



MONTANA-DAKOTA

UTILITIES CO.

A Division of MDU Resources Group, Inc.

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

April 8, 2008

RECEIVED

APR 09 2008

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 – February 2008

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

1. Attachment A is a schedule showing the thermal billing factors by community that reflect the BTU values shown on Attachment B and were used for billing purposes in March 2008.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our supplier for the month of February 2008. There is a report for each of the 15 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 February.

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

3 PU-08-2 Filed: 4/9/2008 Pages: 22
February 2008 Report

MONTANA-DAKOTA UTILITIES CO.
 Therm Billing Factor
 MAR 2008

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
12	314	APPLE VALLEY	271	1.0160
12	327	BISMARCK	28	.9861
12	343	CARRINGTON	273	1.0151
12	344	CLEVELAND	272	1.0079
12	364	CAVALIER	273	1.0364
12	365	DAWSON	271	1.0089
12	374	FT TOTTEN	273	1.0222
12	375	DEVILS LAKE	273	1.0222
12	379	BARLOW	273	1.0151
12	387	ELDRIDGE	272	1.0151
12	411	GLEN ULLIN	31	.9643
12	417	GRAFTON	273	1.0436
12	449	JAMESTOWN	272	1.0222
12	463	LANGDON	273	1.0151
12	475	LINTON	802	.9736
12	478	LINCOLN	28	.9861
12	494	MEDINA	271	1.0089
12	498	MANDAN	28	.9861
12	524	NEW SALEM	28	.9653
12	532	NEW ROCKFORD	273	1.0151
12	539	PARK RIVER	273	1.0364
12	574	SANBORN	272	1.0222
12	593	STEELE	271	1.0089
12	598	SHEYENNE	273	1.0222
12	610	TAPPEN	271	1.0089
12	625	VALLEY CITY	272	1.0293
12	629	WALHALLA	273	1.0364
12	647	WILTON	262	1.0645
12	717	SPIRITWOOD	272	1.0222
12	732	MSR SITE	273	1.0151
12	733	PAR SITE	273	1.0151
15	303	ALEXANDER	25	1.0626
15	308	ARNEGARD	25	1.0626
15	318	BEACH	32	.9417
15	319	BELFIELD	32	.9486

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
MAR 2008

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	323	BERTHOLD	261	1.0635
15	330	BOWMAN	34	1.0687
15	337	BURLINGTON	262	1.0874
15	368	DES LACS	261	1.0712
15	369	DICKINSON	31	.9574
15	384	EPPING	261	1.0635
15	407	GLADSTONE	31	.9574
15	413	GOLVA	32	.9279
15	416	GARRISON	262	1.0721
15	429	HEBRON	31	.9643
15	459	KILLDEER	33	1.0560
15	469	LEFOR	31	.9574
15	474	LIGNITE	263	1.0750
15	500	MARMARTH	34	1.0766
15	505	MINOT	262	1.0874
15	510	MOTT	31	.9574
15	512	MAX	262	1.0645
15	522	NEW ENGLAND	31	.9504
15	540	PALERMO	261	1.0635
15	558	RAY	261	1.0635
15	561	REGENT	31	.9574
15	563	RHAME	34	1.0608
15	564	RICHARDTON	31	.9504
15	568	ROSS	261	1.0559
15	572	RUTHVILLE	262	1.0874
15	583	SENTINEL BUTTE	32	.9417
15	588	SOUTH HEART	31	.9504
15	590	SPRINGBROOK	261	1.0635
15	591	STANLEY	261	1.0635
15	605	SURREY	262	1.0874
15	611	TAYLOR	31	.9504
15	616	TIOGA	261	1.0559
15	619	TURTLE LAKE	262	1.0721
15	620	TRENTON	24	1.1159
15	624	UNDERWOOD	262	1.0721

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
MAR 2008

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	632	WATFORD CITY	25	1.0626
15	636	WHEELOCK	261	1.0559
15	637	WHITE EARTH	261	1.0635
15	642	WILLISTON	24	1.1159
15	646	WASHBURN	262	1.0798
15	664	RIVERDALE	262	1.0721
15	691	FAIRVIEW	24	1.1159
15	712	MINOT AFB	262	1.0874
15	743	BAKER FIELD	35	.8953

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

GQ Source Daily Summary

February 2008

Number: 251

Name: SIDNEY BORDER

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	Crit'herm
1	0.5968	973.1	990.4		0.115	5.228	90.896	3.578	0.173	0.005	0.004	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1281.92	
2	0.6121	1002.4	1020.2		0.101	4.899	88.078	6.480	0.415	0.011	0.013	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1303.87	
3	0.6107	999.8	1017.5		0.104	4.926	88.256	6.356	0.348	0.005	0.004	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1301.96	
4	0.6166	1011.3	1029.2		0.099	4.786	87.146	7.542	0.413	0.007	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1310.32	
5	0.6133	1004.4	1022.2		0.112	4.880	87.991	6.437	0.540	0.016	0.022	0.001	0.001	0.001	0.000	0.000	0.000	0.000	1304.78	
6	0.6253	1023.8	1041.9		0.174	4.731	85.780	8.571	0.710	0.013	0.018	0.001	0.001	0.001	0.000	0.000	0.000	0.000	1317.03	
7	0.6214	1020.2	1038.2		0.100	4.700	86.289	8.370	0.520	0.011	0.011	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1316.73	
8	0.6019	982.6	1000.0		0.115	5.130	89.932	4.580	0.234	0.006	0.004	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1288.79	
9	0.5918	963.0	980.1		0.124	5.356	91.868	2.519	0.127	0.004	0.002	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1273.99	
10	0.6013	981.5	998.9		0.115	5.136	90.075	4.413	0.250	0.006	0.005	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1288.15	
11	0.5951	969.8	987.0		0.119	5.263	91.226	3.222	0.162	0.004	0.002	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1279.38	
12	0.6228	1023.4	1041.6		0.091	4.640	85.951	8.831	0.469	0.009	0.008	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1319.71	
13	0.6051	988.6	1006.1		0.111	5.076	89.382	5.094	0.321	0.009	0.008	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1293.18	
14	0.6263	1029.9	1048.2		0.090	4.575	85.324	9.447	0.542	0.010	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1324.35	
15	0.6293	1035.9	1054.3		0.085	4.501	84.736	10.088	0.572	0.008	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1328.77	
16	0.6387	1053.9	1072.6		0.079	4.296	82.970	11.943	0.693	0.010	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1341.70	
17	0.6050	988.1	1005.6		0.113	5.082	89.450	4.977	0.357	0.010	0.009	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1292.83	
18	0.6242	1025.6	1043.7		0.092	4.644	85.769	8.912	0.555	0.013	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1320.43	
19	0.6036	985.7	1003.2		0.112	5.102	89.648	4.834	0.289	0.007	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1291.19	
20	0.6013	981.1	998.5		0.113	5.159	90.082	4.371	0.265	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1287.68	
21	0.5998	978.4	995.7		0.114	5.190	90.366	4.068	0.251	0.005	0.004	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1285.60	
22	0.6056	989.1	1006.6		0.108	5.087	89.273	5.198	0.322	0.006	0.005	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1293.46	
23	0.6110	999.6	1017.3		0.102	4.962	88.196	6.386	0.343	0.006	0.004	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1301.34	
24	0.6560	1086.2	1105.4		0.060	3.987	79.828	15.056	1.042	0.015	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1364.02	
25	0.6140	1004.9	1022.7		0.100	4.932	87.631	6.922	0.402	0.007	0.005	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1305.02	
26	0.6426	1060.7	1079.5		0.069	4.267	82.350	12.443	0.821	0.021	0.028	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1346.03	
27	0.6479	1071.9	1090.8		0.063	4.097	81.170	13.876	0.776	0.010	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1354.82	
28	0.6273	1031.4	1049.7		0.086	4.587	85.139	9.597	0.573	0.010	0.008	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1324.57	
29	0.6203	1017.9	1035.9		0.096	4.740	86.434	8.253	0.461	0.008	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1315.09	
Avg	0.6161	1010.0	1027.7		0.102	4.826	87.284	7.323	0.446	0.009	0.009	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1308.85	

Zone 211

Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	0602330	Specific Gravity:	0.7108
GQ Source Name:	WILLISTON BORDER	BTU Base:	Dry
Effective Date:	2/14/2008 9:00:00 AM	Dry Heat Value:	1172.84
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	1152.43
Pressure Base:	14.730	As Deliv. Heat Value:	1172.84
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	71.635		
C2	Ethane	20.131		5.368
C3	Propane	3.216	0.884	0.883
IC4	Iso-Butane	0.091	0.030	0.030
NC4	N-Butane	0.154	0.049	0.049
IC5	Iso-Pentane	0.008	0.003	0.003
NC5	N-Pentane	0.007	0.003	0.003
C6+	Hexanes Plus	0.000	0.000	0.000
CO2	Carbon Dioxide	0.763		
N2	Nitrogen	3.995		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
Totals		100.000	0.968	6.335

Sample Date: 1/31/2008 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks: *Zone 24*

Analysis Remarks:

Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	0602230	Specific Gravity:	0.7286
GQ Source Name:	WATFORD CITY BORDER	BTU Base:	Dry
Effective Date:	2/14/2008 9:00:00 AM	Dry Heat Value:	1124.54
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	1104.97
Pressure Base:	14.730	As Deliv. Heat Value:	1124.54
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	68.466		
C2	Ethane	17.857		4.761
C3	Propane	3.737	1.027	1.027
IC4	Iso-Butane	0.191	0.062	0.062
NC4	N-Butane	0.340	0.107	0.107
IC5	Iso-Pentane	0.027	0.010	0.010
NC5	N-Pentane	0.026	0.009	0.009
C6+	Hexanes Plus	0.005	0.002	0.002
CO2	Carbon Dioxide	0.738		
N2	Nitrogen	8.613		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
Totals		100.000	1.218	5.979

Sample Date: 1/31/2008 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks: Zone 25

Analysis Remarks:

GQ Source Daily Summary

February 2008

Number: 163

Name: NORTH TIOGA MINOT

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	Cr'itherm
1	0.6717	1100.5	1120.0		0.427	4.037	77.832	15.834	1.751	0.041	0.067	0.003	0.002	0.005					1366.53	
2	0.6688	1095.7	1115.1		0.419	4.068	78.317	15.435	1.638	0.041	0.068	0.003	0.002	0.009					1363.53	
3	0.6688	1095.7	1115.1		0.419	4.068	78.317	15.435	1.638	0.041	0.068	0.003	0.002	0.008					1363.58	
4	0.6737	1107.8	1127.4		0.402	3.818	77.419	16.523	1.712	0.042	0.070	0.003	0.002	0.008					1373.60	
5	0.6737	1107.8	1127.4		0.402	3.818	77.419	16.523	1.712	0.042	0.070	0.003	0.002	0.009					1373.60	
6	0.6737	1107.8	1127.4		0.402	3.818	77.419	16.523	1.712	0.042	0.070	0.003	0.002	0.009					1373.56	
7	0.6763	1108.0	1127.4		0.446	3.981	77.084	16.477	1.880	0.044	0.074	0.003	0.003	0.008					1371.18	
8	0.6831	1116.8	1136.6		0.501	3.998	75.990	17.268	2.095	0.051	0.084	0.004	0.003	0.005					1375.21	
9	0.6700	1097.1	1116.6		0.439	4.062	78.117	15.591	1.668	0.043	0.071	0.003	0.002	0.003					1364.09	
10	0.6660	1091.1	1110.4		0.410	4.099	78.715	15.167	1.492	0.040	0.066	0.003	0.002	0.005					1360.65	
11	0.6650	1089.1	1108.4		0.373	4.180	78.753	15.201	1.388	0.036	0.059	0.003	0.002	0.006					1359.24	
12	0.6670	1095.0	1114.4		0.385	3.994	78.541	15.448	1.510	0.040	0.067	0.003	0.002	0.009					1364.46	
13	0.6719	1103.6	1123.1		0.407	3.897	77.530	16.576	1.467	0.043	0.070	0.003	0.002	0.005					1370.19	
14	0.6686	1095.7	1115.1		0.431	4.035	78.205	15.738	1.464	0.043	0.071	0.003	0.002	0.007					1363.68	
15	0.6773	1110.9	1130.6		0.440	3.910	76.741	17.053	1.718	0.046	0.077	0.003	0.003	0.009					1373.72	
16	0.6817	1116.0	1135.8		0.473	3.962	76.308	16.976	2.122	0.054	0.090	0.004	0.003	0.008					1375.56	
17	0.6840	1119.9	1139.8		0.476	3.927	75.929	17.296	2.228	0.051	0.083	0.004	0.003	0.004					1378.15	
18	0.6741	1104.1	1123.6		0.444	4.010	77.428	16.219	1.768	0.045	0.073	0.004	0.003	0.007					1368.61	
19	0.6748	1106.1	1125.7		0.440	3.967	77.190	16.576	1.697	0.046	0.074	0.003	0.003	0.004					1370.35	
20	0.6671	1092.8	1112.1		0.426	4.077	78.519	15.358	1.504	0.040	0.065	0.003	0.002	0.006					1361.60	
21	0.6692	1096.0	1115.4		0.438	4.061	78.273	15.447	1.653	0.044	0.071	0.003	0.002	0.006					1363.44	
22	0.6743	1102.9	1122.4		0.461	4.081	77.521	15.914	1.873	0.051	0.085	0.004	0.003	0.007					1366.87	
23	0.6759	1105.8	1125.4		0.460	4.050	77.192	16.296	1.853	0.050	0.084	0.004	0.003	0.008					1368.92	
24	0.6748	1107.9	1127.5		0.421	3.883	77.142	16.796	1.623	0.044	0.075	0.004	0.003	0.009					1372.59	
25	0.6893	1126.6	1146.5		0.537	3.934	74.814	18.453	2.091	0.058	0.096	0.005	0.004	0.009					1380.94	
26	0.6792	1110.2	1129.9		0.479	4.064	76.549	16.897	1.858	0.052	0.086	0.004	0.003	0.009					1371.03	
27	0.6858	1120.8	1140.7		0.504	3.999	75.484	17.768	2.076	0.056	0.095	0.005	0.004	0.010					1377.44	
28	0.6836	1119.2	1139.0		0.481	3.935	75.775	17.692	1.955	0.055	0.091	0.005	0.004	0.009					1377.56	
29	0.6855	1120.9	1140.8		0.508	3.958	75.577	17.695	2.091	0.058	0.096	0.005	0.004	0.009					1377.87	
Avg	0.6750	1106.0	1125.5		0.443	3.989	77.245	16.420	1.767	0.046	0.076	0.004	0.003	0.007					1369.92	

Zone 261

GQ Source Daily Summary

February 2008

Number: 091

Name: MINOT

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	Crit'herm
1	0.6717	1101.1	1120.6		0.438	3.984	77.877	15.813	1.768	0.041	0.068	0.000	0.000	0.010	0.000	0.000			1367.25	
2	0.6703	1099.0	1118.5		0.428	3.991	78.088	15.686	1.685	0.041	0.068	0.000	0.000	0.013	0.000	0.000			1366.12	
3	0.6721	1102.3	1121.8		0.433	3.960	77.746	16.026	1.709	0.043	0.072	0.000	0.000	0.011	0.000	0.000			1368.28	
4	0.6760	1108.6	1128.3		0.442	3.918	77.073	16.636	1.802	0.045	0.075	0.000	0.000	0.010	0.000	0.000			1372.28	
5	0.6728	1103.7	1123.3		0.431	3.938	77.575	16.252	1.680	0.043	0.071	0.000	0.000	0.010	0.000	0.000			1369.40	
6	0.6738	1109.6	1129.2		0.387	3.740	77.335	16.766	1.650	0.040	0.069	0.000	0.000	0.013	0.000	0.000			1375.64	
7	0.6806	1116.1	1135.8		0.473	3.851	76.387	17.153	1.996	0.047	0.078	0.002	0.000	0.010	0.000	0.000			1376.76	
8	0.6795	1112.6	1132.4		0.481	3.947	76.591	16.852	1.988	0.048	0.080	0.001	0.000	0.011	0.000	0.000			1373.64	
9	0.6769	1109.0	1128.7		0.474	3.932	76.978	16.614	1.871	0.046	0.077	0.000	0.000	0.007	0.000	0.000			1371.82	
10	0.6660	1091.9	1111.2		0.423	4.034	78.779	15.120	1.525	0.041	0.069	0.000	0.000	0.010	0.000	0.000			1361.58	
11	0.6669	1092.5	1111.8		0.397	4.125	78.470	15.439	1.457	0.039	0.064	0.000	0.000	0.010	0.000	0.000			1361.40	
12	0.6645	1091.5	1110.8		0.384	3.972	78.958	15.156	1.415	0.039	0.064	0.000	0.000	0.013	0.000	0.000			1362.67	
13	0.6715	1103.4	1123.0		0.404	3.869	77.673	16.414	1.519	0.042	0.070	0.000	0.000	0.009	0.000	0.000			1370.43	
14	0.6698	1099.3	1118.7		0.430	3.928	77.975	16.087	1.452	0.043	0.072	0.000	0.000	0.012	0.000	0.000			1366.94	
15	0.6750	1106.5	1126.1		0.459	3.924	77.190	16.622	1.667	0.046	0.077	0.000	0.000	0.014	0.000	0.000			1370.72	
16	0.6760	1109.6	1129.2		0.434	3.875	77.053	16.739	1.757	0.048	0.081	0.000	0.000	0.013	0.000	0.000			1373.43	
17	0.6889	1128.2	1148.2		0.507	3.834	75.127	18.019	2.355	0.056	0.093	0.000	0.000	0.009	0.000	0.000			1383.41	
18	0.6778	1110.7	1130.3		0.464	3.927	76.939	16.540	1.993	0.047	0.078	0.000	0.000	0.011	0.000	0.000			1372.98	
19	0.6754	1107.6	1127.2		0.449	3.915	77.087	16.740	1.678	0.046	0.078	0.000	0.000	0.008	0.000	0.000			1371.58	
20	0.6695	1097.5	1116.9		0.438	3.996	78.152	15.713	1.575	0.043	0.072	0.000	0.000	0.011	0.000	0.000			1365.03	
21	0.6686	1095.8	1115.2		0.440	4.011	78.353	15.484	1.584	0.043	0.073	0.000	0.000	0.012	0.000	0.000			1363.86	
22	0.6716	1099.8	1119.3		0.462	4.007	78.002	15.596	1.793	0.048	0.080	0.000	0.000	0.012	0.000	0.000			1365.88	
23	0.6766	1106.4	1126.0		0.481	4.051	77.127	16.271	1.918	0.053	0.088	0.000	0.000	0.012	0.000	0.000			1368.92	
24	0.6783	1111.9	1131.6		0.463	3.909	76.683	16.965	1.834	0.049	0.083	0.000	0.000	0.013	0.000	0.000			1373.91	
25	0.6792	1113.7	1133.4		0.468	3.868	76.466	17.292	1.757	0.049	0.083	0.001	0.000	0.016	0.000	0.000			1375.34	
26	0.6871	1123.8	1143.7		0.532	3.903	75.196	18.184	2.019	0.056	0.096	0.001	0.000	0.013	0.000	0.000			1379.71	
27	0.6837	1117.5	1137.3		0.514	3.989	75.868	17.441	2.020	0.057	0.096	0.001	0.000	0.015	0.000	0.000			1375.48	
28	0.6853	1122.6	1142.5		0.494	3.864	75.507	17.966	2.004	0.056	0.094	0.000	0.000	0.014	0.000	0.000			1380.06	
29	0.6851	1121.7	1141.6		0.509	3.875	75.587	17.839	2.024	0.056	0.096	0.001	0.000	0.014	0.000	0.000			1379.21	
Avg	0.6755	1107.0	1127.0		0.453	3.936	77.167	16.532	1.776	0.047	0.078	0.000	0.000	0.012	0.000	0.000			1371.16	

Zone 262

Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	2501030	Specific Gravity:	0.6623
GQ Source Name:	LIGNITE PLANT	BTU Base:	Dry
Effective Date:	2/14/2008 9:00:00 AM	Dry Heat Value:	1130.31
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	1110.64
Pressure Base:	14.730	As Deliv. Heat Value:	1130.31
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	78.533		
C2	Ethane	17.432	0.000	4.648
C3	Propane	0.893	0.245	0.245
IC4	Iso-Butane	0.002	0.001	0.001
NC4	N-Butane	0.002	0.001	0.001
IC5	Iso-Pentane	0.002	0.001	0.001
NC5	N-Pentane	0.002	0.001	0.001
C6+	Hexanes Plus	0.047	0.022	0.019
CO2	Carbon Dioxide	0.128		
N2	Nitrogen	2.960		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
Totals		100.000	0.270	4.915

Sample Date: 1/31/2008 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks: *Zone 263*

Analysis Remarks:

GQ Source Daily Summary

February 2008

Number: 043

Pressure Base: 14.730

Name: BISMARCK PLANT CLEVELAND PLANT

Temperature Base:

Contract Day: 1 Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value DRY	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	Crittherm
1	0.6181	1022.5	1040.6		0.753	3.244	88.643	6.277	0.880	0.064	0.081	0.018	0.013	0.027	0.000				1323.53	
2	0.6212	1026.5	1044.7		0.751	3.295	88.030	6.799	0.922	0.064	0.081	0.017	0.013	0.027	0.000				1325.42	
3	0.6278	1036.0	1054.3		0.716	3.392	86.724	7.938	1.035	0.062	0.080	0.016	0.012	0.026	0.000				1330.60	
4	0.6255	1032.4	1050.7		0.704	3.410	87.118	7.604	0.971	0.062	0.079	0.016	0.012	0.025	0.000				1328.48	
5	0.6230	1028.5	1046.7		0.678	3.456	87.558	7.171	0.945	0.061	0.079	0.016	0.012	0.024	0.000				1326.05	
6	0.6241	1030.1	1048.3		0.685	3.449	87.362	7.358	0.954	0.062	0.077	0.016	0.012	0.024	0.000				1326.95	
7	0.6335	1045.6	1064.1		0.624	3.478	85.453	9.197	1.068	0.057	0.079	0.014	0.010	0.023	0.000				1336.96	
8	0.6195	1023.2	1041.3		0.714	3.386	88.327	6.463	0.909	0.064	0.080	0.018	0.013	0.026	0.000				1323.02	
9	0.6180	1021.7	1039.8		0.757	3.279	88.689	6.174	0.884	0.069	0.085	0.019	0.014	0.028	0.000				1322.57	
10	0.6144	1016.3	1034.3		0.759	3.264	89.383	5.546	0.830	0.070	0.086	0.020	0.015	0.028	0.000				1319.50	
11	0.6196	1024.0	1042.2		0.758	3.277	88.425	6.394	0.926	0.070	0.088	0.020	0.014	0.027	0.000				1324.01	
12	0.6278	1035.9	1054.3		0.672	3.462	86.602	8.098	0.973	0.062	0.080	0.016	0.011	0.024	0.000				1330.57	
13	0.6200	1024.4	1042.6		0.718	3.359	88.170	6.696	0.852	0.065	0.081	0.018	0.013	0.027	0.000				1324.03	
14	0.6157	1018.9	1036.9		0.772	3.209	89.129	5.860	0.807	0.071	0.086	0.021	0.015	0.030	0.000				1321.44	
15	0.6203	1025.4	1043.6		0.718	3.328	88.134	6.752	0.859	0.067	0.083	0.019	0.014	0.027	0.000				1324.95	
16	0.6313	1039.9	1058.3		0.623	3.625	85.827	8.731	1.010	0.059	0.078	0.014	0.010	0.022	0.000				1331.91	
17	0.6277	1035.7	1054.1		0.610	3.562	86.523	8.144	0.975	0.059	0.077	0.015	0.011	0.023	0.000				1330.36	
18	0.6305	1039.9	1058.3		0.642	3.516	86.188	8.320	1.134	0.065	0.085	0.016	0.012	0.024	0.000				1332.84	
19	0.6160	1018.4	1036.5		0.733	3.325	89.058	5.801	0.864	0.071	0.086	0.020	0.015	0.028	0.000				1320.51	
20	0.6176	1021.4	1039.5		0.735	3.287	88.781	6.079	0.894	0.072	0.088	0.021	0.015	0.028	0.000				1322.73	
21	0.6197	1024.2	1042.3		0.725	3.332	88.324	6.508	0.889	0.071	0.088	0.020	0.015	0.028	0.000				1324.07	
22	0.6266	1033.7	1052.0		0.656	3.505	86.852	7.817	0.970	0.064	0.082	0.017	0.012	0.024	0.000				1328.97	
23	0.6327	1042.2	1060.6		0.630	3.608	85.670	8.784	1.113	0.062	0.083	0.015	0.011	0.023	0.000				1333.35	
24	0.6401	1052.9	1071.6		0.630	3.643	84.322	9.936	1.271	0.063	0.087	0.014	0.010	0.023	0.000				1339.34	
25	0.6305	1038.9	1057.3		0.670	3.531	86.173	8.356	1.063	0.066	0.086	0.017	0.012	0.027	0.000				1331.58	
26	0.6338	1046.5	1065.1		0.647	3.418	85.455	9.235	1.041	0.064	0.084	0.016	0.012	0.028	0.000				1337.80	
27	0.6493	1066.7	1085.6		0.594	3.719	82.501	11.605	1.387	0.061	0.089	0.012	0.009	0.022	0.000				1347.26	
28	0.6475	1062.9	1081.7		0.556	3.842	82.778	11.264	1.375	0.059	0.086	0.011	0.008	0.021	0.000				1344.34	
29	0.6576	1079.9	1099.0		0.543	3.785	80.850	13.101	1.536	0.059	0.089	0.010	0.007	0.020	0.000				1355.21	
Avg	0.6272	1035.0	1053.3		0.682	3.448	86.795	7.862	1.012	0.064	0.083	0.017	0.012	0.025	0.000				1329.94	

Zone 271

GQ Source Daily Summary

February 2008

Number: 063

Name: CLEVELAND PLANT MAPLETON

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	Crit'herm
1	0.6204	1025.3	1043.5		0.725	3.322	88.092	6.772	0.896	0.063	0.078	0.017	0.012	0.023	0.000				1324.79	
2	0.6199	1024.2	1042.3		0.751	3.307	88.249	6.584	0.910	0.064	0.080	0.017	0.013	0.024	0.000				1323.83	
3	0.6249	1031.3	1049.6		0.734	3.363	87.278	7.440	0.990	0.063	0.080	0.016	0.012	0.023	0.000				1327.77	
4	0.6265	1033.1	1051.4		0.705	3.453	86.981	7.778	0.995	0.061	0.079	0.015	0.011	0.021	0.000				1328.36	
5	0.6230	1028.0	1046.2		0.685	3.467	87.538	7.174	0.947	0.062	0.079	0.016	0.012	0.021	0.000				1325.44	
6	0.6242	1029.9	1048.1		0.688	3.457	87.331	7.362	0.970	0.062	0.080	0.016	0.012	0.021	0.000				1326.65	
7	0.6314	1041.0	1059.5		0.637	3.534	85.832	8.769	1.051	0.058	0.076	0.014	0.010	0.019	0.000				1333.32	
8	0.6243	1030.4	1048.6		0.671	3.468	87.247	7.472	0.957	0.060	0.077	0.015	0.011	0.021	0.000				1327.10	
9	0.6171	1019.7	1037.7		0.742	3.327	88.798	6.054	0.872	0.068	0.084	0.019	0.014	0.023	0.000				1321.02	
10	0.6172	1019.9	1038.0		0.753	3.303	88.815	6.039	0.878	0.069	0.085	0.019	0.014	0.025	0.000				1321.28	
11	0.6182	1021.5	1039.6		0.755	3.306	88.628	6.193	0.903	0.070	0.086	0.019	0.014	0.025	0.000				1322.15	
12	0.6263	1033.5	1051.8		0.700	3.423	86.928	7.770	0.981	0.065	0.083	0.017	0.012	0.022	0.000				1329.00	
13	0.6224	1027.2	1045.4		0.689	3.454	87.583	7.212	0.872	0.062	0.078	0.017	0.012	0.021	0.000				1325.09	
14	0.6166	1019.6	1037.6		0.768	3.246	88.917	6.027	0.825	0.070	0.086	0.020	0.015	0.027	0.000				1321.47	
15	0.6161	1018.6	1036.6		0.745	3.300	88.967	5.950	0.823	0.070	0.084	0.020	0.014	0.027	0.000				1320.65	
16	0.6300	1038.3	1056.7		0.632	3.581	86.026	8.612	0.966	0.060	0.078	0.014	0.010	0.020	0.000				1331.30	
17	0.6307	1039.0	1057.4		0.613	3.631	85.889	8.672	1.018	0.058	0.077	0.014	0.010	0.018	0.000				1331.48	
18	0.6297	1038.0	1056.4		0.630	3.566	86.239	8.290	1.084	0.063	0.083	0.015	0.011	0.020	0.000				1331.31	
19	0.6181	1020.7	1038.7		0.705	3.417	88.582	6.178	0.910	0.069	0.084	0.019	0.014	0.023	0.000				1321.24	
20	0.6189	1023.7	1041.8		0.711	3.300	88.443	6.424	0.921	0.066	0.080	0.018	0.013	0.025	0.000				1324.28	
21	0.6178	1021.0	1039.1		0.735	3.329	88.678	6.156	0.881	0.072	0.088	0.020	0.015	0.026	0.000				1321.96	
22	0.6249	1031.1	1049.3		0.672	3.476	87.163	7.541	0.946	0.066	0.084	0.017	0.013	0.023	0.000				1327.41	
23	0.6310	1039.3	1057.7		0.633	3.609	85.936	8.578	1.056	0.062	0.082	0.015	0.011	0.020	0.000				1331.51	
24	0.6378	1048.9	1067.5		0.625	3.681	84.678	9.596	1.228	0.063	0.086	0.014	0.010	0.019	0.000				1336.59	
25	0.6388	1050.3	1068.9		0.635	3.669	84.490	9.792	1.220	0.063	0.086	0.014	0.010	0.020	0.000				1337.40	
26	0.6289	1037.7	1056.1		0.689	3.421	86.452	8.214	1.014	0.068	0.087	0.018	0.014	0.020	0.000				1331.71	
27	0.6491	1067.2	1086.1		0.598	3.666	82.451	11.759	1.337	0.061	0.087	0.012	0.009	0.020	0.000				1348.05	
28	0.6390	1050.1	1068.7		0.565	3.813	84.292	9.959	1.191	0.059	0.081	0.012	0.009	0.018	0.000				1336.82	
29	0.6545	1073.6	1092.6		0.553	3.858	81.420	12.476	1.510	0.060	0.090	0.010	0.007	0.016	0.000				1350.48	
AVG	0.6268	1034.0	1052.2		0.681	3.474	86.821	7.822	1.005	0.064	0.082	0.016	0.012	0.022	0.000				1328.95	

Zone 27a

GQ Source Daily Summary

February 2008

Number: 061

Name: CLEVELAND PLANT GRAFTON

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	Crittherm	
1	0.6205	1025.4	1043.6		0.725	3.323	88.085	6.779	0.895	0.063	0.078	0.017	0.012	0.023	0.000				1324.86		
2	0.6197	1023.9	1042.0		0.752	3.306	88.283	6.553	0.907	0.064	0.080	0.017	0.013	0.024	0.000				1323.63		
3	0.6249	1031.4	1049.7		0.734	3.364	87.267	7.449	0.991	0.063	0.080	0.016	0.012	0.023	0.000				1327.83		
4	0.6265	1033.1	1051.4		0.705	3.455	86.885	7.773	0.994	0.061	0.079	0.015	0.011	0.021	0.000				1328.31		
5	0.6230	1028.0	1046.2		0.684	3.469	87.528	7.181	0.948	0.061	0.079	0.016	0.012	0.022	0.000				1325.45		
6	0.6242	1029.8	1048.1		0.688	3.457	87.328	7.364	0.970	0.062	0.080	0.016	0.012	0.021	0.000				1326.60		
7	0.6311	1040.6	1059.0		0.638	3.533	85.884	8.721	1.047	0.058	0.076	0.014	0.010	0.019	0.000				1333.03		
8	0.6242	1030.2	1048.4		0.670	3.466	87.262	7.462	0.955	0.060	0.077	0.015	0.011	0.021	0.000				1327.01		
9	0.6175	1020.3	1038.4		0.740	3.332	88.712	6.133	0.877	0.068	0.083	0.019	0.014	0.023	0.000				1321.39		
10	0.6171	1019.8	1037.9		0.754	3.299	88.839	6.016	0.878	0.069	0.086	0.019	0.014	0.026	0.000				1321.23		
11	0.6186	1022.1	1040.2		0.754	3.305	88.561	6.253	0.912	0.070	0.087	0.019	0.014	0.025	0.000				1322.55		
12	0.6263	1033.4	1051.7		0.702	3.416	86.951	7.750	0.981	0.065	0.083	0.017	0.012	0.023	0.000				1328.99		
13	0.6225	1027.3	1045.5		0.690	3.454	87.575	7.217	0.874	0.062	0.078	0.017	0.012	0.021	0.000				1325.11		
14	0.6167	1019.9	1038.0		0.768	3.243	88.906	6.038	0.827	0.070	0.086	0.020	0.015	0.027	0.000				1321.69		
15	0.6301	1038.4	1056.8		0.632	3.300	88.968	5.949	0.822	0.070	0.084	0.020	0.014	0.020	0.000				1320.68		
16	0.6307	1039.0	1057.4		0.613	3.631	85.892	8.671	1.016	0.058	0.077	0.014	0.010	0.017	0.000				1331.45		
17	0.6301	1038.8	1057.2		0.627	3.567	86.120	8.399	1.094	0.063	0.083	0.015	0.011	0.020	0.000				1331.76		
18	0.6301	1038.4	1056.8		0.705	3.414	88.581	6.181	0.910	0.069	0.084	0.019	0.014	0.022	0.000				1321.24		
19	0.6180	1020.6	1038.7		0.720	3.307	88.448	6.389	0.929	0.066	0.081	0.018	0.013	0.028	0.000				1323.92		
20	0.6190	1023.5	1041.6		0.736	3.325	88.678	6.155	0.883	0.072	0.089	0.020	0.015	0.026	0.000				1322.04		
21	0.6179	1021.1	1039.2		0.673	3.472	87.191	7.516	0.945	0.066	0.084	0.017	0.013	0.023	0.000				1327.37		
22	0.6248	1031.0	1049.2		0.633	3.609	85.939	8.573	1.056	0.062	0.082	0.015	0.011	0.020	0.000				1331.48		
23	0.6309	1039.2	1057.6		0.635	3.681	84.675	9.599	1.229	0.063	0.086	0.014	0.010	0.019	0.000				1336.65		
24	0.6379	1049.0	1067.6		0.635	3.669	84.484	9.798	1.221	0.063	0.086	0.014	0.010	0.020	0.000				1337.46		
25	0.6388	1050.4	1069.0		0.688	3.422	86.425	8.238	1.018	0.068	0.087	0.018	0.013	0.025	0.000				1331.87		
26	0.6291	1038.0	1056.4		0.597	3.668	82.385	11.820	1.341	0.061	0.087	0.012	0.009	0.021	0.000				1348.36		
27	0.6494	1067.7	1086.7		0.566	3.807	84.367	9.894	1.186	0.059	0.081	0.012	0.009	0.018	0.000				1336.53		
28	0.6386	1049.5	1068.1		0.553	3.856	81.304	12.481	1.505	0.060	0.090	0.010	0.007	0.015	0.000				1350.50		
29	0.6545	1073.6	1092.6		0.681	3.474	86.812	7.827	1.006	0.064	0.083	0.016	0.012	0.027	0.000				1328.98		
AVG	0.6269	1034.0	1052.2																		

Zone 273

GQ Source Daily Summary

February 2008

Number: 041

Name: BISMARCK PLANT DICKINSON PLANT

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	Crit'herm
1	0.6066	1004.3	1022.1		0.847	3.122	91.001	4.107	0.697	0.073	0.086	0.022	0.016	0.030	0.000				1312.32	
2	0.6068	1005.0	1022.8		0.852	3.088	90.975	4.159	0.697	0.073	0.087	0.022	0.016	0.031	0.000				1313.08	
3	0.6061	1003.8	1021.6		0.852	3.100	91.088	4.050	0.680	0.073	0.086	0.022	0.016	0.032	0.000				1312.20	
4	0.6062	1003.8	1021.5		0.821	3.158	91.012	4.113	0.673	0.071	0.084	0.022	0.016	0.031	0.000				1312.05	
5	0.6065	1003.3	1021.1		0.755	3.315	90.831	4.210	0.680	0.067	0.081	0.020	0.015	0.027	0.000				1311.16	
6	0.6062	1003.2	1020.9		0.770	3.271	90.927	4.144	0.673	0.069	0.082	0.021	0.015	0.029	0.000				1311.28	
7	0.6060	1003.0	1020.8		0.774	3.260	90.960	4.121	0.668	0.069	0.082	0.021	0.015	0.029	0.000				1311.23	
8	0.6056	1002.1	1019.8		0.766	3.293	91.007	4.063	0.657	0.068	0.081	0.021	0.015	0.028	0.000				1310.44	
9	0.6076	1006.2	1024.0		0.807	3.168	90.741	4.349	0.706	0.073	0.087	0.022	0.016	0.030	0.000				1313.65	
10	0.6083	1007.1	1025.0		0.792	3.193	90.616	4.445	0.725	0.073	0.088	0.022	0.016	0.030	0.000				1314.19	
11	0.6080	1006.9	1024.8		0.809	3.155	90.698	4.379	0.724	0.075	0.090	0.023	0.017	0.031	0.000				1314.21	
12	0.6075	1006.6	1024.4		0.812	3.121	90.801	4.326	0.706	0.075	0.088	0.023	0.017	0.032	0.000				1314.34	
13	0.6061	1003.6	1021.3		0.822	3.162	91.043	4.072	0.670	0.074	0.086	0.023	0.017	0.031	0.000				1311.86	
14	0.6079	1007.2	1025.1		0.832	3.092	90.759	4.366	0.710	0.077	0.090	0.024	0.017	0.033	0.000				1312.81	
15	0.6070	1005.0	1022.8		0.797	3.196	90.847	4.237	0.691	0.074	0.087	0.023	0.016	0.031	0.000				1312.81	
16	0.6055	1000.6	1018.3		0.726	3.428	90.976	4.003	0.654	0.068	0.081	0.021	0.015	0.029	0.000				1308.71	
17	0.6064	1002.4	1020.2		0.689	3.460	90.730	4.255	0.660	0.066	0.079	0.020	0.014	0.026	0.000				1310.08	
18	0.6082	1006.5	1024.3		0.707	3.354	90.466	4.557	0.700	0.070	0.083	0.021	0.015	0.028	0.000				1313.44	
19	0.6077	1005.8	1023.6		0.757	3.272	90.652	4.400	0.693	0.073	0.085	0.022	0.016	0.029	0.000				1313.06	
20	0.6092	1009.0	1026.9		0.773	3.196	90.433	4.631	0.730	0.076	0.090	0.023	0.017	0.032	0.000				1315.61	
21	0.6089	1008.0	1025.9		0.778	3.219	90.495	4.539	0.730	0.077	0.090	0.024	0.017	0.031	0.000				1314.69	
22	0.6082	1006.6	1024.4		0.749	3.283	90.560	4.468	0.708	0.074	0.087	0.023	0.017	0.031	0.000				1313.59	
23	0.6076	1004.9	1022.6		0.739	3.348	90.649	4.340	0.695	0.073	0.086	0.023	0.016	0.030	0.000				1311.96	
24	0.6067	1003.9	1021.7		0.761	3.286	90.853	4.198	0.669	0.074	0.087	0.023	0.017	0.032	0.000				1311.73	
25	0.6052	1000.7	1018.4		0.781	3.313	91.160	3.864	0.645	0.075	0.088	0.024	0.017	0.033	0.000				1309.13	
26	0.6078	1007.2	1025.0		0.784	3.162	90.708	4.413	0.689	0.077	0.090	0.025	0.018	0.034	0.000				1314.70	
27	0.6071	1003.6	1021.3		0.664	3.493	90.594	4.367	0.668	0.068	0.080	0.021	0.015	0.029	0.000				1310.84	
28	0.6068	1001.7	1019.4		0.601	3.677	90.511	4.353	0.662	0.064	0.075	0.019	0.014	0.025	0.000				1308.69	
29	0.6071	1002.5	1020.3		0.603	3.653	90.460	4.419	0.668	0.064	0.076	0.019	0.014	0.025	0.000				1309.46	
Avg	0.6071	1005.0	1022.4		0.766	3.270	90.778	4.274	0.687	0.072	0.085	0.022	0.016	0.030	0.000				1312.25	

Zone 28

GQ Source Daily Summary

February 2008

Number: 271

Pressure Base: 14.730

Name: DICKINSON BORDER

Temperature Base:

Contract Day: 1 Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N ₂	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	Crit'herm
1	0.6056	1003.5	1021.3		0.853	3.059	91.088	4.117	0.694	0.070	0.083	0.000	0.000	0.037	0.000				1312.42	
2	0.6056	1003.7	1021.5		0.868	3.027	91.105	4.120	0.690	0.070	0.083	0.000	0.000	0.037	0.000				1312.64	
3	0.6048	1001.9	1019.6		0.861	3.077	91.223	3.982	0.669	0.069	0.081	0.000	0.000	0.038	0.000				1311.06	
4	0.6055	1002.9	1020.7		0.796	3.181	90.987	4.179	0.678	0.066	0.078	0.000	0.000	0.036	0.000				1311.65	
5	0.6056	1002.9	1020.6		0.772	3.229	90.927	4.211	0.683	0.065	0.078	0.000	0.000	0.035	0.000				1311.49	
6	0.6047	1001.3	1019.0		0.777	3.232	91.094	4.062	0.658	0.065	0.077	0.000	0.000	0.035	0.000				1310.43	
7	0.6048	1001.5	1019.2		0.773	3.238	91.072	4.083	0.658	0.065	0.077	0.000	0.000	0.035	0.000				1310.53	
8	0.6053	1002.5	1020.2		0.785	3.203	91.005	4.154	0.671	0.067	0.079	0.000	0.000	0.035	0.000				1311.32	
9	0.6070	1005.7	1023.5		0.812	3.123	90.770	4.387	0.717	0.071	0.084	0.000	0.000	0.036	0.000				1313.73	
10	0.6073	1006.2	1024.1		0.804	3.135	90.696	4.450	0.724	0.071	0.085	0.000	0.000	0.035	0.000				1314.06	
11	0.6070	1006.1	1023.9		0.819	3.092	90.785	4.389	0.720	0.072	0.086	0.000	0.000	0.037	0.000				1314.19	
12	0.6058	1004.1	1021.9		0.820	3.092	91.000	4.214	0.683	0.071	0.082	0.000	0.000	0.038	0.000				1313.00	
13	0.6054	1003.5	1021.2		0.843	3.067	91.101	4.114	0.678	0.072	0.084	0.001	0.000	0.039	0.000				1312.46	
14	0.6067	1005.4	1023.2		0.829	3.085	90.869	4.314	0.705	0.073	0.086	0.002	0.000	0.038	0.000				1313.67	
15	0.6055	1002.1	1019.8		0.771	3.265	90.961	4.144	0.674	0.068	0.081	0.000	0.000	0.036	0.000				1310.61	
16	0.6045	999.6	1017.3		0.718	3.400	91.034	4.037	0.638	0.063	0.075	0.000	0.000	0.034	0.000				1308.48	
17	0.6064	1003.3	1021.1		0.699	3.384	90.670	4.394	0.678	0.064	0.077	0.000	0.000	0.034	0.000				1311.25	
18	0.6070	1005.2	1023.0		0.725	3.284	90.615	4.500	0.695	0.067	0.079	0.000	0.000	0.034	0.000				1313.11	
19	0.6072	1006.2	1024.0		0.774	3.174	90.668	4.486	0.707	0.072	0.084	0.000	0.000	0.036	0.000				1314.09	
20	0.6081	1007.8	1025.6		0.785	3.142	90.545	4.597	0.730	0.074	0.087	0.002	0.000	0.037	0.000				1315.23	
21	0.6077	1006.6	1024.5		0.768	3.199	90.585	4.533	0.719	0.073	0.085	0.000	0.000	0.037	0.000				1314.19	
22	0.6068	1004.8	1022.6		0.756	3.249	90.712	4.396	0.697	0.071	0.083	0.000	0.000	0.036	0.000				1312.71	
23	0.6060	1003.0	1020.8		0.753	3.285	90.849	4.242	0.681	0.070	0.083	0.000	0.000	0.037	0.000				1311.29	
24	0.6045	1000.2	1017.9		0.793	3.254	91.213	3.883	0.658	0.073	0.085	0.003	0.000	0.039	0.000				1309.19	
25	0.6054	1002.8	1020.6		0.792	3.178	91.062	4.098	0.664	0.074	0.085	0.008	0.000	0.039	0.000				1311.69	
26	0.6065	1004.8	1022.6		0.739	3.240	90.750	4.410	0.670	0.070	0.081	0.003	0.000	0.038	0.000				1313.13	
27	0.6062	1001.8	1019.6		0.623	3.573	90.573	4.396	0.667	0.062	0.073	0.000	0.000	0.033	0.000				1309.52	
28	0.6061	1001.8	1019.5		0.610	3.592	90.552	4.422	0.661	0.061	0.072	0.000	0.000	0.032	0.000				1309.51	
29	0.6063	1002.1	1019.9		0.610	3.589	90.520	4.450	0.666	0.062	0.072	0.000	0.000	0.032	0.000				1309.74	
Avg	0.6060	1004.0	1021.3		0.770	3.229	90.863	4.268	0.694	0.069	0.081	0.001	0.000	0.036	0.000				1311.94	

Zone 31

GQ Source Daily Summary

February 2008

Number: 051

Pressure Base: 14.730

Name: CABIN CREEK DICKINSON PLANT

Temperature Base:

Contract Day: 1 Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CriTherm
1	0.6057	1002.5	1020.2		0.858	3.131	91.179	3.905	0.704	0.073	0.087	0.022	0.015	0.026	0.000				1310.90	
2	0.6051	1001.5	1019.2		0.867	3.124	91.298	3.797	0.690	0.073	0.086	0.022	0.015	0.027	0.000				1310.23	
3	0.6045	1000.1	1017.8		0.850	3.179	91.360	3.719	0.673	0.072	0.084	0.022	0.015	0.026	0.000				1309.10	
4	0.6053	1000.6	1018.3		0.778	3.338	91.082	3.905	0.690	0.069	0.082	0.020	0.014	0.023	0.000				1308.81	
5	0.6056	1001.3	1019.0		0.778	3.322	91.046	3.949	0.691	0.070	0.084	0.020	0.015	0.025	0.000				1309.40	
6	0.6046	999.6	1017.3		0.785	3.319	91.236	3.785	0.663	0.070	0.082	0.021	0.015	0.025	0.000				1308.30	
7	0.6045	999.1	1016.8		0.778	3.347	91.242	3.763	0.659	0.069	0.082	0.021	0.015	0.025	0.000				1307.82	
8	0.6056	1001.6	1019.3		0.801	3.267	91.096	3.924	0.690	0.072	0.086	0.022	0.016	0.027	0.000				1309.84	
9	0.6072	1004.7	1022.5		0.814	3.206	90.840	4.189	0.724	0.074	0.088	0.022	0.016	0.026	0.000				1312.21	
10	0.6073	1004.9	1022.7		0.813	3.202	90.831	4.199	0.727	0.075	0.089	0.022	0.016	0.026	0.000				1312.39	
11	0.6070	1004.8	1022.6		0.823	3.165	90.910	4.153	0.718	0.075	0.089	0.023	0.017	0.028	0.000				1312.56	
12	0.6053	1001.7	1019.4		0.825	3.197	91.203	3.865	0.681	0.074	0.087	0.023	0.016	0.028	0.000				1310.27	
13	0.6060	1003.1	1020.8		0.853	3.129	91.155	3.923	0.702	0.077	0.090	0.024	0.017	0.030	0.000				1311.40	
14	0.6065	1003.8	1021.5		0.818	3.190	90.993	4.059	0.709	0.076	0.089	0.023	0.017	0.028	0.000				1311.73	
15	0.6049	999.4	1017.1		0.752	3.412	91.130	3.828	0.663	0.070	0.083	0.021	0.015	0.026	0.000				1307.67	
16	0.6045	998.0	1015.7		0.712	3.522	91.109	3.800	0.652	0.067	0.080	0.020	0.015	0.023	0.000				1306.27	
17	0.6066	1002.3	1020.1		0.722	3.435	90.782	4.148	0.700	0.070	0.084	0.021	0.015	0.024	0.000				1309.74	
18	0.6026	996.1	1013.7		0.752	3.392	91.657	3.277	0.701	0.073	0.086	0.022	0.016	0.025	0.000				1305.90	
19	0.6039	998.9	1016.6		0.788	3.290	91.459	3.532	0.704	0.074	0.088	0.023	0.017	0.026	0.000				1308.13	
20	0.6081	1006.3	1024.1		0.790	3.230	90.663	4.350	0.730	0.077	0.091	0.024	0.018	0.027	0.000				1313.29	
21	0.6076	1005.0	1022.8		0.766	3.297	90.712	4.273	0.719	0.076	0.089	0.023	0.017	0.027	0.000				1312.15	
22	0.6067	1002.9	1020.6		0.758	3.360	90.844	4.107	0.702	0.075	0.088	0.023	0.017	0.027	0.000				1310.28	
23	0.6054	1000.6	1018.3		0.773	3.354	91.110	3.853	0.676	0.075	0.088	0.024	0.017	0.029	0.000				1308.71	
24	0.6040	998.0	1015.7		0.791	3.350	91.387	3.594	0.643	0.076	0.088	0.024	0.017	0.029	0.000				1306.89	
25	0.6035	998.2	1015.9		0.813	3.251	91.611	3.392	0.687	0.079	0.092	0.025	0.018	0.031	0.000				1307.74	
26	0.6054	999.9	1017.6		0.710	3.490	90.986	3.925	0.671	0.072	0.084	0.022	0.016	0.025	0.000				1307.85	
27	0.6058	999.3	1017.0		0.614	3.713	90.714	4.093	0.670	0.065	0.077	0.019	0.014	0.022	0.000				1306.60	
28	0.6061	999.9	1017.6		0.620	3.690	90.681	4.136	0.675	0.066	0.077	0.019	0.014	0.022	0.000				1307.15	
29	0.6060	999.4	1017.1		0.621	3.707	90.691	4.117	0.670	0.065	0.076	0.019	0.014	0.021	0.000				1306.64	
Avg	0.6056	1001.0	1018.9		0.773	3.331	91.069	3.916	0.689	0.072	0.085	0.022	0.016	0.026	0.000				1309.31	

Zone 32

GQ Source Daily Summary

February 2008

Number: 111

Name: LITTLE KNIFE PLANT

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	Crit/therm
1	0.6382	1100.7	1120.2		0.000	1.519	83.182	14.811	0.468	0.010	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1402.25	
2	0.6336	1095.3	1114.7		0.000	1.417	84.128	13.974	0.461	0.010	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1400.39	
3	0.6328	1094.3	1113.7		0.000	1.404	84.266	13.865	0.445	0.009	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1400.00	
4	0.6330	1094.4	1113.8		0.000	1.413	84.240	13.885	0.443	0.010	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1399.93	
5	0.6363	1098.7	1118.1		0.000	1.469	83.573	14.462	0.475	0.010	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1401.69	
6	0.6344	1096.2	1115.6		0.000	1.437	83.972	14.102	0.468	0.010	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1400.65	
7	0.6352	1097.1	1116.6		0.000	1.457	83.815	14.225	0.484	0.010	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1400.96	
8	0.6357	1098.0	1117.5		0.000	1.446	83.691	14.388	0.455	0.010	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1401.61	
9	0.6350	1097.6	1117.0		0.000	1.413	83.791	14.359	0.418	0.009	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1401.72	
10	0.6352	1097.7	1117.2		0.000	1.416	83.771	14.366	0.428	0.009	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1401.78	
11	0.6365	1098.3	1117.7		0.015	1.484	83.570	14.442	0.462	0.011	0.012	0.001	0.001	0.001	0.001	0.001	0.001	0.001	1401.03	
12	0.6364	1098.8	1118.2		0.000	1.469	83.561	14.471	0.477	0.010	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1401.74	
13	0.6352	1097.4	1116.8		0.000	1.441	83.787	14.301	0.451	0.010	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1401.27	
14	0.6360	1098.1	1117.5		0.000	1.475	83.620	14.425	0.460	0.010	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1401.30	
15	0.6369	1098.9	1118.3		0.000	1.513	83.469	14.500	0.497	0.010	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1401.28	
16	0.6366	1098.8	1118.2		0.000	1.489	83.521	14.484	0.485	0.010	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1401.51	
17	0.6373	1099.7	1119.1		0.000	1.496	83.353	14.681	0.449	0.010	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1401.93	
18	0.6357	1098.0	1117.5		0.000	1.450	83.693	14.373	0.464	0.010	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1401.54	
19	0.6366	1098.5	1118.0		0.000	1.505	83.468	14.574	0.434	0.009	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1401.19	
20	0.6358	1098.3	1117.7		0.000	1.442	83.657	14.436	0.446	0.009	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1401.79	
21	0.6374	1099.4	1118.9		0.000	1.520	83.391	14.557	0.512	0.010	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1401.53	
22	0.6378	1100.1	1119.6		0.000	1.516	83.308	14.647	0.507	0.010	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1401.93	
23	0.6391	1102.1	1121.6		0.000	1.515	83.068	14.865	0.530	0.011	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1403.09	
24	0.6382	1101.1	1120.6		0.000	1.502	83.217	14.746	0.513	0.010	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1402.65	
25	0.6379	1100.3	1119.8		0.000	1.518	83.247	14.734	0.480	0.010	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1402.04	
26	0.6387	1101.4	1120.9		0.000	1.525	83.119	14.821	0.512	0.010	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1402.57	
27	0.6378	1100.1	1119.6		0.000	1.514	83.326	14.618	0.520	0.010	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1401.97	
28	0.6379	1100.5	1120.0		0.000	1.506	83.274	14.698	0.500	0.010	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1402.28	
29	0.6385	1101.1	1120.6		0.000	1.524	83.176	14.753	0.524	0.010	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1402.39	
Avg	0.6364	1099.0	1118.1		0.001	1.476	83.561	14.468	0.475	0.010	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1401.59	

Zone 33

Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	1202160	Specific Gravity:	0.7891
GQ Source Name:	BOWMAN BORDER	BTU Base:	Dry
Effective Date:	2/1/2008 9:00:00 AM	Dry Heat Value:	1164.54
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	1144.27
Pressure Base:	14.730	As Deliv. Heat Value:	1164.54
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	56.148		
C2	Ethane	28.090		7.490
C3	Propane	3.456	0.950	0.949
IC4	Iso-Butane	0.071	0.023	0.023
NC4	N-Butane	0.197	0.062	0.062
IC5	Iso-Pentane	0.009	0.003	0.003
NC5	N-Pentane	0.022	0.008	0.008
C6+	Hexanes Plus	0.000	0.000	0.000
CO2	Carbon Dioxide	2.013		
N2	Nitrogen	9.993		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
Totals		100.000	1.047	8.536

Sample Date: 1/31/2008 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks: Zone 34

Analysis Remarks:

Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	1201140	Specific Gravity:	0.5730
GQ Source Name:	EAGLE 8B ND	BTU Base:	Dry
Effective Date:	7/17/2007 9:00:00 AM	Dry Heat Value:	976.12
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	959.13
Pressure Base:	14.730	As Deliv. Heat Value:	976.12
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	95.696		
C2	Ethane	0.290	0.000	0.078
C3	Propane	0.009	0.003	0.002
IC4	Iso-Butane	0.007	0.003	0.002
NC4	N-Butane	0.000	0.000	
IC5	Iso-Pentane	0.000	0.000	
NC5	N-Pentane	0.000	0.000	
C6+	Hexanes Plus	0.000	0.000	0.000
CO2	Carbon Dioxide	0.083		
N2	Nitrogen	3.915		
O2	Oxygen	0.000		
HE	Helium	0.000		
H2	Hydrogen	0.000		
H2S	Hydrogen Sulfide	0.000		
Totals		100.000	0.006	0.082

Sample Date: 6/11/2007 9:00:00 AM
Sample Type: Spot
Sample Tech: MG
Sample Remarks: *Zone 35*

Analysis Remarks:

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

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

STATE	ZONE	ZONE BOUNDARY	12 MONTH AVERAGE	FEB 08	JAN 08	DEC 07	NOV 07	OCT 07	SEPT 07	AUG 07	JULY 07	JUNE 07	MAY 07	APR 07	MAR 07	ZONE
MT/ND	211	Sidney Area	1147	1028	1075	1124	1160	1170	1183	1189	1188	1185	1175	1151	1130	21
ND	24	Williston Area	1180	1173	1181	1192	1195	1194	1190	1193	1186	1186	1179	1150	1138	24
ND	25	Waford City Area	1119	1125	1126	1118	1118	1119	1119	1120	1118	1118	1125	1117	1110	25
ND	261	Williston - Troga - Minot Line	1152	1126	1136	1142	1147	1158	1152	1164	1168	1173	1159	1159	1144	261
ND	262	Minot Area	1154	1127	1136	1143	1149	1159	1153	1167	1170	1175	1160	1160	1147	262
ND	263	Troga - Portal	1124	1130	1129	1132	1128	1129	1131	1130	1117	1117	1122	1117	1111	263
ND	271	Bismarck - Cleveland	1122	1053	1059	1063	1105	1158	1153	1166	1169	1174	1159	1125	1080	271
ND	272	Cleveland - Mapleton	1122	1052	1059	1062	1107	1158	1152	1167	1169	1175	1159	1124	1079	272
ND	273	Cleveland - Grafton	1122	1052	1059	1062	1107	1158	1152	1167	1170	1175	1159	1124	1079	273
ND	28	Bismarck	1094	1022	1017	1015	1030	1124	1151	1167	1169	1171	1143	1091	1029	28
ND	31	Dickinson	1023	1021	1016	1014	1023	1023	1017	1006	1033	1033	1038	1027	1028	31
ND/MT	32	Cabin Creek - Dickinson	1018	1019	1014	1012	1021	1020	1013	991	1023	1028	1033	1022	1025	32
ND	33	Kildeer	1109	1118	1114	1111	1118	1113	1109	1106	1104	1101	1103	1102	1107	33
ND	34	Bowman Area	1178	1165	1174	1182	1189	1175	1175	1172	1190	1172	1180	1185	1172	34
ND	35	Baker Field - North Dakota	975	976	976	976	976	976	976	976	974	974	974	974	974	35

THERMAL ZONE VARIANCE DOCUMENTATION		
March 2008		
<i>ZONE</i>	<i>BTU VARIANCE</i>	<i>REASON</i>
211	-47	Receipt from Morgan Creek Area