



# MONTANA-DAKOTA

UTILITIES CO.

A Division of MDU Resources Group, Inc.

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

March 8, 2010

RECEIVED

MAR 09 2010

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 – January 2010

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 February 2010.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our supplier for the month of January 2010. There is a report for each of the 16 thermal zones for the month.
3. Attachment C is a listing which states the type of measuring device in place at each zone.
4. Attachment D is a monthly list of the heating value data, by zone, for the most recent 12-month period and an average thereof. It is being provided pursuant to a Staff request.

There were no thermal variances to report for the month of January 2010.

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

Sincerely,

Tamie Aberle  
Pricing & Tariff Manager

MONTANA-DAKOTA UTILITIES CO.  
 Therm Billing Factor  
 FEB 2010

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
12	314	APPLE VALLEY	271	1.0952
12	327	BISMARCK	28	.9890
12	343	CARRINGTON	273	1.0952
12	344	CLEVELAND	272	1.0865
12	364	CAVALIER	273	1.1182
12	365	DAWSON	271	1.0874
12	374	FT TOTTEN	273	1.1029
12	375	DEVILS LAKE	273	1.1029
12	379	BARLOW	273	1.0952
12	387	ELDRIDGE	272	1.0942
12	411	GLEN ULLIN	31	.9606
12	417	GRAFTON	273	1.1259
12	439	HANKINSON	600	1.0620
12	449	JAMESTOWN	272	1.1019
12	463	LANGDON	273	1.0952
12	475	LINTON	802	.9736
12	478	LINCOLN	28	.9890
12	494	MEDINA	271	1.0874
12	498	MANDAN	28	.9890
12	524	NEW SALEM	28	.9681
12	532	NEW ROCKFORD	273	1.0952
12	539	PARK RIVER	273	1.1182
12	574	SANBORN	272	1.1019
12	593	STEELE	271	1.0874
12	598	SHEYENNE	273	1.1029
12	610	TAPPEN	271	1.0874
12	625	VALLEY CITY	272	1.1095
12	629	WALHALLA	273	1.1182
12	647	WILTON	262	1.0985
12	717	SPIRITWOOD	272	1.1019
12	718	FAIRMOUNT	600	1.0599
12	732	MSR SITE	273	1.0952
12	733	PAR SITE	273	1.0952
15	303	ALEXANDER	25	1.0692
15	308	ARNEGARD	25	1.0692

MONTANA-DAKOTA UTILITIES CO.  
 Therm Billing Factor  
 FEB 2010

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	318	BEACH	32	.9380
15	319	BELFIELD	32	.9449
15	323	BERTHOLD	262	1.0985
15	330	BOWMAN	34	1.0650
15	337	BURLINGTON	262	1.1222
15	368	DES LACS	262	1.1064
15	369	DICKINSON	31	.9536
15	384	EPPING	264	1.1107
15	407	GLADSTONE	31	.9536
15	413	GOLVA	32	.9243
15	416	GARRISON	262	1.1064
15	429	HEBRON	31	.9606
15	459	KILLDEER	33	1.0956
15	469	LEFOR	31	.9536
15	474	LIGNITE	263	1.0207
15	500	MARMARTH	34	1.0729
15	505	MINOT	262	1.1222
15	510	MOTT	31	.9536
15	512	MAX	262	1.0985
15	522	NEW ENGLAND	31	.9467
15	540	PALERMO	262	1.0985
15	558	RAY	264	1.1107
15	561	REGENT	31	.9536
15	563	RHAME	34	1.0572
15	564	RICHARDTON	31	.9467
15	568	ROSS	261	1.0699
15	572	RUTHVILLE	262	1.1222
15	583	SENTINEL BUTTE	32	.9380
15	588	SOUTH HEART	31	.9467
15	590	SPRINGBROOK	264	1.1107
15	591	STANLEY	261	1.0777
15	605	SURREY	262	1.1222
15	611	TAYLOR	31	.9467
15	616	TIOGA	261	1.0699
15	619	TURTLE LAKE	262	1.1064

MONTANA-DAKOTA UTILITIES CO.  
Therm Billing Factor  
FEB 2010

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	620	TRENTON	24	1.1187
15	624	UNDERWOOD	262	1.1064
15	632	WATFORD CITY	25	1.0692
15	636	WHEELOCK	264	1.1027
15	637	WHITE EARTH	261	1.0777
15	642	WILLISTON	24	1.1187
15	646	WASHBURN	262	1.1143
15	664	RIVERDALE	262	1.1064
15	691	FAIRVIEW	24	1.1187
15	712	MINOT AFB	262	1.1222
15	743	BAKER FIELD	35	.8971

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

# GQ Source Daily Summary

## January 2010

**Number:** 251      **Pressure Base:** 14.730      **Contract Day:** 1  
**Name:** SIDNEY AREA      **Temperature Base:**      **Contract Hour:** 9

Day	Relative Density		Heating Value		CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	C11	Wobbe	CCT
	Wet	Dry	Wet	Dry																	
1	0.6658	1102.4	1121.9	1121.9	0.051	3.938	77.982	16.782	1.219	0.013	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1374.85	1374.85
2	0.6835	1139.9	1160.1	1160.1	0.032	3.346	74.871	20.077	1.632	0.020	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1403.04	1403.04
3	0.7046	1175.2	1196.1	1196.1	0.028	3.180	71.739	22.236	2.750	0.031	0.034	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1424.85	1424.85
4	0.7038	1174.7	1195.5	1195.5	0.029	3.133	71.817	22.300	2.663	0.028	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.06	1425.06
5	0.6998	1169.0	1189.7	1189.7	0.027	3.112	72.167	22.428	2.218	0.023	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.17	1422.17
6	0.6909	1150.6	1171.0	1171.0	0.037	3.380	73.985	20.313	2.222	0.028	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1408.71	1408.71
7	0.6988	1165.6	1186.2	1186.2	0.034	3.210	72.525	21.832	2.329	0.030	0.038	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1418.96	1418.96
8	0.6750	1120.9	1140.8	1140.8	0.053	3.670	76.803	17.580	1.842	0.023	0.028	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1388.40	1388.40
9	0.6648	1102.2	1121.7	1121.7	0.057	3.843	78.542	15.988	1.526	0.019	0.023	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1375.77	1375.77
10	0.6680	1108.5	1128.2	1128.2	0.054	3.768	78.040	16.417	1.672	0.022	0.026	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1380.24	1380.24
11	0.6634	1098.5	1118.0	1118.0	0.066	3.923	79.000	15.278	1.674	0.025	0.032	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1372.53	1372.53
12	0.6869	1141.2	1161.4	1161.4	0.048	3.563	74.626	19.647	2.048	0.029	0.037	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1401.21	1401.21
13	0.6970	1164.1	1184.7	1184.7	0.034	3.137	72.694	21.929	2.149	0.025	0.029	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1419.00	1419.00
14	0.6998	1168.0	1188.6	1188.6	0.032	3.168	72.275	22.167	2.290	0.030	0.037	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1420.88	1420.88
15	0.7022	1173.3	1194.0	1194.0	0.031	3.075	71.977	22.383	2.455	0.034	0.043	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1424.85	1424.85
16	0.6991	1168.8	1189.5	1189.5	0.032	3.054	72.450	22.085	2.311	0.030	0.037	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1422.58	1422.58
17	0.7002	1170.1	1190.9	1190.9	0.035	3.065	72.240	22.272	2.331	0.026	0.030	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1423.16	1423.16
18	0.7042	1177.8	1198.6	1198.6	0.033	2.977	71.722	22.598	2.604	0.031	0.034	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1428.38	1428.38
19	0.6999	1168.7	1189.4	1189.4	0.038	3.121	72.245	22.259	2.272	0.031	0.032	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1421.69	1421.69
20	0.6935	1158.0	1178.5	1178.5	0.043	3.161	73.586	20.842	2.308	0.029	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.13	1415.13
21	0.6876	1147.4	1167.7	1167.7	0.047	3.244	74.512	20.084	2.066	0.022	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1408.17	1408.17
22	0.6878	1151.8	1172.2	1172.2	0.037	3.016	74.320	20.679	1.906	0.019	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.33	1413.33
23	0.6823	1144.1	1164.4	1164.4	0.027	2.984	74.886	20.709	1.362	0.016	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1409.58	1409.58
24	0.6672	1113.0	1132.7	1132.7	0.045	3.432	77.783	17.480	1.231	0.014	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1386.49	1386.49
25	0.6436	1066.5	1085.4	1085.4	0.071	4.006	82.246	12.721	0.921	0.016	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1352.94	1352.94
26	0.6459	1069.8	1088.7	1088.7	0.068	4.031	81.861	12.999	0.989	0.023	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1354.57	1354.57
27	0.6549	1082.8	1102.0	1102.0	0.066	4.080	80.544	13.752	1.490	0.027	0.037	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1361.62	1361.62
28	0.6574	1087.9	1107.1	1107.1	0.066	4.009	80.012	14.354	1.524	0.016	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1365.43	1365.43
29	0.6642	1101.0	1120.5	1120.5	0.059	3.858	78.662	15.836	1.553	0.016	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1374.86	1374.86
30	0.6661	1105.8	1125.4	1125.4	0.057	3.748	78.260	16.380	1.524	0.015	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1378.90	1378.90
31	0.6729	1118.2	1138.0	1138.0	0.049	3.646	76.954	17.725	1.593	0.016	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1387.23	1387.23
AVG	0.6816	1135.0	1155.1	1155.1	0.045	3.448	75.527	19.037	1.893	0.023	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1398.86	1398.86

Zone 211

## GQ Source Analysis

<b>GQ Source Number:</b>	0602330	<b>Specific Gravity:</b>	0.7046
<b>GQ Source Name:</b>	WILLISTON BORDER	<b>BTU Base:</b>	Dry
<b>Effective Date:</b>	1/1/2010 9:00:00 AM	<b>Measured Heat Value:</b>	1178.49
<b>Effective End Date:</b>	1/18/2038 9:14:07 PM	<b>Dry Heat Value:</b>	1175.63
<b>Pressure Base:</b>	14.730	<b>Wet Heat Value:</b>	1155.17
<b>Viscosity:</b>		<b>As Deliv. Heat Value:</b>	1175.63

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
C1	Methane	72.384		CO2	Carbon Dioxide	0.502
C2	Ethane	20.252	5.400	N2	Nitrogen	3.643
C3	Propane	3.022	0.830	O2	Oxygen	0.000
IC4	Iso-Butane	0.070	0.023	HE	Helium	
NC4	N-Butane	0.116	0.037	H2	Hydrogen	
IC5	Iso-Pentane	0.006	0.002	H2S	Hydrogen Sulfide	
NC5	N-Pentane	0.005	0.002	AR	Argon	
C6	Hexane	0.000	0.000	CO	Carbon Monoxide	
C7	Heptane			H2O	Water	
C8	Octane					
C9	Nonane					
C10	Decane					
<b>Totals</b>			100.000%			6.294 GPM

**Sample Date:** 1/31/2010 12:00:00 AM  
**Sample Type:** Composite  
**Sample Tech:** sampler  
**Sample Remarks:**

**Analysis Remarks:**

*Zone 24, 264*

## GQ Source Analysis

<b>GQ Source Number:</b>	0602230	<b>Specific Gravity:</b>	0.7288
<b>GQ Source Name:</b>	WATFORD CITY BORDER	<b>BTU Base:</b>	Dry
<b>Effective Date:</b>	1/1/2010 9:00:00 AM	<b>Measured Heat Value:</b>	1134.76
<b>Effective End Date:</b>	1/18/2038 9:14:07 PM	<b>Dry Heat Value:</b>	1132.12
<b>Pressure Base:</b>	14.730	<b>Wet Heat Value:</b>	1112.41
<b>Viscosity:</b>		<b>As Deliv. Heat Value:</b>	1132.12

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
C1	Methane	68.685		CO2	Carbon Dioxide	0.722
C2	Ethane	17.925	0.000	N2	Nitrogen	8.199
C3	Propane	3.830	1.052	O2	Oxygen	0.000
IC4	Iso-Butane	0.200	0.065	HE	Helium	
NC4	N-Butane	0.368	0.116	H2	Hydrogen	
IC5	Iso-Pentane	0.030	0.011	H2S	Hydrogen Sulfide	
NC5	N-Pentane	0.030	0.011	AR	Argon	
C6	Hexane	0.009	0.004	CO	Carbon Monoxide	
C7	Heptane			H2O	Water	
C8	Octane					
C9	Nonane					
C10	Decane					
<b>Totals</b>			99.997%		1.259 GPM	

**Sample Date:** 1/31/2010 12:00:00 AM  
**Sample Type:** Composite  
**Sample Tech:** sampler  
**Sample Remarks:**

**Analysis Remarks:**

Zone 25

# GQ Source Daily Summary

## January 2010

**Number:** 163      **Pressure Base:** 14.730      **Contract Day:** 1  
**Name:** NORTH TIOGA-MINOT      **Temperature Base:**      **Contract Hour:** 9

Day	Relative Density		Heating Value		CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
	Wet	Dry	Wet	Dry																
1	0.6770	1116.1	1135.8	0.380	3.654	76.719	17.426	1.703	0.042	0.069	0.002	0.001	0.004	0.004						1380.47
2	0.6807	1120.6	1140.5	0.397	3.692	76.517	17.186	1.962	0.072	0.149	0.009	0.009	0.009	0.007						1382.36
3	0.6785	1120.5	1140.3	0.370	3.544	76.592	17.539	1.796	0.053	0.093	0.003	0.003	0.003	0.006						1384.35
4	0.6847	1129.1	1149.1	0.414	3.530	75.624	18.248	2.018	0.057	0.099	0.003	0.003	0.003	0.007						1388.71
5	0.6847	1129.1	1149.1	0.414	3.530	75.624	18.248	2.018	0.057	0.099	0.003	0.003	0.003	0.006						1388.71
6	0.6915	1139.3	1159.5	0.421	3.541	74.320	19.407	2.171	0.052	0.083	0.003	0.002	0.001	0.001						1394.31
7	0.6956	1144.0	1164.2	0.440	3.610	73.938	19.290	2.540	0.065	0.108	0.004	0.003	0.001	0.001						1395.88
8	0.6940	1143.1	1163.3	0.429	3.528	73.986	19.614	2.279	0.058	0.096	0.004	0.003	0.004	0.004						1396.48
9	0.6799	1119.4	1139.2	0.373	3.731	76.374	17.465	1.923	0.046	0.075	0.002	0.002	0.002	0.008						1381.66
10	0.6750	1111.9	1131.6	0.375	3.725	77.164	16.880	1.733	0.043	0.071	0.002	0.002	0.001	0.006						1377.37
11	0.6766	1114.7	1134.4	0.363	3.624	76.841	17.201	1.747	0.043	0.072	0.002	0.002	0.002	0.006						1379.19
12	0.6777	1117.9	1137.7	0.349	3.647	77.080	16.719	1.965	0.071	0.141	0.009	0.009	0.010	0.010						1382.08
13	0.6712	1107.0	1126.6	0.351	3.708	77.745	16.507	1.564	0.043	0.072	0.002	0.001	0.001	0.007						1375.11
14	0.6767	1113.0	1132.7	0.358	3.846	77.044	16.725	1.814	0.064	0.127	0.007	0.007	0.009	0.009						1376.97
15	0.6758	1111.8	1131.5	0.353	3.844	77.000	16.961	1.664	0.053	0.102	0.006	0.006	0.006	0.010						1376.38
16	0.6772	1115.1	1134.8	0.375	3.739	76.764	17.242	1.730	0.050	0.086	0.003	0.002	0.002	0.008						1379.03
17	0.6782	1116.0	1135.7	0.385	3.770	76.526	17.450	1.731	0.048	0.081	0.003	0.002	0.002	0.005						1379.06
18	0.6816	1120.6	1140.4	0.390	3.801	76.073	17.670	1.888	0.057	0.104	0.003	0.002	0.005	0.006						1381.29
19	0.6857	1127.4	1147.3	0.399	3.751	75.322	18.364	2.021	0.050	0.083	0.003	0.002	0.002	0.005						1385.60
20	0.6832	1123.9	1143.8	0.390	3.748	75.709	18.081	1.936	0.048	0.078	0.003	0.002	0.002	0.005						1383.80
21	0.6815	1121.3	1141.2	0.368	3.772	75.901	18.029	1.796	0.047	0.077	0.003	0.002	0.002	0.005						1382.42
22	0.6816	1122.2	1142.1	0.363	3.736	76.243	17.479	1.948	0.067	0.137	0.009	0.010	0.008	0.008						1383.34
23	0.6833	1124.7	1144.6	0.390	3.707	75.708	18.128	1.922	0.050	0.085	0.003	0.002	0.002	0.006						1384.69
24	0.6874	1129.5	1149.5	0.417	3.763	75.071	18.534	2.029	0.060	0.111	0.006	0.005	0.004	0.004						1386.37
25	0.6765	1109.6	1129.3	0.360	4.033	76.783	16.972	1.726	0.044	0.074	0.003	0.002	0.002	0.003						1372.97
26	0.6663	1094.1	1113.5	0.316	4.086	78.572	15.414	1.493	0.042	0.069	0.003	0.002	0.002	0.003						1364.09
27	0.6765	1110.3	1129.9	0.403	3.928	77.202	16.265	2.054	0.053	0.086	0.003	0.003	0.003	0.004						1373.74
28	0.6840	1121.8	1141.7	0.449	3.851	76.201	16.866	2.449	0.066	0.108	0.004	0.003	0.003	0.003						1380.47
29	0.6865	1128.1	1148.1	0.433	3.723	75.882	17.269	2.418	0.080	0.162	0.013	0.016	0.005	0.005						1385.74
30	0.6830	1123.2	1143.1	0.417	3.728	76.074	17.434	2.195	0.055	0.089	0.004	0.003	0.002	0.002						1383.11
31	0.6830	1123.2	1143.1	0.417	3.728	76.074	17.434	2.195	0.055	0.089	0.004	0.003	0.002	0.002						1383.11
Avg	0.6813	1121.0	1141.0	0.389	3.729	76.195	17.569	1.954	0.055	0.096	0.004	0.004	0.004	0.005						1382.41

Zone 261

# GQ Source Daily Summary

## January 2010

**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	0.7172	1139.5	1159.7	0.529	5.778	69.613	21.027	2.858	0.069	0.119	0.001	0.000	0.004	0.000	0.000	0.000	0.000	0.000	1369.46
2	0.7174	1133.1	1153.1	0.557	6.145	69.556	20.688	2.865	0.068	0.114	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	1361.53
3	0.7259	1144.5	1164.8	0.563	6.239	68.483	21.110	3.293	0.103	0.191	0.007	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1367.16
4	0.7210	1141.6	1161.9	0.550	5.973	69.089	21.126	3.030	0.082	0.143	0.002	0.000	0.006	0.000	0.000	0.000	0.000	0.000	1368.41
5	0.7239	1145.9	1166.2	0.580	5.938	68.699	21.354	3.191	0.085	0.145	0.002	0.000	0.005	0.000	0.000	0.000	0.000	0.000	1370.77
6	0.7217	1146.5	1166.8	0.558	5.731	68.959	21.483	3.072	0.073	0.121	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1373.52
7	0.7221	1146.0	1166.3	0.559	5.797	68.782	21.646	3.045	0.066	0.101	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1372.53
8	0.7263	1152.5	1172.9	0.571	5.778	68.422	21.628	3.333	0.094	0.164	0.003	0.002	0.004	0.000	0.000	0.000	0.000	0.000	1376.32
9	0.7222	1147.3	1167.6	0.531	5.764	69.275	20.817	3.321	0.101	0.178	0.004	0.003	0.006	0.000	0.000	0.000	0.000	0.000	1374.01
10	0.7195	1139.2	1159.4	0.542	5.992	69.525	20.555	3.140	0.087	0.151	0.002	0.001	0.005	0.000	0.000	0.000	0.000	0.000	1366.88
11	0.7153	1135.1	1155.2	0.534	5.866	70.122	20.322	2.936	0.079	0.134	0.001	0.000	0.006	0.000	0.000	0.000	0.000	0.000	1365.89
12	0.7221	1142.9	1163.1	0.543	6.008	69.068	20.935	3.187	0.087	0.159	0.004	0.003	0.006	0.000	0.000	0.000	0.000	0.000	1368.88
13	0.7258	1141.2	1161.4	0.557	6.435	68.528	20.789	3.409	0.097	0.172	0.004	0.003	0.005	0.000	0.000	0.000	0.000	0.000	1363.33
14	0.7264	1147.1	1167.4	0.554	6.136	68.619	20.829	3.580	0.098	0.172	0.004	0.002	0.006	0.000	0.000	0.000	0.000	0.000	1369.85
15	0.7264	1145.7	1166.0	0.559	6.224	68.514	20.929	3.486	0.094	0.177	0.006	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1368.05
16	0.7272	1143.9	1164.1	0.567	6.395	68.283	21.013	3.468	0.095	0.167	0.004	0.002	0.005	0.000	0.000	0.000	0.000	0.000	1365.15
17	0.7268	1146.1	1166.3	0.563	6.228	68.392	21.102	3.424	0.101	0.178	0.005	0.003	0.005	0.000	0.000	0.000	0.000	0.000	1368.18
18	0.7265	1147.1	1167.4	0.563	6.140	68.443	21.139	3.434	0.099	0.172	0.004	0.002	0.005	0.000	0.000	0.000	0.000	0.000	1369.65
19	0.7218	1141.8	1162.0	0.546	6.042	69.176	20.736	3.244	0.089	0.156	0.004	0.002	0.005	0.000	0.000	0.000	0.000	0.000	1367.79
20	0.7181	1145.9	1166.2	0.537	5.457	69.787	20.907	3.091	0.077	0.136	0.002	0.001	0.005	0.000	0.000	0.000	0.000	0.000	1376.31
21	0.7232	1145.1	1165.4	0.550	5.966	68.775	21.333	3.126	0.088	0.153	0.003	0.001	0.005	0.000	0.000	0.000	0.000	0.000	1370.43
22	0.7275	1148.7	1169.0	0.545	6.164	68.376	21.091	3.496	0.110	0.201	0.007	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1370.54
23	0.7253	1146.3	1166.6	0.552	6.094	68.499	21.340	3.225	0.099	0.177	0.006	0.003	0.005	0.000	0.000	0.000	0.000	0.000	1369.76
24	0.7218	1145.7	1166.0	0.539	5.816	69.208	20.949	3.214	0.096	0.167	0.004	0.002	0.006	0.000	0.000	0.000	0.000	0.000	1372.45
25	0.7199	1142.4	1162.6	0.542	5.840	69.260	21.134	3.010	0.079	0.131	0.001	0.001	0.005	0.000	0.000	0.000	0.000	0.000	1370.25
26	0.7136	1128.9	1148.9	0.511	6.114	70.298	20.023	2.846	0.075	0.127	0.001	0.000	0.005	0.000	0.000	0.000	0.000	0.000	1360.07
27	0.7131	1128.9	1148.9	0.540	6.028	70.420	19.970	2.838	0.073	0.124	0.001	0.000	0.005	0.000	0.000	0.000	0.000	0.000	1360.47
28	0.7101	1143.2	1163.4	0.549	4.859	71.304	20.160	2.934	0.068	0.122	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	1380.59
29	0.7087	1143.2	1163.5	0.549	4.717	71.576	20.109	2.825	0.072	0.140	0.004	0.003	0.004	0.000	0.000	0.000	0.000	0.000	1382.10
30	0.7118	1147.5	1167.9	0.550	4.751	70.874	20.805	2.824	0.064	0.123	0.003	0.003	0.004	0.000	0.000	0.000	0.000	0.000	1384.22
31	0.7101	1146.1	1166.4	0.540	4.697	71.134	20.676	2.774	0.061	0.114	0.001	0.000	0.004	0.000	0.000	0.000	0.000	0.000	1384.10
Avg	0.7206	1143.0	1163.4	0.549	5.842	69.324	20.894	3.146	0.085	0.149	0.003	0.002	0.005	0.000	0.000	0.000	0.000	0.000	1370.60

Zone 262

## GQ Source Analysis

<b>GQ Source Number:</b>	2501030	<b>Specific Gravity:</b>	0.6296
<b>GQ Source Name:</b>	LIGNITE PLANT	<b>BTU Base:</b>	Dry
<b>Effective Date:</b>	1/1/2010 9:00:00 AM	<b>Measured Heat Value:</b>	1074.04
<b>Effective End Date:</b>	1/18/2038 9:14:07 PM	<b>Dry Heat Value:</b>	1072.97
<b>Pressure Base:</b>	14.730	<b>Wet Heat Value:</b>	1054.30
<b>Viscosity:</b>		<b>As Deliv. Heat Value:</b>	1072.97

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
C1	Methane	84.550		CO2	Carbon Dioxide	0.089
C2	Ethane	11.684	3.116	N2	Nitrogen	3.379
C3	Propane	0.237	0.065	O2	Oxygen	0.000
IC4	Iso-Butane	0.007	0.002	HE	Helium	
NC4	N-Butane	0.014	0.004	H2	Hydrogen	
IC5	Iso-Pentane	0.002	0.001	H2S	Hydrogen Sulfide	
NC5	N-Pentane	0.002	0.001	AR	Argon	
C6	Hexane	0.028	0.013	CO	Carbon Monoxide	
C7	Heptane			H2O	Water	
C8	Octane					
C9	Nonane					
C10	Decane					

**Totals**      99.994%      3.202 GPM

**Sample Date:** 1/31/2010 12:00:00 AM  
**Sample Type:** Composite  
**Sample Tech:** sampler  
**Sample Remarks:**

**Analysis Remarks:**

\*\*\* End of Report \*\*\*

Zone 263

# GQ Source Daily Summary

January 2010

**Number:** 043      **Pressure Base:** 14,730      **Contract Day:** 1  
**Name:** BISMARCK-CLEVELAND      **Temperature Base:**      **Contract Hour:** 9

Day	Heating Value		CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
	Relative Density	Dry																
1	0.6632	1074.5	1093.5	4.405	79.885	13.110	1.750	0.055	0.081	0.006	0.004	0.008	0.000	0.000	0.000	0.000	0.000	1342.80
2	0.6572	1069.7	1088.6	4.152	81.007	12.381	1.630	0.052	0.073	0.007	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1342.83
3	0.6793	1088.6	1107.9	5.115	77.058	14.738	2.212	0.073	0.125	0.008	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1344.24
4	0.6902	1105.4	1125.0	5.164	74.959	16.632	2.400	0.073	0.122	0.007	0.005	0.010	0.000	0.000	0.000	0.000	0.000	1354.10
5	0.6975	1113.8	1133.5	5.323	73.646	17.573	2.601	0.073	0.123	0.006	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1357.20
6	0.6924	1110.8	1130.5	5.004	74.586	17.099	2.460	0.068	0.112	0.006	0.004	0.009	0.000	0.000	0.000	0.000	0.000	1358.61
7	0.6837	1100.9	1120.4	4.762	76.226	15.856	2.303	0.063	0.100	0.006	0.004	0.009	0.000	0.000	0.000	0.000	0.000	1355.01
8	0.6884	1106.5	1126.1	4.864	75.466	16.333	2.459	0.073	0.121	0.006	0.004	0.008	0.000	0.000	0.000	0.000	0.000	1357.33
9	0.6990	1119.5	1139.3	5.136	73.462	17.866	2.687	0.076	0.129	0.006	0.004	0.009	0.000	0.000	0.000	0.000	0.000	1362.77
10	0.7050	1124.7	1144.7	5.467	72.354	18.517	2.840	0.084	0.150	0.007	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1363.35
11	0.7085	1125.9	1145.9	5.721	71.523	19.146	2.804	0.080	0.138	0.005	0.004	0.011	0.000	0.000	0.000	0.000	0.000	1361.45
12	0.7200	1138.4	1158.6	6.053	69.474	20.520	3.145	0.082	0.144	0.005	0.004	0.011	0.000	0.000	0.000	0.000	0.000	1365.50
13	0.7239	1141.6	1161.8	6.224	68.911	20.699	3.307	0.092	0.174	0.008	0.008	0.012	0.000	0.000	0.000	0.000	0.000	1365.51
14	0.7282	1147.4	1167.7	6.266	68.423	20.781	3.642	0.107	0.193	0.007	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1368.51
15	0.7262	1146.5	1166.8	6.131	68.717	20.735	3.549	0.094	0.179	0.008	0.008	0.011	0.000	0.000	0.000	0.000	0.000	1369.31
16	0.7262	1142.7	1163.0	6.357	68.474	20.927	3.393	0.090	0.163	0.007	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1364.74
17	0.7272	1148.1	1168.5	6.110	68.446	21.103	3.461	0.100	0.181	0.007	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1370.35
18	0.7258	1146.7	1167.0	6.082	68.541	21.197	3.325	0.094	0.169	0.006	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1369.85
19	0.7219	1141.9	1162.1	6.019	69.288	20.571	3.272	0.093	0.167	0.007	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1367.76
20	0.7173	1143.9	1164.1	5.494	70.001	20.639	3.093	0.075	0.134	0.005	0.004	0.010	0.000	0.000	0.000	0.000	0.000	1374.56
21	0.7235	1145.7	1166.0	5.938	68.784	21.320	3.139	0.085	0.150	0.006	0.005	0.010	0.000	0.000	0.000	0.000	0.000	1370.88
22	0.7270	1148.6	1168.9	6.104	68.403	21.229	3.395	0.104	0.187	0.007	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1370.79
23	0.7270	1148.7	1169.0	6.090	68.415	21.252	3.351	0.105	0.187	0.007	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1371.03
24	0.7220	1145.2	1165.5	5.839	69.182	20.977	3.176	0.093	0.161	0.006	0.005	0.011	0.000	0.000	0.000	0.000	0.000	1371.03
25	0.6971	1116.4	1136.1	5.144	73.787	17.613	2.594	0.079	0.133	0.007	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1360.78
26	0.6746	1087.2	1106.5	4.781	77.830	14.487	2.075	0.065	0.098	0.007	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1347.13
27	0.6653	1074.5	1093.5	4.659	79.503	13.185	1.821	0.062	0.092	0.007	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1340.68
28	0.6557	1067.5	1086.4	4.117	81.435	11.895	1.698	0.055	0.081	0.007	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1341.71
29	0.6561	1073.5	1092.5	3.785	81.443	12.181	1.729	0.055	0.085	0.007	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1348.81
30	0.6483	1063.6	1082.4	3.611	82.921	11.032	1.528	0.056	0.092	0.009	0.007	0.010	0.000	0.000	0.000	0.000	0.000	1344.29
31	0.6508	1066.0	1084.9	3.671	82.392	11.488	1.555	0.049	0.075	0.007	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1344.86
Avg	0.6977	1115.0	1135.1	5.277	73.695	17.519	2.658	0.078	0.133	0.007	0.005	0.010	0.000	0.000	0.000	0.000	0.000	1358.98

Zone 271

# GQ Source Daily Summary

## January 2010

**Number:** 063      **Pressure Base:** 14.730      **Contract Day:** 1  
**Name:** CLEVELAND-MAPLETON      **Temperature Base:**      **Contract Hour:** 9

Day	Relative Density		Heating Value		CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
	Wet	Dry	Wet	Dry																
1	0.6671	1079.4	1098.5		0.674	4.508	79.050	13.803	1.830	0.049	0.073	0.005	0.003	0.006	0.000	0.000	0.000	0.000	0.000	1344.97
2	0.6592	1071.9	1090.9		0.667	4.224	80.585	12.706	1.673	0.054	0.076	0.007	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1343.65
3	0.6696	1078.2	1097.3		0.669	4.819	78.665	13.739	1.940	0.060	0.092	0.007	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1341.01
4	0.6881	1101.1	1120.6		0.627	5.227	75.203	16.088	2.417	0.080	0.137	0.008	0.007	0.253	0.000	0.000	0.000	0.000	0.000	1350.92
5	0.6951	1111.4	1131.1		0.624	5.257	74.006	17.384	2.522	0.072	0.119	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1356.76
6	0.6964	1113.5	1133.3		0.637	5.232	73.796	17.563	2.565	0.073	0.120	0.006	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1358.08
7	0.6840	1100.8	1120.3		0.667	4.801	76.085	15.974	2.297	0.063	0.099	0.006	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1354.62
8	0.6859	1103.2	1122.7		0.655	4.849	75.833	16.066	2.400	0.070	0.112	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1355.67
9	0.6959	1115.8	1135.5		0.635	5.053	73.936	17.595	2.570	0.073	0.122	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1361.22
10	0.7024	1121.4	1141.2		0.575	5.414	72.919	17.938	2.889	0.091	0.156	0.007	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1361.73
11	0.7095	1128.0	1147.9		0.571	5.692	71.278	19.400	2.831	0.078	0.134	0.006	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1362.87
12	0.7123	1129.8	1149.8		0.550	5.868	70.772	19.640	2.945	0.079	0.132	0.005	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1362.52
13	0.7223	1144.3	1164.6		0.556	5.918	69.129	20.892	3.227	0.090	0.168	0.008	0.008	0.005	0.000	0.000	0.000	0.000	0.000	1370.37
14	0.7265	1140.7	1160.9		0.564	6.518	68.491	20.633	3.496	0.101	0.178	0.007	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1362.09
15	0.7246	1146.0	1166.2		0.555	6.026	68.932	20.687	3.529	0.091	0.162	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1370.17
16	0.7281	1144.5	1164.7		0.574	6.425	68.252	20.899	3.540	0.099	0.186	0.009	0.009	0.006	0.000	0.000	0.000	0.000	0.000	1365.04
17	0.7262	1145.2	1165.4		0.572	6.203	68.511	20.996	3.437	0.096	0.169	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1367.67
18	0.7245	1144.6	1164.9		0.562	6.098	68.749	20.983	3.322	0.097	0.172	0.007	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1368.62
19	0.7243	1143.8	1164.1		0.566	6.116	68.791	20.909	3.344	0.095	0.164	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1367.85
20	0.7202	1141.6	1161.8		0.549	5.897	69.504	20.568	3.221	0.087	0.155	0.007	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1369.02
21	0.7200	1145.5	1165.8		0.555	5.633	69.415	21.052	3.109	0.080	0.142	0.005	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1373.95
22	0.7239	1146.2	1166.5		0.552	5.965	68.807	21.141	3.253	0.096	0.169	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1370.96
23	0.7280	1149.1	1169.5		0.556	6.155	68.300	21.175	3.479	0.107	0.205	0.010	0.009	0.005	0.000	0.000	0.000	0.000	0.000	1370.70
24	0.7201	1141.6	1161.8		0.542	5.906	69.424	20.731	3.122	0.093	0.166	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1369.05
25	0.7082	1128.6	1148.6		0.604	5.476	71.699	19.099	2.877	0.083	0.145	0.007	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1364.89
26	0.6769	1091.0	1110.3		0.645	4.768	77.364	14.921	2.126	0.066	0.099	0.006	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1349.53
27	0.6684	1077.7	1096.8		0.637	4.788	78.867	13.623	1.909	0.064	0.096	0.007	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1341.50
28	0.6574	1066.2	1085.0		0.685	4.378	81.018	12.037	1.721	0.058	0.084	0.007	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1338.24
29	0.6558	1073.4	1092.4		0.689	3.782	81.466	12.157	1.748	0.056	0.085	0.007	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1348.92
30	0.6494	1064.9	1083.8		0.720	3.651	82.665	11.225	1.570	0.056	0.092	0.009	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1344.84
31	0.6493	1064.4	1083.3		0.738	3.642	82.626	11.319	1.528	0.050	0.077	0.008	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1344.36
Avg	0.6974	1115.0	1134.4		0.612	5.299	73.682	17.514	2.659	0.078	0.132	0.007	0.005	0.013	0.000	0.000	0.000	0.000	0.000	1358.45

Zone 27a

# GQ Source Daily Summary

## January 2010

**Number:** 061

**Pressure Base:** 14.730

**Contract Day:** 1

**Name:** CLEVELAND-GRAFTON

**Temperature Base:**

**Contract Hour:** 9

Day	Relative Density		Heating Value		CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
	Wet	Dry	Wet	Dry																
1	0.6676	1080.3	1099.4	0.666	4.506	78.977	13.880	1.833	0.048	0.073	0.005	0.003	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1345.59
2	0.6594	1072.2	1091.2	0.668	4.220	80.539	12.751	1.676	0.054	0.076	0.007	0.004	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1343.78
3	0.6697	1078.3	1097.4	0.670	4.820	78.653	13.727	1.937	0.060	0.092	0.007	0.005	0.033	0.000	0.000	0.000	0.000	0.000	0.000	1341.07
4	0.6881	1101.5	1121.0	0.624	5.199	75.422	16.103	2.413	0.080	0.137	0.008	0.007	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1351.42
5	0.6952	1111.8	1131.5	0.625	5.251	73.982	17.404	2.531	0.072	0.120	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1357.03
6	0.6963	1114.0	1133.8	0.637	5.202	73.806	17.580	2.567	0.073	0.120	0.006	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1358.73
7	0.6838	1100.6	1120.1	0.667	4.800	76.091	15.984	2.286	0.062	0.097	0.005	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1354.48
8	0.6862	1103.8	1123.3	0.656	4.834	75.799	16.098	2.414	0.070	0.114	0.006	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1356.08
9	0.6960	1116.3	1136.1	0.636	5.031	73.916	17.629	2.577	0.073	0.122	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1361.78
10	0.7019	1121.1	1141.0	0.576	5.378	72.995	17.926	2.864	0.090	0.155	0.007	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1361.94
11	0.7101	1128.4	1148.3	0.572	5.723	71.183	19.437	2.853	0.080	0.137	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1362.81
12	0.7119	1129.9	1149.9	0.551	5.824	70.853	19.611	2.937	0.078	0.132	0.005	0.004	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1363.02
13	0.7223	1144.4	1164.6	0.557	5.910	69.147	20.879	3.225	0.091	0.169	0.008	0.008	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1370.44
14	0.7267	1141.0	1161.2	0.565	6.512	68.478	20.642	3.504	0.102	0.180	0.007	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1362.27
15	0.7243	1146.4	1166.7	0.556	5.995	68.917	20.764	3.506	0.089	0.157	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1370.95
16	0.7285	1145.7	1165.9	0.573	6.391	68.186	20.985	3.553	0.100	0.188	0.009	0.009	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1366.10
17	0.7267	1146.3	1166.6	0.574	6.180	68.425	21.080	3.458	0.097	0.171	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1368.54
18	0.7250	1144.8	1165.1	0.564	6.125	68.690	20.993	3.338	0.098	0.174	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1368.40
19	0.7244	1144.1	1164.4	0.567	6.113	68.774	20.917	3.353	0.095	0.165	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1368.14
20	0.7199	1141.9	1162.2	0.548	5.852	69.529	20.608	3.205	0.087	0.154	0.006	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1369.75
21	0.7203	1145.5	1165.7	0.553	5.663	69.377	21.055	3.114	0.080	0.141	0.006	0.004	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1373.64
22	0.7242	1146.7	1167.0	0.552	6.144	68.300	21.178	3.264	0.097	0.170	0.007	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1371.42
23	0.7280	1149.3	1169.7	0.556	6.144	68.300	21.181	3.481	0.108	0.206	0.010	0.009	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1370.93
24	0.7201	1142.1	1162.3	0.541	5.879	69.426	20.750	3.128	0.093	0.167	0.007	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1369.64
25	0.7083	1129.0	1149.0	0.604	5.462	71.682	19.121	2.884	0.083	0.146	0.007	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1365.22
26	0.6771	1091.4	1110.7	0.645	4.750	77.341	14.948	2.131	0.066	0.099	0.006	0.004	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1349.84
27	0.6685	1078.0	1097.1	0.624	4.790	78.855	13.641	1.913	0.064	0.096	0.007	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1341.88
28	0.6574	1066.3	1085.2	0.686	4.369	81.024	12.037	1.724	0.058	0.085	0.007	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1338.45
29	0.6560	1073.7	1092.7	0.690	3.776	81.445	12.176	1.753	0.056	0.086	0.007	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1349.17
30	0.6496	1065.2	1084.1	0.720	3.647	82.643	11.249	1.572	0.056	0.092	0.009	0.006	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1345.06
31	0.6495	1064.8	1083.6	0.738	3.638	82.600	11.343	1.533	0.050	0.077	0.008	0.006	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1344.59
AVG	0.6975	1115.0	1134.7	0.612	5.288	73.672	17.538	2.662	0.078	0.132	0.007	0.005	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1358.78

Zone 273

# GQ Source Daily Summary

## January 2010

**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	ICS	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6028	1003.4	1021.2	0.841	2.837	91.292	4.414	0.520	0.037	0.038	0.008	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1315.24
2	0.6038	1006.4	1024.3	0.821	2.770	91.178	4.550	0.567	0.045	0.044	0.010	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1318.17
3	0.5980	993.4	1011.0	0.813	3.030	92.165	3.445	0.450	0.038	0.036	0.009	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1307.45
4	0.5995	998.1	1015.8	0.813	2.893	91.942	3.771	0.481	0.043	0.041	0.010	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1311.98
5	0.5990	996.7	1014.4	0.879	2.830	92.044	3.702	0.447	0.036	0.038	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1310.57
6	0.6004	999.5	1017.2	0.876	2.790	91.827	3.914	0.494	0.037	0.038	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1312.78
7	0.5999	997.7	1015.4	0.898	2.825	91.873	3.858	0.453	0.034	0.036	0.008	0.005	0.010	0.000	0.000	0.000	0.000	0.000	1310.92
8	0.6011	999.1	1016.8	0.868	2.891	91.621	4.054	0.475	0.033	0.036	0.008	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1311.50
9	0.6034	1002.7	1020.4	0.855	2.912	91.175	4.443	0.522	0.033	0.037	0.008	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1313.67
10	0.6013	999.7	1017.4	0.870	2.873	91.597	4.078	0.489	0.033	0.037	0.008	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1312.07
11	0.5997	998.1	1015.8	0.924	2.740	91.997	3.765	0.474	0.036	0.039	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1311.70
12	0.6011	1001.3	1019.0	0.905	2.702	91.738	4.050	0.504	0.037	0.040	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1314.38
13	0.5994	996.4	1014.0	0.849	2.928	91.939	3.729	0.460	0.034	0.037	0.008	0.005	0.010	0.000	0.000	0.000	0.000	0.000	1309.76
14	0.5989	993.1	1010.7	0.812	3.144	91.964	3.517	0.469	0.034	0.038	0.008	0.005	0.010	0.000	0.000	0.000	0.000	0.000	1305.93
15	0.6247	1023.7	1041.9	0.766	3.763	87.285	6.941	1.105	0.048	0.069	0.008	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1318.24
16	0.6810	1090.8	1110.1	0.662	5.132	76.826	14.819	2.352	0.070	0.117	0.007	0.005	0.010	0.000	0.000	0.000	0.000	0.000	1345.34
17	0.6495	1054.7	1073.3	0.760	4.229	82.772	10.380	1.674	0.063	0.097	0.008	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1331.88
18	0.6015	1001.1	1018.9	0.843	2.847	91.575	4.123	0.510	0.038	0.039	0.009	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1313.69
19	0.6032	1003.3	1021.0	0.816	2.920	91.214	4.407	0.541	0.038	0.041	0.009	0.005	0.010	0.000	0.000	0.000	0.000	0.000	1314.61
20	0.6019	999.9	1017.6	0.825	2.988	91.481	4.064	0.533	0.041	0.043	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1311.66
21	0.6008	999.7	1017.4	0.861	2.847	91.751	3.915	0.515	0.042	0.043	0.010	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1312.48
22	0.6013	1000.2	1017.9	0.846	2.884	91.653	3.975	0.527	0.043	0.045	0.010	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1312.62
23	0.6091	1009.8	1027.7	0.816	3.078	90.189	5.088	0.704	0.047	0.052	0.010	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1316.75
24	0.6003	999.0	1016.7	0.821	2.898	91.828	3.824	0.510	0.046	0.045	0.011	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1312.17
25	0.6046	1006.4	1024.3	0.846	2.811	91.091	4.515	0.615	0.047	0.048	0.010	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1317.27
26	0.6050	1007.3	1025.1	0.842	2.799	91.033	4.575	0.626	0.048	0.049	0.010	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1317.98
27	0.6054	1006.8	1024.6	0.827	2.897	90.911	4.614	0.626	0.048	0.051	0.011	0.007	0.010	0.000	0.000	0.000	0.000	0.000	1316.81
28	0.6055	1006.7	1024.5	0.820	2.920	90.865	4.649	0.626	0.045	0.049	0.010	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1316.62
29	0.6052	1006.5	1024.3	0.836	2.882	90.942	4.606	0.614	0.045	0.048	0.010	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1316.63
30	0.6038	1004.0	1021.7	0.863	2.863	91.217	4.357	0.583	0.043	0.047	0.010	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1314.86
31	0.6027	1001.8	1019.6	0.901	2.831	91.440	4.169	0.547	0.041	0.046	0.009	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1313.28
AVG	0.6069	1007.0	1024.5	0.838	3.024	90.594	4.784	0.645	0.042	0.047	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1315.13

Zone 28

# GQ Source Daily Summary

January 2010

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	0.6023	1003.7	1021.4	0.817	2.798	91.322	4.444	0.543	0.037	0.036	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1316.19
2	0.6011	1001.5	1019.2	0.823	2.817	91.556	4.192	0.532	0.040	0.037	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1314.54
3	0.5974	993.8	1011.4	0.817	2.938	92.214	3.497	0.461	0.036	0.034	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1308.61
4	0.5975	994.6	1012.2	0.840	2.863	92.226	3.543	0.454	0.036	0.035	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1309.53
5	0.6004	998.2	1015.8	0.885	2.851	91.726	3.965	0.499	0.036	0.035	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1311.08
6	0.5984	996.7	1014.3	0.903	2.732	92.097	3.750	0.451	0.032	0.033	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1311.22
7	0.5995	996.9	1014.6	0.871	2.869	91.836	3.884	0.476	0.030	0.032	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1310.35
8	0.6016	1000.4	1018.1	0.851	2.879	91.413	4.298	0.495	0.029	0.032	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1312.69
9	0.6016	1000.5	1018.2	0.856	2.873	91.423	4.277	0.507	0.030	0.033	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1312.72
10	0.5991	997.1	1014.8	0.899	2.778	91.970	3.807	0.478	0.032	0.034	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1311.01
11	0.5998	999.3	1017.0	0.909	2.692	91.891	3.936	0.501	0.033	0.036	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1313.15
12	0.5992	997.4	1015.1	0.865	2.818	91.904	3.875	0.469	0.032	0.034	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1311.32
13	0.5975	991.0	1008.6	0.828	3.104	92.143	3.417	0.442	0.030	0.032	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1304.78
14	0.5966	991.1	1008.7	0.818	3.028	92.328	3.316	0.443	0.031	0.032	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1305.88
15	0.5966	991.9	1009.5	0.838	2.952	92.339	3.384	0.420	0.031	0.033	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1306.90
16	0.5959	990.6	1008.2	0.869	2.915	92.514	3.222	0.411	0.033	0.033	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1306.00
17	0.5985	996.0	1013.6	0.854	2.857	92.042	3.707	0.469	0.034	0.035	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1310.18
18	0.6022	1003.0	1020.7	0.819	2.836	91.321	4.406	0.546	0.034	0.036	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1315.29
19	0.5990	998.1	1015.7	0.797	2.863	91.907	3.866	0.493	0.035	0.036	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1312.40
20	0.5984	997.4	1015.1	0.828	2.793	92.098	3.699	0.503	0.037	0.038	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1312.29
21	0.5992	999.3	1017.0	0.839	2.745	91.947	3.885	0.503	0.038	0.039	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1313.74
22	0.5999	998.7	1016.4	0.829	2.854	91.819	3.885	0.529	0.041	0.040	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1312.33
23	0.5983	996.4	1014.0	0.832	2.848	92.123	3.609	0.501	0.043	0.041	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1310.92
24	0.6018	1001.9	1019.7	0.823	2.847	91.483	4.185	0.572	0.043	0.043	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1314.45
25	0.6035	1005.3	1023.1	0.843	2.776	91.212	4.456	0.620	0.045	0.045	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1316.93
26	0.6056	1007.3	1025.1	0.830	2.867	90.804	4.747	0.654	0.047	0.048	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1317.35
27	0.6040	1004.6	1022.3	0.827	2.890	91.071	4.505	0.615	0.043	0.046	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1315.48
28	0.6043	1005.2	1023.0	0.823	2.890	90.995	4.582	0.620	0.042	0.045	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1315.95
29	0.6035	1003.9	1021.7	0.846	2.854	91.175	4.439	0.599	0.041	0.044	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1315.16
30	0.6025	1002.3	1020.1	0.871	2.823	91.364	4.284	0.572	0.039	0.043	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1314.13
31	0.6025	1002.1	1019.8	0.886	2.814	91.372	4.282	0.561	0.038	0.042	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	1313.83
Avg	0.6002	999.0	1016.6	0.846	2.854	91.730	3.979	0.514	0.036	0.038	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1312.14

Zone 31

# GQ Source Daily Summary

## January 2010

**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	0.6024	1004.0	1021.8	0.818	2.793	91.440	4.279	0.559	0.044	0.043	0.010	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1316.47
2	0.5992	996.6	1014.2	0.827	2.934	91.988	3.664	0.486	0.040	0.039	0.009	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1310.22
3	0.5980	995.4	1013.0	0.822	2.903	92.233	3.457	0.477	0.043	0.041	0.010	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1309.92
4	0.5975	994.1	1011.7	0.881	2.845	92.353	3.375	0.447	0.037	0.038	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1308.80
5	0.5990	997.3	1015.0	0.878	2.793	92.107	3.625	0.495	0.038	0.039	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1311.38
6	0.5976	994.2	1011.8	0.922	2.785	92.378	3.375	0.444	0.035	0.037	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1308.80
7	0.5995	996.1	1013.8	0.872	2.915	91.946	3.704	0.472	0.033	0.036	0.008	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1309.35
8	0.6019	1000.1	1017.8	0.867	2.912	91.490	4.120	0.518	0.033	0.038	0.008	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1311.89
9	0.6005	998.1	1015.8	0.874	2.888	91.774	3.873	0.496	0.034	0.038	0.008	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1310.83
10	0.5989	996.7	1014.3	0.923	2.750	92.173	3.575	0.477	0.036	0.040	0.009	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1310.69
11	0.5993	998.0	1015.7	0.922	2.707	92.124	3.643	0.501	0.037	0.041	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1312.03
12	0.5979	993.5	1011.1	0.857	2.949	92.257	3.381	0.460	0.035	0.038	0.008	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1307.62
13	0.5960	988.6	1006.1	0.807	3.149	92.506	3.029	0.418	0.033	0.036	0.008	0.005	0.010	0.000	0.000	0.000	0.000	0.000	1303.23
14	0.5974	992.6	1010.2	0.849	2.967	92.348	3.280	0.458	0.035	0.038	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1307.03
15	0.5950	988.0	1005.5	0.869	2.992	92.803	2.837	0.400	0.036	0.038	0.009	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1303.58
16	0.5959	990.3	1007.8	0.891	2.909	92.673	3.002	0.422	0.037	0.039	0.010	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1305.54
17	0.6000	998.3	1016.0	0.861	2.849	91.933	3.722	0.530	0.039	0.040	0.009	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1311.62
18	0.6015	1000.3	1018.0	0.830	2.916	91.579	4.034	0.538	0.038	0.041	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1312.64
19	0.5989	995.6	1013.2	0.836	2.949	92.084	3.528	0.496	0.041	0.041	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1309.29
20	0.5997	997.9	1015.6	0.872	2.830	92.002	3.667	0.516	0.042	0.044	0.010	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1311.41
21	0.5998	997.7	1015.4	0.855	2.879	91.966	3.665	0.520	0.043	0.044	0.010	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1311.03
22	0.5993	997.5	1015.1	0.846	2.854	92.079	3.583	0.520	0.045	0.045	0.011	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1311.34
23	0.5986	996.1	1013.8	0.826	2.905	92.177	3.466	0.507	0.046	0.045	0.011	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1310.28
24	0.6034	1004.5	1022.3	0.837	2.822	91.318	4.305	0.596	0.047	0.048	0.010	0.007	0.010	0.000	0.000	0.000	0.000	0.000	1316.13
25	0.6043	1006.3	1024.2	0.846	2.785	91.170	4.456	0.618	0.047	0.049	0.010	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1317.48
26	0.6053	1007.5	1023.4	0.814	2.862	90.932	4.628	0.638	0.049	0.051	0.010	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1317.88
27	0.6050	1006.0	1023.8	0.819	2.910	90.981	4.550	0.619	0.045	0.049	0.011	0.007	0.010	0.000	0.000	0.000	0.000	0.000	1316.34
28	0.6047	1005.6	1023.5	0.830	2.891	91.043	4.502	0.614	0.045	0.049	0.010	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1316.14
29	0.6034	1003.5	1021.3	0.859	2.860	91.301	4.277	0.587	0.043	0.047	0.010	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1314.69
30	0.6025	1001.6	1019.3	0.887	2.842	91.498	4.097	0.561	0.042	0.046	0.010	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1313.26
31	0.6027	1002.1	1019.9	0.893	2.827	91.462	4.134	0.567	0.042	0.047	0.010	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1313.63
Avg	0.6002	998.0	1015.9	0.858	2.877	91.875	3.769	0.515	0.040	0.042	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1311.31

Zone 32

# GQ Source Daily Summary

## January 2010

**Number:** 111      **Pressure Base:** 14.730      **Contract Day:** 1  
**Name:** LITTLE KNIFE PLANT      **Temperature Base:**      **Contract Hour:** 9

Day	Relative Density		Heating Value													CCT		
	Wet	Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9		C10	Wobbe
1	0.6727	1141.1	1161.3	0.000	2.315	75.849	21.478	0.346	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.91
2	0.6725	1141.0	1161.2	0.000	2.302	75.914	21.412	0.360	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.96
3	0.6721	1140.2	1160.4	0.000	2.312	76.001	21.307	0.368	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.40
4	0.6715	1139.4	1159.6	0.000	2.301	76.113	21.211	0.361	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.12
5	0.6721	1139.9	1160.1	0.000	2.329	75.980	21.328	0.351	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.07
6	0.6711	1138.7	1158.9	0.000	2.309	76.154	21.201	0.323	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.64
7	0.6712	1139.4	1159.6	0.000	2.277	76.142	21.239	0.330	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.40
8	0.6721	1140.5	1160.7	0.000	2.295	75.984	21.359	0.350	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.77
9	0.6720	1140.3	1160.5	0.000	2.292	76.039	21.282	0.375	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.72
10	0.6712	1139.4	1159.5	0.000	2.277	76.209	21.116	0.384	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.34
11	0.6699	1137.7	1157.9	0.000	2.258	76.453	20.907	0.368	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.64
12	0.6700	1137.2	1157.3	0.000	2.296	76.449	20.862	0.379	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.90
13	0.6707	1138.4	1158.5	0.000	2.289	76.321	20.990	0.387	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.65
14	0.6699	1137.1	1157.2	0.000	2.297	76.501	20.785	0.395	0.007	0.011	0.001	0.001	0.002	0.000	0.000	0.000	0.000	1414.41
15	0.6711	1138.5	1158.7	0.000	2.319	76.225	21.056	0.387	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.39
16	0.6713	1138.7	1158.9	0.000	2.330	76.191	21.065	0.401	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.04
17	0.6722	1139.9	1160.1	0.000	2.339	75.994	21.284	0.376	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.30
18	0.6703	1136.9	1157.1	0.000	2.344	76.118	21.162	0.363	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.24
19	0.6715	1138.7	1158.9	0.000	2.317	76.089	21.214	0.367	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.94
20	0.6717	1139.4	1159.6	0.000	2.312	75.877	21.439	0.359	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.91
21	0.6727	1141.1	1161.3	0.000	2.287	76.304	21.046	0.349	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.59
22	0.6706	1138.2	1158.4	0.000	2.254	76.173	21.230	0.329	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.74
23	0.6711	1139.6	1159.8	0.000	2.353	77.704	19.205	0.688	0.015	0.021	0.002	0.004	0.009	0.000	0.000	0.000	0.000	1408.97
24	0.6658	1129.7	1149.7	0.000	2.207	74.967	22.161	0.638	0.010	0.013	0.000	0.000	0.004	0.000	0.000	0.000	0.000	1423.19
25	0.6787	1152.1	1172.5	0.000	2.268	75.920	19.398	2.182	0.087	0.132	0.007	0.005	0.002	0.000	0.000	0.000	0.000	1425.80
26	0.6836	1158.4	1179.0	0.000	2.372	75.775	21.376	0.456	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.53
27	0.6737	1141.6	1161.8	0.000	2.310	75.500	21.815	0.361	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.55
28	0.6745	1144.0	1164.2	0.000	2.320	75.403	21.909	0.354	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.73
29	0.6750	1144.5	1164.7	0.000	2.327	75.825	21.455	0.379	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.91
30	0.6730	1141.4	1161.6	0.000	2.306	76.107	21.215	0.359	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.05
31	0.6715	1139.4	1159.6	0.000	2.305	76.086	21.142	0.445	0.009	0.012	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1415.60
Avg	0.6722	1140.0	1160.6	0.000														

Zone 33

# GQ Source Daily Summary

## January 2010

**Number:** 331      **Pressure Base:** 14.730      **Contract Day:** 1  
**Name:** MARMARTH PLANT      **Temperature Base:**      **Contract Hour:** 9

Day	Heating Value		CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	C11	CCT
	Relative Density	Wet																
1	0.7971	1138.2	2.287	10.714	54.469	29.374	2.886	0.062	0.182	0.007	0.018	0.002	0.000	0.000	0.000	0.000	0.000	1297.49
2	0.7969	1130.0	2.536	10.820	54.574	29.098	2.680	0.065	0.195	0.008	0.021	0.003	0.000	0.000	0.000	0.000	0.000	1288.29
3	0.7976	1134.9	2.437	10.739	54.383	29.465	2.660	0.068	0.212	0.009	0.024	0.003	0.000	0.000	0.000	0.000	0.000	1293.26
4	0.7959	1133.6	2.358	10.782	54.662	29.199	2.687	0.068	0.209	0.009	0.024	0.004	0.000	0.000	0.000	0.000	0.000	1293.11
5	0.7942	1133.3	2.285	10.755	54.720	29.437	2.508	0.064	0.198	0.009	0.022	0.003	0.000	0.000	0.000	0.000	0.000	1294.14
6	0.7954	1141.1	2.071	10.711	54.326	30.023	2.593	0.061	0.185	0.008	0.020	0.002	0.000	0.000	0.000	0.000	0.000	1302.12
7	0.7948	1146.2	1.838	10.692	54.297	30.224	2.682	0.060	0.178	0.007	0.019	0.003	0.000	0.000	0.000	0.000	0.000	1308.50
8	0.7965	1146.5	2.001	10.587	54.209	30.158	2.787	0.059	0.172	0.007	0.018	0.003	0.000	0.000	0.000	0.000	0.000	1307.44
9	0.7931	1147.7	1.916	10.321	54.751	30.085	2.663	0.061	0.176	0.007	0.017	0.003	0.000	0.000	0.000	0.000	0.000	1311.64
10	0.7969	1140.7	2.195	10.684	54.483	29.502	2.802	0.073	0.224	0.010	0.025	0.004	0.000	0.000	0.000	0.000	0.000	1300.46
11	0.7971	1138.8	2.197	10.813	54.333	29.600	2.733	0.070	0.217	0.009	0.024	0.003	0.000	0.000	0.000	0.000	0.000	1298.17
12	0.7991	1141.6	2.275	10.718	54.091	29.770	2.816	0.071	0.220	0.009	0.025	0.004	0.000	0.000	0.000	0.000	0.000	1299.68
13	0.7973	1141.0	2.224	10.666	54.366	29.657	2.756	0.071	0.221	0.010	0.025	0.004	0.000	0.000	0.000	0.000	0.000	1300.40
14	0.7991	1143.9	2.257	10.602	54.002	30.095	2.719	0.070	0.217	0.009	0.024	0.004	0.000	0.000	0.000	0.000	0.000	1302.31
15	0.8005	1142.0	2.332	10.741	53.958	29.752	2.866	0.075	0.235	0.010	0.027	0.004	0.000	0.000	0.000	0.000	0.000	1302.25
16	0.8025	1146.3	2.325	10.676	53.548	30.232	2.873	0.075	0.233	0.010	0.025	0.004	0.000	0.000	0.000	0.000	0.000	1301.51
17	0.8020	1145.3	2.328	10.685	53.705	30.017	2.915	0.075	0.236	0.010	0.026	0.003	0.000	0.000	0.000	0.000	0.000	1303.10
18	0.8019	1147.0	2.292	10.620	53.695	30.144	2.898	0.076	0.236	0.010	0.026	0.004	0.000	0.000	0.000	0.000	0.000	1303.59
19	0.8015	1146.3	2.300	10.613	53.836	29.968	2.923	0.077	0.240	0.011	0.028	0.004	0.000	0.000	0.000	0.000	0.000	1305.29
20	0.8041	1150.1	2.360	10.537	53.516	30.167	3.042	0.081	0.253	0.011	0.028	0.004	0.000	0.000	0.000	0.000	0.000	1305.57
21	0.8049	1150.9	2.376	10.537	53.444	30.172	3.077	0.085	0.264	0.011	0.030	0.004	0.000	0.000	0.000	0.000	0.000	1297.32
22	0.7959	1135.1	2.432	10.574	54.866	29.068	2.719	0.074	0.227	0.010	0.026	0.004	0.000	0.000	0.000	0.000	0.000	1294.83
23	0.7959	1137.3	2.452	10.415	54.614	29.724	2.475	0.069	0.214	0.009	0.025	0.004	0.000	0.000	0.000	0.000	0.000	1297.32
24	0.7735	1118.7	1.477	10.923	57.629	27.675	1.994	0.064	0.201	0.009	0.023	0.006	0.000	0.000	0.000	0.000	0.000	1294.56
25	0.7747	1134.9	1.210	10.452	57.790	27.803	2.329	0.083	0.276	0.013	0.036	0.010	0.000	0.000	0.000	0.000	0.000	1312.21
26	0.7718	1123.7	1.142	10.958	58.737	26.063	2.561	0.101	0.354	0.019	0.053	0.011	0.000	0.000	0.000	0.000	0.000	1301.70
27	0.7697	1122.7	1.442	10.370	58.639	27.102	2.127	0.069	0.211	0.009	0.025	0.005	0.000	0.000	0.000	0.000	0.000	1302.46
28	0.7954	1147.9	2.127	10.210	54.482	30.376	2.469	0.070	0.217	0.011	0.029	0.009	0.000	0.000	0.000	0.000	0.000	1309.88
29	0.7976	1150.4	2.209	10.144	54.179	30.551	2.603	0.070	0.210	0.009	0.022	0.003	0.000	0.000	0.000	0.000	0.000	1310.88
30	0.7992	1151.7	2.182	10.255	53.971	30.552	2.697	0.075	0.230	0.010	0.025	0.003	0.000	0.000	0.000	0.000	0.000	1311.05
31	0.7962	1146.3	2.126	10.386	54.468	30.002	2.687	0.072	0.220	0.009	0.024	0.004	0.000	0.000	0.000	0.000	0.000	1307.40
Avg	0.7948	1140.0	2.129	10.603	54.734	29.518	2.685	0.071	0.221	0.010	0.025	0.004	0.000	0.000	0.000	0.000	0.000	1301.92

\*\*\* End of Report\*\*\*

Zone 34

## GQ Source Analysis

<b>GQ Source Number:</b>	1201140	<b>Specific Gravity:</b>	0.5730
<b>GQ Source Name:</b>	EAGLE 8B ND	<b>BTU Base:</b>	Dry
<b>Effective Date:</b>	6/19/2009 9:00:00 AM	<b>Measured Heat Value:</b>	977.81
<b>Effective End Date:</b>	1/18/2038 9:14:07 PM	<b>Dry Heat Value:</b>	977.72
<b>Pressure Base:</b>	14.730	<b>Wet Heat Value:</b>	960.70
<b>Viscosity:</b>		<b>As Deliv. Heat Value:</b>	977.72

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
C1	Methane	95.826		CO2	Carbon Dioxide	0.096
C2	Ethane	0.305		N2	Nitrogen	3.757
C3	Propane	0.009	0.002	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					
C9	Nonane					
C10	Decane					
<b>Totals</b>			100.000%			0.005 GPM

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

**Analysis Remarks:**

Zone 35

<b>NORTH DAKOTA HEATING VALUE ZONES</b>		
<b>ZONES</b>	<b>MEASURING DEVICE</b>	<b>LOCATION</b>
211	Chromatograph	Sidney Area
24	Monthly Sampler	Williston Area
25	Monthly Sampler	Watford City Area
261	Chromatograph	Williston – Tioga – Minot Line
262	Chromatograph	Minot Area
263	Monthly Sampler	Tioga – Portal
264	Monthly Sampler	Williston – Ray
271	Chromatograph	Bismarck – Cleveland
272	Chromatograph	Cleveland – Mapleton
273	Chromatograph	Cleveland – Grafton
28	Chromatograph	Bismarck
31	Chromatograph	Dickinson
32	Chromatograph	Cabin Creek – Dickinson
33	Chromatograph	Killdeer
34	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	JAN 10	DEC 09	NOV 09	OCT 09	SEPT 09	AUG 09	JULY 09	JUNE 09	MAY 09	APR 09	MAR 09	FEB 09	ZONE
MT/ND	211	Sidney Area	1155	1152	1191	1187	1192	1195	1202	1203	1200	1170	1100	1019	21
ND	24	Williston Area	1176	1173	1193	1182	1181	1175	1143	1196	1180	1149	1106	1101	24
ND	25	Wattford City Area	1132	1131	1129	1121	1123	1130	1125	1134	1130	1128	1128	1128	25
ND	261	Williston - Tioga - Minot Line	1141	1142	1140	1160	1138	1129	1126	1131	1133	1136	1110	1101	261
ND	262	Minot Area	1163	1163	1165	1174	1168	1165	1165	1157	1144	1143	1130	1114	262
ND	263	Tioga - Portal	1073	1090	1113	1126	1138	1141	1141	1127	1122	1098	1092	1099	263
ND	264	Williston - Ray	1176	1173	1193	1182	1181	1175	1143	1196	1180	1149	1106	1101	264
ND	271	Bismarck - Cleveland	1135	1128	1163	1174	1166	1162	1160	1155	1143	1118	1043	1058	271
ND	272	Cleveland - Mapleton	1134	1128	1163	1174	1167	1163	1162	1156	1143	1118	1043	1057	272
ND	273	Cleveland - Grafton	1135	1128	1164	1173	1167	1163	1162	1156	1143	1118	1043	1057	273
ND	28	Bismarck - Cabin Creek	1025	1018	1094	1141	1140	1163	1162	1155	1142	1061	1014	1021	28
ND	31	Dickinson Area	1017	1019	994	1024	1140	1052	998	1044	996	1007	1013	1019	31
ND/MT	32	Cabin Creek - Dickinson	1015	1017	989	994	1140	1040	980	1018	981	997	1013	1019	32
ND	33	Killdeer	1160	1158	1158	1159	1158	1160	1164	1161	1163	1157	1156	1157	33
ND	34	Bowman Area	1161	1150	1169	1174	1174	1172	1170	1148	1148	1167	1172	1164	34
ND	35	Baker Field - North Dakota	978	978	978	978	978	978	978	978	974	974	974	974	35
		12 MONTH AVERAGE	1164												