5872	982.4	999.8	999.4	0.275	3.518	93.326	2.659	0.198	0.012	0.011	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1304.61	
3	0.6229	1039.6	1058.0	1057.5	0.633	2.841	87.279	8.307	0.842	0.034	0.056	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1340.52	
4	0.6233	1041.7	1060.1	1059.6	0.699	2.657	87.354	8.281	0.903	0.037	0.061	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1342.74	
5	0.6268	1048.2	1066.7	1066.1	0.757	2.502	86.754	8.944	0.934	0.037	0.062	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1347.32	
6	0.6199	1038.2	1056.6	1055.9	0.712	2.526	87.815	8.173	0.699	0.026	0.042	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1341.98	
7	0.6185	1036.2	1054.5	1053.9	0.695	2.547	88.047	7.964	0.674	0.026	0.041	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1340.84	
8	0.6146	1029.5	1047.7	1047.1	0.658	2.643	88.755	7.240	0.637	0.024	0.038	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1336.38	
9	0.6024	1008.9	1026.7	1026.3	0.506	2.985	90.808	5.209	0.445	0.018	0.025	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1322.77	
10	0.5928	992.2	1009.8	1009.2	0.360	3.317	92.431	3.542	0.312	0.016	0.018	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1311.43	
11	0.5968	997.8	1015.5	1015.0	0.411	3.271	91.749	4.153	0.373	0.018	0.022	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1314.49	
12	0.6134	1024.2	1042.4	1041.9	0.608	2.925	88.877	6.915	0.608	0.024	0.037	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1330.89	
13	0.6136	1025.3	1043.4	1042.9	0.622	2.861	88.831	7.033	0.589	0.023	0.036	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1332.01	
14	0.6111	1020.3	1038.3	1037.8	0.582	2.989	89.263	6.536	0.567	0.023	0.035	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1328.26	
15	0.6192	1033.6	1051.9	1051.3	0.683	2.785	87.857	7.931	0.672	0.026	0.041	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1336.80	
16	0.6158	1028.2	1046.4	1045.7	0.639	2.860	88.431	7.395	0.610	0.024	0.036	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1333.48	
17	0.6143	1026.2	1044.4	1043.7	0.624	2.865	88.710	7.132	0.605	0.023	0.036	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1332.51	
18	0.6125	1023.5	1041.6	1041.0	0.603	2.891	89.022	6.849	0.572	0.023	0.035	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1330.95	
19	0.5990	1002.7	1020.5	1020.0	0.436	3.145	91.348	4.646	0.379	0.018	0.024	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1318.40	
20	0.5724	962.3	979.3	978.9	0.107	3.604	95.970	0.295	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.41	
21	0.5723	962.5	979.5	979.1	0.108	3.578	95.996	0.294	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.84	
22	0.5723	962.5	979.6	979.0	0.107	3.578	95.998	0.294	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.89	
23	0.6157	967.5	984.6	984.1	0.093	7.378	88.121	3.046	1.114	0.058	0.163	0.008	0.019	0.000	0.000	0.000	0.000	0.000	1261.99	
24	0.5723	962.5	979.6	979.0	0.106	3.582	95.993	0.295	0.017	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.86	
25	0.5877	985.7	1003.2	1002.5	0.291	3.334	93.315	2.802	0.229	0.014	0.013	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1308.46	
26	0.6067	1008.5	1026.3	1025.7	0.496	3.425	89.921	5.614	0.490	0.020	0.030	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1317.49	
27	0.6122	1018.9	1036.9	1036.2	0.333	3.558	88.760	6.674	0.607	0.024	0.039	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1325.22	
28	0.5739	965.0	982.1	981.4	0.109	3.580	95.693	0.567	0.041	0.009	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1296.33	
29	0.5723	962.6	979.6	979.0	0.106	3.575	95.999	0.296	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.96	
30	0.5723	962.5	979.5	979.0	0.106	3.586	95.991	0.295	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.78	
31	0.5723	962.5	979.6	979.0	0.106	3.580	95.996	0.295	0.016	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.87	
Avg	0.5993	1001.0	1019.2	1018.6	0.409	3.293	91.303	4.515	0.427	0.020	0.029	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1316.59	

May-22

ZONE 550

MANDAN BORDER

NBPL - St Anthony

WBI - Mandan Border

Weighted

Start Date	End Date	MCF	DK	BTU	MCF	DK	BTU Zone 28	AVG BTU	
5/1/2022	5/2/2022	0	0	0	2,583	3,201	1250.40	1250.400	5/1/2022
5/2/2022	5/3/2022	0	0	0	2,464	2,953	1198.30	1198.300	5/2/2022
5/3/2022	5/4/2022	0	0	0	2,555	3,072	1201.00	1201.000	5/3/2022
5/4/2022	5/5/2022	552	589	1067.4	1,788	2,158	1205.30	1172.770	5/4/2022
5/5/2022	5/6/2022	0	0	0	1,458	1,777	1216.10	1216.100	5/5/2022
5/6/2022	5/7/2022	0	0	0	1,117	1,361	1215.50	1215.500	5/6/2022
5/7/2022	5/8/2022	0	0	0	1,081	1,307	1208.60	1208.600	5/7/2022
5/8/2022	5/9/2022	0	0	0	1,082	1,305	1204.70	1204.700	5/8/2022
5/9/2022	5/10/2022	0	0	0	1,809	2,176	1203.30	1203.300	5/9/2022
5/10/2022	5/11/2022	0	0	0	1,290	1,555	1205.50	1205.500	5/10/2022
5/11/2022	5/12/2022	1,430	1,533	1,072	1,167	1,407	1205.20	1131.800	5/11/2022
5/12/2022	5/13/2022	0	0	0	1,398	1,676	1197.50	1197.500	5/12/2022
5/13/2022	5/14/2022	1,286	1,378	1,072	1,699	2,037	1198.70	1144.029	5/13/2022
5/14/2022	5/15/2022	0	0	0	1,383	1,659	1198.30	1198.300	5/14/2022
5/15/2022	5/16/2022	0	0	0	1,221	1,471	1201.80	1201.800	5/15/2022
5/16/2022	5/17/2022	0	0	0	1,070	1,284	1199.10	1199.100	5/16/2022
5/17/2022	5/18/2022	47	50	1073.7	1,102	1,321	1199.10	1193.970	5/17/2022
5/18/2022	5/19/2022	775	833	1074.5	1,180	1,404	1191.80	1145.300	5/18/2022
5/19/2022	5/20/2022	0	0	0	2,086	2,263	1085.50	1085.500	5/19/2022
5/20/2022	5/21/2022	0	0	0	3,103	3,503	1128.30	1128.300	5/20/2022
5/21/2022	5/22/2022	0	0	0	2,716	3,096	1137.00	1137.000	5/21/2022
5/22/2022	5/23/2022	0	0	0	1,715	2,059	1199.80	1199.800	5/22/2022
5/23/2022	5/24/2022	0	0	0	1,589	1,898	1194.40	1194.400	5/23/2022
5/24/2022	5/25/2022	0	0	0	1,457	1,750	1200.50	1200.500	5/24/2022
5/25/2022	5/26/2022	0	0	0	1,074	1,296	1206.70	1206.700	5/25/2022
5/26/2022	5/27/2022	0	0	0	932	1,125	1206.80	1206.800	5/26/2022
5/27/2022	5/28/2022	0	0	0	1,030	1,240	1204.30	1204.300	5/27/2022
5/28/2022	5/29/2022	0	0	0	883	1,060	1199.90	1199.900	5/28/2022
5/29/2022	5/30/2022	0	0	0	848	1,022	1204.40	1204.400	5/29/2022
5/30/2022	5/31/2022	0	0	0	1,331	1,603	1203.70	1203.700	5/30/2022
5/31/2022	6/1/2022	0	0	0	1,685	2,030	1203.90	1203.900	5/31/2022
		4,090	4,383	172.8806	47,896	57,069	1195.9806	1189.1345	



Alliance Pipeline

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

DAY	Heating Value (BTU/ft3)	Relative Density	C1 Mol%	C2 Mol%	C3 Mol%	IC4 Mol%	NC4 Mol%	IC5 Mol%	NC5 Mol%	C6+ Mol%	N2 Mol%	CO2 Mol%	Hel Mol%
1	1,155.775	0.6605	84.1479	10.0818	3.5468	0.3203	0.5274	0.0520	0.0411	0.0168	0.8707	0.3848	0.0103
2	1,147.614	0.6560	84.5877	9.9986	3.1430	0.3092	0.5151	0.0510	0.0403	0.0161	0.9542	0.3742	0.0107
3	1,142.555	0.6525	85.1538	9.5651	3.0399	0.3035	0.5045	0.0513	0.0411	0.0170	0.9536	0.3596	0.0107
4	1,147.933	0.6551	84.8987	9.6810	3.1936	0.3211	0.5329	0.0550	0.0454	0.0202	0.8931	0.3492	0.0096
5	1,149.727	0.6563	84.7560	9.7338	3.2579	0.3271	0.5478	0.0551	0.0457	0.0194	0.9032	0.3447	0.0092
6	1,145.804	0.6541	85.0310	9.5383	3.1626	0.3209	0.5335	0.0543	0.0444	0.0186	0.9558	0.3311	0.0096
7	1,146.048	0.6544	84.9779	9.5820	3.1512	0.3233	0.5384	0.0545	0.0451	0.0190	0.9775	0.3217	0.0096
8	1,143.931	0.6532	85.1003	9.5462	3.0621	0.3167	0.5302	0.0549	0.0447	0.0195	0.9872	0.3279	0.0102
9	1,146.186	0.6544	85.0672	9.4885	3.1241	0.3333	0.5596	0.0603	0.0492	0.0222	0.9560	0.3296	0.0100
10	1,145.662	0.6536	85.2208	9.3819	3.1020	0.3403	0.5654	0.0623	0.0501	0.0189	0.9218	0.3263	0.0102
11	1,148.451	0.6565	84.8224	9.5217	3.2229	0.3506	0.5880	0.0638	0.0525	0.0195	1.0189	0.3298	0.0098
12	1,149.182	0.6561	84.9081	9.5286	3.2136	0.3491	0.5849	0.0630	0.0519	0.0234	0.9416	0.3261	0.0098
13	1,154.645	0.6588	84.6541	9.5533	3.4808	0.3562	0.6176	0.0573	0.0470	0.0218	0.8838	0.3186	0.0095
14	1,157.901	0.6609	84.3632	9.7444	3.5611	0.3599	0.6338	0.0586	0.0477	0.0223	0.8799	0.3200	0.0092
15	1,157.136	0.6604	84.4314	9.6945	3.5512	0.3573	0.6275	0.0590	0.0478	0.0213	0.8772	0.3235	0.0092
16	1,155.945	0.6600	84.5115	9.6459	3.5023	0.3572	0.6259	0.0607	0.0484	0.0228	0.8731	0.3431	0.0092
17	1,156.304	0.6604	84.4361	9.6804	3.5159	0.3551	0.6331	0.0611	0.0486	0.0223	0.8914	0.3465	0.0096
18	1,154.157	0.6595	84.5102	9.6359	3.4866	0.3436	0.6107	0.0583	0.0460	0.0217	0.9312	0.3459	0.0100
19	1,153.413	0.6585	84.6845	9.5364	3.4374	0.3495	0.6033	0.0626	0.0512	0.0253	0.9239	0.3167	0.0091
20	1,153.876	0.6589	84.5708	9.5795	3.6076	0.3312	0.5332	0.0579	0.0466	0.0215	0.9022	0.3401	0.0094
21	1,153.080	0.6586	84.6229	9.5265	3.6062	0.3284	0.5301	0.0563	0.0452	0.0209	0.9036	0.3505	0.0095
22	1,151.892	0.6577	84.6493	9.5921	3.5653	0.3160	0.5031	0.0526	0.0421	0.0206	0.9090	0.3402	0.0097
23	1,153.785	0.6587	84.5599	9.6176	3.5965	0.3270	0.5284	0.0570	0.0461	0.0209	0.9196	0.3175	0.0094
24	1,153.173	0.6583	84.5857	9.6276	3.5706	0.3229	0.5220	0.0562	0.0456	0.0210	0.9246	0.3141	0.0096
25	1,153.531	0.6586	84.5483	9.6306	3.5862	0.3240	0.5260	0.0569	0.0465	0.0221	0.9368	0.3131	0.0093
26	1,155.228	0.6599	84.4159	9.6603	3.6167	0.3365	0.5653	0.0573	0.0468	0.0222	0.9522	0.3175	0.0092
27	1,156.565	0.6610	84.3647	9.6141	3.6539	0.3466	0.5947	0.0593	0.0490	0.0277	0.9483	0.3320	0.0097
28	1,154.349	0.6597	84.5664	9.4601	3.6137	0.3385	0.5928	0.0569	0.0467	0.0282	0.9343	0.3524	0.0099
29	1,150.107	0.6571	84.9124	9.2746	3.4990	0.3279	0.5644	0.0549	0.0452	0.0261	0.9262	0.3594	0.0099
30	1,151.209	0.6578	84.8824	9.2460	3.5341	0.3365	0.5863	0.0562	0.0450	0.0256	0.9045	0.3736	0.0100
31	1,151.424	0.6576	84.7940	9.4042	3.5154	0.3276	0.5642	0.0538	0.0442	0.0238	0.9082	0.3544	0.0101
Volume	1,150.895	0.6572	84.7427	9.5867	3.3676	0.3349	0.5686	0.0572	0.0464	0.0213	0.9229	0.3419	0.0098
Weight Avg Energy	1,150.911	0.6572	84.7419	9.5869	3.3683	0.3350	0.5687	0.0572	0.0464	0.0213	0.9228	0.3419	0.0098



Alliance Pipeline

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

DAY	Heating Value (BTU/ft3)	Relative Density	C1 Mol%	C2 Mol%	C3 Mol%	IC4 Mol%	NC4 Mol%	IC5 Mol%	NC5 Mol%	C6+ Mol%	N2 Mol%	CO2 Mol%	Hel Mol%
1	1,156.518	0.6612	84.0984	10.0121	3.6337	0.3229	0.5336	0.0518	0.0411	0.0170	0.8979	0.3814	0.0101
2	1,146.221	0.6551	84.7005	9.9571	3.0843	0.3065	0.5086	0.0509	0.0403	0.0161	0.9536	0.3714	0.0107
3	1,143.444	0.6529	85.1366	9.5600	3.0646	0.3084	0.5125	0.0521	0.0419	0.0178	0.9415	0.3542	0.0104
4	1,147.834	0.6552	84.8961	9.6871	3.1911	0.3199	0.5308	0.0551	0.0454	0.0198	0.8943	0.3506	0.0096
5	1,149.260	0.6561	84.7909	9.6980	3.2520	0.3266	0.5475	0.0551	0.0456	0.0194	0.9123	0.3434	0.0092
6	1,145.120	0.6538	85.0747	9.5284	3.1406	0.3178	0.5257	0.0538	0.0441	0.0186	0.9578	0.3289	0.0096
7	1,145.321	0.6541	85.0193	9.5500	3.1349	0.3218	0.5356	0.0544	0.0449	0.0188	0.9871	0.3236	0.0097
8	1,145.213	0.6542	84.9985	9.6127	3.0877	0.3202	0.5367	0.0561	0.0463	0.0203	0.9675	0.3439	0.0102
9	1,145.445	0.6539	85.1474	9.4378	3.1008	0.3330	0.5583	0.0604	0.0492	0.0220	0.9581	0.3229	0.0100
10	1,146.713	0.6545	85.1214	9.4219	3.1336	0.3445	0.5744	0.0637	0.0513	0.0190	0.9308	0.3291	0.0102
11	1,148.107	0.6564	84.8432	9.5088	3.2160	0.3493	0.5857	0.0632	0.0522	0.0196	1.0230	0.3292	0.0097
12	1,150.232	0.6567	84.8509	9.5467	3.2534	0.3515	0.5913	0.0631	0.0520	0.0233	0.9323	0.3258	0.0098
13	1,154.644	0.6589	84.6592	9.5541	3.4825	0.3554	0.6160	0.0569	0.0467	0.0219	0.8792	0.3188	0.0095
14	1,158.266	0.6612	84.3498	9.7429	3.5750	0.3618	0.6370	0.0586	0.0478	0.0224	0.8761	0.3195	0.0092
15	1,157.392	0.6607	84.4126	9.7022	3.5506	0.3600	0.6328	0.0601	0.0483	0.0214	0.8792	0.3239	0.0091
16	1,155.987	0.6601	84.5030	9.6440	3.5022	0.3575	0.6287	0.0613	0.0490	0.0231	0.8752	0.3467	0.0093
17	1,155.895	0.6603	84.4758	9.6476	3.5084	0.3549	0.6319	0.0610	0.0485	0.0226	0.8932	0.3466	0.0096
18	1,154.068	0.6594	84.5312	9.6305	3.4752	0.3440	0.6104	0.0591	0.0467	0.0221	0.9257	0.3451	0.0100
19	1,153.185	0.6584	84.6898	9.5367	3.4489	0.3460	0.5918	0.0617	0.0504	0.0250	0.9244	0.3160	0.0091
20	1,153.782	0.6589	84.5800	9.5679	3.6105	0.3309	0.5332	0.0575	0.0462	0.0212	0.9003	0.3428	0.0094
21	1,153.166	0.6587	84.6205	9.5200	3.6151	0.3285	0.5298	0.0563	0.0453	0.0210	0.9056	0.3486	0.0094
22	1,153.199	0.6584	84.6261	9.5347	3.6146	0.3271	0.5259	0.0556	0.0444	0.0203	0.9132	0.3285	0.0096
23	1,153.734	0.6587	84.5428	9.6446	3.5893	0.3249	0.5251	0.0567	0.0461	0.0213	0.9241	0.3158	0.0093
24	1,153.097	0.6583	84.5933	9.6247	3.5683	0.3225	0.5214	0.0561	0.0455	0.0210	0.9244	0.3132	0.0096
25	1,153.558	0.6587	84.5199	9.6594	3.5833	0.3222	0.5251	0.0563	0.0462	0.0223	0.9431	0.3130	0.0093
26	1,155.514	0.6602	84.3837	9.6795	3.6239	0.3370	0.5662	0.0574	0.0471	0.0227	0.9570	0.3162	0.0092
27	1,156.356	0.6607	84.3859	9.6418	3.6279	0.3462	0.5944	0.0577	0.0475	0.0254	0.9390	0.3249	0.0092
28	1,158.028	0.6626	84.1570	9.7115	3.7249	0.3480	0.6052	0.0559	0.0455	0.0259	0.9383	0.3773	0.0104
29	1,150.508	0.6573	84.8761	9.3128	3.4968	0.3296	0.5703	0.0549	0.0442	0.0246	0.9164	0.3642	0.0101
30	1,150.485	0.6574	84.9521	9.1846	3.5230	0.3373	0.5843	0.0562	0.0451	0.0252	0.9046	0.3778	0.0099
31	1,151.382	0.6577	84.7987	9.4026	3.5119	0.3273	0.5650	0.0539	0.0444	0.0238	0.9089	0.3535	0.0100
Volume	1,151.304	0.6575	84.7034	9.6104	3.3931	0.3336	0.5620	0.0573	0.0465	0.0211	0.9247	0.3382	0.0097
Weight Avg Energy	1,151.337	0.6575	84.7013	9.6108	3.3945	0.3337	0.5623	0.0573	0.0465	0.0211	0.9246	0.3382	0.0097

May-22

ZONE 610

Watford City

Watford City West Border

Watford City East Border

Weighted

Start Date	End Date	BTU			BTU			AVG BTU	
		MCF	DK	Zone 25	MCF	DK	Zone 43		
5/1/2022	5/2/2022	171	205	1194.9	354	367	1036.1	1087.823	5/1/2022
5/2/2022	5/3/2022	151	181	1194.9	356	368	1036.1	1083.395	5/2/2022
5/3/2022	5/4/2022	110	131	1194.9	349	361	1036.1	1074.157	5/3/2022
5/4/2022	5/5/2022	26	32	1194.9	236	245	1036.1	1051.859	5/4/2022
5/5/2022	5/6/2022	8	9	1194.9	178	185	1036.1	1042.930	5/5/2022
5/6/2022	5/7/2022	6	7	1194.9	177	183	1036.1	1041.307	5/6/2022
5/7/2022	5/8/2022	46	55	1194.9	169	175	1036.1	1070.076	5/7/2022
5/8/2022	5/9/2022	96	115	1194.9	200	208	1036.1	1087.603	5/8/2022
5/9/2022	5/10/2022	204	243	1194.9	332	344	1036.1	1096.539	5/9/2022
5/10/2022	5/11/2022	145	174	1194.9	207	215	1036.1	1101.515	5/10/2022
5/11/2022	5/12/2022	190	227	1194.9	292	303	1036.1	1098.698	5/11/2022
5/12/2022	5/13/2022	181	217	1194.9	306	317	1036.1	1095.120	5/12/2022
5/13/2022	5/14/2022	214	255	1194.9	379	392	1036.1	1093.407	5/13/2022
5/14/2022	5/15/2022	162	193	1194.9	233	241	1036.1	1101.228	5/14/2022
5/15/2022	5/16/2022	134	160	1194.9	181	188	1036.1	1103.653	5/15/2022
5/16/2022	5/17/2022	98	117	1194.9	166	172	1036.1	1095.048	5/16/2022
5/17/2022	5/18/2022	78	93	1194.9	141	146	1036.1	1092.659	5/17/2022
5/18/2022	5/19/2022	79	94	1194.9	196	203	1036.1	1081.719	5/18/2022
5/19/2022	5/20/2022	165	197	1194.9	283	294	1036.1	1094.587	5/19/2022
5/20/2022	5/21/2022	267	319	1194.9	463	479	1036.1	1094.182	5/20/2022
5/21/2022	5/22/2022	234	280	1194.9	376	389	1036.1	1097.017	5/21/2022
5/22/2022	5/23/2022	170	204	1194.9	232	241	1036.1	1103.254	5/22/2022
5/23/2022	5/24/2022	116	139	1194.9	191	198	1036.1	1096.103	5/23/2022
5/24/2022	5/25/2022	97	116	1194.9	164	170	1036.1	1095.118	5/24/2022
5/25/2022	5/26/2022	67	80	1194.9	156	161	1036.1	1083.811	5/25/2022
5/26/2022	5/27/2022	50	60	1194.9	151	157	1036.1	1075.602	5/26/2022
5/27/2022	5/28/2022	44	53	1194.9	146	151	1036.1	1072.875	5/27/2022
5/28/2022	5/29/2022	38	45	1194.9	124	129	1036.1	1073.349	5/28/2022
5/29/2022	5/30/2022	91	108	1194.9	151	156	1036.1	1095.814	5/29/2022
5/30/2022	5/31/2022	153	183	1194.9	217	225	1036.1	1101.766	5/30/2022
5/31/2022	6/1/2022	136	162	1194.9	213	220	1036.1	1097.982	5/31/2022
		3,727	4,454	1194.9000	7,319	7,583	1036.1000	1086.4579	

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	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/1/2022	5/2/2022	1069	0.6238	-64.1	1353.489902	0.9174	1.7853	86.8213	9.7274	0.5693	0.0125	0.0197	0	0	N/A	0	0.1275	0.0199	0.4874	0.1113	0.0652	0.0012
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/2/2022	5/3/2022	1067	0.6229	-65	1351.933264	0.9204	1.8401	86.9597	9.5274	0.5624	0.012	0.0179	0	0	N/A	0	0.1402	0.0201	0.497	0.1194	0.0721	0.0012
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/3/2022	5/4/2022	1067	0.6233	-64.8	1351.499396	0.9129	1.8854	86.8735	9.5867	0.555	0.0125	0.0194	0.0003	0.0003	N/A	0.0001	0.1334	0.0206	0.4878	0.1151	0.068	0.0014
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/4/2022	5/5/2022	1065	0.6221	-65.5	1350.266544	0.9135	1.9039	87.174	9.2272	0.5597	0.0133	0.0223	0.0001	0	N/A	0	0.1315	0.0206	0.4973	0.109	0.0646	0.0015
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/5/2022	5/6/2022	1067	0.6267	-62.2	1347.828304	0.9553	2.1377	86.3498	9.6761	0.6864	0.0158	0.0273	0.0002	0	N/A	0	0.1291	0.0224	0.491	0.0984	0.0598	0.0008
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/6/2022	5/7/2022	1073	0.6293	-59.9	1352.604598	0.9369	2.0441	85.8927	10.2489	0.7051	0.0174	0.0389	0.0004	0.0002	N/A	0	0.1027	0.0219	0.4743	0.1179	0.0704	0.0008
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/7/2022	5/8/2022	1073	0.6296	-60.2	1352.282296	0.9349	2.0849	85.8055	10.3558	0.6711	0.0156	0.0257	0.0002	0.0001	N/A	0	0.0841	0.0223	0.4714	0.1164	0.0677	0.0008
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/8/2022	5/9/2022	1072	0.6293	-60.5	1351.344006	0.9445	2.0924	85.7623	10.3734	0.6421	0.0148	0.0255	0.0003	0.0001	N/A	0	0.1227	0.0222	0.4733	0.1167	0.0672	0.0013
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/9/2022	5/10/2022	1072	0.6297	-60.7	1350.914735	0.9648	2.1209	85.6925	10.4229	0.6209	0.0141	0.0245	0.0002	0	N/A	0	0.117	0.0222	0.46	0.1118	0.0673	0.0015
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/10/2022	5/11/2022	1074	0.6317	-59.2	1351.290871	0.9775	2.1849	85.3328	10.6677	0.6578	0.015	0.0263	0.0003	0.0001	N/A	0	0.1151	0.0228	0.4662	0.0985	0.0553	0.0009
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/11/2022	5/12/2022	1072	0.63	-60.7	1350.59305	0.975	2.1363	85.5886	10.5135	0.6031	0.013	0.0223	0	0.0001	N/A	0	0.1258	0.0224	0.4758	0.1002	0.0583	0.0013
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/12/2022	5/13/2022	1073	0.6313	-59.5	1350.460318	0.9652	2.1775	85.3935	10.645	0.6389	0.0156	0.0257	0.0005	0.0003	N/A	0.0001	0.1152	0.0226	0.4621	0.1079	0.0636	0.0014
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/14/2022	5/15/2022	1070	0.6285	-61.9	1349.681008	0.9575	2.1396	85.8411	10.3012	0.5728	0.0129	0.0224	0.0001	0	N/A	0	0.1299	0.0226	0.4764	0.107	0.063	0.0008
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/16/2022	5/17/2022	1075	0.6321	-58.9	1352.121035	0.9565	2.2027	85.2	10.8128	0.642	0.0154	0.0278	0.0004	0.0003	N/A	0	0.1194	0.0227	0.444	0.1115	0.0672	0.0008
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/17/2022	5/18/2022	1073	0.6317	-58.8	1350.032866	0.955	2.2513	85.2308	10.7869	0.5991	0.0135	0.0235	0	0	N/A	0	0.1167	0.0232	0.4507	0.1148	0.0702	0.0008
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/18/2022	5/19/2022	1075	0.6338	-58.5	1350.306465	0.9651	2.3435	84.7831	11.0575	0.6182	0.0137	0.034	0	0	N/A	0	0.1311	0.0238	0.4524	0.111	0.0645	0.0008
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/19/2022	5/20/2022	1074	0.6323	-59.1	1350.649588	0.9599	2.2746	85.131	10.7992	0.6412	0.0157	0.0252	0.0002	0	N/A	0	0.13	0.0233	0.4449	0.1335	0.0645	0.0008
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/20/2022	5/21/2022	1078	0.6349	-53.1	1352.901248	0.9529	2.247	84.8803	10.8519	0.811	0.0328	0.0537	0.005	0.0043	N/A	0.0013	0.1371	0.0229	0.4564	0.1272	0.0644	0.0008
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/21/2022	5/22/2022	1078	0.6355	-55.6	1352.262434	0.9643	2.3076	84.5994	11.1621	0.7479	0.0193	0.0364	0.0014	0.0014	N/A	0.0002	0.1367	0.0233	0.4535	0.1047	0.0594	0.0008
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/22/2022	5/23/2022	1076	0.6345	-57.2	1350.816815	0.969	2.3556	84.6944	11.0561	0.7058	0.0164	0.0287	0.0004	0.0004	N/A	0	0.1499	0.0236	0.4522	0.1047	0.0583	0.0008
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/23/2022	5/24/2022	1073	0.6333	-58.5	1348.326214	0.9484	2.3954	84.9201	10.8615	0.6742	0.0153	0.0263	0.0002	0	N/A	0	0.1346	0.0241	0.4621	0.0851	0.0607	0.0008
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/24/2022	5/25/2022	1075	0.6346	-57.5	1349.455073	0.9642	2.4109	84.6647	11.0545	0.695	0.0153	0.0268	0.0002	0.0001	N/A	0	0.1443	0.0241	0.4573	0.0818	0.0625	0.0008
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/25/2022	5/26/2022	1081	0.6397	-54.1	1351.566811	0.9771	2.5036	83.8168	11.7912	0.7597	0.017	0.0299	0.0005	0.0002	N/A	0	0.0789	0.0251	0.4253	0.0848	0.0668	0.0008
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/26/2022	5/27/2022	1080	0.6398	-54.8	1351.267408	0.9804	2.4557	83.914	11.7555	0.7127	0.0161	0.0292	0.0006	0.0004	N/A	0	0.1108	0.0247	0.4287	0.0954	0.0695	0.0008
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/27/2022	5/28/2022	1080	0.6379	-53.8	1352.220309	0.948	2.4193	84.1339	11.4774	0.7999	0.0227	0.0371	0.002	0.0014	N/A	0.0002	0.1339	0.0244	0.4426	0.1093	0.0674	0.0008
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/28/2022	5/29/2022	1079	0.6379	-54.8	1350.968253	0.9514	2.4685	84.0699	11.5794	0.7342	0.0177	0.0328	0.0013	0.0012	N/A	0	0.1193	0.0244	0.4379	0.1038	0.0678	0.0008
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/29/2022	5/30/2022	1078	0.6376	-55.3	1350.036991	0.9642	2.5077	84.0651	11.5301	0.7118	0.0173	0.0323	0.0011	0.0007	N/A	0	0.1448	0.025	0.4507	0.1023	0.0685	0.0008
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/30/2022	5/31/2022	1075	0.6356	-57	1348.393095	0.9732	2.4849	84.5071	11.1448	0.6899	0.0165	0.0307	0.0008	0.0005	N/A	0	0.1266	0.025	0.4536	0.1068	0.0706	0.0008
NBPL	4/29/2022 0:00	6/1/2022 0:00	GLNU1 - GLEN ULLIN	5/31/2022	6/1/2022	1073	0.6351	-57.7	1346.414145	0.979	2.5507	84.5194	11.0705	0.6653	0.0149	0.0275	0.0007	0.0003	N/A	0	0.1468	0.025	0.4479	0.0961	0.0593	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	MAY22	APR22	MAR22	FEB22	JAN22	DEC21	NOV21	OCT21	SEP21	AUG21	JUL21	JUN 21	ZONE
MT/ND	211	Sidney Border - MonDak Tfr - Sidney Plt	1196	1185	1191	1196	1196	1171	1215	1208	1201	1213	1216	1210	1152	211
ND	24	Williston Border - Charbonneau Station	1170	1185	1188	1189	1180	1155	1152	1161	1159	1167	1173	1172	1164	24
ND	25	Watford City West Border	1202	1195	1200	1197	1200	1198	1202	1208	1206	1205	1211	1203	1199	25
ND	28	Bismarck Station - Glen Ullin Station	1161	1196	1087	1131	1131	1126	1142	1135	1185	1196	1202	1200	1202	28
ND	31	Dickinson Brd - Belfield Trf - G Ullin Stn	1133	1100	1108	1130	1132	1132	1143	1141	1141	1130	1191	1123	1129	31
ND/MT	32	Cabin Creek Station - Belfield Transfer	1130	1138	1126	1095	1122	1127	1131	1129	1132	1136	1162	1135	1127	32
ND	33	Little Knife Plant	1178	1175	1176	1178	1176	1173	1176	1182	1177	1179	1182	1184	1179	33
ND	34	Badlands Plant/Bowman Border	1036	1019	1021	1070	1087	1097	1093	981	1022	1059	1025	980	980	34
ND	43	Watford City East Border	1071	1036	1042	1042	1108	1094	1042	1047	1060	1062	1088	1109	1119	43
ND/MT	241	Fairview Border	1193	1178	1191	1191	1197	1200	1208	1197	1162	1193	1201	1213	1185	241
ND	267	North Tioga Transfer - Nesson Plant	1151	1172	1176	1172	1157	1122	1122	1137	1135	1145	1159	1167	1153	267
ND	261	Tioga Comp Station - Robinson Lake Plan	1185	1200	1191	1191	1155	1175	1161	1176	1197	1192	1194	1196	1195	261
ND	262	Minot Bdr - Palermo Bdr - Bismarck Stn	1198	1202	1202	1194	1187	1180	1199	1198	1211	1203	1202	1200	1203	262
ND	263	Lignite Plant	1133	1131	1131	1131	1131	1131	1131	1131	1131	1134	1129	1143	1147	263
ND	264	Epping Border	1166	1188	1188	1185	1173	1145	1147	1152	1145	1164	1167	1172	1165	264
ND	265	Tioga Comp Station - County Line Plant	1162	1163	1170	1167	1150	1157	1152	1159	1166	1165	1163	1166	1165	265
ND	266	County Line Plant	1174	1167	1173	1172	1166	1175	1178	1183	1174	1185	1175	1174	1169	266
ND	271	Bismarck Station - Cleveland Station	1190	1205	1164	1185	1169	1162	1188	1198	1208	1197	1202	1200	1202	271
ND	272	Cleveland Station - Mapleton	1191	1204	1175	1184	1167	1161	1189	1198	1211	1196	1202	1199	1200	272
ND	273	Cleveland Station - Grafton Border	1189	1202	1168	1176	1166	1161	1188	1198	1210	1195	1202	1200	1200	273
ND	550	Mandan Border / NBPL-St Anthony	1152	1189	1087	1103	1119	1116	1136	1135	1173	1196	1196	1190	1182	550
ND	610	MDU-Watford City BTU	1110	1086	1093	1087	1138	1129	1095	1110	1130	1098	1106	1121	1132	610
ND	802	NBPL - Linton	1085	1074	1067	1073	1088	1091	1085	1086	1089	1094	1090	1089	1090	802
ND	903	Hettinger Propane	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	903
ND	600	Alliance Pipeline - Hankinson	1155	1151	1155	1157	1152	1149	1155	1158	1158	1158	1153	1156	1157	600
ND	601	Alliance Pipeline - Milnor	1155	1151	1154	1157	1152	1149	1154	1157	1158	1158	1153	1156	1157	602

THERMAL ZONE VARIANCE DOCUMENTATION		
May 2022		
<i>ZONE</i>	<i>BTU VARIANCE</i>	<i>REASON</i>
28	109	Operational - Maintenance
550	102	Operational
271	41	Operational - Maintenance
272	29	Operational - Direction
273	34	Operational