

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

September 11, 2008

RECEIVED

SEP 12 2008

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 2008

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 2008.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our supplier for the month of July 2008. 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.

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 2008

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
12	314	APPLE VALLEY	271	1.1058
12	327	BISMARCK	28	1.1067
12	343	CARRINGTON	273	1.1058
12	344	CLEVELAND	272	1.0980
12	364	CAVALIER	273	1.1290
12	365	DAWSON	271	1.0980
12	374	FT TOTTEN	273	1.1136
12	375	DEVILS LAKE	273	1.1136
12	379	BARLOW	273	1.1058
12	387	ELDRIDGE	272	1.1058
12	411	GLEN ULLIN	31	.9823
12	417	GRAFTON	273	1.1368
12	449	JAMESTOWN	272	1.1136
12	463	LANGDON	273	1.1058
12	475	LINTON	802	.9745
12	478	LINCOLN	28	1.1067
12	494	MEDINA	271	1.0980
12	498	MANDAN	28	1.1067
12	524	NEW SALEM	28	1.0833
12	532	NEW ROCKFORD	273	1.1058
12	539	PARK RIVER	273	1.1290
12	574	SANBORN	272	1.1136
12	593	STEELE	271	1.0980
12	598	SHEYENNE	273	1.1136
12	610	TAPPEN	271	1.0980
12	625	VALLEY CITY	272	1.1212
12	629	WALHALLA	273	1.1290
12	647	WILTON	262	1.0833
12	717	SPIRITWOOD	272	1.1136
12	732	MSR SITE	273	1.1058
12	733	PAR SITE	273	1.1058
15	303	ALEXANDER	25	1.0692
15	308	ARNEGARD	25	1.0692
15	318	BEACH	32	.9574
15	319	BELFIELD	32	.9644

MONTANA-DAKOTA UTILITIES CO.
 Therm Billing Factor
 AUG 2008

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	323	BERTHOLD	261	1.0843
15	330	BOWMAN	34	1.0732
15	337	BURLINGTON	262	1.1067
15	368	DES LACS	261	1.0921
15	369	DICKINSON	31	.9752
15	384	EPPING	261	1.0843
15	407	GLADSTONE	31	.9752
15	413	GOLVA	32	.9434
15	416	GARRISON	262	1.0911
15	429	HEBRON	31	.9823
15	459	KILLDEER	33	1.0937
15	469	LEFOR	31	.9752
15	474	LIGNITE	263	1.0854
15	500	MARMARTH	34	1.0812
15	505	MINOT	262	1.1067
15	510	MOTT	31	.9752
15	512	MAX	262	1.0833
15	522	NEW ENGLAND	31	.9681
15	540	PALERMO	261	1.0843
15	558	RAY	261	1.0843
15	561	REGENT	31	.9752
15	563	RHAME	34	1.0654
15	564	RICHARDTON	31	.9681
15	568	ROSS	261	1.0765
15	572	RUTHVILLE	262	1.1067
15	583	SENTINEL BUTTE	32	.9574
15	588	SOUTH HEART	31	.9681
15	590	SPRINGBROOK	261	1.0843
15	591	STANLEY	261	1.0843
15	605	SURREY	262	1.1067
15	611	TAYLOR	31	.9681
15	616	TIOGA	261	1.0765
15	619	TURTLE LAKE	262	1.0911
15	620	TRENTON	24	1.1311
15	624	UNDERWOOD	262	1.0911

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
AUG 2008

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	632	WATFORD CITY	25	1.0692
15	636	WHEELOCK	261	1.0765
15	637	WHITE EARTH	261	1.0843
15	642	WILLISTON	24	1.1311
15	646	WASHBURN	262	1.0989
15	664	RIVERDALE	262	1.0911
15	691	FAIRVIEW	24	1.1311
15	712	MINOT AFB	262	1.1067
15	743	BAKER FIELD	35	.8935

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

GQ Source Daily Summary

July 2008

Number: 251

Name: SIDNEY BORDER

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 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	Critherm
1	0.7293	1172.7	1193.5		1.127	3.969	69.128	21.820	3.596	0.120	0.215	0.012	0.011	0.001	0.000				1397.59	
2	0.7270	1171.8	1192.6		1.039	3.942	69.295	21.992	3.368	0.125	0.213	0.012	0.011	0.002	0.000				1398.74	
3	0.7286	1172.1	1192.9		1.088	4.003	69.085	22.030	3.408	0.128	0.231	0.013	0.011	0.001	0.000				1397.49	
4	0.7283	1171.6	1192.3		1.091	4.003	69.093	22.069	3.367	0.126	0.226	0.013	0.011	0.001	0.000				1397.14	
5	0.7279	1171.1	1191.8		1.093	3.997	69.078	22.172	3.291	0.123	0.222	0.012	0.010	0.001	0.000				1396.92	
6	0.7292	1173.1	1193.9		1.085	3.998	69.059	21.968	3.512	0.126	0.227	0.013	0.011	0.001	0.000				1398.16	
7	0.7282	1171.8	1192.5		1.087	4.014	69.150	22.164	3.209	0.125	0.225	0.013	0.011	0.001	0.000				1397.44	
8	0.7272	1169.8	1190.5		1.087	4.002	68.971	22.287	3.274	0.125	0.229	0.013	0.011	0.001	0.000				1396.09	
9	0.7284	1171.9	1192.7		1.087	3.998	69.037	22.212	3.290	0.124	0.227	0.013	0.011	0.001	0.000				1397.43	
10	0.7282	1171.6	1192.3		1.088	3.972	68.956	22.332	3.275	0.124	0.227	0.013	0.011	0.001	0.000				1397.25	
11	0.7285	1172.5	1193.3		1.084	3.988	69.001	22.195	3.358	0.122	0.225	0.013	0.011	0.001	0.000				1398.05	
12	0.7286	1172.4	1193.2		1.080	3.984	69.002	22.236	3.324	0.123	0.226	0.013	0.011	0.001	0.000				1397.95	
13	0.7285	1172.4	1193.2		1.089	3.979	69.049	22.248	3.259	0.124	0.227	0.013	0.011	0.001	0.000				1397.99	
14	0.7280	1171.5	1192.3		1.087	3.986	69.125	22.206	3.223	0.124	0.225	0.013	0.011	0.001	0.000				1397.40	
15	0.7274	1170.6	1191.3		1.087	3.982	68.937	22.288	3.313	0.130	0.237	0.014	0.011	0.001	0.000				1396.84	
16	0.7290	1173.1	1193.8		1.089	3.976	69.059	22.236	3.254	0.127	0.231	0.014	0.012	0.001	0.000				1398.27	
17	0.7280	1171.6	1192.4		1.091	3.976	69.105	22.205	3.241	0.126	0.230	0.013	0.011	0.001	0.000				1397.49	
18	0.7277	1171.1	1191.8		1.091	3.989	69.091	22.198	3.252	0.126	0.228	0.013	0.011	0.001	0.000				1397.16	
19	0.7278	1171.0	1191.8		1.087	3.992	69.065	22.158	3.316	0.126	0.230	0.013	0.011	0.001	0.000				1397.00	
20	0.7282	1171.8	1192.5		1.087	3.988	68.989	22.197	3.355	0.125	0.229	0.014	0.012	0.001	0.000				1397.44	
21	0.7288	1172.6	1193.4		1.091	3.988	68.989	22.197	3.355	0.125	0.229	0.014	0.012	0.001	0.000				1397.90	
22	0.7283	1172.0	1192.8		1.090	3.980	69.043	22.206	3.296	0.127	0.232	0.014	0.012	0.001	0.000				1397.66	
23	0.7278	1171.0	1191.7		1.094	3.988	69.093	22.201	3.241	0.126	0.230	0.014	0.012	0.001	0.000				1396.90	
24	0.7278	1170.9	1191.7		1.098	3.985	69.094	22.200	3.239	0.127	0.230	0.013	0.011	0.001	0.000				1396.86	
25	0.7278	1171.0	1191.8		1.092	3.992	69.135	22.107	3.289	0.127	0.232	0.014	0.012	0.001	0.000				1396.93	
26	0.7281	1171.5	1192.3		1.093	3.989	69.106	22.100	3.327	0.127	0.230	0.014	0.012	0.001	0.000				1397.22	
27	0.7287	1172.6	1193.4		1.087	3.985	69.017	22.160	3.370	0.125	0.229	0.014	0.011	0.001	0.000				1397.99	
28	0.7242	1163.7	1184.3		1.083	4.112	69.991	21.020	3.377	0.137	0.252	0.015	0.013	0.002	0.000				1391.62	
29	0.7284	1171.8	1192.6		1.091	3.998	68.993	22.264	3.271	0.126	0.231	0.014	0.012	0.001	0.000				1397.34	
30	0.7284	1171.8	1192.5		1.088	4.004	68.971	22.299	3.261	0.124	0.226	0.014	0.012	0.001	0.000				1397.28	
31	0.7292	1173.0	1193.8		1.089	4.000	68.969	22.152	3.405	0.127	0.231	0.014	0.012	0.001	0.000				1398.04	
Avg	0.7281	1172.0	1192.3		1.088	3.992	69.087	22.135	3.317	0.126	0.228	0.013	0.011	0.001	0.000				1397.28	

Zone 211

Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	0602330	Specific Gravity:	0.7285
GQ Source Name:	WILLISTON BORDER	BTU Base:	Dry
Effective Date:	7/10/2008 9:00:00 AM	Dry Heat Value:	1189.45
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	1168.75
Pressure Base:	14.730	As Deliv. Heat Value:	1189.45
Viscosity:			

		Mol %	Imported GPM	Calculated GPM
C1	Methane	68.907		
C2	Ethane	21.705		5.788
C3	Propane	3.633	0.999	0.998
IC4	Iso-Butane	0.144	0.047	0.047
NC4	N-Butane	0.260	0.082	0.082
IC5	Iso-Pentane	0.016	0.006	0.006
NC5	N-Pentane	0.014	0.005	0.005
C6+	Hexanes Plus	0.000	0.000	0.000
CO2	Carbon Dioxide	0.967		
N2	Nitrogen	4.353		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
Totals		100.000	1.139	6.926

Sample Date: 6/30/2008 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

GQ Source Number:	0602230	Specific Gravity:	0.7296
GQ Source Name:	WATFORD CITY BORDER	BTU Base:	Dry
Effective Date:	7/10/2008 9:00:00 AM	Dry Heat Value:	1132.28
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	1112.58
Pressure Base:	14.730	As Deliv. Heat Value:	1132.28
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	68.365		
C2	Ethane	18.341		4.890
C3	Propane	3.722	1.023	1.023
IC4	Iso-Butane	0.192	0.063	0.063
NC4	N-Butane	0.350	0.110	0.110
IC5	Iso-Pentane	0.028	0.010	0.010
NC5	N-Pentane	0.028	0.010	0.010
C6+	Hexanes Plus	0.006	0.003	0.002
CO2	Carbon Dioxide	0.762		
N2	Nitrogen	8.206		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
Totals		100.000	1.219	6.109

Sample Date: 6/30/2008 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks: Zone 25
Analysis Remarks:

GQ Source Daily Summary

July 2008

Number: 163

Name: NORTH TIOGA MINOT

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 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	Critherm
1	0.6985	1142.3	1162.5		0.693	3.595	74.169	18.448	2.761	0.111	0.183	0.014	0.013	0.013					1390.94	
2	0.6780	1119.7	1139.5		0.449	3.417	77.067	16.955	1.881	0.076	0.121	0.009	0.009	0.016					1383.94	
3	0.6835	1125.2	1145.1		0.521	3.492	76.176	17.567	1.973	0.086	0.144	0.012	0.013	0.016					1385.10	
4	0.6971	1137.7	1157.9		0.628	3.842	73.805	19.095	2.372	0.083	0.146	0.009	0.008	0.013					1386.84	
5	0.6858	1127.3	1147.3		0.523	3.571	75.707	17.911	2.045	0.080	0.134	0.009	0.008	0.013					1385.46	
6	0.6905	1129.9	1149.9		0.557	3.809	74.763	18.533	2.111	0.072	0.127	0.008	0.007	0.014					1383.86	
7	0.6911	1130.1	1150.2		0.554	3.856	74.596	18.683	2.090	0.070	0.124	0.007	0.006	0.013					1383.54	
8	0.6902	1129.7	1149.7		0.552	3.799	74.622	18.882	1.929	0.069	0.122	0.007	0.006	0.013					1383.94	
9	0.6916	1131.0	1151.0		0.558	3.848	74.398	18.983	1.995	0.069	0.123	0.007	0.006	0.013					1384.04	
10	0.6918	1131.4	1151.4		0.552	3.853	74.378	18.968	2.034	0.068	0.121	0.007	0.006	0.013					1384.32	
11	0.6879	1127.8	1147.8		0.531	3.732	75.146	18.383	1.984	0.073	0.125	0.008	0.007	0.012					1383.88	
12	0.6856	1127.0	1146.9		0.516	3.592	75.582	18.148	1.926	0.077	0.130	0.009	0.008	0.011					1385.16	
13	0.6907	1130.1	1150.1		0.553	3.826	74.586	18.810	2.003	0.070	0.124	0.008	0.007	0.012					1383.86	
14	0.6915	1130.8	1150.9		0.552	3.854	74.420	18.949	2.010	0.068	0.121	0.007	0.006	0.013					1383.99	
15	0.6922	1131.2	1151.2		0.570	3.877	74.288	19.038	2.008	0.070	0.125	0.007	0.006	0.011					1383.66	
16	0.6928	1132.3	1152.4		0.566	3.870	74.240	19.025	2.077	0.071	0.126	0.008	0.006	0.012					1384.46	
17	0.6926	1132.1	1152.1		0.576	3.846	74.359	18.882	2.091	0.078	0.138	0.009	0.008	0.012					1384.39	
18	0.6854	1127.6	1147.5		0.519	3.532	75.787	17.881	2.018	0.086	0.144	0.011	0.010	0.012					1386.08	
19	0.6869	1128.2	1148.2		0.529	3.617	75.394	18.244	1.970	0.079	0.135	0.009	0.009	0.012					1385.39	
20	0.6829	1124.6	1144.5		0.492	3.519	76.185	17.611	1.939	0.084	0.138	0.010	0.010	0.013					1384.94	
21	0.6796	1121.9	1141.8		0.456	3.421	76.853	17.088	1.917	0.087	0.142	0.011	0.011	0.014					1385.04	
22	0.6806	1123.6	1143.5		0.452	3.422	76.743	17.103	2.011	0.088	0.143	0.012	0.012	0.016					1386.04	
23	0.6812	1124.6	1144.5		0.468	3.394	76.579	17.324	1.974	0.086	0.140	0.011	0.010	0.014					1386.69	
24	0.6809	1124.1	1144.0		0.476	3.388	76.614	17.315	1.950	0.084	0.139	0.010	0.010	0.014					1386.31	
25	0.6793	1122.5	1142.3		0.474	3.331	76.915	17.132	1.880	0.089	0.146	0.011	0.011	0.013					1386.06	
26	0.6823	1125.1	1145.0		0.492	3.435	76.399	17.416	1.988	0.089	0.148	0.011	0.011	0.012					1386.12	
27	0.6795	1122.9	1142.8		0.464	3.338	76.930	17.056	1.940	0.090	0.147	0.012	0.012	0.012					1386.37	
28	0.6840	1125.8	1145.7		0.499	3.533	76.054	17.634	2.026	0.083	0.139	0.010	0.010	0.011					1385.37	
29	0.6916	1130.7	1150.7		0.574	3.839	74.606	18.605	2.128	0.079	0.143	0.008	0.007	0.010					1383.70	
30	0.6931	1132.7	1152.8		0.576	3.856	74.209	19.046	2.083	0.073	0.132	0.008	0.007	0.010					1384.67	
31	0.6943	1133.8	1153.9		0.603	3.857	74.067	19.101	2.137	0.075	0.135	0.008	0.007	0.010					1384.83	
AVG	0.6875	1129.0	1148.5		0.533	3.650	75.343	18.188	2.040	0.079	0.136	0.009	0.009	0.013					1385.13	

Zone 261

GQ Source Daily Summary

July 2008

Number: 091

Name: MINOT

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 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	Crit'herm
1	0.6917	1132.7	1152.8		0.607	3.672	75.036	18.050	2.280	0.111	0.188	0.020	0.023	0.012	0.000				1386.07	
2	0.6944	1133.0	1153.1		0.637	3.864	74.390	18.482	2.340	0.092	0.159	0.012	0.012	0.012	0.000				1383.71	
3	0.6984	1134.9	1155.0		0.669	4.069	73.954	18.341	2.652	0.103	0.173	0.010	0.009	0.018	0.000				1382.15	
4	0.6799	1120.4	1140.2		0.454	3.550	76.806	16.948	2.002	0.078	0.124	0.008	0.007	0.024	0.000				1382.85	
5	0.6802	1118.1	1137.9		0.488	3.664	76.723	16.946	1.903	0.090	0.148	0.012	0.013	0.013	0.000				1379.74	
6	0.6871	1124.5	1144.5		0.543	3.835	75.513	17.747	2.097	0.087	0.145	0.009	0.009	0.015	0.000				1380.69	
7	0.6977	1134.5	1154.6		0.630	4.094	73.639	19.018	2.362	0.083	0.146	0.006	0.005	0.017	0.000				1382.27	
8	0.6881	1126.7	1146.6		0.540	3.804	75.291	18.014	2.101	0.081	0.137	0.007	0.006	0.020	0.000				1382.31	
9	0.6943	1128.8	1148.8		0.581	4.201	74.067	18.706	2.214	0.073	0.130	0.005	0.003	0.020	0.000				1378.65	
10	0.6928	1128.2	1148.2		0.565	4.120	74.232	18.762	2.091	0.073	0.129	0.005	0.003	0.019	0.000				1379.45	
11	0.6927	1128.5	1148.5		0.571	4.085	74.179	18.927	2.012	0.071	0.127	0.005	0.003	0.019	0.000				1379.90	
12	0.6943	1130.2	1150.3		0.572	4.129	73.931	19.045	2.099	0.071	0.125	0.005	0.004	0.019	0.000				1380.41	
13	0.6930	1129.7	1149.7		0.568	4.043	74.210	18.853	2.101	0.071	0.125	0.006	0.004	0.019	0.000				1381.08	
14	0.6860	1125.6	1145.6		0.521	3.703	75.507	18.104	1.926	0.078	0.132	0.007	0.005	0.017	0.000				1383.09	
15	0.6886	1127.1	1147.1		0.536	3.837	75.069	18.289	2.028	0.078	0.133	0.007	0.006	0.018	0.000				1382.29	
16	0.6942	1129.6	1149.6		0.575	4.151	73.963	18.989	2.095	0.072	0.128	0.006	0.004	0.018	0.000				1379.74	
17	0.6943	1129.5	1149.5		0.579	4.160	73.945	18.996	2.094	0.072	0.128	0.005	0.004	0.018	0.000				1379.53	
18	0.6931	1131.6	1151.6		0.580	3.914	74.193	19.030	2.057	0.070	0.128	0.006	0.004	0.018	0.000				1383.35	
19	0.6940	1134.0	1154.1		0.585	3.850	74.084	19.138	2.107	0.074	0.133	0.006	0.005	0.019	0.000				1385.34	
20	0.6921	1132.9	1152.9		0.588	3.730	74.558	18.757	2.108	0.082	0.145	0.008	0.007	0.018	0.000				1385.88	
21	0.6868	1128.6	1148.6		0.528	3.586	75.604	17.924	2.075	0.091	0.155	0.010	0.009	0.018	0.000				1385.95	
22	0.6890	1118.2	1138.0		0.641	4.251	75.398	17.281	2.114	0.092	0.148	0.026	0.025	0.024	0.000				1370.92	
23	0.6863	1125.5	1145.5		0.514	3.743	75.629	17.798	2.041	0.089	0.151	0.009	0.008	0.017	0.000				1382.72	
24	0.6807	1121.2	1141.1		0.463	3.558	76.613	17.171	1.932	0.087	0.143	0.010	0.009	0.014	0.000				1383.07	
25	0.6834	1124.4	1144.3		0.476	3.600	76.227	17.352	2.074	0.089	0.147	0.010	0.010	0.015	0.000				1384.20	
26	0.6848	1125.6	1145.5		0.500	3.623	75.964	17.569	2.069	0.089	0.148	0.010	0.009	0.018	0.000				1384.24	
27	0.6839	1123.1	1142.9		0.501	3.687	76.074	17.452	2.022	0.087	0.145	0.009	0.008	0.015	0.000				1382.10	
28	0.6823	1121.5	1141.4		0.497	3.640	76.341	17.297	1.954	0.090	0.149	0.009	0.009	0.014	0.000				1381.79	
29	0.6850	1124.8	1144.7		0.502	3.582	76.546	17.113	1.986	0.088	0.148	0.009	0.009	0.017	0.000				1383.05	
30	0.6820	1122.7	1142.5		0.483	3.560	76.497	17.166	2.011	0.091	0.152	0.011	0.010	0.018	0.000				1383.53	
31	0.6885	1128.7	1148.7		0.549	3.708	75.230	18.155	2.100	0.082	0.143	0.008	0.007	0.017	0.000				1384.36	
Avg	0.6890	1127.0	1147.2		0.550	3.839	75.142	18.110	2.098	0.083	0.142	0.009	0.008	0.017	0.000				1382.08	

Zone 262

Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	2501030	Specific Gravity:	0.6667
GQ Source Name:	LIGNITE PLANT	BTU Base:	Dry
Effective Date:	7/10/2008 9:00:00 AM	Dry Heat Value:	1140.53
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	1120.68
Pressure Base:	14.730	As Deliv. Heat Value:	1140.53
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	77.737		
C2	Ethane	18.326		4.887
C3	Propane	0.979	0.269	0.269
IC4	Iso-Butane	0.000	0.000	0.000
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	0.058	0.027	0.024
CO2	Carbon Dioxide	0.115		
N2	Nitrogen	2.784		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
Totals		100.000	0.296	5.179

Sample Date: 6/30/2008 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler

Sample Remarks: Zone 263

Analysis Remarks:

GQ Source Daily Summary

July 2008

Number: 043

Name: BISMARCK PLANT CLEVELAND PLANT

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 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	Crit'herm
1	0.6894	1127.3	1147.2		0.614	3.776	75.446	17.548	2.311	0.095	0.164	0.012	0.011	0.023	0.000				1381.69	
2	0.6976	1135.4	1155.5		0.687	3.935	74.301	18.030	2.701	0.110	0.187	0.013	0.013	0.022	0.000				1383.45	
3	0.6827	1120.1	1139.9		0.514	3.739	76.400	17.017	2.065	0.083	0.138	0.010	0.009	0.026	0.000				1379.63	
4	0.6844	1122.0	1141.8		0.542	3.737	76.125	17.270	2.029	0.090	0.152	0.013	0.014	0.028	0.000				1380.21	
5	0.6980	1133.6	1153.7		0.649	4.140	73.693	18.851	2.396	0.083	0.148	0.009	0.008	0.024	0.000				1380.93	
6	0.6872	1125.0	1144.9		0.550	3.805	75.531	17.759	2.095	0.079	0.139	0.009	0.008	0.025	0.000				1381.11	
7	0.6906	1127.3	1147.3		0.572	3.955	74.829	18.271	2.125	0.074	0.133	0.008	0.007	0.026	0.000				1380.51	
8	0.6937	1128.5	1148.4		0.582	4.152	74.245	18.587	2.188	0.073	0.133	0.007	0.006	0.025	0.000				1378.91	
9	0.6919	1126.9	1146.9		0.578	4.089	74.404	18.695	1.999	0.071	0.129	0.007	0.006	0.024	0.000				1378.79	
10	0.6927	1128.1	1148.1		0.584	4.077	74.301	18.753	2.049	0.070	0.128	0.007	0.006	0.024	0.000				1379.51	
11	0.6937	1129.1	1149.1		0.579	4.125	74.134	18.823	2.103	0.070	0.127	0.007	0.006	0.025	0.000				1379.61	
12	0.6903	1127.0	1147.0		0.563	3.957	74.787	18.398	2.053	0.073	0.130	0.008	0.007	0.023	0.000				1380.48	
13	0.6858	1125.2	1145.1		0.537	3.684	75.642	17.941	1.942	0.078	0.136	0.009	0.008	0.022	0.000				1382.74	
14	0.6919	1126.6	1146.5		0.578	4.113	74.483	18.500	2.084	0.073	0.131	0.008	0.007	0.023	0.000				1378.34	
15	0.6929	1128.8	1148.7		0.580	4.069	74.261	18.784	2.072	0.069	0.127	0.007	0.006	0.024	0.000				1380.05	
16	0.6936	1128.7	1148.7		0.595	4.114	74.131	18.859	2.082	0.071	0.131	0.008	0.007	0.022	0.000				1379.26	
17	0.6927	1132.3	1152.3		0.589	3.823	74.352	18.935	2.061	0.071	0.131	0.008	0.007	0.024	0.000				1384.51	
18	0.6927	1132.2	1152.3		0.600	3.802	74.455	18.793	2.087	0.078	0.144	0.009	0.008	0.023	0.000				1385.24	
19	0.6859	1127.3	1147.2		0.543	3.554	75.813	17.768	2.041	0.087	0.151	0.011	0.010	0.023	0.000				1383.96	
20	0.6905	1130.0	1150.0		0.554	3.802	75.006	18.175	2.159	0.092	0.167	0.011	0.010	0.024	0.000				1381.71	
21	0.6850	1123.7	1143.6		0.519	3.725	75.944	17.498	2.027	0.088	0.153	0.011	0.011	0.024	0.000				1382.66	
22	0.6803	1120.6	1140.4		0.479	3.533	76.803	16.960	1.944	0.087	0.147	0.012	0.011	0.025	0.000				1383.22	
23	0.6812	1121.7	1141.6		0.467	3.560	76.729	16.917	2.038	0.088	0.149	0.012	0.012	0.028	0.000				1383.33	
24	0.6828	1123.2	1143.1		0.493	3.588	76.389	17.213	2.033	0.087	0.148	0.011	0.011	0.026	0.000				1381.33	
25	0.6824	1121.3	1141.1		0.504	3.655	76.422	17.138	2.005	0.086	0.146	0.011	0.010	0.024	0.000				1380.91	
26	0.6814	1120.1	1139.9		0.508	3.623	76.597	17.041	1.944	0.090	0.153	0.011	0.011	0.022	0.000				1382.00	
27	0.6832	1122.4	1142.3		0.515	3.638	76.338	17.180	2.039	0.090	0.155	0.012	0.011	0.023	0.000				1382.77	
28	0.6813	1121.5	1141.3		0.492	3.549	76.690	16.981	1.995	0.091	0.155	0.012	0.012	0.023	0.000				1385.06	
29	0.6851	1126.5	1146.4		0.527	3.553	75.936	17.668	2.044	0.084	0.145	0.011	0.010	0.022	0.000				1380.56	
30	0.6925	1128.8	1148.8		0.602	3.986	74.553	18.424	2.166	0.081	0.151	0.009	0.008	0.021	0.000				1380.07	
31	0.6951	1130.6	1150.6		0.610	4.116	73.967	18.895	2.158	0.076	0.141	0.008	0.007	0.021	0.000				1381.52	
Avg	0.6887	1127.0	1146.4		0.558	3.838	75.249	17.989	2.097	0.082	0.144	0.010	0.009	0.024	0.000					

Zone 271

GQ Source Daily Summary

July 2008

Number: 063

Name: CLEVELAND PLANT MAPLETON

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 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	Cri/therm
1	0.6894	1127.3	1147.2		0.614	3.776	75.446	17.548	2.311	0.095	0.164	0.012	0.011	0.023	0.000				1381.69	
2	0.6976	1135.4	1155.5		0.687	3.935	74.301	18.031	2.701	0.110	0.186	0.013	0.013	0.022	0.000				1383.45	
3	0.6827	1120.1	1139.9		0.514	3.739	76.400	17.017	2.065	0.083	0.138	0.010	0.009	0.026	0.000				1379.63	
4	0.6844	1122.0	1141.8		0.542	3.737	76.124	17.271	2.029	0.090	0.152	0.013	0.014	0.028	0.000				1380.21	
5	0.6980	1133.6	1153.7		0.649	4.140	73.692	18.851	2.396	0.083	0.148	0.009	0.008	0.024	0.000				1380.93	
6	0.6872	1125.0	1144.9		0.550	3.805	75.532	17.758	2.095	0.079	0.139	0.009	0.008	0.025	0.000				1381.11	
7	0.6906	1127.3	1147.3		0.572	3.955	74.829	18.271	2.125	0.074	0.133	0.008	0.007	0.026	0.000				1380.51	
8	0.6936	1128.4	1148.4		0.582	4.152	74.246	18.587	2.188	0.073	0.133	0.007	0.006	0.025	0.000				1378.91	
9	0.6919	1126.9	1146.9		0.578	4.089	74.403	18.694	1.999	0.071	0.129	0.007	0.006	0.024	0.000				1378.78	
10	0.6927	1128.1	1148.1		0.584	4.077	74.301	18.753	2.049	0.070	0.128	0.007	0.006	0.024	0.000				1379.51	
11	0.6937	1129.1	1149.1		0.579	4.125	74.134	18.823	2.103	0.070	0.127	0.007	0.006	0.025	0.000				1379.61	
12	0.6903	1127.0	1147.0		0.563	3.957	74.787	18.398	2.053	0.073	0.130	0.008	0.007	0.023	0.000				1380.47	
13	0.6858	1125.2	1145.1		0.537	3.684	75.643	17.941	1.942	0.078	0.136	0.009	0.008	0.022	0.000				1382.74	
14	0.6919	1126.6	1146.5		0.578	4.113	74.483	18.500	2.084	0.073	0.131	0.008	0.007	0.023	0.000				1378.34	
15	0.6929	1128.8	1148.8		0.580	4.069	74.261	18.784	2.072	0.069	0.127	0.007	0.006	0.024	0.000				1380.05	
16	0.6936	1128.7	1148.7		0.595	4.114	74.131	18.859	2.062	0.071	0.131	0.008	0.007	0.022	0.000				1379.26	
17	0.6927	1132.3	1152.3		0.589	3.823	74.352	18.935	2.061	0.071	0.131	0.008	0.007	0.024	0.000				1384.51	
18	0.6927	1132.2	1152.3		0.600	3.802	74.455	18.793	2.087	0.078	0.144	0.009	0.008	0.023	0.000				1384.51	
19	0.6859	1127.3	1147.2		0.543	3.554	75.813	17.768	2.041	0.087	0.151	0.011	0.010	0.023	0.000				1385.24	
20	0.6905	1130.0	1150.0		0.554	3.802	75.005	18.176	2.159	0.092	0.167	0.011	0.010	0.024	0.000				1383.97	
21	0.6850	1123.7	1143.6		0.519	3.725	75.944	17.498	2.027	0.088	0.153	0.011	0.011	0.024	0.000				1381.71	
22	0.6803	1120.6	1140.4		0.479	3.533	76.803	16.960	1.944	0.087	0.147	0.012	0.011	0.025	0.000				1382.66	
23	0.6813	1121.9	1141.7		0.469	3.559	76.714	16.925	2.044	0.088	0.149	0.012	0.012	0.028	0.000				1382.66	
24	0.6828	1123.2	1143.1		0.493	3.588	76.388	17.214	2.033	0.087	0.148	0.011	0.011	0.026	0.000				1383.28	
25	0.6824	1121.3	1141.1		0.504	3.655	76.422	17.138	2.005	0.086	0.146	0.011	0.010	0.024	0.000				1381.33	
26	0.6814	1120.1	1139.9		0.508	3.623	76.596	17.041	1.945	0.090	0.153	0.011	0.011	0.022	0.000				1380.91	
27	0.6832	1122.4	1142.3		0.515	3.638	76.338	17.180	2.039	0.090	0.155	0.012	0.011	0.023	0.000				1382.00	
28	0.6813	1121.5	1141.3		0.492	3.549	76.689	16.981	1.995	0.091	0.155	0.012	0.012	0.023	0.000				1382.77	
29	0.6851	1126.5	1146.4		0.527	3.553	75.936	17.668	2.044	0.084	0.145	0.011	0.010	0.022	0.000				1385.06	
30	0.6925	1128.8	1148.8		0.602	3.987	74.552	18.424	2.167	0.081	0.151	0.009	0.008	0.021	0.000				1380.56	
31	0.6951	1130.6	1150.6		0.610	4.116	73.967	18.895	2.158	0.076	0.141	0.008	0.007	0.021	0.000				1380.07	
Avg	0.6887	1127.0	1146.5		0.558	3.838	75.248	17.990	2.097	0.082	0.144	0.010	0.009	0.024	0.000				1381.52	

Zone 27a

GQ Source Daily Summary

July 2008

Number: 061

Name: CLEVELAND PLANT GRAFTON

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 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	Crit'therm
1	0.6894	1127.3	1147.2		0.614	3.776	75.446	17.548	2.311	0.095	0.164	0.012	0.011	0.023	0.000				1381.69	
2	0.6976	1135.4	1155.5		0.687	3.935	74.301	18.031	2.701	0.110	0.186	0.013	0.013	0.022	0.000				1383.45	
3	0.6827	1120.1	1139.9		0.514	3.739	76.400	17.017	2.065	0.083	0.138	0.010	0.009	0.026	0.000				1379.63	
4	0.6844	1122.0	1141.8		0.542	3.737	76.124	17.271	2.029	0.090	0.152	0.013	0.014	0.028	0.000				1380.21	
5	0.6980	1133.6	1153.7		0.649	4.140	73.692	18.851	2.396	0.083	0.148	0.009	0.008	0.024	0.000				1380.93	
6	0.6872	1125.0	1144.9		0.550	3.805	75.530	17.759	2.096	0.079	0.139	0.009	0.008	0.025	0.000				1381.11	
7	0.6906	1127.3	1147.3		0.572	3.955	74.829	18.271	2.125	0.074	0.133	0.008	0.007	0.026	0.000				1380.51	
8	0.6936	1128.4	1148.4		0.582	4.152	74.246	18.587	2.188	0.073	0.133	0.007	0.006	0.025	0.000				1378.91	
9	0.6919	1126.9	1146.9		0.578	4.089	74.403	18.695	1.999	0.071	0.129	0.007	0.006	0.024	0.000				1378.78	
10	0.6927	1128.1	1148.1		0.584	4.077	74.301	18.753	2.049	0.070	0.128	0.007	0.006	0.024	0.000				1379.51	
11	0.6937	1129.1	1149.1		0.579	4.125	74.134	18.823	2.103	0.070	0.127	0.007	0.006	0.025	0.000				1379.61	
12	0.6903	1127.0	1147.0		0.563	3.957	74.788	18.398	2.053	0.073	0.130	0.008	0.007	0.023	0.000				1380.47	
13	0.6858	1125.2	1145.1		0.537	3.684	75.643	17.941	1.942	0.078	0.136	0.009	0.008	0.022	0.000				1382.74	
14	0.6919	1126.6	1146.5		0.578	4.113	74.483	18.500	2.084	0.073	0.131	0.008	0.007	0.023	0.000				1378.34	
15	0.6929	1128.8	1148.8		0.580	4.069	74.261	18.784	2.072	0.069	0.127	0.007	0.006	0.024	0.000				1380.05	
16	0.6936	1128.7	1148.7		0.595	4.114	74.131	18.859	2.062	0.071	0.131	0.008	0.007	0.022	0.000				1379.26	
17	0.6927	1132.3	1152.3		0.589	3.823	74.352	18.935	2.061	0.071	0.131	0.008	0.007	0.024	0.000				1384.51	
18	0.6927	1132.2	1152.3		0.600	3.802	74.455	18.793	2.087	0.078	0.144	0.009	0.008	0.023	0.000				1384.51	
19	0.6859	1127.3	1147.2		0.543	3.554	75.813	17.768	2.041	0.087	0.151	0.011	0.010	0.023	0.000				1385.24	
20	0.6905	1130.0	1150.0		0.554	3.822	75.005	18.176	2.159	0.092	0.167	0.011	0.010	0.024	0.000				1383.97	
21	0.6850	1123.7	1143.6		0.519	3.725	75.944	17.498	2.027	0.088	0.153	0.011	0.011	0.024	0.000				1381.71	
22	0.6803	1120.6	1140.4		0.479	3.533	76.803	16.960	1.944	0.087	0.147	0.012	0.011	0.025	0.000				1382.66	
23	0.6813	1121.9	1141.7		0.469	3.559	76.714	16.925	2.044	0.088	0.149	0.012	0.012	0.028	0.000				1383.28	
24	0.6828	1123.2	1143.1		0.493	3.588	76.388	17.214	2.033	0.087	0.148	0.011	0.011	0.026	0.000				1383.33	
25	0.6824	1121.3	1141.1		0.504	3.655	76.422	17.138	2.005	0.086	0.146	0.011	0.010	0.024	0.000				1381.33	
26	0.6814	1120.1	1139.9		0.508	3.623	76.597	17.041	1.945	0.090	0.153	0.011	0.011	0.022	0.000				1380.91	
27	0.6832	1122.4	1142.3		0.515	3.638	76.338	17.180	2.039	0.090	0.155	0.012	0.011	0.023	0.000				1380.91	
28	0.6813	1121.5	1141.3		0.492	3.549	76.689	16.981	1.995	0.091	0.155	0.012	0.012	0.023	0.000				1382.77	
29	0.6851	1126.5	1146.4		0.527	3.553	75.936	17.668	2.044	0.084	0.145	0.011	0.010	0.022	0.000				1385.06	
30	0.6925	1128.8	1148.8		0.602	3.987	74.552	18.424	2.166	0.081	0.151	0.009	0.008	0.021	0.000				1380.56	
31	0.6951	1130.6	1150.6		0.610	4.116	73.967	18.895	2.158	0.076	0.141	0.008	0.007	0.021	0.000				1380.07	
Avg	0.6887	1127.0	1146.5		0.558	3.838	75.248	17.990	2.097	0.082	0.144	0.010	0.009	0.024	0.000				1381.52	

Zone 273

GQ Source Daily Summary

July 2008

Number: 041

Name: BISMARCK PLANT DICKINSON PLANT

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 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	Critherm
1	0.6896	1127.5	1147.4	1147.4	0.615	3.781	75.415	17.568	2.315	0.095	0.164	0.012	0.011	0.024	0.000				1381.72	
2	0.6980	1136.2	1156.3	1156.3	0.689	3.926	74.248	18.064	2.720	0.112	0.191	0.014	0.013	0.023	0.000				1383.98	
3	0.6831	1120.4	1140.2	1140.2	0.517	3.748	76.343	17.047	2.077	0.083	0.138	0.010	0.009	0.026	0.000				1379.66	
4	0.6845	1122.1	1142.0	1142.0	0.543	3.738	76.108	17.281	2.033	0.090	0.153	0.013	0.014	0.028	0.000				1380.29	
5	0.6982	1134.0	1154.1	1154.1	0.651	4.138	73.664	18.864	2.410	0.083	0.149	0.009	0.008	0.024	0.000				1381.15	
6	0.6876	1125.4	1145.3	1145.3	0.552	3.816	75.468	17.790	2.112	0.080	0.140	0.009	0.008	0.025	0.000				1381.20	
7	0.6906	1127.7	1147.7	1147.7	0.570	3.925	74.831	18.314	2.111	0.074	0.133	0.008	0.007	0.026	0.000				1381.13	
8	0.6939	1128.7	1148.7	1148.7	0.583	4.156	74.206	18.614	2.194	0.074	0.134	0.007	0.006	0.025	0.000				1379.03	
9	0.6919	1127.0	1146.9	1146.9	0.578	4.089	74.401	18.694	2.002	0.071	0.129	0.007	0.006	0.024	0.000				1378.82	
10	0.6927	1128.3	1148.3	1148.3	0.584	4.075	74.288	18.766	2.050	0.070	0.129	0.007	0.006	0.024	0.000				1379.63	
11	0.6938	1129.3	1149.3	1149.3	0.579	4.123	74.117	18.838	2.106	0.070	0.128	0.008	0.007	0.025	0.000				1379.75	
12	0.6904	1127.2	1147.2	1147.2	0.564	3.954	74.773	18.410	2.057	0.073	0.130	0.008	0.007	0.023	0.000				1380.61	
13	0.6858	1125.3	1145.2	1145.2	0.537	3.678	75.646	17.942	1.942	0.079	0.136	0.009	0.008	0.023	0.000				1382.86	
14	0.6921	1126.7	1146.7	1146.7	0.579	4.114	74.464	18.513	2.087	0.073	0.132	0.008	0.007	0.023	0.000				1378.39	
15	0.6931	1129.0	1149.0	1149.0	0.580	4.074	74.235	18.798	2.077	0.069	0.127	0.007	0.007	0.025	0.000				1380.08	
16	0.6937	1129.0	1149.0	1149.0	0.596	4.110	74.110	18.878	2.067	0.071	0.131	0.008	0.007	0.022	0.000				1379.46	
17	0.6928	1132.4	1152.5	1152.5	0.589	3.822	74.338	18.947	2.063	0.071	0.132	0.008	0.007	0.024	0.000				1384.60	
18	0.6928	1132.5	1152.5	1152.5	0.601	3.800	74.433	18.812	2.091	0.078	0.144	0.009	0.008	0.023	0.000				1384.66	
19	0.6863	1127.6	1147.6	1147.6	0.547	3.563	75.742	17.821	2.046	0.087	0.151	0.011	0.010	0.023	0.000				1385.27	
20	0.6907	1130.3	1150.4	1150.4	0.555	3.798	74.978	18.200	2.165	0.092	0.167	0.011	0.010	0.024	0.000				1384.18	
21	0.6851	1123.8	1143.7	1143.7	0.520	3.725	75.936	17.503	2.029	0.088	0.153	0.011	0.011	0.024	0.000				1381.77	
22	0.6804	1120.6	1140.5	1140.5	0.479	3.540	76.789	16.963	1.946	0.087	0.147	0.012	0.011	0.025	0.000				1382.58	
23	0.6818	1122.5	1142.3	1142.3	0.471	3.566	76.631	16.985	2.055	0.089	0.150	0.012	0.012	0.028	0.000				1383.51	
24	0.6830	1123.4	1143.3	1143.3	0.495	3.588	76.363	17.232	2.038	0.087	0.149	0.011	0.011	0.026	0.000				1383.44	
25	0.6827	1121.6	1141.5	1141.5	0.507	3.657	76.377	17.168	2.014	0.086	0.147	0.011	0.010	0.024	0.000				1381.45	
26	0.6816	1120.3	1140.1	1140.1	0.509	3.622	76.572	17.064	1.946	0.090	0.153	0.011	0.011	0.022	0.000				1381.04	
27	0.6837	1122.8	1142.7	1142.7	0.519	3.651	76.253	17.238	2.048	0.090	0.155	0.012	0.011	0.023	0.000				1382.03	
28	0.6814	1121.7	1141.6	1141.6	0.492	3.547	76.662	17.004	2.000	0.091	0.155	0.012	0.012	0.023	0.000				1382.94	
29	0.6852	1126.6	1146.6	1146.6	0.527	3.550	75.933	17.670	2.047	0.084	0.146	0.011	0.010	0.023	0.000				1385.17	
30	0.6927	1129.2	1149.2	1149.2	0.603	3.984	74.522	18.448	2.172	0.081	0.151	0.009	0.008	0.021	0.000				1380.77	
31	0.6952	1130.9	1150.9	1150.9	0.610	4.110	73.940	18.929	2.158	0.075	0.141	0.008	0.007	0.022	0.000				1380.33	
Avg	0.6889	1127.0	1146.7	1146.7	0.559	3.838	75.219	18.012	2.103	0.082	0.145	0.010	0.009	0.024	0.000				1381.66	

Zone 2B

GQ Source Daily Summary

July 2008

Number: 271

Name: DICKINSON BORDER

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 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	Crit'herm
1	0.6045	1010.9	1028.8		0.603	2.889	91.019	4.606	0.729	0.072	0.058	0.000	0.000	0.023	0.000				1323.26	
2	0.6120	1023.9	1042.1		0.625	2.768	89.697	5.864	0.886	0.073	0.063	0.000	0.000	0.024	0.000				1332.04	
3	0.6109	1018.4	1036.4		0.661	2.949	89.915	5.450	0.853	0.077	0.070	0.000	0.000	0.025	0.000				1326.01	
4	0.6127	1026.5	1044.6		0.567	2.762	89.559	6.036	0.894	0.084	0.072	0.001	0.000	0.025	0.000				1334.62	
5	0.6126	1024.3	1042.5		0.592	2.850	89.634	5.794	0.950	0.084	0.072	0.001	0.000	0.024	0.000				1331.91	
6	0.6145	1029.8	1048.1		0.555	2.748	89.289	6.224	0.995	0.088	0.076	0.000	0.000	0.025	0.000				1337.00	
7	0.6121	1025.2	1043.4		0.550	2.808	89.701	5.814	0.948	0.083	0.072	0.000	0.000	0.024	0.000				1333.66	
8	0.6099	1023.8	1042.0		0.627	2.565	90.298	5.427	0.863	0.096	0.079	0.009	0.001	0.035	0.000				1334.28	
9	0.6104	1024.7	1042.9		0.625	2.568	90.069	5.692	0.871	0.082	0.067	0.000	0.000	0.025	0.000				1334.80	
10	0.6108	1026.8	1045.0		0.583	2.547	89.927	5.901	0.879	0.077	0.063	0.000	0.000	0.023	0.000				1337.04	
11	0.6095	1021.6	1039.7		0.570	2.754	90.223	5.368	0.905	0.085	0.071	0.000	0.000	0.024	0.000				1331.74	
12	0.6130	1025.1	1043.2		0.603	2.824	89.553	5.915	0.922	0.082	0.074	0.000	0.000	0.028	0.000				1332.47	
13	0.6143	1026.2	1044.4		0.587	2.896	89.279	6.108	0.955	0.079	0.071	0.000	0.000	0.026	0.000				1332.60	
14	0.6127	1022.1	1040.2		0.675	2.851	89.643	5.761	0.894	0.079	0.069	0.000	0.000	0.028	0.000				1328.87	
15	0.6132	1023.4	1041.5		0.677	2.839	89.549	5.847	0.910	0.080	0.069	0.000	0.000	0.028	0.000				1329.97	
16	0.6131	1024.1	1042.2		0.672	2.791	89.607	5.823	0.921	0.082	0.076	0.000	0.000	0.028	0.000				1331.03	
17	0.6114	1017.9	1036.0		0.772	2.853	90.002	5.319	0.866	0.082	0.075	0.003	0.000	0.029	0.000				1324.90	
18	0.6095	1015.1	1033.0		0.721	2.929	90.257	5.087	0.832	0.074	0.070	0.002	0.000	0.028	0.000				1323.17	
19	0.6137	1023.2	1041.3		0.676	2.892	89.460	5.885	0.902	0.083	0.073	0.001	0.000	0.028	0.000				1329.27	
20	0.6177	1031.0	1049.3		0.677	2.796	88.782	6.546	0.995	0.092	0.080	0.002	0.000	0.030	0.000				1335.01	
21	0.6164	1029.9	1048.1		0.622	2.822	88.977	6.387	0.996	0.087	0.080	0.001	0.000	0.028	0.000				1334.99	
22	0.6178	1031.6	1049.9		0.647	2.816	88.723	6.606	1.012	0.087	0.079	0.002	0.000	0.029	0.000				1335.66	
23	0.6117	1018.6	1036.6		0.739	2.892	89.937	5.345	0.895	0.082	0.076	0.003	0.000	0.031	0.000				1325.41	
24	0.6110	1016.5	1034.5		0.777	2.896	90.003	5.332	0.815	0.078	0.070	0.001	0.000	0.029	0.000				1323.45	
25	0.6137	1020.8	1038.9		0.757	2.912	89.492	5.798	0.859	0.079	0.073	0.001	0.000	0.028	0.000				1326.22	
26	0.6141	1020.8	1038.9		0.826	2.854	89.486	5.769	0.890	0.074	0.072	0.000	0.000	0.028	0.000				1325.65	
27	0.6139	1019.0	1037.0		0.871	2.873	89.546	5.671	0.868	0.075	0.069	0.000	0.000	0.026	0.000				1323.57	
28	0.6152	1021.1	1039.2		0.870	2.872	89.334	5.838	0.903	0.080	0.074	0.000	0.000	0.029	0.000				1324.88	
29	0.6081	1010.9	1028.8		0.763	2.979	90.545	4.753	0.789	0.075	0.069	0.000	0.000	0.028	0.000				1319.41	
30	0.6059	1009.8	1027.9		0.944	2.565	91.253	4.277	0.776	0.081	0.073	0.001	0.000	0.030	0.000				1320.31	
31	0.6055	1008.0	1025.9		0.805	2.850	91.097	4.338	0.729	0.081	0.068	0.000	0.000	0.031	0.000				1318.37	
Avg	0.6120	1022.0	1039.7		0.685	2.813	89.802	5.632	0.887	0.081	0.072	0.001	0.000	0.027	0.000				1329.08	

Zone 31

GQ Source Daily Summary

July 2008

Number: 051

Name: CABIN CREEK DICKINSON PLANT

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 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	Crit'herm
1	0.6028	1009.1	1026.9		0.575	2.889	91.436	4.182	0.744	0.074	0.062	0.016	0.008	0.015	0.000					1322.68
2	0.6125	1020.2	1038.3		0.708	2.918	89.761	5.525	0.900	0.077	0.072	0.016	0.009	0.014	0.000					1326.70
3	0.6117	1021.8	1039.9		0.592	2.930	89.819	5.571	0.884	0.083	0.077	0.018	0.010	0.016	0.000					1329.51
4	0.6105	1021.1	1039.2		0.589	2.860	90.079	5.377	0.889	0.087	0.076	0.018	0.010	0.016	0.000					1330.00
5	0.6121	1022.7	1040.8		0.585	2.921	89.845	5.456	0.979	0.090	0.079	0.018	0.010	0.016	0.000					1330.25
6	0.6123	1025.4	1043.6		0.551	2.820	89.745	5.731	0.950	0.087	0.076	0.016	0.009	0.014	0.000					1333.68
7	0.6103	1022.4	1040.5		0.582	2.766	90.280	5.199	0.932	0.098	0.085	0.023	0.013	0.022	0.000					1331.93
8	0.6085	1020.0	1038.1		0.640	2.659	90.557	5.080	0.855	0.089	0.074	0.017	0.009	0.020	0.000					1330.74
9	0.6099	1022.6	1040.7		0.639	2.636	90.252	5.399	0.883	0.083	0.071	0.015	0.009	0.013	0.000					1332.56
10	0.6065	1018.9	1036.9		0.568	2.648	90.829	4.925	0.845	0.083	0.067	0.015	0.008	0.013	0.000					1331.48
11	0.6113	1021.1	1039.2		0.582	2.942	89.964	5.358	0.944	0.088	0.079	0.017	0.010	0.016	0.000					1329.15
12	0.6132	1024.3	1042.5		0.610	2.885	89.579	5.793	0.934	0.083	0.075	0.016	0.009	0.016	0.000					1331.25
13	0.6115	1019.7	1037.7		0.641	2.960	89.905	5.408	0.886	0.082	0.075	0.017	0.010	0.017	0.000					1327.05
14	0.6119	1019.8	1037.9		0.690	2.915	89.878	5.436	0.885	0.081	0.072	0.017	0.010	0.018	0.000					1326.79
15	0.6136	1023.8	1041.9		0.672	2.866	89.643	5.628	0.971	0.089	0.082	0.019	0.011	0.019	0.000					1330.03
16	0.6101	1016.9	1035.0		0.720	2.877	90.279	5.053	0.859	0.086	0.078	0.018	0.011	0.018	0.000					1324.98
17	0.6100	1014.6	1032.5		0.756	2.956	90.388	4.778	0.908	0.085	0.082	0.018	0.011	0.019	0.000					1322.01
18	0.6073	1009.2	1027.1		0.773	3.005	90.722	4.562	0.752	0.076	0.068	0.017	0.010	0.016	0.000					1317.94
19	0.6154	1026.4	1044.6		0.644	2.914	89.260	5.993	0.961	0.094	0.083	0.021	0.012	0.020	0.000					1331.52
20	0.6162	1026.7	1044.9		0.697	2.889	89.192	6.001	0.990	0.093	0.086	0.021	0.012	0.021	0.000					1331.08
21	0.6155	1025.8	1044.0		0.702	2.875	89.306	5.902	0.991	0.090	0.084	0.019	0.011	0.018	0.000					1330.61
22	0.6151	1023.1	1041.2		0.753	2.918	89.467	5.636	0.999	0.090	0.085	0.021	0.012	0.019	0.000					1327.59
23	0.6065	1007.9	1025.7		0.792	2.986	91.038	4.144	0.833	0.082	0.077	0.019	0.011	0.020	0.000					1317.01
24	0.6116	1016.3	1034.3		0.759	2.998	89.960	5.239	0.841	0.082	0.075	0.018	0.011	0.018	0.000					1322.54
25	0.6100	1014.1	1032.1		0.773	2.955	90.377	4.797	0.886	0.083	0.080	0.019	0.011	0.019	0.000					1321.47
26	0.6129	1016.9	1034.9		0.865	2.929	89.833	5.294	0.879	0.078	0.075	0.017	0.011	0.019	0.000					1321.82
27	0.6113	1013.4	1031.3		0.885	2.960	90.207	4.847	0.893	0.083	0.078	0.019	0.011	0.018	0.000					1318.98
28	0.6126	1013.1	1031.1		0.882	3.095	89.957	4.940	0.920	0.083	0.078	0.016	0.010	0.020	0.000					1317.39
29	0.6036	1002.5	1020.3		0.758	3.086	91.530	3.627	0.798	0.081	0.076	0.017	0.010	0.017	0.000					1313.22
30	0.5987	1002.2	1019.9		0.917	2.400	92.778	2.957	0.718	0.093	0.078	0.020	0.011	0.023	0.000					1318.18
31	0.6047	1002.9	1020.7		0.763	3.159	91.286	3.803	0.792	0.081	0.073	0.017	0.009	0.018	0.000					1312.53
Avg	0.6103	1018.0	1035.6		0.699	2.891	90.231	5.085	0.887	0.085	0.077	0.018	0.010	0.018	0.000					1325.57

Zone 32

GQ Source Daily Summary

July 2008

Number: 111

Name: LITTLE KNIFE PLANT

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 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	Crittherm
1	0.6645	1134.2	1154.3	0.000	0.000	1.951	78.382	18.530	1.111	0.011	0.013	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1416.06	
2	0.6642	1133.8	1153.9	0.000	0.000	1.950	78.446	18.470	1.105	0.013	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.83	
3	0.6652	1135.4	1155.5	0.000	0.000	1.955	78.211	18.715	1.092	0.012	0.014	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1416.64	
4	0.6667	1137.3	1157.5	0.000	0.000	1.972	77.892	19.031	1.078	0.012	0.014	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1417.56	
5	0.6646	1133.7	1153.8	0.000	0.000	1.992	78.258	18.719	1.005	0.012	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.32	
6	0.6647	1134.9	1155.0	0.000	0.000	1.935	78.160	18.939	0.943	0.010	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.65	
7	0.6646	1134.4	1154.4	0.000	0.000	1.953	78.240	18.795	0.988	0.011	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.12	
8	0.6732	1147.9	1168.2	0.000	0.000	1.933	76.998	19.543	1.500	0.011	0.014	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1423.85	
9	0.6712	1144.5	1164.7	0.000	0.000	1.954	77.406	19.111	1.503	0.011	0.014	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1421.70	
10	0.6682	1140.0	1160.2	0.000	0.000	1.943	78.049	18.454	1.523	0.013	0.017	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1419.33	
11	0.6693	1141.7	1161.9	0.000	0.000	1.949	77.689	18.939	1.389	0.014	0.018	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1420.20	
12	0.6667	1137.1	1157.3	0.000	0.000	1.979	77.992	18.840	1.156	0.014	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.36	
13	0.6645	1134.3	1154.3	0.000	0.000	1.955	78.367	18.553	1.092	0.015	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.03	
14	0.6628	1131.4	1151.4	0.000	0.000	1.968	78.686	18.251	1.059	0.016	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.20	
15	0.6683	1140.3	1160.5	0.000	0.000	1.938	77.844	18.845	1.343	0.012	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.29	
16	0.6722	1146.0	1166.3	0.000	0.000	1.958	77.480	18.761	1.765	0.014	0.021	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1419.53	
17	0.6691	1141.0	1161.2	0.000	0.000	1.973	77.829	18.670	1.492	0.014	0.021	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1422.44	
18	0.6724	1146.6	1166.9	0.000	0.000	1.940	77.165	19.374	1.487	0.014	0.019	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1419.57	
19	0.6651	1134.3	1154.4	0.000	0.000	2.003	78.275	18.573	1.113	0.014	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.02	
20	0.6642	1133.5	1153.6	0.000	0.000	1.968	78.276	18.784	0.946	0.011	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.49	
21	0.6643	1133.4	1153.5	0.000	0.000	1.984	78.360	18.578	1.050	0.013	0.015	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1415.48	
22	0.6643	1133.3	1153.4	0.000	0.000	1.993	78.402	18.483	1.091	0.013	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.25	
23	0.6634	1132.2	1152.3	0.000	0.000	1.971	78.391	18.715	0.897	0.011	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.08	
24	0.6664	1136.5	1156.6	0.000	0.000	1.992	78.121	18.621	1.233	0.014	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.74	
25	0.6647	1133.9	1154.0	0.000	0.000	1.992	78.284	18.645	1.046	0.015	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.85	
26	0.6655	1135.3	1155.4	0.000	0.000	1.983	78.082	18.893	1.012	0.014	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.40	
27	0.6648	1134.4	1154.4	0.000	0.000	1.971	78.124	18.967	0.912	0.011	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.30	
28	0.6636	1132.4	1152.4	0.000	0.000	1.984	78.361	18.724	0.895	0.012	0.018	0.001	0.001	0.001	0.000	0.000	0.000	0.000	1415.92	
29	0.6757	1151.4	1171.8	0.000	0.000	1.956	76.638	19.729	1.644	0.014	0.018	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1425.44	
30	0.6784	1154.8	1175.3	0.000	0.000	2.003	76.097	20.209	1.653	0.016	0.021	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1426.84	
31	0.6717	1145.9	1166.2	0.000	0.000	1.916	77.264	19.338	1.452	0.013	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.86	
Avg	0.6672	1138.0	1158.4	0.000	0.000	1.965	77.928	18.865	1.212	0.013	0.017	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1418.12	

Zone 33

Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	1202160	Specific Gravity:	0.7955
GQ Source Name:	BOWMAN BORDER	BTU Base:	Dry
Effective Date:	7/10/2008 9:00:00 AM	Dry Heat Value:	1169.70
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	1149.34
Pressure Base:	14.730	As Deliv. Heat Value:	1169.70
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	55.277		
C2	Ethane	28.319		7.551
C3	Propane	3.781	1.040	1.039
IC4	Iso-Butane	0.079	0.026	0.026
NC4	N-Butane	0.229	0.072	0.072
IC5	Iso-Pentane	0.011	0.004	0.004
NC5	N-Pentane	0.027	0.010	0.010
C6+	Hexanes Plus	0.003	0.001	0.001
CO2	Carbon Dioxide	2.065		
N2	Nitrogen	10.208		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
Totals		100.000	1.153	8.703

Sample Date: 6/30/2008 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks: *Zone 34*

Analysis Remarks:

Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	1201140	Specific Gravity:	0.5740
GQ Source Name:	EAGLE 8B ND	BTU Base:	Dry
Effective Date:	7/1/2008 9:00:00 AM	Dry Heat Value:	974.02
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	957.16
Pressure Base:	14.730	As Deliv. Heat Value:	974.02
Viscosity:			

		Mol %	Imported GPM	Calculated GPM
C1	Methane	95.505		
C2	Ethane	0.281	0.076	0.075
C3	Propane	0.009	0.002	0.002
IC4	Iso-Butane	0.007	0.002	0.002
NC4	N-Butane	0.000	0.000	
IC5	Iso-Pentane	0.000	0.000	
NC5	N-Pentane	0.000	0.000	
C6+	Hexanes Plus	0.000	0.000	0.000
CO2	Carbon Dioxide	0.072		
N2	Nitrogen	4.126		
O2	Oxygen	0.000		
HE	Helium	0.000		
H2	Hydrogen	0.000		
H2S	Hydrogen Sulfide	0.000		
Totals		100.000	0.080	0.080

Sample Date: 6/13/2006 9:00:00 AM
 Sample Type: Spot
 Sample Tech: MG
 Sample Remarks: Zone 35

Analysis Remarks:

NORTH DAKOTA HEATING VALUE ZONES		
ZONES	MEASURING DEVICE	LOCATION
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	JULY 08	JUNE 08	MAY 08	APR 08	MAR 08	FEB 08	JAN 08	DEC 07	NOV 07	OCT 07	SEPT 07	AUG 07	ZONE
MT/ND	211	Sidney Area	1148	1192	1195	1190	1180	1095	1075	1124	1160	1170	1183	1189	21
ND	24	Williston Area	1185	1189	1189	1193	1167	1160	1181	1192	1195	1194	1190	1193	24
ND	25	Watford City Area	1123	1132	1130	1130	1120	1119	1126	1118	1118	1119	1119	1120	25
ND	261	Williston - Toga - Minot Line	1146	1148	1141	1147	1155	1140	1136	1142	1147	1158	1152	1164	261
ND	262	Minot Area	1148	1147	1144	1152	1156	1141	1136	1143	1149	1159	1153	1167	262
ND	263	Toga - Portal	1131	1141	1132	1136	1127	1125	1129	1132	1128	1129	1131	1130	263
ND	264	Williston - Ray	1185	1189	1189	1193	1167	0	0	0	0	0	0	0	264
ND	271	Bismarck - Cleveland	1118	1146	1142	1151	1138	1086	1053	1063	1105	1158	1153	1166	271
ND	272	Cleveland - Mapleton	1118	1146	1142	1151	1137	1086	1052	1062	1107	1158	1152	1167	272
ND	273	Cleveland - Grafton	1118	1146	1142	1151	1137	1086	1052	1062	1107	1158	1152	1167	273
ND	28	Bismarck	1084	1147	1143	1135	1035	1023	1017	1015	1030	1124	1151	1167	28
ND	31	Dickinson	1023	1040	1032	1037	1023	1022	1021	1016	1014	1023	1017	1006	31
ND/MT	32	Cabin Creek - Dickinson	1019	1036	1027	1031	1019	1020	1019	1014	1012	1020	1013	991	32
ND	33	Killdeer	1124	1158	1149	1146	1126	1118	1114	1111	1118	1113	1109	1106	33
ND	34	Bowman Area	1171	1170	1165	1167	1158	1161	1174	1182	1189	1175	1175	1172	34
ND	35	Baker Field - North Dakota	976	974	976	976	976	976	976	976	976	976	976	976	35