

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

August 10, 2009

RECEIVED

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

AUG 11 2009

PUBLIC SERVICE COMMISSION

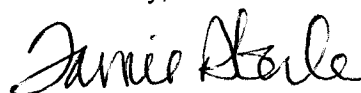
Re: Case No. 11,006 (Therm Billing)
Monthly Report – June 2009

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 July 2009.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our supplier for the month of June 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 June.

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
 JULY 2009

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
12	314	APPLE VALLEY	271	1.1145
12	327	BISMARCK	28	1.1145
12	343	CARRINGTON	273	1.1154
12	344	CLEVELAND	272	1.1076
12	364	CAVALIER	273	1.1389
12	365	DAWSON	271	1.1066
12	374	FT TOTTEN	273	1.1233
12	375	DEVILS LAKE	273	1.1233
12	379	BARLOW	273	1.1154
12	387	ELDRIDGE	272	1.1154
12	411	GLEN ULLIN	31	.9861
12	417	GRAFTON	273	1.1468
12	439	HANKINSON	600	1.0768
12	449	JAMESTOWN	272	1.1233
12	463	LANGDON	273	1.1154
12	475	LINTON	802	.9784
12	478	LINCOLN	28	1.1145
12	494	MEDINA	271	1.1066
12	498	MANDAN	28	1.1145
12	524	NEW SALEM	28	1.0909
12	532	NEW ROCKFORD	273	1.1154
12	539	PARK RIVER	273	1.1389
12	574	SANBORN	272	1.1233
12	593	STEELE	271	1.1066
12	598	SHEYENNE	273	1.1233
12	610	TAPPEN	271	1.1066
12	625	VALLEY CITY	272	1.1310
12	629	WALHALLA	273	1.1389
12	647	WILTON	262	1.0928
12	717	SPIRITWOOD	272	1.1233
12	718	FAIRMOUNT	600	1.0746
12	732	MSR SITE	273	1.1154
12	733	PAR SITE	273	1.1154
15	303	ALEXANDER	25	1.0711
15	308	ARNEGARD	25	1.0711

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
JULY 2009

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	318	BEACH	32	.9407
15	319	BELFIELD	32	.9477
15	323	BERTHOLD	262	1.0928
15	330	BOWMAN	34	1.0531
15	337	BURLINGTON	262	1.1164
15	368	DES LACS	262	1.1007
15	369	DICKINSON	31	.9790
15	384	EPPING	264	1.1296
15	407	GLADSTONE	31	.9790
15	413	GOLVA	32	.9270
15	416	GARRISON	262	1.1007
15	429	HEBRON	31	.9861
15	459	KILLDEER	33	1.0966
15	469	LEFOR	31	.9790
15	474	LIGNITE	263	1.0721
15	500	MARMARTH	34	1.0609
15	505	MINOT	262	1.1164
15	510	MOTT	31	.9790
15	512	MAX	262	1.0928
15	522	NEW ENGLAND	31	.9719
15	540	PALERMO	262	1.0928
15	558	RAY	264	1.1296
15	561	REGENT	31	.9790
15	563	RHAME	34	1.0454
15	564	RICHARDTON	31	.9719
15	568	ROSS	261	1.0605
15	572	RUTHVILLE	262	1.1164
15	583	SENTINEL BUTTE	32	.9407
15	588	SOUTH HEART	31	.9719
15	590	SPRINGBROOK	264	1.1296
15	591	STANLEY	261	1.0682
15	605	SURREY	262	1.1164
15	611	TAYLOR	31	.9719
15	616	TIOGA	261	1.0605
15	619	TURTLE LAKE	262	1.1007

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
JULY 2009

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	620	TRENTON	24	1.1378
15	624	UNDERWOOD	262	1.1007
15	632	WATFORD CITY	25	1.0711
15	636	WHEELLOCK	264	1.1215
15	637	WHITE EARTH	261	1.0682
15	642	WILLISTON	24	1.1378
15	646	WASHBURN	262	1.1085
15	664	RIVERDALE	262	1.1007
15	691	FAIRVIEW	24	1.1378
15	712	MINOT AFB	262	1.1164
15	743	BAKER FIELD	35	.8971

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

GQ Source Daily Summary

June 2009

Number: 251 Pressure Base: 14.730 Contract Day: 1

Name: SIDNEY 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	0.7334	1178.9	1199.7	1198.5	1.059	4.085	68.532	22.078	3.846	0.133	0.242	0.013	0.011	0.001	0.000	0.000	0.000	0.000	1400.93	1400.93
2	0.7327	1177.6	1198.5	1197.3	1.056	4.102	68.674	21.923	3.837	0.135	0.248	0.014	0.011	0.001	0.000	0.000	0.000	0.000	1400.09	1400.09
3	0.7324	1177.1	1198.0	1196.7	1.056	4.105	68.751	21.822	3.857	0.134	0.248	0.014	0.011	0.001	0.000	0.000	0.000	0.000	1399.80	1399.80
4	0.7337	1179.2	1200.0	1198.5	1.058	4.094	68.574	21.932	3.938	0.133	0.246	0.014	0.011	0.001	0.000	0.000	0.000	0.000	1401.02	1401.02
5	0.7303	1173.6	1194.4	1193.0	1.061	4.112	68.805	22.145	3.466	0.135	0.252	0.013	0.011	0.001	0.000	0.000	0.000	0.000	1397.67	1397.67
6	0.7334	1178.9	1199.7	1198.7	1.058	4.089	68.496	22.175	3.745	0.143	0.265	0.015	0.012	0.001	0.000	0.000	0.000	0.000	1400.91	1400.91
7	0.7338	1179.5	1200.4	1199.4	1.058	4.088	68.517	22.052	3.851	0.142	0.264	0.015	0.012	0.001	0.000	0.000	0.000	0.000	1401.26	1401.26
8	0.7369	1184.5	1205.5	1204.5	1.054	4.075	68.323	21.867	4.206	0.155	0.289	0.016	0.013	0.001	0.000	0.000	0.000	0.000	1404.28	1404.28
9	0.7372	1184.7	1205.7	1204.7	1.057	4.084	68.323	21.838	4.191	0.164	0.310	0.017	0.014	0.001	0.000	0.000	0.000	0.000	1404.26	1404.26
10	0.7332	1178.3	1199.2	1198.0	1.064	4.095	68.573	22.056	3.776	0.142	0.265	0.015	0.012	0.001	0.000	0.000	0.000	0.000	1400.45	1400.45
11	0.7362	1183.4	1204.4	1203.1	1.058	4.072	68.238	22.135	4.065	0.141	0.263	0.015	0.012	0.001	0.000	0.000	0.000	0.000	1403.66	1403.66
12	0.7365	1183.7	1204.7	1203.4	1.056	4.086	68.316	21.897	4.221	0.139	0.257	0.015	0.012	0.001	0.000	0.000	0.000	0.000	1403.68	1403.68
13	0.7361	1183.0	1203.9	1202.5	1.056	4.085	68.367	21.890	4.181	0.138	0.256	0.015	0.012	0.001	0.000	0.000	0.000	0.000	1403.28	1403.28
14	0.7352	1181.6	1202.5	1201.0	1.057	4.086	68.478	21.849	4.107	0.139	0.256	0.015	0.012	0.001	0.000	0.000	0.000	0.000	1402.49	1402.49
15	0.7359	1182.9	1203.9	1202.4	1.055	4.080	68.347	21.960	4.137	0.138	0.257	0.014	0.012	0.001	0.000	0.000	0.000	0.000	1403.34	1403.34
16	0.7360	1183.0	1204.0	1202.5	1.055	4.079	68.339	21.967	4.138	0.138	0.256	0.015	0.012	0.001	0.000	0.000	0.000	0.000	1403.39	1403.39
17	0.7368	1184.0	1205.0	1203.6	1.056	4.089	68.297	21.877	4.257	0.139	0.258	0.014	0.012	0.001	0.000	0.000	0.000	0.000	1403.84	1403.84
18	0.7364	1183.6	1204.6	1203.0	1.064	4.070	68.279	22.005	4.161	0.137	0.256	0.014	0.012	0.001	0.000	0.000	0.000	0.000	1403.68	1403.68
19	0.7364	1183.5	1204.5	1203.0	1.062	4.073	68.298	21.978	4.165	0.138	0.258	0.014	0.012	0.001	0.000	0.000	0.000	0.000	1403.61	1403.61
20	0.7363	1183.6	1204.5	1202.8	1.058	4.072	68.341	21.902	4.202	0.138	0.258	0.015	0.012	0.001	0.000	0.000	0.000	0.000	1403.72	1403.72
21	0.7364	1183.9	1204.8	1203.2	1.057	4.065	68.291	21.987	4.174	0.138	0.258	0.015	0.012	0.001	0.000	0.000	0.000	0.000	1403.98	1403.98
22	0.7368	1184.5	1205.4	1203.8	1.057	4.063	68.232	22.044	4.174	0.140	0.262	0.015	0.012	0.001	0.000	0.000	0.000	0.000	1404.34	1404.34
23	0.7370	1184.6	1205.6	1204.1	1.053	4.075	68.244	21.971	4.223	0.141	0.264	0.015	0.012	0.001	0.000	0.000	0.000	0.000	1404.37	1404.37
24	0.7375	1185.6	1206.6	1205.0	1.053	4.071	68.195	21.964	4.282	0.141	0.264	0.015	0.013	0.001	0.000	0.000	0.000	0.000	1404.94	1404.94
25	0.7384	1186.7	1207.7	1205.9	1.050	4.083	68.137	21.893	4.404	0.141	0.263	0.015	0.012	0.001	0.000	0.000	0.000	0.000	1405.49	1405.49
26	0.7369	1184.2	1205.2	1203.6	1.057	4.085	68.251	21.975	4.191	0.143	0.269	0.015	0.013	0.002	0.000	0.000	0.000	0.000	1403.97	1403.97
27	0.7073	1172.6	1193.3	1191.7	0.217	3.305	71.440	22.262	2.606	0.060	0.100	0.005	0.004	0.001	0.000	0.000	0.000	0.000	1419.02	1419.02
28	0.7082	1182.2	1203.1	1201.4	0.028	3.085	71.232	22.749	2.745	0.060	0.092	0.004	0.004	0.001	0.000	0.000	0.000	0.000	1429.69	1429.69
29	0.7220	1181.1	1202.0	1200.2	0.567	3.624	69.795	22.302	3.433	0.096	0.166	0.009	0.007	0.001	0.000	0.000	0.000	0.000	1414.82	1414.82
30	0.7342	1183.5	1202.7	1202.7	0.973	4.001	68.567	21.947	4.116	0.130	0.239	0.014	0.011	0.001	0.000	0.000	0.000	0.000	1405.78	1405.78
AVG	0.7331	1182.0	1202.7	1201.3	0.976	4.006	68.642	22.015	3.957	0.133	0.246	0.014	0.011	0.001	0.000	0.000	0.000	0.000	1404.73	1404.73

Zone 211

Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	0602330	Specific Gravity:	0.7323
GQ Source Name:	WILLISTON BORDER	BTU Base:	Dry
Effective Date:	6/10/2009 9:00:00 AM	Dry Heat Value:	1196.43
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	1175.61
Pressure Base:	14.730	As Deliv. Heat Value:	1196.43
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	68.462		
C2	Ethane	21.845	0.000	5.825
C3	Propane	3.999	1.099	1.099
IC4	Iso-Butane	0.140	0.046	0.046
NC4	N-Butane	0.255	0.080	0.080
IC5	Iso-Pentane	0.017	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	0.940		
N2	Nitrogen	4.327		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
Totals		99.999	1.236	7.060

Sample Date: 5/31/2009 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks: *Zone 24 #264*
Analysis Remarks: _____

GQ Source Daily Summary

June 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	0.6791	1122.5	1142.3	1142.3	0.339	3.528	76.218	18.146	1.660	0.038	0.059	0.002	0.001	0.008						1386.19
2	0.6836	1120.2	1140.0	1140.0	0.422	3.960	75.730	17.757	1.967	0.055	0.092	0.005	0.004	0.009						1378.85
3	0.6827	1118.8	1138.6	1138.6	0.396	4.005	75.761	17.816	1.861	0.052	0.091	0.005	0.004	0.008						1377.97
4	0.6880	1125.4	1145.3	1145.3	0.484	3.961	75.049	18.236	2.079	0.064	0.110	0.006	0.005	0.006						1380.82
5	0.6880	1125.8	1145.7	1145.7	0.380	2.906	63.735	14.959	1.590	0.787	0.202	0.004	0.005	0.006						1381.31
6	0.6687	1107.3	1126.9	1126.9	0.301	3.536	77.788	17.087	1.208	0.026	0.044	0.002	0.001	0.008						1378.04
7	0.6820	1121.4	1141.3	1141.3	0.472	3.657	75.828	18.229	1.664	0.050	0.086	0.004	0.003	0.007						1382.00
8	0.6873	1127.8	1147.8	1147.8	0.518	3.702	75.119	18.528	1.948	0.062	0.107	0.005	0.004	0.006						1384.43
9	0.6710	1106.0	1125.6	1125.6	0.292	3.842	77.557	16.760	1.438	0.036	0.062	0.003	0.002	0.008						1374.07
10	0.6712	1110.1	1129.8	1129.8	0.241	3.689	77.335	17.316	1.336	0.028	0.044	0.001	0.001	0.009						1378.99
11	0.6663	1107.2	1126.8	1126.8	0.249	3.392	78.321	16.689	1.270	0.027	0.043	0.000	0.000	0.009						1380.40
12	0.6645	1104.5	1124.1	1124.1	0.216	3.441	78.566	16.498	1.204	0.024	0.040	0.000	0.000	0.011						1378.88
13	0.6656	1105.7	1125.2	1125.2	0.221	3.462	78.493	16.415	1.318	0.029	0.048	0.001	0.001	0.011						1379.22
14	0.6673	1109.8	1129.4	1129.4	0.229	3.362	78.132	16.894	1.297	0.027	0.045	0.001	0.001	0.012						1382.55
15	0.6689	1112.7	1132.4	1132.4	0.246	3.299	77.772	17.385	1.217	0.026	0.043	0.000	0.000	0.012						1384.69
16	0.6751	1117.0	1136.8	1136.8	0.373	3.431	76.990	17.539	1.549	0.040	0.066	0.002	0.001	0.008						1383.54
17	0.6737	1112.7	1132.4	1132.4	0.324	3.635	77.198	17.183	1.533	0.041	0.072	0.003	0.003	0.009						1379.68
18	0.6755	1118.2	1138.0	1138.0	0.249	3.587	76.506	18.245	1.317	0.031	0.051	0.001	0.001	0.011						1384.62
19	0.6638	1103.1	1122.7	1122.7	0.222	3.443	78.509	16.747	1.023	0.018	0.029	0.000	0.000	0.010						1378.00
20	0.6627	1100.4	1119.9	1119.9	0.204	3.538	78.728	16.419	1.049	0.019	0.032	0.000	0.000	0.011						1375.67
21	0.6672	1108.5	1128.1	1128.1	0.230	3.423	77.987	17.123	1.174	0.021	0.032	0.000	0.000	0.009						1381.15
22	0.6655	1106.3	1125.9	1125.9	0.206	3.433	78.238	16.953	1.114	0.019	0.029	0.000	0.000	0.009						1380.19
23	0.6648	1105.6	1125.2	1125.2	0.210	3.402	78.363	16.874	1.100	0.017	0.025	0.000	0.000	0.009						1380.08
24	0.6657	1107.4	1127.0	1127.0	0.203	3.388	78.238	16.965	1.148	0.019	0.030	0.000	0.000	0.009						1381.36
25	0.6670	1108.3	1128.0	1128.0	0.211	3.443	78.108	16.906	1.261	0.022	0.037	0.000	0.000	0.011						1381.16
26	0.6662	1108.6	1128.2	1128.2	0.208	3.363	78.280	16.801	1.279	0.023	0.037	0.000	0.000	0.009						1382.22
27	0.6622	1102.6	1122.1	1122.1	0.213	3.336	78.816	16.572	1.015	0.015	0.023	0.000	0.000	0.008						1379.00
28	0.6640	1106.0	1125.6	1125.6	0.206	3.311	78.616	16.650	1.150	0.022	0.036	0.000	0.000	0.009						1381.35
29	0.6632	1105.0	1124.6	1124.6	0.207	3.296	78.780	16.493	1.164	0.020	0.031	0.000	0.000	0.009						1380.90
30	0.6952	1135.7	1155.8	1155.8	0.592	3.844	74.035	18.955	2.357	0.069	0.118	0.006	0.006	0.010						1386.18
Avg	0.6709	1111.0	1130.7	1130.7	0.280	3.505	77.147	17.068	1.363	0.056	0.055	0.002	0.001	0.009						1380.46

Zone 261

GQ Source Daily Summary

June 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	0.7121	1128.4	1148.3	1147.6	0.369	6.227	70.542	19.818	2.742	0.101	0.180	0.006	0.004	0.010	0.000					1360.77	
2	0.7065	1127.1	1147.1	1146.4	0.439	5.667	71.733	19.189	2.709	0.092	0.154	0.003	0.001	0.012	0.000					1364.66	
3	0.7125	1135.4	1155.5	1154.8	0.499	5.630	70.709	20.074	2.814	0.095	0.162	0.004	0.002	0.010	0.000					1368.94	
4	0.7134	1132.4	1152.4	1151.7	0.522	5.869	70.603	19.831	2.884	0.099	0.173	0.006	0.004	0.009	0.000					1364.39	
5	0.7161	1138.1	1158.2	1157.7	0.529	5.764	70.281	20.084	3.019	0.109	0.193	0.007	0.005	0.009	0.000					1368.65	
6	0.7187	1140.9	1161.1	1160.7	0.563	5.780	69.719	20.645	2.985	0.106	0.184	0.006	0.004	0.008	0.000					1369.62	
7	0.7140	1130.7	1150.7	1150.4	0.504	6.054	70.082	20.499	2.606	0.090	0.153	0.002	0.001	0.009	0.000					1361.85	
8	0.7146	1134.4	1154.5	1154.1	0.564	5.793	70.093	20.669	2.616	0.094	0.159	0.004	0.001	0.008	0.000					1365.72	
9	0.7159	1137.9	1158.0	1157.6	0.584	5.677	70.052	20.635	2.763	0.100	0.172	0.005	0.002	0.008	0.000					1368.59	
10	0.7127	1132.6	1152.7	1152.1	0.510	5.802	70.487	20.262	2.676	0.092	0.157	0.003	0.001	0.009	0.000					1365.40	
11	0.7109	1126.6	1146.5	1145.9	0.426	6.131	70.786	19.672	2.704	0.097	0.167	0.005	0.002	0.009	0.000					1359.81	
12	0.7125	1132.9	1153.0	1152.1	0.445	5.862	70.828	19.604	2.953	0.106	0.185	0.005	0.002	0.010	0.000					1365.97	
13	0.7164	1136.6	1156.7	1155.7	0.470	5.970	69.902	20.520	2.845	0.101	0.176	0.005	0.002	0.010	0.000					1366.61	
14	0.7195	1139.5	1159.6	1158.6	0.459	6.104	69.487	20.590	3.030	0.111	0.199	0.006	0.004	0.009	0.000					1367.11	
15	0.7198	1140.4	1160.6	1159.7	0.455	6.083	69.510	20.512	3.098	0.116	0.205	0.007	0.005	0.010	0.000					1367.94	
16	0.7170	1136.1	1156.2	1156.2	0.452	6.073	69.819	20.372	2.970	0.107	0.188	0.005	0.003	0.010	0.000					1365.49	
17	0.7164	1134.9	1155.0	1154.1	0.459	6.088	69.989	20.202	2.971	0.102	0.174	0.003	0.001	0.011	0.000					1364.64	
18	0.7165	1134.1	1154.2	1153.2	0.453	6.158	69.930	20.219	2.940	0.105	0.180	0.004	0.001	0.010	0.000					1363.56	
19	0.7142	1133.8	1153.9	1152.8	0.486	5.909	70.530	19.791	2.977	0.107	0.184	0.005	0.002	0.010	0.000					1365.37	
20	0.7155	1131.8	1151.9	1150.6	0.464	6.181	70.459	19.392	3.164	0.117	0.202	0.007	0.004	0.010	0.000					1361.77	
21	0.7184	1138.8	1159.0	1157.9	0.429	6.080	70.006	19.806	3.353	0.114	0.194	0.005	0.002	0.010	0.000					1367.42	
22	0.7178	1136.1	1156.2	1155.1	0.430	6.194	70.010	19.768	3.281	0.110	0.189	0.005	0.003	0.009	0.000					1364.66	
23	0.7211	1142.2	1162.4	1161.4	0.440	6.116	69.558	20.108	3.445	0.114	0.198	0.006	0.004	0.010	0.000					1368.84	
24	0.7209	1141.8	1162.0	1160.9	0.434	6.127	69.614	20.020	3.480	0.114	0.194	0.005	0.002	0.010	0.000					1368.59	
25	0.7235	1144.4	1164.7	1163.4	0.452	6.187	69.192	20.277	3.546	0.122	0.207	0.005	0.002	0.009	0.000					1369.24	
26	0.7228	1142.5	1162.7	1161.7	0.446	6.244	69.142	20.456	3.372	0.119	0.204	0.006	0.002	0.009	0.000					1367.64	
27	0.7223	1145.6	1165.9	1165.1	0.443	6.014	69.117	20.867	3.230	0.113	0.198	0.006	0.003	0.010	0.000					1371.82	
28	0.7242	1146.8	1167.1	1166.3	0.453	6.105	68.936	20.760	3.384	0.122	0.218	0.007	0.005	0.009	0.000					1371.47	
29	0.7236	1147.0	1167.3	1166.3	0.458	6.027	68.941	20.946	3.293	0.114	0.202	0.006	0.004	0.008	0.000					1372.26	
30	0.7232	1146.8	1167.1	1166.1	0.464	5.997	69.054	20.827	3.317	0.115	0.206	0.006	0.004	0.008	0.000					1372.35	
Avg	0.7171	1137.0	1157.4	1156.5	0.470	5.997	69.970	20.214	3.039	0.107	0.185	0.005	0.003	0.010	0.000					1366.70	

Zone 262

Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	2501030	Specific Gravity:	0.6606
GQ Source Name:	LIGNITE PLANT	BTU Base:	Dry
Effective Date:	6/10/2009 9:00:00 AM	Dry Heat Value:	1126.85
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	1107.24
Pressure Base:	14.730	As Deliv. Heat Value:	1126.85
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	79.093		
C2	Ethane	16.566		4.417
C3	Propane	1.137	0.312	0.312
IC4	Iso-Butane	0.002	0.001	0.001
NC4	N-Butane	0.003	0.001	0.001
IC5	Iso-Pentane	0.000	0.000	0.000
NC5	N-Pentane	0.000	0.000	0.000
C6+	Hexanes Plus	0.042	0.020	0.017
CO2	Carbon Dioxide	0.088		
N2	Nitrogen	3.062		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
Totals		99.993	0.333	4.748

Sample Date: 5/31/2009 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks: Zone 263
Analysis Remarks:

GQ Source Daily Summary

June 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	0.7053	1121.1	1141.0	1140.0	0.372	6.015	71.850	18.847	2.646	0.089	0.154	0.006	0.005	0.015	0.000	0.000	0.000	0.000	1358.61	1358.61
2	0.7110	1132.3	1152.3	1151.3	0.509	5.665	71.058	19.671	2.813	0.094	0.164	0.007	0.005	0.013	0.000	0.000	0.000	0.000	1366.59	1366.59
3	0.7133	1132.8	1152.8	1151.8	0.536	5.809	70.734	19.708	2.908	0.100	0.178	0.008	0.006	0.014	0.000	0.000	0.000	0.000	1364.96	1364.96
4	0.7125	1133.9	1154.0	1152.8	0.508	5.703	70.923	19.637	2.914	0.103	0.184	0.008	0.006	0.014	0.000	0.000	0.000	0.000	1367.16	1367.16
5	0.7172	1137.3	1157.4	1156.4	0.584	5.826	70.155	20.072	3.037	0.108	0.192	0.008	0.006	0.012	0.000	0.000	0.000	0.000	1366.68	1366.68
6	0.7198	1140.3	1160.5	1159.6	0.574	5.899	69.556	20.648	3.003	0.105	0.188	0.008	0.006	0.012	0.000	0.000	0.000	0.000	1367.89	1367.89
7	0.7092	1126.1	1146.1	1145.1	0.483	5.913	70.891	20.044	2.426	0.081	0.139	0.005	0.004	0.013	0.000	0.000	0.000	0.000	1360.88	1360.88
8	0.7168	1136.0	1156.1	1155.2	0.601	5.839	69.920	20.578	2.765	0.100	0.173	0.007	0.005	0.011	0.000	0.000	0.000	0.000	1365.56	1365.56
9	0.7165	1137.3	1157.4	1156.4	0.599	5.736	70.131	20.393	2.817	0.097	0.177	0.029	0.005	0.016	0.000	0.000	0.000	0.000	1367.39	1367.39
10	0.7074	1122.9	1142.8	1141.8	0.434	6.005	71.420	19.296	2.575	0.089	0.156	0.006	0.005	0.014	0.000	0.000	0.000	0.000	1358.79	1358.79
11	0.7115	1127.9	1147.9	1146.9	0.452	6.058	70.928	19.411	2.845	0.100	0.179	0.007	0.006	0.014	0.000	0.000	0.000	0.000	1360.91	1360.91
12	0.7148	1134.2	1154.3	1153.3	0.470	5.954	70.380	19.971	2.907	0.103	0.186	0.007	0.006	0.015	0.000	0.000	0.000	0.000	1365.36	1365.36
13	0.7185	1136.8	1157.0	1155.9	0.465	6.152	69.790	20.189	3.062	0.111	0.202	0.008	0.006	0.014	0.000	0.000	0.000	0.000	1364.95	1364.95
14	0.7170	1134.9	1155.0	1153.9	0.462	6.135	70.081	19.929	3.056	0.111	0.198	0.008	0.007	0.015	0.000	0.000	0.000	0.000	1364.05	1364.05
15	0.7153	1133.4	1153.5	1152.4	0.452	6.082	70.253	19.962	2.941	0.103	0.180	0.006	0.005	0.016	0.000	0.000	0.000	0.000	1363.89	1363.89
16	0.7155	1132.4	1152.5	1151.3	0.468	6.139	70.261	19.846	2.975	0.103	0.181	0.006	0.005	0.017	0.000	0.000	0.000	0.000	1362.46	1362.46
17	0.7145	1131.4	1151.4	1150.2	0.528	6.015	70.679	19.370	3.078	0.111	0.194	0.007	0.005	0.015	0.000	0.000	0.000	0.000	1362.17	1362.17
18	0.7141	1128.3	1148.3	1147.1	0.471	6.248	70.826	18.910	3.190	0.118	0.208	0.008	0.007	0.014	0.000	0.000	0.000	0.000	1358.87	1358.87
19	0.7163	1133.9	1154.0	1152.8	0.432	6.172	70.461	19.290	3.292	0.116	0.205	0.008	0.006	0.018	0.000	0.000	0.000	0.000	1363.52	1363.52
20	0.7145	1131.5	1151.5	1150.4	0.434	6.151	70.557	19.425	3.133	0.099	0.175	0.006	0.004	0.016	0.000	0.000	0.000	0.000	1362.31	1362.31
21	0.7235	1142.5	1162.7	1161.5	0.464	6.277	69.326	19.985	3.582	0.119	0.215	0.008	0.007	0.018	0.000	0.000	0.000	0.000	1366.97	1366.97
22	0.7173	1139.0	1159.2	1157.9	0.432	5.959	70.292	19.638	3.345	0.109	0.196	0.007	0.006	0.017	0.000	0.000	0.000	0.000	1368.69	1368.69
23	0.7193	1139.5	1159.7	1158.4	0.442	6.096	70.002	19.661	3.463	0.113	0.195	0.006	0.005	0.016	0.000	0.000	0.000	0.000	1367.41	1367.41
24	0.7221	1140.5	1160.7	1159.5	0.458	6.279	69.370	20.144	3.397	0.118	0.207	0.007	0.006	0.014	0.000	0.000	0.000	0.000	1365.90	1365.90
25	0.7216	1143.8	1164.0	1162.7	0.455	6.042	69.306	20.628	3.242	0.108	0.192	0.007	0.005	0.016	0.000	0.000	0.000	0.000	1370.25	1370.25
26	0.7204	1142.2	1162.4	1161.1	0.449	6.035	69.717	20.114	3.309	0.122	0.223	0.009	0.007	0.017	0.000	0.000	0.000	0.000	1369.48	1369.48
27	0.7221	1143.8	1164.0	1163.1	0.469	6.068	69.245	20.632	3.241	0.112	0.204	0.008	0.006	0.015	0.000	0.000	0.000	0.000	1369.78	1369.78
28	0.7206	1141.6	1161.8	1160.8	0.472	6.044	69.568	20.337	3.234	0.112	0.205	0.008	0.006	0.015	0.000	0.000	0.000	0.000	1368.72	1368.72
29	0.7180	1140.4	1160.6	1159.5	0.458	5.903	69.984	20.179	3.137	0.110	0.201	0.008	0.006	0.014	0.000	0.000	0.000	0.000	1369.64	1369.64
30	0.7183	1135.1	1155.2	1152.0	0.463	6.244	69.869	19.913	3.155	0.111	0.197	0.007	0.006	0.014	0.000	0.000	0.000	0.000	1363.01	1363.01
AVG	0.7161	1135.0	1155.2	1154.0	0.480	6.015	70.252	19.881	3.049	0.106	0.188	0.008	0.006	0.015	0.000	0.000	0.000	0.000	1365.09	1365.09

Zone 271

GQ Source Daily Summary

June 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	0.7134	1129.0	1149.0	1149.0	0.389	6.271	70.438	19.715	2.871	0.104	0.188	0.008	0.007	0.009	0.000	0.000	0.000	0.000	0.000	1360.31	
2	0.7057	1124.0	1143.9	1143.9	0.422	5.793	71.868	18.946	2.700	0.093	0.157	0.006	0.005	0.010	0.000	0.000	0.000	0.000	0.000	1361.76	
3	0.7124	1132.7	1152.8	1152.8	0.515	5.759	70.802	19.750	2.882	0.098	0.173	0.007	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1365.73	
4	0.7159	1137.4	1157.5	1157.5	0.539	5.768	70.210	20.236	2.933	0.105	0.187	0.008	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1368.01	
5	0.7131	1134.8	1154.9	1154.9	0.518	5.687	70.806	19.730	2.943	0.105	0.187	0.008	0.007	0.009	0.000	0.000	0.000	0.000	0.000	1367.69	
6	0.7181	1139.7	1159.9	1159.9	0.573	5.775	69.882	20.446	3.010	0.107	0.187	0.008	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1368.82	
7	0.7156	1133.1	1153.1	1153.1	0.535	6.002	70.036	20.359	2.785	0.096	0.167	0.006	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1363.17	
8	0.7118	1129.3	1149.3	1149.3	0.530	5.892	70.485	20.308	2.529	0.089	0.151	0.005	0.004	0.008	0.000	0.000	0.000	0.000	0.000	1362.24	
9	0.7158	1136.3	1156.4	1156.4	0.591	5.743	70.065	20.559	2.748	0.101	0.174	0.007	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1366.87	
10	0.7139	1134.8	1154.9	1154.9	0.560	5.707	70.414	20.270	2.762	0.098	0.169	0.007	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1366.80	
11	0.7077	1122.3	1142.2	1142.2	0.421	6.093	71.358	19.218	2.630	0.095	0.165	0.006	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1357.71	
12	0.7129	1131.0	1151.1	1151.1	0.461	5.985	70.684	19.654	2.908	0.104	0.184	0.007	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1363.31	
13	0.7165	1136.9	1157.0	1157.0	0.471	5.958	69.929	20.457	2.876	0.104	0.185	0.007	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1366.90	
14	0.7188	1138.0	1158.1	1158.1	0.462	6.115	69.610	20.470	3.011	0.111	0.198	0.008	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1366.03	
15	0.7181	1137.5	1157.6	1157.6	0.462	6.087	69.821	20.221	3.070	0.113	0.204	0.008	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1366.02	
16	0.7169	1135.4	1155.5	1155.5	0.460	6.098	69.885	20.297	2.956	0.104	0.181	0.006	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1364.76	
17	0.7139	1132.1	1152.2	1152.2	0.450	6.028	70.485	19.769	2.955	0.106	0.184	0.007	0.005	0.010	0.000	0.000	0.000	0.000	0.000	1363.63	
18	0.7163	1133.9	1154.0	1154.0	0.532	6.027	70.328	19.643	3.136	0.114	0.198	0.008	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1363.48	
19	0.7120	1125.9	1145.8	1145.8	0.448	6.233	71.072	18.808	3.100	0.115	0.201	0.008	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1357.94	
20	0.7175	1138.5	1158.7	1158.7	0.428	6.002	70.161	19.733	3.358	0.108	0.186	0.006	0.005	0.011	0.000	0.000	0.000	0.000	0.000	1367.94	
21	0.7165	1134.3	1154.4	1154.4	0.430	6.173	70.229	19.624	3.220	0.109	0.193	0.007	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1363.76	
22	0.7247	1145.5	1165.8	1165.8	0.457	6.224	69.050	20.290	3.621	0.118	0.215	0.009	0.007	0.010	0.000	0.000	0.000	0.000	0.000	1369.38	
23	0.7180	1140.1	1160.3	1160.3	0.422	5.969	70.086	19.839	3.360	0.109	0.193	0.007	0.005	0.010	0.000	0.000	0.000	0.000	0.000	1369.36	
24	0.7190	1139.1	1159.2	1159.2	0.441	6.100	69.974	19.715	3.436	0.114	0.199	0.006	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1367.11	
25	0.7224	1142.7	1162.8	1162.8	0.455	6.177	69.188	20.510	3.332	0.115	0.203	0.007	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1368.30	
26	0.7216	1145.5	1165.8	1165.8	0.450	5.938	69.342	20.663	3.263	0.114	0.207	0.008	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1372.42	
27	0.7218	1143.5	1163.7	1163.7	0.456	6.076	69.358	20.433	3.317	0.119	0.215	0.008	0.007	0.009	0.000	0.000	0.000	0.000	0.000	1369.72	
28	0.7213	1143.2	1163.5	1163.5	0.464	6.028	69.340	20.594	3.239	0.112	0.202	0.008	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1369.89	
29	0.7211	1143.1	1163.3	1163.3	0.468	6.003	69.446	20.440	3.302	0.114	0.206	0.008	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1369.94	
30	0.7186	1141.6	1161.8	1161.8	0.455	5.891	69.828	20.324	3.169	0.112	0.200	0.008	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1370.52	
Avg	0.7164	1136.0	1156.2	1156.1	0.475	5.987	70.139	20.034	3.047	0.107	0.189	0.007	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1365.98	

Zone 272

GQ Source Daily Summary

June 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	0.7133	1128.8	1148.8	1148.8	0.389	6.275	70.454	19.696	2.869	0.104	0.189	0.008	0.007	0.009	0.000	0.000	0.000	0.000	1360.17	
2	0.7055	1123.6	1143.5	1143.5	0.421	5.808	71.878	18.937	2.685	0.092	0.157	0.006	0.005	0.010	0.000	0.000	0.000	0.000	1361.38	
3	0.7117	1133.1	1153.0	1153.0	0.508	5.681	70.896	19.788	2.846	0.095	0.164	0.007	0.006	0.009	0.000	0.000	0.000	0.000	1366.88	
4	0.7160	1137.4	1157.6	1157.5	0.538	5.773	70.199	20.237	2.939	0.105	0.187	0.008	0.007	0.008	0.000	0.000	0.000	0.000	1368.00	
5	0.7133	1135.3	1155.4	1155.4	0.518	5.674	70.769	19.774	2.948	0.105	0.188	0.008	0.007	0.009	0.000	0.000	0.000	0.000	1368.04	
6	0.7184	1140.3	1160.5	1161.7	0.574	5.768	69.798	20.509	3.011	0.107	0.188	0.008	0.006	0.036	0.000	0.000	0.000	0.000	1369.16	
7	0.7159	1133.8	1153.9	1155.1	0.536	5.990	69.934	20.443	2.789	0.097	0.168	0.006	0.005	0.036	0.000	0.000	0.000	0.000	1363.75	
8	0.7120	1129.6	1149.6	1149.7	0.530	5.884	70.463	20.339	2.528	0.089	0.151	0.005	0.004	0.008	0.000	0.000	0.000	0.000	1362.50	
9	0.7161	1136.8	1156.9	1156.9	0.592	5.736	70.005	20.628	2.747	0.100	0.174	0.007	0.005	0.007	0.000	0.000	0.000	0.000	1367.23	
10	0.7139	1134.6	1154.7	1154.7	0.560	5.714	70.414	20.266	2.759	0.098	0.169	0.007	0.005	0.007	0.000	0.000	0.000	0.000	1366.62	
11	0.7074	1122.2	1142.0	1142.0	0.421	6.077	71.383	19.236	2.606	0.093	0.163	0.007	0.005	0.009	0.000	0.000	0.000	0.000	1357.81	
12	0.7131	1131.5	1151.6	1151.6	0.461	5.974	70.631	19.724	2.903	0.103	0.183	0.007	0.006	0.008	0.000	0.000	0.000	0.000	1363.71	
13	0.7165	1136.8	1156.8	1156.8	0.471	5.964	69.937	20.438	2.879	0.104	0.184	0.007	0.006	0.009	0.000	0.000	0.000	0.000	1366.74	
14	0.7187	1137.7	1157.9	1157.8	0.463	6.117	69.634	20.444	3.010	0.110	0.198	0.008	0.006	0.009	0.000	0.000	0.000	0.000	1365.86	
15	0.7181	1137.3	1157.5	1157.4	0.461	6.094	69.830	20.200	3.077	0.113	0.202	0.008	0.007	0.009	0.000	0.000	0.000	0.000	1365.87	
16	0.7168	1135.3	1155.4	1155.4	0.460	6.092	69.919	20.257	2.965	0.104	0.182	0.006	0.005	0.009	0.000	0.000	0.000	0.000	1364.75	
17	0.7138	1131.8	1151.8	1151.7	0.450	6.046	70.529	19.706	2.959	0.105	0.183	0.007	0.005	0.010	0.000	0.000	0.000	0.000	1363.29	
18	0.7165	1134.5	1154.6	1154.4	0.533	6.008	70.295	19.694	3.134	0.115	0.200	0.008	0.006	0.009	0.000	0.000	0.000	0.000	1363.96	
19	0.7121	1126.1	1146.0	1145.9	0.446	6.236	71.056	18.809	3.111	0.116	0.203	0.008	0.007	0.009	0.000	0.000	0.000	0.000	1358.06	
20	0.7168	1136.8	1157.0	1156.6	0.426	6.050	70.275	19.610	3.323	0.108	0.185	0.006	0.004	0.012	0.000	0.000	0.000	0.000	1366.56	
21	0.7179	1135.4	1155.5	1155.3	0.433	6.233	69.973	19.778	3.259	0.110	0.192	0.008	0.005	0.009	0.000	0.000	0.000	0.000	1363.79	
22	0.7250	1145.9	1166.2	1166.0	0.457	6.215	69.010	20.326	3.633	0.119	0.215	0.009	0.007	0.010	0.000	0.000	0.000	0.000	1369.71	
23	0.7179	1139.8	1160.0	1159.9	0.425	5.977	70.076	19.855	3.342	0.109	0.193	0.007	0.005	0.010	0.000	0.000	0.000	0.000	1369.09	
24	0.7197	1139.9	1160.0	1160.0	0.446	6.113	69.854	19.782	3.468	0.115	0.202	0.007	0.005	0.009	0.000	0.000	0.000	0.000	1367.40	
25	0.7223	1142.0	1162.2	1162.1	0.455	6.213	69.178	20.491	3.325	0.114	0.202	0.007	0.005	0.008	0.000	0.000	0.000	0.000	1367.44	
26	0.7216	1145.7	1166.0	1165.9	0.453	5.925	69.298	20.731	3.249	0.114	0.208	0.008	0.006	0.008	0.000	0.000	0.000	0.000	1372.54	
27	0.7215	1142.9	1163.1	1163.0	0.455	6.082	69.422	20.361	3.318	0.120	0.217	0.009	0.007	0.009	0.000	0.000	0.000	0.000	1369.32	
28	0.7218	1144.0	1164.2	1164.2	0.465	6.027	69.248	20.671	3.253	0.112	0.202	0.008	0.006	0.008	0.000	0.000	0.000	0.000	1370.36	
29	0.7211	1143.2	1163.4	1163.4	0.471	6.002	69.445	20.457	3.281	0.114	0.207	0.008	0.006	0.008	0.000	0.000	0.000	0.000	1370.06	
30	0.7189	1142.0	1162.2	1162.0	0.457	5.886	69.788	20.359	3.179	0.112	0.198	0.007	0.006	0.008	0.000	0.000	0.000	0.000	1370.74	
Avg	0.7165	1136.0	1156.3	1156.3	0.476	5.988	70.120	20.051	3.047	0.107	0.189	0.007	0.006	0.011	0.000	0.000	0.000	0.000	1366.03	

Zone 273

GQ Source Daily Summary

June 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	0.7052	1120.7	1140.5	1139.9	0.370	6.039	71.882	18.776	2.659	0.090	0.157	0.007	0.005	0.015	0.000	0.000	0.000	0.000	1358.13	
2	0.7096	1130.8	1150.8	1150.3	0.503	5.629	71.328	19.470	2.788	0.094	0.163	0.007	0.005	0.014	0.000	0.000	0.000	0.000	1366.17	
3	0.7130	1131.9	1152.0	1151.5	0.536	5.833	70.802	19.603	2.920	0.100	0.177	0.008	0.006	0.014	0.000	0.000	0.000	0.000	1364.23	
4	0.7121	1133.6	1153.7	1153.1	0.505	5.688	70.988	19.612	2.892	0.103	0.183	0.008	0.007	0.015	0.000	0.000	0.000	0.000	1367.15	
5	0.7165	1136.0	1156.1	1155.6	0.583	5.838	70.290	19.932	3.030	0.108	0.190	0.008	0.007	0.013	0.000	0.000	0.000	0.000	1365.84	
6	0.7189	1139.1	1159.2	1158.8	0.570	5.898	69.716	20.513	2.987	0.104	0.186	0.008	0.006	0.013	0.000	0.000	0.000	0.000	1367.23	
7	0.7091	1125.2	1145.2	1144.6	0.485	5.955	70.948	19.908	2.457	0.083	0.142	0.005	0.004	0.013	0.000	0.000	0.000	0.000	1359.89	
8	0.7162	1135.3	1155.4	1154.8	0.602	5.827	70.029	20.501	2.747	0.099	0.172	0.007	0.005	0.012	0.000	0.000	0.000	0.000	1365.25	
9	0.7155	1135.5	1155.6	1155.2	0.603	5.741	70.261	20.292	2.806	0.096	0.173	0.007	0.005	0.015	0.000	0.000	0.000	0.000	1366.24	
10	0.7075	1123.8	1143.7	1143.2	0.439	5.958	71.382	19.394	2.560	0.088	0.154	0.006	0.005	0.014	0.000	0.000	0.000	0.000	1359.73	
11	0.7105	1126.8	1146.7	1146.2	0.448	6.043	71.074	19.331	2.806	0.098	0.173	0.007	0.006	0.014	0.000	0.000	0.000	0.000	1360.45	
12	0.7144	1133.8	1153.8	1153.2	0.468	5.948	70.452	19.916	2.901	0.103	0.184	0.007	0.006	0.015	0.000	0.000	0.000	0.000	1365.17	
13	0.7185	1137.3	1157.4	1156.8	0.465	6.131	69.773	20.239	3.052	0.111	0.201	0.008	0.006	0.015	0.000	0.000	0.000	0.000	1365.41	
14	0.7170	1134.9	1155.0	1154.3	0.462	6.134	70.092	19.916	3.055	0.111	0.200	0.008	0.007	0.015	0.000	0.000	0.000	0.000	1364.03	
15	0.7150	1133.0	1153.1	1152.4	0.453	6.081	70.305	19.913	2.938	0.103	0.180	0.006	0.005	0.016	0.000	0.000	0.000	0.000	1363.63	
16	0.7156	1132.7	1152.8	1152.2	0.466	6.132	70.222	19.912	2.956	0.103	0.181	0.006	0.005	0.017	0.000	0.000	0.000	0.000	1362.75	
17	0.7145	1131.9	1151.9	1151.3	0.526	5.989	70.666	19.425	3.063	0.110	0.193	0.007	0.006	0.015	0.000	0.000	0.000	0.000	1362.73	
18	0.7148	1129.3	1149.3	1148.7	0.477	6.244	70.728	18.974	3.219	0.118	0.210	0.008	0.007	0.014	0.000	0.000	0.000	0.000	1359.40	
19	0.7161	1133.7	1153.8	1153.1	0.432	6.170	70.461	19.319	3.264	0.116	0.205	0.008	0.006	0.018	0.000	0.000	0.000	0.000	1363.41	
20	0.7147	1132.8	1152.8	1152.1	0.433	6.092	70.509	19.544	3.129	0.098	0.168	0.006	0.004	0.016	0.000	0.000	0.000	0.000	1363.67	
21	0.7237	1143.1	1163.3	1162.6	0.465	6.259	69.292	20.034	3.583	0.119	0.213	0.010	0.007	0.018	0.000	0.000	0.000	0.000	1367.48	
22	0.7178	1139.6	1159.7	1159.0	0.433	5.968	70.212	19.698	3.353	0.109	0.196	0.007	0.006	0.017	0.000	0.000	0.000	0.000	1368.89	
23	0.7197	1140.2	1160.4	1159.7	0.443	6.097	69.960	19.663	3.491	0.115	0.202	0.007	0.005	0.017	0.000	0.000	0.000	0.000	1367.78	
24	0.7222	1140.9	1161.1	1160.5	0.460	6.259	69.376	20.144	3.409	0.118	0.207	0.007	0.006	0.014	0.000	0.000	0.000	0.000	1366.29	
25	0.7215	1144.0	1164.2	1163.5	0.456	6.018	69.283	20.719	3.201	0.106	0.190	0.007	0.006	0.016	0.000	0.000	0.000	0.000	1370.62	
26	0.7195	1141.1	1161.3	1160.3	0.446	6.017	69.872	20.004	3.288	0.120	0.220	0.009	0.008	0.017	0.000	0.000	0.000	0.000	1369.10	
27	0.7216	1142.8	1163.0	1162.2	0.470	6.079	69.339	20.535	3.232	0.112	0.204	0.008	0.006	0.015	0.000	0.000	0.000	0.000	1369.08	
28	0.7214	1143.0	1163.3	1162.6	0.473	6.031	69.408	20.512	3.229	0.112	0.205	0.008	0.006	0.015	0.000	0.000	0.000	0.000	1369.65	
29	0.7184	1141.2	1161.4	1160.7	0.459	5.886	69.917	20.264	3.134	0.110	0.201	0.008	0.006	0.014	0.000	0.000	0.000	0.000	1370.26	
30	0.7201	1140.4	1160.6	1159.9	0.468	6.087	69.600	20.304	3.200	0.112	0.200	0.007	0.006	0.014	0.000	0.000	0.000	0.000	1367.62	
AVG	0.7160	1135.0	1155.2	1154.6	0.480	6.002	70.272	19.879	3.045	0.106	0.188	0.007	0.006	0.015	0.000	0.000	0.000	0.000	1365.24	

Zone 28

GQ Source Daily Summary

June 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	0.5939	968.9	986.1	986.1	1.558	3.004	93.117	2.252	0.069	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1279.32	
2	0.6166	1018.5	1036.5	1036.4	1.108	2.811	88.183	7.680	0.218	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1319.78	
3	0.5918	960.0	976.9	976.9	1.645	3.213	93.696	1.293	0.140	0.004	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1270.02	
4	0.7079	1124.3	1144.2	1144.0	0.440	5.959	71.437	19.144	2.749	0.095	0.170	0.000	0.000	0.007	0.000	0.000	0.000	0.000	1359.97	
5	0.6970	1119.1	1138.9	1138.7	0.461	5.226	73.310	18.423	2.356	0.078	0.140	0.000	0.000	0.007	0.000	0.000	0.000	0.000	1364.10	
6	0.5940	962.0	979.0	978.9	1.803	3.072	93.302	1.764	0.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1270.16	
7	0.5926	955.1	972.0	972.0	1.974	3.096	93.735	1.154	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1262.69	
8	0.5930	960.7	977.7	977.5	1.836	2.999	93.600	1.500	0.054	0.003	0.003	0.003	0.003	0.001	0.000	0.000	0.000	0.000	1269.66	
9	0.5895	958.2	975.1	975.1	1.736	2.981	94.150	1.098	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1270.01	
10	0.5895	959.1	976.1	976.0	1.682	3.001	94.101	1.179	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1271.32	
11	0.5910	959.4	976.4	976.4	1.724	3.055	93.836	1.343	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1270.17	
12	0.5930	960.8	977.8	977.7	1.814	3.034	93.515	1.587	0.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1269.70	
13	0.5911	955.8	972.7	972.6	1.881	3.056	93.955	1.069	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1265.15	
14	0.5900	958.0	972.9	972.8	1.623	3.121	93.974	1.185	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1269.32	
15	0.5890	956.0	975.0	974.9	1.623	3.235	94.109	0.998	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1267.69	
16	0.5982	976.0	993.3	993.1	1.503	3.061	92.187	3.163	0.086	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1284.12	
17	0.6949	1104.3	1123.8	1123.5	0.627	5.672	73.996	16.992	2.474	0.084	0.148	0.000	0.000	0.007	0.000	0.000	0.000	0.000	1347.83	
18	0.7120	1127.8	1147.8	1147.4	0.444	6.124	70.875	19.298	2.944	0.107	0.193	0.000	0.000	0.015	0.000	0.000	0.000	0.000	1360.26	
19	0.7106	1129.2	1149.2	1148.8	0.503	5.822	71.130	19.388	2.869	0.100	0.173	0.000	0.000	0.016	0.000	0.000	0.000	0.000	1363.26	
20	0.7083	1121.3	1141.2	1140.6	0.532	6.041	71.831	18.234	3.041	0.110	0.195	0.000	0.000	0.016	0.000	0.000	0.000	0.000	1355.89	
21	0.7154	1129.6	1149.6	1149.1	0.498	6.258	70.551	19.120	3.222	0.120	0.216	0.000	0.000	0.014	0.000	0.000	0.000	0.000	1359.09	
22	0.7159	1133.0	1153.1	1152.7	0.436	6.188	70.448	19.293	3.309	0.112	0.198	0.000	0.000	0.017	0.000	0.000	0.000	0.000	1362.77	
23	0.7203	1139.5	1159.6	1159.2	0.450	6.187	69.762	19.771	3.497	0.113	0.202	0.000	0.000	0.018	0.000	0.000	0.000	0.000	1366.33	
24	0.7156	1135.4	1155.5	1155.1	0.426	6.024	70.556	19.334	3.338	0.110	0.194	0.000	0.000	0.017	0.000	0.000	0.000	0.000	1365.96	
25	0.7152	1134.4	1154.5	1154.0	0.426	6.047	70.678	19.141	3.381	0.114	0.195	0.000	0.000	0.017	0.000	0.000	0.000	0.000	1365.18	
26	0.6570	1057.7	1076.4	1076.0	0.968	4.427	81.289	11.520	1.642	0.053	0.092	0.000	0.000	0.010	0.000	0.000	0.000	0.000	1327.00	
27	0.5843	950.3	967.2	967.0	1.681	3.052	95.123	0.132	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1265.23	
28	0.5885	955.0	971.9	971.8	1.704	3.130	94.291	0.845	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1266.87	
29	0.5876	953.3	970.2	970.0	1.736	3.098	94.511	0.631	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1265.61	
30	0.5878	954.5	971.4	971.3	1.719	3.069	94.460	0.727	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1267.01	
Avg	0.6377	1026.0	1044.1	1043.8	1.221	4.169	84.990	8.309	1.195	0.040	0.071	0.000	0.000	0.005	0.000	0.000	0.000	0.000	1306.72	

Zone 31

GQ Source Daily Summary

June 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	949.4	966.2	965.9	1.752	3.129	94.990	0.098	0.017	0.003	0.005	0.002	0.001	0.003	0.000	0.000	0.000	0.000	1262.56	
2	0.5871	956.1	973.0	972.8	1.737	2.877	94.828	0.441	0.084	0.012	0.012	0.003	0.002	0.004	0.000	0.000	0.000	0.000	1269.94	
3	0.5912	964.8	981.9	981.6	1.628	2.907	93.859	1.486	0.091	0.010	0.010	0.003	0.002	0.004	0.000	0.000	0.000	0.000	1276.77	
4	0.6217	1031.8	1050.0	1049.6	1.008	2.637	87.227	8.821	0.278	0.011	0.013	0.002	0.001	0.002	0.000	0.000	0.000	0.000	1331.50	
5	0.5884	951.5	968.4	968.3	1.849	3.109	94.559	0.426	0.036	0.005	0.008	0.002	0.002	0.003	0.000	0.000	0.000	0.000	1262.48	
6	0.5890	945.6	962.4	962.3	2.086	3.172	94.617	0.092	0.019	0.003	0.006	0.002	0.001	0.003	0.000	0.000	0.000	0.000	1253.94	
7	0.5886	946.3	963.1	963.0	2.062	3.126	94.684	0.096	0.018	0.003	0.005	0.002	0.001	0.003	0.000	0.000	0.000	0.000	1255.30	
8	0.5865	948.4	965.2	965.1	1.854	3.115	94.908	0.093	0.017	0.003	0.005	0.002	0.001	0.002	0.000	0.000	0.000	0.000	1260.37	
9	0.5863	948.4	965.1	965.0	1.828	3.143	94.910	0.090	0.016	0.003	0.005	0.002	0.001	0.002	0.000	0.000	0.000	0.000	1260.45	
10	0.5862	948.5	965.3	965.2	1.817	3.139	94.931	0.085	0.014	0.003	0.005	0.002	0.001	0.003	0.000	0.000	0.000	0.000	1260.75	
11	0.5874	947.5	964.3	964.2	1.942	3.118	94.821	0.088	0.016	0.003	0.006	0.002	0.001	0.003	0.000	0.000	0.000	0.000	1258.24	
12	0.5877	947.4	964.1	964.1	1.971	3.113	94.792	0.091	0.018	0.003	0.006	0.002	0.002	0.002	0.000	0.000	0.000	0.000	1257.69	
13	0.5861	948.4	965.2	965.1	1.783	3.190	94.908	0.089	0.016	0.003	0.006	0.002	0.001	0.002	0.000	0.000	0.000	0.000	1260.73	
14	0.5855	948.4	965.2	965.1	1.682	3.293	94.904	0.093	0.014	0.003	0.005	0.002	0.001	0.003	0.000	0.000	0.000	0.000	1261.30	
15	0.5856	948.3	965.1	965.0	1.732	3.221	94.948	0.079	0.011	0.002	0.004	0.001	0.001	0.002	0.000	0.000	0.000	0.000	1261.20	
16	0.5857	948.4	965.2	965.1	1.775	3.159	94.969	0.078	0.010	0.002	0.003	0.001	0.000	0.001	0.000	0.000	0.000	0.000	1261.24	
17	0.5978	975.2	992.5	992.2	1.513	3.065	92.323	3.005	0.083	0.003	0.005	0.001	0.000	0.001	0.000	0.000	0.000	0.000	1283.46	
18	0.6594	1061.0	1079.8	1079.5	0.898	4.561	80.507	12.447	1.451	0.048	0.082	0.003	0.002	0.002	0.000	0.000	0.000	0.000	1329.27	
19	0.7066	1128.9	1148.9	1148.6	0.399	5.624	71.719	19.276	2.702	0.096	0.170	0.006	0.005	0.003	0.000	0.000	0.000	0.000	1366.76	
20	0.7079	1133.0	1153.0	1152.6	0.405	5.489	71.268	20.037	2.562	0.082	0.143	0.005	0.004	0.006	0.000	0.000	0.000	0.000	1370.41	
21	0.7019	1131.4	1151.4	1151.0	0.344	5.109	72.288	19.671	2.353	0.080	0.138	0.005	0.004	0.007	0.000	0.000	0.000	0.000	1374.40	
22	0.7093	1132.2	1152.2	1151.7	0.465	5.576	71.437	19.383	2.835	0.102	0.181	0.007	0.006	0.008	0.000	0.000	0.000	0.000	1368.10	
23	0.7077	1131.5	1151.5	1151.0	0.381	5.596	71.657	19.226	2.851	0.097	0.170	0.007	0.006	0.009	0.000	0.000	0.000	0.000	1372.67	
24	0.7117	1137.9	1158.0	1157.4	0.382	5.578	70.974	19.804	2.976	0.096	0.168	0.007	0.006	0.009	0.000	0.000	0.000	0.000	1368.78	
25	0.7091	1137.5	1157.7	1157.1	0.363	5.383	71.487	19.534	2.950	0.094	0.167	0.007	0.006	0.009	0.000	0.000	0.000	0.000	1374.79	
26	0.5932	960.4	977.4	977.3	1.687	3.267	93.553	1.273	0.193	0.008	0.014	0.001	0.001	0.003	0.000	0.000	0.000	0.000	1268.86	
27	0.5851	949.7	966.6	966.4	1.696	3.147	95.028	0.100	0.016	0.003	0.005	0.002	0.001	0.003	0.000	0.000	0.000	0.000	1263.58	
28	0.5857	949.0	965.8	965.6	1.767	3.142	94.975	0.089	0.015	0.003	0.005	0.002	0.001	0.003	0.000	0.000	0.000	0.000	1261.92	
29	0.5856	948.9	965.7	965.6	1.767	3.137	94.988	0.085	0.013	0.002	0.004	0.001	0.001	0.002	0.000	0.000	0.000	0.000	1261.94	
30	0.5856	949.1	965.9	965.7	1.775	3.116	94.999	0.086	0.013	0.002	0.004	0.001	0.001	0.002	0.000	0.000	0.000	0.000	1262.13	
AVG	0.6192	1000.0	1017.9	1017.7	1.411	3.709	88.526	5.550	0.724	0.026	0.045	0.003	0.002	0.004	0.000	0.000	0.000	0.000	1292.76	

Zone 3a

GQ Source Daily Summary

June 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	0.6753	1145.3	1165.6	1164.5	0.000	2.299	75.570	21.542	0.570	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.42	0.000
2	0.6748	1145.0	1165.3	1164.0	0.000	2.276	75.665	21.466	0.573	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.48	0.000
3	0.6755	1146.0	1166.3	1165.1	0.000	2.280	75.523	21.601	0.576	0.009	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.01	0.000
4	0.6745	1144.1	1164.4	1163.2	0.000	2.299	75.740	21.360	0.581	0.009	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.75	0.000
5	0.6733	1142.7	1163.0	1161.9	0.000	2.265	75.967	21.197	0.551	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.35	0.000
6	0.6729	1142.1	1162.3	1161.5	0.000	2.271	76.006	21.188	0.515	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.90	0.000
7	0.6726	1141.7	1161.9	1161.0	0.000	2.261	76.086	21.109	0.524	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.81	0.000
8	0.6665	1132.6	1152.6	1151.6	0.016	2.224	77.353	19.866	0.513	0.009	0.012	0.002	0.002	0.002	0.000	0.000	0.000	0.000	1411.83	0.000
9	0.6698	1137.0	1157.1	1156.1	0.000	2.294	76.639	20.525	0.518	0.009	0.013	0.001	0.001	0.001	0.000	0.000	0.000	0.000	1413.80	0.000
10	0.6710	1138.9	1159.0	1158.0	0.000	2.290	76.398	20.765	0.529	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.90	0.000
11	0.6708	1138.7	1158.9	1157.8	0.000	2.281	76.438	20.734	0.529	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.93	0.000
12	0.6729	1141.7	1161.9	1160.8	0.000	2.295	76.035	21.095	0.556	0.009	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.45	0.000
13	0.6726	1141.4	1161.6	1160.4	0.000	2.287	76.111	21.011	0.571	0.009	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.37	0.000
14	0.6711	1139.0	1159.2	1158.0	0.000	2.278	76.427	20.707	0.569	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.03	0.000
15	0.6711	1139.1	1159.3	1158.2	0.000	2.278	76.427	20.707	0.569	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.20	0.000
16	0.6675	1134.4	1154.5	1153.2	0.000	2.227	77.166	20.027	0.561	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.10	0.000
17	0.6711	1139.6	1159.7	1158.5	0.000	2.259	76.410	20.752	0.559	0.009	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.64	0.000
18	0.6709	1139.0	1159.2	1158.0	0.000	2.268	76.429	20.751	0.532	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.22	0.000
19	0.6718	1139.9	1160.1	1158.8	0.000	2.299	76.269	20.856	0.556	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.37	0.000
20	0.6731	1142.2	1162.4	1161.2	0.000	2.278	76.040	21.079	0.583	0.009	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.91	0.000
21	0.6733	1142.7	1162.9	1161.8	0.000	2.268	75.999	21.131	0.581	0.009	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.29	0.000
22	0.6719	1140.1	1160.2	1159.0	0.000	2.303	76.246	20.869	0.560	0.009	0.012	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1415.42	0.000
23	0.6721	1139.0	1159.2	1157.9	0.000	2.387	76.187	20.846	0.561	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.89	0.000
24	0.6750	1143.2	1163.5	1162.1	0.000	2.399	75.625	21.370	0.588	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.14	0.000
25	0.6759	1144.9	1165.2	1164.0	0.000	2.382	75.436	21.569	0.594	0.009	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.27	0.000
26	0.6745	1144.2	1164.5	1163.4	0.000	2.294	75.754	21.329	0.602	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.86	0.000
27	0.6745	1144.3	1164.6	1163.4	0.000	2.282	75.769	21.336	0.592	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.03	0.000
28	0.6750	1144.1	1164.4	1163.0	0.000	2.342	75.652	21.391	0.594	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.25	0.000
29	0.6725	1140.4	1160.6	1159.5	0.000	2.338	76.131	20.937	0.573	0.009	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.23	0.000
30	0.6726	1141.2	1161.4	1160.2	0.000	2.296	76.147	20.943	0.594	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.12	0.000
Avg	0.6726	1141.0	1161.4	1160.2	0.001	2.294	76.121	21.002	0.562	0.009	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.13	0.000

Zone 33

Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	1202160	Specific Gravity:	0.7802
GQ Source Name:	BOWMAN BORDER	BTU Base:	Dry
Effective Date:	6/10/2009 9:00:00 AM	Dry Heat Value:	1147.87
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	1127.89
Pressure Base:	14.730	As Deliv. Heat Value:	1147.87
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	57.245		
C2	Ethane	27.627		7.367
C3	Propane	2.660	0.731	0.731
IC4	Iso-Butane	0.066	0.021	0.021
NC4	N-Butane	0.209	0.066	0.066
IC5	Iso-Pentane	0.009	0.003	0.003
NC5	N-Pentane	0.024	0.009	0.009
C6+	Hexanes Plus	0.002	0.001	0.001
CO2	Carbon Dioxide	2.045		
N2	Nitrogen	10.109		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
Totals		99.998	0.831	8.198

Sample Date: 6/1/2009 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:	0.5730
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			
Totals		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:

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	JUNE 09	MAY 09	APR 09	MAR 09	FEB 09	JAN 09	DEC 08	NOV 08	OCT 08	SEPT 08	AUG 08	JULY 08	ZONE
MT/ND	211	Sidney Area	1203	1200	1170	1100	1019	1021	1065	1184	1195	1198	1194	1192	21
ND	24	Williston Area	1196	1180	1149	1106	1101	1158	1195	1171	1173	1175	1189	1189	24
ND	25	Watford City Area	1134	1130	1128	1128	1128	1130	1127	1126	1130	1129	1131	1132	25
ND	261	Williston - Tioga - Minot Line	1131	1133	1136	1110	1101	1102	1123	1148	1112	1130	1135	1148	261
ND	262	Minot Area	1157	1144	1143	1130	1114	1105	1129	1147	1116	1133	1141	1147	262
ND	263	Tioga - Portal	1127	1122	1098	1092	1099	1103	1139	1125	1129	1142	1145	1141	263
ND	264	Williston - Ray	1196	1180	1149	1106	1101	1158	1195	1171	1173	1175	1189	1189	264
ND	271	Bismarck - Cleveland	1155	1143	1118	1043	1058	1056	1081	1129	1068	1127	1140	1146	271
ND	272	Cleveland - Mapleton	1156	1143	1118	1043	1057	1056	1080	1129	1068	1126	1140	1146	272
ND	273	Cleveland - Grafton	1105	1105	1118	1043	1057	1056	1080	1129	1068	1127	1140	1146	273
ND	28	Bismarck - Cabin Creek	1155	1142	1061	1014	1021	1028	1020	1013	1038	1088	1116	1147	28
ND	31	Dickinson Area	1044	996	1007	1013	1019	1028	1018	1008	1037	1038	1044	1040	31
ND/MT	32	Cabin Creek - Dickinson	1018	981	997	1013	1019	1027	1018	1007	1037	1032	1036	1036	32
ND	33	Killdeer	1161	1163	1157	1156	1157	1156	1154	1160	1158	1158	1161	1158	33
ND	34	Bowman Area	1148	1148	1167	1172	1164	1156	1168	1160	1176	1176	1179	1170	34
ND	35	Baker Field - North Dakota	978	974	974	974	974	974	974	974	974	974	974	974	35

**THERMAL ZONE VARIANCE
DOCUMENTATION**

June 2009

ZONE	BTU VARIANCE	REASON
31	48	Receipt from Cabin Creek Area and Little Knife Plant
32	37	Receipt from Cabin Creek Area and Little Knife Plant