

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

January 26, 2012

RECEIVED

JAN 27 2012

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 – December 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 January 2012.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our supplier for the month of December 2011. There is a report for each of the 17 thermal zones for the month.
3. Attachment C is a listing which states the type of measuring device in place at each zone.
4. Attachment D is a monthly list of the heating value data, by zone, for the most recent 12-month period and an average thereof. It is being provided pursuant to a Staff request.

There were no thermal variances for the month of December 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
JAN 2012

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
12	314	APPLE VALLEY	271	1.0903
12	327	BISMARCK	28	1.0402
12	343	CARRINGTON	273	1.0894
12	344	CLEVELAND	272	1.0817
12	364	CAVALIER	273	1.1123
12	365	DAWSON	271	1.0827
12	374	FT TOTTEN	273	1.0970
12	375	DEVILS LAKE	273	1.0970
12	379	BARLOW	273	1.0894
12	387	ELDRIDGE	272	1.0894
12	411	GLEN ULLIN	31	1.0172
12	417	GRAFTON	273	1.1200
12	439	HANKINSON	600	1.0749
12	449	JAMESTOWN	272	1.0970
12	463	LANGDON	273	1.0894
12	475	LINTON	802	.9755
12	478	LINCOLN	28	1.0402
12	494	MEDINA	271	1.0827
12	498	MANDAN	28	1.0402
12	524	NEW SALEM	28	1.0182
12	532	NEW ROCKFORD	273	1.0894
12	539	PARK RIVER	273	1.1123
12	574	SANBORN	272	1.0970
12	593	STEELE	271	1.0827
12	598	SHEYENNE	273	1.0970
12	610	TAPPEN	271	1.0827
12	625	VALLEY CITY	272	1.1046
12	629	WALHALLA	273	1.1123
12	647	WILTON	262	1.1003
12	717	SPIRITWOOD	272	1.0970
12	718	FAIRMOUNT	600	1.0727
12	732	MSR SITE	273	1.0894
12	733	PAR SITE	273	1.0894
15	303	ALEXANDER	25	1.0767
15	308	ARNEGARD	25	1.0767

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
JAN 2012

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	318	BEACH	32	.9823
15	319	BELFIELD	32	.9895
15	323	BERTHOLD	262	1.1003
15	330	BOWMAN	34	1.0356
15	337	BURLINGTON	262	1.1241
15	368	DES LACS	262	1.1083
15	369	DICKINSON	31	1.0099
15	384	EPPING	264	1.1325
15	407	GLADSTONE	31	1.0099
15	413	GOLVA	32	.9680
15	416	GARRISON	262	1.1083
15	429	HEBRON	31	1.0172
15	459	KILLDEER	33	1.1173
15	469	LEFOR	31	1.0099
15	474	LIGNITE	263	1.0217
15	500	MARMARTH	34	1.0433
15	505	MINOT	262	1.1241
15	510	MOTT	31	1.0099
15	512	MAX	262	1.1003
15	522	NEW ENGLAND	31	1.0026
15	540	PALERMO	262	1.1003
15	558	RAY	264	1.1325
15	561	REGENT	31	1.0099
15	563	RHAME	34	1.0281
15	564	RICHARDTON	31	1.0026
15	568	ROSS	261	1.0905
15	572	RUTHVILLE	262	1.1241
15	583	SENTINEL BUTTE	32	.9823
15	588	SOUTH HEART	31	1.0026
15	590	SPRINGBROOK	264	1.1325
15	591	STANLEY	261	1.0985
15	605	SURREY	262	1.1241
15	611	TAYLOR	31	1.0026
15	616	TIOGA	261	1.0905
15	619	TURTLE LAKE	262	1.1083

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
JAN 2012

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	620	TRENTON	24	1.1406
15	624	UNDERWOOD	262	1.1083
15	632	WATFORD CITY	25	1.0767
15	636	WHEELLOCK	264	1.1243
15	637	WHITE EARTH	261	1.0985
15	642	WILLISTON	24	1.1406
15	646	WASHBURN	262	1.1162
15	664	RIVERDALE	262	1.1083
15	691	FAIRVIEW	241	1.1359
15	712	MINOT AFB	262	1.1241
15	743	BAKER FIELD	35	.8980

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

GQ Source Daily Summary

December 2011

Number: 251 **Pressure Base:** 14.730 **Contract Day:** 1
Name: SIDNEY 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	0.7137	1190.4	1211.5	0.056	3.071	70.322	23.480	2.871	0.067	0.120	0.006	0.006	0.001	0.000	0.000	0.000	0.000	0.000	1434.00
2	0.7118	1186.8	1207.8	0.059	3.088	70.577	23.331	2.765	0.061	0.106	0.005	0.005	0.002	0.000	0.000	0.000	0.000	0.000	1431.64
3	0.7118	1187.5	1208.5	0.059	3.066	70.554	23.385	2.765	0.059	0.101	0.005	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1432.38
4	0.7125	1188.0	1209.1	0.060	3.095	70.434	23.451	2.785	0.060	0.105	0.005	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1432.38
5	0.7129	1189.5	1210.5	0.058	3.051	70.429	23.424	2.861	0.061	0.106	0.005	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1433.65
6	0.7117	1187.5	1208.6	0.055	3.057	70.562	23.377	2.799	0.053	0.088	0.004	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1432.58
7	0.7141	1192.2	1213.3	0.056	2.993	70.338	23.462	2.954	0.066	0.118	0.006	0.006	0.001	0.000	0.000	0.000	0.000	0.000	1435.84
8	0.7143	1192.2	1213.3	0.059	3.008	70.321	23.445	2.966	0.067	0.120	0.006	0.006	0.001	0.000	0.000	0.000	0.000	0.000	1435.62
9	0.7136	1190.1	1211.1	0.063	3.069	70.242	23.622	2.849	0.054	0.092	0.004	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1433.72
10	0.7102	1185.3	1206.3	0.059	3.049	70.813	23.197	2.722	0.055	0.084	0.004	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1431.34
11	0.7137	1190.4	1211.5	0.060	3.058	70.243	23.634	2.841	0.056	0.097	0.005	0.005	0.001	0.000	0.000	0.000	0.000	0.000	1434.08
12	0.7162	1193.4	1214.5	0.060	3.114	70.062	23.500	3.019	0.078	0.147	0.009	0.009	0.003	0.000	0.000	0.000	0.000	0.000	1435.11
13	0.7136	1190.5	1211.6	0.065	3.040	70.507	23.197	2.968	0.073	0.134	0.007	0.007	0.002	0.000	0.000	0.000	0.000	0.000	1434.23
14	0.7139	1191.6	1212.7	0.064	2.998	70.407	23.382	2.930	0.071	0.131	0.007	0.007	0.002	0.000	0.000	0.000	0.000	0.000	1435.32
15	0.7163	1196.3	1217.5	0.068	2.935	70.040	23.709	3.023	0.073	0.135	0.008	0.007	0.002	0.000	0.000	0.000	0.000	0.000	1438.49
16	0.7118	1187.9	1208.9	0.067	3.029	70.689	23.164	2.872	0.061	0.107	0.005	0.005	0.001	0.000	0.000	0.000	0.000	0.000	1432.87
17	0.7125	1186.7	1207.7	0.075	3.150	70.497	23.272	2.829	0.061	0.106	0.005	0.005	0.001	0.000	0.000	0.000	0.000	0.000	1430.80
18	0.7188	1198.6	1219.8	0.080	3.015	69.676	23.853	3.125	0.079	0.152	0.009	0.009	0.003	0.000	0.000	0.000	0.000	0.000	1438.70
19	0.7174	1194.4	1215.6	0.075	3.141	69.876	23.588	3.079	0.075	0.147	0.008	0.008	0.002	0.000	0.000	0.000	0.000	0.000	1435.13
20	0.7192	1199.9	1221.1	0.064	2.996	69.503	24.125	3.082	0.071	0.143	0.007	0.007	0.002	0.000	0.000	0.000	0.000	0.000	1439.89
21	0.7150	1192.1	1213.2	0.063	3.078	70.053	23.706	2.936	0.055	0.098	0.005	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1434.77
22	0.7161	1194.2	1215.3	0.064	3.051	69.951	23.769	2.961	0.066	0.122	0.007	0.007	0.002	0.000	0.000	0.000	0.000	0.000	1436.18
23	0.7181	1198.4	1219.7	0.053	2.993	69.965	23.415	3.354	0.075	0.132	0.006	0.006	0.001	0.000	0.000	0.000	0.000	0.000	1439.26
24	0.7152	1192.3	1213.5	0.051	3.100	70.163	23.408	3.127	0.053	0.087	0.005	0.005	0.001	0.000	0.000	0.000	0.000	0.000	1434.83
25	0.7164	1194.3	1215.4	0.044	3.106	69.966	23.547	3.188	0.052	0.086	0.004	0.004	0.002	0.000	0.000	0.000	0.000	0.000	1435.94
26	0.7204	1200.4	1221.6	0.044	3.110	69.388	23.883	3.428	0.054	0.084	0.004	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1439.25
27	0.7150	1191.4	1212.5	0.043	3.147	70.042	23.649	2.970	0.050	0.087	0.005	0.005	0.002	0.000	0.000	0.000	0.000	0.000	1433.97
28	0.7082	1183.2	1204.1	0.060	2.991	70.898	23.444	2.505	0.035	0.059	0.003	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1430.82
29	0.7081	1182.4	1203.4	0.065	3.017	70.844	23.536	2.446	0.034	0.053	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1430.04
30	0.7111	1187.6	1208.6	0.056	3.003	70.415	23.786	2.644	0.035	0.055	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1433.17
31	0.7157	1195.1	1216.2	0.061	2.965	69.782	24.203	2.861	0.048	0.075	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1437.64
AVG	0.7142	1191.0	1212.4	0.060	3.051	70.244	23.547	2.920	0.060	0.106	0.005	0.005	0.002	0.000	0.000	0.000	0.000	0.000	1434.63

Zone 211

GQ Source Analysis

Williston Basin Interstate Pipeline Co.

GQ Source Number:	0602330	Specific Gravity:	0.7198
GQ Source Name:	WILLISTON BORDER	BTU Base:	Dry
Effective Date:	12/1/2011 9:00:00 AM	Measured Heat Value:	1201.93
Effective End Date:	1/18/2038 9:14:07 PM	Dry Heat Value:	1198.77
Pressure Base:	14.730	Wet Heat Value:	1177.90
Viscosity:		As Deliv. Heat Value:	1198.77
		Sample Pressure:	101.00
		Sample Temperature:	41.00

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
C1	Methane	69.752		CO2	Carbon Dioxide	0.618
C2	Ethane	22.622	0.000	N2	Nitrogen	3.508
C3	Propane	3.218	0.884	O2	Oxygen	0.000
IC4	Iso-Butane	0.094	0.031	HE	Helium	
NC4	N-Butane	0.170	0.053	H2	Hydrogen	
IC5	Iso-Pentane	0.010	0.004	H2S	Hydrogen Sulfide	
NC5	N-Pentane	0.008	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%	0.975 GPM
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Sample Date: 12/31/2011 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks:

Analysis Tech: Mary Berger
Analysis Remarks:

zone 24, 264

GQ Source Analysis

Williston Basin Interstate Pipeline Co.

GQ Source Number:	0602230	Specific Gravity:	0.7260
GQ Source Name:	WATFORD CITY BORDER	BTU Base:	Dry
Effective Date:	12/1/2011 9:00:00 AM	Measured Heat Value:	1142.90
Effective End Date:	1/18/2038 9:14:07 PM	Dry Heat Value:	1140.09
Pressure Base:	14.730	Wet Heat Value:	1120.25
Viscosity:		As Deliv. Heat Value:	1140.09
		Sample Pressure:	0.00
		Sample Temperature:	

	<u>Mol %</u>	<u>GPM</u>		<u>Mol %</u>
C1 Methane	68.842		CO2 Carbon Dioxide	0.646
C2 Ethane	18.764	5.003	N2 Nitrogen	7.579
C3 Propane	3.624	0.996	O2 Oxygen	0.000
IC4 Iso-Butane	0.174	0.057	HE Helium	
NC4 N-Butane	0.321	0.101	H2 Hydrogen	
IC5 Iso-Pentane	0.026	0.009	H2S Hydrogen Sulfide	
NC5 N-Pentane	0.025	0.009	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%	6.175 GPM
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Sample Date: 12/31/2011 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks:

Analysis Tech: Mary Berger
Analysis Remarks:

Zone 25

GQ Source Daily Summary

December 2011

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

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6963	1144.1	1164.4	0.499	3.580	73.998	19.252	2.350	0.087	0.187	0.016	0.020	0.011						1395.39
2	0.6963	1145.2	1165.4	0.483	3.599	74.029	19.268	2.343	0.090	0.195	0.018	0.022	0.014						1396.66
3	0.6962	1144.6	1164.9	0.480	3.572	74.000	19.260	2.377	0.085	0.182	0.015	0.018	0.010						1396.04
4	0.6966	1144.8	1165.1	0.481	3.589	73.898	19.329	2.423	0.079	0.165	0.013	0.015	0.006						1395.95
5	0.6973	1146.2	1166.5	0.483	3.576	73.775	19.447	2.434	0.080	0.167	0.014	0.016	0.009						1396.84
6	0.6977	1146.5	1166.8	0.482	3.587	73.869	19.270	2.444	0.092	0.200	0.018	0.023	0.015						1396.89
7	0.6939	1141.3	1161.5	0.463	3.579	74.302	19.127	2.227	0.082	0.174	0.016	0.019	0.011						1394.34
8	0.6964	1145.6	1165.9	0.470	3.538	73.813	19.614	2.275	0.082	0.171	0.014	0.016	0.007						1397.17
9	0.6953	1143.9	1164.2	0.482	3.518	74.043	19.402	2.255	0.083	0.182	0.013	0.016	0.006						1396.17
10	0.6900	1137.5	1157.6	0.446	3.528	74.942	18.594	2.161	0.086	0.197	0.017	0.022	0.007						1392.96
11	0.6957	1145.1	1165.3	0.497	3.464	74.289	18.967	2.420	0.096	0.216	0.018	0.023	0.010						1397.11
12	0.6900	1132.9	1153.0	0.480	3.610	75.000	18.790	2.100	0.000	0.000	0.000	0.000	0.020						1388.05
13	0.6930	1139.8	1160.0	0.481	3.529	74.624	18.855	2.279	0.061	0.130	0.011	0.014	0.016						1393.42
14	0.6929	1140.6	1160.8	0.467	3.523	74.547	18.926	2.218	0.085	0.183	0.016	0.020	0.015						1394.49
15	0.6968	1146.5	1166.8	0.483	3.504	74.009	19.258	2.395	0.094	0.201	0.018	0.022	0.015						1397.76
16	0.6972	1146.6	1166.9	0.493	3.518	74.009	19.188	2.425	0.097	0.211	0.019	0.024	0.017						1397.54
17	0.6957	1143.4	1163.7	0.499	3.562	74.278	18.905	2.391	0.095	0.209	0.019	0.024	0.019						1395.15
18	0.6944	1141.8	1162.1	0.501	3.529	74.490	18.783	2.340	0.093	0.204	0.019	0.023	0.018						1395.73
19	0.6958	1143.9	1164.2	0.498	3.538	74.210	19.059	2.331	0.094	0.209	0.020	0.024	0.017						1394.57
20	0.6951	1144.8	1165.1	0.490	3.438	74.471	18.801	2.414	0.099	0.221	0.020	0.026	0.020						1397.40
21	0.6943	1143.4	1163.6	0.475	3.473	74.380	19.052	2.278	0.090	0.197	0.018	0.022	0.015						1396.47
22	0.6945	1142.8	1163.0	0.495	3.498	74.266	19.163	2.273	0.084	0.179	0.014	0.017	0.012						1395.55
23	0.6954	1145.3	1165.6	0.483	3.443	74.208	19.198	2.336	0.090	0.193	0.016	0.019	0.014						1397.74
24	0.6951	1145.5	1165.8	0.490	3.396	74.351	19.045	2.366	0.094	0.204	0.018	0.021	0.015						1398.25
25	0.6947	1144.1	1164.3	0.497	3.431	74.535	18.756	2.404	0.099	0.218	0.019	0.023	0.018						1396.94
26	0.6926	1140.3	1160.5	0.495	3.471	74.844	18.495	2.340	0.094	0.204	0.018	0.022	0.017						1394.39
27	0.6950	1142.8	1163.0	0.513	3.512	74.376	18.862	2.408	0.091	0.192	0.016	0.019	0.012						1395.09
28	0.6956	1142.7	1162.9	0.532	3.545	74.113	19.158	2.375	0.084	0.162	0.010	0.011	0.010						1394.42
29	0.6938	1140.9	1161.2	0.511	3.524	74.195	19.300	2.254	0.068	0.126	0.008	0.007	0.008						1394.00
30	0.6946	1143.4	1163.6	0.496	3.472	74.080	19.409	2.340	0.065	0.117	0.006	0.006	0.007						1396.16
31	0.6945	1142.7	1162.9	0.520	3.466	74.217	19.214	2.342	0.074	0.140	0.009	0.010	0.008						1395.46
AVG	0.6949	1143.0	1163.4	0.489	3.518	74.263	19.089	2.333	0.084	0.179	0.015	0.018	0.013						1395.62

Zone 261

GQ Source Daily Summary

December 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	0.6966	1144.5	1164.8	0.522	3.542	73.989	19.247	2.383	0.088	0.190	0.015	0.018	0.006	0.000	0.000	0.000	0.000	0.000	1395.58
2	0.6971	1146.2	1166.5	0.508	3.511	73.886	19.392	2.368	0.090	0.200	0.016	0.020	0.008	0.000	0.000	0.000	0.000	0.000	1397.12
3	0.6969	1146.0	1166.3	0.498	3.519	73.908	19.376	2.376	0.088	0.194	0.015	0.019	0.007	0.000	0.000	0.000	0.000	0.000	1397.06
4	0.6967	1145.3	1165.5	0.495	3.549	73.899	19.359	2.404	0.082	0.178	0.013	0.016	0.005	0.000	0.000	0.000	0.000	0.000	1396.38
5	0.6981	1147.7	1168.0	0.500	3.529	73.645	19.573	2.478	0.079	0.165	0.011	0.013	0.006	0.000	0.000	0.000	0.000	0.000	1397.90
6	0.6978	1146.7	1167.0	0.499	3.560	73.718	19.501	2.411	0.085	0.185	0.015	0.018	0.007	0.000	0.000	0.000	0.000	0.000	1397.04
7	0.6959	1144.6	1164.8	0.483	3.532	74.106	19.190	2.355	0.090	0.197	0.017	0.021	0.010	0.000	0.000	0.000	0.000	0.000	1396.36
8	0.6963	1145.6	1165.8	0.488	3.500	73.836	19.629	2.254	0.083	0.176	0.012	0.015	0.005	0.000	0.000	0.000	0.000	0.000	1397.19
9	0.6953	1143.9	1164.2	0.482	3.518	74.043	19.402	2.255	0.083	0.182	0.013	0.016	0.005	0.000	0.000	0.000	0.000	0.000	1396.17
10	0.6906	1137.5	1157.6	0.446	3.528	74.942	18.594	2.161	0.086	0.197	0.017	0.022	0.009	0.000	0.000	0.000	0.000	0.000	1392.96
11	0.6957	1145.1	1165.3	0.497	3.464	74.289	18.967	2.420	0.096	0.216	0.018	0.023	0.010	0.000	0.000	0.000	0.000	0.000	1397.11
12	0.6955	1144.4	1164.6	0.506	3.469	74.284	18.990	2.408	0.095	0.207	0.016	0.019	0.007	0.000	0.000	0.000	0.000	0.000	1396.53
13	0.6952	1144.4	1164.7	0.506	3.445	74.293	19.050	2.363	0.094	0.206	0.016	0.020	0.007	0.000	0.000	0.000	0.000	0.000	1396.84
14	0.6944	1142.8	1163.1	0.494	3.480	74.355	19.043	2.298	0.090	0.197	0.016	0.019	0.007	0.000	0.000	0.000	0.000	0.000	1395.75
15	0.6941	1143.2	1163.5	0.486	3.446	74.346	19.141	2.259	0.089	0.193	0.015	0.018	0.006	0.000	0.000	0.000	0.000	0.000	1396.45
16	0.6984	1148.3	1168.6	0.514	3.492	73.809	19.348	2.471	0.100	0.219	0.017	0.021	0.008	0.000	0.000	0.000	0.000	0.000	1398.38
17	0.6970	1146.2	1166.5	0.519	3.485	74.054	19.150	2.421	0.098	0.221	0.019	0.023	0.009	0.000	0.000	0.000	0.000	0.000	1397.19
18	0.6953	1143.1	1163.4	0.515	3.520	74.312	18.924	2.378	0.095	0.209	0.017	0.022	0.010	0.000	0.000	0.000	0.000	0.000	1395.15
19	0.6959	1144.3	1164.6	0.515	3.499	74.125	19.200	2.315	0.093	0.207	0.017	0.022	0.008	0.000	0.000	0.000	0.000	0.000	1396.07
20	0.6958	1145.3	1165.6	0.514	3.432	74.323	18.937	2.420	0.099	0.222	0.019	0.024	0.010	0.000	0.000	0.000	0.000	0.000	1397.32
21	0.6945	1144.4	1164.6	0.490	3.405	74.472	18.921	2.342	0.097	0.221	0.019	0.024	0.009	0.000	0.000	0.000	0.000	0.000	1397.46
22	0.6955	1144.8	1165.0	0.504	3.453	74.084	19.361	2.289	0.087	0.187	0.013	0.016	0.005	0.000	0.000	0.000	0.000	0.000	1396.97
23	0.6946	1143.6	1163.9	0.501	3.439	74.257	19.220	2.277	0.086	0.184	0.013	0.016	0.005	0.000	0.000	0.000	0.000	0.000	1396.51
24	0.6960	1146.7	1167.0	0.505	3.384	74.134	19.268	2.371	0.094	0.204	0.015	0.019	0.006	0.000	0.000	0.000	0.000	0.000	1398.77
25	0.6952	1145.4	1165.7	0.513	3.370	74.396	18.959	2.401	0.098	0.217	0.017	0.021	0.007	0.000	0.000	0.000	0.000	0.000	1398.07
26	0.6942	1143.4	1163.7	0.508	3.407	74.614	18.693	2.409	0.100	0.220	0.018	0.023	0.008	0.000	0.000	0.000	0.000	0.000	1396.64
27	0.6936	1141.5	1161.7	0.512	3.460	74.590	18.752	2.357	0.092	0.197	0.015	0.018	0.006	0.000	0.000	0.000	0.000	0.000	1394.91
28	0.6965	1145.1	1165.4	0.528	3.488	74.064	19.167	2.440	0.091	0.188	0.013	0.015	0.007	0.000	0.000	0.000	0.000	0.000	1396.39
29	0.6951	1142.7	1162.9	0.536	3.493	74.099	19.311	2.312	0.077	0.146	0.006	0.006	0.014	0.000	0.000	0.000	0.000	0.000	1394.88
30	0.6950	1143.5	1163.8	0.522	3.452	74.004	19.520	2.295	0.085	0.119	0.004	0.004	0.013	0.000	0.000	0.000	0.000	0.000	1396.02
31	0.6959	1145.6	1165.9	0.521	3.413	74.053	19.321	2.445	0.075	0.145	0.007	0.007	0.012	0.000	0.000	0.000	0.000	0.000	1397.61
Avg	0.6956	1145.0	1164.8	0.504	3.477	74.159	19.178	2.359	0.089	0.193	0.015	0.018	0.008	0.000	0.000	0.000	0.000	0.000	1396.60

zone 262

GQ Source Analysis

Williston Basin Interstate Pipeline Co.

GQ Source Number:	2501030	Specific Gravity:	0.6354
GQ Source Name:	LIGNITE PLANT	BTU Base:	Dry
Effective Date:	12/1/2011 9:00:00 AM	Measured Heat Value:	1075.09
Effective End Date:	1/18/2038 9:14:07 PM	Dry Heat Value:	1073.61
Pressure Base:	14.730	Wet Heat Value:	1054.93
Viscosity:		As Deliv. Heat Value:	1073.61
		Sample Pressure:	0.00
		Sample Temperature:	

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
C1	Methane	83.354		CO2	Carbon Dioxide	0.169
C2	Ethane	12.397	3.306	N2	Nitrogen	3.776
C3	Propane	0.258	0.071	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	0.046	0.021	CO	Carbon Monoxide	
C7	Heptane			H2O	Water	
C8	Octane			Neo-C5	Neo-Pentane	
C9	Nonane					
C10	Decane					

Totals 100.000% 3.398 GPM

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

Analysis Tech: Mary Berger

Analysis Remarks:

Zone 263

*** End of Report ***

GQ Source Daily Summary

December 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	0.6699	1102.8	1122.4	0.539	3.556	78.661	15.242	1.780	0.061	0.126	0.010	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1371.23
2	0.6743	1110.6	1130.2	0.486	3.578	77.835	15.996	1.858	0.066	0.139	0.012	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1376.34
3	0.6723	1107.9	1127.5	0.464	3.582	78.187	15.707	1.814	0.065	0.138	0.012	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1375.14
4	0.6704	1104.3	1123.8	0.479	3.598	78.499	15.428	1.776	0.060	0.135	0.010	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1372.62
5	0.6714	1106.3	1125.9	0.454	3.612	78.276	15.612	1.850	0.057	0.112	0.008	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1374.06
6	0.6737	1110.0	1129.7	0.425	3.639	77.849	15.999	1.873	0.060	0.121	0.010	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1376.40
7	0.6718	1107.9	1127.5	0.413	3.615	78.255	15.632	1.842	0.065	0.136	0.012	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1375.60
8	0.6599	1090.0	1109.3	0.369	3.654	80.156	14.127	1.519	0.050	0.097	0.008	0.009	0.010	0.000	0.000	0.000	0.000	0.000	1365.55
9	0.6580	1086.3	1105.5	0.412	3.632	80.572	13.715	1.497	0.051	0.096	0.008	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1362.87
10	0.6666	1100.2	1119.7	0.390	3.623	79.094	14.995	1.671	0.060	0.127	0.011	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1362.87
11	0.6721	1109.6	1129.2	0.391	3.570	78.190	15.766	1.838	0.065	0.137	0.012	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1371.46
12	0.6720	1109.5	1129.1	0.401	3.555	78.186	15.793	1.827	0.064	0.134	0.011	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1377.44
13	0.6708	1107.2	1126.8	0.410	3.565	78.406	15.582	1.804	0.064	0.132	0.011	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1377.36
14	0.6725	1111.4	1131.1	0.395	3.496	78.110	15.904	1.852	0.065	0.137	0.012	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1375.82
15	0.6691	1104.6	1124.1	0.399	3.576	77.959	15.957	1.852	0.069	0.143	0.012	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1379.22
16	0.6734	1111.2	1130.9	0.409	3.534	77.292	16.519	1.953	0.074	0.157	0.014	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1374.24
17	0.6776	1117.8	1137.6	0.424	3.563	77.123	16.656	1.950	0.072	0.154	0.014	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1382.01
18	0.6784	1118.4	1138.2	0.432	3.595	77.663	16.249	1.835	0.068	0.142	0.012	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1378.06
19	0.6748	1113.0	1132.7	0.404	3.572	77.784	16.137	1.829	0.069	0.148	0.013	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1381.89
20	0.6743	1112.4	1132.1	0.416	3.506	78.020	15.917	1.857	0.071	0.154	0.014	0.017	0.016	0.000	0.000	0.000	0.000	0.000	1378.95
21	0.6735	1112.0	1131.7	0.424	3.533	78.141	15.932	1.752	0.064	0.136	0.012	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1379.00
22	0.6719	1109.7	1129.3	0.401	3.495	77.554	16.527	1.778	0.062	0.128	0.010	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1377.75
23	0.6748	1114.4	1134.1	0.420	3.437	76.851	17.170	1.878	0.068	0.143	0.012	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1380.55
24	0.6791	1122.1	1141.9	0.411	3.387	76.600	17.384	1.930	0.073	0.156	0.013	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1385.74
25	0.6809	1125.4	1145.4	0.423	3.411	76.713	17.178	1.980	0.077	0.167	0.014	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1388.02
26	0.6808	1124.8	1144.7	0.424	3.515	77.462	16.543	1.840	0.067	0.141	0.012	0.014	0.017	0.000	0.000	0.000	0.000	0.000	1387.38
27	0.6757	1116.2	1135.9	0.389	3.553	78.053	15.839	1.881	0.065	0.133	0.011	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1381.88
28	0.6731	1110.2	1129.9	0.438	3.561	77.419	16.466	1.893	0.062	0.118	0.008	0.008	0.013	0.000	0.000	0.000	0.000	0.000	1379.21
29	0.6760	1114.2	1133.9	0.452	3.555	77.658	16.434	1.767	0.050	0.091	0.005	0.005	0.011	0.000	0.000	0.000	0.000	0.000	1377.21
30	0.6737	1111.4	1131.0	0.442	3.483	77.589	16.500	1.827	0.050	0.088	0.005	0.005	0.011	0.000	0.000	0.000	0.000	0.000	1378.03
31	0.6743	1113.2	1132.9	0.443	3.483	77.589	16.500	1.827	0.050	0.088	0.005	0.005	0.011	0.000	0.000	0.000	0.000	0.000	1379.62
AV9	0.6728	1110.0	1129.8	0.425	3.552	78.025	15.948	1.817	0.064	0.132	0.011	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1377.40

Zone 271

GQ Source Daily Summary

December 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	0.6720	1106.1	1125.7	0.525	3.569	78.295	15.552	1.826	0.063	0.133	0.011	0.013	0.011	0.000	0.000	0.000	0.000	0.000	1373.19
2	0.6721	1106.9	1126.5	0.497	3.577	78.246	15.613	1.829	0.065	0.137	0.012	0.013	0.010	0.000	0.000	0.000	0.000	0.000	1374.04
3	0.6727	1108.4	1128.0	0.458	3.598	78.128	15.733	1.833	0.067	0.143	0.013	0.015	0.012	0.000	0.000	0.000	0.000	0.000	1375.33
4	0.6713	1105.9	1125.4	0.466	3.610	78.344	15.538	1.815	0.063	0.132	0.011	0.013	0.010	0.000	0.000	0.000	0.000	0.000	1373.63
5	0.6689	1102.0	1121.5	0.465	3.622	78.732	15.200	1.780	0.057	0.116	0.009	0.010	0.008	0.000	0.000	0.000	0.000	0.000	1371.24
6	0.6712	1106.1	1125.7	0.425	3.644	78.292	15.592	1.842	0.059	0.118	0.010	0.011	0.008	0.000	0.000	0.000	0.000	0.000	1374.09
7	0.6728	1108.9	1128.6	0.423	3.629	78.104	15.711	1.886	0.067	0.141	0.013	0.015	0.011	0.000	0.000	0.000	0.000	0.000	1375.88
8	0.6630	1094.7	1114.1	0.366	3.664	79.624	14.565	1.595	0.053	0.105	0.009	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1368.20
9	0.6564	1083.6	1102.8	0.405	3.657	80.841	13.470	1.459	0.050	0.096	0.008	0.008	0.006	0.000	0.000	0.000	0.000	0.000	1361.15
10	0.6651	1097.8	1117.3	0.392	3.629	79.343	14.761	1.666	0.059	0.120	0.010	0.012	0.008	0.000	0.000	0.000	0.000	0.000	1370.00
11	0.6703	1106.8	1126.4	0.386	3.586	78.458	15.556	1.772	0.064	0.137	0.012	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1375.71
12	0.6719	1109.4	1129.0	0.390	3.564	78.230	15.723	1.847	0.066	0.139	0.012	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1377.40
13	0.6700	1105.7	1125.3	0.409	3.587	78.548	15.416	1.808	0.065	0.134	0.011	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1374.74
14	0.6723	1110.2	1129.8	0.397	3.546	78.134	15.640	1.840	0.067	0.139	0.012	0.014	0.011	0.000	0.000	0.000	0.000	0.000	1377.94
15	0.6696	1105.1	1124.7	0.401	3.594	78.578	15.439	1.756	0.064	0.132	0.011	0.013	0.011	0.000	0.000	0.000	0.000	0.000	1374.42
16	0.6703	1106.7	1126.3	0.396	3.574	78.448	15.583	1.765	0.065	0.134	0.011	0.013	0.011	0.000	0.000	0.000	0.000	0.000	1375.64
17	0.6759	1115.0	1134.8	0.415	3.562	77.575	16.241	1.934	0.074	0.156	0.014	0.016	0.013	0.000	0.000	0.000	0.000	0.000	1380.27
18	0.6778	1117.6	1137.4	0.435	3.553	77.275	16.482	1.971	0.075	0.161	0.015	0.018	0.015	0.000	0.000	0.000	0.000	0.000	1381.49
19	0.6751	1113.3	1133.0	0.408	3.600	77.645	16.220	1.868	0.069	0.147	0.013	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1378.99
20	0.6733	1110.5	1130.2	0.403	3.606	77.928	16.004	1.806	0.068	0.144	0.013	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1377.40
21	0.6733	1111.1	1130.8	0.430	3.532	78.091	15.791	1.880	0.072	0.157	0.014	0.018	0.015	0.000	0.000	0.000	0.000	0.000	1378.07
22	0.6712	1108.8	1128.4	0.396	3.533	78.332	15.704	1.777	0.068	0.147	0.013	0.016	0.014	0.000	0.000	0.000	0.000	0.000	1377.29
23	0.6738	1112.5	1132.2	0.410	3.525	77.748	16.306	1.786	0.063	0.129	0.010	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1379.33
24	0.6762	1117.2	1137.0	0.408	3.470	77.326	16.736	1.823	0.065	0.136	0.011	0.013	0.011	0.000	0.000	0.000	0.000	0.000	1382.64
25	0.6794	1122.8	1142.7	0.416	3.417	76.837	17.164	1.901	0.072	0.153	0.013	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1386.31
26	0.6807	1124.9	1144.8	0.425	3.399	76.705	17.210	1.973	0.077	0.165	0.014	0.017	0.015	0.000	0.000	0.000	0.000	0.000	1387.51
27	0.6776	1119.5	1139.3	0.391	3.485	77.170	16.797	1.887	0.071	0.153	0.013	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1384.05
28	0.6721	1109.0	1128.7	0.418	3.561	78.179	15.766	1.845	0.065	0.133	0.011	0.012	0.009	0.000	0.000	0.000	0.000	0.000	1376.77
29	0.6750	1112.9	1132.6	0.445	3.559	77.656	16.203	1.916	0.066	0.130	0.010	0.011	0.006	0.000	0.000	0.000	0.000	0.000	1378.58
30	0.6743	1111.6	1131.3	0.439	3.579	77.596	16.399	1.809	0.055	0.101	0.006	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1377.74
31	0.6738	1111.6	1131.3	0.441	3.537	77.666	16.376	1.821	0.050	0.090	0.006	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1378.16
AVG	0.6722	1109.0	1128.8	0.422	3.567	78.131	15.829	1.817	0.065	0.134	0.011	0.013	0.011	0.000	0.000	0.000	0.000	0.000	1376.68

Zone 272

GQ Source Daily Summary

December 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	0.6722	1106.6	1126.2	0.526	3.560	78.256	15.591	1.834	0.064	0.134	0.011	0.013	0.011	0.000	0.000	0.000	0.000	1373.58	
2	0.6724	1107.5	1127.1	0.499	3.568	78.194	15.663	1.838	0.065	0.137	0.011	0.013	0.010	0.000	0.000	0.000	0.000	1374.46	
3	0.6729	1108.9	1128.5	0.458	3.590	78.087	15.771	1.842	0.068	0.145	0.013	0.015	0.012	0.000	0.000	0.000	0.000	1375.70	
4	0.6715	1106.3	1125.9	0.466	3.602	78.309	15.573	1.820	0.063	0.133	0.011	0.013	0.010	0.000	0.000	0.000	0.000	1373.96	
5	0.6691	1102.3	1121.9	0.466	3.614	78.710	15.221	1.787	0.058	0.117	0.009	0.010	0.008	0.000	0.000	0.000	0.000	1371.52	
6	0.6715	1106.7	1126.3	0.426	3.634	78.244	15.639	1.852	0.059	0.118	0.010	0.011	0.007	0.000	0.000	0.000	0.000	1374.53	
7	0.6732	1109.6	1129.3	0.424	3.619	78.046	15.765	1.898	0.068	0.142	0.013	0.015	0.011	0.000	0.000	0.000	0.000	1376.39	
8	0.6631	1095.0	1114.4	0.366	3.657	79.604	14.585	1.600	0.053	0.105	0.009	0.011	0.009	0.000	0.000	0.000	0.000	1368.44	
9	0.6566	1084.0	1103.2	0.405	3.651	80.808	13.502	1.465	0.050	0.096	0.008	0.008	0.006	0.000	0.000	0.000	0.000	1361.46	
10	0.6653	1098.3	1117.7	0.392	3.621	79.309	14.796	1.672	0.059	0.121	0.010	0.012	0.008	0.000	0.000	0.000	0.000	1370.31	
11	0.6704	1107.1	1126.7	0.386	3.579	78.438	15.583	1.772	0.064	0.138	0.012	0.015	0.013	0.000	0.000	0.000	0.000	1375.97	
12	0.6721	1109.9	1129.5	0.391	3.558	78.191	15.761	1.853	0.066	0.140	0.012	0.015	0.013	0.000	0.000	0.000	0.000	1377.74	
13	0.6701	1106.0	1125.6	0.408	3.579	78.534	15.439	1.806	0.065	0.140	0.012	0.014	0.011	0.000	0.000	0.000	0.000	1374.97	
14	0.6725	1110.6	1130.2	0.398	3.540	78.105	15.869	1.845	0.067	0.140	0.012	0.014	0.011	0.000	0.000	0.000	0.000	1378.23	
15	0.6698	1105.6	1125.2	0.402	3.587	78.540	15.475	1.764	0.064	0.133	0.011	0.013	0.011	0.000	0.000	0.000	0.000	1374.76	
16	0.6705	1107.1	1126.7	0.396	3.567	78.411	15.619	1.771	0.065	0.135	0.011	0.013	0.011	0.000	0.000	0.000	0.000	1375.96	
17	0.6762	1115.6	1135.3	0.415	3.554	77.532	16.281	1.943	0.074	0.157	0.014	0.016	0.013	0.000	0.000	0.000	0.000	1380.66	
18	0.6780	1118.0	1137.8	0.435	3.547	77.243	16.514	1.977	0.075	0.162	0.015	0.018	0.015	0.000	0.000	0.000	0.000	1381.80	
19	0.6753	1113.8	1133.5	0.408	3.591	77.605	16.259	1.876	0.070	0.148	0.013	0.016	0.015	0.000	0.000	0.000	0.000	1379.36	
20	0.6735	1111.1	1130.7	0.403	3.600	77.885	16.044	1.814	0.068	0.145	0.013	0.015	0.013	0.000	0.000	0.000	0.000	1377.77	
21	0.6735	1111.5	1131.2	0.430	3.526	78.061	15.820	1.885	0.073	0.157	0.014	0.018	0.015	0.000	0.000	0.000	0.000	1378.34	
22	0.6715	1109.3	1128.9	0.398	3.523	78.296	15.738	1.785	0.068	0.148	0.013	0.016	0.014	0.000	0.000	0.000	0.000	1377.65	
23	0.6741	1113.0	1132.7	0.410	3.519	77.708	16.344	1.793	0.063	0.130	0.010	0.011	0.011	0.000	0.000	0.000	0.000	1379.67	
24	0.6764	1117.5	1137.3	0.409	3.465	77.301	16.760	1.827	0.066	0.137	0.011	0.013	0.012	0.000	0.000	0.000	0.000	1382.87	
25	0.6796	1123.2	1143.1	0.416	3.412	76.806	17.191	1.907	0.072	0.154	0.013	0.015	0.014	0.000	0.000	0.000	0.000	1386.57	
26	0.6809	1125.1	1145.0	0.425	3.395	76.680	17.235	1.977	0.077	0.165	0.014	0.017	0.015	0.000	0.000	0.000	0.000	1387.70	
27	0.6778	1120.0	1139.8	0.392	3.478	77.130	16.836	1.895	0.071	0.154	0.014	0.016	0.015	0.000	0.000	0.000	0.000	1384.42	
28	0.6723	1109.5	1129.2	0.418	3.555	78.142	15.802	1.850	0.065	0.134	0.011	0.012	0.011	0.000	0.000	0.000	0.000	1377.11	
29	0.6753	1113.4	1133.2	0.445	3.551	77.611	16.245	1.924	0.066	0.131	0.010	0.011	0.006	0.000	0.000	0.000	0.000	1378.99	
30	0.6744	1112.0	1131.7	0.439	3.572	77.566	16.432	1.813	0.055	0.102	0.006	0.006	0.009	0.000	0.000	0.000	0.000	1378.04	
31	0.6741	1112.1	1131.8	0.441	3.530	77.627	16.415	1.827	0.050	0.090	0.005	0.005	0.008	0.000	0.000	0.000	0.000	1378.49	
AVG	0.6725	1110.0	1129.2	0.422	3.559	78.096	15.863	1.823	0.065	0.135	0.011	0.013	0.011	0.000	0.000	0.000	0.000	1377.01	

*** End of Report***

Zone 273

GQ Source Daily Summary

December 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	0.6275	1037.6	1056.0	0.446	3.669	85.921	9.050	0.862	0.019	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1333.09	
2	0.6299	1041.6	1060.0	0.358	3.787	85.391	9.488	0.918	0.022	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1335.65	
3	0.6275	1037.6	1056.0	0.398	3.746	85.821	9.145	0.839	0.019	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1333.07	
4	0.6257	1034.5	1052.8	0.422	3.728	86.175	8.840	0.789	0.018	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1330.95	
5	0.6319	1045.4	1063.9	0.322	3.802	84.982	9.878	0.955	0.024	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1338.32	
6	0.6328	1048.2	1066.7	0.279	3.777	84.815	10.068	1.001	0.024	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1341.01	
7	0.6377	1056.5	1075.2	0.254	3.772	83.850	10.997	1.063	0.024	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1346.41	
8	0.6309	1044.6	1063.0	0.316	3.768	85.184	9.716	0.954	0.024	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1338.32	
9	0.6340	1049.8	1068.4	0.310	3.746	84.699	10.098	1.070	0.029	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1341.77	
10	0.6393	1059.5	1078.2	0.266	3.723	83.595	11.235	1.112	0.026	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1348.51	
11	0.6419	1064.6	1083.4	0.233	3.711	83.036	11.823	1.133	0.025	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1352.24	
12	0.6383	1057.7	1076.4	0.268	3.738	83.763	11.082	1.080	0.026	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1347.25	
13	0.6417	1064.2	1083.0	0.239	3.703	83.136	11.693	1.153	0.028	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1351.98	
14	0.6386	1058.0	1076.6	0.268	3.742	83.762	11.037	1.112	0.029	0.049	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1347.39	
15	0.6383	1057.9	1076.6	0.254	3.744	83.770	11.075	1.122	0.030	0.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1347.56	
16	0.6404	1062.2	1081.0	0.239	3.705	83.378	11.476	1.122	0.027	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1350.79	
17	0.6435	1066.7	1085.6	0.245	3.688	83.283	11.607	1.111	0.026	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1351.25	
18	0.6422	1064.2	1083.0	0.234	3.749	82.698	12.147	1.112	0.027	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1353.29	
19	0.6366	1055.2	1073.9	0.284	3.699	84.070	10.876	1.130	0.031	0.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1351.40	
20	0.6421	1063.7	1082.5	0.252	3.753	83.007	11.810	1.095	0.029	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1345.95	
21	0.6402	1063.4	1082.2	0.248	3.600	83.288	11.797	1.002	0.024	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1350.91	
22	0.6451	1072.9	1091.9	0.214	3.531	82.271	12.911	1.010	0.024	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1352.53	
23	0.6473	1077.6	1096.7	0.196	3.481	81.759	13.541	0.966	0.022	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1359.49	
24	0.6486	1078.9	1098.0	0.186	3.536	81.576	13.586	1.050	0.024	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1363.07	
25	0.6514	1080.4	1099.5	0.184	3.713	81.001	13.954	1.087	0.022	0.038	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1363.38	
26	0.6411	1061.0	1079.8	0.261	3.804	83.161	11.641	1.075	0.023	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1362.33	
27	0.6401	1061.1	1079.9	0.277	3.682	83.432	11.444	1.100	0.024	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1348.66	
28	0.6395	1059.4	1078.2	0.263	3.750	83.384	11.571	0.981	0.019	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1349.75	
29	0.6407	1058.9	1077.7	0.307	3.825	83.241	11.533	1.033	0.022	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1348.26	
30	0.6375	1056.9	1075.7	0.266	3.706	83.777	11.248	0.952	0.020	0.031	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1346.40	
31	0.6385	1058.0	1076.9	0.274	3.714	83.685	11.231	1.031	0.024	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1347.23	
AVG																				1347.68

Zone 31

GQ Source Daily Summary

December 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	0.6268	1033.5	1051.8	0.421	3.905	86.193	8.424	0.976	0.028	0.044	0.003	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1328.51
2	0.6246	1029.5	1047.8	0.434	3.916	86.595	8.062	0.916	0.027	0.041	0.003	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1325.80
3	0.6199	1021.3	1039.4	0.493	3.890	87.474	7.272	0.805	0.023	0.035	0.003	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1320.13
4	0.6259	1032.0	1050.3	0.406	3.934	86.324	8.312	0.945	0.028	0.042	0.003	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1327.55
5	0.6325	1044.0	1062.5	0.332	3.941	85.052	9.505	1.083	0.031	0.047	0.004	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1335.89
6	0.6299	1040.2	1058.7	0.311	3.952	85.534	9.065	1.050	0.031	0.047	0.004	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1333.89
7	0.6323	1043.9	1062.4	0.323	3.943	85.106	9.433	1.104	0.032	0.049	0.004	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1335.96
8	0.6253	1031.9	1050.2	0.380	3.924	86.450	8.199	0.962	0.030	0.045	0.004	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1328.06
9	0.6320	1043.7	1062.2	0.338	3.900	85.211	9.343	1.111	0.033	0.052	0.004	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1336.09
10	0.6373	1052.5	1071.1	0.292	3.927	84.153	10.350	1.190	0.031	0.047	0.004	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1341.78
11	0.6357	1050.0	1068.6	0.305	3.912	84.498	10.013	1.173	0.034	0.054	0.004	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1340.23
12	0.6348	1048.3	1066.8	0.307	3.929	84.637	9.898	1.136	0.032	0.050	0.004	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1339.00
13	0.6357	1049.6	1068.2	0.294	3.951	84.515	9.940	1.190	0.037	0.060	0.005	0.005	0.003	0.000	0.000	0.000	0.000	0.000	1339.79
14	0.6335	1045.8	1064.3	0.321	3.938	84.944	9.550	1.139	0.036	0.059	0.005	0.005	0.003	0.000	0.000	0.000	0.000	0.000	1337.16
15	0.6339	1046.8	1065.3	0.300	3.946	84.846	9.655	1.142	0.037	0.060	0.005	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1338.05
16	0.6346	1048.4	1067.0	0.301	3.912	84.708	9.817	1.158	0.035	0.055	0.005	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1339.37
17	0.6388	1054.4	1073.0	0.276	3.978	83.921	10.472	1.245	0.036	0.059	0.005	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1342.60
18	0.6390	1053.5	1072.1	0.275	4.055	83.908	10.375	1.271	0.039	0.065	0.005	0.005	0.003	0.000	0.000	0.000	0.000	0.000	1341.21
19	0.6344	1047.1	1065.7	0.318	3.946	84.769	9.699	1.161	0.035	0.058	0.005	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1337.95
20	0.6333	1045.1	1063.6	0.341	3.930	85.014	9.456	1.152	0.035	0.060	0.005	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1336.52
21	0.6332	1045.6	1064.2	0.319	3.918	85.010	9.500	1.150	0.034	0.057	0.005	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1337.35
22	0.6349	1048.9	1067.4	0.309	3.896	84.683	9.839	1.169	0.035	0.056	0.005	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1339.70
23	0.6354	1049.7	1068.3	0.294	3.912	84.555	9.968	1.170	0.034	0.054	0.005	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1340.28
24	0.6385	1052.4	1071.1	0.280	4.064	84.079	10.118	1.345	0.038	0.063	0.005	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1340.43
25	0.6380	1051.5	1070.1	0.268	4.089	84.081	10.174	1.291	0.033	0.052	0.004	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1339.81
26	0.6342	1045.6	1064.2	0.286	4.069	84.777	9.564	1.210	0.032	0.050	0.005	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1336.22
27	0.6321	1042.8	1061.3	0.363	3.918	85.281	9.169	1.179	0.031	0.047	0.004	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1334.94
28	0.6344	1046.4	1064.9	0.324	3.984	84.693	9.788	1.123	0.029	0.047	0.004	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1336.98
29	0.6326	1043.4	1061.8	0.352	3.952	85.022	9.532	1.063	0.027	0.042	0.004	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1335.07
30	0.6306	1040.7	1059.1	0.352	3.935	85.328	9.331	0.979	0.026	0.039	0.004	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1333.67
31	0.6356	1050.1	1068.7	0.317	3.875	84.534	10.001	1.179	0.032	0.050	0.005	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1340.53
Avg	0.6329	1044.0	1063.0	0.330	3.947	85.029	9.478	1.121	0.032	0.051	0.004	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1336.15

Zone 3a

GQ Source Daily Summary

December 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	0.6865	1160.0	1180.5	0.000	2.464	73.218	23.765	0.541	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.81
2	0.6862	1160.1	1180.6	0.000	2.434	73.240	23.799	0.514	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.20
3	0.6857	1158.7	1179.3	0.000	2.470	73.354	23.632	0.531	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.06
4	0.6858	1159.2	1179.7	0.000	2.452	73.320	23.702	0.513	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.49
5	0.6870	1161.4	1182.0	0.000	2.424	73.216	23.698	0.647	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.06
6	0.6875	1162.5	1183.1	0.000	2.401	73.169	23.724	0.690	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.91
7	0.6875	1162.7	1183.3	0.000	2.396	73.187	23.690	0.713	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.08
8	0.6890	1173.8	1194.6	0.000	2.412	72.524	23.583	1.369	0.036	0.067	0.004	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1432.90
9	0.6867	1161.2	1181.8	0.000	2.410	73.326	23.562	0.687	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.09
10	0.6877	1163.3	1183.9	0.000	2.372	73.248	23.572	0.792	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.65
11	0.6879	1163.6	1184.3	0.000	2.371	73.201	23.619	0.792	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.86
12	0.6926	1171.3	1192.1	0.000	2.342	72.507	24.084	1.048	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1432.41
13	0.6880	1163.3	1183.9	0.000	2.401	73.178	23.614	0.791	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.35
14	0.6883	1163.4	1184.0	0.000	2.420	73.125	23.634	0.804	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.21
15	0.6878	1163.3	1183.9	0.000	2.388	73.223	23.570	0.802	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.45
16	0.6892	1165.3	1186.0	0.000	2.394	73.009	23.705	0.873	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1428.53
17	0.6862	1160.0	1180.6	0.000	2.436	73.240	23.803	0.509	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.14
18	0.6858	1159.3	1179.8	0.000	2.441	73.268	23.832	0.449	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.70
19	0.6855	1159.0	1179.5	0.000	2.436	73.323	23.777	0.453	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.57
20	0.6858	1159.5	1180.0	0.000	2.430	73.272	23.834	0.453	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.91
21	0.6857	1159.3	1179.9	0.000	2.432	73.274	23.842	0.441	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.82
22	0.6857	1159.0	1179.5	0.000	2.452	73.294	23.777	0.466	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.42
23	0.6857	1158.7	1179.2	0.000	2.468	73.287	23.776	0.458	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.07
24	0.6860	1159.2	1179.8	0.000	2.463	73.258	23.778	0.490	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.43
25	0.6863	1159.5	1180.0	0.000	2.481	73.187	23.836	0.485	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.35
26	0.6855	1158.4	1178.9	0.000	2.474	73.318	23.739	0.458	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.81
27	0.6876	1162.5	1183.1	0.000	2.419	73.122	23.766	0.677	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.69
28	0.6853	1158.6	1179.1	0.000	2.434	73.387	23.704	0.465	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.39
29	0.6861	1160.1	1180.6	0.000	2.426	73.217	23.876	0.470	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.28
30	0.6892	1164.2	1184.8	0.000	2.458	72.978	23.726	0.796	0.013	0.025	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1427.20
31	0.6938	1172.0	1192.7	0.000	2.421	72.303	24.120	1.124	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1431.88
AVG	0.6874	1162.0	1182.6	0.000	2.426	73.154	23.747	0.655	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.34

Zone 33

GQ Source Daily Summary December 2011

Number: 331

Pressure Base: 14.730

Contract Day: 1

Name: MARMARTH PLANT

Temperature Base:

Contract Hour: 9

Day	Heating Value		CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
	Relative Density	Dry																
1	0.7956	1117.8	1137.6	1.867	12.462	53.886	28.838	2.668	0.064	0.187	0.007	0.019	0.003	0.000	0.000	0.000	0.000	1275.47
2	0.8001	1100.2	1119.7	2.004	13.757	53.126	27.965	2.828	0.072	0.214	0.009	0.023	0.003	0.000	0.000	0.000	0.000	1251.89
3	0.7863	1100.0	1119.5	1.633	13.035	55.241	27.369	2.432	0.066	0.192	0.008	0.022	0.004	0.000	0.000	0.000	0.000	1262.57
4	0.7845	1115.5	1135.2	1.666	11.870	55.743	28.080	2.335	0.064	0.189	0.008	0.021	0.004	0.000	0.000	0.000	0.000	1281.69
5	0.7930	1100.3	1119.8	1.905	13.230	54.308	27.700	2.528	0.069	0.213	0.011	0.029	0.007	0.000	0.000	0.000	0.000	1257.62
6	0.8017	1059.3	1078.1	1.913	16.541	51.957	26.742	2.547	0.067	0.199	0.008	0.021	0.004	0.000	0.000	0.000	0.000	1204.09
7	0.7943	1085.8	1105.1	1.901	14.240	53.752	27.327	2.487	0.065	0.194	0.008	0.021	0.003	0.000	0.000	0.000	0.000	1240.18
8	0.7938	1114.8	1134.5	2.019	12.252	54.270	28.674	2.505	0.064	0.187	0.008	0.020	0.003	0.000	0.000	0.000	0.000	1273.39
9	0.8020	1082.0	1101.1	1.937	15.149	52.339	27.564	2.660	0.074	0.221	0.009	0.024	0.004	0.000	0.000	0.000	0.000	1229.66
10	0.7964	1083.6	1102.8	1.880	14.608	53.318	27.355	2.528	0.069	0.206	0.009	0.023	0.004	0.000	0.000	0.000	0.000	1235.94
11	0.7948	1104.5	1124.0	1.951	13.076	54.007	28.082	2.568	0.070	0.210	0.009	0.023	0.004	0.000	0.000	0.000	0.000	1260.93
12	0.7921	1121.9	1141.7	1.977	11.722	54.693	28.813	2.490	0.068	0.202	0.008	0.022	0.004	0.000	0.000	0.000	0.000	1282.84
13	0.7965	1092.0	1111.3	1.711	14.363	53.212	27.852	2.540	0.071	0.214	0.009	0.024	0.004	0.000	0.000	0.000	0.000	1245.34
14	0.7969	1087.3	1106.6	1.860	14.457	53.261	27.555	2.550	0.070	0.211	0.009	0.023	0.004	0.000	0.000	0.000	0.000	1239.77
15	0.7979	1111.6	1131.3	1.997	12.864	53.824	28.119	2.825	0.081	0.247	0.011	0.028	0.005	0.000	0.000	0.000	0.000	1266.53
16	0.8025	1108.1	1127.7	2.042	13.439	53.043	28.095	2.993	0.085	0.258	0.011	0.029	0.005	0.000	0.000	0.000	0.000	1258.96
17	0.8062	1090.0	1109.3	2.077	14.838	52.254	27.330	3.080	0.091	0.279	0.012	0.033	0.005	0.000	0.000	0.000	0.000	1235.58
18	0.8038	1109.5	1129.1	2.371	12.979	53.167	28.116	2.969	0.087	0.265	0.011	0.030	0.005	0.000	0.000	0.000	0.000	1259.46
19	0.7984	1117.0	1136.8	2.116	12.400	53.783	28.573	2.808	0.072	0.214	0.009	0.023	0.004	0.000	0.000	0.000	0.000	1272.29
20	0.7963	1127.5	1147.4	2.058	11.649	54.142	29.129	2.733	0.065	0.193	0.008	0.021	0.003	0.000	0.000	0.000	0.000	1285.86
21	0.7961	1124.8	1144.7	2.103	11.729	54.186	28.987	2.701	0.066	0.195	0.008	0.021	0.003	0.000	0.000	0.000	0.000	1282.90
22	0.7959	1123.4	1143.8	2.115	11.779	54.314	28.729	2.752	0.070	0.207	0.009	0.022	0.003	0.000	0.000	0.000	0.000	1281.45
23	0.7957	1123.9	1143.8	2.037	11.850	54.243	28.831	2.729	0.069	0.207	0.009	0.023	0.003	0.000	0.000	0.000	0.000	1282.17
24	0.7956	1124.1	1144.0	2.075	11.762	54.390	28.686	2.767	0.071	0.214	0.009	0.024	0.004	0.000	0.000	0.000	0.000	1282.57
25	0.7965	1126.7	1146.7	2.087	11.671	54.208	28.952	2.764	0.071	0.211	0.009	0.023	0.004	0.000	0.000	0.000	0.000	1284.82
26	0.7950	1125.0	1144.9	2.008	11.752	54.361	28.972	2.694	0.069	0.208	0.009	0.024	0.003	0.000	0.000	0.000	0.000	1284.07
27	0.7949	1124.3	1144.3	2.046	11.729	54.449	28.733	2.727	0.070	0.210	0.009	0.024	0.004	0.000	0.000	0.000	0.000	1284.82
28	0.7901	1122.8	1142.6	1.865	11.648	55.148	28.417	2.605	0.070	0.210	0.009	0.024	0.004	0.000	0.000	0.000	0.000	1283.39
29	0.7916	1126.6	1146.5	1.753	11.724	54.702	28.917	2.592	0.069	0.207	0.009	0.023	0.004	0.000	0.000	0.000	0.000	1285.49
30	0.7970	1114.6	1134.3	2.009	12.579	53.801	28.622	2.669	0.071	0.212	0.009	0.024	0.004	0.000	0.000	0.000	0.000	1288.67
31	0.7957	1129.1	1149.1	2.092	11.443	54.345	29.104	2.702	0.070	0.209	0.009	0.023	0.003	0.000	0.000	0.000	0.000	1270.69
Avg	0.7960	1109.0	1129.1	1.970	12.858	53.918	28.262	2.672	0.071	0.212	0.009	0.024	0.004	0.000	0.000	0.000	0.000	1265.63

Zone 34

GQ Source Analysis

Williston Basin Interstate Pipeline Co.

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

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

Totals	100.000%	0.088 GPM
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Sample Date: 6/22/2011 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks:

Analysis Tech: Mary Berger

Analysis Remarks:

zone 35

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

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

STATE	ZONE	ZONE BOUNDARY	12 MONTH AVERAGE	DEC 11	NOV 11	OCT 11	SEPT 11	AUG 11	JULY 11	JUNE 11	MAY 11	APR 11	MAR 11	FEB 11	JAN 11	ZONE
MT/ND	211	Sidney Area	1209	1212	1215	1212	1199	1204	1215	1205	1206	1202	1211	1216	1212	211
ND	24	Williston Area	1199	1199	1203	1197	1200	1200	1198	1197	1196	1194	1198	1196	1204	24
ND	25	Watford City Area	1137	1140	1131	1129	1136	1136	1135	1140	1128	1143	1143	1131	1150	25
ND/MT	241	Fairview Area	1197	1194	1201	1198	1200	1200	1199	1193	1193	1194	1197	1197	0	241
ND	261	Williston - Tioga - Minot Line	1164	1163	1166	1158	1144	1159	1176	1165	1159	1162	1172	1176	1171	261
ND	262	Minot Area	1169	1165	1168	1163	1160	1161	1179	1168	1161	1167	1175	1178	1182	262
ND	263	Tioga - Portal	1104	1074	1092	1126	1128	1128	1126	1082	1093	1123	1094	1090	1094	263
ND	264	Williston - Ray	1199	1199	1203	1197	1200	1200	1198	1197	1196	1194	1198	1196	1204	264
ND	271	Bismarck - Cleveland	1150	1130	1148	1161	1159	1160	1177	1166	1152	1161	1136	1118	1130	271
ND	272	Cleveland - Mapleton	1150	1129	1148	1162	1159	1160	1179	1167	1151	1161	1134	1117	1130	272
ND	273	Cleveland - Grafton	1114	1129	1148	1148	1160	1160	1180	1166	1151	1161	1135	1117	1130	273
ND	28	Bismarck - Cabin Creek	1100	1078	1084	1138	1162	1152	1135	1123	1109	1112	1051	1042	1045	28
ND	31	Dickinson Area	1089	1077	1081	1100	1156	1126	1133	1153	1080	1093	1049	1040	1044	31
ND/MT	32	Cabin Creek - Dickinson	1180	1063	1061	1181	1181	1181	1182	1183	1180	1071	1046	1037	1041	32
ND	33	Killdeer	1145	1183	1181	1181	1181	1181	1182	1183	1180	1177	1175	1175	1175	33
ND	34	Bowman Area	1145	1129	1117	1139	1132	1138	1144	1149	1153	1154	1163	1158	1163	34
ND	35	Baker Field - North Dakota	979	979	979	979	979	979	979	979	979	979	979	979	979	35