

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

August 17, 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 – June 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 July 2022.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our suppliers for the month of June 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 June 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
May-22

<u>Town</u>	<u>Heat Zone</u>	<u>Therm Factor</u>
MDU-303-ALEXANDER	025	1.1287
MDU-308-ARNEGARD	025	1.1287
MDU-314-APPLE VALLEY	271	1.1627
MDU-318-BEACH	032	1.0517
MDU-319-BELFIELD	032	1.0594
MDU-323-BERTHOLD	262	1.1353
MDU-324-BEULAH	032	1.0362
MDU-327-BISMARCK	028	1.1540
MDU-330-BOWMAN	034	0.9348
MDU-337-BURLINGTON	262	1.1598
MDU-343-CARRINGTON	273	1.1598
MDU-344-CLEVELAND	272	1.1535
MDU-364-CAVALIER	273	1.1843
MDU-365-DAWSON	271	1.1545
MDU-368-DES LACS	262	1.1435
MDU-369-DICKINSON	031	1.0315
MDU-374-FT TOTTEN	273	1.1679
MDU-375-DEVILS LAKE	273	1.1679
MDU-379-BARLOW	273	1.1598
MDU-384-EPPING	264	1.1221
MDU-387-ELDRIDGE	272	1.1617
MDU-407-GLADSTONE	031	1.0315
MDU-411-GLEN ULLIN	031	1.0390
MDU-413-GOLVA	032	1.0362
MDU-416-GARRISON	262	1.1435
MDU-417-GRAFTON	273	1.1924
MDU-403-GWINNER	601	1.1340
MDU-429-HEBRON	031	1.0390
MDU-432-HETTINGER	903	2.4049
MDU-449-JAMESTOWN	272	1.1699
MDU-459-KILLDEER	033	1.1098
MDU-463-LANGDON	273	1.1598
MDU-469-LEFOR	031	1.0315
MDU-474-LIGNITE	263	1.0759
MDU-475-LINTON	802	1.0363
MDU-478-LINCOLN	028	1.1540
MDU-488-MCKENZIE	271	1.1627
MDU-494-MEDINA	271	1.1545
MDU-498-MANDAN	028	1.1540
MDU-500-MARMARTH	034	0.9417
MDU-505-MINOT	262	1.1598
MDU-510-MOTT	031	1.0315
MDU-512-MAX	262	1.1353
MDU-513-MILNOR	601	1.1340
MDU-522-NEW ENGLAND	031	1.0240
MDU-524-NEW SALEM	028	1.1540
MDU-532-NEW ROCKFORD	273	1.1598
MDU-539-PARK RIVER	273	1.1843
MDU-540-PALERMO	262	1.1353

MDU-558-RAY	264	1.1221
MDU-561-REGENT	031	1.0315
MDU-563-RHAME	034	0.9279
MDU-564-RICHARDTON	031	1.0315
MDU-568-ROSS	261	1.1253
MDU-572-RUTHVILLE	262	1.1598
MDU-574-SANBORN	272	1.1699
MDU-583-SENTINEL BUTTE	032	1.0517
MDU-588-SOUTH HEART	031	1.0240
MDU-717-SPIRITWOOD	272	1.1699
MDU-590-SPRINGBROOK	264	1.1221
MDU-591-STANLEY	261	1.1334
MDU-593-STEELE	271	1.1545
MDU-594-STERLING	028	1.1540
MDU-598-SHEYENNE	273	1.1679
MDU-605-SURREY	262	1.1598
MDU-610-TAPPEN	271	1.1545
MDU-611-TAYLOR	031	1.0240
MDU-616-TIOGA	260	1.0990
MDU-619-TURTLE LAKE	262	1.1435
MDU-620-TRENTON	024	1.1273
MDU-624-UNDERWOOD	262	1.1435
MDU-625-VALLEY CITY	272	1.1780
MDU-629-WALHALLA	273	1.1843
MDU-632-WATFORD CITY	610	1.0257
MDU-636-WHEELOCK	264	1.1140
MDU-637-WHITE EARTH	261	1.1334
MDU-642-WILLISTON	024	1.1273
MDU-646-WASHBURN	262	1.1516
MDU-647-WILTON	262	1.1353
MDU-664-RIVERDALE	262	1.1435
MDU-691-FAIRVIEW	241	1.1206
MDU-712-MINOT AFB	262	1.1598
MDU-718-FAIRMOUNT	600	1.1317
MDU-732-NEKOMA	273	1.1598
MDU-732-MSR SITE	273	1.1598

Source Daily Summary

June 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	0.7297	1176.3	1197.1	1196.4	1.248	3.614	69.071	22.368	3.259	0.140	0.269	0.016	0.014	0.000	0.000	0.000	0.000	0.000	1401.40	
2	0.7112	1170.2	1190.9	1190.2	0.467	3.446	71.012	22.237	2.586	0.084	0.154	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1412.25	
3	0.7171	1164.9	1185.6	1184.9	0.932	3.602	70.712	21.577	2.823	0.114	0.215	0.013	0.011	0.000	0.000	0.000	0.000	0.000	1400.09	
4	0.7221	1170.6	1191.4	1190.7	1.064	3.527	70.103	21.907	2.998	0.127	0.246	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1401.98	
5	0.7213	1169.9	1190.7	1190.1	1.084	3.466	70.250	21.840	2.959	0.126	0.245	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1401.89	
6	0.7205	1169.0	1189.7	1189.2	1.063	3.474	70.452	21.630	2.960	0.130	0.258	0.017	0.015	0.000	0.000	0.000	0.000	0.000	1401.60	
7	0.7253	1173.9	1194.7	1194.1	1.164	3.475	69.826	21.926	3.155	0.140	0.279	0.018	0.016	0.000	0.000	0.000	0.000	0.000	1402.82	
8	0.6977	1161.1	1181.7	1181.0	0.073	3.330	72.260	22.483	1.743	0.039	0.066	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1414.71	
9	0.6994	1164.7	1185.4	1184.6	0.021	3.342	72.385	21.940	2.148	0.056	0.100	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1417.40	
10	0.7296	1178.4	1199.3	1198.3	1.107	3.687	68.925	22.584	3.267	0.138	0.265	0.015	0.012	0.000	0.000	0.000	0.000	0.000	1404.21	
11	0.7400	1188.7	1209.7	1208.8	1.344	3.683	67.398	23.572	3.514	0.156	0.300	0.017	0.014	0.000	0.000	0.000	0.000	0.000	1406.24	
12	0.7467	1201.3	1222.6	1221.7	1.352	3.526	65.863	25.448	3.340	0.149	0.288	0.017	0.014	0.000	0.000	0.000	0.000	0.000	1414.90	
13	0.7253	1172.6	1193.4	1192.6	1.242	3.438	69.789	22.044	3.031	0.141	0.281	0.018	0.016	0.000	0.000	0.000	0.000	0.000	1401.22	
14	0.7361	1190.8	1211.9	1211.2	1.274	3.298	67.500	24.540	2.966	0.131	0.260	0.016	0.014	0.000	0.000	0.000	0.000	0.000	1412.52	
15	0.7349	1191.5	1212.6	1212.0	1.212	3.236	67.621	24.620	2.897	0.127	0.256	0.017	0.015	0.000	0.000	0.000	0.000	0.000	1414.49	
16	0.7327	1186.7	1207.7	1206.9	1.227	3.298	68.184	23.884	2.974	0.133	0.266	0.017	0.015	0.000	0.000	0.000	0.000	0.000	1410.89	
17	0.7236	1175.1	1195.9	1194.9	1.173	3.229	69.989	22.226	2.943	0.134	0.271	0.018	0.017	0.000	0.000	0.000	0.000	0.000	1405.88	
18	0.7231	1176.4	1197.2	1196.2	1.086	3.237	70.148	22.016	3.060	0.137	0.279	0.019	0.018	0.000	0.000	0.000	0.000	0.000	1407.86	
19	0.7284	1179.7	1200.6	1199.6	1.138	3.455	69.432	22.144	3.342	0.151	0.301	0.019	0.018	0.000	0.000	0.000	0.000	0.000	1406.65	
20	0.7279	1178.3	1199.1	1198.3	1.181	3.428	69.517	22.103	3.281	0.151	0.301	0.019	0.017	0.000	0.000	0.000	0.000	0.000	1405.48	
21	0.7335	1181.9	1202.9	1201.9	1.273	3.588	68.524	22.764	3.362	0.154	0.300	0.018	0.015	0.000	0.000	0.000	0.000	0.000	1404.48	
22	0.7308	1181.7	1202.6	1201.5	1.227	3.425	69.139	22.295	3.400	0.158	0.317	0.020	0.018	0.000	0.000	0.000	0.000	0.000	1406.71	
23	0.7231	1177.1	1197.9	1196.9	1.129	3.121	70.641	21.262	3.313	0.157	0.329	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1408.76	
24	0.7250	1175.5	1196.3	1195.6	1.198	3.296	70.109	21.677	3.231	0.148	0.301	0.020	0.019	0.000	0.000	0.000	0.000	0.000	1404.99	
25	0.7237	1176.7	1197.5	1196.8	1.096	3.259	70.134	21.913	3.127	0.142	0.290	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1407.64	
26	0.7234	1179.0	1199.8	1199.0	0.951	3.312	70.033	22.101	3.148	0.139	0.279	0.018	0.017	0.000	0.000	0.000	0.000	0.000	1410.66	
27	0.7270	1180.2	1201.1	1200.2	1.066	3.391	69.620	22.146	3.293	0.149	0.298	0.019	0.017	0.000	0.000	0.000	0.000	0.000	1408.76	
28	0.7249	1177.6	1198.4	1197.4	1.141	3.249	69.913	22.120	3.114	0.141	0.285	0.019	0.018	0.000	0.000	0.000	0.000	0.000	1407.58	
29	0.7267	1179.7	1200.6	1199.5	1.184	3.224	69.635	22.346	3.140	0.143	0.290	0.019	0.018	0.000	0.000	0.000	0.000	0.000	1408.33	
30	0.7263	1177.0	1197.8	1196.9	1.207	3.316	69.718	22.149	3.140	0.144	0.290	0.019	0.017	0.000	0.000	0.000	0.000	0.000	1405.51	
Avg	0.7252	1178.0	1198.4	1197.6	1.064	3.399	69.597	22.462	3.050	0.133	0.263	0.017	0.015	0.000	0.000	0.000	0.000	0.000	1407.26	

Source Daily Summary

June 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	0.7046	1164.2	1184.8	1184.3	1.000	2.375	72.942	21.113	2.214	0.099	0.217	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1411.41	
2	0.7032	1162.9	1183.5	1183.0	0.990	2.331	73.117	21.085	2.137	0.096	0.207	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1411.33	
3	0.7064	1165.4	1186.0	1185.6	1.009	2.454	72.739	21.090	2.329	0.104	0.232	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1411.12	
4	0.7068	1167.0	1187.6	1187.2	1.007	2.393	72.837	20.913	2.450	0.110	0.244	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1412.67	
5	0.7068	1167.3	1187.9	1187.5	1.003	2.384	72.839	20.917	2.453	0.112	0.246	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1413.00	
6	0.7081	1171.0	1191.7	1191.4	0.992	2.290	72.901	20.706	2.657	0.127	0.276	0.023	0.027	0.000	0.000	0.000	0.000	0.000	1416.23	
7	0.7033	1163.8	1184.4	1183.9	0.986	2.293	73.323	20.724	2.298	0.106	0.228	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1412.29	
8	0.7032	1162.8	1183.4	1182.8	0.987	2.343	73.243	20.832	2.233	0.102	0.221	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1411.21	
9	0.7043	1164.6	1185.2	1184.7	0.989	2.337	73.241	20.657	2.376	0.112	0.245	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1412.22	
10	0.7036	1162.8	1183.4	1182.8	1.001	2.356	73.198	20.838	2.243	0.101	0.223	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1410.83	
11	0.7034	1163.1	1183.7	1183.1	0.994	2.333	73.136	21.001	2.184	0.098	0.215	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1411.38	
12	0.7022	1161.4	1181.9	1181.3	0.999	2.316	73.264	20.993	2.094	0.093	0.203	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1410.49	
13	0.7008	1159.5	1180.1	1179.5	1.001	2.297	73.410	20.986	1.990	0.089	0.192	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1409.65	
14	0.7007	1158.1	1178.6	1178.2	1.003	2.374	73.433	20.869	2.002	0.089	0.194	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1408.00	
15	0.6996	1156.8	1177.3	1176.9	0.994	2.361	73.555	20.858	1.929	0.086	0.186	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1407.55	
16	0.7003	1158.5	1179.0	1178.5	1.000	2.311	73.367	21.130	1.902	0.082	0.177	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1408.95	
17	0.7023	1160.3	1180.9	1180.2	1.003	2.394	72.976	21.402	1.929	0.082	0.181	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1409.03	
18	0.7063	1166.6	1187.2	1186.6	0.995	2.393	73.069	20.557	2.557	0.118	0.263	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1412.63	
19	0.7087	1169.7	1190.4	1189.7	1.000	2.409	73.144	20.005	2.935	0.140	0.311	0.026	0.031	0.000	0.000	0.000	0.000	0.000	1414.09	
20	0.7085	1169.8	1190.5	1189.9	0.997	2.392	73.178	19.986	2.940	0.141	0.310	0.025	0.030	0.000	0.000	0.000	0.000	0.000	1414.39	
21	0.7080	1169.9	1190.6	1189.9	0.992	2.352	73.234	20.008	2.914	0.140	0.306	0.025	0.029	0.000	0.000	0.000	0.000	0.000	1414.93	
22	0.7071	1168.5	1189.2	1188.5	0.995	2.339	73.212	20.229	2.752	0.131	0.288	0.024	0.028	0.000	0.000	0.000	0.000	0.000	1414.26	
23	0.7109	1173.1	1193.8	1193.1	1.000	2.417	72.697	20.446	2.920	0.141	0.319	0.027	0.032	0.000	0.000	0.000	0.000	0.000	1415.90	
24	0.7096	1171.0	1191.8	1191.2	0.997	2.421	72.594	20.832	2.715	0.122	0.271	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1414.80	
25	0.7131	1174.4	1195.2	1194.7	1.011	2.525	72.065	21.104	2.815	0.132	0.295	0.024	0.029	0.000	0.000	0.000	0.000	0.000	1415.36	
26	0.7143	1176.2	1197.0	1196.4	1.016	2.521	72.094	20.848	2.999	0.143	0.321	0.027	0.032	0.000	0.000	0.000	0.000	0.000	1416.31	
27	0.7149	1176.6	1197.4	1196.7	1.021	2.545	72.042	20.812	3.050	0.144	0.325	0.027	0.033	0.000	0.000	0.000	0.000	0.000	1416.19	
28	0.7087	1169.6	1190.3	1189.7	0.998	2.424	72.423	21.325	2.417	0.114	0.253	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1413.97	
29	0.7085	1168.9	1189.6	1188.9	1.000	2.458	72.210	21.699	2.248	0.105	0.237	0.020	0.023	0.000	0.000	0.000	0.000	0.000	1413.18	
30	0.7099	1170.4	1191.1	1190.5	1.005	2.486	72.082	21.661	2.363	0.110	0.249	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1413.67	
Avg	0.7063	1166.0	1187.1	1186.6	1.000	2.387	72.919	20.854	2.435	0.112	0.248	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1412.57	

Gas Composition and Properties

Effective June 1, 2022

Attachment B
Page 3 of 24

Source #: 0602160
Name: FAIRVIEW BORDER

Component	Mole %	Liquid Content	Mass %	Property	Total Sample	C6 Plus Fraction
Carbon Dioxide, CO2	0.9308		1.9961	Pressure Base	14.730	
Nitrogen, N2	2.9593		4.0395	Temperature Base	60.00	
Methane, C1	72.1046		56.3654	HCDP @ Sample Pressure		
Ethane, C2	20.9322	5.6019	30.6698	Cricondentherm	-3.705	
Propane, C3	2.6461	0.7295	5.6856	HV, Dry @ Base P, T	1186.12	
iso-Butane, iC4	0.1270	0.0416	0.3597	HV, Sat @ Base P, T	1165.48	
n-Butane, nC4	0.2540	0.0801	0.7194	HV, Sat @ Sample P, T	1186.12	
iso-Pentane, iC5	0.0203	0.0074	0.0714	Relative Density	0.7106	
n-Pentane, nC5	0.0217	0.0079	0.0763			
Neo-Pentane, neo						
Hexanes Plus, C6+	0.0040	0.0016	0.0168			
Argon, Ar						
Carbon Monoxide, CO						
Hydrogen, H2						
Oxygen, O2						
Helium, He						
Water, H2O						
Hydrogen Sulfide, H2S						
				C6+: 100		
Totals	100.0000	6.4700	100.0000			

Sample

Date: 06/01/2022 Type:
Tech: Sampson, Wayne
Pressure: Temp.:
Gauge: H2O:
Atm. Pressure: H2S:

Remarks:

Analysis

Date: 06/01/2022 Instrument:
Tech: Sampson, Wayne Cylinder:

Remarks:

Gas Composition and Properties

Effective June 1, 2022

Attachment B
Page 4 of 24

Source #: 0602225
Name: WATFORD CITY WEST BORDER

Component	Mole %	Liquid Content	Mass %
Carbon Dioxide, CO2	1.1624		2.4049
Nitrogen, N2	4.2760		5.6312
Methane, C1	69.8140		52.6517
Ethane, C2	19.3673	5.1839	27.3770
Propane, C3	4.3397	1.1966	8.9961
iso-Butane, iC4	0.2897	0.0949	0.7916
n-Butane, nC4	0.6187	0.1952	1.6905
iso-Pentane, iC5	0.0583	0.0213	0.1977
n-Pentane, nC5	0.0608	0.0221	0.2062
Neo-Pentane, neo			
Hexanes Plus, C6+	0.0131	0.0054	0.0531
Argon, Ar			
Carbon Monoxide, CO			
Hydrogen, H2			
Oxygen, O2			
Helium, He			
Water, H2O			
Hydrogen Sulfide, H2S			
Totals	100.0000	6.7190	100.0000

Property	Total Sample	C6 Plus Fraction
Pressure Base	14.730	
Temperature Base	60.00	
HCDP @ Sample Pressure		
Cricondentherm	17.883	
HV, Dry @ Base P, T	1198.86	
HV, Sat @ Base P, T	1178.00	
HV, Sat @ Sample P, T	1198.86	
Relative Density	0.7367	
C6+:		

Sample

Date: 06/01/2022 Type:

Tech: Sampson, Wayne

Pressure: Temp.:

Gauge: H2O:

Atm. Pressure: H2S:

Remarks:

Analysis

Date: 06/01/2022 Instrument:

Tech: Sampson, Wayne Cylinder:

Remarks:

Source Daily Summary

June 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	0.6926	1144.3	1164.5	1164.2	0.955	2.545	73.868	21.234	1.245	0.044	0.095	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1399.26	-20.59
2	0.6936	1145.9	1166.2	1165.9	0.962	2.515	73.715	21.400	1.259	0.043	0.093	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1400.33	-20.20
3	0.6947	1149.0	1169.4	1169.1	0.959	2.435	73.591	21.520	1.335	0.046	0.100	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1403.01	-19.03
4	0.6960	1150.6	1171.0	1170.7	0.959	2.456	73.611	21.243	1.531	0.057	0.124	0.009	0.010	0.000	0.000	0.000	0.000	0.000	1403.66	-17.11
5	0.6934	1146.7	1167.0	1166.7	0.953	2.481	73.710	21.441	1.259	0.045	0.097	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1401.40	-19.96
6	0.6929	1146.0	1166.3	1166.0	0.967	2.441	73.848	21.353	1.239	0.043	0.094	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1401.08	-20.38
7	0.6932	1146.1	1166.4	1166.0	0.961	2.477	73.822	21.313	1.269	0.045	0.098	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1400.83	-20.09
8	0.6917	1143.5	1163.7	1163.4	0.942	2.513	74.130	20.971	1.287	0.044	0.097	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1399.27	-20.84
9	0.6928	1144.8	1165.1	1164.8	0.961	2.505	73.900	21.210	1.268	0.044	0.096	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1399.83	-20.39
10	0.6941	1147.3	1167.6	1167.3	0.975	2.464	73.680	21.410	1.312	0.045	0.099	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1401.55	-19.47
11	0.6950	1148.3	1168.6	1168.3	0.972	2.492	73.504	21.556	1.322	0.044	0.096	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1401.73	-19.19
12	0.6941	1147.8	1168.1	1167.8	0.975	2.434	73.693	21.425	1.319	0.044	0.096	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1402.05	-19.49
13	0.6907	1141.9	1162.1	1161.7	0.942	2.522	74.257	20.891	1.237	0.043	0.094	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1398.23	-21.51
14	0.6876	1128.5	1148.5	1148.1	0.883	3.127	75.293	18.850	1.628	0.061	0.138	0.009	0.011	0.000	0.000	0.000	0.000	0.000	1384.95	-22.05
15	0.7151	1154.4	1174.8	1174.5	1.163	3.708	71.172	20.991	2.578	0.105	0.246	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1389.29	-4.98
16	0.7174	1160.9	1181.5	1181.1	1.178	3.500	70.825	21.459	2.653	0.104	0.244	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1394.93	-3.62
17	0.7156	1163.7	1184.3	1184.0	1.148	3.212	71.169	21.424	2.689	0.096	0.225	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1399.99	-4.18
18	0.6960	1151.3	1171.6	1171.3	0.959	2.437	73.154	22.085	1.234	0.037	0.081	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1404.37	-19.23
19	0.6983	1155.2	1175.7	1175.3	0.969	2.377	73.286	21.524	1.631	0.061	0.131	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1406.92	-15.32
20	0.6956	1152.6	1173.0	1172.6	0.974	2.290	73.463	21.733	1.380	0.045	0.099	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1406.45	-18.09
21	0.6952	1150.4	1170.7	1170.4	0.974	2.374	73.579	21.540	1.364	0.048	0.105	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1404.16	-18.44
22	0.6937	1150.3	1170.7	1170.3	0.974	2.238	73.665	21.784	1.202	0.039	0.085	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1405.62	-19.99
23	0.6940	1155.4	1175.9	1175.5	0.971	1.963	73.659	22.040	1.233	0.039	0.084	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1411.52	-19.22
24	0.6953	1157.3	1177.8	1177.5	0.950	2.002	73.211	22.630	1.070	0.039	0.084	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1412.51	-19.18
25	0.6935	1150.3	1170.6	1170.3	0.917	2.314	73.661	21.765	1.168	0.049	0.109	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1405.82	-19.76
26	0.6975	1160.5	1181.0	1180.7	0.965	1.996	72.675	23.268	0.953	0.041	0.089	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1414.13	-18.49
27	0.6948	1173.3	1194.1	1193.7	0.971	0.952	73.433	23.511	0.984	0.042	0.093	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1432.49	-17.43
28	0.6918	1159.0	1179.5	1179.1	0.923	1.607	74.262	21.780	1.232	0.055	0.121	0.009	0.010	0.000	0.000	0.000	0.000	0.000	1418.00	-18.44
29	0.6936	1175.1	1195.9	1195.4	0.973	0.742	73.713	23.409	1.014	0.042	0.092	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1435.96	-17.39
30	0.6935	1175.5	1196.3	1195.9	0.963	0.702	73.745	23.452	0.994	0.040	0.090	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1436.58	-17.57
Avg	0.6961	1153.0	1172.9	1172.6	0.978	2.327	73.443	21.674	1.396	0.051	0.113	0.008	0.009	0.000	0.000	0.000	0.000	0.000	1405.86	-17.72

*** End of Report ***

Source Daily Summary

June 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	0.7450	1167.1	1187.7	1187.2	0.944	6.061	67.520	19.741	5.083	0.192	0.414	0.021	0.024	0.000	0.000	0.000	0.000	0.000	1376.13	
2	0.7351	1161.9	1182.4	1182.0	0.927	5.480	68.864	19.655	4.496	0.171	0.366	0.019	0.021	0.000	0.000	0.000	0.000	0.000	1379.35	
3	0.7602	1185.7	1206.7	1206.2	0.929	6.376	65.646	20.214	6.006	0.243	0.528	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1383.93	
4	0.7680	1199.2	1220.5	1219.9	0.928	6.272	64.853	20.540	6.413	0.280	0.634	0.037	0.042	0.000	0.000	0.000	0.000	0.000	1392.67	
5	0.7667	1196.6	1217.8	1217.3	0.928	6.316	65.002	20.418	6.367	0.274	0.619	0.035	0.040	0.000	0.000	0.000	0.000	0.000	1390.74	
6	0.7659	1195.4	1216.6	1216.2	0.931	6.307	65.087	20.407	6.315	0.271	0.610	0.034	0.039	0.000	0.000	0.000	0.000	0.000	1390.14	
7	0.7629	1191.0	1212.1	1211.7	0.935	6.293	65.445	20.267	6.147	0.254	0.586	0.034	0.038	0.000	0.000	0.000	0.000	0.000	1387.71	
8	0.7498	1171.4	1192.1	1191.6	0.889	6.335	67.258	19.152	5.544	0.227	0.530	0.031	0.034	0.000	0.000	0.000	0.000	0.000	1376.66	
9	0.7499	1172.0	1192.7	1192.3	0.903	6.285	67.127	19.438	5.450	0.214	0.514	0.032	0.036	0.000	0.000	0.000	0.000	0.000	1377.30	
10	0.7574	1180.2	1201.1	1200.6	0.932	6.438	65.944	20.156	5.701	0.219	0.534	0.035	0.040	0.000	0.000	0.000	0.000	0.000	1380.12	
11	0.7576	1180.5	1201.4	1200.7	0.932	6.444	65.895	20.178	5.731	0.219	0.529	0.034	0.038	0.000	0.000	0.000	0.000	0.000	1380.26	
12	0.7586	1182.1	1203.0	1202.3	0.933	6.432	65.864	20.078	5.858	0.224	0.537	0.035	0.039	0.000	0.000	0.000	0.000	0.000	1381.27	
13	0.7496	1171.6	1192.4	1191.7	0.899	6.277	67.215	19.316	5.524	0.207	0.495	0.032	0.035	0.000	0.000	0.000	0.000	0.000	1377.23	
14	0.7422	1162.2	1182.8	1182.3	0.857	6.225	68.408	18.476	5.289	0.198	0.479	0.032	0.036	0.000	0.000	0.000	0.000	0.000	1372.87	
15	0.7583	1180.6	1201.5	1201.1	0.934	6.499	65.808	20.134	5.819	0.216	0.520	0.034	0.037	0.000	0.000	0.000	0.000	0.000	1379.72	
16	0.7605	1187.0	1208.0	1207.5	0.931	6.321	65.513	20.480	5.939	0.218	0.528	0.033	0.036	0.000	0.000	0.000	0.000	0.000	1385.21	
17	0.7557	1177.6	1198.5	1197.8	0.934	6.438	65.934	20.385	5.587	0.195	0.465	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1378.65	
18	0.7336	1154.8	1175.2	1174.3	0.845	5.895	69.242	18.736	4.706	0.158	0.370	0.023	0.025	0.000	0.000	0.000	0.000	0.000	1372.20	
19	0.7497	1169.0	1189.7	1188.7	0.892	6.471	66.609	20.096	5.304	0.174	0.403	0.024	0.027	0.000	0.000	0.000	0.000	0.000	1373.93	
20	0.7560	1179.1	1200.0	1199.3	0.916	6.404	65.820	20.561	5.597	0.190	0.452	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1380.08	
21	0.7544	1175.2	1196.0	1195.5	0.931	6.470	66.081	20.284	5.538	0.189	0.450	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1376.99	
22	0.7549	1178.0	1198.9	1198.1	0.928	6.343	66.010	20.483	5.540	0.188	0.449	0.028	0.031	0.000	0.000	0.000	0.000	0.000	1379.89	
23	0.7568	1181.3	1202.2	1201.3	0.931	6.318	65.817	20.554	5.646	0.197	0.473	0.030	0.034	0.000	0.000	0.000	0.000	0.000	1381.98	
24	0.7565	1181.0	1201.9	1201.4	0.926	6.320	65.835	20.570	5.618	0.197	0.470	0.030	0.034	0.000	0.000	0.000	0.000	0.000	1381.84	
25	0.7563	1180.6	1201.5	1201.1	0.915	6.338	65.867	20.542	5.611	0.196	0.468	0.030	0.034	0.000	0.000	0.000	0.000	0.000	1381.59	
26	0.7589	1185.7	1206.7	1206.1	0.908	6.287	65.506	20.793	5.756	0.200	0.485	0.032	0.035	0.000	0.000	0.000	0.000	0.000	1385.18	
27	0.7598	1187.7	1208.7	1208.0	0.906	6.253	65.397	20.898	5.773	0.204	0.499	0.033	0.037	0.000	0.000	0.000	0.000	0.000	1386.64	
28	0.7474	1172.8	1193.6	1193.0	0.863	6.056	67.300	19.784	5.292	0.186	0.455	0.030	0.034	0.000	0.000	0.000	0.000	0.000	1380.63	
29	0.7559	1179.4	1200.3	1199.5	0.901	6.401	65.878	20.508	5.577	0.197	0.472	0.031	0.034	0.000	0.000	0.000	0.000	0.000	1380.50	
30	0.7588	1184.7	1205.7	1205.1	0.908	6.334	65.567	20.666	5.755	0.206	0.496	0.033	0.036	0.000	0.000	0.000	0.000	0.000	1384.14	
Avg	0.7548	1179.0	1199.9	1199.3	0.914	6.290	66.277	20.117	5.633	0.210	0.494	0.031	0.034	0.000	0.000	0.000	0.000	0.000	1381.18	

Source Daily Summary

June 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	0.7530	1170.3	1191.0	1190.5	0.934	6.630	66.396	19.711	5.645	0.210	0.431	0.020	0.022	0.000	0.000	0.000	0.000	0.000	1372.52	
2	0.7626	1186.8	1207.9	1207.4	0.933	6.516	65.353	20.174	6.168	0.253	0.544	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1383.17	
3	0.7649	1191.4	1212.5	1212.1	0.933	6.456	65.133	20.270	6.304	0.265	0.576	0.030	0.033	0.000	0.000	0.000	0.000	0.000	1386.33	
4	0.7674	1195.1	1216.3	1215.8	0.934	6.468	64.896	20.302	6.424	0.279	0.622	0.035	0.040	0.000	0.000	0.000	0.000	0.000	1388.33	
5	0.7692	1197.8	1219.0	1218.6	0.936	6.460	64.717	20.347	6.537	0.288	0.638	0.036	0.041	0.000	0.000	0.000	0.000	0.000	1389.93	
6	0.7661	1192.4	1213.5	1213.1	0.935	6.500	65.065	20.173	6.377	0.274	0.604	0.034	0.038	0.000	0.000	0.000	0.000	0.000	1386.49	
7	0.7623	1184.7	1205.7	1205.3	0.935	6.618	65.519	19.864	6.149	0.256	0.587	0.034	0.038	0.000	0.000	0.000	0.000	0.000	1380.90	
8	0.7618	1185.0	1206.0	1205.5	0.938	6.546	65.513	20.064	6.031	0.252	0.585	0.034	0.038	0.000	0.000	0.000	0.000	0.000	1381.73	
9	0.7597	1181.6	1202.5	1202.1	0.942	6.557	65.651	20.149	5.843	0.229	0.553	0.036	0.040	0.000	0.000	0.000	0.000	0.000	1379.64	
10	0.7589	1179.5	1200.4	1199.9	0.938	6.611	65.750	20.046	5.808	0.226	0.544	0.036	0.040	0.000	0.000	0.000	0.000	0.000	1377.95	
11	0.7599	1181.6	1202.6	1202.1	0.941	6.569	65.662	20.075	5.893	0.231	0.553	0.036	0.040	0.000	0.000	0.000	0.000	0.000	1379.55	
12	0.7599	1182.0	1202.9	1202.4	0.941	6.554	65.731	19.934	5.990	0.230	0.544	0.036	0.040	0.000	0.000	0.000	0.000	0.000	1379.89	
13	0.7600	1182.6	1203.5	1203.0	0.939	6.528	65.706	19.986	5.995	0.228	0.543	0.035	0.039	0.000	0.000	0.000	0.000	0.000	1380.52	
14	0.7601	1181.4	1202.4	1202.0	0.945	6.594	65.632	20.037	5.962	0.224	0.532	0.035	0.039	0.000	0.000	0.000	0.000	0.000	1379.14	
15	0.7623	1185.1	1206.1	1205.7	0.946	6.576	65.351	20.192	6.084	0.230	0.547	0.035	0.039	0.000	0.000	0.000	0.000	0.000	1381.39	
16	0.7632	1186.1	1207.1	1206.7	0.945	6.601	65.234	20.223	6.136	0.233	0.553	0.036	0.039	0.000	0.000	0.000	0.000	0.000	1381.76	
17	0.7628	1185.7	1206.7	1206.3	0.947	6.588	65.309	20.166	6.119	0.235	0.559	0.036	0.040	0.000	0.000	0.000	0.000	0.000	1381.65	
18	0.7618	1184.4	1205.4	1204.8	0.945	6.574	65.440	20.123	6.061	0.231	0.551	0.036	0.040	0.000	0.000	0.000	0.000	0.000	1381.04	
19	0.7592	1181.9	1202.8	1202.3	0.927	6.518	65.438	20.574	5.800	0.202	0.476	0.030	0.034	0.000	0.000	0.000	0.000	0.000	1380.43	
20	0.7568	1176.0	1196.8	1196.3	0.926	6.656	65.748	20.253	5.698	0.197	0.461	0.029	0.032	0.000	0.000	0.000	0.000	0.000	1375.69	
21	0.7574	1179.3	1200.2	1199.7	0.941	6.479	65.742	20.379	5.726	0.201	0.471	0.029	0.032	0.000	0.000	0.000	0.000	0.000	1379.11	
22	0.7571	1179.3	1200.2	1199.7	0.935	6.461	65.761	20.417	5.700	0.198	0.467	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1379.40	
23	0.7585	1181.2	1202.1	1201.6	0.934	6.478	65.582	20.494	5.764	0.202	0.480	0.031	0.034	0.000	0.000	0.000	0.000	0.000	1380.32	
24	0.7608	1185.0	1206.0	1205.5	0.930	6.475	65.335	20.566	5.904	0.213	0.506	0.034	0.038	0.000	0.000	0.000	0.000	0.000	1382.59	
25	0.7595	1183.7	1204.7	1204.2	0.912	6.453	65.484	20.542	5.841	0.207	0.493	0.032	0.036	0.000	0.000	0.000	0.000	0.000	1382.34	
26	0.7621	1188.7	1209.7	1209.2	0.912	6.398	65.160	20.751	5.984	0.213	0.510	0.034	0.038	0.000	0.000	0.000	0.000	0.000	1385.70	
27	0.7613	1187.9	1209.0	1208.4	0.909	6.373	65.209	20.832	5.888	0.210	0.507	0.034	0.037	0.000	0.000	0.000	0.000	0.000	1385.59	
28	0.7550	1175.3	1196.1	1195.6	0.908	6.553	65.946	20.346	5.540	0.192	0.455	0.029	0.032	0.000	0.000	0.000	0.000	0.000	1376.59	
29	0.7604	1184.1	1205.1	1204.6	0.909	6.521	65.342	20.583	5.851	0.212	0.510	0.034	0.038	0.000	0.000	0.000	0.000	0.000	1381.95	
30	0.7617	1186.2	1207.2	1206.6	0.915	6.511	65.226	20.586	5.947	0.218	0.524	0.035	0.039	0.000	0.000	0.000	0.000	0.000	1383.12	
Avg	0.7609	1184.0	1205.0	1204.6	0.932	6.527	65.468	20.272	5.972	0.228	0.531	0.033	0.037	0.000	0.000	0.000	0.000	0.000	1381.49	

Gas Composition and Properties

Effective October 1, 2021 09:00 - January 18, 2038 21:14

Attachment B
Page 8 of 24

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 June 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	0.9539		2.0765	Pressure Base	14.730	
Nitrogen, N2	2.1932		3.0390	Temperature Base	60.00	
Methane, C1	73.6062		58.4080	HCDP @ Sample Pressure		
Ethane, C2	20.8856	5.5891	31.0636	Cricondentherm	-10.295	
Propane, C3	2.0202	0.5569	4.4063	HV, Dry @ Base P, T	1181.72	
iso-Butane, iC4	0.1026	0.0336	0.2950	HV, Sat @ Base P, T	1161.15	
n-Butane, nC4	0.2036	0.0642	0.5853	HV, Sat @ Sample P, T	1181.72	
iso-Pentane, iC5	0.0148	0.0054	0.0528	Relative Density	0.7000	
n-Pentane, nC5	0.0163	0.0059	0.0582			
Neo-Pentane, neo						
Hexanes Plus, C6+	0.0036	0.0015	0.0153			
Argon, Ar						
Carbon Monoxide, CO						
Hydrogen, H2						
Oxygen, O2						
Helium, He						
Water, H2O						
Hydrogen Sulfide, H2S						
				C6+: 100		
Totals	100.0000	6.2560	100.0000			

Sample

Date: 06/01/2022 Type:
Tech: Sampson, Wayne
Pressure: Temp.:
Gauge: H2O:
Atm. Pressure: H2S:

Remarks:

Analysis

Date: 06/01/2022 Instrument:
Tech: Sampson, Wayne Cylinder:

Remarks:

*** End of Report ***

Source Daily Summary

June 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	0.7123	1146.5	1166.8	1166.5	1.101	4.017	71.933	19.696	2.856	0.107	0.248	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1382.50	
2	0.7129	1148.6	1168.9	1168.6	1.142	3.884	71.576	20.412	2.613	0.102	0.234	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1384.45	
3	0.7125	1150.5	1170.9	1170.6	1.153	3.711	71.513	20.822	2.433	0.100	0.232	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1387.20	
4	0.7144	1154.3	1174.8	1174.5	1.160	3.655	71.184	21.135	2.504	0.098	0.228	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1389.86	
5	0.7159	1157.7	1178.2	1177.9	1.151	3.600	71.187	20.898	2.798	0.099	0.231	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1392.45	
6	0.7139	1155.1	1175.5	1175.3	1.149	3.575	71.410	20.889	2.607	0.100	0.233	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1391.28	
7	0.7151	1156.8	1177.3	1177.0	1.146	3.586	71.234	20.977	2.690	0.099	0.232	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1392.20	
8	0.7123	1153.9	1174.3	1174.0	1.110	3.555	71.830	20.397	2.746	0.098	0.228	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1391.36	
9	0.7166	1157.8	1178.3	1178.0	1.167	3.631	71.254	20.620	2.938	0.104	0.247	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1391.89	
10	0.7183	1162.0	1182.5	1182.2	1.148	3.568	70.903	21.013	3.008	0.098	0.228	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1395.24	
11	0.7161	1159.5	1180.1	1179.7	1.155	3.499	71.197	20.954	2.827	0.100	0.232	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1394.48	
12	0.7165	1159.7	1180.3	1179.9	1.160	3.518	71.047	21.147	2.761	0.099	0.232	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1394.34	
13	0.7148	1157.2	1177.7	1177.3	1.144	3.535	71.322	20.931	2.701	0.099	0.231	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1392.94	
14	0.7076	1147.1	1167.4	1167.1	1.090	3.563	72.537	19.910	2.549	0.095	0.221	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1387.68	
15	0.7117	1151.9	1172.3	1171.9	1.162	3.542	71.623	20.940	2.378	0.096	0.223	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1389.58	
16	0.7141	1156.1	1176.6	1176.2	1.189	3.467	71.312	21.179	2.479	0.101	0.236	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1392.36	
17	0.7141	1159.0	1179.5	1179.1	1.181	3.310	71.394	21.182	2.566	0.099	0.231	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1395.74	
18	0.7131	1157.0	1177.5	1177.1	1.107	3.443	71.770	20.515	2.780	0.102	0.242	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1394.36	
19	0.7144	1158.0	1178.5	1178.2	1.122	3.474	71.803	20.200	2.992	0.108	0.255	0.021	0.027	0.000	0.000	0.000	0.000	0.000	1394.35	
20	0.7102	1152.5	1172.9	1172.6	1.139	3.398	72.232	20.220	2.625	0.103	0.242	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1391.78	
21	0.7116	1159.2	1179.7	1179.3	1.138	3.126	71.933	20.851	2.568	0.103	0.242	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1398.43	
22	0.7115	1161.1	1181.7	1181.3	1.166	2.958	71.888	21.148	2.464	0.101	0.236	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1400.87	
23	0.7106	1145.0	1165.3	1165.0	1.172	3.843	71.805	20.471	2.335	0.100	0.236	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1382.39	
24	0.7121	1151.7	1172.1	1171.8	1.172	3.574	71.647	20.793	2.441	0.100	0.235	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1388.99	
25	0.7115	1151.5	1171.9	1171.5	1.168	3.541	71.682	20.880	2.352	0.101	0.237	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1389.28	
26	0.7132	1155.2	1175.6	1175.3	1.159	3.484	71.347	21.285	2.347	0.102	0.238	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1392.14	
27	0.7116	1152.4	1172.8	1172.4	1.171	3.489	71.678	20.940	2.345	0.101	0.238	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1390.27	
28	0.7112	1153.2	1173.6	1173.3	1.147	3.436	71.801	20.839	2.397	0.101	0.239	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1391.70	
29	0.7132	1165.1	1185.7	1185.4	1.173	2.859	71.528	21.633	2.437	0.100	0.233	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1404.09	
30	0.7148	1165.0	1185.7	1185.3	1.161	3.027	71.522	21.130	2.790	0.100	0.233	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1402.45	
Avg	0.7133	1155.0	1175.8	1175.5	1.150	3.495	71.570	20.800	2.611	0.101	0.235	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1392.22	

Source Daily Summary

June 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	0.7541	1174.6	1195.4	1194.2	0.917	6.493	66.317	19.845	5.712	0.219	0.455	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1376.64	
2	0.7614	1187.3	1208.3	1207.2	0.914	6.407	65.567	20.129	6.119	0.256	0.551	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1384.81	
3	0.7656	1194.9	1216.1	1215.0	0.912	6.342	65.154	20.272	6.366	0.277	0.607	0.033	0.036	0.000	0.000	0.000	0.000	0.000	1389.76	
4	0.7681	1198.8	1220.1	1219.0	0.914	6.334	64.919	20.325	6.488	0.292	0.651	0.037	0.040	0.000	0.000	0.000	0.000	0.000	1392.06	
5	0.7685	1199.2	1220.5	1219.4	0.916	6.341	64.875	20.327	6.521	0.293	0.650	0.037	0.040	0.000	0.000	0.000	0.000	0.000	1392.19	
6	0.7660	1194.7	1215.9	1214.8	0.916	6.385	65.138	20.200	6.392	0.279	0.618	0.035	0.037	0.000	0.000	0.000	0.000	0.000	1389.21	
7	0.7612	1185.4	1206.4	1205.4	0.917	6.497	65.699	19.870	6.103	0.257	0.589	0.033	0.035	0.000	0.000	0.000	0.000	0.000	1382.80	
8	0.7609	1186.0	1207.0	1205.9	0.920	6.432	65.681	20.051	5.998	0.255	0.591	0.035	0.037	0.000	0.000	0.000	0.000	0.000	1383.69	
9	0.7585	1182.0	1202.9	1201.9	0.923	6.455	65.843	20.121	5.798	0.231	0.554	0.036	0.039	0.000	0.000	0.000	0.000	0.000	1381.14	
10	0.7579	1180.3	1201.2	1200.1	0.919	6.505	65.936	19.996	5.793	0.229	0.548	0.036	0.038	0.000	0.000	0.000	0.000	0.000	1379.73	
11	0.7593	1183.1	1204.1	1203.0	0.922	6.458	65.823	20.016	5.904	0.236	0.566	0.037	0.039	0.000	0.000	0.000	0.000	0.000	1381.79	
12	0.7583	1181.4	1202.3	1201.3	0.920	6.471	65.988	19.828	5.953	0.230	0.539	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1380.69	
13	0.7587	1182.6	1203.5	1202.6	0.919	6.433	65.927	19.933	5.943	0.228	0.544	0.035	0.037	0.000	0.000	0.000	0.000	0.000	1381.75	
14	0.7585	1181.9	1202.8	1180.7	0.923	6.455	65.843	20.121	5.798	0.231	0.554	0.036	0.039	0.000	0.000	0.000	0.000	0.000	1381.07	
15	0.7504	1179.2	1200.1	1182.3	0.038	6.019	67.626	20.005	5.992	0.091	0.225	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1385.45	
16	0.7500	1179.1	1200.0	1182.2	0.000	6.000	67.704	20.000	6.000	0.085	0.211	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1385.64	
17	0.7500	1179.1	1200.0	1182.2	0.000	6.000	67.704	20.000	6.000	0.085	0.211	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1385.64	
18	0.7500	1179.1	1200.0	1182.2	0.000	6.000	67.704	20.000	6.000	0.085	0.211	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1385.64	
19	0.7500	1179.1	1200.0	1182.2	0.000	6.000	67.704	20.000	6.000	0.085	0.211	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1385.64	
20	0.7500	1179.1	1200.0	1182.2	0.000	6.000	67.704	20.000	6.000	0.085	0.211	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1385.64	
21	0.7544	1179.8	1200.7	1194.5	0.637	6.254	66.453	20.279	5.777	0.166	0.393	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1382.44	
22	0.7562	1180.1	1201.0	1199.5	0.915	6.367	65.922	20.387	5.676	0.200	0.473	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1381.04	
23	0.7576	1181.8	1202.7	1201.1	0.916	6.391	65.782	20.393	5.759	0.205	0.489	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1381.76	
24	0.7599	1185.8	1206.8	1205.3	0.910	6.375	65.503	20.543	5.870	0.216	0.513	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1384.33	
25	0.7588	1185.0	1206.0	1204.7	0.892	6.345	65.570	20.630	5.791	0.208	0.498	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1384.44	
26	0.7616	1190.2	1211.3	1209.9	0.892	6.290	65.203	20.896	5.920	0.213	0.515	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1387.93	
27	0.7598	1187.6	1208.6	1207.3	0.891	6.286	65.464	20.734	5.834	0.211	0.511	0.033	0.036	0.000	0.000	0.000	0.000	0.000	1386.50	
28	0.7535	1174.9	1195.7	1194.3	0.890	6.466	66.185	20.266	5.491	0.192	0.453	0.028	0.029	0.000	0.000	0.000	0.000	0.000	1377.47	
29	0.7596	1184.9	1205.9	1204.3	0.892	6.422	65.555	20.466	5.853	0.217	0.523	0.034	0.037	0.000	0.000	0.000	0.000	0.000	1383.64	
30	0.7607	1186.6	1207.7	1206.1	0.896	6.412	65.410	20.554	5.910	0.219	0.527	0.034	0.037	0.000	0.000	0.000	0.000	0.000	1384.65	
Avg	0.7580	1184.0	1205.1	1199.7	0.721	6.321	66.063	20.206	5.959	0.203	0.473	0.026	0.028	0.000	0.000	0.000	0.000	0.000	1384.17	

Source Daily Summary

June 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	0.7585	1181.7	1202.6	1202.4	0.922	6.470	65.828	20.038	5.957	0.237	0.496	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1380.85	
2	0.7563	1177.9	1198.8	1197.9	0.923	6.496	66.059	19.947	5.826	0.228	0.475	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1378.40	
3	0.7629	1189.0	1210.1	1209.1	0.923	6.434	65.364	20.207	6.199	0.259	0.553	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1385.39	
4	0.7708	1203.0	1224.3	1223.3	0.922	6.317	64.583	20.524	6.610	0.299	0.664	0.039	0.042	0.000	0.000	0.000	0.000	0.000	1394.47	
5	0.7698	1200.9	1222.2	1221.2	0.924	6.354	64.684	20.436	6.579	0.295	0.651	0.038	0.041	0.000	0.000	0.000	0.000	0.000	1392.91	
6	0.7681	1197.9	1219.1	1218.1	0.926	6.371	64.870	20.365	6.477	0.287	0.631	0.035	0.038	0.000	0.000	0.000	0.000	0.000	1391.00	
7	0.7658	1193.0	1214.1	1213.2	0.923	6.462	65.157	20.106	6.391	0.273	0.616	0.035	0.038	0.000	0.000	0.000	0.000	0.000	1387.37	
8	0.7612	1185.2	1206.2	1205.2	0.926	6.504	65.614	20.021	6.030	0.255	0.582	0.033	0.036	0.000	0.000	0.000	0.000	0.000	1382.46	
9	0.7604	1184.7	1205.7	1204.8	0.932	6.449	65.626	20.199	5.916	0.239	0.564	0.036	0.039	0.000	0.000	0.000	0.000	0.000	1382.66	
10	0.7594	1182.4	1203.3	1202.4	0.929	6.505	65.721	20.135	5.849	0.232	0.553	0.037	0.040	0.000	0.000	0.000	0.000	0.000	1380.80	
11	0.7597	1182.9	1203.9	1203.4	0.926	6.501	65.670	20.167	5.881	0.232	0.550	0.036	0.038	0.000	0.000	0.000	0.000	0.000	1381.20	
12	0.7602	1183.7	1204.7	1204.5	0.930	6.490	65.689	20.050	5.978	0.234	0.553	0.036	0.039	0.000	0.000	0.000	0.000	0.000	1381.71	
13	0.7592	1182.8	1203.7	1203.5	0.930	6.457	65.805	20.013	5.961	0.229	0.534	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1381.48	
14	0.7563	1177.6	1198.4	1198.1	0.926	6.509	66.120	19.868	5.793	0.215	0.504	0.032	0.033	0.000	0.000	0.000	0.000	0.000	1378.03	
15	0.7545	1174.3	1195.1	1194.7	0.927	6.540	66.321	19.764	5.691	0.208	0.486	0.031	0.032	0.000	0.000	0.000	0.000	0.000	1375.86	
16	0.7549	1175.1	1195.9	1195.5	0.926	6.530	66.259	19.816	5.713	0.209	0.486	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1376.42	
17	0.7577	1180.0	1200.9	1200.5	0.927	6.487	65.994	19.904	5.871	0.223	0.524	0.034	0.037	0.000	0.000	0.000	0.000	0.000	1379.65	
18	0.7589	1181.1	1202.0	1201.7	0.928	6.536	65.687	20.181	5.876	0.216	0.508	0.033	0.035	0.000	0.000	0.000	0.000	0.000	1379.78	
19	0.7570	1179.1	1200.0	1199.7	0.912	6.508	65.697	20.469	5.705	0.196	0.455	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1379.16	
20	0.7584	1181.9	1202.8	1202.6	0.914	6.466	65.578	20.509	5.792	0.204	0.476	0.030	0.031	0.000	0.000	0.000	0.000	0.000	1381.15	
21	0.7557	1175.5	1196.3	1196.1	0.927	6.574	65.929	20.219	5.637	0.197	0.457	0.029	0.030	0.000	0.000	0.000	0.000	0.000	1376.22	
22	0.7568	1180.5	1201.4	1201.1	0.924	6.384	65.796	20.486	5.685	0.199	0.466	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1380.99	
23	0.7579	1182.0	1202.9	1202.6	0.926	6.393	65.694	20.481	5.758	0.204	0.480	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1381.72	
24	0.7581	1181.9	1202.8	1202.5	0.922	6.426	65.646	20.497	5.758	0.204	0.482	0.031	0.034	0.000	0.000	0.000	0.000	0.000	1381.41	
25	0.7588	1183.1	1204.0	1203.8	0.912	6.427	65.592	20.513	5.787	0.209	0.491	0.033	0.035	0.000	0.000	0.000	0.000	0.000	1382.21	
26	0.7603	1187.0	1208.0	1207.7	0.899	6.354	65.383	20.700	5.890	0.209	0.499	0.033	0.035	0.000	0.000	0.000	0.000	0.000	1385.38	
27	0.7612	1188.8	1209.8	1209.6	0.900	6.322	65.251	20.842	5.897	0.212	0.507	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1386.72	
28	0.7594	1185.9	1206.9	1206.6	0.898	6.334	65.457	20.761	5.783	0.206	0.494	0.033	0.035	0.000	0.000	0.000	0.000	0.000	1384.96	
29	0.7549	1175.9	1196.7	1196.5	0.898	6.521	65.990	20.326	5.551	0.195	0.459	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1377.40	
30	0.7603	1185.3	1206.3	1206.0	0.903	6.444	65.404	20.587	5.866	0.215	0.511	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1383.50	
Avg	0.7598	1184.0	1205.0	1204.5	0.920	6.452	65.616	20.271	5.924	0.227	0.524	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1382.37	

Source Daily Summary

June 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	0.7598	1184.0	1204.9	1204.4	0.922	6.453	65.680	20.108	6.034	0.242	0.508	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1382.32	
2	0.7580	1180.9	1201.9	1201.3	0.923	6.468	65.880	20.029	5.922	0.236	0.493	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1380.42	
3	0.7627	1188.6	1209.6	1209.1	0.923	6.439	65.395	20.189	6.185	0.258	0.551	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1385.07	
4	0.7699	1201.4	1222.7	1222.1	0.921	6.327	64.670	20.489	6.571	0.294	0.649	0.037	0.041	0.000	0.000	0.000	0.000	0.000	1393.50	
5	0.7696	1200.5	1221.7	1221.2	0.924	6.361	64.711	20.412	6.570	0.295	0.651	0.037	0.040	0.000	0.000	0.000	0.000	0.000	1392.60	
6	0.7678	1197.3	1218.6	1218.0	0.926	6.378	64.899	20.346	6.463	0.286	0.629	0.035	0.038	0.000	0.000	0.000	0.000	0.000	1390.64	
7	0.7656	1192.5	1213.7	1213.1	0.923	6.468	65.183	20.092	6.376	0.272	0.613	0.036	0.038	0.000	0.000	0.000	0.000	0.000	1387.06	
8	0.7611	1184.9	1205.9	1205.4	0.926	6.507	65.627	20.014	6.022	0.255	0.580	0.033	0.036	0.000	0.000	0.000	0.000	0.000	1382.29	
9	0.7603	1184.4	1205.4	1204.8	0.932	6.456	65.646	20.181	5.908	0.239	0.564	0.036	0.039	0.000	0.000	0.000	0.000	0.000	1382.41	
10	0.7592	1181.9	1202.8	1202.2	0.929	6.513	65.748	20.116	5.834	0.231	0.552	0.037	0.040	0.000	0.000	0.000	0.000	0.000	1380.45	
11	0.7590	1181.7	1202.6	1202.1	0.926	6.510	65.748	20.123	5.852	0.229	0.542	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1380.41	
12	0.7602	1183.7	1204.7	1204.5	0.930	6.493	65.686	20.046	5.982	0.235	0.553	0.036	0.038	0.000	0.000	0.000	0.000	0.000	1381.67	
13	0.7583	1180.8	1201.7	1201.2	0.929	6.500	65.938	19.884	5.918	0.228	0.531	0.035	0.038	0.000	0.000	0.000	0.000	0.000	1379.92	
14	0.7583	1180.7	1201.6	1201.2	0.928	6.499	65.938	19.896	5.912	0.227	0.529	0.035	0.037	0.000	0.000	0.000	0.000	0.000	1379.93	
15	0.7559	1176.6	1197.4	1196.9	0.928	6.528	66.184	19.805	5.771	0.216	0.502	0.033	0.034	0.000	0.000	0.000	0.000	0.000	1377.27	
16	0.7558	1176.4	1197.2	1196.7	0.927	6.530	66.192	19.807	5.764	0.215	0.500	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1377.15	
17	0.7581	1180.6	1201.5	1201.1	0.927	6.487	65.959	19.908	5.893	0.225	0.530	0.035	0.037	0.000	0.000	0.000	0.000	0.000	1379.99	
18	0.7602	1183.1	1204.1	1203.2	0.930	6.527	65.597	20.151	5.971	0.225	0.528	0.035	0.037	0.000	0.000	0.000	0.000	0.000	1381.00	
19	0.7569	1178.9	1199.7	1198.9	0.914	6.511	65.769	20.361	5.718	0.200	0.466	0.030	0.031	0.000	0.000	0.000	0.000	0.000	1378.96	
20	0.7582	1181.4	1202.3	1201.7	0.916	6.470	65.613	20.488	5.774	0.203	0.474	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1380.77	
21	0.7568	1177.4	1198.3	1197.7	0.918	6.578	65.773	20.307	5.701	0.199	0.464	0.029	0.030	0.000	0.000	0.000	0.000	0.000	1377.42	
22	0.7569	1179.6	1200.5	1199.7	0.927	6.445	65.804	20.384	5.708	0.202	0.470	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1379.81	
23	0.7572	1180.6	1201.5	1200.5	0.924	6.411	65.770	20.440	5.720	0.201	0.472	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1380.79	
24	0.7581	1182.0	1202.9	1202.1	0.924	6.411	65.657	20.496	5.761	0.204	0.482	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1381.59	
25	0.7584	1182.4	1203.4	1203.1	0.914	6.425	65.641	20.485	5.774	0.208	0.488	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1381.84	
26	0.7603	1187.0	1208.0	1207.9	0.899	6.357	65.385	20.691	5.891	0.210	0.499	0.033	0.035	0.000	0.000	0.000	0.000	0.000	1385.33	
27	0.7611	1188.5	1209.6	1209.4	0.900	6.328	65.268	20.824	5.892	0.212	0.507	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1386.50	
28	0.7595	1186.1	1207.1	1206.9	0.898	6.333	65.450	20.759	5.789	0.207	0.496	0.033	0.035	0.000	0.000	0.000	0.000	0.000	1385.06	
29	0.7562	1178.4	1199.3	1199.0	0.898	6.493	65.845	20.399	5.629	0.200	0.473	0.030	0.032	0.000	0.000	0.000	0.000	0.000	1379.13	
30	0.7600	1184.7	1205.7	1205.4	0.902	6.455	65.446	20.552	5.851	0.214	0.510	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1383.05	
Avg	0.7600	1184.0	1205.2	1204.7	0.920	6.455	65.603	20.259	5.938	0.229	0.527	0.033	0.035	0.000	0.000	0.000	0.000	0.000	1382.48	

Source Daily Summary

June 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	0.7323	1153.0	1173.4	1172.8	0.924	5.766	69.641	18.331	4.757	0.178	0.369	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1371.41	
2	0.7603	1185.5	1206.5	1205.9	0.914	6.414	65.694	20.070	6.062	0.251	0.539	0.027	0.029	0.000	0.000	0.000	0.000	0.000	1383.68	
3	0.7647	1193.2	1214.3	1213.8	0.914	6.362	65.256	20.225	6.312	0.272	0.593	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1388.58	
4	0.7681	1198.9	1220.1	1219.5	0.914	6.330	64.924	20.325	6.488	0.292	0.650	0.037	0.040	0.000	0.000	0.000	0.000	0.000	1392.12	
5	0.7684	1199.2	1220.4	1219.9	0.916	6.340	64.885	20.324	6.514	0.293	0.651	0.037	0.040	0.000	0.000	0.000	0.000	0.000	1392.16	
6	0.7660	1194.8	1215.9	1215.4	0.916	6.380	65.140	20.203	6.392	0.280	0.618	0.034	0.037	0.000	0.000	0.000	0.000	0.000	1389.29	
7	0.7616	1186.1	1207.1	1206.5	0.916	6.496	65.661	19.874	6.132	0.259	0.593	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1383.17	
8	0.7609	1185.9	1206.9	1206.2	0.919	6.439	65.687	20.035	6.000	0.256	0.592	0.034	0.037	0.000	0.000	0.000	0.000	0.000	1383.58	
9	0.7584	1181.9	1202.8	1202.1	0.923	6.449	65.863	20.114	5.793	0.231	0.553	0.036	0.039	0.000	0.000	0.000	0.000	0.000	1381.14	
10	0.7577	1179.9	1200.7	1200.0	0.919	6.508	65.970	19.974	5.779	0.228	0.547	0.036	0.038	0.000	0.000	0.000	0.000	0.000	1379.46	
11	0.7587	1182.0	1202.9	1202.2	0.922	6.466	65.891	19.992	5.864	0.233	0.558	0.036	0.038	0.000	0.000	0.000	0.000	0.000	1381.08	
12	0.7583	1181.4	1202.4	1201.6	0.921	6.472	65.991	19.823	5.952	0.230	0.541	0.035	0.037	0.000	0.000	0.000	0.000	0.000	1380.69	
13	0.7586	1182.5	1203.5	1202.8	0.919	6.431	65.924	19.945	5.938	0.228	0.543	0.035	0.037	0.000	0.000	0.000	0.000	0.000	1381.76	
14	0.7586	1182.0	1202.9	1202.3	0.922	6.466	65.891	19.992	5.864	0.233	0.558	0.036	0.038	0.000	0.000	0.000	0.000	0.000	1381.14	
15	0.7665	1179.2	1200.1	1199.4	0.038	6.019	67.670	20.000	5.994	0.070	0.183	0.011	0.014	0.000	0.000	0.000	0.000	0.000	1370.77	
16	0.7669	1179.1	1200.0	1199.2	0.000	6.000	67.747	20.000	6.000	0.063	0.167	0.010	0.013	0.000	0.000	0.000	0.000	0.000	1370.32	
17	0.7669	1179.1	1200.0	1199.2	0.000	6.000	67.747	20.000	6.000	0.063	0.167	0.010	0.013	0.000	0.000	0.000	0.000	0.000	1370.32	
18	0.7882	1178.0	1198.9	1198.1	0.572	6.190	65.481	19.901	5.657	0.143	0.345	0.021	1.691	0.000	0.000	0.000	0.000	0.000	1359.90	
19	0.7576	1181.3	1202.3	1201.4	0.909	6.425	65.728	20.439	5.760	0.202	0.476	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1381.29	
20	0.7555	1175.7	1196.5	1195.8	0.907	6.583	65.948	20.196	5.653	0.197	0.460	0.027	0.028	0.000	0.000	0.000	0.000	0.000	1376.52	
21	0.7563	1179.7	1200.6	1199.9	0.923	6.387	65.926	20.339	5.683	0.203	0.478	0.030	0.031	0.000	0.000	0.000	0.000	0.000	1380.53	
22	0.7562	1180.0	1200.9	1200.2	0.915	6.364	65.932	20.383	5.675	0.200	0.472	0.029	0.031	0.000	0.000	0.000	0.000	0.000	1381.05	
23	0.7573	1181.4	1202.3	1201.5	0.916	6.388	65.820	20.372	5.747	0.205	0.488	0.031	0.033	0.000	0.000	0.000	0.000	0.000	1381.59	
24	0.7601	1186.1	1207.1	1206.3	0.909	6.370	65.487	20.556	5.876	0.217	0.514	0.034	0.037	0.000	0.000	0.000	0.000	0.000	1384.55	
25	0.7586	1184.5	1205.5	1204.8	0.893	6.353	65.606	20.598	5.780	0.208	0.497	0.032	0.034	0.000	0.000	0.000	0.000	0.000	1384.04	
26	0.7616	1190.1	1211.2	1210.5	0.892	6.289	65.212	20.888	5.921	0.213	0.515	0.034	0.036	0.000	0.000	0.000	0.000	0.000	1387.93	
27	0.7597	1187.4	1208.4	1207.6	0.891	6.284	65.479	20.729	5.830	0.211	0.509	0.033	0.036	0.000	0.000	0.000	0.000	0.000	1386.43	
28	0.7534	1175.0	1195.8	1195.1	0.890	6.451	66.200	20.269	5.489	0.191	0.453	0.028	0.030	0.000	0.000	0.000	0.000	0.000	1377.68	
29	0.7593	1184.4	1205.4	1204.5	0.891	6.425	65.595	20.446	5.836	0.216	0.520	0.034	0.037	0.000	0.000	0.000	0.000	0.000	1383.31	
30	0.7605	1186.5	1207.5	1206.7	0.896	6.410	65.429	20.546	5.904	0.219	0.526	0.034	0.037	0.000	0.000	0.000	0.000	0.000	1384.58	
Avg	0.7606	1183.0	1204.1	1203.4	0.810	6.342	65.981	20.163	5.888	0.209	0.489	0.030	0.088	0.000	0.000	0.000	0.000	0.000	1381.00	

Source Daily Summary

June 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	0.6725	1127.9	1147.8	1147.1	0.289	2.664	76.547	19.751	0.703	0.016	0.027	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1399.65	
2	0.6752	1133.0	1153.1	1152.4	0.248	2.658	76.012	20.294	0.742	0.017	0.028	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1403.32	
3	0.6833	1151.2	1171.6	1170.9	0.019	2.667	73.967	22.690	0.632	0.009	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.32	
4	0.6866	1157.1	1177.6	1176.9	0.000	2.643	73.335	23.316	0.683	0.008	0.012	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1421.22	
5	0.6884	1158.8	1179.3	1178.8	0.000	2.714	73.036	23.455	0.773	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.35	
6	0.6472	1081.2	1100.3	1099.9	0.769	2.388	82.319	13.719	0.751	0.020	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1367.56	
7	0.6392	1067.1	1086.0	1085.5	0.915	2.271	84.129	11.866	0.758	0.022	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1358.36	
8	0.6415	1069.2	1088.1	1087.5	0.945	2.314	83.714	12.178	0.790	0.021	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1358.60	
9	0.6405	1068.0	1086.9	1086.3	0.948	2.288	83.872	12.086	0.753	0.019	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1358.15	
10	0.6393	1067.0	1085.9	1084.9	0.943	2.250	84.097	11.918	0.736	0.020	0.035	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1358.07	
11	0.6369	1064.3	1083.1	1082.1	0.934	2.196	84.573	11.538	0.702	0.020	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1357.23	
12	0.6369	1063.3	1082.1	1081.3	0.946	2.240	84.568	11.494	0.698	0.018	0.034	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1355.93	
13	0.6382	1065.9	1084.7	1083.9	0.944	2.211	84.362	11.666	0.758	0.020	0.037	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1357.81	
14	0.6397	1067.2	1086.1	1085.3	0.918	2.311	84.009	11.960	0.739	0.022	0.041	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1357.91	
15	0.6401	1067.3	1086.2	1085.6	0.938	2.311	83.941	12.004	0.746	0.021	0.038	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1357.66	
16	0.6404	1067.3	1086.2	1085.4	0.936	2.340	83.970	11.877	0.807	0.023	0.045	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1357.32	
17	0.6408	1066.4	1085.3	1084.0	0.976	2.374	83.901	11.876	0.809	0.021	0.041	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1355.74	
18	0.6413	1066.9	1085.8	1084.3	0.980	2.380	83.791	11.991	0.798	0.021	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1355.90	
19	0.6570	1083.4	1102.6	1101.1	0.965	2.873	81.374	13.146	1.478	0.048	0.104	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1360.30	
20	0.6575	1084.5	1103.7	1102.9	0.947	2.877	81.166	13.447	1.417	0.044	0.094	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1361.23	
21	0.6515	1078.8	1097.9	1097.3	0.955	2.659	81.973	13.246	1.069	0.030	0.063	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1360.19	
22	0.6516	1078.8	1097.9	1097.0	0.956	2.660	82.004	13.160	1.117	0.032	0.066	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1360.14	
23	0.6532	1080.3	1099.4	1098.5	0.974	2.701	81.753	13.298	1.165	0.034	0.069	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1360.22	
24	0.6544	1081.8	1100.9	1100.3	0.981	2.703	81.583	13.416	1.201	0.036	0.074	0.003	0.004	0.000	0.000	0.000	0.000	0.000	1360.98	
25	0.6514	1078.8	1097.9	1097.4	0.983	2.604	82.046	13.190	1.075	0.032	0.064	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1360.30	
26	0.6505	1077.2	1096.3	1095.7	0.958	2.653	82.217	12.975	1.092	0.032	0.066	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1359.27	
27	0.6523	1079.9	1099.0	1098.3	0.955	2.657	81.940	13.183	1.148	0.036	0.072	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1360.84	
28	0.6501	1078.4	1097.5	1096.7	0.938	2.577	82.316	12.957	1.102	0.034	0.069	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1361.11	
29	0.6543	1082.1	1101.3	1100.4	0.947	2.729	81.634	13.299	1.265	0.038	0.080	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1361.45	
30	0.6528	1080.7	1099.8	1099.2	0.944	2.676	81.921	13.101	1.233	0.038	0.079	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1361.26	
Avg	0.6521	1086.0	1105.0	1104.2	0.805	2.520	81.536	14.137	0.925	0.025	0.050	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1368.21	

Source Daily Summary

June 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	0.6761	1113.3	1133.0	1132.9	0.582	3.433	77.379	16.618	1.796	0.063	0.116	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1377.92	
2	0.6627	1092.4	1111.8	1111.6	0.463	3.621	79.686	14.512	1.558	0.053	0.097	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1365.70	
3	0.6704	1107.0	1126.6	1126.3	0.384	3.584	77.875	16.542	1.497	0.042	0.070	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1375.95	
4	0.6735	1108.3	1127.9	1127.7	0.504	3.611	77.503	16.659	1.572	0.051	0.090	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1374.42	
5	0.6735	1109.0	1128.6	1128.4	0.548	3.501	77.535	16.736	1.521	0.052	0.095	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1375.26	
6	0.6688	1105.6	1125.2	1124.8	0.546	3.270	78.239	16.516	1.299	0.043	0.077	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1375.89	
7	0.6749	1112.2	1131.9	1131.4	0.539	3.449	77.438	16.731	1.666	0.057	0.107	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1377.83	
8	0.6563	1084.9	1104.1	1103.6	0.584	3.298	80.809	13.910	1.268	0.043	0.079	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1362.84	
9	0.6470	1074.9	1093.9	1093.4	0.486	3.189	82.064	13.339	0.861	0.021	0.036	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1359.94	
10	0.6562	1088.9	1108.2	1107.6	0.420	3.294	80.264	14.959	0.996	0.024	0.040	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1368.06	
11	0.6628	1095.5	1114.9	1114.4	0.560	3.300	79.536	15.116	1.353	0.045	0.082	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1369.48	
12	0.6663	1101.3	1120.8	1120.2	0.612	3.195	79.070	15.475	1.497	0.050	0.091	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1373.11	
13	0.6692	1105.1	1124.7	1124.1	0.624	3.222	78.620	15.768	1.592	0.056	0.105	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1374.81	
14	0.6704	1106.9	1126.5	1125.9	0.586	3.277	78.354	16.046	1.537	0.060	0.121	0.009	0.010	0.000	0.000	0.000	0.000	0.000	1375.85	
15	0.6820	1123.4	1143.3	1142.7	0.572	3.380	76.374	17.587	1.826	0.076	0.160	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1384.50	
16	0.6828	1123.8	1143.7	1143.1	0.501	3.545	76.033	17.878	1.814	0.069	0.139	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1384.07	
17	0.6785	1116.6	1136.3	1135.7	0.557	3.500	76.928	17.007	1.775	0.071	0.141	0.011	0.010	0.000	0.000	0.000	0.000	0.000	1379.49	
18	0.6770	1114.1	1133.8	1133.1	0.569	3.487	77.180	16.809	1.745	0.065	0.127	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1377.98	
19	0.6765	1113.5	1133.2	1132.5	0.511	3.564	77.392	16.421	1.879	0.073	0.141	0.010	0.009	0.000	0.000	0.000	0.000	0.000	1377.74	
20	0.6771	1113.4	1133.1	1132.5	0.553	3.563	77.364	16.354	1.934	0.073	0.142	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1377.01	
21	0.6674	1098.9	1118.3	1117.8	0.632	3.419	78.942	15.266	1.570	0.055	0.104	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1368.88	
22	0.6667	1098.0	1117.4	1116.9	0.666	3.350	79.139	15.109	1.561	0.056	0.107	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1368.56	
23	0.6756	1110.9	1130.5	1130.0	0.648	3.426	77.740	16.076	1.871	0.074	0.146	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1375.49	
24	0.6697	1104.1	1123.7	1123.1	0.736	3.151	78.780	15.484	1.646	0.061	0.125	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1373.11	
25	0.6672	1101.5	1121.0	1120.5	0.746	3.059	79.110	15.405	1.506	0.053	0.106	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1372.46	
26	0.6680	1102.7	1122.2	1121.7	0.717	3.109	78.964	15.480	1.547	0.056	0.112	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1373.09	
27	0.6682	1102.1	1121.6	1121.0	0.694	3.206	78.944	15.366	1.601	0.059	0.116	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1372.03	
28	0.6685	1102.6	1122.2	1121.6	0.693	3.194	78.927	15.373	1.617	0.060	0.120	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1372.50	
29	0.6705	1105.2	1124.8	1124.2	0.704	3.210	78.567	15.671	1.649	0.061	0.123	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1373.64	
30	0.6731	1108.3	1127.9	1127.3	0.649	3.358	78.079	15.939	1.765	0.066	0.129	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1374.70	
Avg	0.6699	1105.0	1124.4	1123.9	0.586	3.359	78.428	15.872	1.577	0.056	0.108	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1373.74	

Source Daily Summary

June 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	0.6830	1149.4	1169.7	1168.1	0.000	2.780	73.921	22.711	0.573	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.40	-28.04
2	0.6833	1150.1	1170.5	1168.8	0.000	2.762	73.892	22.728	0.596	0.008	0.013	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1416.01	-27.61
3	0.6862	1155.9	1176.3	1174.5	0.000	2.682	73.398	23.227	0.669	0.009	0.015	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1420.09	-25.67
4	0.6882	1157.7	1178.2	1176.7	0.000	2.767	72.977	23.538	0.698	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.19	-24.78
5	0.6842	1151.2	1171.6	1169.6	0.000	2.784	73.573	23.155	0.466	0.007	0.012	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1416.38	-27.66
6	0.6837	1150.9	1171.3	1169.8	0.000	2.747	73.793	22.864	0.581	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.63	-27.58
7	0.6824	1149.0	1169.4	1166.8	0.000	2.744	73.958	22.794	0.491	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.61	-28.57
8	0.6829	1149.8	1170.2	1168.3	0.000	2.747	73.877	22.845	0.517	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.00	-28.20
9	0.6828	1149.7	1170.1	1168.4	0.000	2.742	73.891	22.844	0.508	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.99	-28.29
10	0.6863	1154.6	1175.0	1173.5	0.000	2.778	73.120	23.625	0.461	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.34	-26.68
11	0.6877	1156.8	1177.3	1175.9	0.000	2.770	73.014	23.573	0.625	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.65	-25.36
12	0.6914	1162.7	1183.3	1182.0	0.000	2.758	72.667	23.541	0.995	0.014	0.023	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1423.07	-21.86
13	0.6928	1165.7	1186.3	1184.4	0.000	2.711	72.075	24.478	0.713	0.009	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.23	-22.28
14	0.6905	1161.8	1182.4	1180.8	0.000	2.724	72.457	24.177	0.621	0.008	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.95	-23.85
15	0.6865	1154.8	1175.3	1173.8	0.000	2.779	73.156	23.520	0.526	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.47	-26.31
16	0.6868	1155.6	1176.1	1174.0	0.000	2.762	73.174	23.439	0.605	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.07	-25.82
17	0.6867	1155.5	1176.0	1174.2	0.000	2.756	73.126	23.570	0.531	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.09	-26.17
18	0.6862	1154.8	1175.2	1173.4	0.000	2.751	73.151	23.632	0.451	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.74	-26.73
19	0.6858	1153.7	1174.2	1172.6	0.000	2.782	73.200	23.562	0.439	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.83	-27.01
20	0.6860	1153.6	1174.1	1172.5	0.000	2.803	73.168	23.574	0.439	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.53	-26.99
21	0.6856	1153.7	1174.1	1172.2	0.000	2.768	73.244	23.536	0.437	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.93	-27.10
22	0.6859	1154.1	1174.6	1172.9	0.000	2.765	73.201	23.567	0.452	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.25	-26.89
23	0.6863	1154.2	1174.7	1173.1	0.000	2.801	73.103	23.630	0.450	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.89	-26.75
24	0.6863	1154.8	1175.2	1173.7	0.000	2.766	73.105	23.672	0.441	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.57	-26.72
25	0.6865	1155.3	1175.7	1174.1	0.000	2.752	73.070	23.722	0.440	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.03	-26.59
26	0.6860	1154.0	1174.5	1172.8	0.000	2.778	73.173	23.591	0.442	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.04	-26.91
27	0.6864	1155.2	1175.7	1174.1	0.000	2.750	73.099	23.682	0.453	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.00	-26.57
28	0.6858	1154.0	1174.5	1173.0	0.000	2.763	73.215	23.559	0.448	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.21	-26.95
29	0.6858	1154.6	1175.0	1173.3	0.000	2.730	73.221	23.583	0.450	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.87	-26.86
30	0.6858	1153.8	1174.2	1172.7	0.000	2.781	73.205	23.554	0.444	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.85	-26.99
Avg	0.6861	1155.0	1175.0	1173.3	0.000	2.759	73.241	23.450	0.532	0.007	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.53	-26.46

Source Daily Summary

June 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	0.5724	962.2	979.2	978.7	0.104	3.614	95.965	0.294	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.29	
2	0.5723	962.4	979.4	978.9	0.106	3.590	95.986	0.295	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.68	
3	0.5723	962.5	979.5	978.9	0.106	3.582	95.994	0.295	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.83	
4	0.5723	962.5	979.5	978.9	0.105	3.584	95.993	0.294	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.81	
5	0.5723	962.5	979.5	978.9	0.105	3.583	95.995	0.294	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.83	
6	0.6091	1012.1	1030.0	1029.4	0.164	3.939	89.105	6.172	0.560	0.021	0.034	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1319.67	
7	0.6132	1010.0	1027.9	1027.2	0.267	4.292	88.358	6.432	0.587	0.020	0.038	0.003	0.004	0.000	0.000	0.000	0.000	0.000	1312.34	
8	0.5908	988.9	1006.5	1005.8	0.321	3.388	92.767	3.199	0.290	0.015	0.017	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1309.33	
9	0.6008	1003.2	1021.0	1020.2	0.440	3.276	91.032	4.769	0.432	0.019	0.027	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1317.12	
10	0.6185	1030.6	1048.8	1047.9	0.648	2.954	87.968	7.671	0.681	0.027	0.043	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1333.65	
11	0.6175	1030.0	1048.2	1047.4	0.628	2.924	88.137	7.574	0.664	0.026	0.041	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1333.99	
12	0.6196	1033.0	1051.2	1050.5	0.650	2.915	87.727	7.958	0.677	0.026	0.041	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1335.48	
13	0.6218	1036.6	1054.9	1054.1	0.677	2.853	87.371	8.306	0.718	0.026	0.042	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1337.88	
14	0.6215	1036.7	1055.1	1054.4	0.686	2.807	87.441	8.276	0.713	0.027	0.044	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1338.32	
15	0.6194	1034.0	1052.3	1051.6	0.667	2.809	87.819	7.942	0.687	0.026	0.044	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1337.01	
16	0.6104	1019.7	1037.8	1036.9	0.564	2.982	89.365	6.489	0.540	0.022	0.033	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1328.30	
17	0.5971	998.7	1016.4	1015.3	0.389	3.279	91.668	4.240	0.380	0.018	0.022	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1315.34	
18	0.6092	1016.3	1034.3	1033.2	0.541	3.113	89.583	6.151	0.551	0.022	0.034	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1325.15	
19	0.6098	1018.5	1036.5	1035.5	0.542	3.037	89.468	6.339	0.553	0.022	0.034	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1327.33	
20	0.6015	1005.1	1022.9	1022.1	0.438	3.232	90.889	4.962	0.428	0.020	0.028	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1318.86	
21	0.5912	990.0	1007.5	1006.7	0.324	3.352	92.685	3.329	0.274	0.015	0.017	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1310.39	
22	0.5932	993.1	1010.7	1009.8	0.347	3.322	92.336	3.647	0.310	0.016	0.019	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1312.20	
23	0.6054	1009.2	1027.1	1026.1	0.484	3.271	90.203	5.500	0.486	0.020	0.030	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1320.09	
24	0.5931	991.1	1008.6	1007.8	0.343	3.441	92.347	3.510	0.318	0.016	0.021	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1309.61	
25	0.6001	1002.5	1020.2	1019.4	0.426	3.274	91.170	4.645	0.435	0.020	0.027	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1316.98	
26	0.5824	977.0	994.3	993.3	0.222	3.474	94.230	1.886	0.165	0.012	0.010	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1302.85	
27	0.5726	963.0	980.0	979.0	0.111	3.574	95.941	0.345	0.021	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.16	
28	0.5725	962.9	980.0	978.7	0.109	3.568	95.966	0.330	0.019	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.21	
29	0.5742	965.3	982.4	981.1	0.128	3.554	95.670	0.592	0.045	0.009	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1296.49	
30	0.5732	963.7	980.8	979.7	0.116	3.582	95.826	0.438	0.029	0.008	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.39	
Avg	0.5960	997.0	1014.4	1013.6	0.359	3.339	91.833	4.072	0.355	0.017	0.022	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1313.92	

Gas Composition and Properties

Effective June 1, 2022

Attachment B
Page 19 of 24

Source #: 2702230
Name: WATFORD CITY EAST BORDER

Component	Mole %	Liquid Content	Mass %	Property	Total Sample	C6 Plus Fraction
Carbon Dioxide, CO2	1.3125		3.1925	Pressure Base	14.730	
Nitrogen, N2	2.9099		4.5054	Temperature Base	60.00	
Methane, C1	86.8931		77.0459	HCDP @ Sample Pressure		
Ethane, C2	8.2943	2.2177	13.7845	Cricondentherm	-68.279	
Propane, C3	0.5472	0.1507	1.3336	HV, Dry @ Base P, T	1044.41	4755.9000
iso-Butane, iC4	0.0184	0.0060	0.0591	HV, Sat @ Base P, T	1026.23	
n-Butane, nC4	0.0246	0.0078	0.0790	HV, Sat @ Sample P, T	1044.41	
iso-Pentane, iC5				Relative Density	0.6259	0.66406
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	2.3830	100.0000			

Sample

Date: 06/01/2022 Type:

Tech: Sampson, Wayne

Pressure: Temp.:

Gauge: H2O:

Atm. Pressure: H2S:

Remarks:

Analysis

Date: 06/01/2022 Instrument:

Tech: Sampson, Wayne Cylinder:

Remarks:

June-22

ZONE 550

MANDAN BORDER

WBI - Mandan Border

Weighted

Start Date	End Date	NBPL - St Anthony			WBI - Mandan Border			AVG BTU	
		MCF	DK	BTU	MCF	DK	BTU Zone 28		
6/1/2022	6/2/2022	0	0	0	1,361	1,601	1173.40	1173.400	6/1/2022
6/2/2022	6/3/2022	0	0	0	1,432	1,728	1206.50	1206.500	6/2/2022
6/3/2022	6/4/2022	0	0	0	1,128	1,370	1214.30	1214.300	6/3/2022
6/4/2022	6/5/2022	0	0	0	907	1,108	1220.10	1220.100	6/4/2022
6/5/2022	6/6/2022	0	0	0	1,122	1,370	1220.40	1220.400	6/5/2022
6/6/2022	6/7/2022	0	0	0	1,332	1,620	1215.90	1215.900	6/6/2022
6/7/2022	6/8/2022	0	0	0	1,132	1,368	1207.10	1207.100	6/7/2022
6/8/2022	6/9/2022	0	0	0	1,009	1,218	1206.90	1206.900	6/8/2022
6/9/2022	6/10/2022	0	0	0	941	1,132	1202.80	1202.800	6/9/2022
6/10/2022	6/11/2022	0	0	0	1,023	1,228	1200.70	1200.700	6/10/2022
6/11/2022	6/12/2022	0	0	0	807	971	1202.90	1202.900	6/11/2022
6/12/2022	6/13/2022	0	0	0	821	988	1202.40	1202.400	6/12/2022
6/13/2022	6/14/2022	0	0	0	975	1,173	1203.50	1203.500	6/13/2022
6/14/2022	6/15/2022	0	0	0	1,037	1,248	1202.90	1202.900	6/14/2022
6/15/2022	6/16/2022	511	554	1083.7	1,098	1,317	1200.10	1163.133	6/15/2022
6/16/2022	6/17/2022	0	0	0	1,155	1,386	1200.00	1200.000	6/16/2022
6/17/2022	6/18/2022	0	0	0	921	1,105	1200.00	1200.000	6/17/2022
6/18/2022	6/19/2022	0	0	0	720	863	1198.90	1198.900	6/18/2022
6/19/2022	6/20/2022	0	0	0	689	828	1202.30	1202.300	6/19/2022
6/20/2022	6/21/2022	0	0	0	873	1,045	1196.50	1196.500	6/20/2022
6/21/2022	6/22/2022	0	0	0	1,092	1,310	1200.60	1200.600	6/21/2022
6/22/2022	6/23/2022	1,194	1,297	1086.5	862	1,035	1200.90	1134.463	6/22/2022
6/23/2022	6/24/2022	0	0	0	778	936	1202.30	1202.300	6/23/2022
6/24/2022	6/25/2022	0	0	0	921	1,111	1207.10	1207.100	6/24/2022
6/25/2022	6/26/2022	0	0	0	878	1,057	1205.50	1205.500	6/25/2022
6/26/2022	6/27/2022	0	0	0	939	1,137	1211.20	1211.200	6/26/2022
6/27/2022	6/28/2022	0	0	0	811	980	1208.40	1208.400	6/27/2022
6/28/2022	6/29/2022	0	0	0	954	1,141	1195.80	1195.800	6/28/2022
6/29/2022	6/30/2022	0	0	0	799	963	1205.40	1205.400	6/29/2022
6/30/2022	7/1/2022	0	0	0	850	1,027	1207.50	1207.500	6/30/2022
		1,705	1,851	72.3400	29,367	35,364	1204.0767	1200.6299	



Alliance Pipeline

DAILY ANALYSIS --- USA
 ND07MD1 --- Hankinson Sales
 June 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	1,152.141	0.6581	84.7647	9.3895	3.5361	0.3327	0.5768	0.0556	0.0452	0.0249	0.9076	0.3571	0.0097
2	1,152.724	0.6584	84.6949	9.5000	3.5075	0.3325	0.5718	0.0567	0.0467	0.0272	0.8979	0.3547	0.0101
3	1,154.954	0.6598	84.5500	9.5288	3.6048	0.3378	0.5880	0.0569	0.0466	0.0274	0.8951	0.3548	0.0099
4	1,154.140	0.6592	84.6197	9.4671	3.5949	0.3400	0.5854	0.0561	0.0456	0.0256	0.9174	0.3382	0.0098
5	1,152.382	0.6588	84.7068	9.3412	3.5655	0.3417	0.5926	0.0572	0.0457	0.0259	0.9623	0.3515	0.0098
6	1,149.325	0.6571	84.8475	9.3158	3.4578	0.3287	0.5735	0.0546	0.0436	0.0248	0.9995	0.3441	0.0101
7	1,149.386	0.6576	84.7786	9.3219	3.4683	0.3288	0.5798	0.0562	0.0462	0.0250	1.0434	0.3420	0.0099
8	1,149.442	0.6577	84.7363	9.3457	3.4845	0.3268	0.5762	0.0539	0.0451	0.0244	1.0579	0.3395	0.0097
9	1,152.731	0.6602	84.4528	9.4195	3.6129	0.3389	0.6081	0.0546	0.0462	0.0263	1.0763	0.3546	0.0097
10	1,150.944	0.6590	84.6266	9.3472	3.5526	0.3351	0.5897	0.0556	0.0464	0.0255	1.0578	0.3541	0.0094
11	1,152.612	0.6599	84.5392	9.4156	3.5540	0.3442	0.6036	0.0618	0.0514	0.0272	1.0301	0.3634	0.0093
12	1,155.895	0.6615	84.4202	9.4519	3.6616	0.3577	0.6172	0.0632	0.0521	0.0300	0.9653	0.3716	0.0092
13	1,150.700	0.6587	84.6255	9.4288	3.5095	0.3295	0.5723	0.0577	0.0480	0.0256	1.0309	0.3622	0.0097
14	1,150.601	0.6581	84.6933	9.4543	3.4626	0.3307	0.5642	0.0596	0.0493	0.0267	1.0002	0.3493	0.0098
15	1,149.630	0.6572	84.7464	9.5399	3.3457	0.3280	0.5677	0.0585	0.0484	0.0264	0.9852	0.3440	0.0098
16	1,149.468	0.6572	84.8058	9.3757	3.4658	0.3239	0.5461	0.0563	0.0489	0.0271	1.0070	0.3337	0.0097
17	1,151.146	0.6590	84.5668	9.3927	3.6083	0.3248	0.5510	0.0571	0.0482	0.0268	1.0881	0.3263	0.0098
18	1,150.793	0.6583	84.6411	9.4355	3.5256	0.3274	0.5432	0.0621	0.0524	0.0274	1.0610	0.3148	0.0095
19	1,148.856	0.6562	84.8900	9.4435	3.3835	0.3171	0.5263	0.0591	0.0500	0.0297	0.9736	0.3172	0.0099
20	1,153.642	0.6586	84.7584	9.3878	3.6045	0.3355	0.5465	0.0623	0.0530	0.0293	0.8657	0.3472	0.0098
21	1,159.801	0.6621	84.3767	9.5059	3.8353	0.3516	0.5807	0.0661	0.0570	0.0312	0.8671	0.3193	0.0091
22	1,156.919	0.6598	84.7047	9.3608	3.6643	0.3536	0.6036	0.0643	0.0548	0.0325	0.8394	0.3129	0.0092
23	1,156.355	0.6601	84.6278	9.4294	3.6136	0.3588	0.6112	0.0646	0.0547	0.0294	0.8587	0.3421	0.0097
24	1,158.088	0.6613	84.5045	9.4446	3.6914	0.3680	0.6295	0.0645	0.0535	0.0270	0.8743	0.3334	0.0094
25	1,155.852	0.6601	84.6482	9.3639	3.5725	0.3817	0.6364	0.0636	0.0538	0.0294	0.9240	0.3171	0.0093
26	1,153.240	0.6590	84.7464	9.3122	3.4844	0.3735	0.6351	0.0625	0.0519	0.0292	0.9759	0.3193	0.0097
27	1,155.593	0.6605	84.5769	9.3743	3.5640	0.3808	0.6489	0.0653	0.0537	0.0304	0.9842	0.3119	0.0096
28	1,153.985	0.6599	84.6512	9.3312	3.5223	0.3778	0.6389	0.0646	0.0532	0.0293	0.9905	0.3314	0.0096
29	1,155.498	0.6603	84.5719	9.4977	3.4675	0.3827	0.6395	0.0690	0.0576	0.0334	0.9337	0.3376	0.0094
30	1,154.673	0.6598	84.6512	9.3604	3.5821	0.3568	0.6139	0.0669	0.0548	0.0293	0.9419	0.3333	0.0094
Volume	1,153.015	0.6591	84.6508	9.4098	3.5502	0.3445	0.5899	0.0601	0.0501	0.0278	0.9677	0.3394	0.0096
Weight Avg Energy	1,153.022	0.6591	84.6507	9.4099	3.5504	0.3445	0.5900	0.0601	0.0501	0.0278	0.9676	0.3394	0.0096



Alliance Pipeline

DAILY ANALYSIS --- USA
 ND14MD1 --- Milnor Sales
 June 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	1,152.083	0.6582	84.7609	9.3937	3.5348	0.3319	0.5755	0.0554	0.0452	0.0253	0.9094	0.3583	0.0097
2	1,152.436	0.6581	84.7415	9.4726	3.4979	0.3319	0.5719	0.0566	0.0466	0.0271	0.8902	0.3535	0.0100
3	1,155.080	0.6599	84.5327	9.5408	3.6083	0.3379	0.5875	0.0568	0.0466	0.0276	0.8981	0.3538	0.0099
4	1,153.960	0.6592	84.6170	9.4712	3.5889	0.3384	0.5845	0.0562	0.0455	0.0258	0.9221	0.3406	0.0098
5	1,151.859	0.6584	84.7802	9.2893	3.5431	0.3449	0.5950	0.0574	0.0460	0.0263	0.9603	0.3478	0.0097
6	1,149.280	0.6572	84.8251	9.3381	3.4539	0.3268	0.5726	0.0544	0.0435	0.0247	1.0057	0.3451	0.0101
7	1,149.020	0.6575	84.7887	9.3213	3.4579	0.3264	0.5782	0.0554	0.0457	0.0247	1.0479	0.3437	0.0099
8	1,148.260	0.6571	84.6024	9.3561	3.4796	0.3267	0.5792	0.0542	0.0453	0.0251	1.0590	0.3375	0.0097
9	1,152.434	0.6602	84.4597	9.4204	3.6058	0.3371	0.6050	0.0543	0.0460	0.0260	1.0775	0.3585	0.0096
10	1,150.286	0.6588	84.6150	9.3752	3.5260	0.3292	0.5835	0.0549	0.0462	0.0268	1.0768	0.3566	0.0095
11	1,153.500	0.6604	84.4920	9.4308	3.5751	0.3488	0.6119	0.0631	0.0526	0.0281	1.0245	0.3639	0.0093
12	1,155.231	0.6611	84.4305	9.4742	3.6450	0.3517	0.6063	0.0612	0.0503	0.0292	0.9731	0.3692	0.0092
13	1,150.525	0.6585	84.6401	9.4285	3.5014	0.3280	0.5700	0.0577	0.0481	0.0259	1.0306	0.3599	0.0097
14	1,150.429	0.6578	84.7214	9.4721	3.4295	0.3302	0.5645	0.0601	0.0498	0.0273	0.9892	0.3460	0.0098
15	1,149.391	0.6570	84.7531	9.5610	3.3279	0.3258	0.5640	0.0578	0.0480	0.0265	0.9849	0.3411	0.0098
16	1,149.346	0.6571	84.8219	9.3628	3.4732	0.3226	0.5400	0.0563	0.0488	0.0271	1.0041	0.3335	0.0097
17	1,150.004	0.6584	84.6070	9.4453	3.5059	0.3237	0.5577	0.0567	0.0476	0.0262	1.0864	0.3336	0.0100
18	1,150.608	0.6581	84.6507	9.4342	3.5301	0.3244	0.5373	0.0612	0.0515	0.0273	1.0592	0.3145	0.0097
19	1,149.040	0.6562	84.8900	9.4302	3.4042	0.3166	0.5279	0.0581	0.0492	0.0284	0.9648	0.3208	0.0099
20	1,155.158	0.6595	84.6564	9.4032	3.6765	0.3395	0.5540	0.0631	0.0536	0.0296	0.8687	0.3457	0.0097
21	1,159.282	0.6617	84.4339	9.4759	3.8064	0.3525	0.5837	0.0665	0.0573	0.0315	0.8628	0.3203	0.0091
22	1,157.219	0.6600	84.6900	9.3676	3.6703	0.3551	0.6059	0.0646	0.0550	0.0332	0.8362	0.3129	0.0093
23	1,156.553	0.6603	84.6216	9.4179	3.6236	0.3602	0.6144	0.0653	0.0553	0.0295	0.8612	0.3414	0.0095
24	1,158.223	0.6614	84.4803	9.4534	3.7012	0.3683	0.6311	0.0634	0.0526	0.0269	0.8827	0.3308	0.0093
25	1,156.704	0.6608	84.5405	9.4268	3.6082	0.3801	0.6407	0.0617	0.0523	0.0286	0.9362	0.3157	0.0090
26	1,153.916	0.6594	84.7124	9.3259	3.4925	0.3782	0.6430	0.0643	0.0529	0.0300	0.9744	0.3167	0.0097
27	1,155.622	0.6605	84.5843	9.3638	3.5662	0.3812	0.6494	0.0655	0.0542	0.0310	0.9821	0.3127	0.0096
28	1,153.900	0.6598	84.6440	9.3512	3.5117	0.3774	0.6372	0.0646	0.0530	0.0288	0.9900	0.3324	0.0096
29	1,155.748	0.6605	84.5628	9.4928	3.4809	0.3835	0.6420	0.0691	0.0576	0.0330	0.9320	0.3370	0.0094
30	1,154.290	0.6595	84.6753	9.3634	3.5694	0.3521	0.6062	0.0669	0.0551	0.0302	0.9429	0.3293	0.0093
Volume	1,152.755	0.6589	84.6578	9.4127	3.5409	0.3424	0.5885	0.0597	0.0497	0.0278	0.9646	0.3404	0.0097
Weight Avg Energy	1,152.773	0.6589	84.6574	9.4129	3.5413	0.3425	0.5886	0.0597	0.0497	0.0278	0.9643	0.3404	0.0097

June-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		
6/1/2022	6/2/2022	62	74	1198.9	164	171	1044.4	1086.785	6/1/2022
6/2/2022	6/3/2022	71	85	1198.9	170	178	1044.4	1089.917	6/2/2022
6/3/2022	6/4/2022	6	8	1198.9	122	127	1044.4	1051.642	6/3/2022
6/4/2022	6/5/2022	0	0	1198.9	119	125	1044.4	1044.400	6/4/2022
6/5/2022	6/6/2022	2	3	1198.9	134	140	1044.4	1046.672	6/5/2022
6/6/2022	6/7/2022	15	17	1198.9	198	207	1044.4	1055.280	6/6/2022
6/7/2022	6/8/2022	98	117	1198.9	191	199	1044.4	1096.791	6/7/2022
6/8/2022	6/9/2022	28	34	1198.9	137	144	1044.4	1070.618	6/8/2022
6/9/2022	6/10/2022	19	23	1198.9	138	144	1044.4	1063.097	6/9/2022
6/10/2022	6/11/2022	7	9	1198.9	114	119	1044.4	1053.338	6/10/2022
6/11/2022	6/12/2022	2	2	1198.9	101	105	1044.4	1047.400	6/11/2022
6/12/2022	6/13/2022	6	7	1198.9	120	126	1044.4	1051.757	6/12/2022
6/13/2022	6/14/2022	16	19	1198.9	120	125	1044.4	1062.576	6/13/2022
6/14/2022	6/15/2022	25	29	1198.9	146	152	1044.4	1066.988	6/14/2022
6/15/2022	6/16/2022	81	98	1198.9	176	184	1044.4	1093.095	6/15/2022
6/16/2022	6/17/2022	18	21	1198.9	122	128	1044.4	1064.264	6/16/2022
6/17/2022	6/18/2022	5	6	1198.9	114	119	1044.4	1050.892	6/17/2022
6/18/2022	6/19/2022	0	0	1198.9	98	103	1044.4	1044.400	6/18/2022
6/19/2022	6/20/2022	3	3	1198.9	119	125	1044.4	1048.199	6/19/2022
6/20/2022	6/21/2022	21	26	1198.9	117	122	1044.4	1067.911	6/20/2022
6/21/2022	6/22/2022	37	45	1198.9	120	125	1044.4	1080.811	6/21/2022
6/22/2022	6/23/2022	17	20	1198.9	106	110	1044.4	1065.754	6/22/2022
6/23/2022	6/24/2022	2	2	1198.9	100	104	1044.4	1047.429	6/23/2022
6/24/2022	6/25/2022	30	36	1198.9	151	158	1044.4	1070.008	6/24/2022
6/25/2022	6/26/2022	40	48	1198.9	157	164	1044.4	1075.771	6/25/2022
6/26/2022	6/27/2022	9	11	1198.9	112	117	1044.4	1055.892	6/26/2022
6/27/2022	6/28/2022	14	17	1198.9	107	111	1044.4	1062.276	6/27/2022
6/28/2022	6/29/2022	13	15	1198.9	107	112	1044.4	1061.138	6/28/2022
6/29/2022	6/30/2022	13	16	1198.9	129	134	1044.4	1058.544	6/29/2022
6/30/2022	7/1/2022	20	23	1198.9	127	132	1044.4	1065.420	6/30/2022
		680	814	1198.9000	3,936	4,110	1044.4000	1063.3022	

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	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - 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
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/1/2022	6/2/2022	1073	0.6339	-57.4	1347.687953	0.9604	2.439	84.9357	10.7326	0.7428	0.0184	0.0342	0.0012	0.0009	N/A	0	0.1101	0.0249	0.4587	0.0898	0.0515	0.0008
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/2/2022	6/3/2022	1078	0.6371	-55.1	1350.563344	0.968	2.4618	84.4229	11.2209	0.7732	0.0202	0.0369	0.0016	0.0015	N/A	0	0.068	0.025	0.4408	0.0963	0.0554	0.0008
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/3/2022	6/4/2022	1077	0.6362	-55.6	1350.264566	0.9736	2.3796	84.5832	11.1287	0.7702	0.0194	0.0353	0.0012	0.0009	N/A	0	0.0835	0.0246	0.4407	0.0972	0.0557	0.0008
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/4/2022	6/5/2022	1083	0.6405	-51.8	1353.221501	0.9867	2.3952	83.7757	11.7911	0.8354	0.0248	0.0457	0.0025	0.002	N/A	0.0002	0.1039	0.0247	0.4294	0.1078	0.0635	0.0008
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/5/2022	6/6/2022	1083	0.6402	-52.1	1353.538526	0.9922	2.3848	83.8785	11.7232	0.8435	0.0232	0.0449	0.0021	0.002	N/A	0	0.0818	0.024	0.4333	0.1102	0.069	0.0008
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/6/2022	6/7/2022	1081	0.6381	-54.3	1353.260239	0.9806	2.3374	84.3515	11.4503	0.7811	0.0205	0.0378	0.0015	0.0013	N/A	0	0.0141	0.0241	0.4365	0.1071	0.0654	0.0008
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/7/2022	6/8/2022	1084	0.6395	-52.9	1355.529607	0.9703	2.317	84.1054	11.6845	0.8216	0.0215	0.0394	0.0017	0.0013	N/A	0	0.0132	0.0243	0.4361	0.1179	0.0757	0.0008
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/8/2022	6/9/2022	1086	0.6412	-52.1	1356.229131	0.9774	2.3569	83.7608	11.9865	0.8199	0.0205	0.0375	0.0016	0.0015	N/A	0	0.0133	0.0241	0.4335	0.1143	0.077	0.0008
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/10/2022	6/11/2022	1083	0.6387	-53.7	1355.127	0.97	2.2886	84.2293	11.6346	0.7807	0.0201	0.0367	0.0017	0.0013	N/A	0	0.0132	0.024	0.4323	0.1224	0.0762	0.0008
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/11/2022	6/12/2022	1080	0.6359	-55.8	1354.345107	0.9604	2.2405	84.7472	11.2322	0.7266	0.0185	0.0351	0.0016	0.0015	N/A	0	0.0128	0.0239	0.4385	0.1144	0.07	0.0008
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/12/2022	6/13/2022	1080	0.6372	-54.9	1352.96285	0.9772	2.2864	84.5354	11.3414	0.7645	0.0193	0.0353	0.0015	0.0015	N/A	0	0.0133	0.0243	0.4382	0.1132	0.0708	0.0008
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/13/2022	6/14/2022	1082	0.6374	-54.5	1355.255665	0.9632	2.2423	84.5077	11.4101	0.7825	0.0191	0.0359	0.0016	0.0014	N/A	0	0.0128	0.0236	0.4201	0.1099	0.0679	0.0008
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/15/2022	6/16/2022	1083	0.6395	-53	1354.279119	0.979	2.3596	84.0479	11.6729	0.811	0.0206	0.0393	0.002	0.0018	N/A	0	0.0415	0.0244	0.4185	0.1097	0.067	0.0008
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/16/2022	6/17/2022	1084	0.6405	-52	1354.471013	0.9855	2.3961	83.927	11.7018	0.8588	0.0226	0.0445	0.0025	0.0024	N/A	0	0.0323	0.0247	0.4345	0.0865	0.0645	0.0008
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/17/2022	6/18/2022	1083	0.6405	-52.4	1353.221501	1.0005	2.4169	83.9477	11.656	0.8608	0.0211	0.0406	0.002	0.002	N/A	0	0.0275	0.0251	0.4313	0.091	0.0673	0.0008
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/18/2022	6/19/2022	1084	0.6411	-52.1	1353.837046	1.0106	2.4237	83.783	11.8058	0.8491	0.0206	0.0389	0.0019	0.0018	N/A	0	0.0392	0.0256	0.4324	0.0956	0.0722	0.001
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/19/2022	6/20/2022	1086	0.6421	-50.4	1355.278317	1.0046	2.3841	83.6746	11.8809	0.9144	0.0255	0.0498	0.0025	0.0024	N/A	0	0.0366	0.025	0.4496	0.0973	0.0741	0.0012
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/20/2022	6/21/2022	1086	0.6421	-52.4	1354.645552	1.0099	2.3926	83.4696	12.2543	0.7616	0.0174	0.0313	0.0008	0.0005	N/A	0	0.0374	0.0247	0.421	0.0922	0.0693	0.0008
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/21/2022	6/22/2022	1086	0.6427	-52	1354.645552	1.0044	2.4178	83.3361	12.3474	0.7702	0.0177	0.0318	0.0007	0.0003	N/A	0	0.0487	0.025	0.4117	0.0884	0.0688	0.0008
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/22/2022	6/23/2022	1086	0.6421	-52.3	1355.278317	1.0016	2.3812	83.4491	12.275	0.7689	0.0167	0.03	0.0008	0.0006	N/A	0	0.0515	0.0247	0.4079	0.0879	0.0665	0.0008
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/23/2022	6/24/2022	1087	0.6426	-51.8	1355.99842	1.0048	2.377	83.357	12.3582	0.7773	0.0178	0.0321	0.0008	0.0008	N/A	0	0.0501	0.0241	0.4176	0.0915	0.0666	0.0011
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/24/2022	6/25/2022	1087	0.6431	-51.4	1355.471184	1.0056	2.3807	83.288	12.4187	0.7818	0.0185	0.0339	0.0013	0.0009	N/A	0	0.0462	0.0246	0.4016	0.0893	0.0656	0.001
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/25/2022	6/26/2022	1087	0.6431	-51.1	1355.471184	1.0043	2.4133	83.2344	12.3734	0.8139	0.0193	0.0353	0.0012	0.0011	N/A	0	0.0794	0.0244	0.4061	0.0859	0.0645	0.0009
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/26/2022	6/27/2022	1086	0.6426	-51.4	1354.750951	1.0116	2.451	83.2572	12.2639	0.8101	0.02	0.0364	0.0016	0.0013	N/A	0.0001	0.1221	0.0248	0.4082	0.0854	0.0622	0.0008
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/27/2022	6/28/2022	1087	0.643	-50.4	1355.576582	1.0023	2.42	83.2173	12.2825	0.8545	0.0231	0.0415	0.0023	0.002	N/A	0.0001	0.1299	0.0247	0.4225	0.0867	0.0598	0.001
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/27/2022	6/29/2022	1087	0.643	-50.4	1355.576582	1.0023	2.42	83.2173	12.2825	0.8545	0.0231	0.0415	0.0023	0.002	N/A	0.0001	0.1299	0.0247	0.4225	0.0867	0.0598	0.001
NBPL	5/31/2022 0:00	7/1/2022 0:00	GLNU11 - GLEN ULLIN	6/30/2022	7/1/2022	1086	0.642	-50.8	1355.383865	0.9734	2.4132	83.351	12.1312	0.8734	0.0223	0.0418	0.0018	0.0018	N/A	0	0.1662	0.0241	0.425	0.0838	0.0628	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	JUN22	MAY22	APR22	MAR22	FEB22	JAN22	DEC21	NOV21	OCT21	SEP21	AUG21	JUL21	ZONE
MT/ND	211	Sidney Border - MonDak Tfr - Sidney Plt	1200	1198	1185	1191	1196	1196	1171	1215	1208	1201	1213	1216	1210	211
ND	24	Williston Border - Charbonneau Station	1172	1187	1185	1188	1189	1180	1155	1152	1161	1159	1167	1173	1172	24
ND	25	Watford City West Border	1202	1199	1195	1200	1197	1200	1198	1202	1208	1206	1205	1211	1203	25
ND	28	Bismarck Station - Glen Ullin Station	1161	1204	1196	1087	1131	1131	1126	1142	1135	1185	1196	1202	1200	28
ND	31	Dickinson Brd - Belfield Trf - G Ullin Stn	1131	1105	1100	1108	1130	1132	1132	1143	1141	1141	1130	1191	1123	31
ND/MT	32	Cabin Creek Station - Belfied Transfer	1130	1124	1138	1126	1095	1122	1127	1131	1129	1132	1136	1162	1135	32
ND	33	Little Knife Plant	1178	1175	1175	1176	1178	1176	1173	1176	1182	1177	1179	1182	1184	33
ND	34	Badlands Plant/Bowman Border	1039	1014	1019	1021	1070	1087	1097	1093	981	1022	1059	1025	980	34
ND	43	Watford City East Border	1065	1044	1036	1042	1042	1108	1094	1042	1047	1060	1062	1088	1109	43
ND/MT	241	Fairview Border	1193	1186	1178	1191	1191	1197	1200	1208	1197	1162	1193	1201	1213	241
ND	267	North Tioga Transfer - Nesson Plant	1153	1173	1172	1176	1172	1157	1122	1122	1137	1135	1145	1159	1167	267
ND	261	Tioga Comp Station - Robinson Lake Plan	1186	1200	1200	1191	1191	1155	1175	1161	1176	1197	1192	1194	1196	261
ND	262	Minot Bdr - Palermo Bdr - Bismarck Stn	1199	1205	1202	1202	1194	1187	1180	1199	1198	1211	1203	1202	1200	262
ND	263	Lignite Plant	1132	1131	1131	1131	1131	1131	1131	1131	1131	1131	1134	1129	1143	263
ND	264	Epping Border	1167	1182	1188	1188	1185	1173	1145	1147	1152	1145	1164	1167	1172	264
ND	265	Tioga Comp Station - County Line Plant	1163	1176	1163	1170	1167	1150	1157	1152	1159	1166	1165	1163	1166	265
ND	266	County Line Plant	1175	1179	1167	1173	1172	1166	1175	1178	1183	1174	1185	1175	1174	266
ND	271	Bismarck Station - Cleveland Station	1190	1205	1205	1164	1185	1169	1162	1188	1198	1208	1197	1202	1200	271
ND	272	Cleveland Station - Mapleton	1191	1205	1204	1175	1184	1167	1161	1189	1198	1211	1196	1202	1199	272
ND	273	Cleveland Station - Grafton Border	1189	1205	1202	1168	1176	1166	1161	1188	1198	1210	1195	1202	1200	273
ND	550	Mandan Border / NBPL-St Anthony	1153	1201	1189	1087	1103	1119	1116	1136	1135	1173	1196	1196	1190	550
ND	610	MDU-Watford City BTU	1105	1063	1086	1093	1087	1138	1129	1095	1110	1130	1098	1106	1121	610
ND	802	NBPL - Linton	1084	1084	1074	1067	1073	1088	1091	1085	1086	1089	1094	1090	1089	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	1153	1151	1155	1157	1152	1149	1155	1158	1158	1158	1158	1153	600
ND	601	Alliance Pipeline - Milnor	1154	1153	1151	1154	1157	1152	1149	1154	1157	1158	1158	1153	1156	602

THERMAL ZONE VARIANCE DOCUMENTATION		
June 2022		
<i>ZONE</i>	<i>BTU VARIANCE</i>	<i>REASON</i>
610	23	Blend