



MONTANA-DAKOTA

UTILITIES CO.

A Division of MDU Resources Group, Inc.

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

April 2, 2013



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

Re: Case No. 11,006 (Therm Billing)
Monthly Report – February 2013

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

1. Attachment A is a schedule showing the thermal billing factors by community that reflect the BTU values shown on Attachment B and were used for billing purposes in March 2013.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our supplier for the month of February 2013. 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.
5. Attachment E provides a brief explanation of the thermal variances, where applicable, for the month of February 2013.

Heat Zone 35 will no longer be reported as there are no active delivery points taking service at this heat zone location at this time.

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
Director of Regulatory Affairs

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
MAR 2013

| Town | Heat Zone | Therm Factor |
|------------------------|-----------|--------------|
| MDU-303-ALEXANDER | 025 | 1.125845 |
| MDU-308-ARNEGARD | 025 | 1.125845 |
| MDU-314-APPLE VALLEY | 271 | 1.103809 |
| MDU-318-BEACH | 032 | 1.003610 |
| MDU-319-BELFIELD | 032 | 1.010982 |
| MDU-323-BERTHOLD | 262 | 1.100344 |
| MDU-327-BISMARCK | 028 | 1.061355 |
| MDU-330-BOWMAN | 034 | 1.052196 |
| MDU-337-BURLINGTON | 262 | 1.126966 |
| MDU-343-CARRINGTON | 273 | 1.104774 |
| MDU-364-CAVALIER | 273 | 1.128093 |
| MDU-365-DAWSON | 271 | 1.098917 |
| MDU-368-DES LACS | 262 | 1.106350 |
| MDU-369-DICKINSON | 031 | 1.029608 |
| MDU-374-FT TOTTEN | 273 | 1.105745 |
| MDU-375-DEVILS LAKE | 273 | 1.112546 |
| MDU-379-BARLOW | 273 | 1.104774 |
| MDU-384-EPPING | 264 | 1.137179 |
| MDU-407-GLADSTONE | 031 | 1.036172 |
| MDU-411-GLEN ULLIN | 311 | 1.037062 |
| MDU-413-GOLVA | 032 | 1.000702 |
| MDU-416-GARRISON | 262 | 1.111107 |
| MDU-417-GRAFTON | 273 | 1.135866 |
| MDU-429-HEBRON | 311 | 1.048396 |
| MDU-432-HETTINGER | 903 | 2.387549 |
| MDU-449-JAMESTOWN | 272 | 1.112546 |
| MDU-459-KILLDEER | 033 | 1.111678 |
| MDU-463-LANGDON | 273 | 1.104774 |
| MDU-469-LEFOR | 031 | 1.029608 |
| MDU-474-LIGNITE | 263 | 1.061640 |
| MDU-475-LINTON | 802 | 0.991884 |
| MDU-478-LINCOLN | 028 | 1.061355 |
| MDU-494-MEDINA | 271 | 1.096042 |
| MDU-498-MANDAN | 028 | 1.061355 |
| MDU-500-MARMARTH | 034 | 1.059982 |
| MDU-505-MINOT | 262 | 1.126966 |
| MDU-510-MOTT | 031 | 1.029608 |
| MDU-512-MAX | 262 | 1.103177 |
| MDU-522-NEW ENGLAND | 031 | 1.022153 |
| MDU-524-NEW SALEM | 028 | 1.038951 |
| MDU-532-NEW ROCKFORD | 273 | 1.104774 |
| MDU-539-PARK RIVER | 273 | 1.128093 |
| MDU-540-PALERMO | 262 | 1.103177 |
| MDU-558-RAY | 264 | 1.137179 |
| MDU-561-REGENT | 031 | 1.029608 |
| MDU-563-RHAME | 034 | 1.044409 |
| MDU-564-RICHARDTON | 311 | 1.028670 |
| MDU-568-ROSS | 261 | 1.068054 |
| MDU-572-RUTHVILLE | 262 | 1.126966 |
| MDU-574-SANBORN | 272 | 1.112546 |
| MDU-583-SENTINEL BUTTE | 032 | 1.015623 |
| MDU-588-SOUTH HEART | 031 | 1.022153 |
| MDU-590-SPRINGBROOK | 264 | 1.137179 |
| MDU-591-STANLEY | 261 | 1.075787 |

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
MAR 2013

| | | |
|----------------------|-----|----------|
| MDU-593-STEELE | 271 | 1.096042 |
| MDU-598-SHEYENNE | 273 | 1.112546 |
| MDU-605-SURREY | 262 | 1.126966 |
| MDU-610-TAPPEN | 271 | 1.096042 |
| MDU-611-TAYLOR | 311 | 1.028670 |
| MDU-616-TIOGA | 261 | 1.068054 |
| MDU-619-TURTLE LAKE | 262 | 1.111107 |
| MDU-620-TRENTON | 024 | 1.145353 |
| MDU-624-UNDERWOOD | 262 | 1.111107 |
| MDU-625-VALLEY CITY | 272 | 1.120320 |
| MDU-629-WALHALLA | 273 | 1.128093 |
| MDU-632-WATFORD CITY | 025 | 1.125845 |
| MDU-636-WHEELOCK | 264 | 1.129005 |
| MDU-637-WHITE EARTH | 261 | 1.075787 |
| MDU-642-WILLISTON | 024 | 1.145353 |
| MDU-646-WASHBURN | 262 | 1.119036 |
| MDU-647-WILTON | 262 | 1.103177 |
| MDU-664-RIVERDALE | 262 | 1.111107 |
| MDU-712-MINOT AFB | 262 | 1.122141 |
| MDU-717-SPIRTWOOD | 272 | 1.115461 |
| MDU-732-MSR SITE | 273 | 1.098020 |

GQ Source Daily Summary

February 2013

Number: 251

Pressure Base: 14,730

Contract Day: 1

Name: SIDNEY BORDER-MONDAK JNCTN-SIDNEY PLANT Temperature Base:

Contract Hour: 9

| Day | Relative Density | Heating Value | | CO2 | Heating Value Dry | | | | | | | | | | Wobbe | CCT | | | | |
|-----|------------------|---------------|--------|-------|-------------------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|--|
| | | Wet | Dry | | N2 | C1 | C2 | C3 | IC4 | NC4 | IC5 | NC5 | C6 | C7 | | | C8 | C9 | C10 | |
| 1 | 0.7071 | 1176.2 | 1197.1 | 0.049 | 3.327 | 70.950 | 23.139 | 2.466 | 0.029 | 0.039 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1423.55 | |
| 2 | 0.7058 | 1174.7 | 1195.5 | 0.049 | 3.298 | 71.182 | 22.972 | 2.430 | 0.029 | 0.039 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1423.02 | |
| 3 | 0.7083 | 1178.8 | 1199.7 | 0.050 | 3.284 | 70.850 | 23.139 | 2.604 | 0.031 | 0.041 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1425.40 | |
| 4 | 0.7095 | 1180.1 | 1201.0 | 0.048 | 3.317 | 70.821 | 22.945 | 2.769 | 0.041 | 0.058 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1425.83 | |
| 5 | 0.7120 | 1184.7 | 1205.6 | 0.048 | 3.273 | 70.477 | 23.186 | 2.905 | 0.046 | 0.064 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1428.81 | |
| 6 | 0.7142 | 1188.3 | 1209.4 | 0.049 | 3.251 | 70.286 | 23.168 | 3.118 | 0.051 | 0.074 | 0.002 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1431.01 | |
| 7 | 0.7123 | 1183.8 | 1204.8 | 0.050 | 3.344 | 70.380 | 23.249 | 2.867 | 0.045 | 0.064 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1427.56 | |
| 8 | 0.7102 | 1182.4 | 1203.4 | 0.049 | 3.234 | 70.719 | 23.118 | 2.775 | 0.042 | 0.061 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1427.96 | |
| 9 | 0.7112 | 1182.3 | 1203.2 | 0.051 | 3.338 | 70.488 | 23.242 | 2.777 | 0.042 | 0.059 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1426.75 | |
| 10 | 0.7146 | 1188.4 | 1209.5 | 0.048 | 3.290 | 70.022 | 23.542 | 2.983 | 0.047 | 0.066 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1430.71 | |
| 11 | 0.7131 | 1186.1 | 1207.1 | 0.049 | 3.283 | 70.265 | 23.393 | 2.890 | 0.048 | 0.070 | 0.002 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1429.49 | |
| 12 | 0.7130 | 1185.1 | 1206.1 | 0.053 | 3.329 | 70.240 | 23.393 | 2.874 | 0.045 | 0.063 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1428.38 | |
| 13 | 0.7207 | 1167.6 | 1188.3 | 1.006 | 3.672 | 70.088 | 21.909 | 3.035 | 0.099 | 0.176 | 0.008 | 0.006 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1399.73 | |
| 14 | 0.7237 | 1167.2 | 1187.8 | 1.173 | 3.726 | 69.770 | 21.888 | 3.131 | 0.106 | 0.188 | 0.009 | 0.007 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1396.29 | |
| 15 | 0.7174 | 1173.0 | 1193.7 | 0.663 | 3.559 | 70.197 | 22.408 | 2.960 | 0.074 | 0.128 | 0.005 | 0.004 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1409.46 | |
| 16 | 0.7153 | 1180.5 | 1201.4 | 0.351 | 3.378 | 70.480 | 22.522 | 3.019 | 0.094 | 0.145 | 0.005 | 0.004 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1420.45 | |
| 17 | 0.7192 | 1183.8 | 1204.8 | 0.440 | 3.403 | 69.920 | 22.824 | 3.158 | 0.095 | 0.149 | 0.006 | 0.005 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1420.64 | |
| 18 | 0.7101 | 1178.9 | 1199.7 | 0.128 | 3.323 | 70.707 | 23.062 | 2.676 | 0.043 | 0.060 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1423.79 | |
| 19 | 0.7115 | 1184.0 | 1205.0 | 0.044 | 3.266 | 70.503 | 23.241 | 2.848 | 0.040 | 0.056 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1428.60 | |
| 20 | 0.7087 | 1179.5 | 1200.4 | 0.049 | 3.271 | 70.783 | 23.234 | 2.582 | 0.034 | 0.046 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1425.99 | |
| 21 | 0.7111 | 1183.6 | 1204.5 | 0.051 | 3.254 | 70.476 | 23.365 | 2.767 | 0.037 | 0.050 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1428.37 | |
| 22 | 0.7123 | 1185.9 | 1206.9 | 0.052 | 3.218 | 70.273 | 23.587 | 2.778 | 0.038 | 0.052 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1430.01 | |
| 23 | 0.7139 | 1178.7 | 1199.6 | 0.320 | 3.399 | 70.489 | 22.692 | 2.929 | 0.068 | 0.098 | 0.003 | 0.002 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1419.80 | |
| 24 | 0.7074 | 1175.7 | 1196.5 | 0.140 | 3.249 | 71.246 | 22.625 | 2.624 | 0.049 | 0.065 | 0.002 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1422.59 | |
| 25 | 0.7098 | 1181.4 | 1202.3 | 0.053 | 3.265 | 70.627 | 23.325 | 2.634 | 0.049 | 0.047 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1427.02 | |
| 26 | 0.7127 | 1185.5 | 1206.5 | 0.055 | 3.275 | 70.400 | 23.232 | 2.890 | 0.070 | 0.076 | 0.002 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1429.15 | |
| 27 | 0.7119 | 1183.0 | 1204.0 | 0.047 | 3.367 | 70.294 | 23.430 | 2.781 | 0.038 | 0.042 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1426.94 | |
| 28 | 0.7151 | 1185.2 | 1206.2 | 0.185 | 3.316 | 70.179 | 23.160 | 3.002 | 0.060 | 0.093 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1426.45 | |
| Avg | 0.7126 | 1181.0 | 1201.8 | 0.191 | 3.340 | 70.468 | 23.035 | 2.831 | 0.053 | 0.077 | 0.002 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1423.71 | |

Zone 211

GQ Source Analysis

WBI Energy Transmission, Inc.

| | | | |
|----------------------------|----------------------|------------------------------|---------|
| GQ Source Number: | 0602160 | Specific Gravity: | 0.7242 |
| GQ Source Name: | FAIRVIEW BORDER | Dry Heat Value: | 1195.93 |
| Effective Date: | 1/1/2013 9:00:00 AM | Wet Heat Value: | 1175.11 |
| Effective End Date: | 1/18/2038 9:14:07 PM | As Deliv. Heat Value: | 1195.93 |
| Pressure Base: | 14.730 | Sample Pressure: | 358.00 |
| Viscosity: | | Sample Temperature: | |

| | | <u>Mol %</u> | <u>Liquid Content</u> | | | <u>Mol %</u> |
|---------------|------------|--------------|-----------------------|--------|------------------|--------------|
| C1 | Methane | 69.519 | | CO2 | Carbon Dioxide | 0.907 |
| C2 | Ethane | 21.954 | 5.8539 | N2 | Nitrogen | 3.645 |
| C3 | Propane | 3.723 | 1.0228 | O2 | Oxygen | 0.008 |
| IC4 | Isobutane | 0.088 | 0.0287 | He | Helium | |
| NC4 | n-Butane | 0.151 | 0.0473 | H2 | Hydrogen | |
| IC5 | Isopentane | 0.000 | 0.0000 | H2S | Hydrogen Sulfide | |
| NC5 | n-Pentane | 0.006 | 0.0020 | Ar | Argon | |
| C6 | Hexanes | 0.000 | 0.0000 | CO | Carbon Monoxide | |
| C7 | Heptanes | | | H2 | Water | |
| C8 | Octanes | | | Neo-C5 | Neopentane | |
| C9 | Nonanes | | | | | |
| C10 | Decanes | | | | | |
| Totals | | | 100.000% | | 6.955 GPM | |

Sample Date: 1/31/2013 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
H2S: ppm

Sample Remarks:

Analysis Tech: Lab

Analysis Remarks:

Zone 241

GQ Source Analysis

WBI Energy Transmission, Inc.

| | | | |
|----------------------------|----------------------|------------------------------|---------|
| GQ Source Number: | 0602230 | Specific Gravity: | 0.7191 |
| GQ Source Name: | WATFORD CITY BORDER | Dry Heat Value: | 1196.30 |
| Effective Date: | 2/1/2013 9:00:00 AM | Wet Heat Value: | 1175.48 |
| Effective End Date: | 1/18/2038 9:14:07 PM | As Deliv. Heat Value: | 1196.30 |
| Pressure Base: | 14.730 | Sample Pressure: | 400.00 |
| Viscosity: | | Sample Temperature: | |

| | <u>Mol %</u> | <u>Liquid Content</u> | | <u>Mol %</u> |
|----------------|--------------|-----------------------|----------------------|--------------|
| C1 Methane | 70.745 | | CO2 Carbon Dioxide | 0.816 |
| C2 Ethane | 21.101 | 0.0000 | N2 Nitrogen | 3.283 |
| C3 Propane | 3.701 | 1.0167 | O2 Oxygen | 0.000 |
| IC4 Isobutane | 0.122 | 0.0397 | He Helium | |
| NC4 n-Butane | 0.220 | 0.0693 | H2 Hydrogen | |
| IC5 Isopentane | 0.000 | 0.0000 | H2S Hydrogen Sulfide | |
| NC5 n-Pentane | 0.011 | 0.0039 | Ar Argon | |
| C6 Hexanes | 0.001 | 0.0003 | CO Carbon Monoxide | |
| C7 Heptanes | | | H2 Water | |
| C8 Octanes | | | Neo-C5 Neopentane | |
| C9 Nonanes | | | | |
| C10 Decanes | | | | |

Totals 100.000% 1.130 GPM

Sample Date: 3/1/2013 12:00:00 AM
Sample Type: Spot
Sample Tech: PP
H2S: ppm

Sample Remarks:

Analysis Tech: Lab

Analysis Remarks:

Zone 25

GQ Source Daily Summary

February 2013

Number: 163

Pressure Base: 14.730

Contract Day: 1

Name: NORTH TIOGA TRANSFER-PALERMO BORDER LI

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 | CCF |
|-----|------------------|-------------------|-------------------|-------|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-----|
| 1 | 0.6938 | 1141.2 | 1161.4 | 0.480 | 3.551 | 74.128 | 19.388 | 2.259 | 0.065 | 0.117 | 0.006 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1394.35 | |
| 2 | 0.6933 | 1139.8 | 1160.0 | 0.493 | 3.570 | 74.179 | 19.362 | 2.199 | 0.066 | 0.120 | 0.006 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1393.14 | |
| 3 | 0.6935 | 1140.5 | 1160.7 | 0.496 | 3.544 | 74.122 | 19.462 | 2.180 | 0.064 | 0.119 | 0.007 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1393.80 | |
| 4 | 0.6916 | 1138.4 | 1158.6 | 0.483 | 3.515 | 74.444 | 19.214 | 2.159 | 0.062 | 0.112 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1397.09 | |
| 5 | 0.6892 | 1140.1 | 1160.3 | 0.328 | 3.421 | 74.580 | 19.524 | 1.988 | 0.054 | 0.096 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1397.60 | |
| 6 | 0.6930 | 1142.2 | 1162.4 | 0.434 | 3.487 | 74.424 | 19.052 | 2.381 | 0.075 | 0.132 | 0.006 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1396.31 | |
| 7 | 0.6897 | 1134.3 | 1154.4 | 0.490 | 3.573 | 75.002 | 18.468 | 2.241 | 0.076 | 0.136 | 0.007 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1390.00 | |
| 8 | 0.6938 | 1142.1 | 1162.3 | 0.478 | 3.496 | 74.337 | 19.073 | 2.376 | 0.082 | 0.145 | 0.007 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1395.46 | |
| 9 | 0.6965 | 1146.1 | 1166.4 | 0.494 | 3.489 | 73.965 | 19.258 | 2.564 | 0.077 | 0.139 | 0.008 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1397.55 | |
| 10 | 0.6936 | 1141.2 | 1161.4 | 0.497 | 3.508 | 74.219 | 19.285 | 2.289 | 0.068 | 0.122 | 0.006 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1394.52 | |
| 11 | 0.6762 | 1116.4 | 1136.1 | 0.258 | 3.754 | 76.105 | 18.712 | 1.073 | 0.031 | 0.061 | 0.003 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1381.65 | |
| 12 | 0.6682 | 1104.6 | 1124.2 | 0.151 | 3.884 | 77.216 | 18.006 | 0.675 | 0.019 | 0.042 | 0.003 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.25 | |
| 13 | 0.6666 | 1101.7 | 1121.2 | 0.130 | 3.945 | 77.456 | 17.761 | 0.652 | 0.017 | 0.035 | 0.002 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1373.24 | |
| 14 | 0.6686 | 1105.1 | 1124.6 | 0.166 | 3.870 | 77.213 | 17.913 | 0.774 | 0.019 | 0.040 | 0.002 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.41 | |
| 15 | 0.6712 | 1111.1 | 1130.8 | 0.168 | 3.745 | 76.687 | 18.585 | 0.751 | 0.019 | 0.040 | 0.002 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.26 | |
| 16 | 0.6668 | 1104.1 | 1123.6 | 0.115 | 3.842 | 77.357 | 18.055 | 0.576 | 0.016 | 0.034 | 0.002 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.02 | |
| 17 | 0.6654 | 1100.1 | 1119.6 | 0.115 | 3.957 | 77.559 | 17.756 | 0.566 | 0.014 | 0.029 | 0.002 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.43 | |
| 18 | 0.6745 | 1113.0 | 1132.7 | 0.213 | 3.866 | 76.116 | 18.877 | 0.858 | 0.022 | 0.044 | 0.002 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.28 | |
| 19 | 0.6789 | 1119.5 | 1139.3 | 0.237 | 3.849 | 75.285 | 19.652 | 0.905 | 0.023 | 0.044 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.80 | |
| 20 | 0.6751 | 1112.4 | 1132.1 | 0.220 | 3.955 | 76.054 | 18.809 | 0.878 | 0.024 | 0.051 | 0.004 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.85 | |
| 21 | 0.6700 | 1105.1 | 1124.7 | 0.160 | 4.004 | 76.933 | 18.060 | 0.771 | 0.021 | 0.044 | 0.003 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.09 | |
| 22 | 0.6688 | 1104.3 | 1123.9 | 0.151 | 3.962 | 77.110 | 17.977 | 0.732 | 0.020 | 0.041 | 0.003 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.22 | |
| 23 | 0.6711 | 1108.6 | 1128.3 | 0.144 | 3.919 | 76.761 | 18.303 | 0.797 | 0.022 | 0.046 | 0.004 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.31 | |
| 24 | 0.6702 | 1107.0 | 1126.6 | 0.165 | 3.907 | 76.949 | 18.104 | 0.790 | 0.024 | 0.051 | 0.004 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.13 | |
| 25 | 0.6700 | 1108.1 | 1127.7 | 0.146 | 3.849 | 76.943 | 18.220 | 0.779 | 0.019 | 0.039 | 0.002 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.72 | |
| 26 | 0.6673 | 1103.5 | 1123.1 | 0.113 | 3.926 | 77.395 | 17.818 | 0.646 | 0.025 | 0.061 | 0.006 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.79 | |
| 27 | 0.6707 | 1109.0 | 1128.7 | 0.129 | 3.876 | 76.932 | 18.168 | 0.753 | 0.034 | 0.084 | 0.010 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.24 | |
| 28 | 0.6690 | 1105.8 | 1125.4 | 0.127 | 3.918 | 77.327 | 17.688 | 0.788 | 0.038 | 0.092 | 0.010 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.94 | |
| Avg | 0.6784 | 1119.0 | 1139.3 | 0.271 | 3.757 | 75.957 | 18.591 | 1.300 | 0.039 | 0.076 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.16 | |

Zone 26.1

GQ Source Daily Summary

February 2013

Number: 091

Pressure Base: 14.730

Contract Day: 1

Name: MINOT BRDR-PALERMO BRDR-BISMARCK STATI

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 | 0.6976 | 1146.8 | 1167.1 | 0.510 | 3.516 | 73.481 | 19.917 | 2.387 | 0.068 | 0.121 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1397.44 | |
| 2 | 0.6949 | 1142.4 | 1162.7 | 0.516 | 3.526 | 73.897 | 19.624 | 2.245 | 0.068 | 0.124 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1394.74 | |
| 3 | 0.6949 | 1142.4 | 1162.7 | 0.514 | 3.530 | 73.811 | 19.785 | 2.175 | 0.064 | 0.119 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1394.74 | |
| 4 | 0.6955 | 1143.5 | 1163.8 | 0.528 | 3.495 | 73.798 | 19.736 | 2.252 | 0.067 | 0.124 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1395.51 | |
| 5 | 0.6911 | 1141.1 | 1161.3 | 0.406 | 3.423 | 74.304 | 19.667 | 2.040 | 0.057 | 0.103 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1396.88 | |
| 6 | 0.6943 | 1145.9 | 1166.2 | 0.405 | 3.426 | 73.988 | 19.676 | 2.316 | 0.067 | 0.119 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1399.59 | |
| 7 | 0.6924 | 1138.2 | 1158.3 | 0.521 | 3.539 | 74.478 | 18.987 | 2.254 | 0.078 | 0.142 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1392.07 | |
| 8 | 0.6932 | 1140.3 | 1160.5 | 0.513 | 3.499 | 74.417 | 19.000 | 2.340 | 0.082 | 0.148 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1393.85 | |
| 9 | 0.6977 | 1147.9 | 1168.3 | 0.508 | 3.461 | 73.711 | 19.553 | 2.530 | 0.083 | 0.150 | 0.002 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1398.67 | |
| 10 | 0.6976 | 1147.2 | 1167.5 | 0.529 | 3.467 | 73.657 | 19.632 | 2.513 | 0.071 | 0.130 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1397.84 | |
| 11 | 0.7093 | 1154.0 | 1174.4 | 0.543 | 4.131 | 71.572 | 20.733 | 2.741 | 0.087 | 0.180 | 0.006 | 0.006 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 1394.55 | |
| 12 | 0.7165 | 1153.5 | 1173.9 | 0.494 | 4.919 | 70.006 | 21.453 | 2.863 | 0.081 | 0.173 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1386.82 | |
| 13 | 0.7149 | 1150.4 | 1170.8 | 0.484 | 4.967 | 70.284 | 21.184 | 2.816 | 0.080 | 0.173 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1384.71 | |
| 14 | 0.7143 | 1149.5 | 1169.8 | 0.483 | 4.967 | 70.382 | 21.103 | 2.806 | 0.079 | 0.170 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1384.20 | |
| 15 | 0.7141 | 1150.3 | 1170.7 | 0.492 | 4.893 | 70.347 | 21.290 | 2.716 | 0.079 | 0.172 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1385.30 | |
| 16 | 0.7153 | 1152.0 | 1172.4 | 0.497 | 4.891 | 70.184 | 21.398 | 2.755 | 0.083 | 0.180 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1386.21 | |
| 17 | 0.7141 | 1148.9 | 1169.2 | 0.479 | 4.994 | 70.373 | 21.147 | 2.733 | 0.082 | 0.179 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.63 | |
| 18 | 0.7119 | 1146.6 | 1166.9 | 0.484 | 4.925 | 70.651 | 21.079 | 2.610 | 0.077 | 0.165 | 0.005 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.98 | |
| 19 | 0.7154 | 1152.7 | 1173.2 | 0.505 | 4.840 | 70.056 | 21.674 | 2.671 | 0.077 | 0.166 | 0.005 | 0.005 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 1387.05 | |
| 20 | 0.7143 | 1150.6 | 1170.9 | 0.513 | 4.856 | 70.185 | 21.614 | 2.585 | 0.075 | 0.162 | 0.005 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1385.51 | |
| 21 | 0.7138 | 1147.7 | 1168.0 | 0.503 | 5.004 | 70.351 | 21.215 | 2.673 | 0.078 | 0.167 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.49 | |
| 22 | 0.7132 | 1146.5 | 1166.8 | 0.496 | 5.027 | 70.467 | 21.085 | 2.669 | 0.078 | 0.167 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1381.67 | |
| 23 | 0.7127 | 1145.8 | 1166.1 | 0.500 | 5.020 | 70.547 | 21.019 | 2.661 | 0.076 | 0.166 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1381.29 | |
| 24 | 0.7162 | 1153.0 | 1173.4 | 0.484 | 4.927 | 70.323 | 20.968 | 2.963 | 0.098 | 0.217 | 0.009 | 0.009 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 1386.61 | |
| 25 | 0.7150 | 1150.8 | 1171.1 | 0.487 | 4.956 | 70.398 | 20.978 | 2.874 | 0.090 | 0.199 | 0.008 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1384.97 | |
| 26 | 0.7135 | 1148.5 | 1168.8 | 0.468 | 4.978 | 70.511 | 21.012 | 2.759 | 0.081 | 0.177 | 0.007 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.72 | |
| 27 | 0.7137 | 1149.2 | 1169.5 | 0.460 | 4.971 | 70.554 | 20.932 | 2.774 | 0.088 | 0.198 | 0.010 | 0.011 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 1384.32 | |
| 28 | 0.7147 | 1150.6 | 1170.9 | 0.469 | 4.961 | 70.437 | 20.991 | 2.824 | 0.090 | 0.203 | 0.010 | 0.012 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 1385.09 | |
| Avg | 0.7072 | 1148.0 | 1168.0 | 0.493 | 4.397 | 71.685 | 20.588 | 2.591 | 0.078 | 0.160 | 0.004 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1389.02 | |

Zone 262

GQ Source Analysis

WBI Energy Transmission, Inc.

| | | | |
|----------------------------|----------------------|------------------------------|---------|
| GQ Source Number: | 2501030 | Specific Gravity: | 0.6635 |
| GQ Source Name: | LIGNITE PLANT | Dry Heat Value: | 1115.99 |
| Effective Date: | 2/1/2013 9:00:00 AM | Wet Heat Value: | 1096.57 |
| Effective End Date: | 1/18/2038 9:14:07 PM | As Deliv. Heat Value: | 1115.99 |
| Pressure Base: | 14.730 | Sample Pressure: | 312.00 |
| Viscosity: | | Sample Temperature: | |

| | | <u>Mol %</u> | <u>Liquid Content</u> | | | <u>Mol %</u> |
|-----|------------|---------------|-----------------------|--------|------------------|--------------|
| C1 | Methane | 78.132 | | CO2 | Carbon Dioxide | 0.082 |
| C2 | Ethane | 16.740 | 4.4636 | N2 | Nitrogen | 4.006 |
| C3 | Propane | 1.009 | 0.2773 | O2 | Oxygen | 0.000 |
| IC4 | Isobutane | 0.000 | 0.0000 | He | Helium | |
| NC4 | n-Butane | 0.000 | 0.0000 | H2 | Hydrogen | |
| IC5 | Isopentane | 0.003 | 0.0011 | H2S | Hydrogen Sulfide | |
| NC5 | n-Pentane | 0.000 | 0.0000 | Ar | Argon | |
| C6 | Hexanes | 0.020 | 0.0092 | CO | Carbon Monoxide | |
| C7 | Heptanes | | | H2 | Water | |
| C8 | Octanes | | | Neo-C5 | Neopentane | |
| C9 | Nonanes | | | | | |
| C10 | Decanes | | | | | |
| | | Totals | 99.992% | 4.751 | GPM | |

Sample Date: 3/1/2013 12:00:00 AM
Sample Type: Spot
Sample Tech: 0
H2S: ppm

Sample Remarks:

Analysis Tech: Lab

Analysis Remarks:

Zone 263

*** End of Report ***

GQ Source Daily Summary

February 2013

| | | | | | |
|----------------|------------------------------------|--------------------------|--------|-----------------------|---|
| Number: | 043 | Pressure Base: | 14.730 | Contract Day: | 1 |
| Name: | BISMARCK STATION-CLEVELAND STATION | Temperature Base: | | Contract Hour: | 9 |

| Day | Relative Density | Heating Value | | | | | | | | | | | | | | | | | | Wobbe | CCT |
|-----|------------------|---------------|--------|-------|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-----|
| | | Wet | Dry | CO2 | N2 | C1 | C2 | C3 | IC4 | NC4 | IC5 | NC5 | C6 | C7 | C8 | C9 | C10 | | | | |
| 1 | 0.6713 | 1108.8 | 1128.4 | 0.355 | 3.605 | 77.967 | 16.182 | 1.752 | 0.046 | 0.079 | 0.004 | 0.004 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.22 | | |
| 2 | 0.6723 | 1110.3 | 1130.0 | 0.356 | 3.598 | 77.749 | 16.436 | 1.718 | 0.047 | 0.080 | 0.004 | 0.004 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.16 | | |
| 3 | 0.6725 | 1109.8 | 1129.5 | 0.375 | 3.617 | 77.701 | 16.472 | 1.691 | 0.047 | 0.081 | 0.004 | 0.004 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.38 | | |
| 4 | 0.6750 | 1114.1 | 1133.8 | 0.395 | 3.566 | 77.295 | 16.846 | 1.743 | 0.049 | 0.087 | 0.005 | 0.005 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.03 | | |
| 5 | 0.6703 | 1107.4 | 1127.0 | 0.387 | 3.546 | 78.109 | 16.182 | 1.633 | 0.046 | 0.079 | 0.005 | 0.004 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.55 | | |
| 6 | 0.6717 | 1112.6 | 1132.3 | 0.294 | 3.498 | 77.711 | 16.752 | 1.607 | 0.044 | 0.075 | 0.005 | 0.004 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1381.64 | | |
| 7 | 0.6761 | 1117.2 | 1137.0 | 0.376 | 3.509 | 77.223 | 16.844 | 1.870 | 0.057 | 0.098 | 0.005 | 0.005 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.78 | | |
| 8 | 0.6752 | 1114.1 | 1133.8 | 0.418 | 3.544 | 77.459 | 16.540 | 1.852 | 0.060 | 0.104 | 0.006 | 0.005 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.88 | | |
| 9 | 0.6806 | 1123.6 | 1143.5 | 0.416 | 3.478 | 76.529 | 17.384 | 1.990 | 0.066 | 0.115 | 0.006 | 0.005 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1386.11 | | |
| 10 | 0.6836 | 1128.2 | 1148.2 | 0.424 | 3.464 | 76.062 | 17.726 | 2.129 | 0.062 | 0.109 | 0.006 | 0.006 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1388.77 | | |
| 11 | 0.6797 | 1122.3 | 1142.2 | 0.398 | 3.504 | 76.513 | 17.534 | 1.878 | 0.055 | 0.097 | 0.005 | 0.005 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1385.38 | | |
| 12 | 0.7030 | 1141.3 | 1161.5 | 0.444 | 4.468 | 72.560 | 19.665 | 2.600 | 0.075 | 0.156 | 0.010 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1385.26 | | |
| 13 | 0.7043 | 1140.3 | 1160.5 | 0.442 | 4.651 | 72.169 | 19.956 | 2.533 | 0.071 | 0.149 | 0.009 | 0.009 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.85 | | |
| 14 | 0.6987 | 1134.3 | 1154.4 | 0.402 | 4.556 | 73.079 | 19.365 | 2.371 | 0.065 | 0.135 | 0.008 | 0.008 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1381.00 | | |
| 15 | 0.6995 | 1136.5 | 1156.6 | 0.409 | 4.487 | 72.910 | 19.607 | 2.362 | 0.065 | 0.134 | 0.008 | 0.008 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.91 | | |
| 16 | 0.7017 | 1139.2 | 1159.3 | 0.428 | 4.503 | 72.555 | 19.870 | 2.400 | 0.070 | 0.145 | 0.009 | 0.008 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.94 | | |
| 17 | 0.7012 | 1137.8 | 1158.0 | 0.412 | 4.563 | 72.607 | 19.799 | 2.374 | 0.069 | 0.145 | 0.009 | 0.009 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.79 | | |
| 18 | 0.6868 | 1122.8 | 1142.7 | 0.330 | 4.241 | 75.099 | 18.103 | 2.024 | 0.062 | 0.116 | 0.008 | 0.007 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.87 | | |
| 19 | 0.6749 | 1105.7 | 1125.2 | 0.355 | 4.128 | 77.231 | 16.369 | 1.749 | 0.051 | 0.094 | 0.007 | 0.006 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1369.74 | | |
| 20 | 0.6789 | 1111.2 | 1130.9 | 0.365 | 4.152 | 76.516 | 16.953 | 1.840 | 0.053 | 0.098 | 0.007 | 0.006 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.56 | | |
| 21 | 0.6843 | 1115.7 | 1135.4 | 0.420 | 4.308 | 75.608 | 17.502 | 1.966 | 0.058 | 0.111 | 0.008 | 0.007 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.58 | | |
| 22 | 0.6865 | 1117.1 | 1136.9 | 0.396 | 4.459 | 75.234 | 17.649 | 2.055 | 0.060 | 0.118 | 0.008 | 0.007 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.17 | | |
| 23 | 0.6927 | 1125.2 | 1145.2 | 0.411 | 4.527 | 74.137 | 18.509 | 2.190 | 0.064 | 0.131 | 0.009 | 0.009 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.92 | | |
| 24 | 0.6964 | 1130.8 | 1150.9 | 0.408 | 4.535 | 73.511 | 19.020 | 2.287 | 0.068 | 0.140 | 0.009 | 0.009 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.14 | | |
| 25 | 0.7035 | 1139.0 | 1159.2 | 0.441 | 4.657 | 72.603 | 19.323 | 2.656 | 0.089 | 0.192 | 0.012 | 0.012 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.00 | | |
| 26 | 0.7053 | 1140.5 | 1160.6 | 0.457 | 4.713 | 72.070 | 19.908 | 2.581 | 0.076 | 0.161 | 0.010 | 0.010 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.03 | | |
| 27 | 0.7032 | 1137.3 | 1157.5 | 0.441 | 4.734 | 72.390 | 19.672 | 2.486 | 0.076 | 0.163 | 0.011 | 0.012 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.27 | | |
| 28 | 0.7064 | 1141.6 | 1161.8 | 0.445 | 4.760 | 71.917 | 19.989 | 2.580 | 0.083 | 0.182 | 0.013 | 0.014 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.38 | | |
| Avg | 0.6877 | 1124.0 | 1144.4 | 0.400 | 4.120 | 75.090 | 18.077 | 2.104 | 0.062 | 0.120 | 0.008 | 0.007 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.01 | | |

Zone 271

GQ Source Daily Summary February 2013

Number: 063

Pressure Base: 14,730

Contract Day: 1

Name: CLEVELAND STATION-MAPLETON

Temperature Base:

Contract Hour: 9

| Day | Relative Density | Heating Value | | CO2 | N2 | C1 | C2 | C3 | iC4 | nC4 | iC5 | nC5 | C6 | C7 | C8 | C9 | C10 | Wobbe | CCT |
|-----|------------------|---------------|--------|-------|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-----|
| | | Wet | Dry | | | | | | | | | | | | | | | | |
| 1 | 0.6692 | 1105.1 | 1124.7 | 0.356 | 3.630 | 78.322 | 15.873 | 1.680 | 0.046 | 0.078 | 0.005 | 0.004 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.84 | |
| 2 | 0.6735 | 1111.9 | 1131.6 | 0.356 | 3.613 | 77.551 | 16.576 | 1.759 | 0.048 | 0.082 | 0.004 | 0.004 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.94 | |
| 3 | 0.6730 | 1110.4 | 1130.1 | 0.376 | 3.629 | 77.613 | 16.535 | 1.699 | 0.048 | 0.083 | 0.004 | 0.004 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.56 | |
| 4 | 0.6749 | 1113.7 | 1133.4 | 0.381 | 3.598 | 77.254 | 16.908 | 1.708 | 0.047 | 0.084 | 0.005 | 0.005 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.72 | |
| 5 | 0.6733 | 1111.3 | 1130.9 | 0.404 | 3.565 | 77.607 | 16.563 | 1.707 | 0.049 | 0.086 | 0.005 | 0.005 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.27 | |
| 6 | 0.6715 | 1111.0 | 1130.7 | 0.323 | 3.532 | 77.775 | 16.631 | 1.598 | 0.045 | 0.077 | 0.005 | 0.004 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.85 | |
| 7 | 0.6754 | 1117.1 | 1136.8 | 0.338 | 3.509 | 77.252 | 16.921 | 1.817 | 0.053 | 0.089 | 0.005 | 0.005 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.31 | |
| 8 | 0.6761 | 1115.6 | 1135.4 | 0.413 | 3.551 | 77.238 | 16.779 | 1.833 | 0.059 | 0.105 | 0.006 | 0.005 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.78 | |
| 9 | 0.6797 | 1121.6 | 1141.4 | 0.422 | 3.512 | 76.678 | 17.227 | 1.958 | 0.066 | 0.115 | 0.006 | 0.005 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 1384.48 | |
| 10 | 0.6835 | 1127.8 | 1147.8 | 0.424 | 3.478 | 76.053 | 17.753 | 2.088 | 0.065 | 0.115 | 0.007 | 0.006 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 1388.41 | |
| 11 | 0.6805 | 1123.5 | 1143.4 | 0.401 | 3.498 | 76.404 | 17.599 | 1.930 | 0.053 | 0.094 | 0.005 | 0.005 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 1386.11 | |
| 12 | 0.6971 | 1137.7 | 1157.8 | 0.444 | 4.131 | 73.601 | 19.169 | 2.402 | 0.074 | 0.150 | 0.010 | 0.009 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 1386.79 | |
| 13 | 0.7048 | 1141.2 | 1161.4 | 0.442 | 4.644 | 72.066 | 20.071 | 2.528 | 0.071 | 0.149 | 0.009 | 0.008 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.42 | |
| 14 | 0.7004 | 1135.6 | 1155.7 | 0.416 | 4.606 | 72.794 | 19.551 | 2.397 | 0.067 | 0.140 | 0.009 | 0.008 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 1381.03 | |
| 15 | 0.6998 | 1136.2 | 1156.3 | 0.406 | 4.530 | 72.882 | 19.570 | 2.384 | 0.066 | 0.135 | 0.008 | 0.008 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.33 | |
| 16 | 0.7017 | 1138.9 | 1159.0 | 0.427 | 4.518 | 72.525 | 19.920 | 2.372 | 0.068 | 0.142 | 0.008 | 0.008 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.65 | |
| 17 | 0.7030 | 1139.7 | 1159.9 | 0.433 | 4.580 | 72.333 | 19.984 | 2.413 | 0.072 | 0.150 | 0.010 | 0.010 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.37 | |
| 18 | 0.6920 | 1128.1 | 1148.0 | 0.356 | 4.377 | 74.188 | 18.722 | 2.135 | 0.065 | 0.127 | 0.009 | 0.009 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.05 | |
| 19 | 0.6771 | 1108.4 | 1128.0 | 0.346 | 4.186 | 76.823 | 16.667 | 1.801 | 0.054 | 0.099 | 0.007 | 0.006 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 1370.85 | |
| 20 | 0.6772 | 1109.2 | 1128.8 | 0.355 | 4.136 | 76.807 | 16.727 | 1.801 | 0.052 | 0.097 | 0.008 | 0.006 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 1371.71 | |
| 21 | 0.6840 | 1115.7 | 1135.4 | 0.421 | 4.279 | 75.632 | 17.549 | 1.925 | 0.057 | 0.110 | 0.008 | 0.007 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.86 | |
| 22 | 0.6865 | 1117.7 | 1137.5 | 0.398 | 4.430 | 75.199 | 17.737 | 2.030 | 0.060 | 0.118 | 0.009 | 0.007 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.80 | |
| 23 | 0.6920 | 1124.5 | 1144.4 | 0.409 | 4.510 | 74.251 | 18.441 | 2.164 | 0.064 | 0.130 | 0.009 | 0.008 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.74 | |
| 24 | 0.6958 | 1129.0 | 1149.0 | 0.418 | 4.583 | 73.550 | 18.982 | 2.240 | 0.065 | 0.132 | 0.009 | 0.008 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.41 | |
| 25 | 0.7024 | 1138.4 | 1158.6 | 0.426 | 4.606 | 72.756 | 19.307 | 2.591 | 0.088 | 0.188 | 0.012 | 0.012 | 0.014 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.46 | |
| 26 | 0.7054 | 1140.4 | 1160.6 | 0.457 | 4.726 | 72.067 | 19.885 | 2.582 | 0.079 | 0.168 | 0.011 | 0.011 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 1381.88 | |
| 27 | 0.7033 | 1137.2 | 1157.3 | 0.446 | 4.742 | 72.341 | 19.734 | 2.471 | 0.074 | 0.158 | 0.010 | 0.010 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.03 | |
| 28 | 0.7085 | 1144.1 | 1164.4 | 0.455 | 4.797 | 71.543 | 20.262 | 2.627 | 0.084 | 0.188 | 0.013 | 0.015 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.30 | |
| Avg | 0.6879 | 1125.0 | 1144.6 | 0.402 | 4.125 | 75.039 | 18.130 | 2.094 | 0.062 | 0.121 | 0.008 | 0.007 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.07 | |

Zone 272

GQ Source Daily Summary

February 2013

Number: 061

Pressure Base: 14.730

Contract Day: 1

Name: CLEVELAND STATION-GRAFTON BORDER

Temperature Base:

Contract Hour: 9

| Day | Relative Density | Heating Value Wet | Heating Value Dry | CO2 | N2 | C1 | C2 | C3 | C4 | NC4 | IC5 | NC5 | C6 | C7 | C8 | C9 | C10 | Wobbe | CCT |
|-----|------------------|-------------------|-------------------|-------|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-----|
| 1 | 0.6695 | 1105.6 | 1125.2 | 0.357 | 3.623 | 78.283 | 15.908 | 1.689 | 0.046 | 0.078 | 0.005 | 0.004 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.19 | |
| 2 | 0.6737 | 1112.4 | 1132.1 | 0.357 | 3.607 | 77.508 | 16.616 | 1.766 | 0.048 | 0.082 | 0.004 | 0.004 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.28 | |
| 3 | 0.6731 | 1110.8 | 1130.5 | 0.376 | 3.621 | 77.588 | 16.563 | 1.703 | 0.048 | 0.084 | 0.005 | 0.004 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.87 | |
| 4 | 0.6751 | 1114.2 | 1133.9 | 0.382 | 3.592 | 77.214 | 16.946 | 1.716 | 0.047 | 0.084 | 0.005 | 0.005 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.06 | |
| 5 | 0.6732 | 1111.2 | 1130.8 | 0.405 | 3.560 | 77.594 | 16.614 | 1.675 | 0.048 | 0.084 | 0.005 | 0.005 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.26 | |
| 6 | 0.6716 | 1111.3 | 1131.0 | 0.323 | 3.527 | 77.751 | 16.655 | 1.603 | 0.045 | 0.077 | 0.005 | 0.004 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.10 | |
| 7 | 0.6754 | 1117.2 | 1137.0 | 0.336 | 3.505 | 77.250 | 16.931 | 1.815 | 0.053 | 0.089 | 0.005 | 0.005 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.46 | |
| 8 | 0.6763 | 1116.0 | 1135.8 | 0.413 | 3.545 | 77.200 | 16.817 | 1.838 | 0.060 | 0.105 | 0.006 | 0.005 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 1381.08 | |
| 9 | 0.6799 | 1122.0 | 1141.9 | 0.423 | 3.505 | 76.644 | 17.259 | 1.964 | 0.066 | 0.116 | 0.006 | 0.005 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 1384.78 | |
| 10 | 0.6835 | 1127.9 | 1147.8 | 0.426 | 3.475 | 76.063 | 17.738 | 2.092 | 0.066 | 0.117 | 0.007 | 0.006 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 1388.42 | |
| 11 | 0.6807 | 1124.0 | 1143.9 | 0.401 | 3.491 | 76.361 | 17.640 | 1.938 | 0.054 | 0.094 | 0.005 | 0.005 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 1386.47 | |
| 12 | 0.6972 | 1138.1 | 1158.2 | 0.443 | 4.119 | 73.576 | 19.205 | 2.403 | 0.073 | 0.149 | 0.009 | 0.010 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 1387.16 | |
| 13 | 0.7054 | 1142.3 | 1162.5 | 0.443 | 4.633 | 71.960 | 20.169 | 2.544 | 0.072 | 0.150 | 0.009 | 0.008 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 1384.15 | |
| 14 | 0.7006 | 1136.2 | 1156.3 | 0.416 | 4.597 | 72.749 | 19.595 | 2.406 | 0.068 | 0.141 | 0.009 | 0.008 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 1381.46 | |
| 15 | 0.7001 | 1136.9 | 1157.0 | 0.406 | 4.519 | 72.836 | 19.616 | 2.394 | 0.066 | 0.136 | 0.008 | 0.008 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.81 | |
| 16 | 0.7019 | 1139.4 | 1159.5 | 0.426 | 4.509 | 72.491 | 19.953 | 2.380 | 0.069 | 0.142 | 0.008 | 0.008 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 1384.03 | |
| 17 | 0.7033 | 1140.2 | 1160.4 | 0.439 | 4.567 | 72.294 | 20.020 | 2.422 | 0.073 | 0.151 | 0.010 | 0.010 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.70 | |
| 18 | 0.6923 | 1128.5 | 1148.5 | 0.356 | 4.371 | 74.142 | 18.765 | 2.142 | 0.066 | 0.127 | 0.009 | 0.008 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.38 | |
| 19 | 0.6773 | 1108.8 | 1128.4 | 0.348 | 4.179 | 76.800 | 16.686 | 1.809 | 0.054 | 0.100 | 0.007 | 0.006 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 1371.11 | |
| 20 | 0.6774 | 1109.6 | 1129.3 | 0.355 | 4.128 | 76.779 | 16.758 | 1.806 | 0.052 | 0.097 | 0.008 | 0.006 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.05 | |
| 21 | 0.6842 | 1116.1 | 1135.9 | 0.421 | 4.269 | 75.602 | 17.582 | 1.931 | 0.057 | 0.110 | 0.008 | 0.007 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 1373.23 | |
| 22 | 0.6867 | 1118.1 | 1137.9 | 0.398 | 4.423 | 75.169 | 17.765 | 2.037 | 0.061 | 0.119 | 0.009 | 0.007 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 1373.09 | |
| 23 | 0.6922 | 1125.0 | 1144.9 | 0.409 | 4.503 | 74.220 | 18.471 | 2.171 | 0.065 | 0.131 | 0.009 | 0.008 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.07 | |
| 24 | 0.6960 | 1129.4 | 1149.4 | 0.418 | 4.572 | 73.523 | 19.012 | 2.247 | 0.065 | 0.133 | 0.009 | 0.008 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.78 | |
| 25 | 0.7026 | 1138.9 | 1159.1 | 0.427 | 4.598 | 72.722 | 19.339 | 2.599 | 0.088 | 0.188 | 0.012 | 0.012 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.79 | |
| 26 | 0.7056 | 1140.9 | 1161.1 | 0.458 | 4.712 | 72.046 | 19.909 | 2.591 | 0.079 | 0.169 | 0.011 | 0.011 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.29 | |
| 27 | 0.7035 | 1137.7 | 1157.9 | 0.446 | 4.732 | 72.304 | 19.771 | 2.478 | 0.075 | 0.159 | 0.010 | 0.010 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.43 | |
| 28 | 0.7086 | 1144.0 | 1164.3 | 0.457 | 4.804 | 71.537 | 20.253 | 2.633 | 0.084 | 0.187 | 0.013 | 0.014 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.14 | |
| Avg | 0.6881 | 1125.0 | 1145.0 | 0.402 | 4.117 | 75.007 | 18.163 | 2.100 | 0.062 | 0.121 | 0.008 | 0.007 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.38 | |

*** End of Report***

Zone 273

GQ Source Daily Summary

February 2013

Number: 271

Pressure Base: 14,730

Contract Day: 1

Name: DICKINSON STN-BELFIELD TSF-GLENULLIN STN

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 |
|-----|------------------|---------------|-----------|-------|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| | | Value Wet | Value Dry | | | | | | | | | | | | | | | | |
| 1 | 0.6462 | 1073.0 | 1092.0 | 0.196 | 3.650 | 82.202 | 12.702 | 1.181 | 0.026 | 0.043 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1358.49 |
| 2 | 0.6454 | 1071.7 | 1090.6 | 0.196 | 3.661 | 82.273 | 12.700 | 1.109 | 0.023 | 0.038 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1357.59 |
| 3 | 0.6480 | 1074.8 | 1093.8 | 0.203 | 3.709 | 81.751 | 13.146 | 1.131 | 0.023 | 0.037 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1358.76 |
| 4 | 0.6453 | 1070.7 | 1089.6 | 0.233 | 3.658 | 82.308 | 12.647 | 1.092 | 0.023 | 0.039 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1356.42 |
| 5 | 0.6408 | 1062.3 | 1081.1 | 0.225 | 3.758 | 83.053 | 11.962 | 0.946 | 0.021 | 0.035 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1350.51 |
| 6 | 0.6493 | 1077.8 | 1096.9 | 0.192 | 3.664 | 81.495 | 13.446 | 1.142 | 0.023 | 0.039 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1361.21 |
| 7 | 0.6480 | 1075.7 | 1094.8 | 0.202 | 3.643 | 81.771 | 13.197 | 1.127 | 0.023 | 0.037 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1360.07 |
| 8 | 0.6474 | 1074.2 | 1093.3 | 0.214 | 3.664 | 81.874 | 13.083 | 1.107 | 0.022 | 0.036 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1358.78 |
| 9 | 0.6513 | 1080.9 | 1100.0 | 0.201 | 3.654 | 81.017 | 13.994 | 1.081 | 0.020 | 0.033 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1363.00 |
| 10 | 0.6528 | 1084.3 | 1103.5 | 0.187 | 3.601 | 80.791 | 14.212 | 1.153 | 0.021 | 0.035 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1365.79 |
| 11 | 0.6532 | 1085.4 | 1104.6 | 0.169 | 3.601 | 80.708 | 14.303 | 1.160 | 0.023 | 0.037 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1366.72 |
| 12 | 0.6534 | 1086.2 | 1105.5 | 0.156 | 3.588 | 80.640 | 14.407 | 1.152 | 0.022 | 0.036 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1367.59 |
| 13 | 0.6538 | 1087.3 | 1106.6 | 0.156 | 3.562 | 80.514 | 14.593 | 1.124 | 0.020 | 0.032 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1368.54 |
| 14 | 0.6610 | 1098.5 | 1117.9 | 0.170 | 3.535 | 79.335 | 15.533 | 1.361 | 0.025 | 0.040 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.03 |
| 15 | 0.6613 | 1098.1 | 1117.6 | 0.191 | 3.548 | 79.342 | 15.451 | 1.396 | 0.028 | 0.044 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.34 |
| 16 | 0.6597 | 1097.1 | 1116.5 | 0.156 | 3.521 | 79.438 | 15.596 | 1.233 | 0.021 | 0.034 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.62 |
| 17 | 0.6588 | 1096.1 | 1115.5 | 0.141 | 3.516 | 79.675 | 15.339 | 1.256 | 0.029 | 0.044 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.34 |
| 18 | 0.6511 | 1081.2 | 1100.4 | 0.173 | 3.650 | 81.237 | 13.625 | 1.240 | 0.030 | 0.045 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1363.67 |
| 19 | 0.6450 | 1070.4 | 1089.4 | 0.202 | 3.695 | 82.334 | 12.607 | 1.103 | 0.023 | 0.036 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1356.37 |
| 20 | 0.6459 | 1072.0 | 1091.0 | 0.200 | 3.677 | 82.212 | 12.709 | 1.141 | 0.024 | 0.038 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1357.55 |
| 21 | 0.6451 | 1070.7 | 1089.7 | 0.196 | 3.688 | 82.302 | 12.672 | 1.083 | 0.022 | 0.036 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1356.72 |
| 22 | 0.6478 | 1075.7 | 1094.7 | 0.185 | 3.663 | 81.822 | 13.107 | 1.154 | 0.025 | 0.044 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1360.09 |
| 23 | 0.6504 | 1081.4 | 1100.6 | 0.152 | 3.602 | 81.190 | 13.900 | 1.106 | 0.019 | 0.030 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1364.70 |
| 24 | 0.6468 | 1074.6 | 1093.7 | 0.166 | 3.657 | 81.885 | 13.187 | 1.052 | 0.021 | 0.032 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1359.88 |
| 25 | 0.6496 | 1078.4 | 1097.5 | 0.178 | 3.671 | 81.389 | 13.588 | 1.118 | 0.022 | 0.033 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1361.77 |
| 26 | 0.6446 | 1070.8 | 1089.8 | 0.204 | 3.626 | 82.311 | 12.812 | 0.998 | 0.020 | 0.029 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1357.37 |
| 27 | 0.6463 | 1074.3 | 1093.3 | 0.190 | 3.596 | 82.045 | 13.037 | 1.071 | 0.025 | 0.036 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1359.98 |
| 28 | 0.6486 | 1077.0 | 1096.1 | 0.184 | 3.654 | 81.573 | 13.442 | 1.096 | 0.020 | 0.031 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1361.03 |
| Avg | 0.6499 | 1079.0 | 1098.4 | 0.186 | 3.633 | 81.375 | 13.607 | 1.140 | 0.023 | 0.037 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1362.53 |

Zone 31, 311

GQ Source Daily Summary

February 2013

Number: 051

Pressure Base: 14.730

Contract Day: 1

Name: CABIN CREEK STATION-BELFIELD TRANSFER

Temperature Base:

Contract Hour: 9

| Day | Relative Density | Heating Value | | CO2 | N2 | Heating Value Dry | | | | | | | | | | Wobbe | CCT | | | |
|-----|------------------|---------------|--------|-------|-------|-------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|--|
| | | Wet | Dry | | | C1 | C2 | C3 | IC4 | NC4 | IC5 | NC5 | C6 | C7 | C8 | | | C9 | C10 | |
| 1 | 0.6470 | 1069.2 | 1088.1 | 0.242 | 3.900 | 82.280 | 12.145 | 1.339 | 0.033 | 0.052 | 0.004 | 0.003 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1352.81 | |
| 2 | 0.6440 | 1063.8 | 1082.6 | 0.255 | 3.934 | 82.785 | 11.690 | 1.247 | 0.031 | 0.049 | 0.004 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1349.01 | |
| 3 | 0.6448 | 1065.5 | 1084.3 | 0.256 | 3.900 | 82.659 | 11.829 | 1.266 | 0.031 | 0.049 | 0.004 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1350.37 | |
| 4 | 0.6377 | 1052.9 | 1071.5 | 0.306 | 3.929 | 84.029 | 10.501 | 1.145 | 0.031 | 0.049 | 0.004 | 0.004 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1341.75 | |
| 5 | 0.6397 | 1055.7 | 1074.4 | 0.270 | 3.992 | 83.622 | 10.847 | 1.182 | 0.031 | 0.048 | 0.004 | 0.003 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1343.34 | |
| 6 | 0.6447 | 1065.3 | 1084.2 | 0.251 | 3.909 | 82.726 | 11.702 | 1.319 | 0.033 | 0.051 | 0.004 | 0.003 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1350.25 | |
| 7 | 0.6428 | 1061.4 | 1080.2 | 0.283 | 3.920 | 83.129 | 11.266 | 1.312 | 0.032 | 0.049 | 0.003 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1347.31 | |
| 8 | 0.6431 | 1062.2 | 1081.0 | 0.273 | 3.912 | 83.027 | 11.431 | 1.270 | 0.031 | 0.048 | 0.003 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1348.01 | |
| 9 | 0.6459 | 1066.9 | 1085.8 | 0.271 | 3.897 | 82.521 | 11.872 | 1.350 | 0.032 | 0.049 | 0.003 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1351.00 | |
| 10 | 0.6481 | 1071.0 | 1090.0 | 0.236 | 3.904 | 82.064 | 12.340 | 1.366 | 0.032 | 0.050 | 0.004 | 0.003 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1353.94 | |
| 11 | 0.6486 | 1071.7 | 1090.7 | 0.230 | 3.912 | 82.034 | 12.298 | 1.429 | 0.034 | 0.053 | 0.004 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1354.36 | |
| 12 | 0.6453 | 1066.6 | 1085.5 | 0.232 | 3.913 | 82.570 | 11.884 | 1.314 | 0.031 | 0.048 | 0.003 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1351.33 | |
| 13 | 0.6559 | 1084.4 | 1103.6 | 0.216 | 3.852 | 80.679 | 13.562 | 1.600 | 0.033 | 0.050 | 0.003 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1362.69 | |
| 14 | 0.6598 | 1089.4 | 1108.7 | 0.266 | 3.837 | 80.091 | 13.992 | 1.701 | 0.041 | 0.064 | 0.004 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1364.89 | |
| 15 | 0.6567 | 1084.7 | 1103.9 | 0.250 | 3.859 | 80.581 | 13.597 | 1.615 | 0.035 | 0.054 | 0.004 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1362.18 | |
| 16 | 0.6533 | 1079.8 | 1098.9 | 0.217 | 3.886 | 81.155 | 13.124 | 1.517 | 0.038 | 0.056 | 0.003 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1359.59 | |
| 17 | 0.6541 | 1081.0 | 1100.2 | 0.210 | 3.892 | 81.162 | 12.972 | 1.636 | 0.048 | 0.070 | 0.004 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1360.34 | |
| 18 | 0.6425 | 1062.4 | 1081.2 | 0.246 | 3.883 | 83.152 | 11.341 | 1.285 | 0.035 | 0.051 | 0.004 | 0.003 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1348.93 | |
| 19 | 0.6436 | 1064.2 | 1083.1 | 0.252 | 3.871 | 82.917 | 11.589 | 1.282 | 0.032 | 0.048 | 0.004 | 0.003 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1350.03 | |
| 20 | 0.6427 | 1062.5 | 1081.3 | 0.251 | 3.887 | 83.079 | 11.440 | 1.254 | 0.031 | 0.048 | 0.004 | 0.003 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1348.87 | |
| 21 | 0.6409 | 1059.3 | 1078.0 | 0.250 | 3.923 | 83.383 | 11.144 | 1.213 | 0.031 | 0.047 | 0.004 | 0.003 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1346.56 | |
| 22 | 0.6428 | 1062.9 | 1081.7 | 0.227 | 3.917 | 83.009 | 11.503 | 1.263 | 0.029 | 0.043 | 0.003 | 0.003 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1349.13 | |
| 23 | 0.6459 | 1067.6 | 1086.5 | 0.225 | 3.928 | 82.494 | 11.895 | 1.367 | 0.034 | 0.049 | 0.004 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1351.82 | |
| 24 | 0.6395 | 1056.3 | 1075.0 | 0.238 | 3.988 | 83.642 | 10.840 | 1.211 | 0.030 | 0.043 | 0.003 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1344.26 | |
| 25 | 0.6400 | 1057.7 | 1076.5 | 0.263 | 3.908 | 83.604 | 10.910 | 1.231 | 0.031 | 0.044 | 0.003 | 0.003 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1345.57 | |
| 26 | 0.6404 | 1057.9 | 1076.7 | 0.262 | 3.935 | 83.496 | 11.013 | 1.206 | 0.033 | 0.045 | 0.004 | 0.003 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1345.44 | |
| 27 | 0.6410 | 1058.9 | 1077.6 | 0.265 | 3.930 | 83.447 | 11.004 | 1.261 | 0.035 | 0.049 | 0.004 | 0.003 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1345.99 | |
| 28 | 0.6483 | 1071.7 | 1090.7 | 0.228 | 3.890 | 82.052 | 12.332 | 1.412 | 0.032 | 0.047 | 0.003 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1354.63 | |
| Avg | 0.6457 | 1067.0 | 1085.8 | 0.249 | 3.907 | 82.550 | 11.859 | 1.342 | 0.033 | 0.050 | 0.004 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1351.23 | |

Zone 32

GQ Source Daily Summary

February 2013

Number: 111

Pressure Base: 14,730

Contract Day: 1

Name: LITTLE KNIFE-BELFIELD TRANSFER

Temperature Base:

Contract Hour: 9

| Day | Relative Density | Heating Value | | CO2 | N2 | C1 | C2 | C3 | IC4 | NC4 | ICS | NC5 | C6 | C7 | C8 | C9 | C10 | Wobbe | CCT | |
|-----|------------------|---------------|--------|-------|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|--|
| | | Wet | Dry | | | | | | | | | | | | | | | | | |
| 1 | 0.6849 | 1156.1 | 1176.6 | 0.000 | 2.549 | 73.397 | 23.627 | 0.416 | 0.005 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.74 | |
| 2 | 0.6850 | 1156.3 | 1176.7 | 0.000 | 2.547 | 73.388 | 23.636 | 0.419 | 0.005 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.85 | |
| 3 | 0.6847 | 1155.9 | 1176.3 | 0.000 | 2.548 | 73.430 | 23.599 | 0.411 | 0.005 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.61 | |
| 4 | 0.6848 | 1155.8 | 1176.3 | 0.000 | 2.557 | 73.413 | 23.608 | 0.411 | 0.004 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.50 | |
| 5 | 0.6841 | 1155.2 | 1175.7 | 0.000 | 2.531 | 73.560 | 23.485 | 0.408 | 0.005 | 0.009 | 0.000 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.45 | |
| 6 | 0.6852 | 1156.7 | 1177.2 | 0.000 | 2.543 | 73.333 | 23.695 | 0.418 | 0.005 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1422.14 | |
| 7 | 0.6849 | 1156.3 | 1176.8 | 0.000 | 2.541 | 73.386 | 23.657 | 0.406 | 0.005 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.93 | |
| 8 | 0.6855 | 1157.5 | 1178.0 | 0.000 | 2.525 | 73.264 | 23.787 | 0.413 | 0.005 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1422.79 | |
| 9 | 0.6854 | 1157.3 | 1177.8 | 0.000 | 2.528 | 73.295 | 23.753 | 0.413 | 0.005 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1422.61 | |
| 10 | 0.6848 | 1156.4 | 1176.9 | 0.000 | 2.526 | 73.393 | 23.677 | 0.394 | 0.004 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1422.14 | |
| 11 | 0.6845 | 1155.6 | 1176.1 | 0.000 | 2.546 | 73.462 | 23.579 | 0.403 | 0.004 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.48 | |
| 12 | 0.6845 | 1155.6 | 1176.1 | 0.000 | 2.545 | 73.462 | 23.580 | 0.403 | 0.004 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.51 | |
| 13 | 0.6848 | 1155.9 | 1176.4 | 0.000 | 2.556 | 73.400 | 23.630 | 0.403 | 0.005 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.54 | |
| 14 | 0.6842 | 1155.1 | 1175.6 | 0.000 | 2.543 | 73.529 | 23.517 | 0.400 | 0.005 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.25 | |
| 15 | 0.6844 | 1155.7 | 1176.2 | 0.000 | 2.532 | 73.489 | 23.556 | 0.413 | 0.005 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.72 | |
| 16 | 0.6838 | 1155.1 | 1175.5 | 0.000 | 2.514 | 73.622 | 23.436 | 0.417 | 0.005 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.54 | |
| 17 | 0.6841 | 1154.8 | 1175.3 | 0.000 | 2.551 | 73.543 | 23.502 | 0.393 | 0.004 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.00 | |
| 18 | 0.6844 | 1155.3 | 1175.7 | 0.000 | 2.558 | 73.474 | 23.561 | 0.397 | 0.004 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.16 | |
| 19 | 0.6840 | 1154.9 | 1175.4 | 0.000 | 2.537 | 73.555 | 23.515 | 0.383 | 0.004 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.19 | |
| 20 | 0.6844 | 1155.6 | 1176.0 | 0.000 | 2.536 | 73.488 | 23.563 | 0.402 | 0.005 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.57 | |
| 21 | 0.6844 | 1155.6 | 1176.1 | 0.000 | 2.539 | 73.482 | 23.557 | 0.410 | 0.005 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.56 | |
| 22 | 0.6874 | 1160.2 | 1180.7 | 0.000 | 2.532 | 73.288 | 23.447 | 0.656 | 0.019 | 0.043 | 0.005 | 0.007 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1424.11 | |
| 23 | 0.6843 | 1155.8 | 1176.2 | 0.000 | 2.514 | 73.509 | 23.570 | 0.396 | 0.004 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.92 | |
| 24 | 0.6844 | 1155.8 | 1176.3 | 0.000 | 2.524 | 73.483 | 23.583 | 0.400 | 0.004 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.84 | |
| 25 | 0.6867 | 1159.0 | 1179.6 | 0.000 | 2.538 | 73.345 | 23.412 | 0.668 | 0.012 | 0.021 | 0.002 | 0.002 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1423.44 | |
| 26 | 0.6841 | 1155.2 | 1175.7 | 0.000 | 2.528 | 73.542 | 23.523 | 0.396 | 0.004 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.48 | |
| 27 | 0.6841 | 1155.1 | 1175.6 | 0.000 | 2.535 | 73.546 | 23.506 | 0.402 | 0.004 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.35 | |
| 28 | 0.6841 | 1154.9 | 1175.3 | 0.000 | 2.549 | 73.553 | 23.483 | 0.404 | 0.005 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.03 | |
| Avg | 0.6847 | 1156.0 | 1176.5 | 0.000 | 2.538 | 73.451 | 23.573 | 0.423 | 0.005 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.80 | |

Zone 33

GQ Source Daily Summary

February 2013

Number: 331

Pressure Base: 14.730

Contract Day: 1

Name: MARMARTH PLANT-BOWMAN BORDER

Temperature Base:

Contract Hour: 9

| Day | Relative Density | Heating Value Wet | Heating Value Dry | CO2 | N2 | C1 | C2 | C3 | IC4 | NC4 | ICS | NC5 | C6 | C7 | C8 | C9 | C10 | Wobbe | CCT |
|-----|------------------|-------------------|-------------------|-------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|-----|
| 1 | 0.7927 | 1118.5 | 1138.3 | 1.804 | 12.241 | 54.725 | 28.104 | 2.763 | 0.079 | 0.241 | 0.010 | 0.028 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 1278.54 | |
| 2 | 0.8005 | 1123.1 | 1143.0 | 2.259 | 12.001 | 54.174 | 27.976 | 3.142 | 0.096 | 0.297 | 0.013 | 0.036 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 1277.50 | |
| 3 | 0.7981 | 1117.0 | 1136.8 | 2.273 | 12.120 | 54.589 | 27.503 | 3.073 | 0.094 | 0.293 | 0.013 | 0.036 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 1272.53 | |
| 4 | 0.7982 | 1121.5 | 1141.3 | 2.169 | 12.023 | 54.371 | 27.993 | 3.025 | 0.090 | 0.278 | 0.012 | 0.033 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 1277.46 | |
| 5 | 0.8002 | 1124.2 | 1144.1 | 2.181 | 12.028 | 54.114 | 28.119 | 3.118 | 0.094 | 0.293 | 0.013 | 0.035 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 1278.94 | |
| 6 | 0.7987 | 1122.4 | 1142.3 | 2.175 | 11.998 | 54.243 | 28.179 | 2.993 | 0.089 | 0.274 | 0.012 | 0.032 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 1278.21 | |
| 7 | 0.8018 | 1134.0 | 1154.0 | 2.063 | 11.759 | 53.723 | 28.883 | 3.135 | 0.094 | 0.291 | 0.013 | 0.034 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 1288.79 | |
| 8 | 0.8038 | 1133.8 | 1153.9 | 2.172 | 11.785 | 53.510 | 28.873 | 3.225 | 0.094 | 0.290 | 0.012 | 0.033 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 1287.06 | |
| 9 | 0.8041 | 1130.1 | 1150.1 | 2.328 | 11.807 | 53.719 | 28.384 | 3.308 | 0.098 | 0.303 | 0.013 | 0.035 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 1282.55 | |
| 10 | 0.8052 | 1125.3 | 1145.3 | 2.636 | 11.731 | 53.700 | 28.257 | 3.240 | 0.094 | 0.290 | 0.013 | 0.034 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 1276.32 | |
| 11 | 0.8057 | 1130.4 | 1150.4 | 2.413 | 11.808 | 53.774 | 27.996 | 3.505 | 0.107 | 0.335 | 0.015 | 0.041 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 1281.63 | |
| 12 | 0.8144 | 1154.3 | 1174.8 | 2.193 | 11.497 | 52.853 | 28.653 | 4.108 | 0.143 | 0.462 | 0.022 | 0.060 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 1301.61 | |
| 13 | 0.8025 | 1127.0 | 1146.9 | 2.314 | 11.869 | 54.146 | 27.905 | 3.216 | 0.111 | 0.359 | 0.018 | 0.051 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 1280.06 | |
| 14 | 0.7977 | 1121.3 | 1141.2 | 2.340 | 11.725 | 54.175 | 28.734 | 2.695 | 0.072 | 0.220 | 0.010 | 0.026 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 | 1277.74 | |
| 15 | 0.7991 | 1121.4 | 1141.3 | 2.384 | 11.781 | 54.137 | 28.506 | 2.822 | 0.079 | 0.245 | 0.011 | 0.030 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 1276.74 | |
| 16 | 0.7994 | 1122.9 | 1142.8 | 2.415 | 11.673 | 54.095 | 28.652 | 2.805 | 0.077 | 0.240 | 0.010 | 0.028 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 1278.20 | |
| 17 | 0.8011 | 1113.3 | 1133.0 | 2.846 | 11.766 | 53.999 | 28.355 | 2.691 | 0.074 | 0.228 | 0.010 | 0.027 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 | 1265.88 | |
| 18 | 0.8003 | 1115.4 | 1135.2 | 2.682 | 11.809 | 53.971 | 28.525 | 2.673 | 0.073 | 0.227 | 0.010 | 0.026 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 | 1268.94 | |
| 19 | 0.7992 | 1120.7 | 1140.5 | 2.449 | 11.746 | 54.036 | 28.695 | 2.720 | 0.076 | 0.236 | 0.010 | 0.028 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 | 1275.74 | |
| 20 | 0.8019 | 1124.7 | 1144.6 | 2.544 | 11.609 | 53.721 | 28.937 | 2.833 | 0.077 | 0.238 | 0.010 | 0.027 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 | 1278.13 | |
| 21 | 0.8018 | 1129.8 | 1149.8 | 2.450 | 11.422 | 53.948 | 28.771 | 3.017 | 0.085 | 0.262 | 0.011 | 0.030 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 | 1284.11 | |
| 22 | 0.8039 | 1133.0 | 1153.0 | 2.449 | 11.432 | 53.661 | 28.914 | 3.134 | 0.089 | 0.274 | 0.012 | 0.031 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 | 1285.96 | |
| 23 | 0.8026 | 1132.0 | 1152.0 | 2.271 | 11.633 | 53.912 | 28.487 | 3.265 | 0.093 | 0.288 | 0.013 | 0.034 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 1285.96 | |
| 24 | 0.8019 | 1135.0 | 1155.1 | 2.136 | 11.596 | 53.753 | 28.956 | 3.153 | 0.088 | 0.270 | 0.012 | 0.031 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 1289.86 | |
| 25 | 0.7996 | 1130.9 | 1151.0 | 1.986 | 11.853 | 53.968 | 28.707 | 3.075 | 0.087 | 0.273 | 0.012 | 0.033 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 1287.11 | |
| 26 | 0.7979 | 1129.6 | 1149.6 | 1.974 | 11.795 | 54.012 | 28.975 | 2.881 | 0.079 | 0.242 | 0.010 | 0.027 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 1287.02 | |
| 27 | 0.8005 | 1134.2 | 1154.3 | 2.059 | 11.633 | 53.888 | 28.920 | 3.094 | 0.087 | 0.270 | 0.012 | 0.031 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 1290.08 | |
| 28 | 0.8029 | 1139.7 | 1159.9 | 2.107 | 11.450 | 53.558 | 29.307 | 3.170 | 0.089 | 0.272 | 0.012 | 0.031 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 1294.37 | |
| Avg | 0.8013 | 1127.0 | 1147.3 | 2.288 | 11.771 | 53.945 | 28.509 | 3.067 | 0.090 | 0.278 | 0.012 | 0.033 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 1281.68 | |

Zone 34

| NORTH DAKOTA HEATING VALUE ZONES | | |
|---|-------------------------|-----------------------------------|
| ZONES | MEASURING DEVICE | LOCATION |
| 211 | Chromatograph | Sidney Area |
| 24 | Chromatograph | 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 | Chromatograph | Williston – Ray |
| 271 | Chromatograph | Bismarck – Cleveland |
| 272 | Chromatograph | Cleveland – Mapleton |
| 273 | Chromatograph | Cleveland – Grafton |
| 28 | Chromatograph | Bismarck |
| 31 | Chromatograph | Dickinson |
| 311 | Chromatograph | Taylor Take-Off – Glen Ullin Comp |
| 32 | Chromatograph | Cabin Creek – Dickinson |
| 33 | Chromatograph | Killdeer |
| 34 | Chromatograph | Bowman Area |

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

| STATE | ZONE | ZONE BOUNDARY | 12 MONTH AVERAGE | FEB 13 | JAN 13 | DEC 12 | NOV 12 | OCT 12 | SEPT 12 | AUG 12 | JULY 12 | JUNE 12 | MAY 12 | APR 12 | MAR 12 | ZONE |
|-------|------|-----------------------------------|------------------|--------|--------|--------|--------|--------|---------|--------|---------|---------|--------|--------|--------|------|
| MT/ND | 211 | Sidney Area | 1199 | 1202 | 1203 | 1200 | 1201 | 1200 | 1202 | 1197 | 1197 | 1200 | 1194 | 1196 | 1199 | 211 |
| ND | 24 | Williston Area | 1199 | 1204 | 1204 | 1203 | 1199 | 1195 | 1197 | 1198 | 1203 | 1197 | 1196 | 1194 | 1199 | 24 |
| ND | 25 | Watford City Area | 1173 | 1196 | 1192 | 1192 | 1188 | 1176 | 1183 | 1184 | 1176 | 1151 | 1159 | 1139 | 1138 | 25 |
| ND/MT | 241 | Fairview Area | 1189 | 1196 | 1191 | 1191 | 1192 | 1189 | 1191 | 1187 | 1185 | 1191 | 1184 | 1185 | 1189 | 241 |
| ND | 261 | Williston - Tioga - Minot Line | 1158 | 1139 | 1160 | 1162 | 1162 | 1164 | 1170 | 1151 | 1161 | 1157 | 1157 | 1155 | 1162 | 261 |
| ND | 262 | Minot Area | 1166 | 1168 | 1163 | 1165 | 1165 | 1171 | 1175 | 1179 | 1163 | 1160 | 1159 | 1157 | 1162 | 262 |
| ND | 263 | Tioga - Portal | 1120 | 1116 | 1069 | 1069 | 1135 | 1140 | 1142 | 1143 | 1132 | 1136 | 1126 | 1099 | 1135 | 263 |
| ND | 264 | Williston - Ray | 1199 | 1204 | 1204 | 1203 | 1199 | 1195 | 1197 | 1198 | 1203 | 1197 | 1196 | 1194 | 1199 | 264 |
| ND | 271 | Bismarck - Cleveland | 1157 | 1144 | 1137 | 1147 | 1154 | 1170 | 1173 | 1178 | 1161 | 1157 | 1157 | 1157 | 1154 | 271 |
| ND | 272 | Cleveland - Mapleton | 1158 | 1145 | 1138 | 1148 | 1155 | 1171 | 1175 | 1180 | 1162 | 1159 | 1158 | 1156 | 1153 | 272 |
| ND | 273 | Cleveland - Grafton | 1159 | 1145 | 1138 | 1149 | 1155 | 1171 | 1175 | 1180 | 1162 | 1159 | 1158 | 1157 | 1153 | 273 |
| ND | 28 | Bismarck - Cabin Creek | 1138 | 1100 | 1108 | 1114 | 1104 | 1149 | 1173 | 1178 | 1160 | 1157 | 1157 | 1143 | 1117 | 28 |
| ND | 31 | Dickinson Area | 1107 | 1098 | 1105 | 1110 | 1111 | 1152 | 1074 | 1102 | 1150 | 1092 | 1070 | 1111 | 1114 | 31 |
| ND | 311 | Taylor Take-Off - Glen Ullin Comp | | 1098 | 1105 | 1110 | | | | | | | | | | |
| ND/MT | 32 | Cabin Creek - Dickinson | 1110 | 1086 | 1094 | 1099 | 1056 | 1121 | 1131 | 1135 | 1164 | 1152 | 1142 | 1092 | 1047 | 32 |
| ND | 33 | Kildeer | 1179 | 1177 | 1177 | 1176 | 1177 | 1177 | 1180 | 1179 | 1181 | 1184 | 1181 | 1181 | 1183 | 33 |
| ND | 34 | Bowman Area | 1133 | 1147 | 1143 | 1142 | 1142 | 1140 | 1136 | 1130 | 1126 | 1098 | 1134 | 1130 | 1126 | 34 |
| ND | 35 | Baker Field - North Dakota | 979 | 0 | 979 | 979 | 979 | 979 | 979 | 979 | 979 | 979 | 979 | 979 | 979 | 35 |

**THERMAL ZONE VARIANCE
DOCUMENTATION**

February 2013

| ZONE | BTU VARIANCE | REASON |
|-------------|-------------------------|------------------------|
| 261 | -21 | Mix of gas in the area |
| 263 | 47 | Mix of gas in the area |