

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

November 23, 2020

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

Re: Case No. PU-20-002 (Therm Billing)  
Monthly Report – September 2020

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 October 2020.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our suppliers for the month of September 2020.
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 September 2020.

Montana-Dakota respectfully request 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**  
**Oct-20**

Town	Heat Zone	
MDU-303-ALEXANDER	025	1.1249
MDU-308-ARNEGARD	025	1.1249
MDU-314-APPLE VALLEY	271	1.1530
MDU-318-BEACH	032	1.0350
MDU-319-BELFIELD	032	1.0426
MDU-323-BERTHOLD	262	1.1287
MDU-324-BEULAH	032	1.0426
MDU-327-BISMARCK	028	1.1530
MDU-330-BOWMAN	034	0.9027
MDU-337-BURLINGTON	262	1.1530
MDU-343-CARRINGTON	273	1.1521
MDU-344-CLEVELAND	272	1.1449
MDU-364-CAVALIER	273	1.1764
MDU-365-DAWSON	271	1.1449
MDU-368-DES LACS	262	1.1368
MDU-369-DICKINSON	031	1.0352
MDU-374-FT TOTTEN	273	1.1602
MDU-375-DEVILS LAKE	273	1.1602
MDU-379-BARLOW	273	1.1521
MDU-384-EPPING	264	1.0833
MDU-387-ELDRIDGE	272	1.1530
MDU-407-GLADSTONE	031	1.0352
MDU-411-GLEN ULLIN	031	1.0427
MDU-413-GOLVA	032	1.0198
MDU-416-GARRISON	262	1.1368
MDU-417-GRAFTON	273	1.1845
MDU-403-GWINNER	601	1.1439
MDU-429-HEBRON	031	1.0427
MDU-432-HETTINGER	903	2.4049
MDU-449-JAMESTOWN	272	1.1611
MDU-459-KILLDEER	033	1.1136
MDU-463-LANGDON	273	1.1521
MDU-469-LEFOR	031	1.0352
MDU-474-LIGNITE	263	1.0911
MDU-475-LINTON	802	1.0633
MDU-478-LINCOLN	028	1.1530
MDU-488-MCKENZIE	271	1.1530
MDU-494-MEDINA	271	1.1449
MDU-498-MANDAN	028	1.1530
MDU-500-MARMARTH	034	0.9093
MDU-505-MINOT	262	1.1530
MDU-510-MOTT	031	1.0352
MDU-512-MAX	262	1.1287
MDU-513-MILNOR	601	1.1439
MDU-522-NEW ENGLAND	031	1.0277
MDU-524-NEW SALEM	028	1.1287
MDU-532-NEW ROCKFORD	273	1.1521
MDU-539-PARK RIVER	273	1.1764
MDU-540-PALERMO	262	1.1287

MDU-558-RAY	264	1.0833
MDU-561-REGENT	031	1.0352
MDU-563-RHAME	034	0.8960
MDU-564-RICHARDTON	031	1.0277
MDU-568-ROSS	261	1.0990
MDU-572-RUTHVILLE	262	1.1530
MDU-574-SANBORN	272	1.1611
MDU-583-SENTINEL BUTTE	032	1.0350
MDU-588-SOUTH HEART	031	1.0277
MDU-717-SPIRITWOOD	272	1.1611
MDU-590-SPRINGBROOK	264	1.0833
MDU-591-STANLEY	261	1.1070
MDU-593-STEELE	271	1.1449
MDU-594-STERLING	028	1.1530
MDU-598-SHEYENNE	273	1.1602
MDU-605-SURREY	262	1.1530
MDU-610-TAPPEN	271	1.1449
MDU-611-TAYLOR	031	1.0277
MDU-616-TIOGA	260	1.0587
MDU-619-TURTLE LAKE	262	1.1368
MDU-620-TRENTON	024	1.1006
MDU-624-UNDERWOOD	262	1.1368
MDU-625-VALLEY CITY	272	1.1692
MDU-629-WALHALLA	273	1.1764
MDU-632-WATFORD CITY	610	1.0985
MDU-636-WHEELOCK	264	1.0756
MDU-637-WHITE EARTH	261	1.1070
MDU-642-WILLISTON	024	1.1006
MDU-646-WASHBURN	262	1.1449
MDU-647-WILTON	262	1.1287
MDU-664-RIVERDALE	262	1.1330
MDU-691-FAIRVIEW	241	1.1149
MDU-712-MINOT AFB	262	1.1530
MDU-718-FAIRMOUNT	600	1.1405
MDU-732-NEKOMA	273	1.1521
MDU-732-MSR SITE	273	1.1521

# Source Daily Summary

September 2020

Number: 251

Pressure Base: 14.730

Contract Day: 1

Name: SDNY BDR-MNDK JNCTN-SDNY PLT

Temperature Base:

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	0.7362	1188.5	1209.6	1205.5	1.258	3.469	67.524	24.243	3.120	0.120	0.235	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1406.32	
2	0.7393	1191.4	1212.5	1208.3	1.295	3.531	66.959	24.669	3.153	0.124	0.239	0.016	0.014	0.000	0.000	0.000	0.000	0.000	1406.75	
3	0.7354	1188.3	1209.3	1205.2	1.241	3.437	67.586	24.325	3.026	0.120	0.234	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1406.75	
4	0.7345	1186.6	1207.6	1203.5	1.244	3.445	67.749	24.169	3.010	0.119	0.233	0.016	0.014	0.000	0.000	0.000	0.000	0.000	1405.71	
5	0.7299	1181.4	1202.4	1198.2	1.206	3.384	68.686	23.314	3.022	0.119	0.235	0.017	0.016	0.000	0.000	0.000	0.000	0.000	1403.97	
6	0.7292	1179.8	1200.7	1196.8	1.220	3.394	68.746	23.311	2.953	0.116	0.228	0.016	0.014	0.000	0.000	0.000	0.000	0.000	1402.76	
7	0.7268	1176.0	1196.9	1193.1	1.225	3.400	69.187	22.889	2.925	0.116	0.228	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1400.48	
8	0.7384	1189.0	1210.0	1206.2	1.319	3.556	67.172	24.394	3.163	0.126	0.241	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1404.77	
9	0.7441	1198.0	1219.2	1215.3	1.319	3.542	66.634	24.350	3.735	0.132	0.255	0.017	0.014	0.000	0.000	0.000	0.000	0.000	1409.91	
10	0.7442	1196.0	1217.2	1213.1	1.361	3.613	66.381	24.754	3.470	0.134	0.257	0.017	0.014	0.000	0.000	0.000	0.000	0.000	1407.47	
11	0.7410	1192.2	1213.3	1209.4	1.317	3.606	66.953	24.209	3.553	0.115	0.221	0.015	0.012	0.000	0.000	0.000	0.000	0.000	1406.11	
12	0.7289	1178.4	1199.3	1195.3	1.196	3.491	69.199	22.314	3.459	0.104	0.207	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1401.27	
13	0.7257	1175.3	1196.1	1192.2	1.159	3.437	69.647	22.130	3.299	0.101	0.200	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1400.66	
14	0.7207	1170.7	1191.4	1187.5	1.119	3.311	70.458	21.664	3.116	0.099	0.201	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1399.98	
15	0.7231	1172.5	1193.3	1189.4	1.162	3.354	70.366	21.334	3.435	0.106	0.213	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1399.88	
16	0.7333	1185.0	1205.9	1202.0	1.248	3.428	68.381	23.169	3.387	0.120	0.235	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1404.85	
17	0.7369	1190.8	1211.9	1207.9	1.246	3.415	67.694	23.816	3.444	0.119	0.234	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1408.29	
18	0.7325	1186.3	1207.3	1203.3	1.207	3.334	68.375	23.441	3.270	0.114	0.226	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1407.18	
19	0.7315	1184.9	1205.9	1201.8	1.204	3.330	68.544	23.315	3.236	0.114	0.226	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1406.47	
20	0.7227	1168.7	1189.4	1185.4	1.194	3.505	70.205	21.608	3.092	0.122	0.240	0.017	0.016	0.000	0.000	0.000	0.000	0.000	1395.65	
21	0.7193	1165.0	1185.6	1181.7	1.167	3.455	70.729	21.300	2.960	0.119	0.237	0.017	0.016	0.000	0.000	0.000	0.000	0.000	1394.53	
22	0.7260	1173.6	1194.3	1190.2	1.199	3.511	69.538	22.283	3.054	0.128	0.251	0.018	0.017	0.000	0.000	0.000	0.000	0.000	1398.26	
23	0.7329	1183.8	1204.8	1200.7	1.215	3.502	68.689	22.634	3.515	0.135	0.271	0.020	0.019	0.000	0.000	0.000	0.000	0.000	1403.78	
24	0.7305	1180.1	1201.0	1196.8	1.224	3.493	68.988	22.454	3.464	0.114	0.230	0.017	0.016	0.000	0.000	0.000	0.000	0.000	1401.75	
25	0.7286	1178.1	1198.9	1194.8	1.209	3.461	69.301	22.257	3.389	0.115	0.232	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1401.15	
26	0.7270	1175.3	1196.2	1192.2	1.218	3.469	69.621	21.924	3.383	0.117	0.234	0.017	0.016	0.000	0.000	0.000	0.000	0.000	1399.39	
27	0.7298	1180.3	1201.2	1197.3	1.199	3.455	69.132	22.348	3.488	0.116	0.230	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1402.66	
28	0.7229	1174.6	1195.4	1191.4	1.120	3.272	70.261	21.687	3.316	0.103	0.210	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1402.55	
29	0.7199	1170.5	1191.3	1187.2	1.079	3.304	70.894	21.004	3.364	0.104	0.215	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1400.50	
30	0.7125	1161.7	1182.3	1178.4	1.055	3.180	71.944	20.545	2.936	0.099	0.207	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1397.23	
Avg	0.7301	1181.0	1201.7	1197.7	1.214	3.436	68.851	22.862	3.258	0.116	0.230	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1402.90	

# Source Daily Summary

September 2020

Number: 571

Pressure Base: 14.730

Contract Day: 1

Name: WILLISTON BDR-CHARBN STN

Temperature Base:

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	0.6872	1132.7	1152.7	1149.2	0.890	2.818	75.972	17.985	2.077	0.074	0.155	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1387.33	
2	0.6905	1136.7	1156.9	1153.1	0.899	2.868	75.547	18.179	2.205	0.082	0.182	0.016	0.021	0.000	0.000	0.000	0.000	0.000	1388.82	
3	0.6899	1136.4	1156.6	1152.9	0.899	2.836	75.562	18.272	2.145	0.080	0.174	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1389.05	
4	0.6902	1137.3	1157.5	1153.8	0.905	2.798	75.455	18.472	2.083	0.079	0.173	0.015	0.019	0.000	0.000	0.000	0.000	0.000	1389.87	
5	0.6907	1138.4	1158.6	1154.9	0.901	2.783	75.395	18.500	2.139	0.079	0.171	0.014	0.018	0.000	0.000	0.000	0.000	0.000	1390.74	
6	0.6895	1136.6	1156.7	1153.1	0.902	2.787	75.600	18.335	2.086	0.080	0.175	0.015	0.019	0.000	0.000	0.000	0.000	0.000	1389.61	
7	0.6890	1135.7	1155.8	1152.3	0.900	2.795	75.644	18.321	2.062	0.078	0.169	0.014	0.017	0.000	0.000	0.000	0.000	0.000	1389.08	
8	0.6881	1134.8	1154.9	1151.3	0.890	2.781	75.767	18.283	1.998	0.078	0.170	0.014	0.018	0.000	0.000	0.000	0.000	0.000	1388.87	
9	0.6891	1136.4	1156.6	1152.9	0.888	2.779	75.595	18.441	2.012	0.078	0.172	0.015	0.019	0.000	0.000	0.000	0.000	0.000	1389.81	
10	0.6898	1138.2	1158.4	1154.6	0.903	2.709	75.490	18.607	1.998	0.080	0.177	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1391.32	
11	0.6893	1136.9	1157.1	1153.4	0.902	2.741	75.606	18.439	2.023	0.079	0.175	0.015	0.019	0.000	0.000	0.000	0.000	0.000	1390.26	
12	0.6887	1135.1	1155.2	1151.4	0.898	2.802	75.692	18.323	2.001	0.077	0.172	0.015	0.020	0.000	0.000	0.000	0.000	0.000	1388.60	
13	0.6886	1136.2	1156.4	1152.7	0.902	2.716	75.705	18.409	1.983	0.079	0.171	0.015	0.019	0.000	0.000	0.000	0.000	0.000	1390.13	
14	0.6895	1137.5	1157.6	1154.0	0.902	2.730	75.574	18.468	2.034	0.080	0.176	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1390.69	
15	0.6881	1135.2	1155.3	1151.7	0.894	2.746	75.811	18.265	1.998	0.079	0.172	0.015	0.019	0.000	0.000	0.000	0.000	0.000	1389.35	
16	0.6905	1136.2	1156.3	1152.6	0.906	2.892	75.439	18.369	2.101	0.080	0.177	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1388.11	
17	0.6892	1136.4	1156.5	1152.8	0.902	2.770	75.636	18.365	2.032	0.081	0.178	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1389.63	
18	0.6898	1137.0	1157.2	1153.5	0.899	2.783	75.572	18.362	2.092	0.081	0.176	0.015	0.019	0.000	0.000	0.000	0.000	0.000	1389.91	
19	0.6899	1137.0	1157.1	1153.4	0.900	2.801	75.573	18.309	2.126	0.080	0.175	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1389.67	
20	0.6891	1135.5	1155.6	1151.9	0.899	2.818	75.666	18.253	2.079	0.079	0.172	0.015	0.019	0.000	0.000	0.000	0.000	0.000	1388.66	
21	0.6897	1137.0	1157.1	1153.4	0.903	2.774	75.585	18.367	2.077	0.081	0.176	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1389.89	
22	0.6893	1136.0	1156.1	1152.4	0.899	2.804	75.642	18.287	2.081	0.080	0.172	0.015	0.019	0.000	0.000	0.000	0.000	0.000	1389.10	
23	0.6894	1135.9	1156.0	1152.3	0.895	2.832	75.673	18.192	2.104	0.082	0.183	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1388.76	
24	0.6901	1137.1	1157.2	1153.5	0.900	2.808	75.534	18.343	2.127	0.080	0.174	0.015	0.019	0.000	0.000	0.000	0.000	0.000	1389.68	
25	0.6898	1136.9	1157.1	1153.4	0.901	2.785	75.548	18.409	2.071	0.078	0.172	0.015	0.020	0.000	0.000	0.000	0.000	0.000	1389.78	
26	0.6904	1137.9	1158.0	1154.4	0.898	2.791	75.427	18.516	2.077	0.080	0.176	0.015	0.019	0.000	0.000	0.000	0.000	0.000	1390.34	
27	0.6917	1140.1	1160.3	1156.7	0.904	2.771	75.181	18.768	2.072	0.083	0.184	0.016	0.021	0.000	0.000	0.000	0.000	0.000	1391.75	
28	0.6932	1142.2	1162.4	1158.9	0.901	2.792	74.909	18.960	2.139	0.082	0.181	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1392.79	
29	0.6967	1143.7	1163.9	1160.3	0.901	3.029	74.556	18.726	2.455	0.091	0.202	0.017	0.022	0.000	0.000	0.000	0.000	0.000	1391.05	
30	0.6938	1142.9	1163.1	1159.6	0.895	2.816	74.847	18.939	2.200	0.083	0.184	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1393.01	
Avg	0.6900	1137.0	1157.3	1153.7	0.899	2.799	75.507	18.416	2.089	0.080	0.176	0.015	0.019	0.000	0.000	0.000	0.000	0.000	1389.85	

# Gas Composition and Properties

Effective September 1, 2020

Attachment B  
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Source #: 0602160  
Name: FAIRVIEW BORDER

Component	Mole %	Liquid Content	Mass %
Carbon Dioxide, CO2	0.8834		1.9495
Nitrogen, N2	2.8586		4.0154
Methane, C1	75.5370		60.7634
Ethane, C2	18.1864	4.8660	27.4205
Propane, C3	2.2323	0.6153	4.9358
iso-Butane, iC4	0.0790	0.0259	0.2302
n-Butane, nC4	0.1819	0.0574	0.5301
iso-Pentane, iC5	0.0157	0.0057	0.0568
n-Pentane, nC5	0.0181	0.0066	0.0655
Neo-Pentane, NeoC5			
Hexanes Plus, C6+	0.0076	0.0031	0.0328
Water, H2O			
Hydrogen Sulfide, H2S			
Oxygen, O2			
Carbon Monoxide, CO			
Hydrogen, H2			
Helium, He			
Argon, Ar			
<b>Totals</b>	<b>100.0000</b>	<b>5.5800</b>	<b>100.0000</b>

Property	Total Sample	C6 Plus Fraction
Pressure Base	14.730	
Temperature Base	60.00	
HCDP @ Sample Pressure	-24.099	
Cricondentherm	-14.103	
HV, Dry @ Base P, T	1157.31	
HV, Sat @ Base P, T	1137.17	
HV, Sat @ Sample P, T	1157.31	
Relative Density	0.6904	

C6+: 100

## Sample

Date: 09/01/2020      Pressure: 435.0  
 Type:                      Temperature:  
 Tech: Joshua Tipton      H2O: lbs/mm  
    H2S: ppm

Remarks:

## Analysis

Date: 09/01/2020      Instrument:  
    Cylinder: 335  
 Tech: Joshua Tipton

Remarks:

# Gas Composition and Properties

Effective September 1, 2020

Attachment B  
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Source #: 0602225  
Name: WATFORD CITY WEST BORDER

Component	Mole %	Liquid Content	Mass %
Carbon Dioxide, CO2	1.2472		2.6043
Nitrogen, N2	3.8284		5.0886
Methane, C1	70.1910		53.4277
Ethane, C2	20.2552	5.4213	28.8981
Propane, C3	3.6818	1.0151	7.7032
iso-Butane, iC4	0.2080	0.0681	0.5736
n-Butane, nC4	0.4778	0.1508	1.3177
iso-Pentane, iC5	0.0476	0.0174	0.1629
n-Pentane, nC5	0.0506	0.0184	0.1732
Neo-Pentane, NeoC5			
Hexanes Plus, C6+	0.0124	0.0051	0.0507
Water, H2O			
Hydrogen Sulfide, H2S			
Oxygen, O2			
Carbon Monoxide, CO			
Hydrogen, H2			
Helium, He			
Argon, Ar			
<b>Totals</b>	<b>100.0000</b>	<b>6.6950</b>	<b>100.0000</b>

Property	Total Sample	C6 Plus Fraction
Pressure Base	14.730	
Temperature Base	60.00	
HCDP @ Sample Pressure	-0.729	
Cricondentherm	11.192	
HV, Dry @ Base P, T	1193.63	
HV, Sat @ Base P, T	1172.86	
HV, Sat @ Sample P, T	1193.63	
Relative Density	0.7298	
C6+: 100		

## Sample

Date: 09/01/2020      Pressure: 425.0  
 Type:                      Temperature:  
 Tech: Joshua Tipton      H2O: lbs/mm  
    H2S: ppm

Remarks:

## Analysis

Date: 09/01/2020      Instrument:  
    Cylinder: 358  
 Tech: Joshua Tipton

Remarks:

# Source Daily Summary

September 2020

Number: 164

Pressure Base: 14.730

Contract Day: 1

Name: N TIOGA TRANSFER-NESSON PLT

Temperature Base:

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	0.6805	1113.2	1132.9		0.733	3.621	77.217	15.825	2.413	0.056	0.119	0.008	0.010	0.000						1370.19		
2	0.6786	1110.0	1129.7		0.713	3.664	77.497	15.623	2.307	0.054	0.118	0.010	0.012	0.003							1368.20	
3	0.6798	1112.0	1131.7		0.711	3.660	77.244	15.856	2.350	0.052	0.110	0.008	0.008	0.000							1369.42	
4	0.6803	1113.1	1132.8		0.709	3.648	77.179	15.914	2.353	0.054	0.119	0.009	0.011	0.002							1370.21	
5	0.6806	1113.6	1133.3		0.698	3.656	77.062	16.066	2.341	0.051	0.110	0.008	0.009	0.000							1370.63	
6	0.6781	1109.4	1129.0		0.703	3.668	77.565	15.591	2.276	0.054	0.119	0.010	0.012	0.003							1367.96	
7	0.6787	1110.7	1130.4		0.715	3.625	77.378	15.858	2.247	0.051	0.110	0.008	0.009	0.000							1369.02	
8	0.6735	1103.0	1122.5		0.661	3.691	78.244	15.116	2.110	0.048	0.109	0.009	0.010	0.001							1364.71	
9	0.6788	1111.5	1131.2		0.681	3.644	77.309	15.963	2.215	0.052	0.116	0.009	0.010	0.001							1369.81	
10	0.6767	1108.2	1127.8		0.675	3.659	77.622	15.749	2.106	0.051	0.117	0.009	0.011	0.001							1367.83	
11	0.6756	1105.7	1125.3		0.693	3.677	77.836	15.522	2.092	0.049	0.112	0.008	0.010	0.000							1365.90	
12	0.6760	1105.8	1125.4		0.706	3.688	77.815	15.472	2.134	0.050	0.114	0.009	0.011	0.002							1365.67	
13	0.6751	1105.6	1125.2		0.691	3.634	77.946	15.463	2.081	0.050	0.114	0.009	0.011	0.001							1366.38	
14	0.6763	1107.1	1126.8		0.694	3.653	77.782	15.511	2.177	0.051	0.114	0.008	0.009	0.001							1366.98	
15	0.6749	1105.2	1124.7		0.697	3.638	78.013	15.357	2.114	0.050	0.111	0.009	0.011	0.002							1365.95	
16	0.6784	1110.5	1130.1		0.728	3.597	77.404	15.893	2.201	0.050	0.110	0.008	0.009	0.000							1368.96	
17	0.6742	1103.9	1123.5		0.676	3.674	78.091	15.316	2.059	0.050	0.111	0.009	0.011	0.003							1365.19	
18	0.6754	1105.8	1125.3		0.688	3.662	77.933	15.380	2.157	0.052	0.112	0.008	0.009	0.000							1366.19	
19	0.6774	1108.8	1128.4		0.707	3.633	77.657	15.592	2.214	0.054	0.118	0.010	0.012	0.003							1367.94	
20	0.6763	1107.0	1126.6		0.710	3.639	77.875	15.345	2.244	0.054	0.116	0.008	0.009	0.000							1366.77	
21	0.6772	1108.8	1128.4		0.701	3.630	77.735	15.475	2.254	0.056	0.123	0.010	0.013	0.004							1368.05	
22	0.6767	1107.8	1127.4		0.700	3.642	77.760	15.484	2.232	0.053	0.112	0.008	0.009	0.000							1367.37	
23	0.6758	1105.9	1125.5		0.702	3.665	77.983	15.243	2.197	0.056	0.127	0.011	0.013	0.003							1366.01	
24	0.6781	1110.8	1130.5		0.701	3.584	77.500	15.801	2.224	0.055	0.117	0.008	0.009	0.000							1369.73	
25	0.6780	1110.0	1129.7		0.712	3.611	77.526	15.743	2.210	0.054	0.118	0.010	0.012	0.003							1368.80	
26	0.6807	1114.5	1134.2		0.709	3.593	77.066	16.150	2.273	0.058	0.129	0.010	0.012	0.001							1371.63	
27	0.6848	1121.3	1141.2		0.715	3.552	76.437	16.670	2.376	0.065	0.152	0.014	0.017	0.002							1375.88	
28	0.6907	1130.6	1150.7		0.745	3.490	75.463	17.483	2.568	0.067	0.154	0.013	0.015	0.001							1381.42	
29	0.6955	1133.4	1153.4		0.736	3.791	74.781	17.562	2.835	0.077	0.180	0.015	0.019	0.004							1379.92	
30	0.6898	1129.3	1149.3		0.727	3.520	75.595	17.348	2.572	0.065	0.148	0.012	0.014	0.000							1380.63	
Avg	0.6791	1111.0	1131.1		0.705	3.637	77.350	15.846	2.264	0.055	0.121	0.009	0.011	0.001							1369.44	

# Source Daily Summary

September 2020

Number: 601

Pressure Base: 14.730

Contract Day: 1

Name: TIOGA STN-ROBINSON LAKE PLNT

Temperature Base:

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	0.7011	1143.5	1163.8	1160.4	0.947	3.380	73.922	18.549	2.970	0.069	0.142	0.010	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1386.63
2	0.7039	1147.8	1168.1	1164.6	0.956	3.364	73.505	18.877	3.043	0.072	0.154	0.013	0.016	0.000	0.000	0.000	0.000	0.000	0.000	1389.02
3	0.7009	1143.5	1163.7	1160.4	0.945	3.365	73.979	18.494	2.984	0.069	0.142	0.010	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1386.78
4	0.7027	1146.0	1166.3	1162.7	0.965	3.351	73.779	18.603	3.042	0.071	0.154	0.014	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1387.93
5	0.7007	1142.9	1163.1	1159.6	0.950	3.379	74.004	18.448	2.992	0.067	0.139	0.009	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1386.22
6	0.7027	1145.8	1166.1	1162.7	0.958	3.375	73.706	18.686	3.029	0.071	0.149	0.012	0.015	0.000	0.000	0.000	0.000	0.000	0.000	1387.76
7	0.7034	1147.2	1167.5	1164.4	0.946	3.374	73.499	18.923	3.028	0.068	0.141	0.010	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1388.81
8	0.7017	1144.1	1164.3	1161.1	0.958	3.382	73.819	18.661	2.942	0.069	0.146	0.011	0.014	0.000	0.000	0.000	0.000	0.000	0.000	1386.68
9	0.7009	1143.2	1163.4	1160.2	0.954	3.369	73.848	18.741	2.865	0.065	0.139	0.009	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1386.48
10	0.7021	1145.3	1165.6	1162.2	0.950	3.363	73.638	18.937	2.880	0.065	0.143	0.011	0.013	0.000	0.000	0.000	0.000	0.000	0.000	1387.74
11	0.7025	1145.6	1165.9	1162.6	0.963	3.357	73.570	19.027	2.838	0.068	0.151	0.012	0.015	0.000	0.000	0.000	0.000	0.000	0.000	1387.78
12	0.7022	1145.5	1165.8	1162.4	0.970	3.322	73.630	19.002	2.834	0.068	0.150	0.011	0.014	0.000	0.000	0.000	0.000	0.000	0.000	1387.99
13	0.6991	1139.9	1160.1	1156.9	0.967	3.378	74.170	18.462	2.793	0.065	0.142	0.010	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1384.29
14	0.6979	1137.1	1157.3	1154.0	0.978	3.420	74.414	18.199	2.746	0.067	0.150	0.012	0.015	0.000	0.000	0.000	0.000	0.000	0.000	1382.03
15	0.6975	1137.3	1157.4	1154.3	0.966	3.390	74.509	18.108	2.788	0.067	0.148	0.011	0.013	0.000	0.000	0.000	0.000	0.000	0.000	1382.67
16	0.6991	1140.1	1160.3	1157.0	0.956	3.387	74.242	18.331	2.839	0.069	0.151	0.011	0.014	0.000	0.000	0.000	0.000	0.000	0.000	1384.42
17	0.6971	1137.9	1158.1	1154.8	0.945	3.350	74.510	18.219	2.748	0.065	0.139	0.011	0.013	0.000	0.000	0.000	0.000	0.000	0.000	1383.76
18	0.6971	1137.5	1157.7	1154.3	0.949	3.366	74.506	18.212	2.744	0.064	0.137	0.010	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1383.29
19	0.6973	1137.6	1157.8	1154.4	0.940	3.394	74.472	18.217	2.742	0.067	0.144	0.011	0.014	0.000	0.000	0.000	0.000	0.000	0.000	1383.20
20	0.6980	1138.5	1158.7	1155.3	0.945	3.394	74.434	18.160	2.826	0.070	0.148	0.010	0.013	0.000	0.000	0.000	0.000	0.000	0.000	1383.62
21	0.6970	1136.7	1156.8	1153.5	0.950	3.405	74.603	18.009	2.801	0.067	0.143	0.011	0.013	0.000	0.000	0.000	0.000	0.000	0.000	1382.39
22	0.6971	1137.0	1157.2	1153.7	0.948	3.397	74.640	17.915	2.862	0.069	0.145	0.010	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1382.69
23	0.6985	1139.5	1159.7	1156.3	0.945	3.381	74.467	18.038	2.914	0.072	0.155	0.012	0.016	0.000	0.000	0.000	0.000	0.000	0.000	1384.25
24	0.6975	1138.2	1158.4	1154.9	0.940	3.380	74.526	18.070	2.851	0.069	0.144	0.010	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1383.71
25	0.6981	1136.0	1156.1	1152.8	0.959	3.534	74.376	18.100	2.787	0.068	0.150	0.011	0.015	0.000	0.000	0.000	0.000	0.000	0.000	1380.53
26	0.6984	1138.8	1158.9	1155.6	0.954	3.408	74.432	18.088	2.858	0.074	0.157	0.013	0.016	0.000	0.000	0.000	0.000	0.000	0.000	1383.44
27	0.6971	1136.1	1156.2	1153.0	0.954	3.438	74.672	17.835	2.857	0.070	0.148	0.012	0.015	0.000	0.000	0.000	0.000	0.000	0.000	1381.62
28	0.7008	1142.6	1162.8	1159.6	0.950	3.406	74.001	18.454	2.922	0.075	0.164	0.013	0.016	0.000	0.000	0.000	0.000	0.000	0.000	1385.77
29	0.7053	1150.6	1171.0	1167.6	0.954	3.335	73.302	19.079	3.021	0.082	0.189	0.017	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1390.97
30	0.7008	1143.0	1163.3	1160.1	0.939	3.391	73.941	18.593	2.879	0.072	0.157	0.012	0.015	0.000	0.000	0.000	0.000	0.000	0.000	1386.35
Avg	0.7000	1141.0	1161.7	1158.4	0.953	3.384	74.104	18.435	2.881	0.069	0.149	0.011	0.014	0.000	0.000	0.000	0.000	0.000	0.000	1385.29

# Source Daily Summary

September 2020

Number: 091

Pressure Base: 14.730

Contract Day: 1

Name: MNT BRD-PLRMO BRD-BIS STN

Temperature Base:

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	0.7429	1162.7	1183.3	1179.9	0.934	6.152	67.380	20.138	4.910	0.141	0.309	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1369.68
2	0.7505	1171.9	1192.6	1189.1	0.930	6.309	66.313	20.599	5.306	0.157	0.346	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1373.48
3	0.7499	1171.4	1192.1	1188.6	0.934	6.278	66.425	20.533	5.294	0.158	0.341	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1373.46
4	0.7528	1176.3	1197.2	1193.7	0.933	6.252	66.078	20.705	5.457	0.167	0.367	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1376.57
5	0.7523	1176.3	1197.1	1193.6	0.931	6.210	66.163	20.688	5.429	0.167	0.368	0.021	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1376.98
6	0.7485	1170.5	1191.2	1187.8	0.931	6.209	66.663	20.416	5.240	0.156	0.344	0.020	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1373.64
7	0.7428	1159.9	1180.4	1177.1	0.933	6.314	67.338	20.041	4.907	0.137	0.297	0.016	0.016	0.000	0.000	0.000	0.000	0.000	0.000	1366.47
8	0.7459	1166.3	1187.0	1183.6	0.933	6.216	66.981	20.268	5.105	0.146	0.318	0.017	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1371.14
9	0.7489	1169.8	1190.5	1187.1	0.931	6.285	66.531	20.501	5.236	0.151	0.330	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1372.49
10	0.7501	1172.5	1193.3	1189.9	0.932	6.230	66.425	20.556	5.314	0.157	0.347	0.019	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1374.59
11	0.7449	1167.1	1187.8	1184.4	0.937	6.069	67.185	20.241	5.055	0.147	0.327	0.019	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1372.97
12	0.7474	1170.7	1191.4	1188.0	0.939	6.078	66.839	20.443	5.168	0.152	0.341	0.020	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1374.92
13	0.7466	1168.6	1189.3	1186.0	0.936	6.139	66.930	20.329	5.144	0.151	0.332	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1373.17
14	0.7454	1167.1	1187.8	1184.5	0.936	6.108	67.091	20.283	5.077	0.147	0.322	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1372.66
15	0.7457	1167.4	1188.1	1184.7	0.936	6.121	67.056	20.284	5.094	0.148	0.325	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1372.67
16	0.7465	1167.0	1187.6	1184.3	0.933	6.228	66.928	20.252	5.148	0.148	0.328	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1371.42
17	0.7484	1169.0	1189.7	1186.4	0.932	6.285	66.640	20.375	5.245	0.150	0.334	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1372.05
18	0.7512	1174.2	1195.0	1191.7	0.931	6.231	66.331	20.531	5.413	0.160	0.361	0.020	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1375.58
19	0.7489	1170.3	1191.1	1187.7	0.933	6.252	66.638	20.343	5.288	0.155	0.350	0.020	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1373.10
20	0.7545	1180.1	1201.0	1197.6	0.933	6.178	65.973	20.694	5.608	0.172	0.394	0.023	0.024	0.000	0.000	0.000	0.000	0.000	0.000	1379.43
21	0.7527	1176.3	1197.2	1193.8	0.934	6.234	66.185	20.558	5.497	0.166	0.379	0.022	0.024	0.000	0.000	0.000	0.000	0.000	0.000	1376.72
22	0.7516	1176.3	1197.1	1193.7	0.937	6.128	66.343	20.579	5.434	0.163	0.370	0.022	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1377.66
23	0.7475	1167.2	1187.8	1184.5	0.934	6.311	66.744	20.316	5.180	0.148	0.328	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1370.69
24	0.7476	1167.0	1187.7	1184.3	0.936	6.322	66.713	20.335	5.193	0.145	0.321	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1370.49
25	0.7485	1168.7	1189.4	1186.0	0.930	6.317	66.645	20.323	5.255	0.153	0.340	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1371.58
26	0.7497	1171.4	1192.2	1188.9	0.933	6.259	66.527	20.402	5.325	0.158	0.355	0.020	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1373.68
27	0.7474	1167.6	1188.3	1185.0	0.934	6.273	66.787	20.301	5.188	0.150	0.330	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1371.33
28	0.7458	1164.2	1184.8	1181.5	0.937	6.325	66.955	20.201	5.093	0.142	0.313	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1368.82
29	0.7503	1172.3	1193.1	1189.7	0.933	6.258	66.425	20.489	5.346	0.157	0.351	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1374.18
30	0.7480	1168.1	1188.8	1185.5	0.928	6.309	66.692	20.326	5.226	0.151	0.331	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1371.35
Avg	0.7485	1170.0	1190.7	1187.3	0.934	6.229	66.664	20.402	5.239	0.153	0.340	0.019	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1373.10

# Gas Composition and Properties

Effective September 1, 2020

Attachment B  
Page 8 of 24

Source #: 2501030  
Name: LIGNITE PLANT

Component	Mole %	Liquid Content	Mass %
Carbon Dioxide, CO2	0.2655		0.6015
Nitrogen, N2	2.6156		3.7716
Methane, C1	77.4280		63.9385
Ethane, C2	18.0304	4.8237	27.9072
Propane, C3	1.6437	0.4530	3.7309
iso-Butane, iC4	0.0136	0.0045	0.0407
n-Butane, nC4	0.0032	0.0010	0.0096
iso-Pentane, iC5			
n-Pentane, nC5			
Neo-Pentane, NeoC5			
Hexanes Plus, C6+			
Water, H2O			
Hydrogen Sulfide, H2S			
Oxygen, O2			
Carbon Monoxide, CO			
Hydrogen, H2			
Helium, He			
Argon, Ar			
<b>Totals</b>	<b>100.0000</b>	<b>5.2820</b>	<b>100.0000</b>

Property	Total Sample	C6 Plus Fraction
Pressure Base	14.730	
Temperature Base	60.00	
HCDP @ Sample Pressure	-39.035	
Cricodentherm	-29.733	
HV, Dry @ Base P, T	1148.99	
HV, Sat @ Base P, T	1128.99	
HV, Sat @ Sample P, T	1148.99	
Relative Density	0.6725	
C6+: 100		

**Sample**

Date: 09/01/2020      Pressure: 530.0  
 Type:                      Temperature:  
 Tech: Joshua Tipton      H2O: lbs/mm  
    H2S: ppm

Remarks:

**Analysis**

Date: 09/01/2020      Instrument:  
    Cylinder: 100  
 Tech: Joshua Tipton

Remarks:

# Gas Composition and Properties

Effective September 1, 2020

Attachment B  
Page 9 of 24

Source #: 3002013  
Name: EPPING BORDER

Component	Mole %	Liquid Content	Mass %
Carbon Dioxide, CO2	0.8547		1.8939
Nitrogen, N2	2.7718		3.9095
Methane, C1	75.8836		61.2928
Ethane, C2	18.0979	4.8422	27.3992
Propane, C3	2.1454	0.5913	4.7631
iso-Butane, iC4	0.0676	0.0221	0.1978
n-Butane, nC4	0.1527	0.0482	0.4469
iso-Pentane, iC5	0.0119	0.0044	0.0432
n-Pentane, nC5	0.0126	0.0046	0.0458
Neo-Pentane, NeoC5			
Hexanes Plus, C6+	0.0018	0.0007	0.0078
Water, H2O			
Hydrogen Sulfide, H2S			
Oxygen, O2			
Carbon Monoxide, CO			
Hydrogen, H2			
Helium, He			
Argon, Ar			
<b>Totals</b>	<b>100.0000</b>	<b>5.5130</b>	<b>100.0000</b>

Property	Total Sample	C6 Plus Fraction
Pressure Base	14.730	
Temperature Base	60.00	
HCDP @ Sample Pressure	-23.470	
Cricondentherm	-17.474	
HV, Dry @ Base P, T	1155.05	
HV, Sat @ Base P, T	1134.95	
HV, Sat @ Sample P, T	1155.05	
Relative Density	0.6876	
C6+: 100		

Sample			
Date: 09/01/2020	Pressure:	550.0	
Type:	Temperature:		
Tech: Joshua Tipton	H2O:	lbs/mm	
	H2S:	ppm	
Remarks:			

Analysis			
Date: 09/01/2020	Instrument:		
	Cylinder:	341	
Tech: Joshua Tipton			
Remarks:			

\*\*\* End of Report \*\*\*

# Source Daily Summary

September 2020

**Number:** 603

**Pressure Base:** 14.730

**Contract Day:** 1

**Name:** TIOGA STN-COUNTY LINE PLANT

**Temperature Base:**

**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	0.7040	1148.0	1168.3	1164.8	0.956	3.363	73.471	18.923	3.033	0.072	0.153	0.013	0.016	0.000	0.000	0.000	0.000	0.000	1389.15	
2	0.7018	1144.7	1164.9	1161.6	0.951	3.363	73.868	18.557	3.016	0.072	0.150	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1387.39	
3	0.7031	1146.8	1167.1	1163.6	0.963	3.344	73.639	18.783	3.022	0.070	0.150	0.013	0.016	0.000	0.000	0.000	0.000	0.000	1388.55	
4	0.7005	1142.4	1162.7	1159.3	0.948	3.390	74.051	18.388	2.993	0.068	0.140	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1385.89	
5	0.7029	1146.0	1166.3	1162.8	0.962	3.372	73.672	18.726	3.020	0.071	0.151	0.012	0.015	0.000	0.000	0.000	0.000	0.000	1387.85	
6	0.7035	1147.5	1167.8	1164.5	0.942	3.367	73.491	18.941	3.028	0.068	0.141	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1389.12	
7	0.7022	1144.3	1164.6	1161.1	0.965	3.404	73.778	18.627	2.974	0.071	0.152	0.012	0.016	0.000	0.000	0.000	0.000	0.000	1386.46	
8	0.7014	1144.3	1164.5	1161.2	0.947	3.361	73.774	18.796	2.896	0.066	0.139	0.009	0.011	0.000	0.000	0.000	0.000	0.000	1387.27	
9	0.7017	1144.6	1164.9	1161.5	0.951	3.360	73.714	18.885	2.855	0.066	0.144	0.011	0.014	0.000	0.000	0.000	0.000	0.000	1387.37	
10	0.7017	1145.9	1166.2	1162.8	0.911	3.350	73.651	18.991	2.873	0.064	0.139	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1388.89	
11	0.7036	1147.5	1167.8	1164.4	0.977	3.327	73.358	19.255	2.834	0.068	0.154	0.012	0.015	0.000	0.000	0.000	0.000	0.000	1388.93	
12	0.6996	1141.0	1161.2	1157.9	0.964	3.366	74.095	18.515	2.832	0.065	0.142	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1385.09	
13	0.6991	1139.7	1159.9	1156.5	0.967	3.398	74.149	18.492	2.754	0.066	0.147	0.011	0.014	0.000	0.000	0.000	0.000	0.000	1383.89	
14	0.6974	1137.3	1157.5	1154.2	0.961	3.391	74.529	18.071	2.813	0.067	0.146	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1382.75	
15	0.6995	1140.5	1160.7	1157.4	0.963	3.384	74.170	18.411	2.820	0.069	0.154	0.012	0.015	0.000	0.000	0.000	0.000	0.000	1384.59	
16	0.6972	1137.7	1157.8	1154.5	0.948	3.370	74.503	18.177	2.778	0.065	0.138	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1383.39	
17	0.6982	1139.3	1159.5	1156.1	0.953	3.357	74.329	18.362	2.761	0.066	0.145	0.011	0.014	0.000	0.000	0.000	0.000	0.000	1384.32	
18	0.6969	1137.1	1157.3	1154.0	0.938	3.386	74.494	18.242	2.720	0.064	0.136	0.009	0.011	0.000	0.000	0.000	0.000	0.000	1383.10	
19	0.6980	1138.3	1158.5	1155.1	0.950	3.395	74.448	18.157	2.800	0.070	0.153	0.012	0.015	0.000	0.000	0.000	0.000	0.000	1383.40	
20	0.6977	1138.1	1158.3	1155.0	0.940	3.398	74.466	18.134	2.828	0.068	0.143	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1383.49	
21	0.6982	1138.5	1158.7	1155.2	0.956	3.394	74.527	17.969	2.898	0.072	0.155	0.012	0.016	0.000	0.000	0.000	0.000	0.000	1383.38	
22	0.6980	1138.7	1158.9	1155.6	0.943	3.386	74.515	18.000	2.908	0.072	0.153	0.011	0.013	0.000	0.000	0.000	0.000	0.000	1383.90	
23	0.6977	1138.2	1158.3	1154.9	0.947	3.382	74.552	18.027	2.848	0.069	0.148	0.012	0.015	0.000	0.000	0.000	0.000	0.000	1383.44	
24	0.6972	1138.1	1158.3	1155.0	0.907	3.403	74.592	18.006	2.837	0.071	0.156	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1383.92	
25	0.6961	1133.8	1153.9	1150.6	0.956	3.486	74.750	17.810	2.753	0.064	0.153	0.012	0.015	0.000	0.000	0.000	0.000	0.000	1379.81	
26	0.6982	1138.1	1158.3	1155.0	0.953	3.419	74.529	17.935	2.902	0.074	0.158	0.013	0.017	0.000	0.000	0.000	0.000	0.000	1382.99	
27	0.6984	1138.4	1158.6	1155.3	0.957	3.419	74.447	18.029	2.897	0.072	0.153	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1383.13	
28	0.7057	1150.9	1171.3	1167.9	0.956	3.345	73.238	19.129	3.022	0.082	0.189	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1390.97	
29	0.7059	1151.8	1172.2	1168.9	0.948	3.323	73.207	19.151	3.068	0.082	0.187	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1391.92	
30	0.7092	1157.2	1177.6	1174.2	0.951	3.297	72.853	19.294	3.261	0.089	0.209	0.020	0.026	0.000	0.000	0.000	0.000	0.000	1395.06	
Avg	0.7005	1142.0	1162.7	1159.4	0.951	3.377	74.029	18.493	2.901	0.070	0.153	0.012	0.015	0.000	0.000	0.000	0.000	0.000	1385.98	

# Source Daily Summary

September 2020

Number: 043

Pressure Base: 14.730

Contract Day: 1

Name: BISMARCK STN-CLEVELAND STN

Temperature Base:

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	0.7423	1163.5	1184.1	1180.2	0.915	6.082	67.491	20.124	4.902	0.141	0.311	0.016	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1371.03
2	0.7492	1171.7	1192.5	1188.3	0.912	6.229	66.537	20.515	5.268	0.157	0.346	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1374.38
3	0.7491	1172.2	1193.0	1189.0	0.915	6.183	66.584	20.502	5.271	0.159	0.349	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1375.07
4	0.7521	1177.4	1198.2	1194.3	0.915	6.154	66.226	20.680	5.439	0.169	0.376	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1378.31
5	0.7508	1176.1	1196.9	1193.0	0.912	6.112	66.455	20.536	5.402	0.167	0.373	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1378.02
6	0.7471	1170.0	1190.8	1187.1	0.913	6.135	66.888	20.340	5.188	0.155	0.343	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1374.32
7	0.7416	1160.5	1181.0	1177.6	0.916	6.200	67.508	20.065	4.848	0.136	0.297	0.015	0.015	0.000	0.000	0.000	0.000	0.000	0.000	1368.14
8	0.7442	1165.3	1186.0	1182.2	0.915	6.149	67.232	20.176	5.033	0.144	0.317	0.016	0.016	0.000	0.000	0.000	0.000	0.000	0.000	1371.45
9	0.7400	1164.2	1184.8	1181.0	0.919	5.817	67.884	20.106	4.804	0.138	0.303	0.016	0.016	0.000	0.000	0.000	0.000	0.000	0.000	1374.00
10	0.7493	1174.0	1194.8	1191.0	0.914	6.095	66.624	20.496	5.314	0.161	0.357	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1376.99
11	0.7445	1168.4	1189.1	1185.2	0.919	5.981	67.312	20.195	5.072	0.150	0.333	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1374.77
12	0.7466	1171.7	1192.4	1188.5	0.921	5.977	67.000	20.410	5.154	0.154	0.345	0.019	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1376.67
13	0.7463	1169.8	1190.5	1186.7	0.918	6.062	67.000	20.364	5.132	0.152	0.336	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1374.83
14	0.7439	1167.3	1187.9	1184.1	0.919	5.992	67.340	20.230	5.017	0.147	0.323	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1374.04
15	0.7440	1167.0	1187.7	1183.9	0.918	6.015	67.316	20.234	5.015	0.146	0.322	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1373.68
16	0.7424	1165.9	1186.5	1182.8	0.917	5.937	67.575	20.126	4.946	0.145	0.320	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1373.80
17	0.7453	1168.6	1189.3	1185.5	0.917	6.049	67.135	20.286	5.098	0.149	0.331	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1374.28
18	0.7506	1175.9	1196.7	1192.9	0.913	6.099	66.504	20.503	5.403	0.164	0.371	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1378.00
19	0.7491	1173.3	1194.1	1190.4	0.915	6.113	66.711	20.361	5.332	0.161	0.364	0.020	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1376.36
20	0.7535	1180.7	1201.6	1197.7	0.915	6.079	66.189	20.606	5.585	0.175	0.402	0.024	0.024	0.000	0.000	0.000	0.000	0.000	0.000	1380.92
21	0.7515	1176.6	1197.4	1193.4	0.916	6.138	66.401	20.492	5.462	0.167	0.380	0.022	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1377.97
22	0.7505	1176.9	1197.7	1193.7	0.919	6.020	66.562	20.502	5.414	0.165	0.374	0.021	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1379.25
23	0.7461	1167.1	1187.8	1184.0	0.917	6.213	66.975	20.249	5.137	0.148	0.327	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1371.84
24	0.7437	1165.5	1186.2	1182.4	0.921	6.079	67.330	20.164	5.016	0.143	0.316	0.016	0.016	0.000	0.000	0.000	0.000	0.000	0.000	1372.17
25	0.7479	1170.0	1190.8	1186.9	0.912	6.212	66.790	20.288	5.258	0.156	0.347	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1373.57
26	0.7485	1171.6	1192.3	1188.5	0.914	6.163	66.745	20.344	5.280	0.158	0.356	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1374.90
27	0.7464	1168.2	1188.9	1184.9	0.917	6.174	66.944	20.314	5.136	0.150	0.332	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1372.82
28	0.7447	1164.6	1185.3	1181.1	0.919	6.232	67.130	20.183	5.047	0.143	0.316	0.016	0.016	0.000	0.000	0.000	0.000	0.000	0.000	1370.19
29	0.7489	1172.3	1193.1	1188.9	0.916	6.159	66.641	20.448	5.292	0.157	0.350	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1375.36
30	0.7480	1170.3	1191.1	1187.0	0.910	6.199	66.729	20.405	5.229	0.153	0.340	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1373.92
Avg	0.7469	1170.0	1190.9	1187.1	0.916	6.102	66.925	20.341	5.183	0.154	0.342	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1374.70

# Source Daily Summary

September 2020

Number: 063

Pressure Base: 14.730

Contract Day: 1

Name: CLEVELAND STN-MAPLETON

Temperature Base:

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	0.7479	1171.6	1192.3	1189.1	0.921	6.101	66.790	20.425	5.226	0.154	0.343	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1375.41
2	0.7410	1160.7	1181.2	1178.0	0.924	6.116	67.639	20.037	4.820	0.136	0.296	0.016	0.016	0.000	0.000	0.000	0.000	0.000	0.000	1368.95
3	0.7490	1170.7	1191.4	1188.2	0.920	6.260	66.530	20.527	5.235	0.154	0.338	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1373.37
4	0.7492	1171.7	1192.5	1189.2	0.923	6.213	66.554	20.499	5.272	0.158	0.344	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1374.37
5	0.7523	1177.0	1197.8	1194.6	0.922	6.183	66.187	20.684	5.443	0.168	0.370	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1377.69
6	0.7511	1175.8	1196.6	1192.8	0.921	6.141	66.370	20.614	5.383	0.165	0.364	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1377.42
7	0.7473	1169.8	1190.5	1186.5	0.922	6.145	66.843	20.398	5.166	0.153	0.334	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1373.90
8	0.7419	1159.8	1180.3	1176.3	0.924	6.256	67.462	20.044	4.856	0.136	0.291	0.015	0.015	0.000	0.000	0.000	0.000	0.000	0.000	1367.01
9	0.7446	1165.8	1186.5	1182.4	0.923	6.133	67.186	20.236	5.031	0.143	0.312	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1371.73
10	0.7415	1166.0	1186.6	1182.7	0.925	5.833	67.670	20.232	4.862	0.140	0.305	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1374.75
11	0.7504	1175.2	1196.0	1192.1	0.921	6.113	66.450	20.610	5.346	0.161	0.356	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1377.35
12	0.7452	1168.9	1189.6	1185.7	0.927	5.994	67.185	20.303	5.073	0.149	0.329	0.019	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1374.83
13	0.7476	1172.2	1192.9	1189.0	0.929	6.022	66.845	20.484	5.183	0.155	0.343	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1376.40
14	0.7458	1168.6	1189.3	1185.4	0.926	6.073	67.057	20.331	5.099	0.150	0.326	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1373.91
15	0.7448	1168.0	1188.7	1184.8	0.926	6.017	67.210	20.290	5.052	0.148	0.322	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1374.11
16	0.7449	1167.8	1188.5	1184.6	0.925	6.045	67.183	20.285	5.056	0.148	0.322	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1373.71
17	0.7416	1164.7	1185.3	1181.4	0.926	5.922	67.692	20.067	4.905	0.142	0.312	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1373.14
18	0.7468	1169.7	1190.4	1186.4	0.924	6.102	66.946	20.335	5.171	0.151	0.334	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1374.25
19	0.7516	1177.3	1198.1	1194.1	0.922	6.096	66.362	20.594	5.442	0.166	0.374	0.022	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1378.70
20	0.7497	1173.4	1194.2	1190.2	0.923	6.153	66.587	20.438	5.339	0.160	0.358	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1375.89
21	0.7543	1181.2	1202.1	1198.1	0.923	6.104	66.053	20.707	5.591	0.175	0.398	0.024	0.025	0.000	0.000	0.000	0.000	0.000	0.000	1380.81
22	0.7517	1176.5	1197.3	1193.3	0.925	6.147	66.335	20.566	5.445	0.166	0.372	0.022	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1377.72
23	0.7511	1177.0	1197.8	1193.8	0.927	6.058	66.424	20.609	5.407	0.164	0.367	0.021	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1378.80
24	0.7467	1167.4	1188.0	1184.2	0.925	6.238	66.863	20.330	5.139	0.148	0.322	0.018	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1371.61
25	0.7450	1166.6	1187.3	1183.3	0.928	6.125	67.124	20.268	5.061	0.144	0.316	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1372.20
26	0.7482	1169.8	1190.5	1186.5	0.921	6.241	66.712	20.353	5.242	0.154	0.340	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1372.97
27	0.7491	1172.0	1192.8	1189.4	0.924	6.179	66.645	20.413	5.287	0.159	0.353	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1374.82
28	0.7448	1164.4	1185.0	1181.8	0.925	6.237	67.134	20.174	5.040	0.144	0.313	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1369.89
29	0.7465	1166.9	1187.5	1184.4	0.926	6.245	66.931	20.239	5.150	0.148	0.326	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1371.21
30	0.7475	1168.9	1189.6	1186.4	0.925	6.219	66.788	20.358	5.195	0.150	0.329	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1372.63
Avg	0.7473	1170.0	1190.9	1187.2	0.924	6.124	66.858	20.382	5.184	0.153	0.337	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1374.32

# Source Daily Summary

September 2020

Number: 061

Pressure Base: 14.730

Contract Day: 1

Name: CLEVELAND STN-GRAFTON BDR

Temperature Base:

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	0.7484	1172.2	1193.0	1189.9	0.921	6.103	66.736	20.445	5.252	0.155	0.347	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1375.77
2	0.7415	1161.5	1182.0	1178.9	0.924	6.113	67.578	20.067	4.848	0.138	0.300	0.016	0.016	0.000	0.000	0.000	0.000	0.000	0.000	1369.43
3	0.7458	1164.8	1185.4	1182.0	0.922	6.316	66.906	20.317	5.050	0.144	0.312	0.016	0.016	0.000	0.000	0.000	0.000	0.000	0.000	1369.40
4	0.7493	1171.9	1192.6	1189.6	0.923	6.210	66.544	20.508	5.276	0.158	0.343	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1374.49
5	0.7520	1176.4	1197.2	1194.2	0.922	6.191	66.226	20.652	5.430	0.168	0.369	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1377.30
6	0.7509	1175.3	1196.1	1192.7	0.921	6.149	66.403	20.582	5.374	0.165	0.364	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1377.09
7	0.7474	1170.1	1190.8	1187.2	0.923	6.138	66.836	20.403	5.173	0.154	0.336	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1374.12
8	0.7419	1159.7	1180.2	1176.6	0.925	6.254	67.472	20.039	4.851	0.136	0.292	0.015	0.015	0.000	0.000	0.000	0.000	0.000	0.000	1366.97
9	0.7450	1166.1	1186.7	1183.3	0.924	6.154	67.135	20.239	5.054	0.144	0.315	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1371.66
10	0.7397	1163.6	1184.2	1180.6	0.927	5.811	67.908	20.128	4.762	0.136	0.296	0.016	0.016	0.000	0.000	0.000	0.000	0.000	0.000	1373.56
11	0.7474	1168.8	1189.5	1185.9	0.923	6.222	66.760	20.421	5.163	0.150	0.326	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1372.59
12	0.7437	1166.5	1187.2	1183.7	0.928	6.004	67.363	20.212	4.991	0.146	0.319	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1373.34
13	0.7476	1172.1	1192.8	1189.3	0.929	6.030	66.840	20.476	5.185	0.155	0.344	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1376.26
14	0.7453	1168.2	1188.8	1185.4	0.927	6.057	67.124	20.306	5.076	0.149	0.324	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1373.80
15	0.7450	1168.3	1188.9	1185.5	0.926	6.024	67.176	20.301	5.066	0.148	0.324	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1374.20
16	0.7457	1168.9	1189.6	1186.1	0.925	6.049	67.091	20.323	5.098	0.150	0.328	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1374.29
17	0.7415	1164.6	1185.2	1181.7	0.926	5.920	67.705	20.058	4.901	0.142	0.312	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1373.08
18	0.7472	1170.1	1190.8	1187.3	0.924	6.123	66.875	20.357	5.195	0.152	0.336	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1374.28
19	0.7518	1177.6	1198.4	1194.8	0.922	6.096	66.339	20.600	5.454	0.167	0.376	0.022	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1378.85
20	0.7497	1173.4	1194.1	1190.5	0.924	6.153	66.587	20.436	5.339	0.160	0.359	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1375.87
21	0.7540	1180.6	1201.5	1197.8	0.924	6.110	66.084	20.691	5.573	0.174	0.395	0.024	0.025	0.000	0.000	0.000	0.000	0.000	0.000	1380.42
22	0.7511	1175.5	1196.3	1192.6	0.925	6.158	66.397	20.534	5.411	0.164	0.367	0.021	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1377.00
23	0.7479	1171.4	1192.1	1188.5	0.929	6.098	66.802	20.414	5.221	0.154	0.342	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1375.20
24	0.7459	1165.9	1186.5	1183.0	0.926	6.247	66.967	20.274	5.090	0.145	0.317	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1370.65
25	0.7449	1166.4	1187.1	1183.5	0.928	6.126	67.136	20.263	5.054	0.144	0.315	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1372.07
26	0.7483	1170.0	1190.7	1187.0	0.922	6.239	66.700	20.358	5.249	0.155	0.341	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1373.09
27	0.7495	1172.7	1193.5	1190.2	0.924	6.176	66.589	20.439	5.314	0.160	0.356	0.020	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1375.25
28	0.7453	1165.4	1186.0	1182.7	0.925	6.227	67.071	20.208	5.069	0.146	0.319	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1370.55
29	0.7458	1165.6	1186.2	1183.1	0.926	6.261	67.017	20.178	5.113	0.146	0.323	0.018	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1370.32
30	0.7474	1168.5	1189.2	1186.2	0.926	6.227	66.809	20.332	5.190	0.150	0.330	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1372.35
Avg	0.7469	1169.0	1190.1	1186.7	0.925	6.133	66.906	20.352	5.161	0.152	0.334	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1373.77

# Source Daily Summary

September 2020

Number: 041

Pressure Base: 14.730

Contract Day: 1

Name: BISMARCK STN-GLEN ULLIN STN

Temperature Base:

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	0.7421	1163.5	1184.1	1180.3	0.915	6.058	67.538	20.107	4.893	0.141	0.313	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1371.28
2	0.7485	1170.3	1191.1	1187.2	0.912	6.247	66.614	20.471	5.226	0.154	0.340	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1373.41
3	0.7493	1172.7	1193.5	1189.7	0.914	6.170	66.561	20.528	5.278	0.159	0.350	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1375.50
4	0.7516	1176.5	1197.3	1193.5	0.915	6.161	66.283	20.652	5.409	0.168	0.371	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1377.73
5	0.7506	1175.7	1196.5	1192.7	0.912	6.118	66.479	20.519	5.390	0.167	0.372	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1377.72
6	0.7476	1170.7	1191.5	1187.8	0.913	6.133	66.839	20.362	5.213	0.157	0.346	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1374.72
7	0.7280	1152.1	1172.5	1169.0	0.927	5.419	69.570	19.556	4.135	0.115	0.252	0.013	0.013	0.000	0.000	0.000	0.000	0.000	0.000	1371.09
8	0.6770	1111.4	1131.0	1127.7	0.971	3.050	77.122	17.288	1.475	0.030	0.059	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1371.46
9	0.6691	1106.0	1125.6	1122.3	0.970	2.632	78.225	17.132	1.002	0.014	0.023	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1372.90
10	0.7178	1147.4	1167.8	1164.2	0.931	4.733	71.247	19.055	3.676	0.105	0.229	0.013	0.013	0.000	0.000	0.000	0.000	0.000	0.000	1375.51
11	0.7446	1168.7	1189.4	1185.8	0.918	5.972	67.310	20.194	5.080	0.151	0.336	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1375.05
12	0.7461	1170.8	1191.6	1187.9	0.920	5.981	67.063	20.374	5.128	0.152	0.342	0.019	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1376.17
13	0.7466	1170.4	1191.2	1187.5	0.919	6.054	66.959	20.395	5.144	0.153	0.339	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1375.26
14	0.7434	1166.4	1187.1	1183.4	0.919	5.996	67.404	20.193	4.990	0.145	0.319	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1373.53
15	0.7055	1135.6	1155.7	1152.2	0.934	4.304	73.087	18.295	3.088	0.086	0.185	0.010	0.010	0.000	0.000	0.000	0.000	0.000	0.000	1372.88
16	0.6743	1108.7	1128.3	1124.9	0.952	2.985	77.829	16.544	1.566	0.040	0.075	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1370.95
17	0.6987	1126.6	1146.5	1143.4	0.954	4.180	74.068	17.779	2.772	0.073	0.157	0.008	0.008	0.000	0.000	0.000	0.000	0.000	0.000	1368.94
18	0.7187	1146.0	1166.3	1162.8	0.935	4.902	71.107	18.947	3.745	0.105	0.233	0.013	0.013	0.000	0.000	0.000	0.000	0.000	0.000	1372.70
19	0.7010	1130.0	1150.0	1146.5	0.955	4.187	73.690	18.110	2.806	0.074	0.161	0.009	0.009	0.000	0.000	0.000	0.000	0.000	0.000	1370.43
20	0.7326	1161.0	1181.6	1177.9	0.927	5.303	69.226	19.540	4.520	0.137	0.311	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1377.23
21	0.7516	1176.9	1197.7	1193.9	0.916	6.133	66.396	20.489	5.470	0.168	0.383	0.022	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1378.18
22	0.7505	1176.6	1197.5	1193.7	0.919	6.035	66.564	20.482	5.416	0.165	0.375	0.022	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1378.97
23	0.7128	1142.7	1162.9	1159.4	0.954	4.527	71.804	19.131	3.276	0.090	0.197	0.011	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1374.32
24	0.6685	1104.2	1123.7	1120.2	0.990	2.658	78.351	16.975	0.983	0.015	0.025	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1371.20
25	0.7166	1144.1	1164.3	1160.7	0.947	4.805	71.373	18.943	3.586	0.101	0.222	0.012	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1372.32
26	0.7471	1170.8	1191.5	1187.9	0.916	6.083	66.958	20.286	5.211	0.157	0.352	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1375.20
27	0.7438	1165.6	1186.3	1182.7	0.919	6.078	67.323	20.185	4.994	0.145	0.321	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1372.28
28	0.7453	1165.5	1186.2	1182.6	0.919	6.225	67.077	20.203	5.077	0.145	0.321	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1370.77
29	0.7478	1170.3	1191.0	1187.4	0.917	6.180	66.764	20.383	5.228	0.153	0.340	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1373.99
30	0.7482	1170.7	1191.5	1187.9	0.911	6.193	66.711	20.412	5.241	0.153	0.342	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1374.20
Avg	0.7275	1154.0	1174.4	1170.8	0.931	5.250	69.785	19.451	4.167	0.121	0.266	0.015	0.015	0.000	0.000	0.000	0.000	0.000	0.000	1373.86

# Source Daily Summary

September 2020

Number: 271

Pressure Base: 14.730

Contract Day: 1

Name: DCKSN BRD-BLFD TSF-G.U. STN

Temperature Base:

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	0.6579	1095.9	1115.3	1111.9	0.936	2.251	80.455	15.375	0.946	0.015	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1371.83
2	0.6667	1114.1	1133.9	1130.3	0.690	2.337	78.452	17.500	0.984	0.015	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1385.41
3	0.6861	1151.6	1172.0	1168.5	0.000	2.934	73.432	22.872	0.741	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1411.71
4	0.6788	1135.4	1155.5	1152.0	0.314	2.760	75.320	20.780	0.803	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1399.15
5	0.6687	1106.1	1125.6	1122.2	0.957	2.613	78.292	17.081	1.024	0.014	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1373.40
6	0.6670	1103.6	1123.2	1119.9	0.963	2.593	78.622	16.793	0.994	0.014	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1372.11
7	0.6660	1102.5	1122.1	1119.0	0.969	2.555	78.798	16.687	0.955	0.014	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1371.78
8	0.6673	1104.1	1123.7	1120.4	0.967	2.582	78.552	16.890	0.971	0.014	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1372.44
9	0.6675	1104.6	1124.2	1121.0	0.955	2.591	78.503	16.932	0.983	0.014	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1372.85
10	0.6681	1106.3	1125.9	1122.7	0.924	2.591	78.381	17.052	1.014	0.015	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1374.33
11	0.6605	1098.4	1117.9	1114.7	0.915	2.366	79.918	15.804	0.957	0.016	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1372.41
12	0.6632	1102.5	1122.0	1118.7	0.927	2.354	79.346	16.406	0.931	0.014	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1374.66
13	0.6616	1100.8	1120.3	1117.2	0.912	2.334	79.603	16.232	0.886	0.014	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1374.17
14	0.6595	1098.3	1117.8	1114.6	0.892	2.317	80.069	15.771	0.896	0.022	0.031	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1373.26
15	0.6615	1101.1	1120.6	1117.4	0.893	2.335	79.854	15.803	1.033	0.032	0.043	0.004	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1374.61
16	0.6599	1097.6	1117.1	1114.0	0.939	2.328	80.026	15.745	0.919	0.018	0.024	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1371.96
17	0.6602	1096.1	1115.5	1112.3	0.940	2.448	79.856	15.876	0.848	0.013	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1369.71
18	0.6626	1098.4	1117.9	1114.6	0.949	2.511	79.439	16.159	0.908	0.013	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1370.23
19	0.6647	1101.8	1121.3	1117.9	0.927	2.544	78.969	16.618	0.911	0.013	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1372.20
20	0.6701	1107.6	1127.2	1123.7	0.933	2.689	77.934	17.424	0.983	0.015	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1373.82
21	0.6711	1108.5	1128.1	1124.5	0.941	2.716	77.742	17.576	0.989	0.014	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1373.91
22	0.6694	1106.1	1125.7	1121.9	0.981	2.639	78.133	17.237	0.974	0.014	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1372.72
23	0.6668	1103.1	1122.6	1119.3	0.975	2.592	78.614	16.841	0.941	0.014	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1371.60
24	0.6669	1103.0	1122.6	1119.1	0.981	2.594	78.567	16.914	0.909	0.013	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1371.45
25	0.6739	1112.8	1132.5	1129.3	0.973	2.659	77.783	17.095	1.359	0.041	0.084	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1376.47
26	0.6650	1100.5	1120.0	1116.8	0.975	2.575	78.938	16.587	0.891	0.013	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1370.31
27	0.6659	1101.9	1121.4	1118.3	0.966	2.588	78.737	16.790	0.887	0.013	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1371.13
28	0.6654	1101.3	1120.8	1117.7	0.960	2.590	78.832	16.692	0.893	0.013	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1370.87
29	0.6630	1098.6	1118.1	1114.7	0.949	2.538	79.311	16.300	0.870	0.013	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1370.07
30	0.6526	1087.3	1106.6	1103.6	0.925	2.290	81.336	14.651	0.767	0.013	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1366.67
Avg	0.6659	1105.0	1124.6	1121.3	0.884	2.527	78.727	16.883	0.939	0.015	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1374.91

# Source Daily Summary

September 2020

Number: 051

Pressure Base: 14.730

Contract Day: 1

Name: CABIN CRK STN-BELFIELD TRSFR

Temperature Base:

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	0.6620	1092.7	1112.0	1108.5	0.714	3.163	80.134	14.288	1.535	0.053	0.099	0.007	0.008	0.000	0.000	0.000	0.000	0.000	0.000	1363.56
2	0.6749	1111.3	1131.0	1127.4	0.875	2.988	78.162	15.873	1.876	0.073	0.133	0.010	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1373.53
3	0.6699	1104.5	1124.0	1120.8	0.841	2.993	78.801	15.543	1.645	0.057	0.104	0.008	0.008	0.000	0.000	0.000	0.000	0.000	0.000	1370.14
4	0.6704	1105.4	1125.0	1121.4	0.842	2.976	78.659	15.744	1.611	0.054	0.098	0.007	0.008	0.000	0.000	0.000	0.000	0.000	0.000	1370.85
5	0.6800	1121.7	1141.6	1137.7	1.033	2.606	76.961	17.586	1.646	0.055	0.098	0.007	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1381.07
6	0.6817	1123.6	1143.5	1139.6	1.050	2.624	76.413	18.276	1.509	0.043	0.075	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1381.73
7	0.6782	1119.5	1139.3	1135.6	0.893	2.781	76.781	18.054	1.385	0.036	0.063	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1380.32
8	0.6771	1119.8	1139.6	1135.9	0.917	2.631	76.867	18.251	1.241	0.031	0.054	0.004	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1381.69
9	0.6778	1121.5	1141.4	1133.8	0.909	2.599	76.735	18.412	1.252	0.031	0.054	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1383.19
10	0.6822	1126.0	1146.0	1142.4	1.022	2.566	76.396	18.294	1.569	0.050	0.089	0.007	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1384.21
11	0.6750	1116.2	1136.0	1132.3	1.007	2.507	77.743	17.127	1.480	0.045	0.080	0.006	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1379.48
12	0.6730	1114.9	1134.7	1131.0	1.032	2.360	78.096	16.989	1.399	0.042	0.073	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1379.93
13	0.6741	1116.0	1135.8	1132.1	1.037	2.388	77.849	17.225	1.379	0.040	0.070	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1380.15
14	0.6716	1113.3	1133.0	1129.3	1.020	2.345	78.258	16.972	1.285	0.041	0.069	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1379.34
15	0.6713	1113.1	1132.8	1129.2	1.013	2.343	78.346	16.871	1.295	0.046	0.073	0.007	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1379.33
16	0.6713	1111.8	1131.5	1128.0	0.998	2.444	78.117	17.165	1.179	0.032	0.056	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1377.79
17	0.6751	1115.6	1135.4	1131.9	1.022	2.535	77.456	17.607	1.275	0.035	0.061	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1378.62
18	0.6741	1113.4	1133.1	1129.4	1.048	2.533	77.708	17.326	1.279	0.035	0.062	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1376.90
19	0.6739	1113.5	1133.2	1129.5	1.054	2.497	77.760	17.299	1.284	0.035	0.061	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1377.29
20	0.6777	1117.1	1136.9	1133.2	1.059	2.632	76.967	17.944	1.295	0.034	0.060	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1377.80
21	0.6780	1117.2	1137.0	1133.3	1.051	2.659	76.915	17.968	1.304	0.034	0.060	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1377.70
22	0.6774	1116.6	1136.4	1132.7	1.053	2.637	77.059	17.830	1.314	0.036	0.063	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1377.57
23	0.6746	1113.6	1133.3	1129.7	1.047	2.571	77.600	17.385	1.290	0.036	0.063	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1376.67
24	0.6732	1111.3	1131.0	1127.4	1.046	2.577	77.864	17.141	1.266	0.035	0.062	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1375.28
25	0.6787	1118.9	1138.7	1135.3	1.052	2.626	77.028	17.676	1.470	0.047	0.090	0.006	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1379.00
26	0.6750	1114.5	1134.3	1130.7	1.046	2.550	77.508	17.519	1.272	0.035	0.061	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1377.43
27	0.6726	1111.6	1131.2	1127.7	1.023	2.540	77.819	17.381	1.150	0.029	0.051	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1376.22
28	0.6734	1112.7	1132.4	1128.9	1.016	2.553	77.671	17.499	1.171	0.030	0.052	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1376.86
29	0.6723	1111.3	1131.0	1127.4	1.024	2.533	77.905	17.270	1.176	0.031	0.054	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1376.11
30	0.6661	1104.8	1124.4	1121.0	0.968	2.430	79.036	16.385	1.095	0.028	0.050	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1374.45
Avg	0.6744	1114.0	1133.8	1130.1	0.990	2.606	77.687	17.230	1.364	0.040	0.071	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1377.47

# Source Daily Summary

September 2020

Number: 111

Pressure Base: 14.730

Contract Day: 1

Name: LITTLE KNIFE PLANT

Temperature Base:

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	0.6876	1154.8	1175.2	1170.8	0.000	2.882	73.144	23.204	0.752	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.02	-25.22
2	0.6884	1155.9	1176.3	1171.8	0.000	2.892	73.009	23.306	0.774	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.52	-24.73
3	0.6873	1153.9	1174.3	1169.7	0.000	2.910	73.179	23.164	0.730	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.22	-25.52
4	0.6873	1153.9	1174.4	1169.9	0.000	2.907	73.195	23.136	0.745	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.28	-25.45
5	0.6876	1154.4	1174.8	1170.4	0.000	2.908	73.161	23.139	0.775	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.53	-25.19
6	0.6866	1152.9	1173.4	1168.9	0.000	2.907	73.282	23.090	0.704	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.73	-25.94
7	0.6885	1152.0	1172.4	1171.6	0.000	2.905	73.157	22.975	0.947	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.26	-24.56
8	0.6909	1152.4	1172.8	1175.1	0.000	2.905	72.918	22.961	1.199	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.26	-22.74
9	0.6893	1153.5	1173.9	1173.2	0.000	2.884	73.039	23.076	0.984	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.34	-23.99
10	0.6890	1152.9	1173.4	1172.7	0.000	2.894	73.112	22.971	1.006	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.91	-24.06
11	0.6868	1154.0	1174.4	1169.9	0.000	2.855	73.280	23.126	0.723	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.89	-25.68
12	0.6914	1153.2	1173.6	1176.7	0.000	2.865	72.925	22.909	1.286	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.42	-22.22
13	0.6919	1155.2	1175.7	1178.1	0.000	2.836	72.773	23.129	1.247	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.52	-21.77
14	0.6869	1154.7	1175.1	1170.4	0.000	2.825	73.321	23.054	0.784	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.59	-25.34
15	0.7079	1153.8	1174.3	1169.8	0.000	2.821	73.344	23.093	0.726	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.34	-25.73
16	0.6857	1152.7	1173.1	1168.1	0.000	2.833	73.506	22.924	0.721	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.39	-26.20
17	0.6864	1154.2	1174.6	1169.7	0.000	2.808	73.423	22.969	0.784	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.51	-25.55
18	0.6864	1154.1	1174.5	1170.1	0.000	2.814	73.434	22.952	0.784	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.35	-25.59
19	0.6854	1152.6	1173.0	1168.7	0.000	2.813	73.548	22.908	0.715	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.58	-26.31
20	0.6889	1152.9	1173.3	1169.2	0.000	2.834	73.498	22.899	0.751	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.55	-25.95
21	0.7239	1153.1	1173.5	1169.1	0.000	2.841	73.459	22.956	0.728	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.44	-26.07
22	0.6867	1154.1	1174.5	1170.0	0.000	2.839	73.325	23.077	0.744	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.11	-25.64
23	0.6863	1153.9	1174.3	1169.8	0.000	2.813	73.395	23.043	0.733	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.31	-25.82
24	0.6861	1153.4	1173.8	1169.3	0.000	2.833	73.433	22.975	0.744	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.78	-25.90
25	0.6863	1153.5	1173.9	1169.4	0.000	2.837	73.394	23.026	0.728	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.80	-25.91
26	0.6852	1152.1	1172.5	1168.1	0.000	2.823	73.559	22.922	0.680	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.19	-26.58
27	0.6853	1152.2	1172.6	1168.2	0.000	2.828	73.534	22.946	0.677	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.17	-26.55
28	0.6854	1152.6	1173.0	1168.5	0.000	2.810	73.528	22.957	0.689	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.63	-26.40
29	0.6855	1152.3	1172.7	1168.2	0.000	2.835	73.535	22.906	0.708	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.17	-26.37
30	0.6853	1152.7	1173.1	1168.8	0.000	2.798	73.548	22.953	0.687	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.80	-26.44
Avg	0.6892	1153.0	1173.9	1170.5	0.000	2.852	73.299	23.025	0.808	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.22	-25.31

# Source Daily Summary

September 2020

Number: 351

Pressure Base: 14.730

Contract Day: 1

Name: BADLANDS PLANT

Temperature Base:

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	0.5725	962.4	979.4	976.3	0.108	3.601	95.951	0.315	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1291.54
2	0.5724	962.3	979.4	976.1	0.108	3.594	95.976	0.300	0.014	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1291.59
3	0.5724	962.3	979.3	976.2	0.108	3.601	95.969	0.300	0.014	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1291.47
4	0.5724	962.3	979.4	976.1	0.108	3.592	95.976	0.301	0.014	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1291.61
5	0.5725	961.9	978.9	975.6	0.107	3.640	95.933	0.298	0.013	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1290.78
6	0.5726	961.8	978.8	975.6	0.107	3.651	95.923	0.298	0.013	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1290.58
7	0.5724	962.5	979.6	976.7	0.109	3.580	95.980	0.308	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1291.84
8	0.5793	965.4	982.5	979.7	0.140	4.003	94.816	0.782	0.208	0.017	0.029	0.001	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1288.36
9	0.5719	963.7	980.7	977.9	0.112	3.464	96.095	0.306	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1293.88
10	0.5719	963.6	980.6	977.7	0.112	3.473	96.086	0.306	0.015	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1293.72
11	0.5728	961.0	978.0	975.1	0.103	3.724	95.857	0.295	0.013	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1289.32
12	0.5799	966.2	983.4	980.2	0.136	4.023	94.512	1.200	0.111	0.010	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1288.41
13	0.5796	956.0	972.9	970.0	0.134	4.630	94.400	0.767	0.060	0.006	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1274.97
14	0.5991	998.2	1015.9	1012.6	0.279	3.661	91.153	4.442	0.415	0.019	0.026	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1309.40
15	0.6199	1031.4	1049.6	1046.3	0.527	3.219	87.517	7.982	0.683	0.027	0.038	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1330.07
16	0.6048	1009.2	1027.1	1023.9	0.409	3.337	90.186	5.562	0.457	0.020	0.025	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1317.56
17	0.6190	1032.5	1050.8	1047.5	0.538	3.051	87.653	8.077	0.620	0.024	0.033	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1332.46
18	0.6171	1029.3	1047.6	1044.2	0.522	3.093	87.982	7.752	0.586	0.025	0.033	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1330.31
19	0.6316	1050.5	1069.1	1065.6	0.664	2.954	85.339	10.231	0.744	0.025	0.037	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1342.07
20	0.6276	1043.2	1061.7	1058.3	0.617	3.093	86.011	9.537	0.682	0.023	0.032	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1337.02
21	0.6324	1049.9	1068.5	1065.0	0.654	3.078	85.172	10.261	0.766	0.025	0.038	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1340.52
22	0.6321	1050.1	1068.7	1065.1	0.661	3.020	85.243	10.255	0.755	0.024	0.036	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1341.19
23	0.6350	1053.2	1071.9	1068.4	0.669	3.096	84.658	10.734	0.777	0.024	0.036	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1342.02
24	0.6390	1059.2	1078.0	1074.4	0.701	3.057	83.933	11.418	0.823	0.025	0.038	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1345.43
25	0.6141	1023.9	1042.1	1038.7	0.477	3.209	88.429	7.317	0.521	0.019	0.024	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1326.55
26	0.6157	1025.4	1043.5	1040.3	0.502	3.232	88.160	7.509	0.547	0.020	0.026	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1326.73
27	0.6462	1070.5	1089.5	1086.1	0.788	2.918	82.676	12.619	0.919	0.028	0.045	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1352.13
28	0.6284	1043.7	1062.1	1058.8	0.617	3.140	85.883	9.579	0.713	0.024	0.037	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1336.72
29	0.6382	1058.7	1077.4	1073.9	0.706	3.006	84.139	11.237	0.836	0.027	0.043	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1345.62
30	0.6399	1061.9	1080.7	1077.4	0.728	2.941	83.756	11.708	0.800	0.024	0.037	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1347.86
Avg	0.6034	1007.0	1024.6	1021.3	0.385	3.389	90.379	5.400	0.405	0.017	0.021	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1315.72

# Gas Composition and Properties

Effective September 1, 2020

Attachment B  
Page 19 of 24

Source #: 2702230  
Name: WATFORD CITY EAST BORDER

Component	Mole %	Liquid Content	Mass %
Carbon Dioxide, CO2	1.0714		2.4075
Nitrogen, N2	2.5315		3.6209
Methane, C1	75.6545		61.9697
Ethane, C2	20.5268	5.4916	31.5147
Propane, C3	0.2140	0.0590	0.4818
iso-Butane, iC4	0.0009	0.0003	0.0027
n-Butane, nC4	0.0009	0.0003	0.0027
iso-Pentane, iC5			
n-Pentane, nC5			
Neo-Pentane, NeoC5			
Hexanes Plus, C6+			
Water, H2O			
Hydrogen Sulfide, H2S			
Oxygen, O2			
Carbon Monoxide, CO			
Hydrogen, H2			
Helium, He			
Argon, Ar			
Totals	100.0000	5.5510	100.0000

Property	Total Sample	C6 Plus Fraction
Pressure Base	14.730	
Temperature Base	60.00	
HCDP @ Sample Pressure	-89.402	
Cricodentherm	-34.993	
HV, Dry @ Base P, T	1138.75	
HV, Sat @ Base P, T	1118.93	
HV, Sat @ Sample P, T	1138.75	
Relative Density	0.6779	

C6+: 100

Sample		
Date: 09/01/2020	Pressure:	170.0
Type:	Temperature:	
Tech: Joshua Tipton	H2O:	lbs/mm
	H2S:	ppm
Remarks:		

Analysis	
Date: 09/01/2020	Instrument:
	Cylinder: 454
Tech: Joshua Tipton	
Remarks:	

Zone 43

September-20

ZONE 550

MANDAN BORDER

WBI - Mandan Border

Weighted

		NBPL - St Anthony			WBI - Mandan Border			AVG	
Start Date	End Date	MCF	DK	BTU	MCF	DK	BTU Zone 28	BTU	
9/1/2020	9/2/2020				864	1023	1.1841	1.184	9/1/2020
9/2/2020	9/3/2020				843	1004	1.1911	1.191	9/2/2020
9/3/2020	9/4/2020				961	1147	1.1935	1.194	9/3/2020
9/4/2020	9/5/2020				808	968	1.1973	1.197	9/4/2020
9/5/2020	9/6/2020				696	833	1.1965	1.197	9/5/2020
9/6/2020	9/7/2020				726	865	1.1915	1.192	9/6/2020
9/7/2020	9/8/2020				1405	1641	1.1725	1.173	9/7/2020
9/8/2020	9/9/2020				1905	2155	1.1310	1.131	9/8/2020
9/9/2020	9/10/2020				1459	1642	1.1256	1.126	9/9/2020
9/10/2020	9/11/2020				1222	1431	1.1678	1.168	9/10/2020
9/11/2020	9/12/2020				1163	1384	1.1894	1.189	9/11/2020
9/12/2020	9/13/2020				847	1009	1.1916	1.192	9/12/2020
9/13/2020	9/14/2020				1177	1402	1.1912	1.191	9/13/2020
9/14/2020	9/15/2020				1005	1194	1.1871	1.187	9/14/2020
9/15/2020	9/16/2020				1036	1197	1.1557	1.156	9/15/2020
9/16/2020	9/17/2020				1245	1404	1.1283	1.128	9/16/2020
9/17/2020	9/18/2020				1196	1373	1.1465	1.147	9/17/2020
9/18/2020	9/19/2020				969	1127	1.1663	1.166	9/18/2020
9/19/2020	9/20/2020				907	1041	1.1500	1.150	9/19/2020
9/20/2020	9/21/2020				872	1031	1.1816	1.182	9/20/2020
9/21/2020	9/22/2020				943	1131	1.1977	1.198	9/21/2020
9/22/2020	9/23/2020				908	1089	1.1975	1.198	9/22/2020
9/23/2020	9/24/2020				907	1055	1.1629	1.163	9/23/2020
9/24/2020	9/25/2020				975	1096	1.1237	1.124	9/24/2020
9/25/2020	9/26/2020				837	973	1.1643	1.164	9/25/2020
9/26/2020	9/27/2020				954	1137	1.1915	1.192	9/26/2020
9/27/2020	9/28/2020				1452	1723	1.1863	1.186	9/27/2020
9/28/2020	9/29/2020				1346	1597	1.1862	1.186	9/28/2020
9/29/2020	9/30/2020				1133	1350	1.1910	1.191	9/29/2020
9/30/2020	10/1/2020				1742	2076	1.1915	1.192	9/30/2020
		0	0	#DIV/0!	32,503	38,098	1.1744	1.1744	



# Alliance Pipeline

DAILY ANALYSIS --- USA  
 ND07MD1 --- Hankinson Sales  
 September 2020

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%	HeI Mol%
1	1,156.043	0.6646	84.0446	9.4857	3.6199	0.3842	0.7077	0.0716	0.0569	0.0301	1.1454	0.4432	0.0108
2	1,158.052	0.6658	83.8115	9.6493	3.6731	0.3885	0.7125	0.0700	0.0553	0.0287	1.1827	0.4175	0.0109
3	1,156.727	0.6646	83.9463	9.6228	3.6219	0.3823	0.6978	0.0658	0.0542	0.0282	1.1560	0.4140	0.0106
4	1,161.555	0.6676	83.5863	9.8067	3.7326	0.4046	0.7448	0.0674	0.0550	0.0285	1.1613	0.4023	0.0105
5	1,161.630	0.6677	83.5785	9.8185	3.7465	0.4037	0.7235	0.0710	0.0579	0.0298	1.1438	0.4168	0.0101
6	1,164.078	0.6691	83.4394	9.8563	3.8518	0.4111	0.7351	0.0721	0.0569	0.0272	1.1190	0.4213	0.0098
7	1,164.213	0.6697	83.3000	9.9595	3.8150	0.4107	0.7571	0.0737	0.0568	0.0246	1.1747	0.4177	0.0102
8	1,162.410	0.6690	83.3485	9.9234	3.7974	0.4020	0.7384	0.0703	0.0544	0.0232	1.2102	0.4217	0.0105
9	1,164.918	0.6705	83.1839	9.9613	3.8820	0.4106	0.7603	0.0751	0.0562	0.0249	1.2290	0.4061	0.0105
10	1,160.582	0.6660	83.8788	9.6614	3.6985	0.4040	0.7205	0.0757	0.0584	0.0256	1.0501	0.4165	0.0105
11	1,161.582	0.6674	83.6024	9.8192	3.7471	0.4009	0.7282	0.0726	0.0548	0.0229	1.1273	0.4138	0.0105
12	1,162.127	0.6671	83.7154	9.7715	3.7030	0.4063	0.7467	0.0768	0.0595	0.0277	1.0827	0.3994	0.0110
13	1,160.148	0.6662	83.7720	9.7613	3.6660	0.3935	0.7194	0.0759	0.0589	0.0267	1.1085	0.4067	0.0113
14	1,160.791	0.6671	83.7080	9.6813	3.7388	0.4027	0.7432	0.0746	0.0574	0.0245	1.1394	0.4188	0.0113
15	1,161.347	0.6675	83.6336	9.7420	3.7463	0.4014	0.7459	0.0755	0.0567	0.0241	1.1543	0.4093	0.0109
16	1,158.559	0.6657	83.8997	9.5820	3.7064	0.3917	0.7169	0.0705	0.0541	0.0233	1.1031	0.4411	0.0112
17	1,164.707	0.6696	83.5283	9.5885	4.0129	0.4143	0.7521	0.0722	0.0549	0.0235	1.1006	0.4417	0.0110
18	1,163.448	0.6685	83.6946	9.5212	3.9290	0.4194	0.7616	0.0718	0.0541	0.0226	1.0804	0.4342	0.0112
19	1,168.642	0.6732	83.0586	9.7561	4.1240	0.4377	0.8153	0.0736	0.0554	0.0228	1.2164	0.4288	0.0113
20	1,170.468	0.6745	82.8556	9.9574	4.0736	0.4531	0.8295	0.0781	0.0610	0.0268	1.2175	0.4364	0.0111
21	1,173.381	0.6765	82.6066	10.0810	4.1208	0.4692	0.8681	0.0805	0.0624	0.0284	1.2452	0.4273	0.0104
22	1,175.397	0.6775	82.5787	10.0536	4.1275	0.5017	0.9069	0.0820	0.0639	0.0315	1.2121	0.4315	0.0105
23	1,174.386	0.6757	82.8064	10.0652	4.0136	0.5029	0.8781	0.0838	0.0665	0.0334	1.1074	0.4320	0.0106
24	1,171.907	0.6736	83.1008	9.9215	3.9452	0.4921	0.8579	0.0819	0.0652	0.0332	1.0620	0.4293	0.0110
25	1,171.665	0.6747	82.8961	9.9433	4.0624	0.4607	0.8385	0.0854	0.0655	0.0329	1.1622	0.4424	0.0106
26	1,174.581	0.6770	82.5299	10.1302	4.2243	0.4567	0.8234	0.0827	0.0643	0.0323	1.2070	0.4384	0.0107
27	1,177.909	0.6778	82.5658	10.1255	4.2314	0.4882	0.8617	0.0884	0.0687	0.0356	1.0959	0.4282	0.0107
28	1,176.619	0.6763	82.7510	10.0813	4.1893	0.4741	0.8392	0.0889	0.0685	0.0332	1.0452	0.4182	0.0113
29	1,176.803	0.6769	82.5217	10.2417	4.2422	0.4664	0.8250	0.0815	0.0608	0.0256	1.1319	0.3923	0.0108
30	1,175.312	0.6757	82.6290	10.2888	4.1626	0.4592	0.7984	0.0777	0.0588	0.0244	1.0668	0.4231	0.0111
<b>Volume</b>	<b>1,166.398</b>	<b>0.6708</b>	<b>83.2813</b>	<b>9.8642</b>	<b>3.9089</b>	<b>0.4300</b>	<b>0.7787</b>	<b>0.0763</b>	<b>0.0591</b>	<b>0.0275</b>	<b>1.1409</b>	<b>0.4222</b>	<b>0.0108</b>
<b>Weight Avg Energy</b>	<b>1,166.436</b>	<b>0.6708</b>	<b>83.2786</b>	<b>9.8653</b>	<b>3.9100</b>	<b>0.4302</b>	<b>0.7790</b>	<b>0.0763</b>	<b>0.0592</b>	<b>0.0275</b>	<b>1.1409</b>	<b>0.4222</b>	<b>0.0108</b>



# Alliance Pipeline

DAILY ANALYSIS --- USA  
 ND14MD1 --- Milnor Sales  
 September 2020

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%	HeI Mol%
1	1,155.407	0.6640	84.0899	9.4964	3.5970	0.3812	0.7008	0.0687	0.0535	0.0274	1.1420	0.4322	0.0108
2	1,157.592	0.6657	83.8280	9.6416	3.6637	0.3861	0.7079	0.0693	0.0553	0.0288	1.1888	0.4195	0.0109
3	1,158.462	0.6657	83.8117	9.7000	3.6635	0.3881	0.7111	0.0662	0.0546	0.0284	1.1546	0.4111	0.0106
4	1,159.063	0.6661	83.8027	9.6679	3.6751	0.3978	0.7333	0.0654	0.0536	0.0283	1.1674	0.3979	0.0106
5	1,161.822	0.6679	83.5572	9.8351	3.7560	0.4040	0.7193	0.0713	0.0581	0.0292	1.1399	0.4197	0.0101
6	1,165.598	0.6702	83.3310	9.8879	3.8905	0.4181	0.7564	0.0746	0.0581	0.0271	1.1252	0.4214	0.0098
7	1,163.670	0.6696	83.2670	10.0132	3.8026	0.4044	0.7419	0.0712	0.0559	0.0244	1.1909	0.4182	0.0102
8	1,162.489	0.6690	83.3715	9.9018	3.8027	0.4033	0.7406	0.0705	0.0541	0.0229	1.2041	0.4180	0.0106
9	1,164.148	0.6702	83.2409	9.9256	3.8618	0.4084	0.7557	0.0753	0.0565	0.0250	1.2312	0.4090	0.0105
10	1,161.408	0.6663	83.8412	9.7026	3.7159	0.4052	0.7192	0.0761	0.0586	0.0258	1.0340	0.4106	0.0108
11	1,161.497	0.6673	83.6385	9.8065	3.7374	0.4012	0.7280	0.0727	0.0551	0.0231	1.1168	0.4101	0.0106
12	1,162.378	0.6674	83.6672	9.8111	3.7045	0.4055	0.7449	0.0777	0.0601	0.0280	1.0912	0.3985	0.0111
13	1,160.090	0.6664	83.7710	9.7428	3.6777	0.3938	0.7193	0.0751	0.0586	0.0271	1.1078	0.4155	0.0114
14	1,160.838	0.6673	83.7051	9.6604	3.7468	0.4038	0.7491	0.0753	0.0575	0.0242	1.1487	0.4178	0.0113
15	1,161.156	0.6674	83.6424	9.7663	3.7322	0.3997	0.7391	0.0745	0.0560	0.0240	1.1435	0.4114	0.0109
16	1,159.173	0.6662	83.8628	9.5675	3.7510	0.3928	0.7187	0.0707	0.0542	0.0234	1.1060	0.4416	0.0112
17	1,164.347	0.6693	83.5774	9.5751	3.9865	0.4153	0.7528	0.0723	0.0548	0.0234	1.0911	0.4402	0.0110
18	1,164.163	0.6691	83.6106	9.5521	3.9585	0.4215	0.7682	0.0719	0.0539	0.0223	1.0977	0.4321	0.0112
19	1,169.578	0.6739	82.9655	9.8155	4.1451	0.4401	0.8200	0.0736	0.0560	0.0233	1.2150	0.4345	0.0113
20	1,171.503	0.6754	82.7445	10.0259	4.0959	0.4544	0.8370	0.0794	0.0623	0.0264	1.2134	0.4500	0.0109
21	1,173.829	0.6768	82.5745	10.0873	4.1326	0.4731	0.8728	0.0811	0.0628	0.0292	1.2519	0.4242	0.0104
22	1,175.716	0.6776	82.5868	10.0623	4.1200	0.5053	0.9099	0.0824	0.0643	0.0320	1.1965	0.4299	0.0106
23	1,174.387	0.6757	82.8116	10.0766	4.0073	0.5025	0.8765	0.0834	0.0665	0.0332	1.0993	0.4324	0.0106
24	1,171.674	0.6734	83.1493	9.8763	3.9531	0.4896	0.8547	0.0829	0.0656	0.0335	1.0575	0.4267	0.0109
25	1,171.340	0.6751	82.8232	9.9676	4.0870	0.4508	0.8302	0.0854	0.0650	0.0324	1.2016	0.4462	0.0106
26	1,174.201	0.6769	82.5501	10.1274	4.2185	0.4515	0.8182	0.0822	0.0643	0.0318	1.2015	0.4437	0.0107
27	1,179.178	0.6783	82.5501	10.1298	4.2446	0.4956	0.8706	0.0924	0.0724	0.0391	1.0763	0.4183	0.0108
28	1,175.693	0.6759	82.7834	10.0731	4.1725	0.4689	0.8318	0.0870	0.0661	0.0312	1.0532	0.4216	0.0112
29	1,176.286	0.6765	82.5659	10.2362	4.2253	0.4642	0.8158	0.0808	0.0606	0.0252	1.1216	0.3936	0.0109
30	1,176.053	0.6764	82.5506	10.3219	4.1873	0.4613	0.8063	0.0777	0.0587	0.0244	1.0748	0.4259	0.0111
<b>Volume</b>	<b>1,166.669</b>	<b>0.6710</b>	<b>83.2631</b>	<b>9.8688</b>	<b>3.9188</b>	<b>0.4316</b>	<b>0.7811</b>	<b>0.0764</b>	<b>0.0591</b>	<b>0.0274</b>	<b>1.1400</b>	<b>0.4230</b>	<b>0.0108</b>
<b>Weight Avg Energy</b>	<b>1,166.718</b>	<b>0.6711</b>	<b>83.2587</b>	<b>9.8706</b>	<b>3.9205</b>	<b>0.4317</b>	<b>0.7814</b>	<b>0.0765</b>	<b>0.0591</b>	<b>0.0274</b>	<b>1.1404</b>	<b>0.4230</b>	<b>0.0108</b>

September-20

ZONE 610

Watford City					Watford City West Border			Watford City East Border			Weighted
Start Date	End Date	MCF	DK	BTU Zone 25	MCF	DK	BTU Zone 43	AVG BTU			
9/1/2020	9/2/2020	74	89	1.1936	64	73	1.1388	1.168	9/1/2020		
9/2/2020	9/3/2020	80	95	1.1936	63	72	1.1388	1.169	9/2/2020		
9/3/2020	9/4/2020	72	87	1.1936	68	77	1.1388	1.167	9/3/2020		
9/4/2020	9/5/2020	75	89	1.1936	68	78	1.1388	1.168	9/4/2020		
9/5/2020	9/6/2020	36	43	1.1936	44	50	1.1388	1.163	9/5/2020		
9/6/2020	9/7/2020	84	101	1.1936	72	83	1.1388	1.168	9/6/2020		
9/7/2020	9/8/2020	173	206	1.1936	173	197	1.1388	1.166	9/7/2020		
9/8/2020	9/9/2020	205	245	1.1936	176	200	1.1388	1.168	9/8/2020		
9/9/2020	9/10/2020	172	205	1.1936	119	136	1.1388	1.171	9/9/2020		
9/10/2020	9/11/2020	134	160	1.1936	95	108	1.1388	1.171	9/10/2020		
9/11/2020	9/12/2020	125	150	1.1936	92	105	1.1388	1.170	9/11/2020		
9/12/2020	9/13/2020	89	107	1.1936	76	86	1.1388	1.168	9/12/2020		
9/13/2020	9/14/2020	126	150	1.1936	92	104	1.1388	1.170	9/13/2020		
9/14/2020	9/15/2020	117	140	1.1936	87	99	1.1388	1.170	9/14/2020		
9/15/2020	9/16/2020	148	177	1.1936	101	115	1.1388	1.171	9/15/2020		
9/16/2020	9/17/2020	155	185	1.1936	134	153	1.1388	1.168	9/16/2020		
9/17/2020	9/18/2020	132	157	1.1936	104	119	1.1388	1.169	9/17/2020		
9/18/2020	9/19/2020	129	154	1.1936	90	103	1.1388	1.171	9/18/2020		
9/19/2020	9/20/2020	118	141	1.1936	106	121	1.1388	1.168	9/19/2020		
9/20/2020	9/21/2020	134	160	1.1936	81	93	1.1388	1.173	9/20/2020		
9/21/2020	9/22/2020	132	157	1.1936	72	82	1.1388	1.174	9/21/2020		
9/22/2020	9/23/2020	124	149	1.1936	69	78	1.1388	1.174	9/22/2020		
9/23/2020	9/24/2020	137	164	1.1936	110	126	1.1388	1.169	9/23/2020		
9/24/2020	9/25/2020	130	156	1.1936	75	85	1.1388	1.174	9/24/2020		
9/25/2020	9/26/2020	140	167	1.1936	73	84	1.1388	1.175	9/25/2020		
9/26/2020	9/27/2020	156	187	1.1936	92	105	1.1388	1.173	9/26/2020		
9/27/2020	9/28/2020	187	223	1.1936	134	153	1.1388	1.171	9/27/2020		
9/28/2020	9/29/2020	178	212	1.1936	165	188	1.1388	1.167	9/28/2020		
9/29/2020	9/30/2020	184	220	1.1936	144	164	1.1388	1.170	9/29/2020		
9/30/2020	10/1/2020	219	261	1.1936	188	214	1.1388	1.168	9/30/2020		
		3,965	4,737	1.1936	3,027	3,451	1.1388	1.1699			

ROW ID	LOCATION DESCRIPTION	GROSS HEATING VALUE (BTU/CF)	SPECIFIC GRAVITY	WOBBE (calc)	CRICONDENTHERM (deg F)	NITROGEN (mole percent)	CARBON DIOXIDE (mole percent)	METHANE (mole percent)	ETHANE (mole percent)	PROPANE (mole percent)	NORMAL BUTANE (mole percent)	ISO BUTANE (mole percent)	PENTANE (mole percent)	ISO PENTANE (mole percent)	NEO PENTANE (mole percent)	HEXANES PLUS (mole percent)	HYDROGEN (mole percent)	HELIUM (mole percent)	PRODUCTION DATE	POSTING DATE	Changestimestamp	NOTES
11587	GLEN ULLIN	1114.4	0.6587	1373.1	-40.9	2.3207	0.9783	79.9829	15.5346	0.97	0.0205	0.0132	0	0	N/A	0	0.1572	0.0227	8/31/2020	9/1/2020	9/1/2020 4:41:51 PM	
11587	GLEN ULLIN	1118.3	0.661	1375.5	-39.5	2.3248	0.9612	79.5257	15.9889	0.9874	0.0206	0.0132	0	0	N/A	0	0.1546	0.0236	9/1/2020	9/2/2020	9/2/2020 5:19:45 PM	
11587	GLEN ULLIN	1117.4	0.661	1374.4	-39.7	2.3652	0.9659	79.5514	15.9414	0.9828	0.0187	0.0123	0	0.0001	N/A	0	0.1394	0.0229	9/2/2020	9/3/2020	9/3/2020 5:10:10 PM	
11587	GLEN ULLIN	1116.6	0.6608	1373.6	-40	2.4067	0.9616	79.5432	15.9247	0.9611	0.0191	0.0123	0.0002	0.0001	N/A	0	0.1475	0.0235	9/3/2020	9/4/2020	9/4/2020 4:31:50 PM	
11587	GLEN ULLIN	1122.3	0.6665	1374.7	-36.9	2.5636	0.9846	78.4087	16.7999	1.025	0.0188	0.0125	0.0001	0.0001	N/A	0	0.1633	0.0238	9/4/2020	9/5/2020	9/5/2020 4:27:35 PM	
11587	GLEN ULLIN	1124.2	0.668	1375.4	-35.8	2.6049	0.9818	78.1086	16.9894	1.0782	0.0213	0.0138	0	0.0001	N/A	0	0.1778	0.0241	9/5/2020	9/6/2020	9/6/2020 4:14:07 PM	
11587	GLEN ULLIN	1120.9	0.6656	1374	-37.5	2.5651	0.9816	78.5963	16.6362	1.0086	0.0209	0.0132	0	0	N/A	0	0.154	0.0241	9/6/2020	9/7/2020	9/7/2020 4:15:02 PM	
11587	GLEN ULLIN	1121.2	0.6659	1373.9	-37.4	2.5646	0.9938	78.5898	16.662	1.0029	0.0222	0.0139	0	0	N/A	0	0.127	0.0239	9/7/2020	9/8/2020	9/8/2020 4:15:31 PM	
11587	GLEN ULLIN	1123.9	0.6677	1375.5	-36.4	2.5765	0.9845	78.3707	16.9167	1.0267	0.0228	0.0143	0.0002	0.0002	N/A	0	0.0629	0.0245	9/8/2020	9/9/2020	9/9/2020 4:16:48 PM	
11587	GLEN ULLIN	1124.4	0.668	1375.8	-36.1	2.5939	0.9696	78.365	16.8832	1.0735	0.023	0.0148	0	0	N/A	0	0.0519	0.0253	9/9/2020	9/10/2020	9/10/2020 4:16:28 PM	
11587	GLEN ULLIN	1119	0.6631	1374.2	-38.9	2.4734	0.9608	79.3724	16.122	0.995	0.0239	0.0146	0.0002	0.0001	N/A	0	0.013	0.0247	9/10/2020	9/11/2020	9/11/2020 4:22:53 PM	
11587	GLEN ULLIN	1118.7	0.6615	1375.5	-39.4	2.3349	0.9668	79.724	15.8988	0.999	0.0234	0.0155	0.0004	0.0005	N/A	0	0.0124	0.0244	9/11/2020	9/12/2020	9/12/2020 4:17:07 PM	
11587	GLEN ULLIN	1121.2	0.6635	1376.4	-38.7	2.3497	0.9798	79.2383	16.3814	0.9542	0.0205	0.0137	0	0	N/A	0	0.0385	0.0239	9/12/2020	9/13/2020	9/13/2020 4:22:00 PM	
11587	GLEN ULLIN	1117.2	0.6603	1374.9	-40.3	2.3184	0.9622	79.7596	15.9132	0.9068	0.0225	0.0158	0.0006	0.0009	N/A	0.0002	0.0766	0.0233	9/13/2020	9/14/2020	9/14/2020 4:18:55 PM	
11587	GLEN ULLIN	1116.9	0.66	1374.8	-39	2.3099	0.9604	79.9297	15.6428	0.9739	0.0358	0.0266	0.0025	0.0037	N/A	0.0013	0.0901	0.0233	9/14/2020	9/15/2020	9/15/2020 4:18:25 PM	
11587	GLEN ULLIN	1114.2	0.6591	1372.4	-41	2.3706	0.9775	79.9028	15.668	0.8983	0.0221	0.0156	0.0005	0.0008	N/A	0.0002	0.1203	0.0234	9/15/2020	9/16/2020	9/16/2020 4:16:42 PM	
11587	GLEN ULLIN	1111.3	0.6591	1368.8	-41.8	2.5048	0.9989	79.8517	15.5718	0.8822	0.018	0.0119	0	0	N/A	0	0.137	0.0236	9/16/2020	9/17/2020	9/17/2020 4:23:11 PM	
11587	GLEN ULLIN	1118.8	0.6646	1372.4	-38.3	2.5806	0.9942	78.8167	16.4472	0.9714	0.0218	0.0136	0.0002	0.0001	N/A	0	0.1293	0.0252	9/17/2020	9/18/2020	9/18/2020 4:18:35 PM	
11587	GLEN ULLIN	1115.9	0.6614	1372.1	-40.1	2.4714	0.9862	79.4446	15.9912	0.9307	0.0192	0.0124	0	0	N/A	0	0.1197	0.0246	9/18/2020	9/19/2020	9/19/2020 4:16:59 PM	
11587	GLEN ULLIN	1122	0.6667	1374.1	-37.3	2.5855	0.9965	78.4782	16.8266	0.9727	0.0205	0.0131	0.0001	0.0001	N/A	0	0.0812	0.0256	9/19/2020	9/20/2020	9/20/2020 4:18:00 PM	
11587	GLEN ULLIN	1127.1	0.6712	1375.7	-34.9	2.6809	1.008	77.7056	17.4654	1.0356	0.0218	0.0139	0.0002	0.0001	N/A	0	0.0426	0.0262	9/20/2020	9/21/2020	9/21/2020 4:20:29 PM	
11587	GLEN ULLIN	1127.4	0.6716	1375.7	-34.8	2.6941	1.0106	77.6796	17.5071	1.0317	0.0223	0.0142	0.0001	0	N/A	0	0.0137	0.0266	9/21/2020	9/22/2020	9/22/2020 4:14:53 PM	
11587	GLEN ULLIN	1123.5	0.6682	1374.4	-36.6	2.6165	1.0062	78.3483	16.9491	1.0032	0.0226	0.0143	0.0002	0.0001	N/A	0	0.0136	0.0261	9/22/2020	9/23/2020	9/23/2020 4:25:34 PM	
11587	GLEN ULLIN	1121.8	0.6666	1374	-37.5	2.5641	1.0048	78.6551	16.7337	0.967	0.0222	0.014	0	0.0001	N/A	0	0.0134	0.0258	9/23/2020	9/24/2020	9/24/2020 4:20:59 PM	
11587	GLEN ULLIN	1127.8	0.6711	1376.7	-33.5	2.6408	1.0004	77.9896	17.0899	1.1632	0.0475	0.025	0.0018	0.0019	N/A	0	0.0136	0.0262	9/24/2020	9/25/2020	9/25/2020 4:22:52 PM	
11587	GLEN ULLIN	1119.9	0.6658	1372.4	-37.9	2.6224	0.9949	78.6994	16.5746	0.9777	0.0213	0.0135	0	0	N/A	0	0.0704	0.0258	9/25/2020	9/26/2020	9/26/2020 4:16:39 PM	
11587	GLEN ULLIN	1118.8	0.6644	1372.6	-38.9	2.5631	0.9913	78.9128	16.4901	0.9147	0.0193	0.0121	0.0001	0	N/A	0	0.0709	0.0256	9/26/2020	9/27/2020	9/27/2020 4:13:29 PM	
11587	GLEN ULLIN	1121.5	0.6664	1373.9	-37.8	2.5861	0.9916	78.6033	16.7993	0.9336	0.0193	0.0123	0	0	N/A	0	0.0284	0.0262	9/27/2020	9/28/2020	9/28/2020 4:46:33 PM	
11587	GLEN ULLIN	1119.9	0.6652	1373.1	-38.4	2.5857	0.9843	78.793	16.6088	0.9252	0.02	0.0126	0.0001	0	N/A	0	0.0447	0.0258	9/28/2020	9/29/2020	9/29/2020 5:09:37 PM	
11587	GLEN ULLIN	1114.9	0.6608	1371.5	-40.9	2.4979	0.963	79.6544	15.8902	0.8902	0.0193	0.0119	0	0	N/A	0	0.0478	0.0253	9/29/2020	9/30/2020	9/30/2020 4:21:38 PM	
11587	GLEN ULLIN	1104.4	0.651	1368.8	-46.5	2.2457	0.9397	81.5808	14.3654	0.7809	0.0178	0.0111	0.0003	0.0003	N/A	0	0.0341	0.024	9/30/2020	10/1/2020	10/1/2020 4:18:44 PM	

31 record(s) retrieved

<b>NORTH DAKOTA HEATING VALUE ZONES</b>		
<b>ZONES</b>	<b>MEASURING DEVICE</b>	<b>LOCATION</b>
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	SEPT 20	AUG 20	JULY 20	JUNE 20	MAY 20	APR 20	MAR 20	FEB 20	JAN 20	DEC 19	NOV 19	OCT 19	ZONE
MT/ND	211	Sidney Border - MonDak Tfr - Sidney Plt	1199	1202	1196	1191	1169	1174	1202	1211	1215	1207	1209	1198	1210	211
ND	24	Williston Border - Charbonneau Station	1164	1157	1157	1153	1163	1159	1155	1169	1171	1172	1173	1177	1160	24
ND	25	Waford City West Border	1193	1194	1191	1194	1161	1206	1188	1202	1204	1196	1192	1194	1199	25
ND	28	Bismarck Station - Glen Ullin Station	1150	1174	1195	1190	1186	1129	1149	1138	1126	1123	1128	1125	1137	28
ND	31	Dickinson Brd - Belfield Trf - G Ullin Stn	1119	1125	1104	1092	1085	1093	1150	1138	1126	1122	1128	1125	1137	31
ND/MT	32	Cabin Creek Station - Belfied Transfer	1112	1134	1120	1115	1109	1109	1133	1103	1096	1093	1074	1122	1134	32
ND	33	Little Knife Plant	1176	1174	1179	1183	1182	1179	1175	1173	1175	1174	1173	1172	1173	33
ND	34	Badlands Plant/Bowman Border	1047	1025	984	984	1036	1047	1048	1024	1073	1082	1110	1102	1054	34
ND	43	1/ Waford City East Border	1147	1139	1137	1142	1138	1151	1157	1152	1151	1154	1144	1151	1143	43
ND/MT	241	Fairview Border	1184	1157	1172	1153	1159	1164	1182	1195	1203	1209	1206	1202	1208	241
ND	260	North Tioga Transfer - Nesson Plant	1116	1131	1129	1116	1116	1099	1096	1132	1111	1089	1106	1146	1126	260
ND	261	Tioga Comp Station - Robinson Lake Plan	1172	1162	1172	1167	1177	1178	1179	1174	1173	1168	1166	1178	1174	261
ND	262	Minot Bdr - Palermo Bdr - Bismarck Stn	1188	1191	1195	1189	1192	1193	1190	1180	1180	1176	1184	1193	1195	262
ND	263	Lignite Plant	1148	1149	1147	1143	1149	1146	1146	1160	1143	1145	1149	1149	1146	263
ND	264	Epping Border	1156	1155	1147	1147	1153	1168	1147	1157	1165	1163	1162	1164	1144	264
ND	265	Tioga Comp Station - County Line Plant	1170	1163	1173	1168	1178	1158	1180	1174	1174	1168	1167	1168	1169	265
ND	266	County Line Plant	1177	1190	1194	1191	1194	1168	1193	1164	1161	1162	1165	1170	1170	266
ND	271	Bismarck Station - Cleveland Station	1181	1191	1195	1190	1193	1190	1186	1169	1165	1159	1168	1174	1189	271
ND	272	Cleveland Station - Mapleton	1180	1191	1195	1190	1192	1189	1185	1169	1165	1159	1168	1174	1188	272
ND	273	Cleveland Station - Grafton Border	1180	1190	1194	1190	1192	1189	1184	1169	1165	1159	1168	1173	1188	273
ND	550	Mandan Border / NBPL-St Anthony	1145	1174	1190	1181	1186	1129	1149	1119	1117	1115	1121	1125	1137	550
ND	610	MDU-Waford City BTU	1168	1170	1163	1163	1149	1182	1171	1169	1168	1168	1161	1172	1174	610
ND	802	NBPL - Linton	1100	1120	1102	1088	1082	1086	1105	1102	1102	1102	1102	1107	1098	802
ND	903	Hettinger Propane	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	903
ND	600	Alliance Pipeline - Hankinson	1163	1166	1160	1158	1164	1158	1163	1164	1162	1160	1159	1166	1170	600
ND	601	Alliance Pipeline - Milnor	1162	1167	1161	1158	1164	1157	1158	1164	1162	1160	1159	1166	1170	602

1/ Values for June 2020 forward reflect the BTU from the accumulated sampler and previous values were from the chromatograph

<b>THERMAL ZONE VARIANCE DOCUMENTATION</b>		
<b>September 2020</b>		
<b><i>ZONE</i></b>	<b><i>BTU VARIANCE</i></b>	<b><i>REASON</i></b>
28	-21	Operational
31	21	Operational
34	41	Operational