



# MONTANA-DAKOTA

UTILITIES CO.

A Division of MDU Resources Group, Inc.

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

April 7, 2010

RECEIVED

APR 08 2010

PUBLIC SERVICE COMMISSION

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

Re: Case No. 11,006 (Therm Billing)  
Monthly Report – February 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 March 2010.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our supplier for the month of February 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.
5. Attachment E provides a brief explanation of the thermal variances, where applicable, for the month of December.

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  
MAR 2010

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
12	314	APPLE VALLEY	271	1.0778
12	327	BISMARCK	28	.9871
12	343	CARRINGTON	273	1.0768
12	344	CLEVELAND	272	1.0683
12	364	CAVALIER	273	1.0995
12	365	DAWSON	271	1.0702
12	374	FT TOTTEN	273	1.0844
12	375	DEVILS LAKE	273	1.0844
12	379	BARLOW	273	1.0768
12	387	ELDRIDGE	272	1.0759
12	411	GLEN ULLIN	31	.9643
12	417	GRAFTON	273	1.1071
12	439	HANKINSON	600	1.0630
12	449	JAMESTOWN	272	1.0834
12	463	LANGDON	273	1.0768
12	475	LINTON	802	.9707
12	478	LINCOLN	28	.9871
12	494	MEDINA	271	1.0702
12	498	MANDAN	28	.9871
12	524	NEW SALEM	28	.9662
12	532	NEW ROCKFORD	273	1.0768
12	539	PARK RIVER	273	1.0995
12	574	SANBORN	272	1.0834
12	593	STEELE	271	1.0702
12	598	SHEYENNE	273	1.0844
12	610	TAPPEN	271	1.0702
12	625	VALLEY CITY	272	1.0909
12	629	WALHALLA	273	1.0995
12	647	WILTON	262	1.0994
12	717	SPIRITWOOD	272	1.0834
12	718	FAIRMOUNT	600	1.0609
12	732	MSR SITE	273	1.0768
12	733	PAR SITE	273	1.0768
15	303	ALEXANDER	25	1.0626
15	308	ARNEGARD	25	1.0626

MONTANA-DAKOTA UTILITIES CO.  
Therm Billing Factor  
MAR 2010

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	318	BEACH	32	.9417
15	319	BELFIELD	32	.9486
15	323	BERTHOLD	262	1.0994
15	330	BOWMAN	34	1.0751
15	337	BURLINGTON	262	1.1231
15	368	DES LACS	262	1.1073
15	369	DICKINSON	31	.9574
15	384	EPPING	264	1.0966
15	407	GLADSTONE	31	.9574
15	413	GOLVA	32	.9279
15	416	GARRISON	262	1.1073
15	429	HEBRON	31	.9643
15	459	KILLDEER	33	1.0985
15	469	LEFOR	31	.9574
15	474	LIGNITE	263	1.0255
15	500	MARMARTH	34	1.0830
15	505	MINOT	262	1.1231
15	510	MOTT	31	.9574
15	512	MAX	262	1.0994
15	522	NEW ENGLAND	31	.9504
15	540	PALERMO	262	1.0994
15	558	RAY	264	1.0966
15	561	REGENT	31	.9574
15	563	RHAME	34	1.0672
15	564	RICHARDTON	31	.9504
15	568	ROSS	261	1.0727
15	572	RUTHVILLE	262	1.1231
15	583	SENTINEL BUTTE	32	.9417
15	588	SOUTH HEART	31	.9504
15	590	SPRINGBROOK	264	1.0966
15	591	STANLEY	261	1.0805
15	605	SURREY	262	1.1231
15	611	TAYLOR	31	.9504
15	616	TIOGA	261	1.0727
15	619	TURTLE LAKE	262	1.1073

MONTANA-DAKOTA UTILITIES CO.  
Therm Billing Factor  
MAR 2010

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	620	TRENTON	24	1.1045
15	624	UNDERWOOD	262	1.1073
15	632	WATFORD CITY	25	1.0626
15	636	WHEELOCK	264	1.0887
15	637	WHITE EARTH	261	1.0805
15	642	WILLISTON	24	1.1045
15	646	WASHBURN	262	1.1152
15	664	RIVERDALE	262	1.1073
15	691	FAIRVIEW	24	1.1045
15	712	MINOT AFB	262	1.1231
15	743	BAKER FIELD	35	.8971

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

Williston Basin Interstate Pipeline Co.

# GQ Source Daily Summary

## February 2010

**Number:** 251

**Pressure Base:** 14.730

**Contract Day:** 1

**Name:** SIDNEY AREA

**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	0.6799	1132.1	0.042	3.470	75.618	19.159	1.677	0.016	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1397.21	
2	0.6756	1123.4	0.049	3.584	76.571	18.007	1.750	0.018	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1390.90	
3	0.6661	1105.2	0.060	3.778	78.336	16.202	1.584	0.018	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1378.09	
4	0.6656	1106.4	0.058	3.666	78.487	16.125	1.620	0.020	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1380.06	
5	0.6670	1106.5	0.066	3.775	78.372	15.951	1.794	0.020	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1378.77	
6	0.6837	1137.5	0.057	3.464	75.422	18.809	2.197	0.024	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1400.00	
7	0.6759	1122.4	0.059	3.656	76.706	17.597	1.938	0.021	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1389.29	
8	0.6757	1121.9	0.056	3.669	76.959	17.123	2.141	0.025	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1388.96	
9	0.6612	1095.6	0.067	3.895	79.225	15.300	1.465	0.021	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1371.14	
10	0.6620	1098.5	0.057	3.810	78.818	16.045	1.229	0.017	0.022	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1373.94	
11	0.6536	1081.7	0.067	4.029	80.577	14.005	1.265	0.022	0.033	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1361.63	
12	0.6587	1096.4	0.052	3.639	79.378	15.780	1.121	0.014	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1374.72	
13	0.6464	1072.3	0.066	3.928	81.625	13.457	0.899	0.012	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1357.22	
14	0.6621	1101.0	0.054	3.670	78.762	16.287	1.192	0.016	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1377.04	
15	0.6562	1089.4	0.061	3.815	79.843	15.157	1.095	0.013	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1368.59	
16	0.6601	1095.0	0.059	3.835	79.216	15.607	1.247	0.016	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1371.68	
17	0.6484	1072.7	0.069	4.088	81.491	13.158	1.144	0.019	0.027	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1355.63	
18	0.6596	1093.3	0.061	3.896	79.442	15.193	1.357	0.020	0.028	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1369.68	
19	0.6541	1082.1	0.070	4.046	80.501	14.009	1.341	0.016	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1361.52	
20	0.6581	1090.6	0.065	3.911	79.669	15.015	1.308	0.015	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1368.15	
21	0.6510	1077.5	0.071	4.027	81.055	13.560	1.258	0.014	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1359.07	
22	0.6745	1120.5	0.058	3.639	76.910	17.520	1.818	0.025	0.030	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1388.44	
23	0.6743	1120.0	0.059	3.652	76.821	17.709	1.710	0.023	0.026	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1387.98	
24	0.6831	1137.1	0.052	3.442	75.477	18.860	2.106	0.028	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1400.08	
25	0.6990	1167.9	0.036	3.092	72.326	22.314	2.166	0.029	0.036	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1421.59	
26	0.6998	1169.9	0.034	3.042	72.196	22.476	2.183	0.030	0.038	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1423.32	
27	0.6990	1167.6	0.031	3.113	72.171	22.599	2.027	0.026	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.34	
28	0.6974	1165.4	0.031	3.101	72.509	22.255	2.041	0.027	0.034	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1420.22	
Avg	0.6696	1112.0	0.056	3.669	77.660	16.974	1.595	0.020	0.024	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1383.44	

Zone 211

## GQ Source Analysis

<b>GQ Source Number:</b>	0602330	<b>Specific Gravity:</b>	0.6959
<b>GQ Source Name:</b>	WILLISTON BORDER	<b>BTU Base:</b>	Dry
<b>Effective Date:</b>	2/1/2010 9:00:00 AM	<b>Measured Heat Value:</b>	1163.62
<b>Effective End Date:</b>	1/18/2038 9:14:07 PM	<b>Dry Heat Value:</b>	1161.03
<b>Pressure Base:</b>	14.730	<b>Wet Heat Value:</b>	1140.83
<b>Viscosity:</b>		<b>As Deliv. Heat Value:</b>	1161.03

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
C1	Methane	73.938		CO2	Carbon Dioxide	0.437
C2	Ethane	18.787	0.000	N2	Nitrogen	3.802
C3	Propane	2.812	0.773	O2	Oxygen	0.000
IC4	Iso-Butane	0.076	0.025	HE	Helium	
NC4	N-Butane	0.131	0.041	H2	Hydrogen	
IC5	Iso-Pentane	0.008	0.003	H2S	Hydrogen Sulfide	
NC5	N-Pentane	0.007	0.003	AR	Argon	
C6	Hexane	0.000	0.000	CO	Carbon Monoxide	
C7	Heptane			H2O	Water	
C8	Octane					
C9	Nonane					
C10	Decane					

**Totals**      99.999%      0.844 GPM

**Sample Date:** 2/28/2010 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>	0.7275
<b>GQ Source Name:</b>	WATFORD CITY BORDER	<b>BTU Base:</b>	Dry
<b>Effective Date:</b>	2/1/2010 9:00:00 AM	<b>Measured Heat Value:</b>	1128.02
<b>Effective End Date:</b>	1/18/2038 9:14:07 PM	<b>Dry Heat Value:</b>	1125.41
<b>Pressure Base:</b>	14.730	<b>Wet Heat Value:</b>	1105.83
<b>Viscosity:</b>		<b>As Deliv. Heat Value:</b>	1125.41

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
C1	Methane	68.775		CO2	Carbon Dioxide	0.711
C2	Ethane	17.633	4.702	N2	Nitrogen	8.502
C3	Propane	3.756	1.032	O2	Oxygen	0.000
IC4	Iso-Butane	0.196	0.064	HE	Helium	
NC4	N-Butane	0.359	0.113	H2	Hydrogen	
IC5	Iso-Pentane	0.029	0.011	H2S	Hydrogen Sulfide	
NC5	N-Pentane	0.029	0.010	AR	Argon	
C6	Hexane	0.008	0.004	CO	Carbon Monoxide	
C7	Heptane			H2O	Water	
C8	Octane					
C9	Nonane					
C10	Decane					

**Totals**      99.998%      5.935 GPM

**Sample Date:** 2/28/2010 12:00:00 AM  
**Sample Type:** Composite  
**Sample Tech:** sampler  
**Sample Remarks:**

**Analysis Remarks:**

*Zone 25*

# GQ Source Daily Summary

## February 2010

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

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6856	1130.0	1150.0	0.383	3.604	75.583	18.056	2.203	0.061	0.100	0.003	0.002	0.003	0.003					1388.90
2	0.6839	1127.7	1147.7	0.378	3.589	75.810	17.976	2.072	0.059	0.103	0.004	0.003	0.005	0.005					1387.86
3	0.6824	1125.6	1145.6	0.364	3.601	75.993	17.887	1.996	0.055	0.094	0.004	0.003	0.005	0.005					1386.79
4	0.6788	1120.2	1140.0	0.358	3.610	76.539	17.486	1.866	0.049	0.081	0.003	0.002	0.005	0.005					1383.64
5	0.6802	1122.2	1142.1	0.355	3.618	76.443	17.414	2.008	0.056	0.095	0.004	0.003	0.005	0.005					1384.76
6	0.6794	1119.9	1139.8	0.357	3.680	76.605	17.181	2.013	0.057	0.096	0.004	0.003	0.005	0.005					1382.75
7	0.6881	1134.3	1154.4	0.377	3.584	75.289	18.232	2.283	0.074	0.141	0.008	0.008	0.003	0.003					1391.69
8	0.6856	1129.4	1149.4	0.376	3.651	75.660	17.861	2.272	0.063	0.105	0.004	0.004	0.005	0.005					1388.21
9	0.6845	1128.1	1148.1	0.372	3.640	75.835	17.731	2.241	0.062	0.107	0.004	0.003	0.004	0.004					1387.60
10	0.6801	1121.1	1140.9	0.350	3.686	76.589	17.123	2.037	0.065	0.126	0.008	0.008	0.006	0.006					1383.45
11	0.6799	1121.5	1141.4	0.356	3.630	76.476	17.408	1.958	0.057	0.102	0.004	0.003	0.005	0.005					1384.21
12	0.6751	1111.7	1131.3	0.364	3.769	77.296	16.568	1.849	0.053	0.091	0.004	0.003	0.004	0.004					1376.92
13	0.6759	1114.9	1134.7	0.363	3.649	76.984	17.136	1.737	0.046	0.076	0.003	0.002	0.003	0.003					1380.12
14	0.6760	1113.4	1133.1	0.375	3.729	77.221	16.607	1.885	0.059	0.108	0.006	0.005	0.004	0.004					1378.17
15	0.6813	1123.4	1143.3	0.380	3.606	76.245	17.612	1.988	0.058	0.100	0.004	0.003	0.005	0.005					1385.21
16	0.6772	1115.7	1135.5	0.387	3.687	76.920	16.982	1.866	0.054	0.092	0.004	0.003	0.006	0.006					1379.77
17	0.6789	1118.6	1138.5	0.381	3.676	76.666	17.168	1.936	0.059	0.100	0.004	0.003	0.006	0.006					1381.66
18	0.6738	1109.1	1128.8	0.377	3.782	77.544	16.328	1.807	0.055	0.094	0.004	0.003	0.005	0.005					1375.09
19	0.6778	1116.8	1136.5	0.372	3.699	76.796	17.106	1.863	0.055	0.095	0.004	0.003	0.005	0.005					1380.48
20	0.6784	1117.1	1136.9	0.384	3.716	77.008	16.618	2.039	0.071	0.139	0.009	0.009	0.007	0.007					1380.26
21	0.6782	1117.0	1136.8	0.387	3.699	76.771	17.064	1.915	0.056	0.096	0.004	0.003	0.004	0.004					1380.40
22	0.6796	1118.3	1138.1	0.386	3.755	76.771	16.775	2.094	0.070	0.131	0.007	0.007	0.004	0.004					1380.51
23	0.6863	1130.8	1150.8	0.390	3.615	75.581	17.942	2.259	0.073	0.126	0.006	0.005	0.004	0.004					1389.13
24	0.6846	1127.6	1147.6	0.395	3.640	75.732	17.946	2.093	0.064	0.115	0.006	0.005	0.004	0.004					1386.98
25	0.6889	1136.3	1156.4	0.380	3.537	75.110	18.449	2.313	0.069	0.124	0.006	0.006	0.005	0.005					1393.30
26	0.6952	1146.2	1166.5	0.435	3.450	73.972	19.549	2.361	0.075	0.141	0.007	0.006	0.004	0.004					1398.95
27	0.6935	1142.7	1162.9	0.444	3.484	74.317	19.176	2.349	0.074	0.137	0.007	0.007	0.005	0.005					1396.44
28	0.6935	1142.7	1162.9	0.444	3.484	74.317	19.176	2.349	0.074	0.137	0.007	0.007	0.005	0.005					1396.44
AV9	0.6823	1124.0	1144.3	0.382	3.640	76.144	17.588	2.061	0.062	0.109	0.005	0.004	0.004	0.004					1385.31

Zone 261

# GQ Source Daily Summary

## February 2010

**Number:** 091      **Pressure Base:** 14,730      **Contract Day:** 1  
**Name:** 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																
1	0.7111	1149.8	1170.2	0.527	4.578	71.050	20.795	2.858	0.066	0.121	0.001	0.000	0.004	0.000	0.000	0.000	0.000	0.000	1387.66
2	0.7089	1147.9	1168.2	0.508	4.513	71.356	20.721	2.709	0.064	0.121	0.001	0.000	0.007	0.000	0.000	0.000	0.000	0.000	1387.57
3	0.7074	1145.2	1165.5	0.496	4.561	71.557	20.545	2.658	0.061	0.115	0.001	0.000	0.006	0.000	0.000	0.000	0.000	0.000	1385.72
4	0.7067	1144.6	1164.9	0.495	4.528	71.716	20.416	2.666	0.059	0.112	0.001	0.001	0.006	0.000	0.000	0.000	0.000	0.000	1385.74
5	0.7071	1144.9	1165.2	0.491	4.555	71.885	19.967	2.909	0.067	0.119	0.001	0.000	0.006	0.000	0.000	0.000	0.000	0.000	1385.68
6	0.7083	1146.6	1166.9	0.490	4.566	71.817	19.874	3.040	0.074	0.131	0.002	0.000	0.006	0.000	0.000	0.000	0.000	0.000	1386.50
7	0.7085	1147.7	1168.1	0.497	4.504	71.670	20.184	2.943	0.070	0.124	0.001	0.000	0.006	0.000	0.000	0.000	0.000	0.000	1387.71
8	0.7126	1154.0	1174.4	0.503	4.497	71.103	20.549	3.095	0.081	0.155	0.005	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1391.25
9	0.7110	1151.2	1171.6	0.500	4.525	71.335	20.323	3.105	0.074	0.130	0.001	0.000	0.006	0.000	0.000	0.000	0.000	0.000	1389.43
10	0.7075	1146.4	1166.7	0.489	4.505	71.766	20.225	2.794	0.069	0.137	0.005	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1387.07
11	0.7071	1144.8	1165.1	0.486	4.567	71.816	20.093	2.849	0.064	0.117	0.001	0.000	0.006	0.000	0.000	0.000	0.000	0.000	1385.56
12	0.6996	1135.9	1156.0	0.465	4.439	73.144	19.114	2.657	0.062	0.112	0.001	0.000	0.006	0.000	0.000	0.000	0.000	0.000	1382.10
13	0.6986	1133.8	1153.9	0.471	4.464	73.138	19.266	2.509	0.052	0.094	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	1380.58
14	0.6977	1131.9	1152.0	0.478	4.484	73.201	19.325	2.341	0.057	0.107	0.001	0.001	0.006	0.000	0.000	0.000	0.000	0.000	1379.17
15	0.7015	1138.2	1158.3	0.485	4.454	72.693	19.619	2.548	0.065	0.125	0.002	0.002	0.006	0.000	0.000	0.000	0.000	0.000	1382.95
16	0.7001	1136.2	1156.3	0.488	4.438	72.880	19.532	2.482	0.060	0.111	0.001	0.000	0.008	0.000	0.000	0.000	0.000	0.000	1381.93
17	0.7016	1138.3	1158.4	0.488	4.446	72.696	19.604	2.577	0.064	0.117	0.001	0.000	0.007	0.000	0.000	0.000	0.000	0.000	1383.05
18	0.6979	1131.3	1151.4	0.483	4.528	73.282	19.081	2.452	0.059	0.108	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	1378.26
19	0.6999	1135.0	1155.1	0.483	4.500	72.954	19.353	2.527	0.062	0.113	0.001	0.000	0.007	0.000	0.000	0.000	0.000	0.000	1380.65
20	0.7024	1138.6	1158.8	0.484	4.508	72.656	19.473	2.664	0.068	0.133	0.004	0.004	0.007	0.000	0.000	0.000	0.000	0.000	1382.63
21	0.7018	1136.9	1157.0	0.497	4.534	72.809	19.251	2.704	0.066	0.127	0.003	0.002	0.006	0.000	0.000	0.000	0.000	0.000	1381.19
22	0.7013	1136.4	1156.5	0.490	4.533	72.854	19.250	2.672	0.065	0.125	0.003	0.002	0.006	0.000	0.000	0.000	0.000	0.000	1381.01
23	0.7060	1144.7	1165.0	0.489	4.464	72.137	19.827	2.871	0.071	0.131	0.003	0.002	0.006	0.000	0.000	0.000	0.000	0.000	1386.50
24	0.7029	1141.5	1161.7	0.494	4.369	72.532	19.747	2.669	0.064	0.117	0.002	0.001	0.006	0.000	0.000	0.000	0.000	0.000	1385.60
25	0.7082	1149.1	1169.4	0.498	4.399	71.742	20.237	2.901	0.072	0.137	0.004	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1389.55
26	0.7095	1152.8	1173.2	0.496	4.295	71.485	20.605	2.903	0.071	0.133	0.004	0.002	0.006	0.000	0.000	0.000	0.000	0.000	1392.80
27	0.7122	1155.7	1176.2	0.526	4.324	71.086	20.841	2.987	0.075	0.146	0.006	0.004	0.006	0.000	0.000	0.000	0.000	0.000	1393.71
28	0.7124	1155.2	1175.7	0.545	4.340	71.095	20.767	3.018	0.075	0.145	0.005	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1392.95
AVG	0.7053	1143.0	1163.6	0.494	4.479	72.123	19.950	2.754	0.066	0.124	0.002	0.001	0.006	0.000	0.000	0.000	0.000	0.000	1385.52

Zone 262

## GQ Source Analysis

<b>GQ Source Number:</b>	2501030	<b>Specific Gravity:</b>	0.6314
<b>GQ Source Name:</b>	LIGNITE PLANT	<b>BTU Base:</b>	Dry
<b>Effective Date:</b>	2/1/2010 9:00:00 AM	<b>Measured Heat Value:</b>	1079.45
<b>Effective End Date:</b>	1/18/2038 9:14:07 PM	<b>Dry Heat Value:</b>	1078.28
<b>Pressure Base:</b>	14.730	<b>Wet Heat Value:</b>	1059.52
<b>Viscosity:</b>		<b>As Deliv. Heat Value:</b>	1078.28

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
C1	Methane	84.052		CO2	Carbon Dioxide	0.075
C2	Ethane	12.402	3.307	N2	Nitrogen	3.258
C3	Propane	0.179	0.049	O2	Oxygen	0.000
IC4	Iso-Butane	0.000	0.000	HE	Helium	
NC4	N-Butane	0.000	0.000	H2	Hydrogen	
IC5	Iso-Pentane	0.000	0.000	H2S	Hydrogen Sulfide	
NC5	N-Pentane	0.000	0.000	AR	Argon	
C6	Hexane	0.029	0.013	CO	Carbon Monoxide	
C7	Heptane			H2O	Water	
C8	Octane					
C9	Nonane					
C10	Decane					
<b>Totals</b>						
		99.995%	3.369 GPM			

**Sample Date:** 2/28/2010 12:00:00 AM  
**Sample Type:** Composite  
**Sample Tech:** sampler  
**Sample Remarks:**

**Analysis Remarks:**

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

*Zone 263*

# GQ Source Daily Summary

February 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
	Wet	Dry																
1	0.6635	1084.9	1104.1	0.699	3.793	80.026	13.493	1.828	0.054	0.087	0.007	0.005	0.009	0.000	0.000	0.000	0.000	1355.43
2	0.6727	1098.1	1117.5	0.630	3.963	78.198	15.061	1.982	0.054	0.092	0.006	0.005	0.008	0.000	0.000	0.000	0.000	1362.49
3	0.6842	1113.6	1133.3	0.592	4.154	76.031	16.847	2.198	0.056	0.102	0.006	0.005	0.009	0.000	0.000	0.000	0.000	1370.11
4	0.6810	1109.8	1129.5	0.594	4.079	76.633	16.377	2.140	0.056	0.099	0.006	0.005	0.009	0.000	0.000	0.000	0.000	1368.70
5	0.6890	1120.3	1140.1	0.571	4.229	75.222	17.393	2.406	0.058	0.101	0.005	0.004	0.009	0.000	0.000	0.000	0.000	1373.54
6	0.6965	1130.9	1150.9	0.549	4.318	74.066	18.110	2.748	0.069	0.121	0.006	0.005	0.009	0.000	0.000	0.000	0.000	1379.05
7	0.6828	1111.4	1131.1	0.600	4.135	76.582	16.074	2.413	0.065	0.110	0.006	0.005	0.009	0.000	0.000	0.000	0.000	1368.91
8	0.6765	1104.6	1124.1	0.639	3.903	77.757	15.298	2.195	0.065	0.116	0.009	0.007	0.010	0.000	0.000	0.000	0.000	1366.76
9	0.6789	1107.0	1126.6	0.626	4.006	77.348	15.475	2.354	0.064	0.107	0.007	0.005	0.009	0.000	0.000	0.000	0.000	1367.28
10	0.6682	1093.0	1112.3	0.639	3.833	79.196	14.157	1.999	0.057	0.098	0.007	0.005	0.009	0.000	0.000	0.000	0.000	1360.76
11	0.6756	1101.4	1120.9	0.599	4.078	77.732	15.295	2.116	0.056	0.101	0.007	0.006	0.010	0.000	0.000	0.000	0.000	1363.70
12	0.6690	1094.0	1113.4	0.622	3.870	79.004	14.328	2.005	0.055	0.094	0.007	0.005	0.009	0.000	0.000	0.000	0.000	1351.42
13	0.6574	1076.7	1095.7	0.660	3.780	81.075	12.635	1.704	0.048	0.077	0.007	0.005	0.010	0.000	0.000	0.000	0.000	1350.25
14	0.6543	1073.2	1092.2	0.679	3.704	81.405	12.447	1.516	0.046	0.073	0.007	0.005	0.010	0.000	0.000	0.000	0.000	1350.75
15	0.6555	1074.6	1093.6	0.676	3.672	81.546	12.447	1.580	0.052	0.087	0.008	0.006	0.010	0.000	0.000	0.000	0.000	1359.08
16	0.6657	1089.6	1108.9	0.640	3.803	79.506	14.075	1.814	0.053	0.089	0.007	0.005	0.010	0.000	0.000	0.000	0.000	1358.40
17	0.6661	1089.3	1108.6	0.637	3.858	79.427	14.091	1.823	0.053	0.091	0.007	0.005	0.010	0.000	0.000	0.000	0.000	1358.01
18	0.6670	1089.8	1109.1	0.638	3.916	79.265	14.160	1.853	0.054	0.094	0.007	0.005	0.010	0.000	0.000	0.000	0.000	1356.48
19	0.6657	1087.5	1106.8	0.636	3.938	79.484	13.959	1.818	0.054	0.090	0.007	0.005	0.010	0.000	0.000	0.000	0.000	1362.12
20	0.6719	1097.1	1116.5	0.644	3.956	78.350	14.943	1.958	0.054	0.094	0.007	0.005	0.010	0.000	0.000	0.000	0.000	1361.10
21	0.6716	1096.0	1115.5	0.622	3.959	78.631	14.482	2.077	0.063	0.116	0.009	0.008	0.012	0.000	0.000	0.000	0.000	1358.19
22	0.6662	1089.2	1108.5	0.662	3.834	79.490	13.974	1.876	0.053	0.088	0.007	0.005	0.011	0.000	0.000	0.000	0.000	1351.03
23	0.6569	1075.9	1095.0	0.687	3.733	81.346	12.298	1.753	0.058	0.098	0.009	0.007	0.011	0.000	0.000	0.000	0.000	1354.59
24	0.6579	1079.6	1098.8	0.687	3.608	81.125	12.656	1.752	0.057	0.091	0.008	0.006	0.010	0.000	0.000	0.000	0.000	1358.42
25	0.6648	1088.3	1107.6	0.647	3.784	79.836	13.640	1.911	0.058	0.099	0.008	0.007	0.010	0.000	0.000	0.000	0.000	1371.56
26	0.6807	1111.9	1131.6	0.586	3.933	76.868	16.164	2.256	0.061	0.108	0.007	0.006	0.010	0.000	0.000	0.000	0.000	1374.79
27	0.6848	1117.9	1137.7	0.627	3.892	76.230	16.679	2.358	0.067	0.121	0.009	0.007	0.011	0.000	0.000	0.000	0.000	1373.58
28	0.6854	1117.4	1137.2	0.631	3.973	76.090	16.728	2.371	0.064	0.115	0.008	0.007	0.011	0.000	0.000	0.000	0.000	1362.42
AVG	0.6718	1097.0	1116.7	0.633	3.918	78.481	14.761	2.029	0.057	0.098	0.007	0.006	0.010	0.000	0.000	0.000	0.000	1362.42

Zone 271

# GQ Source Daily Summary

## February 2010

**Number:** 063      **Pressure Base:** 14,730      **Contract Day:** 1  
**Name:** CLEVELAND-MAPLETON      **Temperature Base:**      **Contract Hour:** 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	C02	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6569	1075.2	1094.2	0.708	3.743	81.189	12.530	1.679	0.052	0.081	0.007	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1350.10
2	0.6720	1097.0	1116.4	0.638	3.944	78.357	14.879	2.016	0.056	0.094	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1361.90
3	0.6816	1110.2	1129.9	0.597	4.106	76.462	16.518	2.144	0.056	0.100	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1368.56
4	0.6799	1108.0	1127.7	0.592	4.083	76.787	16.250	2.115	0.056	0.099	0.006	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1367.61
5	0.6855	1115.4	1135.1	0.574	4.195	75.747	17.037	2.280	0.055	0.096	0.005	0.004	0.006	0.000	0.000	0.000	0.000	0.000	1370.99
6	0.6935	1126.5	1146.4	0.546	4.309	74.530	17.749	2.667	0.067	0.117	0.005	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1376.64
7	0.6893	1119.9	1139.7	0.568	4.278	75.344	17.015	2.596	0.068	0.116	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1372.80
8	0.6737	1100.1	1119.6	0.635	3.914	78.207	14.899	2.153	0.064	0.109	0.007	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1364.10
9	0.6790	1106.9	1126.5	0.618	4.030	77.265	15.559	2.336	0.064	0.109	0.007	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1367.07
10	0.6700	1095.3	1114.7	0.629	3.877	78.822	14.431	2.074	0.057	0.094	0.006	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1361.75
11	0.6725	1097.7	1117.2	0.605	4.001	78.281	14.859	2.058	0.058	0.106	0.008	0.007	0.021	0.000	0.000	0.000	0.000	0.000	1362.26
12	0.6726	1098.5	1118.0	0.612	3.944	78.299	14.879	2.096	0.057	0.097	0.006	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1363.24
13	0.6605	1081.0	1100.2	0.639	3.829	80.498	13.073	1.811	0.050	0.082	0.006	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1353.74
14	0.6536	1071.9	1090.9	0.670	3.697	81.655	12.294	1.550	0.046	0.071	0.007	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1349.32
15	0.6536	1071.7	1090.7	0.672	3.703	81.686	12.252	1.532	0.051	0.084	0.008	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1349.12
16	0.6631	1085.9	1105.2	0.644	3.774	79.964	13.679	1.780	0.054	0.089	0.007	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1357.15
17	0.6637	1085.9	1105.1	0.635	3.843	79.787	13.828	1.753	0.051	0.085	0.006	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1356.56
18	0.6681	1092.0	1111.4	0.629	3.894	79.025	14.403	1.883	0.055	0.093	0.007	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1359.69
19	0.6649	1086.4	1105.7	0.632	3.928	79.598	13.870	1.813	0.053	0.088	0.007	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1355.99
20	0.6699	1093.9	1113.2	0.618	3.973	78.654	14.671	1.921	0.054	0.092	0.007	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1360.08
21	0.6704	1094.2	1113.6	0.633	3.973	78.762	14.403	2.029	0.062	0.114	0.009	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1360.02
22	0.6677	1091.3	1110.6	0.654	3.863	79.211	14.157	1.945	0.056	0.095	0.008	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1359.16
23	0.6595	1079.3	1098.4	0.664	3.807	80.744	12.808	1.804	0.057	0.096	0.008	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1352.56
24	0.6560	1076.0	1095.1	0.686	3.640	81.464	12.309	1.730	0.057	0.092	0.009	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1352.08
25	0.6596	1081.6	1100.8	0.658	3.682	80.695	13.045	1.761	0.053	0.086	0.007	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1355.37
26	0.6776	1106.4	1126.0	0.585	3.980	77.424	15.583	2.234	0.062	0.110	0.008	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1367.85
27	0.6822	1114.6	1134.3	0.618	3.865	76.598	16.442	2.275	0.065	0.116	0.008	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1373.29
28	0.6862	1118.9	1138.7	0.618	3.973	75.949	16.817	2.427	0.068	0.124	0.009	0.008	0.006	0.000	0.000	0.000	0.000	0.000	1374.66
Avg	0.6708	1096.0	1115.2	0.628	3.923	78.607	14.651	2.016	0.057	0.098	0.007	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1361.56

Zone 272

Williston Basin Interstate Pipeline Co.

# GQ Source Daily Summary

## February 2010

**Number:** 061

**Pressure Base:** 14.730

**Contract Day:** 1

**Name:** CLEVELAND-GRAFTON

**Temperature Base:**

**Contract Hour:** 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT	
1	0.6570	1075.5	1094.5	0.709	3.739	81.165	12.553	1.684	0.052	0.081	0.007	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1350.30	
2	0.6720	1097.1	1116.6	0.639	3.938	78.348	14.888	2.020	0.057	0.094	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1362.03	
3	0.6817	1110.5	1130.2	0.598	4.094	76.453	16.526	2.149	0.057	0.101	0.006	0.005	0.014	0.000	0.000	0.000	0.000	0.000	1368.82	
4	0.6801	1108.4	1128.1	0.593	4.077	76.757	16.272	2.123	0.056	0.099	0.006	0.005	0.012	0.000	0.000	0.000	0.000	0.000	1367.89	
5	0.6858	1115.9	1135.7	0.575	4.186	75.709	17.080	2.282	0.056	0.097	0.005	0.004	0.006	0.000	0.000	0.000	0.000	0.000	1371.38	
6	0.6937	1126.9	1146.9	0.548	4.298	74.495	17.784	2.674	0.068	0.117	0.005	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1376.99	
7	0.6895	1120.4	1140.2	0.569	4.265	75.316	17.044	2.606	0.068	0.116	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1373.21	
8	0.6739	1100.6	1120.1	0.635	3.907	78.169	14.934	2.161	0.064	0.110	0.007	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1364.47	
9	0.6793	1107.4	1127.0	0.619	4.020	77.223	15.600	2.344	0.065	0.110	0.008	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1367.47	
10	0.6703	1095.7	1115.1	0.630	3.869	78.787	14.468	2.076	0.057	0.094	0.006	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1362.08	
11	0.6726	1098.0	1117.5	0.607	3.985	78.283	14.873	2.065	0.058	0.106	0.008	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1362.55	
12	0.6722	1098.0	1117.4	0.612	3.945	78.370	14.820	2.082	0.057	0.097	0.006	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1362.90	
13	0.6605	1081.2	1100.4	0.640	3.823	80.491	13.080	1.816	0.050	0.083	0.007	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1353.92	
14	0.6538	1072.3	1091.2	0.671	3.692	81.663	12.275	1.538	0.046	0.072	0.007	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1349.57	
15	0.6538	1072.1	1091.0	0.673	3.768	79.937	13.704	1.786	0.054	0.089	0.007	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1349.37	
16	0.6633	1086.2	1105.5	0.645	3.836	79.760	13.853	1.761	0.052	0.086	0.006	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1357.38	
17	0.6639	1086.3	1105.5	0.636	3.887	78.986	14.438	1.891	0.055	0.094	0.007	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1356.83	
18	0.6683	1092.5	1111.9	0.630	3.923	79.577	13.890	1.817	0.053	0.089	0.007	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1360.03	
19	0.6650	1086.7	1105.9	0.633	3.963	78.650	14.677	1.926	0.055	0.092	0.007	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1356.18	
20	0.6702	1094.4	1113.8	0.620	3.964	78.723	14.441	2.037	0.062	0.114	0.009	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1360.49	
21	0.6706	1094.7	1114.0	0.634	3.856	79.183	14.184	1.951	0.056	0.095	0.008	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1360.37	
22	0.6679	1091.6	1111.0	0.655	3.801	80.705	12.844	1.811	0.057	0.096	0.008	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1359.44	
23	0.6599	1080.0	1099.1	0.665	3.633	81.440	12.332	1.736	0.057	0.092	0.009	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1353.00	
24	0.6561	1076.3	1095.4	0.687	3.670	80.651	13.088	1.768	0.053	0.086	0.007	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1352.32	
25	0.6599	1082.1	1101.3	0.660	3.974	77.372	15.630	2.246	0.063	0.111	0.008	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1355.76	
26	0.6780	1107.1	1126.7	0.587	3.854	76.534	16.505	2.287	0.065	0.116	0.008	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1368.36	
27	0.6826	1115.3	1135.1	0.618	3.964	75.890	16.872	2.437	0.069	0.125	0.009	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1373.85	
28	0.6865	1119.6	1139.4	0.620	3.915	78.581	14.678	2.022	0.058	0.098	0.007	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1375.10	
Avg	0.6710	1096.0	1115.6	0.629	3.915	78.581	14.678	2.022	0.058	0.098	0.007	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1361.86	

Zone 273

# GQ Source Daily Summary

## February 2010

**Number:** 041      **Pressure Base:** 14.730      **Contract Day:** 1  
**Name:** BISMARCK-DICKINSON      **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	0.6048	1005.7	1023.6	0.875	2.824	91.029	4.584	0.573	0.042	0.047	0.010	0.006	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1316.17
2	0.6047	1004.3	1022.1	0.850	2.943	90.994	4.528	0.575	0.039	0.045	0.009	0.006	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1314.37
3	0.6052	1005.4	1023.2	0.860	2.911	90.916	4.613	0.589	0.040	0.046	0.009	0.006	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1315.24
4	0.6046	1005.5	1023.3	0.865	2.837	91.056	4.551	0.577	0.041	0.047	0.010	0.006	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1316.07
5	0.6034	1002.7	1020.5	0.907	2.828	91.320	4.283	0.547	0.041	0.046	0.010	0.006	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1313.76
6	0.6027	1001.4	1019.1	0.920	2.832	91.446	4.157	0.533	0.041	0.045	0.010	0.006	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1312.67
7	0.6011	998.3	1016.0	0.925	2.854	91.755	3.855	0.498	0.041	0.045	0.010	0.006	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1310.47
8	0.6040	1003.6	1021.4	0.898	2.849	91.169	4.425	0.544	0.041	0.046	0.010	0.006	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1314.22
9	0.6055	1005.3	1023.1	0.887	2.898	90.909	4.600	0.590	0.041	0.047	0.010	0.006	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1314.85
10	0.6089	1011.5	1029.4	0.836	2.920	90.213	5.264	0.654	0.040	0.047	0.009	0.006	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1319.21
11	0.6068	1007.2	1025.1	0.841	2.976	90.592	4.864	0.617	0.039	0.046	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	0.000	1315.93
12	0.6056	1006.1	1024.0	0.888	2.858	90.871	4.690	0.580	0.040	0.047	0.009	0.006	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1315.81
13	0.6042	1003.3	1021.0	0.896	2.891	91.123	4.429	0.550	0.040	0.046	0.009	0.006	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1313.55
14	0.6064	1007.0	1024.8	0.888	2.883	90.720	4.796	0.599	0.041	0.047	0.009	0.006	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1316.03
15	0.6074	1009.0	1026.9	0.880	2.859	90.553	4.967	0.626	0.041	0.048	0.009	0.006	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1317.67
16	0.6071	1008.6	1026.4	0.882	2.865	90.604	4.905	0.628	0.041	0.048	0.009	0.006	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1317.29
17	0.6065	1007.8	1025.6	0.885	2.847	90.732	4.804	0.615	0.042	0.049	0.010	0.006	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1316.96
18	0.6048	1004.4	1022.2	0.916	2.847	91.076	4.463	0.581	0.042	0.049	0.010	0.006	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1314.39
19	0.6045	1004.0	1021.8	0.910	2.851	91.113	4.449	0.559	0.041	0.048	0.010	0.006	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1314.18
20	0.6048	1004.6	1022.4	0.919	2.830	91.073	4.487	0.569	0.043	0.049	0.010	0.007	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1314.66
21	0.6028	1001.7	1019.4	0.956	2.763	91.522	4.082	0.551	0.044	0.050	0.011	0.007	0.013	0.000	0.000	0.000	0.000	0.000	0.000	1313.00
22	0.6054	1007.1	1024.9	0.947	2.696	91.025	4.626	0.580	0.045	0.050	0.011	0.007	0.013	0.000	0.000	0.000	0.000	0.000	0.000	1317.19
23	0.6051	1004.9	1022.7	0.898	2.870	91.012	4.511	0.586	0.043	0.049	0.011	0.007	0.013	0.000	0.000	0.000	0.000	0.000	0.000	1314.73
24	0.6067	1008.4	1026.3	0.882	2.830	90.693	4.866	0.606	0.043	0.049	0.010	0.007	0.013	0.000	0.000	0.000	0.000	0.000	0.000	1314.61
25	0.6045	1003.9	1021.7	0.855	2.942	91.069	4.428	0.585	0.043	0.049	0.010	0.007	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1314.07
26	0.6047	1004.0	1021.8	0.831	2.986	90.989	4.508	0.567	0.043	0.049	0.010	0.007	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1314.06
27	0.6020	1002.2	1019.9	0.905	2.733	91.665	4.026	0.529	0.052	0.053	0.013	0.008	0.014	0.000	0.000	0.000	0.000	0.000	0.000	1314.54
28	0.5997	997.0	1014.7	0.930	2.794	92.102	3.549	0.491	0.049	0.050	0.013	0.008	0.015	0.000	0.000	0.000	0.000	0.000	0.000	1310.28
Avg	0.6048	1005.0	1022.6	0.890	2.858	91.048	4.511	0.575	0.042	0.048	0.010	0.006	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1314.96

Zone 28

# GQ Source Daily Summary

February 2010

Number: 271      Pressure Base: 14.730      Contract Day: 1

Name: DICKINSON AREA      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	Wet																
1	0.6038	1004.5	1022.2	0.859	2.833	91.082	4.567	0.576	0.037	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1315.51
2	0.6036	1002.9	1020.7	0.852	2.917	91.101	4.480	0.571	0.036	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1313.73
3	0.6055	1004.9	1022.7	0.877	2.938	90.778	4.708	0.613	0.039	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1314.34
4	0.6030	1003.3	1021.0	0.881	2.794	91.273	4.408	0.559	0.038	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1314.86
5	0.6021	1000.8	1018.6	0.901	2.826	91.456	4.192	0.542	0.038	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1312.67
6	0.6006	998.1	1015.8	0.924	2.819	91.750	3.916	0.508	0.037	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1310.69
7	0.6008	998.8	1016.5	0.903	2.823	91.691	3.994	0.507	0.037	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1311.46
8	0.6032	1002.3	1020.0	0.890	2.861	91.246	4.341	0.575	0.038	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1313.34
9	0.6071	1009.1	1027.0	0.846	2.875	90.458	5.112	0.624	0.037	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1318.06
10	0.6066	1007.6	1025.4	0.836	2.940	90.534	4.968	0.640	0.036	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1316.58
11	0.6061	1005.9	1023.7	0.875	2.939	90.647	4.850	0.606	0.037	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1314.89
12	0.6041	1004.0	1021.8	0.886	2.843	91.040	4.583	0.565	0.037	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1314.67
13	0.6037	1002.9	1020.7	0.886	2.875	91.114	4.481	0.560	0.037	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1313.61
14	0.6057	1006.7	1024.5	0.881	2.838	90.778	4.799	0.619	0.038	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1316.41
15	0.6063	1007.5	1025.6	0.873	2.842	90.648	4.920	0.630	0.038	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1317.17
16	0.6065	1007.8	1025.4	0.878	2.871	90.609	4.922	0.632	0.038	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1316.61
17	0.6047	1005.0	1022.8	0.898	2.819	90.981	4.620	0.595	0.038	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1315.33
18	0.6036	1003.2	1020.9	0.916	2.806	91.195	4.424	0.570	0.038	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1315.33
19	0.6036	1002.8	1020.5	0.901	2.849	91.173	4.426	0.563	0.038	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1314.03
20	0.6026	1001.6	1019.3	0.944	2.762	91.456	4.173	0.572	0.040	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1313.58
21	0.6062	1004.0	1021.8	1.015	2.840	90.822	4.633	0.589	0.044	0.049	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1313.12
22	0.6047	1005.6	1023.4	0.912	2.767	91.008	4.627	0.593	0.040	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1312.66
23	0.6043	1004.2	1022.0	0.893	2.838	91.068	4.522	0.586	0.040	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1316.04
24	0.6054	1006.8	1024.7	0.862	2.828	90.832	4.771	0.617	0.039	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1314.72
25	0.6031	1002.0	1019.7	0.834	2.952	91.214	4.338	0.572	0.039	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1316.96
26	0.6024	1002.8	1020.5	0.868	2.789	91.405	4.292	0.547	0.045	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1313.08
27	0.5994	997.9	1015.6	0.913	2.738	92.039	3.696	0.509	0.048	0.049	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1314.84
28	0.6007	998.3	1016.0	0.944	2.778	91.835	3.811	0.528	0.048	0.049	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1311.68
AVG	0.6039	1004.0	1021.4	0.891	2.843	91.115	4.485	0.577	0.039	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1314.34

Zone 31

# GQ Source Daily Summary

## February 2010

**Number:** 051      **Pressure Base:** 14.730      **Contract Day:** 1  
**Name:** CABIN CR-DICKINSON      **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	0.6030	1001.8	1019.6	1019.6	0.864	2.915	91.358	4.177	0.574	0.040	0.046	0.009	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1312.94
2	0.6036	1002.3	1020.0	1020.0	0.869	2.934	91.253	4.251	0.582	0.040	0.046	0.009	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1312.93
3	0.6035	1003.4	1021.2	1021.2	0.874	2.847	91.309	4.260	0.595	0.042	0.047	0.010	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1314.53
4	0.6024	1001.2	1019.0	1019.0	0.905	2.831	91.530	4.060	0.557	0.042	0.047	0.010	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1312.85
5	0.6014	999.3	1017.0	1017.0	0.921	2.824	91.732	3.879	0.531	0.041	0.046	0.010	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1311.51
6	0.5991	996.0	1013.6	1013.6	0.924	2.812	92.147	3.515	0.489	0.040	0.044	0.010	0.007	0.011	0.000	0.000	0.000	0.000	0.000	1309.55
7	0.6010	998.6	1016.3	1016.3	0.913	2.850	91.788	3.801	0.533	0.041	0.046	0.010	0.007	0.011	0.000	0.000	0.000	0.000	0.000	1310.90
8	0.6041	1003.4	1021.1	1021.1	0.892	2.880	91.199	4.317	0.595	0.041	0.048	0.010	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1313.79
9	0.6064	1007.0	1024.9	1024.9	0.859	2.921	90.744	4.714	0.646	0.041	0.048	0.009	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1316.11
10	0.6059	1005.7	1023.5	1023.5	0.841	2.991	90.777	4.650	0.630	0.039	0.047	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1314.80
11	0.6044	1003.9	1021.7	1021.7	0.892	2.880	91.181	4.286	0.650	0.039	0.047	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1314.10
12	0.6028	1000.8	1018.6	1018.6	0.907	2.888	91.444	4.086	0.563	0.041	0.047	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1311.92
13	0.6032	1001.3	1019.0	1019.0	0.902	2.911	91.343	4.164	0.571	0.040	0.046	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1312.02
14	0.6035	1001.7	1019.4	1019.4	0.904	2.909	91.296	4.205	0.574	0.041	0.047	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1312.26
15	0.6035	1001.7	1019.4	1019.4	0.904	2.909	91.296	4.205	0.574	0.041	0.047	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1312.26
16	0.6035	1001.7	1019.4	1019.4	0.904	2.909	91.296	4.205	0.574	0.041	0.047	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1312.26
17	0.6035	1001.7	1019.4	1019.4	0.904	2.909	91.296	4.205	0.574	0.041	0.047	0.009	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1312.26
18	0.6029	1001.1	1018.8	1018.8	0.917	2.871	91.435	4.098	0.562	0.042	0.048	0.010	0.007	0.011	0.000	0.000	0.000	0.000	0.000	1312.26
19	0.6033	1001.8	1019.6	1019.6	0.928	2.847	91.388	4.145	0.571	0.042	0.049	0.011	0.007	0.012	0.000	0.000	0.000	0.000	0.000	1312.10
20	0.6022	1000.7	1018.4	1018.4	0.958	2.761	91.659	3.942	0.554	0.044	0.050	0.011	0.007	0.013	0.000	0.000	0.000	0.000	0.000	1312.60
21	0.6029	1002.5	1020.2	1020.2	0.973	2.693	91.579	4.049	0.577	0.045	0.051	0.011	0.007	0.014	0.000	0.000	0.000	0.000	0.000	1312.40
22	0.6037	1002.7	1020.4	1020.4	0.911	2.858	91.310	4.211	0.587	0.043	0.049	0.011	0.007	0.013	0.000	0.000	0.000	0.000	0.000	1313.99
23	0.6040	1003.4	1021.2	1021.2	0.912	2.841	91.274	4.245	0.603	0.044	0.050	0.011	0.007	0.013	0.000	0.000	0.000	0.000	0.000	1313.31
24	0.6041	1003.7	1021.5	1021.5	0.877	2.885	91.218	4.280	0.617	0.043	0.049	0.010	0.007	0.013	0.000	0.000	0.000	0.000	0.000	1313.92
25	0.6030	1000.9	1018.6	1018.6	0.838	3.014	91.331	4.128	0.568	0.043	0.049	0.010	0.007	0.013	0.000	0.000	0.000	0.000	0.000	1314.19
26	0.6001	998.6	1016.3	1016.3	0.923	2.745	92.082	3.571	0.536	0.052	0.054	0.013	0.008	0.015	0.000	0.000	0.000	0.000	0.000	1311.71
27	0.5983	994.8	1012.5	1012.5	0.936	2.791	92.397	3.240	0.499	0.050	0.051	0.013	0.008	0.015	0.000	0.000	0.000	0.000	0.000	1311.91
28	0.6001	998.4	1016.1	1016.1	0.943	2.733	92.089	3.557	0.540	0.051	0.052	0.013	0.008	0.015	0.000	0.000	0.000	0.000	0.000	1308.88
Avg	0.6029	1001.0	1019.2	1019.2	0.903	2.863	91.455	4.087	0.572	0.042	0.048	0.010	0.007	0.012	0.000	0.000	0.000	0.000	0.000	1312.63

Zone 32

# GQ Source Daily Summary

February 2010

Number: 111      Pressure Base: 14.730      Contract Day: 1

Name: LITTLE KNIFE PLANT      Temperature Base:      Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6706	1137.9	1158.1	0.000	2.312	76.294	21.017	0.363	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.15
2	0.6708	1138.2	1158.4	0.000	2.312	76.260	21.046	0.368	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.31
3	0.6708	1137.8	1158.0	0.000	2.336	76.285	20.973	0.393	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.81
4	0.6719	1139.7	1159.9	0.000	2.324	76.064	21.209	0.390	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.99
5	0.6733	1141.4	1161.6	0.000	2.350	75.801	21.427	0.409	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.65
6	0.6737	1141.6	1161.9	0.000	2.373	75.708	21.498	0.407	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.55
7	0.6740	1142.2	1162.5	0.000	2.365	75.833	21.209	0.565	0.011	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.92
8	0.6723	1139.8	1160.0	0.000	2.353	75.931	21.356	0.348	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.77
9	0.6749	1143.7	1164.0	0.000	2.359	75.426	21.831	0.372	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.88
10	0.6746	1143.6	1163.8	0.000	2.341	75.510	21.740	0.396	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.00
11	0.6728	1140.9	1161.1	0.000	2.332	75.876	21.396	0.382	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.58
12	0.6751	1143.5	1163.8	0.000	2.396	75.387	21.815	0.389	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.34
13	0.6743	1143.0	1163.2	0.000	2.350	75.536	21.745	0.356	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.55
14	0.6746	1143.5	1163.8	0.000	2.347	75.483	21.786	0.371	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.89
15	0.6740	1142.5	1162.8	0.000	2.351	75.626	21.618	0.392	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.30
16	0.6755	1144.5	1164.8	0.000	2.373	75.321	21.895	0.397	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.14
17	0.6750	1143.8	1164.1	0.000	2.362	75.443	21.778	0.404	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.90
18	0.6742	1143.1	1163.3	0.000	2.335	75.576	21.694	0.381	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.79
19	0.6745	1143.0	1163.2	0.000	2.368	75.525	21.704	0.390	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.36
20	0.6741	1142.7	1162.9	0.000	2.348	75.608	21.645	0.385	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.39
21	0.6739	1142.5	1162.7	0.000	2.345	75.644	21.611	0.386	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.31
22	0.6763	1145.6	1165.9	0.000	2.376	75.141	22.092	0.377	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.75
23	0.6780	1147.4	1167.7	0.000	2.426	74.798	22.379	0.384	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.20
24	0.6775	1147.0	1167.3	0.000	2.404	74.905	22.293	0.385	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.21
25	0.6758	1145.1	1165.4	0.000	2.361	75.255	21.982	0.388	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.63
26	0.6789	1148.9	1169.3	0.000	2.416	74.729	22.350	0.490	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.15
27	0.6787	1149.2	1169.5	0.000	2.387	74.813	22.248	0.536	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.59
28	0.6783	1148.3	1168.6	0.000	2.407	74.869	22.183	0.524	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.87
Avg	0.6746	1143.0	1163.5	0.000	2.361	75.523	21.697	0.405	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.57

Zone 33

# GQ Source Daily Summary

## February 2010

**Number:** 331      **Pressure Base:** 14.730      **Contract Day:** 1  
**Name:** MARMARTH PLANT      **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	0.7992	1147.8	1168.1	2.192	10.471	54.084	30.095	2.807	0.076	0.234	0.010	0.027	0.004	0.000	0.000	0.000	0.000	0.000	1306.69	
2	0.8067	1157.3	1177.8	2.354	10.347	53.324	30.271	3.309	0.087	0.263	0.011	0.028	0.004	0.000	0.000	0.000	0.000	0.000	1311.35	
3	0.8117	1167.5	1188.2	2.381	10.152	52.766	30.619	3.660	0.093	0.284	0.012	0.030	0.004	0.000	0.000	0.000	0.000	0.000	1318.82	
4	0.8017	1160.2	1180.7	2.207	9.932	53.887	30.593	3.025	0.077	0.236	0.011	0.027	0.004	0.000	0.000	0.000	0.000	0.000	1318.67	
5	0.8054	1161.8	1182.3	2.267	10.083	53.400	30.673	3.200	0.083	0.251	0.011	0.027	0.004	0.000	0.000	0.000	0.000	0.000	1317.50	
6	0.8077	1161.4	1182.0	2.348	10.206	53.160	30.544	3.348	0.086	0.263	0.011	0.029	0.004	0.000	0.000	0.000	0.000	0.000	1315.14	
7	0.8042	1152.2	1172.6	2.339	10.449	53.661	29.971	3.198	0.084	0.257	0.011	0.028	0.004	0.000	0.000	0.000	0.000	0.000	1307.58	
8	0.7923	1133.9	1154.0	1.885	11.138	54.870	29.181	2.557	0.077	0.246	0.011	0.029	0.006	0.000	0.000	0.000	0.000	0.000	1296.48	
9	0.7867	1134.1	1154.2	2.126	10.230	56.200	28.621	2.535	0.064	0.192	0.008	0.020	0.003	0.000	0.000	0.000	0.000	0.000	1301.45	
10	0.8042	1155.9	1176.4	2.425	10.094	53.598	30.424	3.142	0.072	0.212	0.008	0.021	0.003	0.000	0.000	0.000	0.000	0.000	1311.77	
11	0.8086	1165.7	1186.3	2.414	9.928	53.036	30.867	3.417	0.076	0.227	0.009	0.023	0.003	0.000	0.000	0.000	0.000	0.000	1319.22	
12	0.8103	1166.6	1187.2	2.465	9.961	52.578	31.385	3.283	0.074	0.222	0.009	0.022	0.003	0.000	0.000	0.000	0.000	0.000	1318.85	
13	0.8075	1158.5	1179.0	2.510	10.118	52.927	31.041	3.114	0.066	0.194	0.007	0.020	0.003	0.000	0.000	0.000	0.000	0.000	1312.01	
14	0.8081	1159.0	1179.5	2.524	10.125	52.822	31.120	3.117	0.067	0.195	0.007	0.020	0.003	0.000	0.000	0.000	0.000	0.000	1312.07	
15	0.8027	1149.2	1169.5	2.416	10.374	53.617	30.355	2.944	0.066	0.197	0.008	0.020	0.003	0.000	0.000	0.000	0.000	0.000	1305.42	
16	0.8046	1150.5	1170.8	2.232	10.756	53.218	30.392	3.054	0.076	0.234	0.010	0.025	0.004	0.000	0.000	0.000	0.000	0.000	1305.28	
17	0.8053	1150.9	1171.3	2.309	10.670	53.737	29.388	3.478	0.089	0.278	0.012	0.033	0.006	0.000	0.000	0.000	0.000	0.000	1305.25	
18	0.8054	1155.8	1176.3	2.255	10.468	53.299	30.411	3.199	0.080	0.248	0.010	0.026	0.003	0.000	0.000	0.000	0.000	0.000	1310.71	
19	0.8020	1147.5	1167.8	2.181	10.772	53.591	30.131	2.995	0.072	0.221	0.009	0.024	0.003	0.000	0.000	0.000	0.000	0.000	1304.01	
20	0.8011	1149.0	1169.3	2.224	10.527	53.749	30.277	2.905	0.069	0.213	0.009	0.023	0.004	0.000	0.000	0.000	0.000	0.000	1306.48	
21	0.8010	1147.8	1168.1	2.218	10.606	53.728	30.222	2.916	0.068	0.208	0.009	0.023	0.003	0.000	0.000	0.000	0.000	0.000	1305.18	
22	0.8041	1148.4	1168.8	2.464	10.477	53.585	30.052	3.095	0.072	0.220	0.009	0.023	0.003	0.000	0.000	0.000	0.000	0.000	1303.41	
23	0.8041	1148.6	1168.9	2.483	10.443	53.609	30.037	3.101	0.073	0.220	0.009	0.022	0.003	0.000	0.000	0.000	0.000	0.000	1303.53	
24	0.7948	1140.3	1160.4	2.234	10.453	54.876	29.368	2.770	0.067	0.201	0.008	0.020	0.003	0.000	0.000	0.000	0.000	0.000	1301.68	
25	0.8046	1147.9	1168.2	2.444	10.586	53.646	29.739	3.223	0.079	0.243	0.010	0.026	0.003	0.000	0.000	0.000	0.000	0.000	1302.40	
26	0.8055	1148.5	1168.9	2.454	10.620	53.590	29.646	3.308	0.082	0.257	0.011	0.029	0.004	0.000	0.000	0.000	0.000	0.000	1302.35	
27	0.8028	1143.3	1163.5	2.437	10.715	53.908	29.421	3.162	0.077	0.239	0.010	0.027	0.004	0.000	0.000	0.000	0.000	0.000	1298.58	
28	0.8031	1143.9	1164.1	2.418	10.734	53.759	29.628	3.111	0.077	0.234	0.009	0.024	0.004	0.000	0.000	0.000	0.000	0.000	1299.00	
AVG	0.8034	1152.0	1172.3	2.329	10.408	53.651	30.160	3.106	0.076	0.232	0.010	0.025	0.004	0.000	0.000	0.000	0.000	0.000	1307.89	

\*\*\* 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	FEB 10	JAN 10	DEC 09	NOV 09	OCT 09	SEPT 09	AUG 09	JULY 09	JUNE 09	MAY 09	APR 09	MAR 09	ZONE
MT/ND	211	Sidney Area	1173	1132	1155	1152	1191	1167	1192	1195	1202	1203	1170	1100	21
ND	24	Williston Area	1168	1161	1176	1173	1193	1182	1181	1175	1143	1196	1149	1106	24
ND	25	Watford City Area	1128	1125	1132	1131	1129	1121	1123	1130	1125	1134	1128	1128	25
ND	261	Williston - Tioga - Minot Line	1136	1144	1141	1142	1140	1160	1138	1129	1126	1131	1136	1110	261
ND	262	Minot Area	1158	1164	1163	1163	1165	1174	1168	1165	1165	1157	1143	1130	262
ND	263	Tioga - Portal	1112	1078	1073	1090	1113	1126	1138	1141	1141	1127	1122	1098	263
ND	264	Williston - Ray	1168	1161	1176	1173	1193	1182	1181	1175	1143	1196	1149	1106	264
ND	271	Bismarck - Cleveland	1139	1117	1135	1128	1163	1174	1166	1162	1160	1155	1118	1043	271
ND	272	Cleveland - Mapleton	1139	1115	1134	1128	1163	1174	1167	1163	1162	1156	1143	1043	272
ND	273	Cleveland - Grafton	1139	1116	1135	1128	1164	1173	1167	1163	1162	1156	1143	1043	273
ND	28	Bismarck - Cabin Creek	1097	1023	1025	1018	1094	1141	1166	1163	1162	1155	1142	1061	28
ND	31	Dickinson Area	1027	1021	1017	1019	994	1024	1140	1052	1044	996	1007	1013	31
ND/MT	32	Cabin Creek - Dickinson	1017	1019	1015	1017	989	994	1140	1040	998	1044	997	1013	32
ND	33	Killdeer	1160	1163	1160	1158	1159	1158	1158	1160	1164	1161	1163	1157	33
ND	34	Bowman Area	1165	1172	1161	1150	1169	1174	1174	1172	1170	1148	1167	1172	34
ND	35	Baker Field - North Dakota	977	978	978	978	978	978	978	978	978	978	974	974	35

<b>THERMAL ZONE VARIANCE DOCUMENTATION</b>		
<b>February 2010</b>		
<b><i>ZONE</i></b>	<b><i>BTU VARIANCE</i></b>	<b><i>REASON</i></b>
211	-23	Receipt from Saco Area and McKenzie Plant