



# MONTANA-DAKOTA

UTILITIES CO.

A Division of MDU Resources Group, Inc.

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

September 9, 2009

RECEIVED

SEP 10 2009

PUBLIC SERVICE COMMISSION

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

Re: Case No. 11,006 (Therm Billing)  
Monthly Report – July 2009

Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc., herewith submits the following information, pursuant to the Ordering paragraphs one and two of the Order issued in the above-referenced docket, dated October 20, 1987:

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 August 2009.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our supplier for the month of July 2009. There is a report for each of the 16 thermal zones for the month.
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 July.

Please acknowledge receipt by stamping or initialing the duplicate copy of this letter attached hereto and returning the same in the enclosed self-addressed, stamped envelope. Should the Commission or its Staff have any comments or questions with respect to these reports, please call me.

Sincerely,

Tamie Aberle  
Pricing & Tariff Manager

MONTANA-DAKOTA UTILITIES CO.  
Therm Billing Factor  
AUG 2009

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
12	314	APPLE VALLEY	271	1.1193
12	327	BISMARCK	28	1.1212
12	343	CARRINGTON	273	1.1212
12	344	CLEVELAND	272	1.1133
12	364	CAVALIER	273	1.1448
12	365	DAWSON	271	1.1114
12	374	FT TOTTEN	273	1.1291
12	375	DEVILS LAKE	273	1.1291
12	379	BARLOW	273	1.1212
12	387	ELDRIDGE	272	1.1212
12	411	GLEN ULLIN	31	.9426
12	417	GRAFTON	273	1.1527
12	439	HANKINSON	600	1.0768
12	449	JAMESTOWN	272	1.1291
12	463	LANGDON	273	1.1212
12	475	LINTON	802	.9726
12	478	LINCOLN	28	1.1212
12	494	MEDINA	271	1.1114
12	498	MANDAN	28	1.1212
12	524	NEW SALEM	28	1.0975
12	532	NEW ROCKFORD	273	1.1212
12	539	PARK RIVER	273	1.1448
12	574	SANBORN	272	1.1291
12	593	STEELE	271	1.1114
12	598	SHEYENNE	273	1.1291
12	610	TAPPEN	271	1.1114
12	625	VALLEY CITY	272	1.1369
12	629	WALHALLA	273	1.1448
12	647	WILTON	262	1.1003
12	717	SPIRITWOOD	272	1.1291
12	718	FAIRMOUNT	600	1.0746
12	732	MSR SITE	273	1.1212
12	733	PAR SITE	273	1.1212
15	303	ALEXANDER	25	1.0626
15	308	ARNEGARD	25	1.0626

MONTANA-DAKOTA UTILITIES CO.  
Therm Billing Factor  
AUG 2009

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	318	BEACH	32	.9056
15	319	BELFIELD	32	.9123
15	323	BERTHOLD	262	1.1003
15	330	BOWMAN	34	1.0732
15	337	BURLINGTON	262	1.1241
15	368	DES LACS	262	1.1083
15	369	DICKINSON	31	.9358
15	384	EPPING	264	1.0796
15	407	GLADSTONE	31	.9358
15	413	GOLVA	32	.8924
15	416	GARRISON	262	1.1083
15	429	HEBRON	31	.9426
15	459	KILLDEER	33	1.0994
15	469	LEFOR	31	.9358
15	474	LIGNITE	263	1.0854
15	500	MARMARTH	34	1.0812
15	505	MINOT	262	1.1241
15	510	MOTT	31	.9358
15	512	MAX	262	1.1003
15	522	NEW ENGLAND	31	.9290
15	540	PALERMO	262	1.1003
15	558	RAY	264	1.0796
15	561	REGENT	31	.9358
15	563	RHAME	34	1.0654
15	564	RICHARDTON	31	.9290
15	568	ROSS	261	1.0559
15	572	RUTHVILLE	262	1.1241
15	583	SENTINEL BUTTE	32	.9056
15	588	SOUTH HEART	31	.9290
15	590	SPRINGBROOK	264	1.0796
15	591	STANLEY	261	1.0635
15	605	SURREY	262	1.1241
15	611	TAYLOR	31	.9290
15	616	TIOGA	261	1.0559
15	619	TURTLE LAKE	262	1.1083

MONTANA-DAKOTA UTILITIES CO.  
Therm Billing Factor  
AUG 2009

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	620	TRENTON	24	1.0873
15	624	UNDERWOOD	262	1.1083
15	632	WATFORD CITY	25	1.0626
15	636	WHEELLOCK	264	1.0718
15	637	WHITE EARTH	261	1.0635
15	642	WILLISTON	24	1.0873
15	646	WASHBURN	262	1.1162
15	664	RIVERDALE	262	1.1083
15	691	FAIRVIEW	24	1.0873
15	712	MINOT AFB	262	1.1241
15	743	BAKER FIELD	35	.8971

\* \* \* E N D O F R E P O R T \* \* \*

# GQ Source Daily Summary

July 2009

Number: 251

Pressure Base: 14.730

Contract Day: 1

Name: SIDNEY BORDER

Temperature Base:

Contract Hour: 9

Day	Relative Density	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7142	1179.7	1200.6	1199.1	0.295	3.400	70.538	22.591	2.961	0.075	0.127	0.006	0.006	0.001	0.000	0.000	0.000	0.000	1420.70
2	0.7073	1172.1	1192.8	1191.2	0.217	3.330	71.318	22.473	2.502	0.059	0.090	0.004	0.004	0.001	0.000	0.000	0.000	0.000	1418.49
3	0.7012	1171.9	1192.6	1189.8	0.023	3.064	72.145	22.323	2.341	0.039	0.058	0.003	0.003	0.001	0.000	0.000	0.000	0.000	1424.29
4	0.7014	1173.2	1194.0		0.023	3.004	72.180	22.268	2.426	0.039	0.055	0.002	0.002	0.001	0.000	0.000	0.000	0.000	1425.68
5	0.7014	1173.2	1194.0		0.023	3.004	72.180	22.268	2.426	0.039	0.055	0.002	0.002	0.001	0.000	0.000	0.000	0.000	1425.68
6	0.7246	1180.7	1201.6	1203.9	0.699	3.691	69.557	22.220	3.503	0.109	0.199	0.011	0.009	0.001	0.000	0.000	0.000	0.000	1411.85
7	0.7346	1180.6	1201.5	1200.6	1.066	4.075	68.412	22.163	3.824	0.147	0.282	0.017	0.014	0.002	0.000	0.000	0.000	0.000	1401.94
8	0.7346	1180.6	1201.5	1200.6	1.066	4.075	68.412	22.163	3.824	0.147	0.282	0.017	0.014	0.002	0.000	0.000	0.000	0.000	1401.94
9	0.7376	1185.2	1206.2	1205.2	1.066	4.078	68.116	22.173	4.075	0.158	0.300	0.018	0.015	0.002	0.000	0.000	0.000	0.000	1404.46
10	0.7145	1182.4	1203.3	1202.4	0.258	3.320	70.803	22.237	3.038	0.108	0.208	0.013	0.013	0.002	0.000	0.000	0.000	0.000	1423.62
11	0.7086	1183.2	1204.2	1203.1	0.035	3.043	71.699	21.984	2.904	0.105	0.201	0.014	0.013	0.002	0.000	0.000	0.000	0.000	1430.53
12	0.7066	1179.5	1200.4	1199.3	0.037	3.086	71.782	22.145	2.636	0.098	0.187	0.014	0.013	0.002	0.000	0.000	0.000	0.000	1428.02
13	0.7078	1180.9	1201.8	1200.9	0.037	3.109	71.473	22.422	2.709	0.090	0.140	0.009	0.009	0.002	0.000	0.000	0.000	0.000	1428.55
14	0.7255	1178.8	1199.6	1198.9	0.754	3.817	69.418	22.180	3.475	0.116	0.215	0.012	0.011	0.001	0.000	0.000	0.000	0.000	1408.57
15	0.7358	1182.3	1203.3	1202.4	1.063	4.094	68.324	22.075	3.964	0.154	0.292	0.017	0.015	0.002	0.000	0.000	0.000	0.000	1402.76
16	0.7347	1180.3	1201.2	1200.3	1.069	4.104	68.555	21.836	3.945	0.157	0.298	0.018	0.015	0.002	0.000	0.000	0.000	0.000	1401.41
17	0.7356	1181.9	1202.8	1201.9	1.063	4.097	68.430	21.926	3.988	0.158	0.302	0.019	0.016	0.002	0.000	0.000	0.000	0.000	1402.47
18	0.7362	1183.2	1204.1	1203.1	1.062	4.079	68.218	22.251	3.889	0.160	0.305	0.018	0.016	0.002	0.000	0.000	0.000	0.000	1403.42
19	0.7366	1183.8	1204.7	1203.6	1.063	4.079	68.228	22.156	3.967	0.162	0.308	0.018	0.016	0.002	0.000	0.000	0.000	0.000	1403.72
20	0.7373	1184.9	1205.9	1204.9	1.064	4.074	68.212	22.108	3.983	0.177	0.342	0.021	0.018	0.002	0.000	0.000	0.000	0.000	1404.40
21	0.7419	1192.2	1213.3	1212.4	1.055	4.071	68.022	21.680	4.491	0.210	0.416	0.027	0.023	0.003	0.000	0.000	0.000	0.000	1408.64
22	0.7388	1187.1	1208.1	1207.1	1.059	4.087	68.268	21.741	4.226	0.193	0.377	0.024	0.021	0.003	0.000	0.000	0.000	0.000	1405.55
23	0.7409	1190.6	1211.7	1210.6	1.056	4.073	68.090	21.755	4.339	0.213	0.418	0.028	0.024	0.004	0.000	0.000	0.000	0.000	1407.72
24	0.7399	1189.3	1210.3	1209.3	1.057	4.063	67.841	22.365	4.084	0.185	0.360	0.023	0.020	0.003	0.000	0.000	0.000	0.000	1405.55
25	0.7382	1186.6	1207.6	1206.5	1.051	4.077	67.945	22.366	4.085	0.152	0.290	0.017	0.015	0.002	0.000	0.000	0.000	0.000	1407.09
26	0.7335	1178.4	1199.2	1198.3	1.052	4.135	68.483	22.104	3.823	0.131	0.246	0.014	0.012	0.001	0.000	0.000	0.000	0.000	1400.29
27	0.7335	1178.7	1199.6	1198.6	1.052	4.135	68.483	22.104	3.823	0.131	0.246	0.014	0.012	0.001	0.000	0.000	0.000	0.000	1400.29
28	0.7334	1178.7	1199.6	1198.8	1.057	4.104	68.306	22.486	3.653	0.128	0.240	0.014	0.011	0.001	0.000	0.000	0.000	0.000	1400.74
29	0.7328	1177.5	1198.3	1197.5	1.057	4.121	68.395	22.408	3.634	0.125	0.233	0.013	0.011	0.001	0.000	0.000	0.000	0.000	1399.85
30	0.7328	1177.5	1198.3	1197.4	1.055	4.126	68.428	22.327	3.689	0.122	0.228	0.013	0.011	0.001	0.000	0.000	0.000	0.000	1399.82
31	0.7322	1176.3	1197.2	1196.4	1.057	4.133	68.502	22.300	3.634	0.121	0.229	0.013	0.011	0.001	0.000	0.000	0.000	0.000	1399.10
Avg	0.7269	1181.0	1201.9	1201.5	0.761	3.798	69.310	22.189	3.539	0.129	0.243	0.015	0.013	0.002	0.000	0.000	0.000	0.000	1409.91

Zone 2/1

## Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	0602330	Specific Gravity:	0.7317
GQ Source Name:	WILLISTON BORDER	BTU Base:	Dry
Effective Date:	7/1/2009 9:00:00 AM	Dry Heat Value:	1143.15
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	1123.26
Pressure Base:	14.730	As Deliv. Heat Value:	1143.15
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	68.196		
C2	Ethane	18.711	0.000	5.624
C3	Propane	3.959	1.088	1.133
IC4	Iso-Butane	0.190	0.062	0.053
NC4	N-Butane	0.349	0.110	0.093
IC5	Iso-Pentane	0.028	0.010	0.007
NC5	N-Pentane	0.027	0.010	0.007
C6+	Hexanes Plus	0.006	0.003	0.001
CO2	Carbon Dioxide	0.723		
N2	Nitrogen	7.808		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
<b>Totals</b>		99.997	1.282	6.918

**Sample Date:** 7/30/2009 12:00:00 AM  
**Sample Type:** Composite  
**Sample Tech:** sampler  
**Sample Remarks:** Zone 24 #264  
**Analysis Remarks:**

## Williston Basin Interstate Pipeline Co. GQ Source Analysis

<b>GQ Source Number:</b>	0602230	<b>Specific Gravity:</b>	0.7307
<b>GQ Source Name:</b>	WATFORD CITY BORDER	<b>BTU Base:</b>	Dry
<b>Effective Date:</b>	7/1/2009 9:00:00 AM	<b>Dry Heat Value:</b>	1124.81
<b>Effective End Date:</b>	1/18/2038 9:14:07 PM	<b>Wet Heat Value:</b>	1105.24
<b>Pressure Base:</b>	14.730	<b>As Deliv. Heat Value:</b>	1124.81
<b>Viscosity:</b>			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	68.204		
C2	Ethane	17.763		4.774
C3	Propane	3.876	1.065	1.094
IC4	Iso-Butane	0.198	0.065	0.065
NC4	N-Butane	0.361	0.114	0.115
IC5	Iso-Pentane	0.028	0.010	0.010
NC5	N-Pentane	0.026	0.010	0.010
C6+	Hexanes Plus	0.006	0.003	0.000
CO2	Carbon Dioxide	0.738		
N2	Nitrogen	8.798		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
<b>Totals</b>		99.998	1.265	6.068

**Sample Date:** 7/30/2009 12:00:00 AM  
**Sample Type:** Composite  
**Sample Tech:** sampler  
**Sample Remarks:** Zone 25

**Analysis Remarks:**

# GQ Source Daily Summary

## July 2009

**Number:** 163      **Pressure Base:** 14.730      **Contract Day:** 1  
**Name:** NORTH TIOGA MINOT      **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	0.6673	1111.0	1130.6	1130.6	0.211	3.313	78.248	16.728	1.411	0.032	0.044	0.000	0.000	0.012						1384.06	
2	0.6651	1108.2	1127.8	1127.8	0.216	3.264	78.428	16.882	1.138	0.020	0.033	0.000	0.000	0.018						1382.96	
3	0.6649	1108.0	1127.7	1127.7	0.214	3.264	78.367	17.001	1.100	0.017	0.026	0.000	0.000	0.011						1382.91	
4	0.6652	1109.0	1128.6	1128.6	0.214	3.233	78.303	17.102	1.096	0.016	0.025	0.000	0.000	0.010						1383.82	
5	0.6650	1108.3	1128.0	1128.0	0.216	3.246	78.398	16.953	1.129	0.018	0.029	0.000	0.000	0.010						1383.24	
6	0.6646	1107.7	1127.4	1127.4	0.218	3.242	78.398	17.036	1.053	0.017	0.026	0.000	0.000	0.010						1382.92	
7	0.6636	1106.4	1126.0	1126.0	0.227	3.226	78.538	16.958	1.002	0.016	0.025	0.000	0.000	0.009						1382.19	
8	0.6647	1108.2	1127.8	1127.8	0.230	3.210	78.424	16.986	1.098	0.017	0.026	0.000	0.000	0.009						1383.34	
9	0.6643	1107.2	1126.8	1126.8	0.229	3.231	78.527	16.852	1.106	0.018	0.026	0.000	0.000	0.010						1382.54	
10	0.6619	1103.3	1122.9	1122.9	0.233	3.239	78.802	16.769	0.908	0.017	0.025	0.000	0.000	0.008						1380.19	
11	0.6619	1103.2	1122.7	1122.7	0.240	3.237	78.897	16.584	0.983	0.019	0.030	0.000	0.000	0.009						1379.99	
12	0.6651	1107.8	1127.5	1127.5	0.245	3.241	78.524	16.701	1.215	0.025	0.041	0.000	0.000	0.008						1382.52	
13	0.6629	1105.0	1124.6	1124.6	0.242	3.220	78.709	16.773	1.000	0.019	0.029	0.000	0.000	0.008						1381.20	
14	0.6636	1105.4	1124.9	1124.9	0.236	3.275	78.605	16.766	1.064	0.019	0.028	0.000	0.000	0.007						1380.89	
15	0.6619	1101.0	1120.5	1120.5	0.241	3.363	78.930	16.376	1.038	0.017	0.025	0.000	0.000	0.009						1377.34	
16	0.6640	1103.3	1122.8	1122.8	0.230	3.445	78.645	16.435	1.170	0.024	0.039	0.001	0.000	0.006						1377.30	
17	0.6670	1108.5	1128.1	1128.1	0.226	3.411	78.119	16.940	1.223	0.026	0.043	0.001	0.000	0.011						1377.90	
18	0.6672	1104.9	1124.5	1124.5	0.212	3.668	78.088	16.669	1.272	0.028	0.049	0.002	0.002	0.011						1381.33	
19	0.6641	1103.2	1122.8	1122.8	0.224	3.463	78.522	16.632	1.097	0.020	0.032	0.000	0.000	0.008						1376.71	
20	0.6655	1106.8	1126.4	1126.4	0.244	3.342	78.515	16.591	1.176	0.036	0.036	0.005	0.005	0.006						1377.78	
21	0.6775	1119.1	1138.9	1138.9	0.271	3.677	77.201	16.684	1.779	0.093	0.227	0.023	0.028	0.018						1380.83	
22	0.6692	1106.6	1126.2	1126.2	0.253	3.693	77.922	16.625	1.358	0.043	0.084	0.006	0.006	0.009						1383.71	
23	0.6682	1108.3	1127.9	1127.9	0.239	3.521	77.984	16.861	1.275	0.036	0.068	0.003	0.003	0.009						1376.67	
24	0.6701	1112.0	1131.7	1131.7	0.222	3.496	77.777	16.953	1.407	0.042	0.084	0.005	0.005	0.010						1379.76	
25	0.6673	1104.5	1124.1	1124.1	0.226	3.681	78.167	16.489	1.329	0.033	0.061	0.002	0.002	0.009						1382.46	
26	0.6662	1104.0	1123.5	1123.5	0.237	3.598	78.317	16.485	1.274	0.030	0.051	0.001	0.001	0.008						1376.08	
27	0.6679	1108.7	1128.3	1128.3	0.245	3.456	77.954	17.025	1.234	0.028	0.048	0.001	0.001	0.008						1376.50	
28	0.6675	1109.9	1129.5	1129.5	0.268	3.312	78.097	16.983	1.256	0.028	0.047	0.001	0.000	0.008						1380.63	
29	0.6654	1106.6	1126.2	1126.2	0.267	3.311	78.453	16.701	1.188	0.027	0.044	0.000	0.000	0.008						1382.53	
30	0.6638	1104.1	1123.7	1123.7	0.246	3.344	78.711	16.504	1.093	0.029	0.058	0.003	0.003	0.008						1380.68	
31	0.6656	1107.0	1126.4	1126.4	0.234	3.374	78.371	16.755	1.178	0.027	0.048	0.002	0.002	0.010						1379.22	
Avg																					1380.65

*Zone 261*

# GQ Source Daily Summary

## July 2009

**Number:** 091

**Pressure Base:** 14.730

**Contract Day:** 1

**Name:** MINOT

**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	0.7205	1144.6	1164.8	1163.8	0.449	5.898	69.457	20.686	3.182	0.112	0.199	0.006	0.003	0.008	0.000	0.000	0.000	0.000	0.000	1372.33	
2	0.7214	1141.6	1161.8	1160.8	0.447	6.166	69.234	20.636	3.193	0.113	0.195	0.006	0.002	0.008	0.000	0.000	0.000	0.000	0.000	1367.92	
3	0.7245	1143.9	1164.2	1163.4	0.449	6.316	68.859	20.617	3.388	0.128	0.223	0.007	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1367.72	
4	0.7247	1147.3	1167.6	1166.7	0.457	6.119	68.905	20.729	3.404	0.133	0.229	0.008	0.005	0.011	0.000	0.000	0.000	0.000	0.000	1371.53	
5	0.7238	1142.9	1163.1	1162.3	0.462	6.294	68.775	20.931	3.198	0.118	0.201	0.005	0.002	0.013	0.000	0.000	0.000	0.000	0.000	1367.16	
6	0.7251	1143.6	1163.9	1163.0	0.466	6.364	68.605	20.930	3.283	0.122	0.211	0.006	0.004	0.009	0.000	0.000	0.000	0.000	0.000	1366.82	
7	0.7261	1146.0	1166.3	1165.6	0.471	6.304	68.502	21.014	3.343	0.126	0.220	0.007	0.004	0.008	0.000	0.000	0.000	0.000	0.000	1368.74	
8	0.7257	1145.5	1165.8	1165.0	0.470	6.294	68.579	20.951	3.351	0.124	0.214	0.006	0.002	0.008	0.000	0.000	0.000	0.000	0.000	1368.54	
9	0.7246	1146.2	1166.5	1165.6	0.465	6.157	68.690	21.104	3.235	0.122	0.211	0.006	0.003	0.008	0.000	0.000	0.000	0.000	0.000	1370.42	
10	0.7238	1144.2	1164.5	1163.8	0.472	6.194	68.869	20.854	3.273	0.118	0.203	0.006	0.003	0.008	0.000	0.000	0.000	0.000	0.000	1368.77	
11	0.7262	1147.8	1168.1	1167.3	0.470	6.206	68.478	21.157	3.331	0.125	0.216	0.006	0.003	0.009	0.000	0.000	0.000	0.000	0.000	1370.75	
12	0.7256	1145.8	1166.1	1165.3	0.480	6.262	68.537	21.071	3.297	0.124	0.213	0.006	0.003	0.008	0.000	0.000	0.000	0.000	0.000	1368.87	
13	0.7254	1144.4	1164.6	1164.0	0.483	6.320	68.543	21.050	3.245	0.126	0.217	0.006	0.003	0.007	0.000	0.000	0.000	0.000	0.000	1367.43	
14	0.7242	1145.3	1165.6	1164.9	0.477	6.155	68.924	20.751	3.312	0.131	0.230	0.008	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1369.71	
15	0.7237	1145.3	1165.6	1165.0	0.479	6.112	69.010	20.708	3.321	0.128	0.223	0.007	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1370.11	
16	0.7248	1144.8	1165.1	1164.5	0.482	6.239	68.835	20.686	3.389	0.128	0.222	0.007	0.004	0.007	0.000	0.000	0.000	0.000	0.000	1368.50	
17	0.7250	1146.2	1166.5	1165.8	0.472	6.184	69.202	20.018	3.714	0.139	0.247	0.008	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1369.99	
18	0.7297	1153.1	1173.6	1172.7	0.458	6.220	69.014	19.605	4.099	0.192	0.373	0.019	0.016	0.004	0.000	0.000	0.000	0.000	0.000	1373.82	
19	0.7278	1149.4	1169.7	1168.7	0.474	6.256	68.668	20.479	3.668	0.152	0.276	0.011	0.009	0.007	0.000	0.000	0.000	0.000	0.000	1371.07	
20	0.7263	1146.5	1166.8	1166.0	0.474	6.287	68.867	20.301	3.659	0.140	0.249	0.009	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1369.12	
21	0.7240	1143.7	1163.9	1163.1	0.457	6.271	69.085	20.333	3.472	0.133	0.229	0.007	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1367.90	
22	0.7244	1143.5	1163.8	1162.7	0.450	6.330	68.988	20.382	3.457	0.135	0.234	0.008	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1367.31	
23	0.7228	1139.2	1159.4	1158.2	0.466	6.411	69.117	20.315	3.349	0.120	0.204	0.006	0.003	0.008	0.000	0.000	0.000	0.000	0.000	1363.78	
24	0.7217	1140.9	1161.1	1160.1	0.475	6.198	69.397	20.265	3.287	0.126	0.230	0.010	0.008	0.005	0.000	0.000	0.000	0.000	0.000	1366.72	
25	0.7168	1138.1	1158.2	1157.2	0.455	5.935	70.367	19.684	3.138	0.131	0.256	0.015	0.016	0.005	0.000	0.000	0.000	0.000	0.000	1368.05	
26	0.7155	1135.3	1155.4	1154.4	0.450	5.994	70.291	19.917	3.023	0.110	0.195	0.007	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1365.95	
27	0.7201	1140.1	1160.3	1159.5	0.468	6.105	69.531	20.384	3.170	0.117	0.208	0.006	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1367.35	
28	0.7291	1150.4	1170.8	1170.0	0.468	6.324	68.250	20.928	3.618	0.141	0.249	0.009	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1371.10	
29	0.7253	1142.4	1162.6	1162.0	0.467	6.454	68.811	20.412	3.464	0.135	0.236	0.008	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1365.17	
30	0.7216	1139.5	1159.7	1159.0	0.468	6.282	69.236	20.468	3.204	0.120	0.207	0.006	0.003	0.007	0.000	0.000	0.000	0.000	0.000	1365.22	
31	0.7238	1143.9	1164.2	1163.6	0.477	6.202	68.901	20.797	3.271	0.122	0.213	0.006	0.004	0.006	0.000	0.000	0.000	0.000	0.000	1368.44	
Avg	0.7240	1144.0	1164.5	1163.7	0.466	6.221	68.985	20.586	3.366	0.129	0.227	0.008	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1368.59	

*Zone 262*

## Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	2501030	Specific Gravity:	0.6692
GQ Source Name:	LIGNITE PLANT	BTU Base:	Dry
Effective Date:	7/1/2009 9:00:00 AM	Dry Heat Value:	1141.26
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	1121.40
Pressure Base:	14.730	As Deliv. Heat Value:	1141.26
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	78.008		
C2	Ethane	17.118		4.443
C3	Propane	1.630	0.448	0.390
IC4	Iso-Butane	0.033	0.011	0.001
NC4	N-Butane	0.053	0.017	0.000
IC5	Iso-Pentane	0.001	0.000	0.000
NC5	N-Pentane	0.001	0.000	0.000
C6+	Hexanes Plus	0.051	0.023	0.017
CO2	Carbon Dioxide	0.094		
N2	Nitrogen	3.003		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
<b>Totals</b>		99.992	0.499	4.851

**Sample Date:** 7/30/2009 12:00:00 AM  
**Sample Type:** Composite  
**Sample Tech:** sampler  
**Sample Remarks:** Zone 263

**Analysis Remarks:**

# GQ Source Daily Summary

July 2009

Number: 043

Pressure Base: 14.730

Contract Day: 1

Name: BISMARCK PLANT CLEVELAND 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	0.7203	1136.1	1156.2	1155.0	0.446	6.396	69.678	19.796	3.309	0.123	0.221	0.009	0.007	0.015	0.000	0.000	0.000	0.000	0.000	1362.30
2	0.7226	1143.5	1163.8	1162.6	0.466	6.126	69.409	20.196	3.413	0.129	0.229	0.009	0.007	0.016	0.000	0.000	0.000	0.000	0.000	1369.08
3	0.7205	1138.3	1158.5	1157.4	0.469	6.244	69.385	20.480	3.087	0.111	0.194	0.007	0.006	0.018	0.000	0.000	0.000	0.000	0.000	1364.86
4	0.7217	1139.5	1159.7	1158.6	0.470	6.282	69.258	20.454	3.183	0.116	0.208	0.008	0.006	0.014	0.000	0.000	0.000	0.000	0.000	1365.13
5	0.7239	1142.5	1162.8	1161.7	0.480	6.291	68.971	20.583	3.305	0.124	0.220	0.008	0.006	0.013	0.000	0.000	0.000	0.000	0.000	1366.65
6	0.7225	1141.6	1161.8	1160.6	0.476	6.226	69.224	20.424	3.291	0.120	0.214	0.008	0.006	0.012	0.000	0.000	0.000	0.000	0.000	1366.79
7	0.7227	1142.6	1162.8	1161.6	0.473	6.185	69.128	20.628	3.227	0.121	0.213	0.007	0.006	0.013	0.000	0.000	0.000	0.000	0.000	1367.83
8	0.7208	1139.5	1159.7	1158.5	0.478	6.188	69.451	20.346	3.196	0.114	0.200	0.007	0.006	0.013	0.000	0.000	0.000	0.000	0.000	1365.93
9	0.7220	1141.1	1161.3	1160.1	0.477	6.211	69.369	20.256	3.321	0.122	0.216	0.008	0.006	0.014	0.000	0.000	0.000	0.000	0.000	1366.63
10	0.7243	1143.4	1163.6	1162.5	0.486	6.267	68.909	20.656	3.318	0.123	0.214	0.007	0.006	0.014	0.000	0.000	0.000	0.000	0.000	1367.27
11	0.7232	1139.8	1160.0	1158.9	0.494	6.370	69.017	20.534	3.226	0.121	0.213	0.007	0.006	0.012	0.000	0.000	0.000	0.000	0.000	1364.01
12	0.7220	1141.0	1161.2	1160.1	0.488	6.199	69.389	20.250	3.291	0.128	0.229	0.008	0.007	0.012	0.000	0.000	0.000	0.000	0.000	1366.53
13	0.7212	1142.2	1162.5	1161.4	0.480	6.054	69.581	20.200	3.306	0.125	0.226	0.009	0.007	0.013	0.000	0.000	0.000	0.000	0.000	1368.85
14	0.7232	1143.1	1163.3	1162.2	0.492	6.174	69.195	20.423	3.335	0.126	0.228	0.009	0.007	0.012	0.000	0.000	0.000	0.000	0.000	1367.10
15	0.7233	1142.5	1162.7	1161.7	0.489	6.227	69.167	20.384	3.357	0.125	0.224	0.008	0.006	0.012	0.000	0.000	0.000	0.000	0.000	1368.65
16	0.7238	1144.1	1164.4	1163.4	0.472	6.188	69.718	19.366	3.768	0.153	0.297	0.014	0.011	0.014	0.000	0.000	0.000	0.000	0.000	1369.17
17	0.7267	1146.8	1167.1	1166.1	0.484	6.278	69.081	19.946	3.720	0.157	0.296	0.014	0.011	0.014	0.000	0.000	0.000	0.000	0.000	1365.79
18	0.7224	1140.6	1160.8	1159.7	0.476	6.271	69.481	19.903	3.485	0.127	0.228	0.009	0.007	0.013	0.000	0.000	0.000	0.000	0.000	1365.78
19	0.7213	1139.8	1160.0	1158.8	0.456	6.252	69.641	19.837	3.423	0.130	0.230	0.009	0.007	0.015	0.000	0.000	0.000	0.000	0.000	1364.31
20	0.7214	1138.6	1158.8	1157.2	0.447	6.344	69.496	20.010	3.312	0.129	0.231	0.009	0.007	0.015	0.000	0.000	0.000	0.000	0.000	1361.43
21	0.7216	1136.4	1156.5	1155.4	0.482	6.451	69.362	20.047	3.316	0.115	0.201	0.007	0.006	0.013	0.000	0.000	0.000	0.000	0.000	1364.54
22	0.7191	1137.0	1157.2	1156.0	0.484	6.174	69.849	19.929	3.206	0.116	0.212	0.009	0.008	0.014	0.000	0.000	0.000	0.000	0.000	1366.66
23	0.7166	1136.8	1156.9	1155.8	0.473	5.965	71.239	19.319	2.825	0.102	0.189	0.009	0.008	0.020	0.000	0.000	0.000	0.000	0.000	1364.11
24	0.7102	1129.6	1149.6	1148.6	0.450	5.843	71.239	19.319	2.825	0.102	0.189	0.009	0.008	0.016	0.000	0.000	0.000	0.000	0.000	1364.55
25	0.7190	1137.0	1157.1	1156.0	0.480	6.176	69.824	19.992	3.171	0.117	0.213	0.008	0.007	0.014	0.000	0.000	0.000	0.000	0.000	1367.58
26	0.7254	1144.5	1164.8	1163.7	0.470	6.325	68.936	20.358	3.499	0.135	0.246	0.010	0.008	0.014	0.000	0.000	0.000	0.000	0.000	1360.98
27	0.7219	1136.3	1156.4	1155.3	0.474	6.496	69.443	19.838	3.371	0.129	0.231	0.009	0.007	0.013	0.000	0.000	0.000	0.000	0.000	1362.14
28	0.7180	1134.1	1154.2	1153.2	0.474	6.260	69.968	19.799	3.152	0.116	0.205	0.007	0.006	0.012	0.000	0.000	0.000	0.000	0.000	1363.67
29	0.7205	1137.4	1157.5	1156.5	0.479	6.288	69.585	20.036	3.255	0.119	0.212	0.008	0.006	0.013	0.000	0.000	0.000	0.000	0.000	1365.96
30	0.7198	1138.7	1158.9	1157.8	0.494	6.119	69.606	20.317	3.126	0.112	0.200	0.007	0.006	0.014	0.000	0.000	0.000	0.000	0.000	1362.30
31	0.7209	1136.5	1156.6	1155.5	0.497	6.346	69.600	19.879	3.310	0.124	0.217	0.007	0.006	0.013	0.000	0.000	0.000	0.000	0.000	1365.63
Avg	0.7214	1140.0	1159.9	1158.8	0.476	6.233	69.501	20.115	3.298	0.124	0.223	0.009	0.007	0.014	0.000	0.000	0.000	0.000	0.000	1365.63

*Zone 271*

# GQ Source Daily Summary

July 2009

**Number:** 063      **Pressure Base:** 14.730      **Contract Day:** 1  
**Name:** CLEVELAND PLANT 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	0.7190	1134.2	1154.3	1154.3	0.450	6.379	69.698	19.934	3.203	0.116	0.200	0.007	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1361.30
2	0.7234	1142.6	1162.8	1162.8	0.459	6.269	69.102	20.409	3.387	0.127	0.223	0.009	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1367.17
3	0.7231	1143.5	1163.8	1163.7	0.465	6.182	69.116	20.538	3.323	0.128	0.222	0.009	0.007	0.011	0.000	0.000	0.000	0.000	0.000	1368.54
4	0.7231	1142.5	1162.7	1162.6	0.466	6.246	68.881	20.898	3.168	0.116	0.202	0.007	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1367.28
5	0.7247	1143.8	1164.0	1163.9	0.473	6.302	68.680	20.915	3.272	0.121	0.212	0.008	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1367.40
6	0.7258	1146.3	1166.6	1166.4	0.476	6.239	68.593	20.979	3.340	0.125	0.225	0.008	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1369.39
7	0.7247	1144.1	1164.4	1164.3	0.472	6.280	68.776	20.772	3.334	0.124	0.222	0.008	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1367.85
8	0.7230	1144.5	1164.8	1164.6	0.463	6.115	68.910	20.998	3.180	0.114	0.201	0.007	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1369.84
9	0.7224	1142.6	1162.8	1162.7	0.476	6.157	69.191	20.529	3.293	0.120	0.212	0.008	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1368.05
10	0.7248	1145.8	1166.1	1165.9	0.466	6.201	68.772	20.852	3.342	0.126	0.220	0.008	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1369.70
11	0.7244	1143.6	1163.8	1163.7	0.486	6.265	68.767	20.857	3.269	0.122	0.212	0.007	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1367.42
12	0.7245	1142.8	1163.1	1163.0	0.491	6.312	68.778	20.763	3.284	0.128	0.223	0.008	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1366.44
13	0.7233	1143.8	1164.1	1163.9	0.484	6.146	69.152	20.488	3.342	0.131	0.234	0.009	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1368.79
14	0.7216	1142.2	1162.5	1162.3	0.483	6.089	69.382	20.407	3.273	0.124	0.219	0.008	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1368.45
15	0.7249	1145.6	1165.9	1165.7	0.478	6.183	68.879	20.649	3.415	0.130	0.232	0.009	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1369.36
16	0.7237	1144.0	1164.3	1164.2	0.491	6.176	69.239	20.193	3.527	0.131	0.233	0.009	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1368.66
17	0.7270	1149.1	1169.5	1169.3	0.469	6.194	69.262	19.619	3.911	0.172	0.334	0.017	0.014	0.008	0.000	0.000	0.000	0.000	0.000	1371.55
18	0.7251	1145.7	1166.0	1165.8	0.479	6.213	69.118	20.113	3.645	0.141	0.255	0.011	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1369.27
19	0.7251	1143.8	1164.1	1164.0	0.473	6.331	68.976	20.262	3.562	0.135	0.238	0.009	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1367.09
20	0.7220	1141.4	1161.6	1161.5	0.448	6.228	69.412	20.129	3.399	0.131	0.228	0.009	0.007	0.009	0.000	0.000	0.000	0.000	0.000	1367.11
21	0.7207	1137.7	1157.8	1157.8	0.455	6.323	69.547	19.991	3.315	0.126	0.219	0.009	0.007	0.009	0.000	0.000	0.000	0.000	0.000	1363.85
22	0.7225	1137.3	1157.5	1157.4	0.485	6.474	69.111	20.270	3.332	0.115	0.194	0.007	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1361.68
23	0.7194	1139.8	1160.0	1159.9	0.502	6.006	69.805	20.132	3.163	0.121	0.237	0.013	0.013	0.008	0.000	0.000	0.000	0.000	0.000	1367.57
24	0.7140	1134.7	1154.8	1154.6	0.457	5.865	70.831	19.403	3.034	0.125	0.244	0.015	0.016	0.009	0.000	0.000	0.000	0.000	0.000	1366.72
25	0.7159	1134.2	1154.3	1154.2	0.468	6.064	70.313	19.732	3.075	0.113	0.208	0.009	0.008	0.010	0.000	0.000	0.000	0.000	0.000	1364.25
26	0.7219	1141.3	1161.5	1161.3	0.479	6.177	69.312	20.397	3.268	0.123	0.221	0.009	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1367.10
27	0.7261	1145.9	1166.2	1166.0	0.469	6.305	68.754	20.545	3.522	0.136	0.242	0.009	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1368.58
28	0.7230	1139.2	1159.3	1159.1	0.472	6.428	69.203	20.118	3.390	0.131	0.235	0.009	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1363.44
29	0.7202	1136.6	1156.7	1156.6	0.478	6.310	69.487	20.203	3.181	0.118	0.204	0.007	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1362.99
30	0.7234	1143.2	1163.4	1163.3	0.490	6.187	69.021	20.649	3.296	0.122	0.214	0.008	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1367.92
31	0.7195	1140.0	1160.2	1160.0	0.482	6.022	69.549	20.561	3.062	0.111	0.193	0.007	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1367.82
Avg	0.7227	1142.0	1162.2	1162.1	0.474	6.215	69.214	20.397	3.326	0.126	0.224	0.009	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1367.18

*Zone 272*

# GQ Source Daily Summary

## July 2009

**Number:** 061      **Pressure Base:** 14.730      **Contract Day:** 1  
**Name:** CLEVELAND PLANT GRAFTON      **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	0.7187	1133.6	1153.7	1153.7	0.450	6.392	69.731	19.911	3.180	0.116	0.201	0.007	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1360.87	
2	0.7239	1143.3	1163.6	1163.4	0.460	6.276	69.008	20.484	3.394	0.128	0.226	0.009	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1367.58	
3	0.7233	1144.0	1164.2	1164.2	0.463	6.175	69.071	20.588	3.325	0.128	0.224	0.009	0.007	0.011	0.000	0.000	0.000	0.000	0.000	1368.89	
4	0.7230	1141.9	1162.1	1161.8	0.467	6.274	68.921	20.822	3.172	0.116	0.202	0.008	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1366.64	
5	0.7239	1142.7	1163.0	1162.8	0.471	6.299	68.835	20.774	3.262	0.121	0.215	0.009	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1366.82	
6	0.7248	1144.9	1165.2	1164.7	0.472	6.242	68.773	20.837	3.351	0.126	0.227	0.008	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1369.37	
7	0.7229	1143.9	1163.9	1163.9	0.473	6.131	68.949	20.925	3.186	0.114	0.202	0.007	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1368.65	
8	0.7224	1142.3	1162.6	1162.6	0.476	6.166	69.177	20.519	3.305	0.122	0.213	0.008	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1367.87	
9	0.7249	1145.9	1166.2	1165.8	0.475	6.192	68.777	20.844	3.344	0.126	0.221	0.008	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1369.69	
10	0.7246	1144.1	1164.4	1164.4	0.486	6.255	68.711	20.927	3.267	0.121	0.211	0.007	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1367.83	
11	0.7244	1142.5	1162.8	1162.6	0.490	6.318	68.813	20.720	3.287	0.128	0.223	0.008	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1366.22	
12	0.7233	1144.0	1164.2	1164.1	0.484	6.143	69.134	20.508	3.343	0.131	0.233	0.009	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1368.87	
13	0.7214	1142.1	1162.3	1162.2	0.483	6.080	69.417	20.377	3.279	0.124	0.218	0.008	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1368.46	
14	0.7249	1145.6	1165.9	1165.8	0.491	6.184	68.871	20.655	3.411	0.130	0.234	0.009	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1369.29	
15	0.7238	1144.2	1164.5	1164.4	0.480	6.174	69.224	20.201	3.535	0.130	0.233	0.009	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1368.78	
16	0.7273	1149.6	1169.9	1169.8	0.471	6.188	69.212	19.669	3.913	0.173	0.335	0.017	0.015	0.008	0.000	0.000	0.000	0.000	0.000	1371.84	
17	0.7250	1145.4	1165.7	1165.7	0.480	6.214	69.143	20.094	3.645	0.141	0.256	0.011	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1369.14	
18	0.7247	1143.4	1163.7	1163.7	0.476	6.315	69.024	20.248	3.542	0.134	0.237	0.009	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1366.93	
19	0.7220	1141.5	1161.7	1161.5	0.448	6.223	69.414	20.130	3.401	0.131	0.229	0.009	0.007	0.009	0.000	0.000	0.000	0.000	0.000	1367.21	
20	0.7226	1137.6	1157.8	1157.5	0.454	6.328	69.498	20.016	3.334	0.126	0.220	0.009	0.007	0.009	0.000	0.000	0.000	0.000	0.000	1364.20	
21	0.7194	1139.2	1159.3	1159.2	0.483	6.467	69.096	20.299	3.329	0.114	0.193	0.006	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1361.95	
22	0.7140	1134.6	1154.7	1154.6	0.477	6.075	69.802	20.072	3.186	0.122	0.234	0.012	0.013	0.007	0.000	0.000	0.000	0.000	0.000	1366.89	
23	0.7160	1134.6	1154.7	1154.6	0.458	5.873	70.823	19.389	3.045	0.126	0.246	0.015	0.016	0.009	0.000	0.000	0.000	0.000	0.000	1366.55	
24	0.7221	1141.8	1162.0	1161.9	0.476	6.168	69.276	20.431	3.281	0.124	0.221	0.009	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1367.50	
25	0.7261	1145.6	1165.8	1165.6	0.470	6.323	68.760	20.512	3.530	0.137	0.243	0.009	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1368.19	
26	0.7227	1139.0	1159.2	1158.9	0.472	6.413	69.256	20.090	3.379	0.131	0.234	0.009	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1363.54	
27	0.7204	1137.1	1157.2	1157.1	0.480	6.298	69.445	20.253	3.182	0.118	0.205	0.007	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1363.41	
28	0.7235	1143.3	1163.2	1163.2	0.494	6.188	69.022	20.647	3.289	0.123	0.215	0.008	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1367.92	
29	0.7196	1140.1	1160.3	1160.2	0.482	6.032	69.504	20.595	3.061	0.112	0.195	0.007	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1367.83	
30	0.7227	1142.0	1162.2	1162.1	0.474	6.216	69.210	20.398	3.327	0.126	0.225	0.009	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1367.19	
AVG																					

*Zone 273*

# GQ Source Daily Summary

July 2009

Number: 041

Pressure Base: 14.730

Contract Day: 1

Name: BISMARCK PLANT DICKINSON 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	0.7210	1136.8	1156.9	1156.1	0.447	6.421	69.571	19.841	3.341	0.125	0.224	0.009	0.007	0.016	0.000	0.000	0.000	0.000	0.000	1362.43	
2	0.7235	1144.9	1165.2	1164.4	0.468	6.127	69.226	20.368	3.419	0.130	0.230	0.009	0.007	0.016	0.000	0.000	0.000	0.000	0.000	1369.85	
3	0.7223	1140.7	1160.9	1160.2	0.471	6.268	69.092	20.675	3.146	0.115	0.202	0.007	0.006	0.018	0.000	0.000	0.000	0.000	0.000	1365.97	
4	0.7233	1142.0	1162.2	1161.4	0.472	6.278	68.973	20.708	3.215	0.118	0.209	0.008	0.007	0.014	0.000	0.000	0.000	0.000	0.000	1366.61	
5	0.7245	1143.9	1164.1	1163.2	0.481	6.268	68.845	20.734	3.301	0.123	0.219	0.008	0.006	0.013	0.000	0.000	0.000	0.000	0.000	1367.63	
6	0.7241	1144.0	1164.3	1163.5	0.479	6.224	68.925	20.698	3.310	0.121	0.216	0.008	0.006	0.013	0.000	0.000	0.000	0.000	0.000	1368.20	
7	0.7229	1142.8	1163.0	1162.4	0.472	6.194	69.095	20.647	3.226	0.122	0.216	0.008	0.006	0.013	0.000	0.000	0.000	0.000	0.000	1367.88	
8	0.7219	1141.8	1162.0	1161.0	0.481	6.149	69.236	20.599	3.196	0.114	0.200	0.007	0.006	0.013	0.000	0.000	0.000	0.000	0.000	1367.62	
9	0.7229	1143.0	1163.3	1162.5	0.477	6.174	69.199	20.464	3.319	0.122	0.216	0.008	0.006	0.015	0.000	0.000	0.000	0.000	0.000	1368.13	
10	0.7250	1144.9	1165.1	1164.3	0.486	6.241	68.773	20.816	3.318	0.122	0.215	0.008	0.006	0.014	0.000	0.000	0.000	0.000	0.000	1368.41	
11	0.7238	1141.1	1161.3	1160.6	0.495	6.346	68.886	20.701	3.213	0.121	0.213	0.008	0.006	0.012	0.000	0.000	0.000	0.000	0.000	1365.05	
12	0.7226	1142.0	1162.2	1161.7	0.489	6.192	69.284	20.347	3.301	0.128	0.230	0.009	0.007	0.013	0.000	0.000	0.000	0.000	0.000	1367.15	
13	0.7218	1143.3	1163.6	1162.9	0.480	6.045	69.481	20.294	3.313	0.127	0.230	0.009	0.007	0.013	0.000	0.000	0.000	0.000	0.000	1369.56	
14	0.7235	1143.5	1163.7	1163.1	0.494	6.175	69.141	20.470	3.336	0.127	0.229	0.009	0.007	0.013	0.000	0.000	0.000	0.000	0.000	1368.13	
15	0.7237	1143.2	1163.4	1162.8	0.490	6.223	69.097	20.447	3.366	0.125	0.225	0.008	0.007	0.012	0.000	0.000	0.000	0.000	0.000	1367.53	
16	0.7244	1145.3	1165.6	1164.8	0.474	6.176	69.595	19.484	3.788	0.152	0.293	0.013	0.011	0.013	0.000	0.000	0.000	0.000	0.000	1369.43	
17	0.7279	1148.9	1169.3	1168.4	0.484	6.270	68.882	20.105	3.758	0.160	0.302	0.014	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1370.48	
18	0.7235	1142.6	1162.8	1161.9	0.478	6.249	69.330	20.026	3.527	0.129	0.232	0.009	0.007	0.014	0.000	0.000	0.000	0.000	0.000	1367.10	
19	0.7221	1141.4	1161.6	1160.6	0.458	6.229	69.501	19.982	3.438	0.131	0.231	0.009	0.007	0.015	0.000	0.000	0.000	0.000	0.000	1366.89	
20	0.7225	1140.2	1160.3	1159.5	0.451	6.352	69.322	20.120	3.357	0.131	0.234	0.009	0.007	0.015	0.000	0.000	0.000	0.000	0.000	1365.07	
21	0.7225	1137.9	1158.1	1157.1	0.483	6.437	69.223	20.173	3.337	0.117	0.204	0.007	0.006	0.014	0.000	0.000	0.000	0.000	0.000	1362.43	
22	0.7198	1138.3	1158.5	1157.4	0.484	6.157	69.709	20.086	3.209	0.115	0.209	0.009	0.008	0.014	0.000	0.000	0.000	0.000	0.000	1365.46	
23	0.7191	1140.0	1160.2	1159.1	0.477	5.994	70.166	19.654	3.235	0.136	0.279	0.018	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1368.19	
24	0.7110	1131.2	1151.2	1150.3	0.452	5.820	71.112	19.445	2.841	0.104	0.193	0.009	0.008	0.016	0.000	0.000	0.000	0.000	0.000	1365.21	
25	0.7199	1138.5	1158.6	1157.5	0.481	6.161	69.671	20.147	3.180	0.117	0.214	0.008	0.007	0.014	0.000	0.000	0.000	0.000	0.000	1365.57	
26	0.7281	1148.9	1169.2	1168.0	0.476	6.303	68.494	20.724	3.580	0.140	0.252	0.010	0.008	0.014	0.000	0.000	0.000	0.000	0.000	1370.25	
27	0.7236	1139.8	1160.0	1158.9	0.476	6.430	69.143	20.174	3.381	0.131	0.235	0.009	0.008	0.013	0.000	0.000	0.000	0.000	0.000	1363.71	
28	0.7202	1138.0	1158.1	1157.1	0.476	6.225	69.577	20.190	3.180	0.117	0.208	0.008	0.006	0.013	0.000	0.000	0.000	0.000	0.000	1364.70	
29	0.7223	1141.1	1161.3	1160.5	0.481	6.226	69.256	20.404	3.272	0.120	0.214	0.008	0.006	0.013	0.000	0.000	0.000	0.000	0.000	1366.44	
30	0.7218	1142.4	1162.6	1161.8	0.498	6.078	69.235	20.706	3.140	0.114	0.203	0.008	0.006	0.014	0.000	0.000	0.000	0.000	0.000	1368.43	
31	0.7223	1139.5	1159.7	1158.9	0.498	6.296	69.329	20.194	3.310	0.124	0.220	0.008	0.006	0.014	0.000	0.000	0.000	0.000	0.000	1364.53	
AVG	0.7225	1142.0	1161.9	1161.0	0.478	6.217	69.302	20.304	3.318	0.125	0.226	0.009	0.007	0.014	0.000	0.000	0.000	0.000	0.000	1366.91	

Zone 28

# GQ Source Daily Summary

July 2009

Number: 271

Pressure Base: 14.730

Contract Day: 1

Name: DICKINSON BORDER

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	0.5882	954.3	971.2	971.1	1.740	3.090	94.393	0.750	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1266.25	
2	0.5890	958.4	975.4	975.3	1.648	3.050	94.157	1.107	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1270.92	
3	0.5902	962.3	979.4	979.3	1.593	3.010	93.869	1.481	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1274.77	
4	0.5985	980.1	997.5	997.4	1.427	2.953	92.082	3.439	0.100	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1289.39	
5	0.5979	979.8	997.2	997.1	1.423	2.923	92.194	3.363	0.096	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1289.60	
6	0.5976	976.1	993.4	993.3	1.506	2.995	92.323	3.082	0.094	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1285.03	
7	0.5920	982.7	1000.1	1000.0	1.233	2.480	93.321	2.839	0.123	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1299.79	
8	0.5890	978.5	995.8	995.7	1.227	2.460	93.898	2.324	0.090	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1297.55	
9	0.5859	975.0	992.3	992.2	1.171	2.463	94.469	1.817	0.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1296.42	
10	0.5915	981.5	998.9	998.8	1.202	2.557	93.348	2.785	0.108	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1298.74	
11	0.5901	977.3	994.6	994.4	1.276	2.571	93.728	2.302	0.118	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.65	
12	0.5940	981.6	999.0	998.8	1.404	2.480	93.056	2.942	0.118	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1296.11	
13	0.5927	974.9	992.1	992.1	1.512	2.600	93.409	2.368	0.110	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1288.70	
14	0.5899	972.2	989.5	989.4	1.463	2.572	93.921	1.953	0.092	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1288.26	
15	0.5894	973.3	990.6	990.5	1.338	2.646	93.890	2.037	0.089	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1290.29	
16	0.5884	975.5	992.7	992.6	1.210	2.622	93.959	2.124	0.086	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.13	
17	0.5864	973.5	990.7	990.6	1.187	2.581	94.358	1.798	0.076	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1293.80	
18	0.5858	973.4	990.6	990.5	1.142	2.608	94.415	1.763	0.073	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.22	
19	0.5899	975.6	992.9	992.7	1.296	2.620	93.855	2.053	0.156	0.008	0.011	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1292.73	
20	0.5885	972.1	989.3	989.2	1.336	2.643	94.072	1.860	0.089	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1289.56	
21	0.5878	972.4	989.6	989.5	1.328	2.569	94.224	1.785	0.093	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1290.75	
22	0.5885	977.4	994.7	994.6	1.210	2.507	93.983	2.197	0.103	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1296.67	
23	0.5891	980.7	998.0	997.9	1.157	2.446	93.817	2.473	0.106	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1300.32	
24	0.5901	984.1	1001.5	1001.4	1.093	2.429	93.559	2.806	0.113	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1303.76	
25	0.5962	990.1	1007.6	1007.4	0.974	2.451	91.040	5.349	0.135	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1304.91	
26	0.6022	1005.3	1023.1	1023.0	0.824	2.343	89.477	7.108	0.186	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1318.47	
27	0.6094	1022.1	1040.2	1040.1	0.824	2.343	89.477	7.108	0.248	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1332.42	
28	0.5963	997.1	1014.7	1014.7	1.003	2.362	92.255	4.211	0.169	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1314.00	
29	0.5993	995.0	1012.6	1012.5	1.136	2.572	91.754	4.359	0.179	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1307.94	
30	0.5947	987.0	1004.5	1004.4	1.178	2.560	92.684	3.451	0.127	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1302.52	
31	0.6001	1003.9	1021.7	1021.6	0.960	2.367	91.435	5.079	0.159	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1318.67	
Avg	0.5925	980.0	997.8	997.7	1.269	2.617	93.203	2.801	0.111	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1296.17	

*Zone 31*

# GQ Source Daily Summary

July 2009

Number: 051

Pressure Base: 14.730

Contract Day: 1

Name: CABIN CREEK DICKINSON 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	0.5856	948.7	965.5	965.4	1.761	3.158	94.975	0.082	0.013	0.002	0.004	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1261.70
2	0.5846	950.2	967.0	966.9	1.689	3.082	95.124	0.082	0.013	0.003	0.004	0.002	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1264.76
3	0.5848	949.5	966.3	966.2	1.711	3.105	95.094	0.073	0.009	0.002	0.003	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1263.67
4	0.5853	955.4	972.3	972.1	1.609	2.950	94.952	0.442	0.034	0.003	0.006	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1270.94
5	0.5844	967.1	984.3	984.0	1.355	2.536	95.028	0.970	0.082	0.008	0.012	0.003	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1287.48
6	0.5838	966.7	983.8	983.6	1.362	2.491	95.132	0.934	0.059	0.005	0.008	0.002	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1287.64
7	0.5824	965.1	982.2	981.9	1.327	2.512	95.355	0.748	0.046	0.003	0.006	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1287.02
8	0.5817	967.1	984.2	984.0	1.226	2.481	95.403	0.820	0.053	0.004	0.007	0.002	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1290.43
9	0.5843	967.2	984.3	984.1	1.286	2.628	94.991	0.963	0.100	0.009	0.013	0.003	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1287.65
10	0.5839	963.6	980.6	980.4	1.434	2.582	95.153	0.766	0.051	0.004	0.006	0.002	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1283.36
11	0.5865	963.0	980.0	979.8	1.625	2.576	94.836	0.869	0.074	0.006	0.009	0.002	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1279.70
12	0.5854	959.6	976.6	976.4	1.611	2.700	94.986	0.640	0.048	0.004	0.006	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1276.40
13	0.5849	961.6	978.6	978.4	1.550	2.623	95.057	0.701	0.052	0.005	0.007	0.002	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1279.58
14	0.5842	962.2	979.2	979.0	1.433	2.697	95.070	0.734	0.051	0.004	0.006	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1281.16
15	0.5829	963.4	980.5	980.2	1.314	2.684	95.204	0.738	0.048	0.003	0.006	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1284.21
16	0.5823	965.4	982.5	982.3	1.241	2.613	95.281	0.797	0.053	0.004	0.007	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1287.58
17	0.5816	964.3	981.4	981.1	1.222	2.649	95.379	0.692	0.044	0.004	0.006	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1286.79
18	0.5847	965.4	982.5	982.3	1.345	2.679	94.968	0.874	0.103	0.010	0.014	0.003	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1284.95
19	0.5845	964.6	981.7	981.4	1.377	2.661	95.029	0.819	0.084	0.008	0.013	0.003	0.002	0.004	0.000	0.000	0.000	0.000	0.000	1284.07
20	0.5841	963.4	980.4	980.2	1.419	2.639	95.097	0.766	0.060	0.005	0.008	0.002	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1282.82
21	0.5837	967.1	984.2	984.0	1.303	2.548	95.086	0.978	0.068	0.005	0.008	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1288.26
22	0.5830	968.5	985.6	985.4	1.246	2.487	95.167	1.021	0.064	0.004	0.007	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1290.86
23	0.5823	966.1	983.2	983.0	1.256	2.548	95.302	0.830	0.051	0.004	0.006	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1288.50
24	0.5828	969.6	986.8	986.6	1.202	2.460	95.193	1.056	0.072	0.005	0.008	0.002	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1292.67
25	0.5851	963.4	980.4	980.2	1.421	2.732	94.909	0.836	0.075	0.007	0.012	0.003	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1281.72
26	0.5859	964.2	981.3	981.0	1.433	2.735	94.789	0.912	0.102	0.009	0.012	0.002	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1281.98
27	0.5838	962.4	979.5	979.2	1.405	2.686	95.139	0.695	0.055	0.005	0.008	0.002	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1281.94
28	0.5818	967.1	984.2	984.0	1.252	2.450	95.413	0.817	0.054	0.004	0.006	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1290.32
29	0.5817	967.9	985.1	984.8	1.242	2.405	95.438	0.842	0.056	0.005	0.007	0.002	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1291.54
30	0.5836	962.8	979.8	979.6	1.402	2.654	95.153	0.734	0.045	0.004	0.005	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1282.62
31	0.5835	966.4	983.3	983.3	1.311	2.561	95.145	0.889	0.072	0.007	0.009	0.002	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1287.55
AVG	0.5838	963.0	980.3	980.0	1.399	2.655	95.124	0.746	0.058	0.005	0.008	0.002	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1282.90

*Zone 3a*

# GQ Source Daily Summary

July 2009

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	0.6762	1146.5	1166.8	1165.6	0.000	2.311	75.416	21.642	0.609	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.95
2	0.6767	1146.3	1166.6	1165.5	0.000	2.371	75.289	21.723	0.597	0.009	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.19
3	0.6739	1142.8	1163.0	1162.0	0.000	2.319	75.886	21.166	0.608	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.78
4	0.6738	1143.3	1163.5	1162.3	0.000	2.287	75.889	21.209	0.595	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.40
5	0.6734	1142.7	1162.9	1161.8	0.000	2.285	75.973	21.129	0.593	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.10
6	0.6728	1142.1	1162.4	1161.3	0.000	2.262	76.092	21.040	0.585	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.04
7	0.6724	1141.4	1161.6	1160.5	0.000	2.263	76.213	20.894	0.609	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.60
8	0.6740	1144.0	1164.2	1163.3	0.000	2.263	75.872	21.229	0.614	0.010	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.05
9	0.6734	1144.3	1164.5	1163.5	0.000	2.189	75.991	21.201	0.597	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.05
10	0.6753	1145.9	1166.2	1165.0	0.000	2.265	75.622	21.473	0.618	0.010	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.10
11	0.6743	1144.3	1164.6	1163.4	0.000	2.259	75.869	21.202	0.647	0.010	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.31
12	0.6748	1145.2	1165.4	1164.2	0.000	2.263	75.757	21.304	0.654	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.72
13	0.6737	1143.2	1163.5	1162.5	0.000	2.275	75.914	21.206	0.586	0.009	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.52
14	0.6734	1140.8	1161.0	1160.1	0.000	2.392	75.945	21.073	0.569	0.009	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.85
15	0.6723	1141.4	1161.6	1160.4	0.000	2.253	76.191	20.964	0.572	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.75
16	0.6753	1145.1	1165.4	1164.1	0.000	2.312	75.583	21.495	0.589	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.16
17	0.6755	1145.3	1165.6	1164.2	0.000	2.320	75.564	21.480	0.614	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.16
18	0.6757	1145.8	1166.1	1164.9	0.000	2.308	75.551	21.486	0.634	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.55
19	0.6751	1144.9	1165.2	1163.9	0.000	2.304	75.673	21.368	0.632	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.11
20	0.6771	1145.4	1165.7	1164.6	0.000	2.465	75.240	21.640	0.633	0.010	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.61
21	0.6750	1144.8	1165.0	1163.8	0.000	2.305	75.675	21.377	0.621	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.03
22	0.6749	1142.9	1163.1	1161.8	0.000	2.405	75.714	21.220	0.637	0.010	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.88
23	0.6720	1141.7	1161.9	1160.6	0.000	2.207	76.324	20.810	0.636	0.010	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.39
24	0.6737	1143.9	1164.2	1162.9	0.000	2.229	75.985	21.120	0.642	0.010	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.40
25	0.6728	1142.7	1162.9	1161.6	0.000	2.227	76.136	21.001	0.615	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.73
26	0.6722	1141.3	1161.5	1160.2	0.000	2.251	76.239	20.895	0.595	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.66
27	0.6695	1138.6	1158.8	1157.7	0.000	2.165	76.752	20.504	0.557	0.010	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.18
28	0.6734	1142.7	1163.0	1161.8	0.000	2.284	75.972	21.128	0.597	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.13
29	0.6736	1142.0	1162.2	1161.1	0.000	2.345	75.903	21.164	0.569	0.009	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.04
30	0.6730	1141.3	1161.5	1160.3	0.000	2.327	76.039	21.044	0.570	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.82
31	0.6744	1143.8	1164.1	1163.0	0.000	2.302	75.782	21.295	0.600	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.55
AVG	0.6740	1143.0	1163.7	1162.5	0.000	2.291	75.873	21.209	0.606	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.45

*Zone 33*

# GQ Source Daily Summary

## July 2009

**Number:** 331      **Pressure Base:** 14.730      **Contract Day:** 1  
**Name:** MARMARTH 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	0.8038	1151.2	1171.6	1169.1	2.343	10.465	53.815	29.746	3.227	0.086	0.269	0.012	0.032	0.004	0.000	0.000	0.000	0.000	0.000	1306.76
2	0.8032	1150.2	1170.5	1168.1	2.386	10.408	53.830	29.865	3.146	0.078	0.244	0.011	0.028	0.004	0.000	0.000	0.000	0.000	0.000	1306.06
3	0.8012	1144.6	1164.9	1162.9	2.418	10.516	53.977	29.796	2.972	0.069	0.215	0.009	0.024	0.003	0.000	0.000	0.000	0.000	0.000	1301.36
4	0.8029	1147.7	1168.0	1165.7	2.452	10.436	53.758	29.985	3.045	0.071	0.217	0.009	0.025	0.003	0.000	0.000	0.000	0.000	0.000	1303.47
5	0.8027	1147.3	1167.6	1165.0	2.445	10.449	53.836	29.870	3.066	0.072	0.223	0.010	0.026	0.003	0.000	0.000	0.000	0.000	0.000	1303.20
6	0.8017	1145.2	1165.5	1162.8	2.455	10.460	53.965	29.812	2.977	0.072	0.222	0.010	0.025	0.003	0.000	0.000	0.000	0.000	0.000	1301.75
7	0.7938	1139.5	1159.7	1157.3	2.251	10.383	54.957	29.513	2.578	0.069	0.211	0.009	0.025	0.004	0.000	0.000	0.000	0.000	0.000	1301.60
8	0.7989	1145.5	1165.8	1163.3	2.282	10.445	54.263	29.819	2.850	0.074	0.228	0.010	0.026	0.004	0.000	0.000	0.000	0.000	0.000	1304.28
9	0.8034	1152.0	1172.4	1170.0	2.380	10.332	53.625	30.289	3.031	0.075	0.230	0.010	0.026	0.003	0.000	0.000	0.000	0.000	0.000	1307.95
10	0.8051	1152.6	1173.0	1170.7	2.455	10.331	53.552	30.111	3.199	0.076	0.235	0.010	0.026	0.003	0.000	0.000	0.000	0.000	0.000	1307.30
11	0.8047	1150.1	1170.5	1167.6	2.470	10.425	53.637	29.899	3.226	0.075	0.230	0.010	0.026	0.003	0.000	0.000	0.000	0.000	0.000	1304.80
12	0.8038	1146.9	1167.2	1164.4	2.485	10.513	53.858	29.560	3.219	0.078	0.243	0.011	0.029	0.004	0.000	0.000	0.000	0.000	0.000	1301.89
13	0.8012	1146.3	1166.6	1164.5	2.386	10.456	53.908	30.026	2.895	0.071	0.221	0.010	0.025	0.003	0.000	0.000	0.000	0.000	0.000	1303.33
14	0.8067	1155.1	1175.6	1173.5	2.600	10.297	53.104	30.300	3.346	0.077	0.236	0.010	0.026	0.003	0.000	0.000	0.000	0.000	0.000	1307.26
15	0.8045	1152.1	1172.8	1170.4	2.342	10.485	53.650	29.868	3.283	0.080	0.248	0.011	0.028	0.004	0.000	0.000	0.000	0.000	0.000	1307.13
16	0.8056	1152.4	1172.8	1170.6	2.446	10.406	53.603	29.839	3.334	0.081	0.249	0.011	0.028	0.004	0.000	0.000	0.000	0.000	0.000	1306.65
17	0.8057	1153.8	1174.2	1171.9	2.398	10.407	53.536	29.944	3.345	0.080	0.248	0.011	0.028	0.004	0.000	0.000	0.000	0.000	0.000	1308.10
18	0.8033	1149.2	1169.6	1166.7	2.407	10.442	53.855	29.742	3.199	0.077	0.237	0.010	0.027	0.004	0.000	0.000	0.000	0.000	0.000	1304.94
19	0.8026	1147.9	1168.2	1165.1	2.413	10.449	53.965	29.668	3.143	0.078	0.241	0.011	0.028	0.004	0.000	0.000	0.000	0.000	0.000	1303.98
20	0.8009	1149.0	1169.3	1167.3	2.340	10.338	54.092	29.862	3.019	0.075	0.233	0.010	0.027	0.004	0.000	0.000	0.000	0.000	0.000	1306.60
21	0.8038	1148.2	1168.5	1165.2	2.464	10.468	53.786	29.748	3.179	0.077	0.237	0.010	0.027	0.004	0.000	0.000	0.000	0.000	0.000	1303.32
22	0.8047	1149.8	1170.2	1167.4	2.521	10.366	53.595	30.040	3.142	0.073	0.225	0.010	0.026	0.004	0.000	0.000	0.000	0.000	0.000	1304.49
23	0.8017	1147.1	1167.4	1164.0	2.414	10.413	54.163	29.483	3.181	0.075	0.230	0.010	0.027	0.004	0.000	0.000	0.000	0.000	0.000	1303.79
24	0.8011	1149.1	1169.4	1167.0	2.397	10.259	54.171	29.766	3.062	0.074	0.230	0.010	0.027	0.004	0.000	0.000	0.000	0.000	0.000	1306.58
25	0.8036	1150.0	1170.3	1167.3	2.423	10.407	53.798	29.821	3.202	0.075	0.233	0.010	0.027	0.004	0.000	0.000	0.000	0.000	0.000	1305.49
26	0.8000	1146.4	1166.7	1163.7	2.357	10.380	54.398	29.405	3.112	0.075	0.232	0.010	0.027	0.004	0.000	0.000	0.000	0.000	0.000	1304.42
27	0.7973	1150.5	1170.8	1168.5	2.122	10.233	54.613	29.671	3.039	0.071	0.215	0.009	0.028	0.003	0.000	0.000	0.000	0.000	0.000	1311.28
28	0.7983	1151.9	1172.3	1170.2	2.129	10.234	54.408	29.843	3.076	0.069	0.206	0.009	0.022	0.003	0.000	0.000	0.000	0.000	0.000	1312.06
29	0.8026	1155.3	1175.8	1174.0	2.404	10.005	54.105	29.933	3.170	0.083	0.256	0.011	0.029	0.004	0.000	0.000	0.000	0.000	0.000	1312.48
30	0.8071	1155.9	1176.3	1174.2	2.472	10.292	53.400	30.101	3.340	0.085	0.265	0.012	0.030	0.004	0.000	0.000	0.000	0.000	0.000	1309.41
31	0.8089	1157.3	1177.8	1176.0	2.569	10.229	53.148	30.301	3.356	0.084	0.266	0.012	0.031	0.004	0.000	0.000	0.000	0.000	0.000	1309.55
Avg	0.8028	1150.0	1170.0	1167.6	2.401	10.378	53.883	29.859	3.128	0.076	0.235	0.010	0.027	0.004	0.000	0.000	0.000	0.000	0.000	1305.85

*Zone 34*

## Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	1201140	Specific Gravity:	0.5730
GQ Source Name:	EAGLE 8B ND	BTU Base:	Dry
Effective Date:	6/19/2009 9:00:00 AM	Dry Heat Value:	977.72
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	960.70
Pressure Base:	14.730	As Deliv. Heat Value:	977.72
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	95.826		
C2	Ethane	0.305		0.081
C3	Propane	0.009	0.002	0.002
IC4	Iso-Butane	0.007	0.002	0.002
NC4	N-Butane	0.000	0.000	0.000
IC5	Iso-Pentane	0.000	0.000	0.000
NC5	N-Pentane	0.000	0.000	0.000
C6+	Hexanes Plus	0.000	0.000	0.000
CO2	Carbon Dioxide	0.096		
N2	Nitrogen	3.757		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
<b>Totals</b>		100.000	0.005	0.086

**Sample Date:** 6/12/2009 12:00:00 AM  
**Sample Type:** Spot  
**Sample Tech:** MG  
**Sample Remarks:** Zone 35

**Analysis Remarks:**

<b>NORTH DAKOTA HEATING VALUE ZONES</b>		
<b>ZONES</b>	<b>MEASURING DEVICE</b>	<b>LOCATION</b>
211	Chromatograph	Sidney Area
24	Monthly Sampler	Williston Area
25	Monthly Sampler	Watford City Area
261	Chromatograph	Williston – Tioga – Minot Line
262	Chromatograph	Minot Area
263	Monthly Sampler	Tioga – Portal
264	Monthly Sampler	Williston – Ray
271	Chromatograph	Bismarck – Cleveland
272	Chromatograph	Cleveland – Mapleton
273	Chromatograph	Cleveland – Grafton
28	Chromatograph	Bismarck
31	Chromatograph	Dickinson
32	Chromatograph	Cabin Creek – Dickinson
33	Chromatograph	Killdeer
34	Monthly Sampler	Bowman Area
35	Monthly Sampler	Baker Field – North Dakota

MONTANA DAKOTA UTILITIES CO  
 NORTH DAKOTA  
 HEATING VALUE DATA  
 12 MONTH ACCUMULATIVE AT 14.73 psia, 60 f. DRY

STATE	ZONE	ZONE BOUNDARY	12 MONTH AVERAGE	JULY 09	JUNE 09	MAY 09	APR 09	MAR 09	FEB 09	JAN 09	DEC 08	NOV 08	OCT 08	SEPT 08	AUG 08	ZONE
MT/ND	211	Sidney Area	1146	1202	1203	1200	1170	1100	1019	1021	1065	1184	1195	1198	1194	21
ND	24	Williston Area	1161	1143	1196	1180	1149	1106	1101	1158	1195	1171	1173	1175	1189	24
ND	25	Watford City Area	1129	1125	1134	1130	1128	1128	1128	1130	1127	1126	1130	1129	1131	25
ND	261	Williston - Triega - Minot Line	1124	1126	1131	1133	1136	1110	1101	1102	1123	1148	1112	1130	1135	261
ND	262	Minot Area	1135	1165	1157	1144	1143	1130	1114	1105	1129	1147	1116	1133	1141	262
ND	263	Triega - Portal	1122	1141	1127	1122	1098	1092	1099	1103	1139	1125	1129	1142	1145	263
ND	264	Williston - Ray	1161	1143	1196	1180	1149	1106	1101	1158	1195	1171	1173	1175	1189	264
ND	271	Bismarck - Cleveland	1107	1160	1155	1143	1118	1043	1058	1056	1081	1129	1068	1127	1140	271
ND	272	Cleveland - Mapleton	1107	1162	1156	1143	1118	1043	1057	1056	1080	1129	1068	1126	1140	272
ND	273	Cleveland - Grafton	1107	1162	1156	1143	1118	1043	1057	1056	1080	1129	1068	1127	1140	273
ND	28	Bismarck - Cabin Creek	1072	1162	1155	1142	1061	1014	1021	1028	1020	1013	1038	1088	1116	28
ND	31	Dickinson Area	1021	998	1044	996	1007	1013	1019	1028	1018	1008	1037	1038	1044	31
ND/MT	32	Cabin Creek - Dickinson	1014	980	1018	981	997	1013	1019	1027	1018	1007	1037	1032	1036	32
ND	33	Killdeer	1159	1164	1161	1163	1157	1156	1157	1156	1154	1160	1158	1158	1161	33
ND	34	Bowman Area	1166	1170	1148	1148	1167	1172	1164	1168	1168	1160	1176	1176	1179	34
ND	35	Baker Field - North Dakota	975	978	978	974	974	974	974	974	974	974	974	974	974	35

**THERMAL ZONE VARIANCE  
DOCUMENTATION**

**July 2009**

<b><i>ZONE</i></b>	<b><i>BTU VARIANCE</i></b>	<b><i>REASON</i></b>
24	-53	Receipt from Tioga Plant
264	-53	Receipt from Tioga Plant
31	-46	Receipt from Cabin Creek Area, going East
32	-38	Receipt from Cabin Creek Area, going East
34	22	Receipt from Marmarth Plant