



MONTANA-DAKOTA

UTILITIES CO.

A Division of MDU Resources Group, Inc.

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

June 13, 2011

RECEIVED

JUN 14 2011

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

PUBLIC SERVICE COMMISSION

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

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

1. Attachment A is a schedule showing the thermal billing factors by community that reflect the BTU values shown on Attachment B and were used for billing purposes in May 2011.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our supplier for the month of April 2011. 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 April 2011.

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

Sincerely,

Tamie Aberle
Regulatory Affairs Manager

MONTANA-DAKOTA UTILITIES CO.
 Therm Billing Factor
 MAY 2011

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
12	314	APPLE VALLEY	271	1.1202
12	327	BISMARCK	28	1.0730
12	343	CARRINGTON	273	1.1202
12	344	CLEVELAND	272	1.1124
12	364	CAVALIER	273	1.1438
12	365	DAWSON	271	1.1124
12	374	FT TOTTEN	273	1.1281
12	375	DEVILS LAKE	273	1.1281
12	379	BARLOW	273	1.1202
12	387	ELDRIDGE	272	1.1202
12	411	GLEN ULLIN	31	1.0323
12	417	GRAFTON	273	1.1517
12	439	HANKINSON	600	1.0709
12	449	JAMESTOWN	272	1.1281
12	463	LANGDON	273	1.1202
12	475	LINTON	802	.9688
12	478	LINCOLN	28	1.0730
12	494	MEDINA	271	1.1124
12	498	MANDAN	28	1.0730
12	524	NEW SALEM	28	1.0503
12	532	NEW ROCKFORD	273	1.1202
12	539	PARK RIVER	273	1.1438
12	574	SANBORN	272	1.1281
12	593	STEELE	271	1.1124
12	598	SHEYENNE	273	1.1281
12	610	TAPPEN	271	1.1124
12	625	VALLEY CITY	272	1.1359
12	629	WALHALLA	273	1.1438
12	647	WILTON	262	1.1022
12	717	SPIRITWOOD	272	1.1281
12	718	FAIRMOUNT	600	1.0687
12	732	MSR SITE	273	1.1202
12	733	PAR SITE	273	1.1202
15	303	ALEXANDER	25	1.0796
15	308	ARNEGARD	25	1.0796

MONTANA-DAKOTA UTILITIES CO.
 Therm Billing Factor
 MAY 2011

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	318	BEACH	32	.9897
15	319	BELFIELD	32	.9970
15	323	BERTHOLD	262	1.1022
15	330	BOWMAN	34	1.0586
15	337	BURLINGTON	262	1.1260
15	368	DES LACS	262	1.1102
15	369	DICKINSON	31	1.0249
15	384	EPPING	264	1.1277
15	407	GLADSTONE	31	1.0249
15	413	GOLVA	32	.9753
15	416	GARRISON	262	1.1102
15	429	HEBRON	31	1.0323
15	459	KILLDEER	33	1.1117
15	469	LEFOR	31	1.0249
15	474	LIGNITE	263	1.0683
15	500	MARMARTH	34	1.0664
15	505	MINOT	262	1.1260
15	510	MOTT	31	1.0249
15	512	MAX	262	1.1022
15	522	NEW ENGLAND	31	1.0175
15	540	PALERMO	262	1.1022
15	558	RAY	264	1.1277
15	561	REGENT	31	1.0249
15	563	RHAME	34	1.0508
15	564	RICHARDTON	31	1.0175
15	568	ROSS	261	1.0896
15	572	RUTHVILLE	262	1.1260
15	583	SENTINEL BUTTE	32	.9897
15	588	SOUTH HEART	31	1.0175
15	590	SPRINGBROOK	264	1.1277
15	591	STANLEY	261	1.0975
15	605	SURREY	262	1.1260
15	611	TAYLOR	31	1.0175
15	616	TIOGA	261	1.0896
15	619	TURTLE LAKE	262	1.1102

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
MAY 2011

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	620	TRENTON	24	1.1359
15	624	UNDERWOOD	262	1.1102
15	632	WATFORD CITY	25	1.0796
15	636	WHEELLOCK	264	1.1196
15	637	WHITE EARTH	261	1.0975
15	642	WILLISTON	24	1.1359
15	646	WASHBURN	262	1.1181
15	664	RIVERDALE	262	1.1102
15	691	FAIRVIEW	24	1.1359
15	712	MINOT AFB	262	1.1260
15	743	BAKER FIELD	35	.8980

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

GQ Source Daily Summary

April 2011

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	Wobbe	CCT
	Wet	Dry	Wet	Dry																
1	0.7150	1188.5	1209.6	0.216	3.058	70.176	23.442	2.993	0.047	0.065	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1430.58
2	0.7059	1180.3	1201.2	0.061	2.940	71.270	23.194	2.472	0.028	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1429.78
3	0.7059	1181.0	1201.9	0.044	2.928	71.327	23.086	2.555	0.029	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1430.55
4	0.7048	1179.1	1200.0	0.048	2.939	71.451	23.045	2.456	0.030	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1429.32
5	0.7058	1180.8	1201.7	0.048	2.929	71.242	23.262	2.460	0.028	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1430.40
6	0.7051	1180.8	1201.7	0.048	2.862	71.394	23.189	2.447	0.030	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1431.10
7	0.7036	1177.3	1198.2	0.046	2.934	71.565	23.083	2.304	0.034	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1428.43
8	0.7050	1178.3	1199.2	0.047	3.003	71.406	23.065	2.379	0.041	0.057	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1428.21
9	0.7060	1178.3	1199.2	0.047	3.095	71.237	23.091	2.437	0.038	0.054	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.23
10	0.7133	1171.8	1192.5	1.079	3.497	70.643	22.413	2.754	0.071	0.117	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.17
11	0.7296	1173.1	1193.9	1.079	4.061	69.087	21.801	3.522	0.149	0.274	0.015	0.012	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1397.64
12	0.7332	1178.7	1199.6	1.080	4.050	68.842	21.657	3.853	0.162	0.315	0.020	0.018	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1400.87
13	0.7221	1176.1	1196.9	0.749	3.670	69.749	22.286	3.280	0.091	0.159	0.008	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1408.74
14	0.7068	1182.0	1202.9	0.050	2.940	71.116	23.319	2.512	0.028	0.033	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1430.89
15	0.7071	1182.0	1203.0	0.049	2.969	71.285	22.894	2.731	0.033	0.038	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1430.59
16	0.7091	1185.3	1206.3	0.049	2.954	70.900	23.275	2.744	0.034	0.041	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1432.57
17	0.7088	1185.0	1206.0	0.051	2.945	70.999	23.152	2.776	0.035	0.042	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1432.46
18	0.7078	1183.1	1204.0	0.051	2.970	71.068	23.183	2.655	0.033	0.040	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1431.13
19	0.7087	1184.8	1205.7	0.051	2.950	71.006	23.150	2.769	0.034	0.040	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1432.28
20	0.7087	1184.0	1205.8	0.056	2.994	70.982	23.131	2.755	0.036	0.045	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1431.31
21	0.7093	1184.9	1205.8	0.055	2.990	71.112	22.845	2.858	0.049	0.080	0.004	0.005	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1431.79
22	0.7071	1181.2	1202.2	0.051	3.015	71.236	22.952	2.650	0.040	0.053	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1429.62
23	0.7060	1180.5	1201.4	0.053	2.957	71.251	23.193	2.479	0.031	0.034	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1429.79
24	0.7058	1179.5	1200.4	0.058	2.987	71.264	23.176	2.451	0.030	0.033	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1428.89
25	0.7084	1183.0	1204.0	0.058	3.018	70.949	23.236	2.665	0.033	0.038	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1430.48
26	0.7113	1189.3	1210.3	0.059	2.905	70.792	23.104	3.059	0.037	0.042	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1435.10
27	0.7102	1188.3	1209.3	0.059	2.865	70.908	23.139	2.940	0.038	0.048	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1434.99
28	0.7094	1186.8	1207.8	0.060	2.873	71.061	22.995	2.927	0.037	0.045	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1434.08
29	0.7242	1175.2	1196.1	0.856	3.766	69.466	22.341	3.260	0.108	0.188	0.009	0.007	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1405.55
30	0.7234	1159.8	1180.3	1.183	4.125	70.133	20.874	3.263	0.138	0.258	0.014	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1387.71
AVG	0.7109	1181.0	1201.5	0.229	3.140	70.831	22.886	2.780	0.052	0.077	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.14

Zone 2/11

GQ Source Analysis

Williston Basin Interstate Pipeline Co.

GQ Source Number:	0602330	Specific Gravity:	0.7235
GQ Source Name:	WILLISTON BORDER	BTU Base:	Dry
Effective Date:	4/1/2011 9:00:00 AM	Measured Heat Value:	1197.30
Effective End Date:	1/18/2038 9:14:07 PM	Dry Heat Value:	1194.13
Pressure Base:	14.730	Wet Heat Value:	1173.34
Viscosity:		As Deliv. Heat Value:	1194.13
		Sample Pressure:	0.00
		Sample Temperature:	

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
C1	Methane	69.518		CO2	Carbon Dioxide	0.839
C2	Ethane	22.059	5.882	N2	Nitrogen	3.797
C3	Propane	3.440	0.945	O2	Oxygen	0.000
IC4	Iso-Butane	0.118	0.039	HE	Helium	
NC4	N-Butane	0.208	0.065	H2	Hydrogen	
IC5	Iso-Pentane	0.012	0.004	H2S	Hydrogen Sulfide	
NC5	N-Pentane	0.009	0.003	AR	Argon	
C6	Hexane	0.000	0.000	CO	Carbon Monoxide	
C7	Heptane			H2O	Water	
C8	Octane			Neo-C5	Neo-Pentane	
C9	Nonane					
C10	Decane					

Totals 100.000% 6.939 GPM

Sample Date: 4/30/2011 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks:

Analysis Tech: Mary Berger

Analysis Remarks:

Zone 24, 264

GQ Source Analysis

Williston Basin Interstate Pipeline Co.

GQ Source Number:	0602230	Specific Gravity:	0.7284
GQ Source Name:	WATFORD CITY BORDER	BTU Base:	Dry
Effective Date:	4/1/2011 9:00:00 AM	Measured Heat Value:	1145.84
Effective End Date:	1/18/2038 9:14:07 PM	Dry Heat Value:	1143.08
Pressure Base:	14.730	Wet Heat Value:	1123.19
Viscosity:		As Deliv. Heat Value:	1143.08
		Sample Pressure:	0.00
		Sample Temperature:	

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
C1	Methane	68.599		CO2	Carbon Dioxide	0.724
C2	Ethane	18.889	5.037	N2	Nitrogen	7.500
C3	Propane	3.721	1.022	O2	Oxygen	0.000
IC4	Iso-Butane	0.175	0.057	HE	Helium	
NC4	N-Butane	0.335	0.105	H2	Hydrogen	
IC5	Iso-Pentane	0.025	0.009	H2S	Hydrogen Sulfide	
NC5	N-Pentane	0.025	0.009	AR	Argon	
C6	Hexane	0.006	0.003	CO	Carbon Monoxide	
C7	Heptane			H2O	Water	
C8	Octane			Neo-C5	Neo-Pentane	
C9	Nonane					
C10	Decane					

Totals 99.999% 6.242 GPM

Sample Date: 3/31/2011 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks:

Analysis Tech: Mary Berger

Analysis Remarks:

*** End of Report ***

Zone 25

GQ Source Daily Summary

April 2011

Number: 163 **Pressure Base:** 14.730 **Contract Day:** 1
Name: NORTH TIOGA-MINOT **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	0.6921	1140.9	1161.1	0.463	3.434	74.260	19.600	2.052	0.062	0.115	0.006	0.005	0.005	0.005	0.005	0.005	0.005	1395.68
2	0.6963	1142.4	1162.6	0.577	3.566	73.668	19.781	2.200	0.070	0.124	0.006	0.005	0.004	0.004	0.004	0.004	0.004	1393.26
3	0.6955	1140.9	1161.1	0.553	3.611	73.768	19.671	2.210	0.064	0.111	0.005	0.004	0.003	0.003	0.003	0.003	0.003	1392.36
4	0.6944	1141.0	1161.3	0.520	3.558	73.812	19.840	2.103	0.057	0.099	0.004	0.003	0.004	0.004	0.004	0.004	0.004	1393.54
5	0.6953	1142.5	1162.8	0.528	3.534	73.781	19.785	2.179	0.065	0.115	0.005	0.005	0.004	0.004	0.004	0.004	0.004	1394.50
6	0.6988	1147.5	1167.9	0.547	3.530	73.497	19.705	2.463	0.084	0.156	0.008	0.007	0.004	0.004	0.004	0.004	0.004	1397.06
7	0.6982	1145.1	1165.4	0.568	3.588	73.518	19.712	2.362	0.082	0.151	0.008	0.007	0.005	0.005	0.005	0.005	0.005	1394.74
8	0.6962	1139.3	1159.5	0.605	3.702	73.753	19.500	2.199	0.078	0.143	0.008	0.007	0.004	0.004	0.004	0.004	0.004	1389.62
9	0.6941	1139.7	1159.9	0.518	3.616	73.732	19.997	1.963	0.059	0.103	0.005	0.004	0.004	0.004	0.004	0.004	0.004	1392.20
10	0.6948	1140.8	1161.0	0.530	3.598	73.843	19.694	2.124	0.069	0.127	0.006	0.006	0.004	0.004	0.004	0.004	0.004	1392.20
11	0.6961	1141.6	1161.8	0.558	3.623	73.788	19.555	2.232	0.078	0.146	0.008	0.007	0.006	0.006	0.006	0.006	0.006	1392.76
12	0.6749	1115.6	1135.4	0.308	3.599	76.653	18.049	1.279	0.033	0.064	0.003	0.003	0.008	0.008	0.008	0.008	0.008	1382.02
13	0.6866	1131.0	1151.1	0.471	3.511	75.177	18.787	1.865	0.061	0.112	0.005	0.004	0.007	0.007	0.007	0.007	0.007	1389.10
14	0.6950	1138.3	1158.5	0.594	3.667	73.922	19.409	2.204	0.067	0.122	0.006	0.005	0.004	0.004	0.004	0.004	0.004	1389.60
15	0.6938	1138.1	1158.2	0.559	3.617	74.135	19.293	2.191	0.067	0.123	0.006	0.005	0.004	0.004	0.004	0.004	0.004	1390.56
16	0.6954	1138.6	1158.8	0.597	3.684	73.934	19.301	2.260	0.073	0.136	0.007	0.006	0.003	0.003	0.003	0.003	0.003	1389.54
17	0.6956	1139.5	1159.7	0.588	3.659	73.873	19.430	2.215	0.074	0.142	0.008	0.008	0.004	0.004	0.004	0.004	0.004	1390.47
18	0.6951	1140.3	1160.5	0.562	3.602	73.999	19.346	2.260	0.074	0.139	0.007	0.007	0.004	0.004	0.004	0.004	0.004	1391.92
19	0.7042	1151.1	1171.5	0.676	3.623	72.723	20.054	2.646	0.091	0.169	0.009	0.008	0.002	0.002	0.002	0.002	0.002	1396.03
20	0.7040	1153.4	1173.8	0.616	3.555	72.761	20.096	2.703	0.088	0.162	0.008	0.008	0.002	0.002	0.002	0.002	0.002	1398.97
21	0.7071	1158.9	1179.4	0.614	3.513	72.658	19.824	3.017	0.117	0.229	0.012	0.012	0.004	0.004	0.004	0.004	0.004	1402.56
22	0.6975	1147.8	1168.2	0.474	3.494	73.876	19.299	2.563	0.093	0.178	0.009	0.009	0.004	0.004	0.004	0.004	0.004	1398.76
23	0.7035	1157.1	1177.6	0.482	3.481	73.550	19.012	2.947	0.145	0.323	0.024	0.025	0.011	0.011	0.011	0.011	0.011	1403.95
24	0.6986	1149.0	1169.4	0.499	3.489	73.880	19.130	2.660	0.104	0.206	0.012	0.012	0.010	0.010	0.010	0.010	0.010	1399.09
25	0.6937	1140.9	1161.1	0.495	3.534	74.330	19.082	2.301	0.080	0.152	0.009	0.009	0.009	0.009	0.009	0.009	0.009	1394.08
26	0.6909	1137.9	1158.0	0.471	3.488	74.642	19.040	2.146	0.069	0.127	0.006	0.006	0.006	0.006	0.006	0.006	0.006	1393.23
27	0.6972	1148.1	1168.5	0.466	3.458	74.203	18.853	2.640	0.110	0.230	0.015	0.016	0.009	0.009	0.009	0.009	0.009	1399.42
28	0.6983	1150.5	1170.8	0.448	3.451	74.287	18.525	2.851	0.127	0.269	0.017	0.017	0.010	0.010	0.010	0.010	0.010	1401.10
29	0.6930	1139.0	1159.2	0.482	3.598	74.410	18.995	2.259	0.081	0.154	0.008	0.008	0.006	0.006	0.006	0.006	0.006	1392.54
30	0.6889	1128.3	1148.3	0.491	3.860	74.817	18.632	2.005	0.064	0.117	0.005	0.005	0.004	0.004	0.004	0.004	0.004	1383.48
Avg	0.6955	1142.0	1162.4	0.529	3.575	73.975	19.366	2.303	0.080	0.151	0.008	0.008	0.008	0.008	0.008	0.008	0.008	1393.82

Zone 261

GQ Source Daily Summary

April 2011

Number: 091 **Pressure Base:** 14.730 **Contract Day:** 1
Name: MINOT **Temperature Base:** **Contract Hour:** 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT	
1	0.6921	1142.2	1162.4	0.473	3.339	74.312	19.609	2.073	0.064	0.119	0.002	0.001	0.010	0.000	0.000	0.000	0.000	0.000	1397.28	
2	0.6941	1143.1	1163.3	0.505	3.427	73.990	19.747	2.128	0.066	0.122	0.003	0.002	0.009	0.000	0.000	0.000	0.000	0.000	1396.31	
3	0.6984	1143.6	1163.9	0.633	3.602	73.373	19.897	2.287	0.071	0.126	0.003	0.000	0.009	0.000	0.000	0.000	0.000	0.000	1392.69	
4	0.6950	1142.1	1162.3	0.531	3.529	73.803	19.785	2.182	0.059	0.103	0.000	0.000	0.009	0.000	0.000	0.000	0.000	0.000	1394.24	
5	0.6948	1142.5	1162.8	0.526	3.498	73.778	19.903	2.117	0.060	0.108	0.001	0.000	0.008	0.000	0.000	0.000	0.000	0.000	1394.90	
6	0.6977	1146.1	1166.4	0.559	3.494	73.514	19.897	2.315	0.073	0.133	0.004	0.003	0.008	0.000	0.000	0.000	0.000	0.000	1396.45	
7	0.6999	1149.0	1169.3	0.566	3.510	73.361	19.797	2.498	0.086	0.161	0.006	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1397.77	
8	0.6978	1142.8	1163.1	0.614	3.621	73.611	19.593	2.289	0.087	0.163	0.007	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1392.31	
9	0.6961	1141.3	1161.5	0.575	3.615	73.583	19.920	2.114	0.065	0.116	0.002	0.000	0.009	0.000	0.000	0.000	0.000	0.000	1392.18	
10	0.6944	1139.9	1160.1	0.536	3.601	73.753	19.940	1.985	0.062	0.112	0.002	0.001	0.009	0.000	0.000	0.000	0.000	0.000	1392.15	
11	0.6967	1143.9	1164.1	0.549	3.555	73.687	19.716	2.250	0.077	0.147	0.006	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1394.67	
12	0.7100	1155.3	1175.8	0.568	4.071	71.712	20.438	2.891	0.093	0.197	0.011	0.011	0.007	0.000	0.000	0.000	0.000	0.000	1395.45	
13	0.6992	1143.6	1163.9	0.450	3.954	73.227	19.685	2.425	0.073	0.160	0.009	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1391.93	
14	0.6952	1138.8	1159.0	0.605	3.634	73.909	19.464	2.169	0.072	0.133	0.004	0.002	0.010	0.000	0.000	0.000	0.000	0.000	1390.07	
15	0.6946	1139.6	1159.8	0.577	3.579	74.009	19.417	2.214	0.067	0.124	0.003	0.001	0.009	0.000	0.000	0.000	0.000	0.000	1391.52	
16	0.6963	1140.5	1160.7	0.605	3.634	73.837	19.391	2.304	0.074	0.139	0.005	0.003	0.008	0.000	0.000	0.000	0.000	0.000	1390.99	
17	0.6959	1139.8	1159.9	0.609	3.637	73.878	19.470	2.213	0.073	0.141	0.006	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1390.49	
18	0.6958	1141.1	1161.3	0.588	3.580	73.878	19.470	2.252	0.075	0.141	0.006	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1392.20	
19	0.7002	1146.7	1167.0	0.635	3.577	73.305	19.758	2.464	0.084	0.157	0.006	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1394.64	
20	0.7062	1155.0	1175.5	0.682	3.564	72.419	20.326	2.728	0.091	0.169	0.008	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1398.78	
21	0.7061	1157.4	1177.9	0.630	3.485	72.669	19.989	2.899	0.105	0.200	0.009	0.008	0.006	0.000	0.000	0.000	0.000	0.000	1401.76	
22	0.7023	1153.8	1174.2	0.545	3.475	73.245	19.636	2.769	0.104	0.202	0.009	0.009	0.006	0.000	0.000	0.000	0.000	0.000	1401.18	
23	0.7040	1158.4	1178.9	0.483	3.444	73.425	19.132	3.034	0.143	0.302	0.016	0.016	0.005	0.000	0.000	0.000	0.000	0.000	1405.08	
24	0.7000	1151.9	1172.3	0.505	3.440	73.718	19.283	2.656	0.113	0.244	0.016	0.019	0.007	0.000	0.000	0.000	0.000	0.000	1401.11	
25	0.6975	1147.0	1167.3	0.517	3.479	74.004	19.110	2.561	0.100	0.199	0.010	0.010	0.007	0.000	0.000	0.000	0.000	0.000	1397.75	
26	0.6923	1140.0	1160.2	0.487	3.469	74.477	19.129	2.201	0.074	0.141	0.006	0.005	0.011	0.000	0.000	0.000	0.000	0.000	1394.39	
27	0.6917	1139.4	1159.6	0.483	3.460	74.566	19.059	2.209	0.071	0.133	0.004	0.003	0.011	0.000	0.000	0.000	0.000	0.000	1394.19	
28	0.7050	1161.1	1181.7	0.476	3.384	73.645	18.723	3.148	0.165	0.386	0.031	0.036	0.006	0.000	0.000	0.000	0.000	0.000	1407.33	
29	0.6975	1148.8	1169.1	0.465	3.450	74.213	18.789	2.687	0.116	0.244	0.014	0.014	0.007	0.000	0.000	0.000	0.000	0.000	1399.87	
30	0.7081	1157.1	1177.6	0.660	3.643	72.149	20.429	2.812	0.099	0.184	0.009	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1399.47	
Avg	0.6985	1146.0	1166.7	0.555	3.558	73.567	19.617	2.429	0.085	0.167	0.007	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1395.97	

Zone 262

GQ Source Analysis

Williston Basin Interstate Pipeline Co.

GQ Source Number:	2501030	Specific Gravity:	0.6602
GQ Source Name:	LIGNITE PLANT	BTU Base:	Dry
Effective Date:	4/1/2011 9:00:00 AM	Measured Heat Value:	1124.83
Effective End Date:	1/18/2038 9:14:07 PM	Dry Heat Value:	1122.88
Pressure Base:	14.730	Wet Heat Value:	1103.34
Viscosity:		As Deliv. Heat Value:	1122.88
		Sample Pressure:	0.00
		Sample Temperature:	

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
C1	Methane	78.397		CO2	Carbon Dioxide	0.086
C2	Ethane	17.686	4.716	N2	Nitrogen	3.279
C3	Propane	0.527	0.145	O2	Oxygen	0.000
IC4	Iso-Butane	0.002	0.001	HE	Helium	
NC4	N-Butane	0.003	0.001	H2	Hydrogen	
IC5	Iso-Pentane	0.000	0.000	H2S	Hydrogen Sulfide	
NC5	N-Pentane	0.000	0.000	AR	Argon	
C6	Hexane	0.019	0.009	CO	Carbon Monoxide	
C7	Heptane			H2O	Water	
C8	Octane			Neo-C5	Neo-Pentane	
C9	Nonane					
C10	Decane					

Totals 99.998% 4.871 GPM

Sample Date: 4/30/2011 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks:

Analysis Tech: Mary Berger
Analysis Remarks:

*** End of Report ***

Zone 263

GQ Source Daily Summary

April 2011

Number: 043		Pressure Base: 14.730										Contract Day: 1							
Name: BISMARCK-CLEVELAND		Temperature Base:										Contract Hour: 9							
Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6706	1109.5	1129.2	0.481	3.299	78.301	16.070	1.669	0.055	0.097	0.007	0.006	0.014	0.000	0.000	0.000	0.000	0.000	1378.88
2	0.6784	1120.5	1140.3	0.480	3.369	76.884	17.236	1.839	0.059	0.105	0.007	0.006	0.014	0.000	0.000	0.000	0.000	0.000	1384.46
3	0.6866	1127.5	1147.5	0.577	3.559	75.454	18.200	2.017	0.063	0.109	0.005	0.004	0.011	0.000	0.000	0.000	0.000	0.000	1384.87
4	0.6876	1131.5	1151.5	0.506	3.528	75.124	18.653	2.020	0.055	0.095	0.004	0.003	0.010	0.000	0.000	0.000	0.000	0.000	1388.61
5	0.6935	1140.3	1160.5	0.535	3.492	74.033	19.694	2.072	0.056	0.098	0.005	0.004	0.011	0.000	0.000	0.000	0.000	0.000	1393.62
6	0.6965	1144.5	1164.7	0.562	3.481	73.724	19.757	2.258	0.069	0.126	0.006	0.006	0.012	0.000	0.000	0.000	0.000	0.000	1395.63
7	0.7005	1150.3	1170.7	0.574	3.480	73.320	19.815	2.529	0.087	0.165	0.008	0.008	0.013	0.000	0.000	0.000	0.000	0.000	1398.74
8	0.6980	1144.5	1164.8	0.602	3.562	73.585	19.676	2.311	0.082	0.154	0.008	0.007	0.013	0.000	0.000	0.000	0.000	0.000	1394.13
9	0.6965	1140.6	1160.8	0.612	3.640	73.674	19.688	2.160	0.070	0.129	0.007	0.006	0.014	0.000	0.000	0.000	0.000	0.000	1390.92
10	0.6940	1140.2	1160.4	0.532	3.555	73.765	20.062	1.905	0.057	0.103	0.005	0.004	0.012	0.000	0.000	0.000	0.000	0.000	1392.92
11	0.6961	1142.8	1163.0	0.563	3.545	73.749	19.728	2.185	0.071	0.133	0.007	0.006	0.012	0.000	0.000	0.000	0.000	0.000	1393.98
12	0.7064	1153.0	1173.4	0.588	3.855	72.334	20.188	2.713	0.092	0.191	0.011	0.012	0.015	0.000	0.000	0.000	0.000	0.000	1396.09
13	0.7070	1150.5	1170.9	0.457	4.258	71.987	20.301	2.692	0.078	0.181	0.014	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1392.60
14	0.6908	1134.9	1155.0	0.570	3.517	74.712	18.908	2.075	0.068	0.126	0.006	0.005	0.013	0.000	0.000	0.000	0.000	0.000	1389.65
15	0.6940	1138.3	1158.5	0.590	3.578	74.155	19.286	2.181	0.066	0.121	0.006	0.005	0.012	0.000	0.000	0.000	0.000	0.000	1390.64
16	0.6946	1139.1	1159.2	0.594	3.585	74.094	19.281	2.227	0.069	0.128	0.006	0.005	0.011	0.000	0.000	0.000	0.000	0.000	1390.93
17	0.6945	1138.1	1158.3	0.605	3.612	74.120	19.234	2.200	0.071	0.134	0.007	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1389.93
18	0.6952	1140.1	1160.3	0.600	3.574	73.976	19.422	2.188	0.072	0.139	0.008	0.008	0.012	0.000	0.000	0.000	0.000	0.000	1391.51
19	0.6923	1137.3	1157.4	0.586	3.484	74.626	18.835	2.229	0.075	0.139	0.008	0.007	0.011	0.000	0.000	0.000	0.000	0.000	1391.10
20	0.7036	1150.8	1171.2	0.726	3.515	72.957	19.856	2.662	0.089	0.167	0.009	0.008	0.011	0.000	0.000	0.000	0.000	0.000	1396.21
21	0.7047	1155.5	1176.0	0.630	3.468	72.771	20.079	2.761	0.092	0.172	0.009	0.008	0.010	0.000	0.000	0.000	0.000	0.000	1400.94
22	0.7059	1158.5	1179.0	0.595	3.449	72.893	19.716	2.965	0.115	0.229	0.013	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1403.35
23	0.7002	1152.7	1173.1	0.487	3.436	73.764	19.167	2.752	0.115	0.239	0.014	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1401.93
24	0.7030	1156.4	1176.9	0.514	3.427	73.563	19.133	2.877	0.132	0.292	0.021	0.023	0.019	0.000	0.000	0.000	0.000	0.000	1403.68
25	0.6975	1147.4	1167.7	0.522	3.458	74.010	19.125	2.558	0.097	0.191	0.011	0.011	0.018	0.000	0.000	0.000	0.000	0.000	1398.15
26	0.6934	1141.3	1161.5	0.506	3.468	74.376	19.151	2.241	0.076	0.147	0.009	0.009	0.017	0.000	0.000	0.000	0.000	0.000	1394.86
27	0.6915	1139.2	1159.3	0.490	3.444	74.616	19.047	2.177	0.069	0.129	0.006	0.006	0.015	0.000	0.000	0.000	0.000	0.000	1394.17
28	0.6968	1148.3	1168.6	0.486	3.391	74.511	18.446	2.748	0.117	0.249	0.016	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1399.88
29	0.6997	1152.5	1172.9	0.470	3.420	74.141	18.628	2.880	0.128	0.276	0.018	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1402.25
30	0.6627	1097.0	1116.5	0.340	3.536	79.594	14.752	1.653	0.042	0.067	0.004	0.003	0.008	0.000	0.000	0.000	0.000	0.000	1371.36
Avg	0.6944	1141.0	1161.0	0.546	3.533	74.294	19.038	2.325	0.080	0.154	0.009	0.009	0.014	0.000	0.000	0.000	0.000	0.000	1393.20

Zone 271

GQ Source Daily Summary

April 2011

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

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6638	1099.4	1118.8	0.456	3.318	79.493	15.047	1.514	0.054	0.095	0.008	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1373.21
2	0.6758	1116.1	1135.8	0.489	3.379	77.366	16.783	1.798	0.058	0.102	0.008	0.007	0.010	0.000	0.000	0.000	0.000	0.000	1381.65
3	0.6837	1126.0	1146.0	0.522	3.460	75.896	18.012	1.922	0.061	0.109	0.006	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1385.97
4	0.6861	1127.8	1147.8	0.529	3.565	75.463	18.237	2.038	0.058	0.101	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1385.75
5	0.6908	1136.3	1156.4	0.523	3.512	74.478	19.285	2.041	0.056	0.097	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1391.27
6	0.6945	1142.0	1162.2	0.538	3.483	73.929	19.695	2.164	0.064	0.116	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1394.62
7	0.6982	1147.3	1167.6	0.566	3.465	73.565	19.743	2.419	0.079	0.149	0.008	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1397.34
8	0.6987	1146.8	1167.1	0.581	3.514	73.519	19.698	2.432	0.084	0.157	0.008	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1396.29
9	0.6963	1140.2	1160.4	0.625	3.630	73.807	19.464	2.218	0.083	0.156	0.009	0.008	0.001	0.000	0.000	0.000	0.000	0.000	1390.60
10	0.6949	1140.9	1161.1	0.552	3.564	73.732	19.909	2.060	0.062	0.111	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1392.89
11	0.6944	1140.3	1160.5	0.546	3.563	73.895	19.706	2.087	0.067	0.124	0.006	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1392.67
12	0.6959	1142.2	1162.4	0.570	3.553	73.841	19.558	2.235	0.077	0.148	0.008	0.008	0.001	0.000	0.000	0.000	0.000	0.000	1393.45
13	0.7162	1160.9	1181.5	0.551	4.344	70.799	20.743	3.198	0.100	0.221	0.015	0.017	0.012	0.000	0.000	0.000	0.000	0.000	1396.07
14	0.6901	1134.3	1154.4	0.467	3.642	74.762	18.820	2.082	0.066	0.134	0.008	0.008	0.010	0.000	0.000	0.000	0.000	0.000	1389.66
15	0.6938	1136.9	1157.1	0.609	3.614	74.145	19.273	2.154	0.067	0.125	0.006	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1389.15
16	0.6929	1137.5	1157.6	0.574	3.557	74.326	19.148	2.191	0.067	0.125	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1390.62
17	0.6947	1138.3	1158.5	0.606	3.620	74.108	19.178	2.263	0.073	0.138	0.007	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1389.91
18	0.6941	1138.0	1158.1	0.597	3.605	74.153	19.228	2.186	0.073	0.141	0.008	0.008	0.002	0.000	0.000	0.000	0.000	0.000	1390.03
19	0.6933	1138.4	1158.6	0.571	3.538	74.326	19.120	2.220	0.073	0.138	0.007	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1391.42
20	0.6963	1141.4	1161.6	0.692	3.453	74.205	18.895	2.484	0.087	0.164	0.009	0.008	0.001	0.000	0.000	0.000	0.000	0.000	1392.03
21	0.7044	1154.0	1174.4	0.651	3.508	72.718	20.155	2.697	0.088	0.166	0.009	0.008	0.000	0.000	0.000	0.000	0.000	0.000	1399.28
22	0.7061	1157.6	1178.1	0.633	3.467	72.811	19.771	2.961	0.112	0.221	0.012	0.012	0.001	0.000	0.000	0.000	0.000	0.000	1402.03
23	0.6990	1150.0	1170.3	0.516	3.445	73.706	19.395	2.638	0.095	0.184	0.009	0.009	0.003	0.000	0.000	0.000	0.000	0.000	1399.84
24	0.7045	1159.3	1179.8	0.494	3.424	73.533	18.927	3.069	0.154	0.345	0.024	0.026	0.006	0.000	0.000	0.000	0.000	0.000	1405.65
25	0.6991	1150.5	1170.9	0.514	3.423	73.852	19.195	2.656	0.106	0.216	0.013	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1400.41
26	0.6971	1146.4	1166.7	0.526	3.464	74.229	18.800	2.626	0.106	0.213	0.013	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1397.46
27	0.6936	1141.0	1161.2	0.514	3.488	74.396	19.061	2.276	0.078	0.153	0.010	0.010	0.016	0.000	0.000	0.000	0.000	0.000	1394.36
28	0.6941	1143.6	1163.9	0.484	3.425	74.469	18.911	2.406	0.091	0.185	0.011	0.011	0.008	0.000	0.000	0.000	0.000	0.000	1396.97
29	0.6978	1150.4	1170.4	0.465	3.401	74.435	18.411	2.849	0.124	0.266	0.018	0.020	0.012	0.000	0.000	0.000	0.000	0.000	1401.13
30	0.6842	1129.2	1149.2	0.428	3.451	76.254	17.341	2.229	0.087	0.177	0.011	0.012	0.011	0.000	0.000	0.000	0.000	0.000	1389.34
Avg	0.6941	1140.0	1160.6	0.546	3.529	74.340	18.984	2.337	0.082	0.159	0.009	0.009	0.004	0.000	0.000	0.000	0.000	0.000	1393.04

Zone 272

GQ Source Daily Summary

April 2011

Number: 061

Pressure Base: 14.730

Contract Day: 1

Name: CLEVELAND-GRAFTON

Temperature Base:

Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6638	1099.5	1118.9	0.455	3.312	79.488	15.063	1.509	0.054	0.095	0.008	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1373.35
2	0.6759	1116.4	1136.1	0.489	3.373	77.344	16.808	1.800	0.058	0.103	0.007	0.007	0.010	0.000	0.000	0.000	0.000	0.000	1381.88
3	0.6839	1126.5	1146.5	0.521	3.449	75.872	18.041	1.927	0.062	0.110	0.006	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1386.40
4	0.6862	1128.2	1148.2	0.529	3.559	75.439	18.258	2.046	0.059	0.101	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1386.01
5	0.6910	1136.6	1156.7	0.523	3.506	74.453	19.308	2.048	0.056	0.098	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1391.51
6	0.6946	1142.2	1162.4	0.539	3.479	73.917	19.708	2.165	0.064	0.117	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1394.74
7	0.6982	1147.3	1167.6	0.565	3.466	73.558	19.751	2.416	0.079	0.150	0.008	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1397.34
8	0.6987	1146.9	1167.2	0.581	3.517	73.502	19.711	2.431	0.084	0.158	0.008	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1396.29
9	0.6963	1140.2	1160.4	0.626	3.632	73.810	19.457	2.219	0.083	0.156	0.009	0.008	0.001	0.000	0.000	0.000	0.000	0.000	1390.52
10	0.6949	1140.9	1161.1	0.553	3.565	73.725	19.914	2.060	0.062	0.111	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1392.88
11	0.6945	1140.5	1160.7	0.547	3.564	73.878	19.720	2.089	0.067	0.124	0.006	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1392.73
12	0.6960	1142.4	1162.7	0.568	3.553	73.826	19.568	2.239	0.078	0.151	0.008	0.008	0.001	0.000	0.000	0.000	0.000	0.000	1393.60
13	0.7150	1159.6	1180.1	0.551	4.311	70.966	20.681	3.144	0.097	0.208	0.014	0.016	0.012	0.000	0.000	0.000	0.000	0.000	1389.75
14	0.6904	1134.6	1154.7	0.468	3.650	74.709	18.853	2.089	0.067	0.135	0.008	0.008	0.011	0.000	0.000	0.000	0.000	0.000	1389.18
15	0.6939	1137.1	1157.2	0.609	3.618	74.123	19.290	2.155	0.067	0.125	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1390.85
16	0.6931	1137.8	1157.9	0.574	3.553	74.300	19.174	2.196	0.067	0.125	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1389.98
17	0.6947	1138.4	1158.6	0.606	3.619	74.103	19.179	2.266	0.074	0.139	0.007	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1390.17
18	0.6942	1138.1	1158.3	0.597	3.599	74.149	19.235	2.187	0.073	0.141	0.008	0.008	0.002	0.000	0.000	0.000	0.000	0.000	1391.58
19	0.6935	1138.7	1158.8	0.571	3.536	74.295	19.149	2.223	0.073	0.138	0.007	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1392.28
20	0.6967	1141.9	1162.1	0.695	3.451	74.152	18.931	2.499	0.088	0.165	0.009	0.008	0.001	0.000	0.000	0.000	0.000	0.000	1399.34
21	0.7044	1154.0	1174.5	0.651	3.507	72.711	20.162	2.698	0.088	0.166	0.009	0.008	0.000	0.000	0.000	0.000	0.000	0.000	1402.17
22	0.7062	1157.9	1178.4	0.634	3.466	72.785	19.787	2.968	0.112	0.222	0.012	0.012	0.001	0.000	0.000	0.000	0.000	0.000	1409.28
23	0.6985	1149.1	1169.5	0.520	3.449	73.722	19.425	2.609	0.089	0.165	0.008	0.008	0.004	0.000	0.000	0.000	0.000	0.000	1405.92
24	0.7048	1159.8	1180.3	0.493	3.425	73.500	18.932	3.088	0.155	0.349	0.025	0.026	0.006	0.000	0.000	0.000	0.000	0.000	1400.55
25	0.6992	1150.8	1171.1	0.513	3.424	73.840	19.194	2.665	0.105	0.220	0.014	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1401.20
26	0.6990	1151.1	1171.5	0.506	3.393	74.029	18.921	2.759	0.115	0.236	0.014	0.015	0.012	0.000	0.000	0.000	0.000	0.000	1396.11
27	0.6955	1144.0	1164.3	0.518	3.478	74.209	19.087	2.410	0.088	0.173	0.010	0.011	0.016	0.000	0.000	0.000	0.000	0.000	1397.57
28	0.6952	1145.0	1165.3	0.491	3.433	74.332	18.963	2.459	0.094	0.194	0.012	0.011	0.010	0.000	0.000	0.000	0.000	0.000	1401.52
29	0.6982	1150.7	1171.1	0.468	3.394	74.374	18.464	2.857	0.124	0.270	0.017	0.019	0.012	0.000	0.000	0.000	0.000	0.000	1391.63
30	0.6865	1133.0	1153.1	0.426	3.443	75.842	17.709	2.272	0.089	0.183	0.011	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1393.40
AVG	0.6944	1141.0	1161.2	0.546	3.524	74.298	19.015	2.350	0.082	0.161	0.009	0.009	0.005	0.000	0.000	0.000	0.000	0.000	1393.40

Zone 273

GQ Source Daily Summary

April 2011

Number: 041

Pressure Base: 14.730

Contract Day: 1

Name: BISMARCK-DICKINSON

Temperature Base:

Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6249	1037.3	1055.6	0.526	3.334	86.889	8.181	0.934	0.045	0.055	0.012	0.009	0.015	0.000	0.000	0.000	0.000	0.000	1335.39
2	0.6265	1040.4	1058.8	0.485	3.361	86.488	8.599	0.943	0.041	0.050	0.011	0.008	0.014	0.000	0.000	0.000	0.000	0.000	1337.63
3	0.6379	1060.0	1078.8	0.312	3.503	83.822	11.358	0.937	0.025	0.030	0.004	0.003	0.007	0.000	0.000	0.000	0.000	0.000	1350.65
4	0.6391	1062.7	1081.5	0.256	3.535	83.512	11.670	0.978	0.020	0.022	0.002	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1352.83
5	0.6389	1060.7	1079.4	0.280	3.605	83.631	11.391	1.037	0.022	0.026	0.002	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1350.44
6	0.6502	1079.1	1098.2	0.305	3.511	81.543	13.382	1.180	0.028	0.041	0.003	0.002	0.004	0.000	0.000	0.000	0.000	0.000	1361.85
7	0.6754	1115.6	1135.4	0.425	3.461	77.440	16.623	1.869	0.059	0.104	0.006	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1381.55
8	0.6609	1096.6	1116.1	0.324	3.415	79.604	15.219	1.332	0.037	0.057	0.003	0.003	0.006	0.000	0.000	0.000	0.000	0.000	1372.80
9	0.6628	1097.7	1117.1	0.348	3.497	79.282	15.373	1.397	0.030	0.055	0.003	0.003	0.006	0.000	0.000	0.000	0.000	0.000	1372.11
10	0.6562	1088.9	1108.2	0.299	3.480	80.380	14.535	1.225	0.030	0.043	0.003	0.002	0.005	0.000	0.000	0.000	0.000	0.000	1368.04
11	0.6815	1123.9	1143.8	0.451	3.502	76.176	17.838	1.856	0.057	0.102	0.005	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1385.43
12	0.6954	1139.4	1159.6	0.528	3.731	74.056	19.080	2.347	0.077	0.151	0.009	0.009	0.012	0.000	0.000	0.000	0.000	0.000	1390.66
13	0.6687	1105.3	1124.8	0.292	3.671	78.274	16.036	1.583	0.042	0.082	0.006	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1355.77
14	0.6452	1070.1	1089.0	0.279	3.625	82.354	12.665	0.996	0.028	0.042	0.004	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1360.98
15	0.6482	1076.6	1095.7	0.220	3.592	81.733	13.324	1.063	0.025	0.035	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1362.04
16	0.6463	1076.0	1095.0	0.220	3.463	82.041	13.212	1.014	0.020	0.024	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1369.84
17	0.6519	1086.8	1106.0	0.199	3.322	80.970	14.320	1.102	0.019	0.022	0.002	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1371.64
18	0.6528	1089.0	1108.3	0.193	3.322	80.805	14.514	1.117	0.020	0.023	0.002	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1375.58
19	0.6317	1060.3	1079.0	0.453	2.683	85.523	10.228	0.998	0.042	0.050	0.009	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1357.58
20	0.5992	1016.1	1034.1	0.780	1.821	91.935	4.963	0.450	0.018	0.021	0.003	0.003	0.005	0.000	0.000	0.000	0.000	0.000	1335.78
21	0.6593	1102.9	1122.5	0.149	3.151	79.345	16.300	1.011	0.018	0.021	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1382.19
22	0.6535	1089.3	1108.6	0.188	3.370	80.725	14.497	1.167	0.021	0.026	0.002	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1371.36
23	0.6563	1091.3	1110.6	0.264	3.396	80.471	14.445	1.330	0.033	0.052	0.003	0.003	0.004	0.000	0.000	0.000	0.000	0.000	1370.91
24	0.6560	1087.2	1106.4	0.320	3.530	80.833	13.686	1.489	0.045	0.077	0.006	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1366.07
25	0.6949	1143.6	1163.8	0.513	3.456	74.457	18.765	2.490	0.094	0.188	0.011	0.011	0.017	0.000	0.000	0.000	0.000	0.000	1396.13
26	0.6934	1141.2	1161.4	0.507	3.471	74.387	19.135	2.239	0.076	0.149	0.009	0.009	0.017	0.000	0.000	0.000	0.000	0.000	1394.74
27	0.6947	1139.0	1159.2	0.490	3.446	74.631	19.035	2.172	0.069	0.129	0.006	0.006	0.015	0.000	0.000	0.000	0.000	0.000	1394.05
28	0.6947	1145.2	1165.5	0.466	3.402	74.942	18.019	2.754	0.116	0.248	0.016	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1398.29
29	0.6996	1152.6	1173.0	0.468	3.415	74.165	18.599	2.887	0.130	0.279	0.017	0.019	0.021	0.000	0.000	0.000	0.000	0.000	1402.35
30	0.6574	1089.5	1108.7	0.299	3.557	80.504	13.981	1.554	0.036	0.055	0.003	0.003	0.008	0.000	0.000	0.000	0.000	0.000	1367.42
Avg	0.6583	1092.0	1111.5	0.361	3.389	80.364	14.299	1.448	0.044	0.075	0.006	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1369.73

Zone 28

GQ Source Daily Summary

April 2011

Number: 271 Pressure Base: 14.730 Contract Day: 1

Name: DICKINSON AREA Temperature Base: Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6274	1042.9	1061.3	0.455	3.322	86.187	8.996	0.949	0.037	0.046	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	1339.93
2	0.6356	1057.0	1075.7	0.255	3.544	84.422	11.113	0.930	0.017	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1349.29
3	0.6368	1059.3	1078.0	0.243	3.537	83.879	11.355	0.952	0.015	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1350.93
4	0.6358	1058.8	1077.5	0.237	3.479	84.089	11.216	0.946	0.015	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1351.37
5	0.6410	1068.3	1087.2	0.228	3.402	83.045	12.326	0.965	0.016	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1357.98
6	0.6436	1074.0	1093.0	0.208	3.335	82.442	13.070	0.914	0.014	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1362.34
7	0.6431	1071.6	1090.6	0.214	3.421	82.667	12.627	1.038	0.016	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1359.96
8	0.6438	1072.6	1091.6	0.215	3.427	82.542	12.729	1.048	0.018	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1360.44
9	0.6478	1083.2	1102.4	0.179	3.214	81.514	14.207	0.851	0.016	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1369.66
10	0.6490	1085.9	1105.1	0.171	3.169	81.264	14.526	0.835	0.015	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1371.84
11	0.6476	1079.0	1098.1	0.186	3.435	81.738	13.562	1.040	0.018	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1364.60
12	0.6389	1061.2	1080.0	0.266	3.577	83.554	11.563	0.987	0.022	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1351.18
13	0.6445	1069.6	1088.5	0.256	3.614	82.394	12.690	0.990	0.022	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1355.88
14	0.6459	1074.0	1093.0	0.204	3.556	82.119	13.007	1.064	0.021	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1360.01
15	0.6469	1077.8	1096.9	0.196	3.429	81.882	13.409	1.050	0.015	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1363.78
16	0.6504	1085.5	1104.8	0.181	3.313	81.202	14.181	1.091	0.015	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1369.83
17	0.6504	1085.1	1104.3	0.182	3.333	81.272	14.035	1.141	0.017	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1369.30
18	0.6505	1085.0	1104.2	0.185	3.346	81.286	13.977	1.168	0.017	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1369.06
19	0.6544	1093.4	1112.8	0.164	3.233	80.397	15.075	1.100	0.015	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1375.57
20	0.6572	1099.5	1118.9	0.136	3.171	79.723	15.921	1.020	0.013	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1380.11
21	0.6506	1084.5	1103.7	0.182	3.385	81.268	13.949	1.176	0.018	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1368.41
22	0.6424	1069.2	1088.1	0.225	3.488	82.828	12.368	1.055	0.016	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1357.56
23	0.6427	1072.6	1091.6	0.249	3.275	82.722	12.794	0.895	0.024	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1361.56
24	0.6431	1073.4	1092.4	0.251	3.260	82.497	13.143	0.826	0.010	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1362.12
25	0.6541	1095.8	1115.2	0.140	3.095	80.145	15.785	0.821	0.005	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1378.88
26	0.6429	1072.3	1091.3	0.195	3.392	82.623	12.789	0.971	0.014	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1360.99
27	0.6453	1077.1	1096.2	0.185	3.334	82.210	13.201	1.037	0.015	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1376.88
28	0.6460	1078.7	1097.8	0.180	3.307	82.119	13.275	1.085	0.015	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1364.61
29	0.6421	1069.3	1088.3	0.254	3.405	82.879	12.420	1.014	0.012	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1365.95
30	0.6333	1048.9	1067.5	0.336	3.695	85.006	9.654	1.256	0.024	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1358.02
Avg	0.6444	1074.0	1093.2	0.219	3.383	82.387	12.965	1.007	0.017	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1361.75

Zone 31

GQ Source Daily Summary

April 2011

Number: 051 **Pressure Base:** 14.730 **Contract Day:** 1

Name: CABIN CR-DICKINSON **Temperature Base:** **Contract Hour:** 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6281	1040.3	1058.7	0.328	3.759	85.899	8.897	1.053	0.025	0.030	0.004	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1335.80
2	0.6302	1044.8	1063.3	0.301	3.720	85.391	9.517	1.016	0.022	0.026	0.003	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1339.42
3	0.6305	1044.4	1062.9	0.302	3.767	85.408	9.384	1.081	0.024	0.028	0.003	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1338.60
4	0.6311	1045.7	1064.3	0.313	3.731	85.303	9.499	1.095	0.024	0.028	0.003	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1339.63
5	0.6348	1053.0	1071.6	0.292	3.666	84.566	10.293	1.124	0.025	0.027	0.003	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1345.01
6	0.6373	1057.1	1075.8	0.278	3.671	84.127	10.656	1.209	0.024	0.027	0.003	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1347.59
7	0.6383	1059.1	1077.9	0.267	3.659	83.841	11.038	1.135	0.025	0.028	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1349.15
8	0.6350	1052.9	1071.5	0.287	3.700	84.526	10.302	1.113	0.028	0.036	0.003	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1344.66
9	0.6361	1053.5	1072.2	0.269	3.786	84.313	10.419	1.140	0.028	0.038	0.003	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1344.38
10	0.6420	1064.2	1083.0	0.244	3.729	83.194	11.502	1.267	0.025	0.031	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1351.73
11	0.6284	1037.8	1056.2	0.351	3.897	85.928	8.651	1.091	0.032	0.043	0.004	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1332.32
12	0.6360	1049.2	1067.8	0.338	3.941	84.388	10.124	1.116	0.032	0.049	0.005	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1338.89
13	0.6399	1057.6	1076.3	0.281	3.882	83.590	10.986	1.179	0.030	0.044	0.003	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1345.49
14	0.6379	1057.1	1075.8	0.268	3.742	83.977	10.759	1.192	0.024	0.030	0.003	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1346.97
15	0.6403	1061.7	1080.5	0.264	3.692	83.589	11.094	1.300	0.025	0.029	0.003	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1350.36
16	0.6416	1064.1	1083.0	0.258	3.680	83.381	11.257	1.361	0.026	0.031	0.003	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1352.00
17	0.6426	1065.8	1084.7	0.259	3.669	83.218	11.395	1.393	0.027	0.033	0.003	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1353.11
18	0.6430	1065.9	1084.8	0.255	3.706	83.082	11.541	1.353	0.026	0.032	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1352.81
19	0.6386	1057.3	1076.0	0.295	3.752	83.908	10.740	1.245	0.025	0.029	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1346.49
20	0.6427	1065.3	1084.2	0.252	3.716	83.174	11.412	1.381	0.027	0.033	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1352.41
21	0.6343	1050.8	1069.4	0.295	3.744	84.757	9.938	1.206	0.025	0.029	0.003	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1342.78
22	0.6265	1036.2	1054.5	0.377	3.781	86.320	8.375	1.066	0.029	0.042	0.004	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1332.25
23	0.6347	1052.0	1070.6	0.285	3.730	84.566	10.238	1.123	0.024	0.027	0.003	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1343.80
24	0.6374	1056.6	1075.3	0.265	3.734	84.057	10.703	1.185	0.024	0.028	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1346.83
25	0.6344	1050.6	1069.2	0.269	3.810	84.616	10.114	1.134	0.023	0.027	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1342.35
26	0.6352	1051.5	1070.1	0.279	3.813	84.597	9.995	1.254	0.026	0.031	0.003	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1342.68
27	0.6350	1051.6	1070.2	0.290	3.776	84.707	9.850	1.310	0.027	0.033	0.003	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1342.92
28	0.6225	1028.7	1046.9	0.447	3.752	87.065	7.714	1.070	0.020	0.025	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1326.68
29	0.6463	1070.7	1089.7	0.235	3.750	82.594	11.798	1.558	0.020	0.032	0.002	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1355.47
30	0.6120	1010.0	1027.9	0.543	3.758	89.193	5.608	0.837	0.024	0.029	0.003	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1313.55
Avg	0.6351	1052.0	1070.5	0.300	3.750	84.576	10.127	1.183	0.026	0.032	0.003	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1343.20

Zone 32

GQ Source Daily Summary

April 2011

Number: 111 Pressure Base: 14.730 Contract Day: 1

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

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6851	1158.3	1178.8	0.000	2.434	73.437	23.640	0.475	0.005	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1424.16
2	0.6837	1156.5	1177.0	0.000	2.412	73.700	23.425	0.450	0.005	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1423.41
3	0.6833	1156.0	1176.5	0.000	2.399	73.762	23.405	0.419	0.006	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1423.28
4	0.6838	1157.2	1177.6	0.000	2.377	73.729	23.396	0.485	0.006	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1424.17
5	0.6827	1155.6	1176.1	0.000	2.369	73.914	23.253	0.451	0.005	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1423.40
6	0.6841	1157.7	1178.2	0.000	2.369	73.737	23.323	0.557	0.006	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1424.57
7	0.6837	1157.5	1178.0	0.000	2.351	73.722	23.447	0.465	0.006	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1424.65
8	0.6831	1156.2	1176.6	0.000	2.371	73.836	23.330	0.450	0.005	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1423.68
9	0.6838	1156.1	1176.6	0.000	2.341	73.900	23.301	0.444	0.005	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1424.00
10	0.6838	1158.0	1178.5	0.000	2.326	73.767	23.378	0.515	0.005	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1425.18
11	0.6846	1159.0	1179.5	0.000	2.339	73.637	23.459	0.550	0.006	0.008	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1425.59
12	0.6839	1158.0	1178.5	0.000	2.340	73.747	23.371	0.527	0.006	0.008	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1425.03
13	0.6826	1155.9	1176.4	0.000	2.344	73.961	23.202	0.478	0.006	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1423.82
14	0.6835	1157.4	1177.9	0.000	2.339	73.788	23.370	0.489	0.006	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1424.69
15	0.6829	1156.6	1177.1	0.000	2.326	73.911	23.268	0.484	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.44
16	0.6833	1157.5	1178.0	0.000	2.313	73.830	23.349	0.495	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.07
17	0.6822	1156.2	1176.6	0.000	2.295	74.014	23.227	0.453	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.52
18	0.6827	1156.8	1176.9	0.000	2.322	73.936	23.250	0.480	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.39
19	0.6829	1156.8	1177.3	0.000	2.319	73.902	23.289	0.470	0.007	0.011	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1424.63
20	0.6824	1155.8	1176.3	0.000	2.333	74.022	23.141	0.483	0.007	0.011	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1423.89
21	0.6827	1156.3	1176.7	0.000	2.331	73.931	23.257	0.469	0.005	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1424.18
22	0.6827	1156.5	1177.0	0.000	2.314	73.928	23.283	0.462	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.49
23	0.6822	1155.8	1176.2	0.000	2.322	74.036	23.157	0.477	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.08
24	0.6822	1155.7	1176.2	0.000	2.314	74.039	23.157	0.477	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.97
25	0.6834	1157.2	1177.7	0.000	2.338	73.835	23.297	0.518	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.61
26	0.6828	1156.9	1177.4	0.000	2.299	73.956	23.229	0.504	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.89
27	0.6828	1156.7	1177.2	0.000	2.308	73.956	23.219	0.505	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.70
28	0.6826	1156.9	1177.4	0.000	2.281	74.005	23.184	0.518	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.10
29	0.6841	1159.5	1180.0	0.000	2.271	73.798	23.298	0.619	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.60
30	0.6745	1144.5	1164.7	0.000	2.279	75.578	21.711	0.416	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.17
AVG	0.6829	1156.0	1177.0	0.000	2.336	73.911	23.254	0.486	0.005	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1424.25

Zone 33

GQ Source Daily Summary

April 2011

Number: 331

Pressure Base: 14.730

Contract Day: 1

Name: MARMARTH PLANT

Temperature Base:

Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.8048	1145.7	1166.0	2.337	10.906	53.309	29.915	3.244	0.067	0.192	0.008	0.020	0.003	0.000	0.000	0.000	0.000	0.000	1299.78
2	0.8041	1143.5	1163.7	2.358	10.950	53.421	29.778	3.197	0.068	0.197	0.008	0.020	0.003	0.000	0.000	0.000	0.000	0.000	1297.75
3	0.7990	1140.5	1160.7	2.222	10.854	54.137	29.492	3.014	0.065	0.186	0.007	0.019	0.003	0.000	0.000	0.000	0.000	0.000	1298.57
4	0.7995	1143.1	1163.3	2.207	10.775	54.092	29.567	3.075	0.066	0.189	0.007	0.019	0.003	0.000	0.000	0.000	0.000	0.000	1300.97
5	0.8008	1142.2	1162.4	2.224	10.918	53.861	29.615	3.097	0.067	0.189	0.008	0.019	0.003	0.000	0.000	0.000	0.000	0.000	1298.97
6	0.8045	1146.4	1166.4	2.283	10.916	53.365	29.874	3.260	0.070	0.201	0.008	0.021	0.003	0.000	0.000	0.000	0.000	0.000	1300.79
7	0.8035	1141.1	1161.4	2.315	11.101	53.486	29.598	3.211	0.068	0.194	0.008	0.020	0.003	0.000	0.000	0.000	0.000	0.000	1295.58
8	0.8040	1139.3	1159.5	2.389	11.149	53.502	29.390	3.286	0.067	0.189	0.007	0.019	0.002	0.000	0.000	0.000	0.000	0.000	1293.06
9	0.8007	1134.5	1154.6	2.336	11.215	53.916	29.162	3.089	0.065	0.188	0.008	0.020	0.002	0.000	0.000	0.000	0.000	0.000	1290.23
10	0.8012	1135.9	1156.0	2.313	11.209	53.857	29.206	3.117	0.068	0.198	0.008	0.021	0.003	0.000	0.000	0.000	0.000	0.000	1291.45
11	0.8010	1136.4	1156.5	2.329	11.132	53.916	29.238	3.077	0.070	0.204	0.008	0.022	0.003	0.000	0.000	0.000	0.000	0.000	1292.19
12	0.7965	1130.5	1150.6	2.233	11.209	54.606	28.689	2.959	0.069	0.201	0.009	0.022	0.003	0.000	0.000	0.000	0.000	0.000	1289.20
13	0.7952	1133.5	1153.5	2.109	11.104	54.564	29.126	2.816	0.065	0.186	0.008	0.020	0.003	0.000	0.000	0.000	0.000	0.000	1289.56
14	0.7951	1134.2	1154.3	2.167	10.964	54.530	29.343	2.738	0.060	0.170	0.007	0.017	0.003	0.000	0.000	0.000	0.000	0.000	1294.47
15	0.7954	1140.9	1161.1	2.084	10.705	54.467	29.730	2.750	0.062	0.174	0.007	0.018	0.003	0.000	0.000	0.000	0.000	0.000	1301.88
16	0.7952	1136.1	1156.2	2.208	10.791	54.560	29.485	2.690	0.062	0.176	0.007	0.018	0.003	0.000	0.000	0.000	0.000	0.000	1296.59
17	0.7960	1130.9	1151.0	2.167	11.241	54.402	29.119	2.802	0.063	0.179	0.007	0.018	0.002	0.000	0.000	0.000	0.000	0.000	1290.07
18	0.7970	1130.3	1150.3	2.273	11.220	54.355	29.028	2.851	0.064	0.182	0.007	0.019	0.003	0.000	0.000	0.000	0.000	0.000	1288.44
19	0.7912	1130.1	1150.1	1.932	11.208	54.926	29.059	2.623	0.059	0.166	0.007	0.017	0.003	0.000	0.000	0.000	0.000	0.000	1292.92
20	0.7940	1133.5	1153.6	2.035	11.103	54.612	29.257	2.724	0.063	0.178	0.007	0.018	0.003	0.000	0.000	0.000	0.000	0.000	1294.58
21	0.7916	1127.9	1147.9	1.907	11.408	54.980	28.693	2.721	0.066	0.192	0.008	0.021	0.004	0.000	0.000	0.000	0.000	0.000	1290.20
22	0.7948	1126.6	1146.6	2.155	11.412	54.489	28.983	2.699	0.061	0.174	0.007	0.017	0.003	0.000	0.000	0.000	0.000	0.000	1286.10
23	0.7961	1132.1	1152.1	2.111	11.267	54.346	29.205	2.786	0.065	0.189	0.008	0.020	0.003	0.000	0.000	0.000	0.000	0.000	1291.28
24	0.7994	1135.7	1155.8	2.298	11.075	53.948	29.531	2.867	0.064	0.186	0.007	0.019	0.003	0.000	0.000	0.000	0.000	0.000	1292.69
25	0.7994	1134.8	1154.9	2.316	11.103	54.019	29.364	2.909	0.066	0.191	0.008	0.020	0.003	0.000	0.000	0.000	0.000	0.000	1291.65
26	0.8008	1132.4	1152.5	2.329	11.363	53.730	29.338	2.960	0.064	0.186	0.007	0.019	0.003	0.000	0.000	0.000	0.000	0.000	1287.80
27	0.7968	1128.3	1148.3	2.221	11.394	54.322	28.953	2.834	0.063	0.184	0.007	0.020	0.003	0.000	0.000	0.000	0.000	0.000	1286.37
28	0.7975	1137.9	1158.1	2.149	10.984	54.060	29.799	2.735	0.062	0.181	0.007	0.019	0.003	0.000	0.000	0.000	0.000	0.000	1286.80
29	0.7961	1129.3	1149.3	2.324	11.119	54.412	29.189	2.699	0.059	0.170	0.007	0.017	0.002	0.000	0.000	0.000	0.000	0.000	1288.04
30	0.7473	1086.9	1106.2	0.785	11.453	61.682	24.211	1.660	0.047	0.135	0.006	0.017	0.004	0.000	0.000	0.000	0.000	0.000	1279.92
Avg	0.7966	1134.0	1154.1	2.171	11.108	54.396	29.165	2.883	0.064	0.184	0.007	0.019	0.003	0.000	0.000	0.000	0.000	0.000	1293.06

*** End of Report***

Zone 34

GQ Source Analysis

Williston Basin Interstate Pipeline Co.

GQ Source Number:	1201140	Specific Gravity:	0.5725
GQ Source Name:	EAGLE 8B ND	BTU Base:	Dry
Effective Date:	6/7/2010 9:00:00 AM	Measured Heat Value:	979.18
Effective End Date:	1/18/2038 9:14:07 PM	Dry Heat Value:	979.09
Pressure Base:	14.730	Wet Heat Value:	962.05
Viscosity:		As Deliv. Heat Value:	979.09
		Sample Pressure:	29.00
		Sample Temperature:	

	<u>Mol %</u>	<u>GPM</u>		<u>Mol %</u>
C1 Methane	95.949		CO2 Carbon Dioxide	0.088
C2 Ethane	0.311	0.083	N2 Nitrogen	3.635
C3 Propane	0.009	0.003	O2 Oxygen	0.000
IC4 Iso-Butane	0.007	0.002	HE Helium	
NC4 N-Butane	0.000	0.000	H2 Hydrogen	
IC5 Iso-Pentane	0.000	0.000	H2S Hydrogen Sulfide	
NC5 N-Pentane	0.000	0.000	AR Argon	
C6 Hexane	0.000	0.000	CO Carbon Monoxide	
C7 Heptane			H2O Water	
C8 Octane			Neo-C5 Neo-Pentane	
C9 Nonane				
C10 Decane				
Totals		100.000%	0.088 GPM	

Sample Date: 6/7/2010 12:00:00 AM
Sample Type: Spot
Sample Tech: MG
Sample Remarks:

Analysis Tech: Mary Berger
Analysis Remarks:

Zone 35

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

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

STATE	ZONE	ZONE BOUNDARY	12 MONTH AVERAGE	APR 11	MAR 11	FEB 11	JAN 11	DEC 10	NOV 10	OCT 10	SEPT 10	AUG 10	JULY 10	JUNE 10	MAY 10	ZONE
MT/ND	211	Sidney Area	1208	1202	1211	1216	1212	1218	1210	1206	1209	1208	1204	1197	1199	21
ND	24	Williston Area	1198	1194	1198	1196	1204	1207	1208	1193	1200	1212	1208	1171	1186	24
ND	25	Williston - Tloga - Minot Line	1135	1143	1143	1131	1150	1135	1133	1130	1133	1129	1130	1134	1132	25
ND	261	Williston - Tloga - Minot Line	1155	1162	1172	1176	1171	1154	1135	1140	1145	1161	1160	1147	1134	261
ND	262	Minot Area	1185	1167	1175	1178	1182	1191	1186	1190	1191	1189	1193	1188	1187	262
ND	263	Tloga - Portal	1110	1123	1094	1090	1094	1100	1107	1120	1133	1127	1124	1104	1102	263
ND	264	Williston - Ray	1198	1194	1198	1196	1204	1207	1208	1193	1200	1212	1208	1171	1186	264
ND	271	Bismarck - Cleveland	1167	1161	1136	1118	1130	1160	1172	1190	1191	1187	1193	1186	1185	271
ND	272	Cleveland - Mapleton	1167	1161	1134	1117	1130	1159	1172	1190	1190	1187	1187	1187	1186	272
ND	273	Cleveland - Grafton	1167	1161	1134	1117	1130	1159	1172	1190	1190	1187	1187	1187	1186	273
ND	28	Bismarck - Cabin Creek	1125	1112	1135	1117	1130	1159	1097	1173	1191	1182	1193	1186	1174	28
ND	31	Dickinson Area	1059	1093	1051	1042	1045	1055	1082	1088	1056	1065	1023	1053	1066	31
ND/MT	32	Cabin Creek - Dickinson	1042	1071	1046	1040	1044	1053	1079	1075	1040	1031	986	1043	1005	32
ND	33	Killdeer	1176	1177	1175	1175	1175	1175	1177	1179	1179	1177	1177	1172	1169	33
ND	34	Bowman Area	1161	1154	1163	1158	1163	1172	1167	1163	1157	1157	1156	1162	1162	34
ND	35	Baker Field - North Dakota	979	979	979	979	979	979	979	979	979	979	979	979	978	35

**THERMAL ZONE VARIANCE
DOCUMENTATION**

April 2011

ZONE	BTU VARIANCE	REASON
263	29	Mix of gas in the area
271	25	Higher BTU coming from Minot area feeding both directions
272	27	Higher BTU coming from Minot area feeding both directions
273	26	Higher BTU coming from Minot area feeding both directions
28	61	Higher BTU coming from Minot area feeding both directions
31	44	Higher BTU coming from Minot area feeding both directions
32	25	Higher BTU coming from Minot area feeding both directions