



MONTANA-DAKOTA

UTILITIES CO.

A Division of MDU Resources Group, Inc.

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

October 25, 2011

RECEIVED

OCT 26 2011

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

PUBLIC SERVICE COMMISSION

Re: Case No. 11,006 (Therm Billing)
Monthly Report – September 2011

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 October 2011.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our supplier for the month of September 2011. There is a report for each of the 17 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 September 2011.

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
Regulatory Affairs Manager

MONTANA-DAKOTA UTILITIES CO.
 Therm Billing Factor
 OCT 2011

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
12	314	APPLE VALLEY	271	1.1183
12	327	BISMARCK	28	1.1193
12	343	CARRINGTON	273	1.1183
12	344	CLEVELAND	272	1.1104
12	364	CAVALIER	273	1.1418
12	365	DAWSON	271	1.1104
12	374	FT TOTTEN	273	1.1262
12	375	DEVILS LAKE	273	1.1262
12	379	BARLOW	273	1.1183
12	387	ELDRIDGE	272	1.1183
12	411	GLEN ULLIN	31	1.0975
12	417	GRAFTON	273	1.1497
12	439	HANKINSON	600	1.0699
12	449	JAMESTOWN	272	1.1262
12	463	LANGDON	273	1.1183
12	475	LINTON	802	.9755
12	478	LINCOLN	28	1.1193
12	494	MEDINA	271	1.1104
12	498	MANDAN	28	1.1193
12	524	NEW SALEM	28	1.0956
12	532	NEW ROCKFORD	273	1.1183
12	539	PARK RIVER	273	1.1418
12	574	SANBORN	272	1.1262
12	593	STEELE	271	1.1104
12	598	SHEYENNE	273	1.1262
12	610	TAPPEN	271	1.1104
12	625	VALLEY CITY	272	1.1340
12	629	WALHALLA	273	1.1418
12	647	WILTON	262	1.0956
12	717	SPIRITWOOD	272	1.1262
12	718	FAIRMOUNT	600	1.0678
12	732	MSR SITE	273	1.1183
12	733	PAR SITE	273	1.1183
15	303	ALEXANDER	25	1.0730
15	308	ARNEGARD	25	1.0730

MONTANA-DAKOTA UTILITIES CO.
 Therm Billing Factor
 OCT 2011

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	318	BEACH	32	1.0683
15	319	BELFIELD	32	1.0761
15	323	BERTHOLD	262	1.0956
15	330	BOWMAN	34	1.0384
15	337	BURLINGTON	262	1.1193
15	368	DES LACS	262	1.1035
15	369	DICKINSON	31	1.0896
15	384	EPPING	264	1.1334
15	407	GLADSTONE	31	1.0896
15	413	GOLVA	32	1.0527
15	416	GARRISON	262	1.1035
15	429	HEBRON	31	1.0975
15	459	KILLDEER	33	1.1155
15	469	LEFOR	31	1.0896
15	474	LIGNITE	263	1.0731
15	500	MARMARTH	34	1.0461
15	505	MINOT	262	1.1193
15	510	MOTT	31	1.0896
15	512	MAX	262	1.0956
15	522	NEW ENGLAND	31	1.0817
15	540	PALERMO	262	1.0956
15	558	RAY	264	1.1334
15	561	REGENT	31	1.0896
15	563	RHAME	34	1.0308
15	564	RICHARDTON	31	1.0817
15	568	ROSS	261	1.0727
15	572	RUTHVILLE	262	1.1193
15	583	SENTINEL BUTTE	32	1.0683
15	588	SOUTH HEART	31	1.0817
15	590	SPRINGBROOK	264	1.1334
15	591	STANLEY	261	1.0805
15	605	SURREY	262	1.1193
15	611	TAYLOR	31	1.0817
15	616	TIOGA	261	1.0727
15	619	TURTLE LAKE	262	1.1035

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
OCT 2011

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	620	TRENTON	24	1.1416
15	624	UNDERWOOD	262	1.1035
15	632	WATFORD CITY	25	1.0730
15	636	WHEELLOCK	264	1.1252
15	637	WHITE EARTH	261	1.0805
15	642	WILLISTON	24	1.1416
15	646	WASHBURN	262	1.1114
15	664	RIVERDALE	262	1.1035
15	691	FAIRVIEW	241	1.1416
15	712	MINOT AFB	262	1.1193
15	743	BAKER FIELD	35	.8980

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

GQ Source Analysis

Williston Basin Interstate Pipeline Co.

GQ Source Number:	0602330	Specific Gravity:	0.7329
GQ Source Name:	WILLISTON BORDER	BTU Base:	Dry
Effective Date:	9/1/2011 9:00:00 AM	Measured Heat Value:	1203.07
Effective End Date:	10/1/2011 9:00:00 AM	Dry Heat Value:	1199.80
Pressure Base:	14.730	Wet Heat Value:	1178.92
Viscosity:		As Deliv. Heat Value:	1199.80
		Sample Pressure:	340.00
		Sample Temperature:	

	<u>Mol %</u>	<u>GPM</u>		<u>Mol %</u>
C1 Methane	68.729		CO2 Carbon Dioxide	0.980
C2 Ethane	21.558	5.748	N2 Nitrogen	4.120
C3 Propane	4.058	1.115	O2 Oxygen	0.000
IC4 Iso-Butane	0.174	0.057	HE Helium	
NC4 N-Butane	0.332	0.104	H2 Hydrogen	
IC5 Iso-Pentane	0.024	0.009	H2S Hydrogen Sulfide	
NC5 N-Pentane	0.021	0.007	AR Argon	
C6 Hexane	0.004	0.002	CO Carbon Monoxide	
C7 Heptane			H2O Water	
C8 Octane			Neo-C5 Neo-Pentane	
C9 Nonane				
C10 Decane				

Totals 100.000% 7.042 GPM

Sample Date: 8/31/2011 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks:

Analysis Tech: Mary Berger
Analysis Remarks:

Zone 24, 264

GQ Source Analysis

Williston Basin Interstate Pipeline Co.

GQ Source Number:	0602160	Specific Gravity:	0.7332
GQ Source Name:	FAIRVIEW BORDER	BTU Base:	Dry
Effective Date:	9/1/2011 9:00:00 AM	Measured Heat Value:	1203.67
Effective End Date:	10/1/2011 9:00:00 AM	Dry Heat Value:	1200.39
Pressure Base:	14.730	Wet Heat Value:	1179.49
Viscosity:		As Deliv. Heat Value:	1200.39
		Sample Pressure:	0.00
		Sample Temperature:	

	<u>Mol %</u>	<u>GPM</u>		<u>Mol %</u>
C1 Methane	68.698		CO2 Carbon Dioxide	1.091
C2 Ethane	21.724	0.000	N2 Nitrogen	3.946
C3 Propane	4.021	1.105	O2 Oxygen	0.000
IC4 Iso-Butane	0.165	0.054	HE Helium	
NC4 N-Butane	0.314	0.099	H2 Hydrogen	
IC5 Iso-Pentane	0.021	0.008	H2S Hydrogen Sulfide	
NC5 N-Pentane	0.018	0.007	AR Argon	
C6 Hexane	0.002	0.001	CO Carbon Monoxide	
C7 Heptane			H2O Water	
C8 Octane			Neo-C5 Neo-Pentane	
C9 Nonane				
C10 Decane				

Totals 100.000% 1.274 GPM

Sample Date: 8/31/2011 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks:

Analysis Tech: Mary Berger

Analysis Remarks:

Zone 241

GQ Source Analysis

Williston Basin Interstate Pipeline Co.

GQ Source Number:	0602230	Specific Gravity:	0.7304
GQ Source Name:	WATFORD CITY BORDER	BTU Base:	Dry
Effective Date:	9/1/2011 9:00:00 AM	Measured Heat Value:	1138.26
Effective End Date:	10/1/2011 9:00:00 AM	Dry Heat Value:	1135.55
Pressure Base:	14.730	Wet Heat Value:	1115.79
Viscosity:		As Deliv. Heat Value:	1135.55
		Sample Pressure:	470.00
		Sample Temperature:	

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
C1	Methane	68.410		CO2	Carbon Dioxide	0.731
C2	Ethane	18.212	4.856	N2	Nitrogen	8.128
C3	Propane	3.888	1.068	O2	Oxygen	0.000
IC4	Iso-Butane	0.194	0.063	HE	Helium	
NC4	N-Butane	0.367	0.116	H2	Hydrogen	
IC5	Iso-Pentane	0.029	0.011	H2S	Hydrogen Sulfide	
NC5	N-Pentane	0.030	0.011	AR	Argon	
C6	Hexane	0.007	0.003	CO	Carbon Monoxide	
C7	Heptane			H2O	Water	
C8	Octane			Neo-C5	Neo-Pentane	
C9	Nonane					
C10	Decane					

Totals 99.996% 6.128 GPM

Sample Date: 8/31/2011 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks:

Analysis Tech: Mary Berger
Analysis Remarks:

Zone 25

GQ Source Daily Summary September 2011

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	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6897	1129.1	1149.1	0.541	3.811	74.939	18.340	2.124	0.080	0.147	0.009	0.009	0.000					1383.65	
2	0.6891	1127.8	1147.8	0.551	3.816	74.894	18.528	1.989	0.072	0.135	0.008	0.007	0.000					1382.71	
3	0.6904	1130.8	1150.8	0.550	3.763	74.786	18.528	2.149	0.074	0.136	0.008	0.007	0.000					1385.02	
4	0.6903	1131.8	1151.8	0.536	3.714	74.762	18.664	2.100	0.072	0.134	0.008	0.008	0.002					1386.32	
5	0.6911	1134.3	1154.4	0.525	3.646	74.654	18.834	2.098	0.073	0.141	0.010	0.011	0.007					1388.67	
6	0.6911	1136.2	1156.3	0.507	3.566	74.639	18.928	2.129	0.071	0.135	0.009	0.010	0.005					1390.88	
7	0.6911	1136.4	1156.6	0.504	3.554	74.654	18.898	2.173	0.068	0.129	0.008	0.009	0.004					1391.21	
8	0.6905	1132.9	1152.9	0.521	3.682	74.757	18.689	2.125	0.070	0.135	0.009	0.009	0.004					1387.53	
9	0.6743	1112.0	1131.7	0.279	3.813	76.639	17.963	1.195	0.029	0.061	0.005	0.006	0.009					1378.14	
10	0.6737	1112.4	1132.1	0.243	3.785	76.692	18.003	1.179	0.025	0.052	0.005	0.006	0.010					1379.27	
11	0.6744	1113.8	1133.5	0.241	3.768	76.644	17.986	1.256	0.026	0.055	0.005	0.007	0.011					1380.29	
12	0.6716	1109.1	1128.7	0.221	3.824	77.214	17.322	1.341	0.021	0.040	0.004	0.005	0.009					1377.27	
13	0.6708	1106.7	1126.3	0.235	3.875	77.327	17.183	1.310	0.019	0.036	0.003	0.004	0.007					1375.10	
14	0.6762	1115.3	1135.0	0.285	3.780	76.517	17.831	1.497	0.025	0.048	0.004	0.005	0.008					1380.27	
15	0.6797	1123.1	1143.0	0.308	3.596	76.123	18.188	1.633	0.041	0.084	0.007	0.009	0.010					1386.37	
16	0.6762	1117.0	1136.8	0.287	3.668	76.360	18.282	1.315	0.025	0.048	0.003	0.004	0.007					1382.46	
17	0.6762	1117.0	1136.8	0.287	3.668	76.360	18.282	1.315	0.025	0.048	0.003	0.004	0.007					1382.46	
18	0.6736	1113.1	1132.8	0.247	3.731	76.639	18.161	1.143	0.021	0.042	0.003	0.004	0.008					1380.19	
19	0.6801	1123.9	1143.8	0.325	3.563	75.992	18.366	1.631	0.036	0.070	0.005	0.006	0.007					1386.90	
20	0.6763	1116.7	1136.5	0.294	3.687	76.486	17.979	1.470	0.025	0.047	0.003	0.004	0.006					1381.94	
21	0.6780	1121.0	1140.8	0.339	3.510	76.586	17.698	1.725	0.045	0.084	0.004	0.005	0.004					1385.57	
22	0.6790	1123.4	1143.3	0.354	3.436	76.386	17.959	1.732	0.042	0.077	0.004	0.005	0.005					1387.53	
23	0.6823	1127.3	1147.2	0.348	3.526	75.860	18.324	1.740	0.052	0.112	0.011	0.014	0.012					1388.83	
24	0.6810	1127.5	1147.5	0.363	3.363	76.143	18.217	1.709	0.056	0.115	0.010	0.012	0.011					1390.48	
25	0.6826	1127.6	1147.6	0.372	3.489	75.892	18.257	1.774	0.059	0.122	0.010	0.013	0.011					1389.03	
26	0.6798	1122.3	1142.2	0.319	3.635	76.076	18.209	1.617	0.039	0.081	0.007	0.008	0.009					1385.33	
27	0.6827	1126.8	1146.8	0.324	3.628	75.549	18.690	1.654	0.041	0.088	0.007	0.009	0.009					1387.88	
28	0.6882	1138.5	1158.7	0.438	3.246	75.280	18.604	2.222	0.065	0.122	0.007	0.009	0.006					1396.79	
29	0.6898	1135.5	1155.6	0.510	3.471	75.164	18.275	2.347	0.072	0.135	0.010	0.011	0.006					1391.44	
30	0.6963	1141.8	1162.0	0.583	3.590	74.060	19.042	2.465	0.079	0.150	0.012	0.012	0.007					1392.60	
Avg	0.6822	1124.0	1144.3	0.381	3.640	75.803	18.274	1.739	0.048	0.094	0.007	0.008	0.007					1385.40	

Zone 261

GQ Source Daily Summary

September 2011

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	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6972	1142.2	1162.4	0.570	3.667	73.934	19.065	2.453	0.094	0.190	0.011	0.012	0.004	0.000	0.000	0.000	0.000	1392.16	
2	0.6943	1137.7	1157.8	0.551	3.701	74.433	18.598	2.411	0.097	0.187	0.010	0.009	0.003	0.000	0.000	0.000	0.000	1389.51	
3	0.6935	1135.5	1155.6	0.565	3.737	74.511	18.565	2.319	0.095	0.185	0.010	0.010	0.004	0.000	0.000	0.000	0.000	1387.69	
4	0.6900	1129.3	1149.3	0.576	3.773	74.804	18.571	2.045	0.075	0.140	0.007	0.006	0.004	0.000	0.000	0.000	0.000	1383.60	
5	0.6915	1131.9	1152.0	0.581	3.747	74.616	18.669	2.157	0.076	0.140	0.007	0.006	0.003	0.000	0.000	0.000	0.000	1385.30	
6	0.6907	1132.0	1152.0	0.565	3.692	74.703	18.712	2.106	0.073	0.134	0.006	0.006	0.003	0.000	0.000	0.000	0.000	1386.16	
7	0.6920	1134.9	1154.9	0.564	3.643	74.495	18.933	2.134	0.074	0.141	0.007	0.007	0.003	0.000	0.000	0.000	0.000	1388.35	
8	0.6913	1135.1	1155.2	0.539	3.590	74.617	18.932	2.077	0.074	0.147	0.009	0.010	0.006	0.000	0.000	0.000	0.000	1389.48	
9	0.6926	1138.9	1159.0	0.523	3.512	74.435	19.084	2.219	0.071	0.138	0.007	0.007	0.004	0.000	0.000	0.000	0.000	1392.71	
10	0.6918	1137.4	1157.6	0.523	3.522	74.564	18.977	2.191	0.070	0.136	0.007	0.007	0.003	0.000	0.000	0.000	0.000	1391.78	
11	0.6942	1137.4	1157.6	0.538	3.727	74.151	19.103	2.234	0.076	0.152	0.008	0.008	0.004	0.000	0.000	0.000	0.000	1389.34	
12	0.7058	1144.5	1164.8	0.487	4.466	71.510	21.109	2.229	0.059	0.125	0.006	0.007	0.003	0.000	0.000	0.000	0.000	1386.47	
13	0.7046	1142.5	1162.8	0.454	4.532	71.645	20.976	2.211	0.054	0.114	0.005	0.006	0.003	0.000	0.000	0.000	0.000	1385.17	
14	0.7039	1140.4	1160.6	0.460	4.580	71.796	20.769	2.214	0.054	0.114	0.005	0.005	0.003	0.000	0.000	0.000	0.000	1383.34	
15	0.7044	1141.9	1162.1	0.464	4.528	71.790	20.737	2.299	0.054	0.114	0.005	0.005	0.003	0.000	0.000	0.000	0.000	1384.69	
16	0.7077	1148.5	1168.9	0.503	4.377	71.461	20.963	2.456	0.069	0.150	0.008	0.009	0.004	0.000	0.000	0.000	0.000	1389.43	
17	0.7061	1145.7	1166.0	0.478	4.433	71.449	21.187	2.273	0.054	0.114	0.004	0.005	0.003	0.000	0.000	0.000	0.000	1387.64	
18	0.7053	1143.6	1163.9	0.479	4.486	71.492	21.200	2.159	0.055	0.116	0.004	0.005	0.003	0.000	0.000	0.000	0.000	1385.89	
19	0.7063	1144.5	1164.8	0.477	4.532	71.300	21.318	2.198	0.053	0.111	0.004	0.004	0.003	0.000	0.000	0.000	0.000	1385.95	
20	0.7043	1145.6	1165.9	0.465	4.293	71.987	20.700	2.320	0.064	0.143	0.009	0.011	0.007	0.000	0.000	0.000	0.000	1389.26	
21	0.7058	1145.0	1165.3	0.476	4.452	71.588	20.941	2.372	0.052	0.107	0.004	0.005	0.004	0.000	0.000	0.000	0.000	1387.07	
22	0.6853	1128.8	1148.7	0.374	3.670	75.280	18.640	1.870	0.053	0.105	0.003	0.003	0.003	0.000	0.000	0.000	0.000	1387.71	
23	0.6792	1124.1	1144.0	0.360	3.403	76.317	18.084	1.701	0.043	0.083	0.001	0.003	0.005	0.000	0.000	0.000	0.000	1388.12	
24	0.6968	1141.1	1161.3	0.450	3.878	73.489	19.656	2.338	0.059	0.117	0.004	0.005	0.003	0.000	0.000	0.000	0.000	1391.31	
25	0.7077	1150.8	1171.2	0.485	4.264	71.673	20.647	2.708	0.066	0.139	0.007	0.008	0.003	0.000	0.000	0.000	0.000	1392.18	
26	0.6936	1139.3	1159.5	0.430	3.723	74.131	19.259	2.225	0.066	0.140	0.009	0.011	0.006	0.000	0.000	0.000	0.000	1392.21	
27	0.6970	1141.6	1161.8	0.449	3.870	73.625	19.433	2.370	0.072	0.153	0.009	0.011	0.006	0.000	0.000	0.000	0.000	1391.61	
28	0.7034	1146.2	1166.5	0.481	4.147	72.334	20.329	2.498	0.063	0.131	0.006	0.007	0.004	0.000	0.000	0.000	0.000	1390.84	
29	0.6998	1145.9	1166.2	0.453	3.866	73.015	20.035	2.412	0.065	0.135	0.007	0.008	0.004	0.000	0.000	0.000	0.000	1394.14	
30	0.6869	1134.1	1154.2	0.484	3.330	75.531	18.210	2.257	0.063	0.114	0.003	0.004	0.004	0.000	0.000	0.000	0.000	1392.54	
Avg	0.6974	1140.0	1159.7	0.493	3.971	73.356	19.713	2.248	0.066	0.134	0.006	0.007	0.004	0.000	0.000	0.000	0.000	1388.72	

Zone 262

GQ Source Analysis

Williston Basin Interstate Pipeline Co.

GQ Source Number:	2501030	Specific Gravity:	0.6668
GQ Source Name:	LIGNITE PLANT	BTU Base:	Dry
Effective Date:	9/1/2011 9:00:00 AM	Measured Heat Value:	1129.89
Effective End Date:	10/1/2011 9:00:00 AM	Dry Heat Value:	1128.18
Pressure Base:	14.730	Wet Heat Value:	1108.54
Viscosity:		As Deliv. Heat Value:	1128.18
		Sample Pressure:	0.00
		Sample Temperature:	

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
C1	Methane	77.442		CO2	Carbon Dioxide	0.161
C2	Ethane	18.115	4.830	N2	Nitrogen	3.462
C3	Propane	0.785	0.216	O2	Oxygen	0.000
IC4	Iso-Butane	0.000	0.000	HE	Helium	
NC4	N-Butane	0.000	0.000	H2	Hydrogen	
IC5	Iso-Pentane	0.000	0.000	H2S	Hydrogen Sulfide	
NC5	N-Pentane	0.000	0.000	AR	Argon	
C6	Hexane	0.035	0.016	CO	Carbon Monoxide	
C7	Heptane			H2O	Water	
C8	Octane			Neo-C5	Neo-Pentane	
C9	Nonane					
C10	Decane					

Totals 100.000% 5.062 GPM

Sample Date: 9/1/2011 12:00:00 AM
Sample Type: Spot
Sample Tech: DU
Sample Remarks:

Analysis Tech: Mary Berger
Analysis Remarks:

Zone 263

GQ Source Daily Summary September 2011

Number: 043

Pressure Base: 14.730

Contract Day: 1

Name: BISMARCK-CLEVELAND

Temperature Base:

Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6947	1137.4	1157.5	0.580	3.717	74.405	18.611	2.354	0.098	0.195	0.013	0.012	0.015	0.000	0.000	0.000	0.000	1388.74	
2	0.6894	1129.0	1149.0	0.571	3.743	74.996	18.385	2.063	0.075	0.140	0.008	0.007	0.013	0.000	0.000	0.000	0.000	1383.87	
3	0.6902	1130.0	1150.1	0.587	3.734	74.819	18.579	2.044	0.073	0.137	0.008	0.007	0.013	0.000	0.000	0.000	0.000	1384.28	
4	0.6904	1130.9	1150.9	0.583	3.704	74.844	18.523	2.112	0.072	0.134	0.008	0.007	0.013	0.000	0.000	0.000	0.000	1385.16	
5	0.6912	1133.6	1153.7	0.569	3.635	74.678	18.773	2.109	0.072	0.135	0.008	0.008	0.013	0.000	0.000	0.000	0.000	1387.66	
6	0.6904	1134.1	1154.2	0.549	3.565	74.828	18.744	2.060	0.071	0.143	0.010	0.012	0.018	0.000	0.000	0.000	0.000	1389.01	
7	0.6930	1139.9	1160.0	0.528	3.485	74.480	18.987	2.279	0.070	0.137	0.009	0.009	0.015	0.000	0.000	0.000	0.000	1393.49	
8	0.6909	1135.9	1156.1	0.536	3.515	74.737	18.851	2.128	0.068	0.132	0.008	0.009	0.014	0.000	0.000	0.000	0.000	1390.81	
9	0.6964	1137.4	1157.5	0.554	3.922	73.610	19.508	2.172	0.068	0.135	0.008	0.009	0.014	0.000	0.000	0.000	0.000	1387.06	
10	0.7051	1143.0	1163.3	0.471	4.519	71.566	21.100	2.148	0.052	0.115	0.007	0.008	0.014	0.000	0.000	0.000	0.000	1385.37	
11	0.7066	1145.4	1165.7	0.470	4.517	71.425	21.077	2.319	0.052	0.113	0.007	0.008	0.014	0.000	0.000	0.000	0.000	1386.76	
12	0.7043	1141.7	1161.9	0.471	4.532	71.686	21.000	2.111	0.054	0.116	0.007	0.008	0.014	0.000	0.000	0.000	0.000	1384.46	
13	0.7021	1139.0	1159.1	0.451	4.512	72.125	20.592	2.139	0.049	0.105	0.006	0.007	0.013	0.000	0.000	0.000	0.000	1383.43	
14	0.7049	1142.4	1162.6	0.474	4.541	71.721	20.787	2.282	0.053	0.114	0.007	0.008	0.012	0.000	0.000	0.000	0.000	1384.69	
15	0.7057	1145.5	1165.8	0.492	4.394	71.812	20.653	2.425	0.062	0.133	0.008	0.009	0.013	0.000	0.000	0.000	0.000	1387.74	
16	0.7062	1146.3	1166.5	0.500	4.383	71.536	21.104	2.270	0.056	0.121	0.008	0.009	0.013	0.000	0.000	0.000	0.000	1388.17	
17	0.7054	1144.3	1164.6	0.490	4.447	71.528	21.174	2.169	0.053	0.113	0.006	0.007	0.012	0.000	0.000	0.000	0.000	1386.54	
18	0.7048	1142.4	1162.6	0.479	4.522	71.581	21.097	2.137	0.051	0.108	0.006	0.007	0.011	0.000	0.000	0.000	0.000	1384.83	
19	0.7011	1141.6	1161.8	0.452	4.255	72.456	20.483	2.136	0.056	0.123	0.011	0.011	0.017	0.000	0.000	0.000	0.000	1387.63	
20	0.7066	1147.3	1167.7	0.491	4.369	71.580	20.934	2.425	0.056	0.116	0.007	0.008	0.014	0.000	0.000	0.000	0.000	1389.06	
21	0.6971	1136.5	1156.6	0.445	4.210	72.986	20.197	2.006	0.044	0.090	0.005	0.006	0.012	0.000	0.000	0.000	0.000	1385.30	
22	0.6813	1125.6	1145.5	0.378	3.485	76.110	18.018	1.853	0.046	0.087	0.004	0.005	0.013	0.000	0.000	0.000	0.000	1387.82	
23	0.6962	1139.6	1159.8	0.448	3.923	73.596	19.552	2.283	0.056	0.115	0.006	0.007	0.013	0.000	0.000	0.000	0.000	1390.05	
24	0.6944	1138.8	1159.0	0.450	3.796	73.944	19.437	2.131	0.061	0.136	0.011	0.015	0.019	0.000	0.000	0.000	0.000	1390.90	
25	0.6924	1138.2	1158.4	0.433	3.674	74.539	18.801	2.294	0.069	0.148	0.011	0.014	0.019	0.000	0.000	0.000	0.000	1392.10	
26	0.7000	1143.8	1164.1	0.477	3.976	73.070	19.815	2.424	0.065	0.136	0.009	0.010	0.016	0.000	0.000	0.000	0.000	1391.37	
27	0.7073	1149.0	1169.3	0.484	4.338	71.673	20.689	2.586	0.062	0.135	0.009	0.010	0.014	0.000	0.000	0.000	0.000	1390.40	
28	0.6938	1141.4	1161.6	0.430	3.621	74.009	19.571	2.159	0.058	0.119	0.008	0.009	0.015	0.000	0.000	0.000	0.000	1394.56	
29	0.6858	1135.1	1155.2	0.467	3.185	75.799	18.133	2.210	0.063	0.117	0.006	0.007	0.014	0.000	0.000	0.000	0.000	1395.01	
30	0.6944	1139.6	1159.7	0.589	3.539	74.492	18.656	2.454	0.078	0.152	0.012	0.013	0.016	0.000	0.000	0.000	0.000	1391.75	
Avg	0.6974	1139.0	1159.3	0.497	3.992	73.354	19.728	2.209	0.062	0.127	0.008	0.009	0.014	0.000	0.000	0.000	0.000	1388.27	

Zone 271

GQ Source Daily Summary September 2011

Number: 063

Pressure Base: 14.730

Contract Day: 1

Name: CLEVELAND-MAPLETON

Temperature Base:

Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6940	1137.2	1157.4	0.553	3.704	74.515	18.501	2.408	0.100	0.195	0.012	0.011	0.000	0.000	0.000	0.000	0.000	1389.23	
2	0.6905	1130.9	1150.9	0.568	3.739	74.928	18.302	2.195	0.086	0.164	0.011	0.010	0.000	0.000	0.000	0.000	0.000	1385.02	
3	0.6893	1128.1	1148.1	0.585	3.770	74.915	18.493	2.009	0.074	0.139	0.009	0.007	0.000	0.000	0.000	0.000	0.000	1382.84	
4	0.6906	1131.0	1151.0	0.585	3.716	74.805	18.513	2.152	0.075	0.140	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1385.05	
5	0.6902	1131.5	1151.5	0.574	3.665	74.842	18.573	2.117	0.074	0.138	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1386.04	
6	0.6917	1135.4	1155.5	0.557	3.594	74.611	18.849	2.139	0.074	0.146	0.010	0.012	0.007	0.000	0.000	0.000	0.000	1389.32	
7	0.6907	1135.5	1155.6	0.534	3.524	74.777	18.798	2.126	0.072	0.141	0.009	0.010	0.007	0.000	0.000	0.000	0.000	1390.51	
8	0.6911	1136.6	1156.8	0.527	3.502	74.657	18.952	2.149	0.067	0.129	0.008	0.008	0.001	0.000	0.000	0.000	0.000	1391.51	
9	0.6905	1133.9	1154.0	0.534	3.599	74.795	18.699	2.146	0.070	0.137	0.009	0.009	0.001	0.000	0.000	0.000	0.000	1388.79	
10	0.7050	1144.0	1164.3	0.509	4.392	71.729	20.935	2.223	0.061	0.132	0.009	0.009	0.002	0.000	0.000	0.000	0.000	1386.67	
11	0.7065	1145.2	1165.4	0.471	4.525	71.362	21.171	2.284	0.054	0.117	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1386.51	
12	0.7056	1144.0	1164.3	0.467	4.511	71.500	21.121	2.207	0.055	0.118	0.008	0.009	0.004	0.000	0.000	0.000	0.000	1386.09	
13	0.7021	1139.0	1159.2	0.453	4.510	72.145	20.535	2.171	0.052	0.111	0.007	0.008	0.007	0.000	0.000	0.000	0.000	1383.43	
14	0.7031	1139.3	1159.5	0.465	4.573	71.954	20.630	2.194	0.052	0.113	0.007	0.008	0.004	0.000	0.000	0.000	0.000	1382.73	
15	0.7041	1141.8	1162.0	0.473	4.502	71.880	20.652	2.307	0.053	0.114	0.007	0.008	0.003	0.000	0.000	0.000	0.000	1384.78	
16	0.7071	1147.8	1168.2	0.507	4.356	71.590	20.874	2.432	0.067	0.146	0.010	0.011	0.008	0.000	0.000	0.000	0.000	1389.22	
17	0.7054	1144.6	1164.9	0.488	4.421	71.584	21.084	2.239	0.054	0.116	0.007	0.007	0.001	0.000	0.000	0.000	0.000	1387.03	
18	0.7060	1144.7	1164.9	0.492	4.476	71.400	21.252	2.197	0.053	0.115	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1386.41	
19	0.7029	1140.3	1160.5	0.457	4.506	71.883	20.872	2.108	0.051	0.110	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1384.17	
20	0.7025	1144.5	1164.8	0.469	4.183	72.411	20.379	2.324	0.062	0.137	0.011	0.013	0.011	0.000	0.000	0.000	0.000	1389.74	
21	0.7046	1143.2	1163.4	0.486	4.443	71.782	20.814	2.297	0.051	0.108	0.007	0.007	0.004	0.000	0.000	0.000	0.000	1385.99	
22	0.6826	1125.2	1145.1	0.367	3.645	75.740	18.312	1.781	0.046	0.091	0.005	0.006	0.007	0.000	0.000	0.000	0.000	1386.09	
23	0.6836	1127.6	1147.6	0.394	3.548	75.698	18.283	1.932	0.044	0.086	0.005	0.005	0.004	0.000	0.000	0.000	0.000	1388.07	
24	0.7038	1147.6	1167.9	0.480	4.107	72.363	20.279	2.531	0.065	0.145	0.011	0.013	0.007	0.000	0.000	0.000	0.000	1392.12	
25	0.6919	1137.7	1157.8	0.432	3.665	74.486	18.985	2.197	0.063	0.135	0.011	0.013	0.014	0.000	0.000	0.000	0.000	1391.89	
26	0.6937	1138.4	1158.5	0.441	3.770	74.235	19.039	2.255	0.069	0.150	0.012	0.014	0.014	0.000	0.000	0.000	0.000	1391.02	
27	0.7059	1148.2	1168.6	0.491	4.240	71.931	20.547	2.569	0.063	0.135	0.009	0.010	0.005	0.000	0.000	0.000	0.000	1390.92	
28	0.7000	1142.9	1163.2	0.439	4.092	72.816	20.141	2.301	0.058	0.128	0.009	0.010	0.006	0.000	0.000	0.000	0.000	1390.29	
29	0.6892	1140.5	1160.7	0.452	3.202	75.126	18.769	2.229	0.066	0.128	0.008	0.009	0.011	0.000	0.000	0.000	0.000	1398.15	
30	0.6890	1135.5	1155.6	0.519	3.382	75.319	18.230	2.316	0.070	0.135	0.009	0.010	0.009	0.000	0.000	0.000	0.000	1392.27	
Avg	0.6971	1139.0	1158.9	0.492	3.995	73.393	19.686	2.218	0.063	0.130	0.008	0.009	0.005	0.000	0.000	0.000	0.000	1388.06	

Zone 272

GQ Source Daily Summary

September 2011

Number: 061

Pressure Base: 14.730

Contract Day: 1

Name: CLEVELAND-GRAFTON

Temperature Base:

Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6942	1137.4	1157.6	0.553	3.706	74.501	18.499	2.421	0.101	0.197	0.012	0.011	0.000	0.000	0.000	0.000	0.000	1389.32	
2	0.6906	1131.2	1151.2	0.569	3.729	74.917	18.316	2.198	0.086	0.165	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1385.26	
3	0.6894	1128.7	1148.7	0.584	3.741	74.917	18.507	2.024	0.074	0.138	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1383.49	
4	0.6900	1130.7	1150.8	0.571	3.697	74.881	18.500	2.121	0.075	0.139	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1385.31	
5	0.6904	1131.7	1151.7	0.572	3.668	74.819	18.593	2.118	0.074	0.139	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1386.17	
6	0.6919	1135.6	1155.7	0.558	3.590	74.595	18.863	2.142	0.075	0.149	0.010	0.011	0.007	0.000	0.000	0.000	0.000	1389.47	
7	0.6910	1136.0	1156.1	0.535	3.520	74.743	18.824	2.134	0.072	0.144	0.009	0.010	0.007	0.000	0.000	0.000	0.000	1390.79	
8	0.6912	1137.0	1157.1	0.526	3.498	74.621	18.996	2.146	0.067	0.130	0.008	0.008	0.001	0.000	0.000	0.000	0.000	1391.76	
9	0.6905	1134.1	1154.2	0.535	3.589	74.791	18.715	2.142	0.071	0.138	0.009	0.009	0.002	0.000	0.000	0.000	0.000	1389.00	
10	0.7055	1144.5	1164.7	0.514	4.402	71.674	20.946	2.243	0.064	0.136	0.009	0.010	0.002	0.000	0.000	0.000	0.000	1386.72	
11	0.7067	1145.4	1165.7	0.471	4.521	71.341	21.187	2.293	0.054	0.117	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1386.72	
12	0.7057	1144.1	1164.4	0.470	4.510	71.486	21.133	2.206	0.055	0.119	0.008	0.009	0.005	0.000	0.000	0.000	0.000	1386.09	
13	0.6963	1133.8	1153.8	0.404	4.362	73.148	19.858	2.066	0.045	0.096	0.006	0.007	0.007	0.000	0.000	0.000	0.000	1382.76	
14	0.7022	1138.7	1158.8	0.457	4.536	72.125	20.516	2.187	0.051	0.109	0.007	0.007	0.005	0.000	0.000	0.000	0.000	1382.89	
15	0.7047	1142.8	1163.0	0.476	4.491	71.775	20.754	2.318	0.054	0.115	0.007	0.007	0.002	0.000	0.000	0.000	0.000	1385.43	
16	0.7074	1148.4	1168.7	0.507	4.354	71.535	20.920	2.441	0.068	0.147	0.010	0.011	0.007	0.000	0.000	0.000	0.000	1389.56	
17	0.7056	1145.0	1165.3	0.488	4.418	71.549	21.117	2.242	0.054	0.116	0.007	0.007	0.001	0.000	0.000	0.000	0.000	1387.25	
18	0.7066	1145.7	1166.0	0.493	4.466	71.316	21.314	2.227	0.054	0.116	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1387.08	
19	0.7051	1143.7	1163.9	0.478	4.471	71.563	21.120	2.184	0.054	0.116	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1386.12	
20	0.7023	1144.3	1164.6	0.468	4.178	72.419	20.410	2.293	0.059	0.128	0.015	0.019	0.010	0.000	0.000	0.000	0.000	1389.72	
21	0.7047	1143.4	1163.7	0.487	4.440	71.748	20.857	2.290	0.052	0.109	0.007	0.007	0.004	0.000	0.000	0.000	0.000	1386.16	
22	0.6828	1125.5	1145.5	0.368	3.645	75.699	18.349	1.782	0.047	0.092	0.005	0.006	0.008	0.000	0.000	0.000	0.000	1386.24	
23	0.6837	1127.8	1147.7	0.395	3.549	75.677	18.304	1.932	0.044	0.085	0.005	0.005	0.004	0.000	0.000	0.000	0.000	1388.13	
24	0.7044	1148.2	1168.5	0.484	4.117	72.272	20.340	2.544	0.066	0.145	0.011	0.013	0.008	0.000	0.000	0.000	0.000	1392.27	
25	0.6923	1138.2	1158.4	0.435	3.659	74.449	19.000	2.217	0.065	0.138	0.010	0.012	0.014	0.000	0.000	0.000	0.000	1392.20	
26	0.6943	1139.2	1159.4	0.442	3.778	74.144	19.079	2.294	0.071	0.153	0.011	0.013	0.014	0.000	0.000	0.000	0.000	1391.40	
27	0.7059	1148.3	1168.7	0.490	4.241	71.921	20.554	2.571	0.063	0.135	0.008	0.009	0.005	0.000	0.000	0.000	0.000	1390.96	
28	0.7002	1143.3	1163.6	0.441	4.089	72.786	20.150	2.323	0.058	0.127	0.009	0.010	0.007	0.000	0.000	0.000	0.000	1390.52	
29	0.6894	1140.7	1160.9	0.452	3.204	75.109	18.773	2.239	0.066	0.129	0.008	0.009	0.011	0.000	0.000	0.000	0.000	1398.26	
30	0.6887	1134.9	1155.0	0.519	3.391	75.376	18.160	2.327	0.069	0.130	0.009	0.010	0.009	0.000	0.000	0.000	0.000	1391.83	
Avg	0.6971	1139.0	1159.1	0.491	3.985	73.397	19.689	2.222	0.063	0.130	0.009	0.009	0.005	0.000	0.000	0.000	0.000	1388.30	

Zone 273

GQ Source Daily Summary

September 2011

Number: 041

Pressure Base: 14.730

Contract Day: 1

Name: BISMARCK-DICKINSON

Temperature Base:

Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6948	1137.4	1157.5	0.578	3.721	74.410	18.597	2.359	0.098	0.196	0.013	0.013	0.015	0.000	0.000	0.000	0.000	1388.74	
2	0.6894	1129.1	1149.1	0.570	3.744	75.004	18.365	2.072	0.076	0.141	0.008	0.007	0.013	0.000	0.000	0.000	0.000	1383.89	
3	0.6899	1129.5	1149.5	0.586	3.741	74.858	18.557	2.021	0.073	0.136	0.008	0.007	0.013	0.000	0.000	0.000	0.000	1383.90	
4	0.6905	1131.0	1151.0	0.582	3.705	74.843	18.516	2.119	0.073	0.134	0.008	0.007	0.014	0.000	0.000	0.000	0.000	1385.19	
5	0.6911	1133.3	1153.3	0.570	3.641	74.704	18.746	2.103	0.072	0.135	0.008	0.008	0.014	0.000	0.000	0.000	0.000	1387.40	
6	0.6905	1134.0	1154.1	0.548	3.572	74.826	18.735	2.064	0.071	0.143	0.010	0.012	0.018	0.000	0.000	0.000	0.000	1388.92	
7	0.6929	1139.5	1159.7	0.529	3.491	74.496	18.977	2.265	0.070	0.138	0.009	0.009	0.016	0.000	0.000	0.000	0.000	1393.24	
8	0.6907	1135.8	1156.0	0.534	3.510	74.761	18.841	2.127	0.067	0.130	0.008	0.008	0.015	0.000	0.000	0.000	0.000	1390.85	
9	0.6959	1137.0	1157.2	0.555	3.887	73.751	19.394	2.174	0.069	0.139	0.009	0.009	0.014	0.000	0.000	0.000	0.000	1387.21	
10	0.7049	1142.7	1162.9	0.471	4.523	71.588	21.090	2.132	0.052	0.114	0.007	0.008	0.014	0.000	0.000	0.000	0.000	1385.11	
11	0.7066	1145.4	1165.7	0.470	4.517	71.432	21.064	2.324	0.052	0.112	0.007	0.008	0.014	0.000	0.000	0.000	0.000	1386.75	
12	0.7044	1141.9	1162.1	0.472	4.527	71.666	21.035	2.099	0.054	0.117	0.007	0.008	0.014	0.000	0.000	0.000	0.000	1384.59	
13	0.7019	1138.7	1158.9	0.449	4.515	72.151	20.575	2.130	0.049	0.104	0.006	0.007	0.014	0.000	0.000	0.000	0.000	1383.28	
14	0.7047	1142.1	1162.3	0.472	4.544	71.757	20.753	2.281	0.053	0.113	0.007	0.008	0.012	0.000	0.000	0.000	0.000	1384.51	
15	0.7055	1145.0	1165.3	0.490	4.404	71.840	20.635	2.407	0.061	0.132	0.008	0.009	0.013	0.000	0.000	0.000	0.000	1387.37	
16	0.7062	1146.4	1166.7	0.499	4.379	71.551	21.072	2.290	0.057	0.122	0.008	0.009	0.014	0.000	0.000	0.000	0.000	1388.29	
17	0.7053	1144.0	1164.3	0.490	4.448	71.558	21.152	2.160	0.053	0.113	0.007	0.007	0.012	0.000	0.000	0.000	0.000	1386.36	
18	0.7045	1141.8	1162.0	0.476	4.528	71.638	21.055	2.119	0.051	0.109	0.006	0.007	0.011	0.000	0.000	0.000	0.000	1384.48	
19	0.7011	1141.6	1161.8	0.449	4.264	72.457	20.475	2.134	0.056	0.127	0.010	0.012	0.017	0.000	0.000	0.000	0.000	1387.55	
20	0.7067	1147.4	1167.7	0.493	4.371	71.567	20.944	2.421	0.057	0.117	0.007	0.008	0.014	0.000	0.000	0.000	0.000	1389.03	
21	0.7031	1142.3	1162.5	0.464	4.389	71.954	20.855	2.161	0.048	0.103	0.006	0.007	0.012	0.000	0.000	0.000	0.000	1386.44	
22	0.7058	1145.4	1165.7	0.486	4.419	71.493	21.206	2.204	0.053	0.113	0.007	0.007	0.012	0.000	0.000	0.000	0.000	1387.54	
23	0.6950	1138.7	1158.8	0.440	3.883	73.777	19.468	2.238	0.055	0.113	0.006	0.007	0.014	0.000	0.000	0.000	0.000	1390.09	
24	0.6955	1139.7	1159.9	0.453	3.844	73.745	19.544	2.170	0.061	0.137	0.011	0.014	0.019	0.000	0.000	0.000	0.000	1390.84	
25	0.6911	1136.8	1156.9	0.435	3.633	74.686	18.812	2.186	0.066	0.139	0.011	0.013	0.018	0.000	0.000	0.000	0.000	1391.67	
26	0.6991	1143.1	1163.3	0.475	3.947	73.221	19.722	2.396	0.065	0.138	0.009	0.011	0.017	0.000	0.000	0.000	0.000	1391.31	
27	0.7071	1148.8	1169.2	0.485	4.333	71.703	20.666	2.583	0.062	0.135	0.009	0.010	0.015	0.000	0.000	0.000	0.000	1390.36	
28	0.6941	1141.2	1161.4	0.429	3.661	73.926	19.628	2.147	0.057	0.119	0.008	0.010	0.015	0.000	0.000	0.000	0.000	1394.05	
29	0.6859	1135.2	1155.3	0.465	3.193	75.761	18.179	2.194	0.063	0.117	0.006	0.007	0.014	0.000	0.000	0.000	0.000	1395.03	
30	0.6934	1138.7	1158.8	0.579	3.515	74.655	18.550	2.435	0.077	0.149	0.011	0.012	0.016	0.000	0.000	0.000	0.000	1391.66	
Avg	0.6982	1140.0	1160.0	0.500	4.028	73.193	19.840	2.217	0.062	0.128	0.008	0.009	0.014	0.000	0.000	0.000	0.000	1388.19	

Zone 28

GQ Source Daily Summary September 2011

Number: 271

Pressure Base: 14.730

Contract Day: 1

Name: DICKINSON AREA

Temperature Base:

Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6825	1148.1	1168.4	0.102	2.647	74.491	21.830	0.877	0.016	0.035	0.000	0.000	0.002	0.000	0.000	0.000	0.000	1414.32	
2	0.6878	1140.1	1160.3	0.354	3.240	74.420	20.307	1.541	0.043	0.088	0.000	0.000	0.008	0.000	0.000	0.000	0.000	1399.18	
3	0.6959	1140.5	1160.7	0.574	3.641	74.384	18.468	2.582	0.107	0.225	0.004	0.005	0.009	0.000	0.000	0.000	0.000	1391.28	
4	0.6913	1132.3	1152.4	0.567	3.715	74.986	18.067	2.360	0.098	0.197	0.000	0.000	0.010	0.000	0.000	0.000	0.000	1385.98	
5	0.6868	1124.9	1144.9	0.555	3.759	75.505	17.832	2.116	0.076	0.148	0.000	0.000	0.008	0.000	0.000	0.000	0.000	1381.47	
6	0.6877	1124.8	1144.7	0.587	3.811	75.187	18.198	1.999	0.072	0.139	0.000	0.000	0.008	0.000	0.000	0.000	0.000	1380.34	
7	0.6887	1127.0	1146.9	0.588	3.770	75.130	18.163	2.126	0.074	0.142	0.000	0.000	0.008	0.000	0.000	0.000	0.000	1382.00	
8	0.6872	1126.0	1145.9	0.574	3.705	75.364	18.079	2.063	0.071	0.135	0.000	0.000	0.008	0.000	0.000	0.000	0.000	1382.33	
9	0.6911	1132.3	1152.4	0.570	3.689	74.709	18.626	2.177	0.074	0.146	0.000	0.000	0.008	0.000	0.000	0.000	0.000	1386.25	
10	0.6887	1132.1	1152.2	0.527	3.540	75.113	18.474	2.130	0.068	0.138	0.000	0.000	0.011	0.000	0.000	0.000	0.000	1388.41	
11	0.6885	1130.4	1150.4	0.536	3.616	75.141	18.368	2.122	0.068	0.138	0.001	0.001	0.009	0.000	0.000	0.000	0.000	1386.43	
12	0.7038	1139.8	1160.0	0.499	4.542	71.819	20.780	2.173	0.055	0.123	0.000	0.000	0.009	0.000	0.000	0.000	0.000	1382.72	
13	0.7034	1139.5	1159.7	0.469	4.570	71.876	20.697	2.216	0.050	0.115	0.000	0.000	0.008	0.000	0.000	0.000	0.000	1382.72	
14	0.7046	1141.7	1161.9	0.466	4.552	71.782	20.676	2.346	0.052	0.117	0.000	0.000	0.010	0.000	0.000	0.000	0.000	1384.21	
15	0.7041	1141.1	1161.3	0.462	4.554	71.806	20.702	2.306	0.050	0.112	0.000	0.000	0.008	0.000	0.000	0.000	0.000	1383.90	
16	0.7023	1138.0	1158.2	0.470	4.556	72.049	20.601	2.140	0.054	0.121	0.000	0.000	0.009	0.000	0.000	0.000	0.000	1382.02	
17	0.6997	1134.2	1154.3	0.456	4.562	72.529	20.174	2.101	0.052	0.117	0.000	0.000	0.010	0.000	0.000	0.000	0.000	1379.95	
18	0.7007	1135.5	1155.6	0.461	4.573	72.435	20.123	2.236	0.051	0.114	0.000	0.000	0.007	0.000	0.000	0.000	0.000	1380.51	
19	0.7033	1141.5	1161.7	0.498	4.392	72.191	20.315	2.416	0.057	0.125	0.000	0.000	0.007	0.000	0.000	0.000	0.000	1385.26	
20	0.7040	1142.4	1162.6	0.506	4.388	72.221	20.156	2.502	0.067	0.151	0.000	0.000	0.009	0.000	0.000	0.000	0.000	1385.67	
21	0.6848	1153.2	1173.6	0.061	2.612	74.038	22.297	0.968	0.006	0.015	0.000	0.000	0.003	0.000	0.000	0.000	0.000	1418.28	
22	0.6815	1153.3	1173.7	0.008	2.373	74.480	22.337	0.799	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.84	
23	0.6829	1151.6	1172.0	0.035	2.569	74.337	22.112	0.933	0.000	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.27	
24	0.6821	1152.7	1173.2	0.019	2.455	74.417	22.232	0.871	0.000	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.42	
25	0.6821	1152.6	1173.0	0.013	2.467	74.397	22.273	0.850	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.29	
26	0.6827	1154.6	1175.1	0.007	2.411	74.242	22.517	0.823	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.15	
27	0.6807	1153.4	1173.8	0.000	2.308	74.582	22.373	0.738	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.73	
28	0.6811	1153.7	1174.2	0.000	2.324	74.470	22.490	0.716	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.75	
29	0.6806	1152.6	1173.0	0.000	2.344	74.571	22.371	0.714	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.91	
30	0.6805	1153.0	1173.4	0.000	2.315	74.579	22.396	0.710	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.45	
Avg	0.6907	1141.0	1161.6	0.332	3.467	73.908	20.468	1.688	0.042	0.089	0.000	0.000	0.006	0.000	0.000	0.000	0.000	1397.87	

Zone 31

GQ Source Daily Summary

September 2011

Number: 051

Pressure Base: 14.730

Contract Day: 1

Name: CABIN CR-DICKINSON

Temperature Base:

Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6844	1147.3	1167.7	0.167	2.774	74.426	21.509	1.036	0.026	0.051	0.003	0.003	0.005	0.000	0.000	0.000	0.000	1411.50	
2	0.6827	1153.4	1173.8	0.038	2.450	74.204	22.601	0.676	0.011	0.018	0.001	0.000	0.001	0.000	0.000	0.000	0.000	1420.64	
3	0.6827	1152.6	1173.1	0.039	2.491	74.206	22.556	0.676	0.011	0.019	0.001	0.001	0.001	0.000	0.000	0.000	0.000	1419.76	
4	0.6878	1146.9	1167.2	0.256	2.989	74.159	21.134	1.325	0.041	0.082	0.005	0.006	0.004	0.000	0.000	0.000	0.000	1407.41	
5	0.6872	1146.5	1166.8	0.257	2.955	74.433	20.771	1.424	0.048	0.095	0.006	0.006	0.005	0.000	0.000	0.000	0.000	1407.49	
6	0.6865	1148.7	1169.0	0.195	2.850	74.240	21.393	1.198	0.038	0.073	0.004	0.004	0.004	0.000	0.000	0.000	0.000	1410.92	
7	0.6839	1143.3	1163.6	0.208	2.918	74.678	20.933	1.161	0.032	0.060	0.003	0.003	0.004	0.000	0.000	0.000	0.000	1406.95	
8	0.6822	1140.0	1160.1	0.226	2.935	74.943	20.721	1.081	0.030	0.054	0.003	0.003	0.004	0.000	0.000	0.000	0.000	1404.56	
9	0.6841	1144.5	1164.8	0.196	2.879	74.529	21.229	1.077	0.029	0.052	0.003	0.002	0.004	0.000	0.000	0.000	0.000	1408.27	
10	0.6852	1143.4	1163.6	0.248	2.965	74.575	20.845	1.257	0.035	0.064	0.003	0.003	0.004	0.000	0.000	0.000	0.000	1405.81	
11	0.6867	1144.4	1164.7	0.276	3.001	74.535	20.611	1.440	0.040	0.079	0.005	0.006	0.007	0.000	0.000	0.000	0.000	1405.50	
12	0.6866	1143.6	1163.9	0.284	3.031	74.598	20.459	1.495	0.040	0.078	0.004	0.005	0.006	0.000	0.000	0.000	0.000	1404.60	
13	0.6879	1143.3	1163.6	0.262	3.206	74.158	20.845	1.413	0.034	0.067	0.004	0.004	0.006	0.000	0.000	0.000	0.000	1402.87	
14	0.6889	1150.7	1171.0	0.148	3.025	73.547	22.040	1.165	0.022	0.044	0.003	0.003	0.004	0.000	0.000	0.000	0.000	1410.96	
15	0.6880	1152.6	1173.0	0.112	2.882	73.573	22.306	1.067	0.018	0.035	0.002	0.002	0.003	0.000	0.000	0.000	0.000	1414.23	
16	0.6873	1153.2	1173.6	0.092	2.810	73.666	22.341	1.039	0.016	0.031	0.001	0.001	0.002	0.000	0.000	0.000	0.000	1415.65	
17	0.6880	1153.6	1174.0	0.098	2.845	73.552	22.384	1.066	0.017	0.033	0.002	0.002	0.002	0.000	0.000	0.000	0.000	1415.40	
18	0.6899	1150.6	1171.0	0.160	3.110	73.402	22.020	1.228	0.024	0.048	0.003	0.003	0.004	0.000	0.000	0.000	0.000	1409.80	
19	0.6869	1144.6	1164.9	0.182	3.158	74.061	21.252	1.269	0.023	0.046	0.002	0.003	0.004	0.000	0.000	0.000	0.000	1405.45	
20	0.6872	1155.1	1175.5	0.078	2.708	73.706	22.395	1.061	0.016	0.030	0.001	0.001	0.003	0.000	0.000	0.000	0.000	1418.05	
21	0.6311	1041.7	1060.2	0.430	3.797	85.295	9.423	1.007	0.018	0.025	0.001	0.001	0.001	0.000	0.000	0.000	0.000	1334.07	
22	0.6031	988.9	1006.4	0.812	3.804	90.881	3.953	0.522	0.012	0.014	0.001	0.000	0.001	0.000	0.000	0.000	0.000	1295.80	
23	0.6132	1008.3	1026.1	0.621	3.864	88.852	5.875	0.756	0.014	0.016	0.001	0.000	0.001	0.000	0.000	0.000	0.000	1310.17	
24	0.6836	1154.0	1174.4	0.039	2.494	74.227	22.323	0.889	0.010	0.017	0.000	0.001	0.001	0.000	0.000	0.000	0.000	1420.43	
25	0.6816	1151.2	1171.6	0.026	2.501	74.366	22.419	0.667	0.008	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.04	
26	0.6829	1155.4	1175.9	0.004	2.398	74.000	23.004	0.580	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.94	
27	0.6824	1154.2	1174.6	0.004	2.429	74.056	22.956	0.541	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.89	
28	0.6831	1155.4	1175.9	0.006	2.411	73.987	22.978	0.602	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.76	
29	0.6828	1156.0	1176.4	0.000	2.366	73.995	23.062	0.563	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.65	
30	0.6824	1155.2	1175.7	0.000	2.374	74.011	23.104	0.500	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.16	
Avg	0.6784	1136.0	1156.1	0.182	2.881	75.562	20.315	0.993	0.021	0.040	0.002	0.002	0.003	0.000	0.000	0.000	0.000	1403.32	

Zone 32

GQ Source Daily Summary

September 2011

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	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6855	1158.9	1179.5	0.000	2.430	73.473	23.506	0.575	0.006	0.008	0.000	0.000	0.002	0.000	0.000	0.000	0.000	1424.61	
2	0.6856	1159.3	1179.9	0.000	2.419	73.440	23.555	0.572	0.006	0.008	0.000	0.000	0.002	0.000	0.000	0.000	0.000	1424.95	
3	0.6861	1160.1	1180.7	0.000	2.415	73.358	23.628	0.584	0.006	0.008	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1425.44	
4	0.6861	1160.6	1181.1	0.000	2.391	73.349	23.664	0.581	0.006	0.008	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1425.95	
5	0.6861	1160.2	1180.8	0.000	2.408	73.387	23.571	0.619	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.57	
6	0.6853	1158.8	1179.4	0.000	2.422	73.531	23.425	0.607	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.63	
7	0.6853	1158.7	1179.2	0.000	2.432	73.507	23.455	0.591	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.45	
8	0.6839	1156.7	1177.1	0.000	2.419	73.697	23.389	0.483	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.46	
9	0.6870	1161.3	1181.9	0.000	2.429	73.353	23.429	0.772	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.90	
10	0.6868	1161.2	1181.8	0.000	2.416	73.391	23.408	0.768	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.02	
11	0.6862	1160.2	1180.8	0.000	2.419	73.500	23.310	0.754	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.42	
12	0.6867	1162.1	1182.7	0.000	2.346	73.443	23.414	0.779	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.29	
13	0.6860	1161.1	1181.7	0.000	2.348	73.549	23.335	0.751	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.70	
14	0.6865	1161.3	1181.9	0.000	2.385	73.426	23.431	0.741	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.40	
15	0.6866	1161.6	1182.2	0.000	2.368	73.420	23.453	0.742	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.78	
16	0.6874	1162.5	1183.1	0.000	2.393	73.310	23.474	0.806	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.00	
17	0.6871	1162.6	1183.2	0.000	2.360	73.378	23.434	0.811	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.42	
18	0.6871	1163.2	1183.8	0.000	2.323	73.422	23.398	0.838	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1428.11	
19	0.6874	1163.4	1184.0	0.000	2.338	73.402	23.357	0.884	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1428.08	
20	0.6869	1162.5	1183.0	0.000	2.352	73.408	23.427	0.795	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.40	
21	0.6846	1160.2	1180.8	0.000	2.267	73.809	23.196	0.710	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.11	
22	0.6860	1161.9	1182.4	0.000	2.306	73.630	23.213	0.832	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.57	
23	0.6859	1160.7	1181.2	0.000	2.367	73.448	23.530	0.642	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.25	
24	0.6864	1161.4	1182.0	0.000	2.373	73.251	23.805	0.560	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.61	
25	0.6860	1160.5	1181.0	0.000	2.392	73.303	23.762	0.532	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.90	
26	0.6864	1160.8	1181.3	0.000	2.405	73.222	23.838	0.523	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.90	
27	0.6867	1161.6	1182.2	0.000	2.381	73.205	23.844	0.559	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.64	
28	0.6861	1160.9	1181.5	0.000	2.368	73.274	23.837	0.510	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.41	
29	0.6853	1159.6	1180.1	0.000	2.379	73.413	23.701	0.496	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.54	
30	0.6852	1159.4	1179.9	0.000	2.376	73.465	23.633	0.514	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.47	
Avg	0.6861	1161.0	1181.3	0.000	2.381	73.425	23.514	0.664	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.17	

Zone 33

GQ Source Daily Summary

September 2011

Number: 331

Pressure Base: 14.730

Contract Day: 1

Name: MARMARTH PLANT

Temperature Base:

Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7839	1115.2	1135.0	1.578	11.961	55.754	28.071	2.358	0.062	0.184	0.008	0.021	0.004	0.000	0.000	0.000	0.000	1281.92	
2	0.7873	1118.5	1138.3	1.812	11.727	55.553	28.075	2.532	0.067	0.199	0.009	0.023	0.004	0.000	0.000	0.000	0.000	1282.84	
3	0.7894	1115.9	1135.7	2.039	11.732	55.346	28.045	2.540	0.067	0.198	0.008	0.022	0.004	0.000	0.000	0.000	0.000	1278.25	
4	0.7904	1108.4	1128.0	2.012	12.332	55.125	27.611	2.595	0.071	0.215	0.010	0.025	0.005	0.000	0.000	0.000	0.000	1268.80	
5	0.7889	1111.4	1131.0	2.036	11.967	55.437	27.707	2.548	0.068	0.202	0.009	0.023	0.004	0.000	0.000	0.000	0.000	1273.46	
6	0.7889	1103.5	1123.0	1.882	12.692	55.173	27.398	2.537	0.070	0.210	0.009	0.024	0.004	0.000	0.000	0.000	0.000	1264.42	
7	0.7909	1108.9	1128.5	1.964	12.417	55.085	27.523	2.667	0.076	0.227	0.010	0.026	0.005	0.000	0.000	0.000	0.000	1269.11	
8	0.7915	1107.3	1126.9	2.022	12.482	55.016	27.462	2.675	0.075	0.226	0.010	0.026	0.005	0.000	0.000	0.000	0.000	1266.79	
9	0.7935	1113.3	1133.0	2.086	12.210	54.738	27.911	2.710	0.076	0.227	0.010	0.026	0.005	0.000	0.000	0.000	0.000	1272.01	
10	0.7927	1109.4	1129.0	2.085	12.372	54.939	27.507	2.747	0.077	0.232	0.010	0.027	0.005	0.000	0.000	0.000	0.000	1268.21	
11	0.7935	1109.4	1129.1	2.138	12.369	54.893	27.435	2.804	0.079	0.238	0.011	0.028	0.005	0.000	0.000	0.000	0.000	1267.57	
12	0.7923	1107.7	1127.3	2.027	12.525	54.835	27.612	2.660	0.075	0.226	0.010	0.026	0.004	0.000	0.000	0.000	0.000	1266.57	
13	0.7899	1117.3	1137.0	1.916	11.889	55.414	27.701	2.709	0.081	0.245	0.011	0.029	0.005	0.000	0.000	0.000	0.000	1279.32	
14	0.7907	1121.2	1141.0	1.844	11.829	55.297	27.866	2.780	0.084	0.253	0.011	0.030	0.006	0.000	0.000	0.000	0.000	1283.17	
15	0.7928	1122.7	1142.6	1.882	11.869	54.970	28.057	2.830	0.086	0.260	0.011	0.030	0.005	0.000	0.000	0.000	0.000	1283.32	
16	0.7905	1119.9	1139.7	1.853	11.870	55.408	27.667	2.801	0.087	0.265	0.012	0.032	0.006	0.000	0.000	0.000	0.000	1281.93	
17	0.7906	1122.3	1142.2	1.877	11.695	55.346	27.939	2.771	0.082	0.246	0.011	0.028	0.005	0.000	0.000	0.000	0.000	1284.63	
18	0.7941	1129.1	1149.1	1.953	11.497	54.943	28.286	2.922	0.087	0.265	0.012	0.031	0.005	0.000	0.000	0.000	0.000	1289.52	
19	0.7924	1121.7	1141.6	1.923	11.830	55.111	27.903	2.845	0.084	0.256	0.012	0.030	0.005	0.000	0.000	0.000	0.000	1282.50	
20	0.7934	1127.1	1147.1	1.876	11.666	54.924	28.276	2.858	0.087	0.264	0.012	0.031	0.005	0.000	0.000	0.000	0.000	1287.86	
21	0.7924	1119.5	1139.3	1.955	11.923	55.142	27.737	2.845	0.086	0.263	0.012	0.031	0.006	0.000	0.000	0.000	0.000	1279.87	
22	0.7865	1106.9	1126.5	1.954	12.140	55.982	26.949	2.635	0.075	0.225	0.010	0.026	0.005	0.000	0.000	0.000	0.000	1270.20	
23	0.7873	1106.5	1126.1	1.879	12.355	55.517	27.423	2.514	0.069	0.206	0.009	0.024	0.004	0.000	0.000	0.000	0.000	1269.16	
24	0.7867	1097.1	1116.5	1.790	13.007	55.387	27.043	2.474	0.066	0.196	0.009	0.022	0.004	0.000	0.000	0.000	0.000	1258.95	
25	0.7862	1100.5	1120.0	1.630	12.990	55.353	27.257	2.458	0.069	0.205	0.009	0.023	0.005	0.000	0.000	0.000	0.000	1263.34	
26	0.7874	1095.0	1114.4	1.621	13.457	55.021	27.145	2.433	0.072	0.213	0.009	0.024	0.005	0.000	0.000	0.000	0.000	1256.15	
27	0.7955	1111.9	1131.6	2.002	12.611	54.319	27.895	2.817	0.078	0.236	0.010	0.027	0.005	0.000	0.000	0.000	0.000	1268.74	
28	0.7889	1110.8	1130.5	1.925	12.168	55.317	27.734	2.534	0.071	0.213	0.009	0.025	0.004	0.000	0.000	0.000	0.000	1272.87	
29	0.7864	1101.5	1121.0	1.827	12.654	55.436	27.397	2.399	0.063	0.191	0.008	0.021	0.004	0.000	0.000	0.000	0.000	1264.17	
30	0.7823	1094.1	1113.5	1.688	12.938	55.935	26.896	2.261	0.062	0.187	0.008	0.021	0.004	0.000	0.000	0.000	0.000	1258.89	
Avg	0.7899	1112.0	1131.5	1.903	12.239	55.224	27.651	2.642	0.075	0.226	0.010	0.026	0.005	0.000	0.000	0.000	0.000	1273.15	

Zone 34

GQ Source Analysis

Williston Basin Interstate Pipeline Co.

GQ Source Number:	1201140	Specific Gravity:	0.5726
GQ Source Name:	EAGLE 8B ND	BTU Base:	Dry
Effective Date:	6/1/2011 9:00:00 AM	Measured Heat Value:	979.03
Effective End Date:	1/18/2038 9:14:07 PM	Dry Heat Value:	978.94
Pressure Base:	14.730	Wet Heat Value:	961.90
Viscosity:		As Deliv. Heat Value:	978.94
		Sample Pressure:	32.00
		Sample Temperature:	

	<u>Mol %</u>	<u>GPM</u>		<u>Mol %</u>
C1 Methane	95.931		CO2 Carbon Dioxide	0.106
C2 Ethane	0.312	0.083	N2 Nitrogen	3.634
C3 Propane	0.009	0.003	O2 Oxygen	0.000
IC4 Iso-Butane	0.007	0.002	HE Helium	
NC4 N-Butane	0.000	0.000	H2 Hydrogen	
IC5 Iso-Pentane	0.000	0.000	H2S Hydrogen Sulfide	
NC5 N-Pentane	0.000	0.000	AR Argon	
C6 Hexane	0.000	0.000	CO Carbon Monoxide	
C7 Heptane			H2O Water	
C8 Octane			Neo-C5 Neo-Pentane	
C9 Nonane				
C10 Decane				
Totals		100.000%	0.088 GPM	

Sample Date: 6/22/2011 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks:

Analysis Tech: Mary Berger

Analysis Remarks:

Zone 35

NORTH DAKOTA HEATING VALUE ZONES		
ZONES	MEASURING DEVICE	LOCATION
211	Chromatograph	Sidney Area
24	Monthly Sampler	Williston Area
241	Monthly Sampler	Fairview 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	Chromatograph	Bowman Area
35	Monthly Sampler	Baker Field – North Dakota

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

STATE	ZONE	ZONE BOUNDARY	12 MONTH AVERAGE	SEPT 11	AUG 11	JULY 11	JUNE 11	MAY 11	APR 11	MAR 11	FEB 11	JAN 11	DEC 10	NOV 10	OCT 10	ZONE
MT/ND	211	Sidney Area	1209	1199	1204	1215	1205	1206	1202	1211	1216	1212	1218	1210	1206	211
ND	24	Williston Area	1199	1200	1200	1198	1197	1196	1194	1198	1196	1204	1207	1208	1193	24
ND	25	Watford City Area	1137	1136	1136	1135	1140	1128	1143	1143	1131	1150	1135	1133	1130	25
ND/MT	241	Fairview Area	1197	1200	1200	1199	1193	1193	1194	1197	0	0	0	0	0	241
ND	261	Williston - Tioga - Minot Line	1159	1144	1159	1176	1165	1159	1162	1172	1176	1171	1154	1135	1140	261
ND	262	Minot Area	1175	1160	1161	1179	1168	1161	1167	1175	1178	1182	1191	1186	1190	262
ND	263	Tioga - Portal	1107	1128	1128	1126	1082	1093	1123	1094	1090	1094	1100	1107	1120	263
ND	264	Williston - Ray	1199	1200	1200	1198	1197	1196	1194	1198	1196	1204	1207	1208	1193	264
ND	271	Bismarck - Cleveland	1157	1159	1160	1177	1166	1152	1161	1136	1118	1130	1160	1172	1190	271
ND	272	Cleveland - Mapleton	1156	1159	1160	1179	1166	1151	1161	1134	1117	1130	1159	1171	1190	272
ND	273	Cleveland - Grafton	1157	1159	1160	1179	1167	1151	1161	1135	1117	1130	1159	1172	1190	273
ND	28	Bismarck - Cabin Creek	1115	1160	1160	1180	1166	1139	1112	1051	1042	1045	1055	1097	1173	28
ND	31	Dickinson Area	1094	1162	1152	1135	1123	1109	1093	1049	1040	1044	1053	1082	1088	31
ND/MT	32	Cabin Creek - Dickinson	1087	1156	1126	1133	1153	1080	1071	1046	1037	1041	1050	1079	1075	32
ND	33	Killdeer	1178	1181	1181	1182	1183	1180	1177	1175	1175	1175	1175	1177	1179	33
ND	34	Bowman Area	1155	1132	1138	1144	1149	1153	1154	1163	1158	1163	1172	1167	1163	34
ND	35	Baker Field - North Dakota	979	979	979	979	979	979	979	979	979	979	979	979	979	35

THERMAL ZONE VARIANCE DOCUMENTATION		
September 2011		
<i>ZONE</i>	<i>BTU VARIANCE</i>	<i>REASON</i>
32	30	Higher BTU gas from the East