

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

December 10, 2015

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

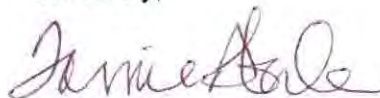
Re: Case No. 11,006 (Therm Billing)
Monthly Reports – April through September
2015

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 and pursuant to the North Dakota Administrative Code 69-09-01-02, part 2.

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 the months of May - October 2015.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our suppliers for the months of April through September 2015.
3. Attachment C is a listing which states the type of measuring device in place at each zone. The measuring devices were the same in the months of April through September.
4. Attachment D is a monthly list of the heating value data, by zone, for the most recent 12-month periods ending April through September and an average thereof. It is being provided pursuant to a Staff request.
5. Attachment E provides a brief explanation of the thermal variances, where applicable, for the month of April through September 2015.

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 contact me at 701-222-7856 or tamie.aberle@mdu.com. Montana-Dakota will henceforth submit the required reports on a monthly basis.

Sincerely,

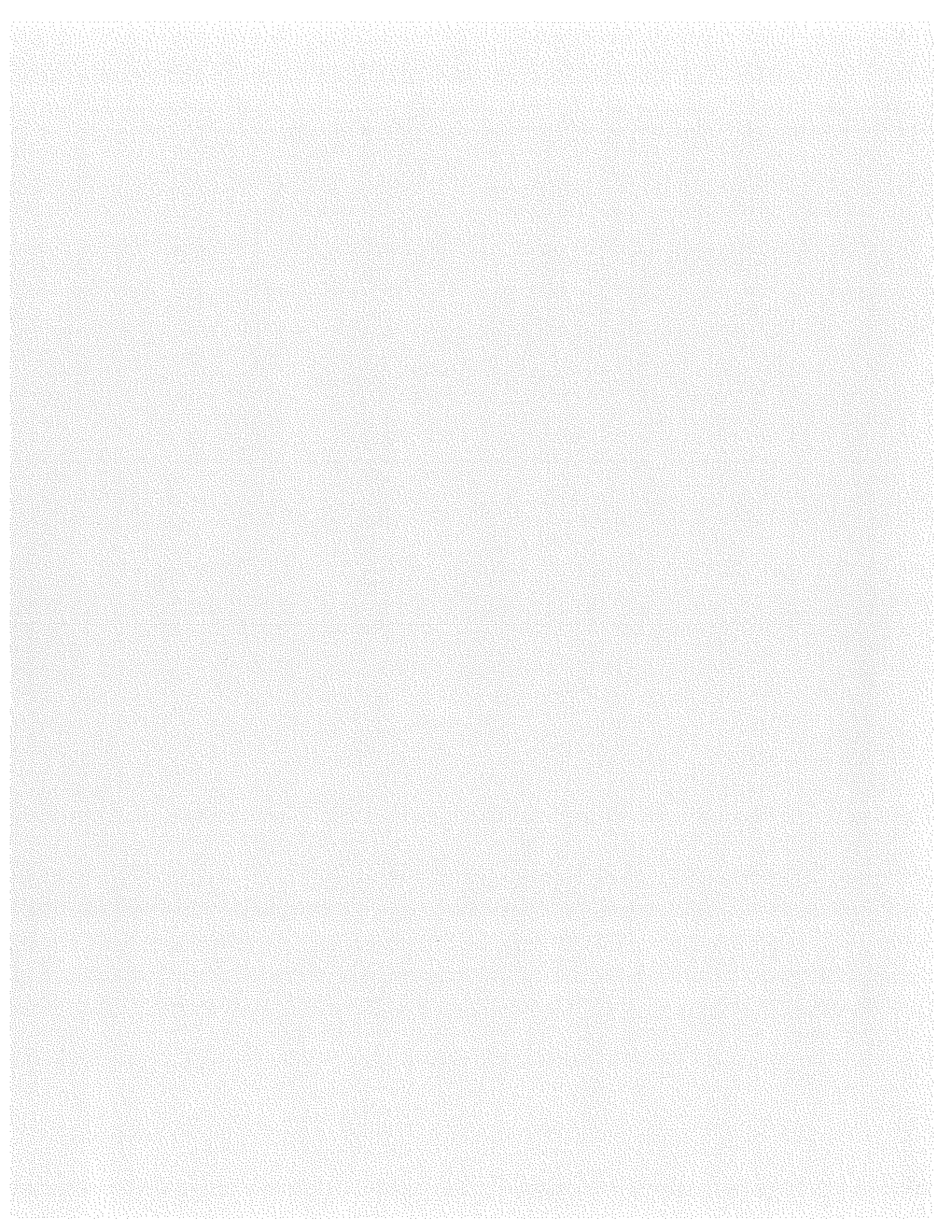


Tamie Aberle
Director of Regulatory Affairs

**Montana-Dakota Utilities Co.
Therm Billing Factors - North Dakota
May 2015**

Town	Heat Zone	Therm Factor
MDU-303-ALEXANDER	025	1.1447
MDU-308-ARNEGARD	025	1.1447
MDU-314-APPLE VALLEY	271	1.1443
MDU-318-BEACH	032	1.0332
MDU-319-BELFIELD	032	1.0408
MDU-323-BERTHOLD	262	1.1221
MDU-327-BISMARCK	028	1.1210
MDU-330-BOWMAN	034	1.0302
MDU-337-BURLINGTON	262	1.1463
MDU-343-CARRINGTON	273	1.1405
MDU-344-CLEVELAND	272	1.1353
MDU-364-CAVALIER	273	1.1645
MDU-365-DAWSON	271	1.1363
MDU-368-DES LACS	262	1.1301
MDU-369-DICKINSON	031	1.0652
MDU-374-FT TOTTEN	273	1.1485
MDU-375-DEVILS LAKE	273	1.1485
MDU-379-BARLOW	273	1.1405
MDU-384-EPPING	264	1.1060
MDU-387-ELDRIDGE	272	1.1434
MDU-407-GLADSTONE	031	1.0652
MDU-411-GLEN ULLIN	311	1.0352
MDU-413-GOLVA	032	1.0180
MDU-416-GARRISON	262	1.1301
MDU-417-GRAFTON	273	1.1726
MDU-421-HALLIDAY	031	1.0681
MDU-429-HEBRON	311	1.0352
MDU-432-HETTINGER	903	2.3875
MDU-449-JAMESTOWN	272	1.1514
MDU-459-KILLDEER	033	1.1145
MDU-463-LANGDON	273	1.1405
MDU-469-LEFOR	031	1.0652
MDU-474-LIGNITE	263	1.0369
MDU-475-LINTON	802	1.0266
MDU-478-LINCOLN	028	1.1289
MDU-488-MCKENZIE	271	1.1443
MDU-494-MEDINA	271	1.1363
MDU-498-MANDAN	028	1.1289
MDU-500-MARMARTH	034	1.0378
MDU-505-MINOT	262	1.1463
MDU-510-MOTT	031	1.0652
MDU-512-MAX	262	1.1221
MDU-522-NEW ENGLAND	031	1.0575
MDU-524-NEW SALEM	028	1.1289
MDU-532-NEW ROCKFORD	273	1.1405
MDU-539-PARK RIVER	273	1.1645
MDU-540-PALERMO	262	1.1221
MDU-558-RAY	264	1.1088
MDU-561-REGENT	031	1.0652

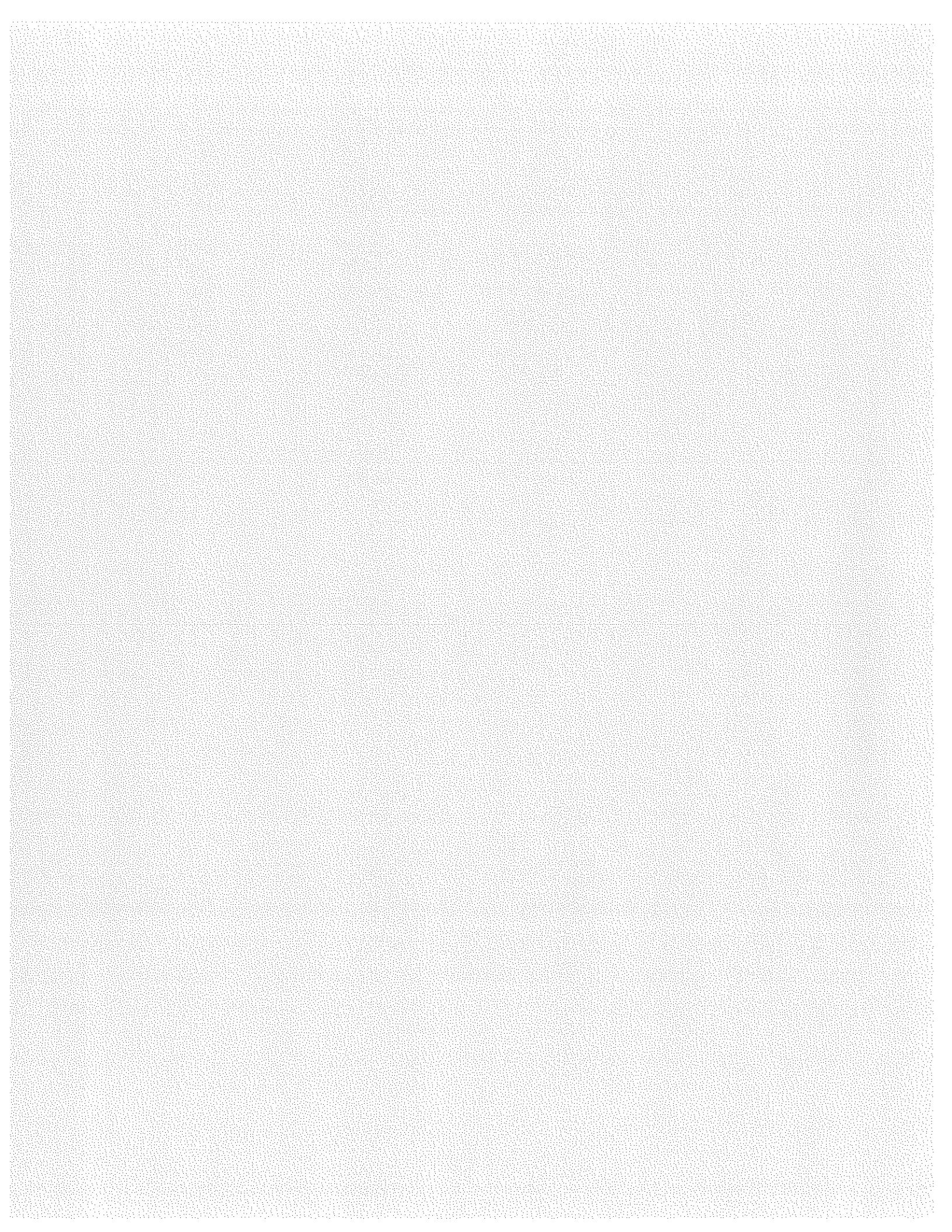
MDU-563-RHAME	034	1.0226
MDU-564-RICHARDTON	311	1.0203
MDU-568-ROSS	261	0.9574
MDU-572-RUTHVILLE	262	1.3370
MDU-574-SANBORN	272	1.1514
MDU-583-SENTINEL BUTTE	032	1.0332
MDU-588-SOUTH HEART	031	1.0575
MDU-717-SPIRITWOOD	272	1.1514
MDU-590-SPRINGBROOK	264	1.1060
MDU-591-STANLEY	261	0.9643
MDU-593-STEELE	271	1.1363
MDU-598-SHEYENNE	273	1.1485
MDU-605-SURREY	262	1.1463
MDU-610-TAPPEN	271	1.1363
MDU-611-TAYLOR	031	1.0575
MDU-616-TIOGA	261	0.9574
MDU-619-TURTLE LAKE	262	1.1301
MDU-620-TRENTON	024	1.1168
MDU-624-UNDERWOOD	262	1.1301
MDU-625-VALLEY CITY	272	1.1595
MDU-629-WALHALLA	273	1.1645
MDU-632-WATFORD CITY	610	1.1353
MDU-636-WHEELOCK	264	1.0981
MDU-637-WHITE EARTH	261	0.9643
MDU-642-WILLISTON	024	1.1168
MDU-646-WASHBURN	262	1.1382
MDU-647-WILTON	262	1.1221
MDU-664-RIVERDALE	262	1.1301
MDU-691-FAIRVIEW	241	1.1396
MDU-712-MINOT AFB	262	1.1463
MDU-718-FAIRMOUNT	600	1.1140
MDU-732-NEKOMA	273	1.1405
MDU-732-MSR SITE	273	1.1260



Montana-Dakota Utilities Co.
Therm Billing Factors - North Dakota
June 2015

Town	Heat Zone	Therm Factor
MDU-303-ALEXANDER	025	1.1523
MDU-308-ARNEGARD	025	1.1523
MDU-314-APPLE VALLEY	271	1.1472
MDU-318-BEACH	032	1.0766
MDU-319-BELFIELD	032	1.0845
MDU-323-BERTHOLD	262	1.1221
MDU-327-BISMARCK	028	1.1472
MDU-330-BOWMAN	034	1.0366
MDU-337-BURLINGTON	262	1.1463
MDU-343-CARRINGTON	273	1.1472
MDU-344-CLEVELAND	272	1.1382
MDU-364-CAVALIER	273	1.1714
MDU-365-DAWSON	271	1.1392
MDU-368-DES LACS	262	1.1301
MDU-369-DICKINSON	031	1.0587
MDU-374-FT TOTTEN	273	1.1553
MDU-375-DEVILS LAKE	273	1.1553
MDU-379-BARLOW	273	1.1472
MDU-384-EPPING	264	1.1230
MDU-387-ELDRIDGE	272	1.1463
MDU-407-GLADSTONE	031	1.0587
MDU-411-GLEN ULLIN	311	1.1060
MDU-413-GOLVA	032	1.0608
MDU-416-GARRISON	262	1.1301
MDU-417-GRAFTON	273	1.1795
MDU-421-HALLIDAY	031	1.0587
MDU-429-HEBRON	311	1.1060
MDU-432-HETTINGER	903	2.3875
MDU-449-JAMESTOWN	272	1.1543
MDU-459-KILLDEER	033	1.1173
MDU-463-LANGDON	273	1.1472
MDU-469-LEFOR	031	1.0587
MDU-474-LIGNITE	263	1.0369
MDU-475-LINTON	802	1.0266
MDU-478-LINCOLN	028	1.1472
MDU-488-MCKENZIE	271	1.1472
MDU-494-MEDINA	271	1.1392
MDU-498-MANDAN	028	1.1472
MDU-500-MARMARTH	034	1.0443
MDU-505-MINOT	262	1.1463
MDU-510-MOTT	031	1.0587
MDU-512-MAX	262	1.1221
MDU-522-NEW ENGLAND	031	1.0510
MDU-524-NEW SALEM	028	1.1230
MDU-532-NEW ROCKFORD	273	1.1472
MDU-539-PARK RIVER	273	1.1714
MDU-540-PALERMO	262	1.1221
MDU-558-RAY	264	1.1230
MDU-561-REGENT	031	1.0587

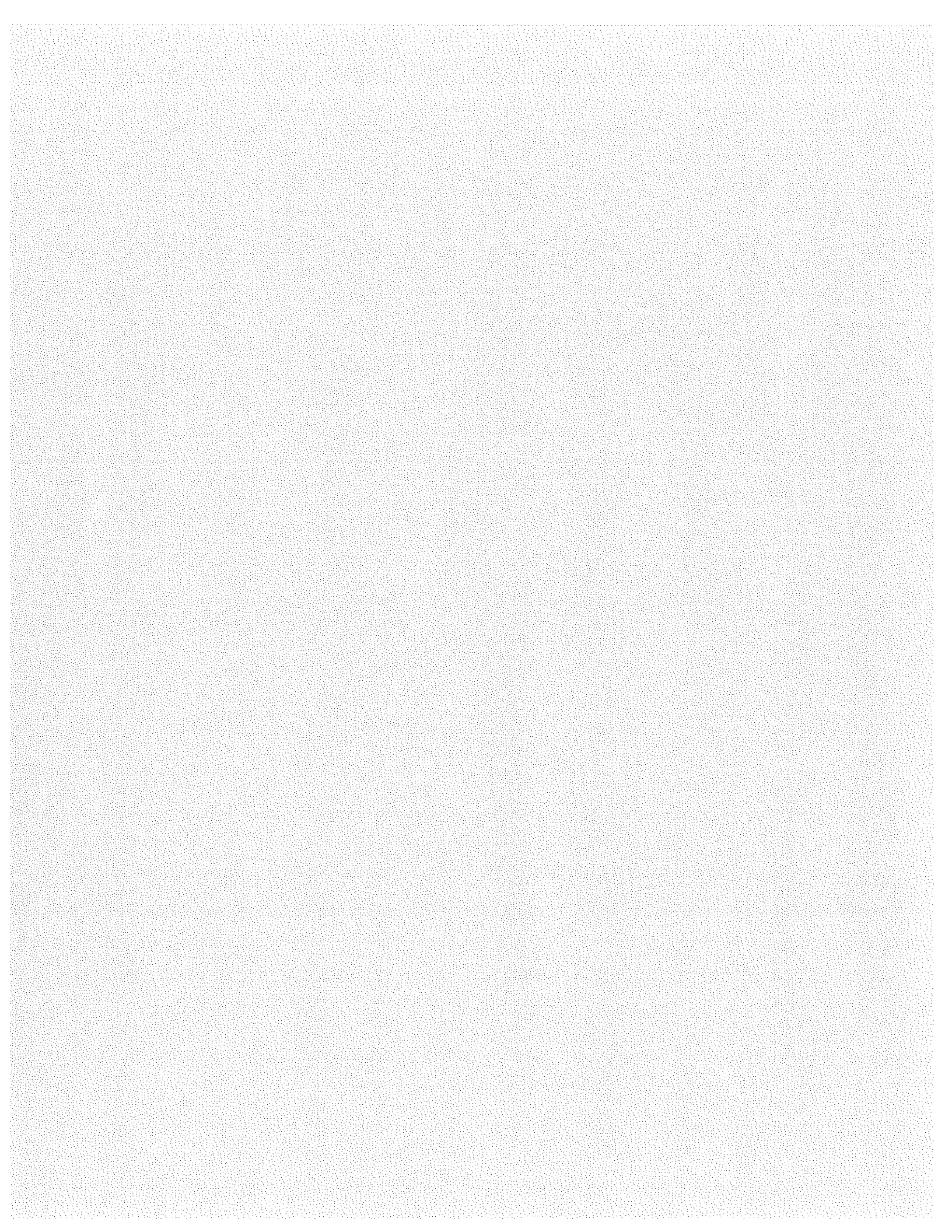
MDU-563-RHAME	034	1.0289
MDU-564-RICHARDTON	311	1.0901
MDU-568-ROSS	261	0.9433
MDU-572-RUTHVILLE	262	1.1463
MDU-574-SANBORN	272	1.1543
MDU-583-SENTINEL BUTTE	032	1.0766
MDU-588-SOUTH HEART	031	1.0510
MDU-717-SPIRITWOOD	272	1.1543
MDU-590-SPRINGBROOK	264	1.1230
MDU-591-STANLEY	261	0.9502
MDU-593-STEELE	271	1.1392
MDU-598-SHEYENNE	273	1.1553
MDU-605-SURREY	262	1.1463
MDU-610-TAPPEN	271	1.1392
MDU-611-TAYLOR	031	1.0510
MDU-616-TIOGA	261	0.9502
MDU-619-TURTLE LAKE	262	1.1301
MDU-620-TRENTON	024	1.1473
MDU-624-UNDERWOOD	262	1.1301
MDU-625-VALLEY CITY	272	1.1624
MDU-629-WALHALLA	273	1.1714
MDU-632-WATFORD CITY	610	1.1485
MDU-636-WHEELOCK	264	1.1149
MDU-637-WHITE EARTH	261	0.9502
MDU-642-WILLISTON	024	1.1473
MDU-646-WASHBURN	262	1.1382
MDU-647-WILTON	262	1.1221
MDU-664-RIVERDALE	262	1.1301
MDU-691-FAIRVIEW	241	1.1387
MDU-712-MINOT AFB	262	1.1463
MDU-718-FAIRMOUNT	600	1.1149
MDU-732-NEKOMA	273	1.1472
MDU-732-MSR SITE	273	1.1405



**Montana-Dakota Utilities Co.
Therm Billing Factors - North Dakota
July 2015**

Town	Heat Zone	Therm Factor
MDU-303-ALEXANDER	025	1.1400
MDU-308-ARNEGARD	025	1.1400
MDU-314-APPLE VALLEY	271	1.1443
MDU-318-BEACH	032	1.0803
MDU-319-BELFIELD	032	1.0882
MDU-323-BERTHOLD	262	1.1192
MDU-327-BISMARCK	028	1.1363
MDU-330-BOWMAN	034	1.0283
MDU-337-BURLINGTON	262	1.1434
MDU-343-CARRINGTON	273	1.1434
MDU-344-CLEVELAND	272	1.1353
MDU-364-CAVALIER	273	1.1675
MDU-365-DAWSON	271	1.1363
MDU-368-DES LACS	262	1.1273
MDU-369-DICKINSON	031	1.0568
MDU-374-FT TOTTEN	273	1.1553
MDU-375-DEVILS LAKE	273	1.1514
MDU-379-BARLOW	273	1.1434
MDU-384-EPPING	264	1.1211
MDU-387-ELDRIDGE	272	1.1443
MDU-407-GLADSTONE	031	1.0568
MDU-411-GLEN ULLIN	311	1.1032
MDU-413-GOLVA	032	1.0644
MDU-416-GARRISON	262	1.1273
MDU-417-GRAFTON	273	1.1755
MDU-421-HALLIDAY	031	1.0568
MDU-429-HEBRON	311	1.1032
MDU-432-HETTINGER	903	2.3875
MDU-449-JAMESTOWN	272	1.1524
MDU-459-KILLDEER	033	1.1173
MDU-463-LANGDON	273	1.1434
MDU-469-LEFOR	031	1.0568
MDU-474-LIGNITE	263	1.0531
MDU-475-LINTON	802	1.0305
MDU-478-LINCOLN	028	1.1443
MDU-488-MCKENZIE	271	1.1443
MDU-494-MEDINA	271	1.1363
MDU-498-MANDAN	028	1.1443
MDU-500-MARMARTH	034	1.0360
MDU-505-MINOT	262	1.1434
MDU-510-MOTT	031	1.0568
MDU-512-MAX	262	1.1434
MDU-522-NEW ENGLAND	031	1.0492
MDU-524-NEW SALEM	028	1.1202
MDU-532-NEW ROCKFORD	273	1.1434
MDU-539-PARK RIVER	273	1.1675
MDU-540-PALERMO	262	1.1192
MDU-558-RAY	264	1.1211
MDU-561-REGENT	031	1.0568

MDU-563-RHAME	034	1.0207
MDU-564-RICHARDTON	311	1.0873
MDU-568-ROSS	261	0.9621
MDU-572-RUTHVILLE	262	1.1434
MDU-574-SANBORN	272	1.1524
MDU-583-SENTINEL BUTTE	032	1.0803
MDU-588-SOUTH HEART	031	1.0492
MDU-717-SPIRITWOOD	272	1.1524
MDU-590-SPRINGBROOK	264	1.1211
MDU-591-STANLEY	261	0.9691
MDU-593-STEELE	271	1.1363
MDU-598-SHEYENNE	273	1.1514
MDU-605-SURREY	262	1.1434
MDU-610-TAPPEN	271	1.1363
MDU-611-TAYLOR	031	1.0492
MDU-616-TIOGA	261	0.9760
MDU-619-TURTLE LAKE	262	1.1273
MDU-620-TRENTON	024	1.1292
MDU-624-UNDERWOOD	262	1.1273
MDU-625-VALLEY CITY	272	1.1604
MDU-629-WALHALLA	273	1.1675
MDU-632-WATFORD CITY	610	1.1098
MDU-636-WHEELOCK	264	1.1131
MDU-637-WHITE EARTH	261	0.9691
MDU-642-WILLISTON	024	1.1292
MDU-646-WASHBURN	262	1.1353
MDU-647-WILTON	262	1.1192
MDU-664-RIVERDALE	262	1.1273
MDU-691-FAIRVIEW	241	1.1368
MDU-712-MINOT AFB	262	1.1434
MDU-718-FAIRMOUNT	600	1.1130
MDU-732-NEKOMA	273	1.1434
MDU-732-MSR SITE	273	1.1472



Montana-Dakota Utilities Co.
Therm Billing Factors - North Dakota
August 2015

Town	Heat Zone	Therm Factor
MDU-303-ALEXANDER	025	1.1221
MDU-308-ARNEGARD	025	1.1221
MDU-314-APPLE VALLEY	271	1.1588
MDU-318-BEACH	032	1.0914
MDU-319-BELFIELD	032	1.0994
MDU-323-BERTHOLD	262	1.1343
MDU-327-BISMARCK	028	1.1507
MDU-330-BOWMAN	034	1.0788
MDU-337-BURLINGTON	262	1.1588
MDU-343-CARRINGTON	273	1.1578
MDU-344-CLEVELAND	272	1.1497
MDU-364-CAVALIER	273	1.1823
MDU-365-DAWSON	271	1.1507
MDU-368-DES LACS	262	1.1425
MDU-369-DICKINSON	031	1.1074
MDU-374-FT TOTTEN	273	1.1660
MDU-375-DEVILS LAKE	273	1.1660
MDU-379-BARLOW	273	1.1578
MDU-384-EPPING	264	1.1051
MDU-387-ELDRIDGE	272	1.1578
MDU-407-GLADSTONE	031	1.1074
MDU-411-GLEN ULLIN	311	1.1334
MDU-413-GOLVA	032	1.0754
MDU-416-GARRISON	262	1.1425
MDU-417-GRAFTON	273	1.1904
MDU-421-HALLIDAY	031	1.0568
MDU-429-HEBRON	311	1.1334
MDU-432-HETTINGER	903	2.3875
MDU-449-JAMESTOWN	272	1.1660
MDU-459-KILLDEER	033	1.1192
MDU-463-LANGDON	273	1.1578
MDU-469-LEFOR	031	1.1074
MDU-474-LIGNITE	263	1.0664
MDU-475-LINTON	802	1.0199
MDU-478-LINCOLN	028	1.1588
MDU-488-MCKENZIE	271	1.1588
MDU-494-MEDINA	271	1.1507
MDU-498-MANDAN	028	1.1588
MDU-500-MARMARTH	034	1.0868
MDU-505-MINOT	262	1.1588
MDU-510-MOTT	031	1.1074
MDU-512-MAX	262	1.1343
MDU-522-NEW ENGLAND	031	1.0994
MDU-524-NEW SALEM	028	1.1588
MDU-532-NEW ROCKFORD	273	1.1578
MDU-539-PARK RIVER	273	1.1823
MDU-540-PALERMO	262	1.1343
MDU-558-RAY	264	1.1051
MDU-561-REGENT	031	1.1074

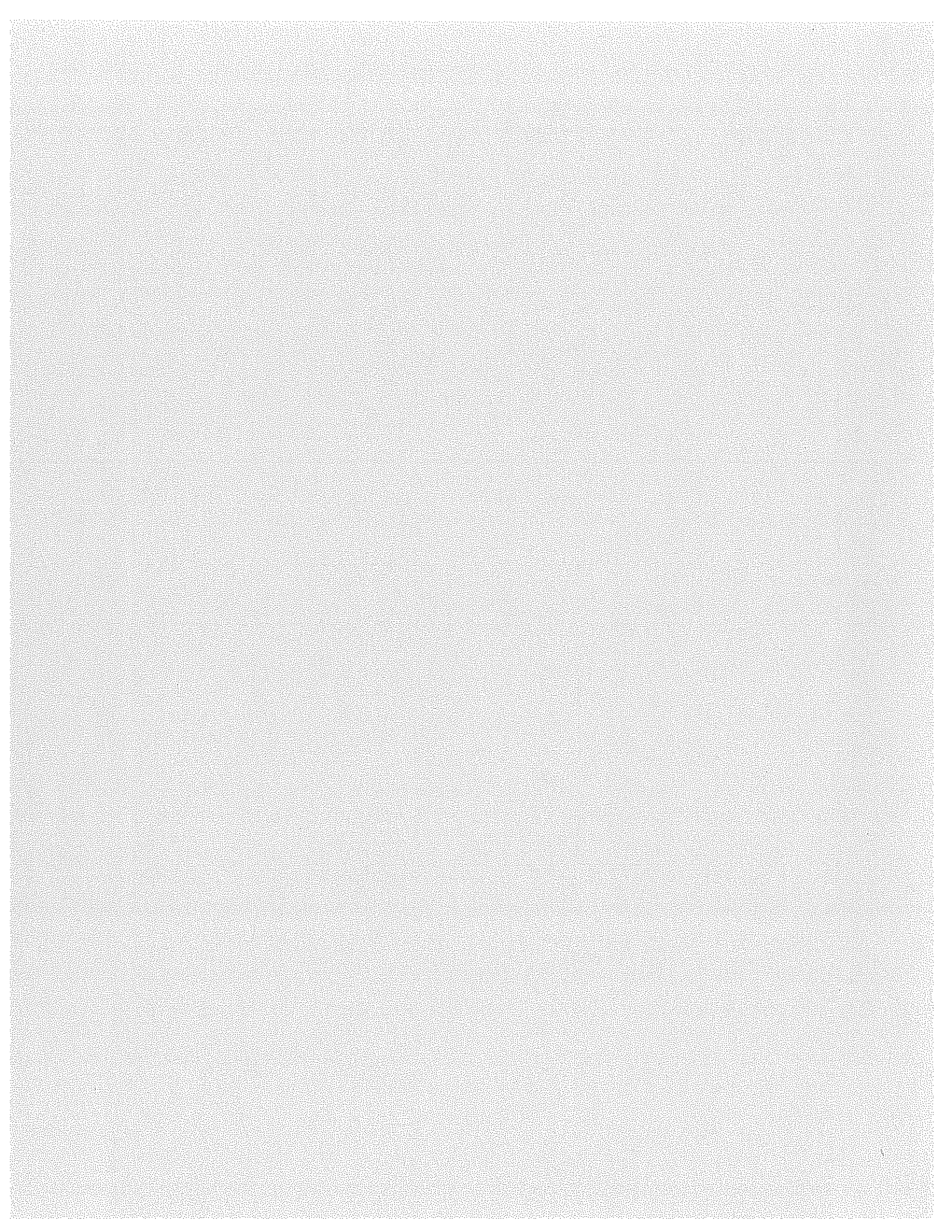
MDU-563-RHAME	034	1.0708
MDU-564-RICHARDTON	311	1.1171
MDU-568-ROSS	261	0.9640
MDU-572-RUTHVILLE	262	1.1434
MDU-574-SANBORN	272	1.1660
MDU-583-SENTINEL BUTTE	032	1.0914
MDU-588-SOUTH HEART	031	1.0994
MDU-717-SPIRITWOOD	272	1.1660
MDU-590-SPRINGBROOK	264	1.1051
MDU-591-STANLEY	261	0.9709
MDU-593-STEELE	271	1.1507
MDU-598-SHEYENNE	273	1.1660
MDU-605-SURREY	262	1.1588
MDU-610-TAPPEN	271	1.1507
MDU-611-TAYLOR	031	1.0994
MDU-616-TIOGA	261	0.9640
MDU-619-TURTLE LAKE	262	1.1425
MDU-620-TRENTON	024	1.1273
MDU-624-UNDERWOOD	262	1.1425
MDU-625-VALLEY CITY	272	1.1741
MDU-629-WALHALLA	273	1.1823
MDU-632-WATFORD CITY	610	1.0815
MDU-636-WHEELOCK	264	1.0971
MDU-637-WHITE EARTH	261	0.9709
MDU-642-WILLISTON	024	1.1273
MDU-646-WASHBURN	262	1.1507
MDU-647-WILTON	262	1.1343
MDU-664-RIVERDALE	262	1.1425
MDU-691-FAIRVIEW	241	1.1368
MDU-712-MINOT AFB	262	1.1588
MDU-718-FAIRMOUNT	600	1.1130
MDU-732-NEKOMA	273	1.1578
MDU-732-MSR SITE	273	1.1434

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Montana-Dakota Utilities Co.
Therm Billing Factors - North Dakota
September 2015

Town	Heat Zone	Therm Factor
MDU-303-ALEXANDER	025	1.1315
MDU-308-ARNEGARD	025	1.1315
MDU-314-APPLE VALLEY	271	1.1569
MDU-318-BEACH	032	1.0840
MDU-319-BELFIELD	032	1.0920
MDU-323-BERTHOLD	262	1.1343
MDU-327-BISMARCK	028	1.1497
MDU-330-BOWMAN	034	1.0394
MDU-337-BURLINGTON	262	1.1588
MDU-343-CARRINGTON	273	1.1569
MDU-344-CLEVELAND	272	1.1487
MDU-364-CAVALIER	273	1.1813
MDU-365-DAWSON	271	1.1487
MDU-368-DES LACS	262	1.1425
MDU-369-DICKINSON	031	1.0737
MDU-374-FT TOTTEN	273	1.1650
MDU-375-DEVILS LAKE	273	1.1650
MDU-379-BARLOW	273	1.1569
MDU-384-EPPING	264	1.0824
MDU-387-ELDRIDGE	272	1.1569
MDU-407-GLADSTONE	031	1.0737
MDU-411-GLEN ULLIN	311	1.0937
MDU-413-GOLVA	032	1.0681
MDU-416-GARRISON	262	1.1425
MDU-417-GRAFTON	273	1.1894
MDU-421-HALLIDAY	031	1.1074
MDU-429-HEBRON	311	1.0937
MDU-432-HETTINGER	903	2.3875
MDU-449-JAMESTOWN	272	1.1650
MDU-459-KILLDEER	033	1.1249
MDU-463-LANGDON	273	1.1569
MDU-469-LEFOR	031	1.0737
MDU-474-LIGNITE	263	1.0626
MDU-475-LINTON	802	1.0179
MDU-478-LINCOLN	028	1.1578
MDU-488-MCKENZIE	271	1.1569
MDU-494-MEDINA	271	1.1487
MDU-498-MANDAN	028	1.1578
MDU-500-MARMARTH	034	1.0470
MDU-505-MINOT	262	1.1588
MDU-510-MOTT	031	1.0737
MDU-512-MAX	262	1.1343
MDU-522-NEW ENGLAND	031	1.0659
MDU-524-NEW SALEM	028	1.1334
MDU-532-NEW ROCKFORD	273	1.1569
MDU-539-PARK RIVER	273	1.1813
MDU-540-PALERMO	262	1.1343
MDU-558-RAY	264	1.0824
MDU-561-REGENT	031	1.0737

MDU-563-RHAME	034	1.0317
MDU-564-RICHARDTON	311	1.0780
MDU-568-ROSS	261	0.9518
MDU-572-RUTHVILLE	262	1.1588
MDU-574-SANBORN	272	1.1650
MDU-583-SENTINEL BUTTE	032	1.0840
MDU-588-SOUTH HEART	031	1.0659
MDU-717-SPIRITWOOD	272	1.1650
MDU-590-SPRINGBROOK	264	1.0824
MDU-591-STANLEY	261	0.9587
MDU-593-STEELE	271	1.1487
MDU-598-SHEYENNE	273	1.1650
MDU-605-SURREY	262	1.1588
MDU-610-TAPPEN	271	1.1487
MDU-611-TAYLOR	031	1.0659
MDU-616-TIOGA	261	0.9656
MDU-619-TURTLE LAKE	262	1.1425
MDU-620-TRENTON	024	1.1216
MDU-624-UNDERWOOD	262	1.1425
MDU-625-VALLEY CITY	272	1.1732
MDU-629-WALHALLA	273	1.1813
MDU-632-WATFORD CITY	610	1.1306
MDU-636-WHEELOCK	264	1.0746
MDU-637-WHITE EARTH	261	0.9587
MDU-642-WILLISTON	024	1.1216
MDU-646-WASHBURN	262	1.1507
MDU-647-WILTON	262	1.1343
MDU-664-RIVERDALE	262	1.1425
MDU-691-FAIRVIEW	241	1.1301
MDU-712-MINOT AFB	262	1.1588
MDU-718-FAIRMOUNT	600	1.1179
MDU-732-NEKOMA	273	1.1569
MDU-732-MSR SITE	273	1.1578



Montana-Dakota Utilities Co.
Therm Billing Factors - North Dakota
October 2015

Town	Heat Zone	Therm Factor
MDU-303-ALEXANDER	025	1.1315
MDU-308-ARNEGARD	025	1.1315
MDU-314-APPLE VALLEY	271	1.1607
MDU-318-BEACH	032	1.0868
MDU-319-BELFIELD	032	1.0948
MDU-323-BERTHOLD	262	1.1343
MDU-327-BISMARCK	028	1.1607
MDU-330-BOWMAN	034	0.9403
MDU-337-BURLINGTON	262	1.1588
MDU-343-CARRINGTON	273	1.1607
MDU-344-CLEVELAND	272	1.1516
MDU-364-CAVALIER	273	1.1852
MDU-365-DAWSON	271	1.1526
MDU-368-DES LACS	262	1.1425
MDU-369-DICKINSON	031	1.4581
MDU-374-FT TOTTEN	273	1.1689
MDU-375-DEVILS LAKE	273	1.1689
MDU-379-BARLOW	273	1.1607
MDU-384-EPPING	264	1.0900
MDU-387-ELDRIDGE	272	1.1598
MDU-407-GLADSTONE	031	1.0887
MDU-411-GLEN ULLIN	311	1.1032
MDU-413-GOLVA	032	1.0708
MDU-416-GARRISON	262	1.1425
MDU-417-GRAFTON	273	1.1934
MDU-421-HALLIDAY	031	1.0887
MDU-429-HEBRON	311	1.1032
MDU-432-HETTINGER	903	2.3875
MDU-449-JAMESTOWN	272	1.1679
MDU-459-KILLDEER	033	1.1202
MDU-463-LANGDON	273	1.1607
MDU-469-LEFOR	031	1.0887
MDU-474-LIGNITE	263	1.0502
MDU-475-LINTON	802	1.0179
MDU-478-LINCOLN	028	1.1607
MDU-488-MCKENZIE	271	1.1607
MDU-494-MEDINA	271	1.1526
MDU-498-MANDAN	028	1.1607
MDU-500-MARMARTH	034	0.9472
MDU-505-MINOT	262	1.1588
MDU-510-MOTT	031	1.0887
MDU-512-MAX	262	1.1588
MDU-522-NEW ENGLAND	031	1.0808
MDU-524-NEW SALEM	028	1.1607
MDU-532-NEW ROCKFORD	273	1.1607
MDU-539-PARK RIVER	273	1.1852
MDU-540-PALERMO	262	1.1343
MDU-558-RAY	264	1.0900
MDU-561-REGENT	031	1.0887

MDU-563-RHAME	034	0.9333
MDU-564-RICHARDTON	311	1.0873
MDU-568-ROSS	261	0.9771
MDU-572-RUTHVILLE	262	1.1588
MDU-574-SANBORN	272	1.1679
MDU-583-SENTINEL BUTTE	032	1.0868
MDU-588-SOUTH HEART	031	1.0808
MDU-717-SPIRITWOOD	272	1.1679
MDU-590-SPRINGBROOK	264	1.0900
MDU-591-STANLEY	261	0.9842
MDU-593-STEELE	271	1.1526
MDU-598-SHEYENNE	273	1.1689
MDU-605-SURREY	262	1.1588
MDU-610-TAPPEN	271	1.1526
MDU-611-TAYLOR	031	1.0659
MDU-616-TIOGA	261	0.9771
MDU-619-TURTLE LAKE	262	1.1425
MDU-620-TRENTON	024	1.1092
MDU-624-UNDERWOOD	262	1.1425
MDU-625-VALLEY CITY	272	1.1761
MDU-629-WALHALLA	273	1.1852
MDU-632-WATFORD CITY	610	1.1306
MDU-636-WHEELOCK	264	1.0821
MDU-637-WHITE EARTH	261	0.9842
MDU-642-WILLISTON	024	1.1092
MDU-646-WASHBURN	262	1.1507
MDU-647-WILTON	262	1.1343
MDU-664-RIVERDALE	262	1.1425
MDU-691-FAIRVIEW	241	1.1197
MDU-712-MINOT AFB	262	1.1588
MDU-718-FAIRMOUNT	600	1.1218
MDU-732-NEKOMA	273	1.1607
MDU-732-MSR SITE	273	1.1569

GQ Source Daily Summary

April 2015

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 Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7351	1182.1	1203.0	1.207	3.826	68.429	22.196	3.994	0.117	0.211	0.011	0.008	0.000	0.000	0.000	0.000	0.000	1403.20	
2	0.7360	1184.2	1205.2	1.201	3.795	68.357	22.191	4.098	0.121	0.217	0.011	0.008	0.000	0.000	0.000	0.000	0.000	1404.78	
3	0.7371	1185.5	1206.5	1.202	3.816	68.264	22.142	4.215	0.122	0.219	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1405.26	
4	0.7377	1186.9	1207.9	1.197	3.792	68.193	22.193	4.267	0.121	0.217	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1406.38	
5	0.7377	1187.2	1208.3	1.194	3.776	68.171	22.254	4.246	0.121	0.218	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1406.79	
6	0.7396	1190.4	1211.4	1.187	3.778	68.097	21.999	4.586	0.119	0.215	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1408.63	
7	0.7353	1183.1	1204.1	1.202	3.791	68.597	21.864	4.189	0.120	0.216	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1404.16	
8	0.7372	1186.0	1207.0	1.196	3.797	68.373	21.925	4.350	0.121	0.217	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1405.84	
9	0.7351	1182.0	1202.9	1.199	3.846	68.466	22.110	4.022	0.120	0.216	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1403.02	
10	0.7354	1182.9	1203.9	1.194	3.828	68.366	22.258	4.000	0.119	0.215	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1403.84	
11	0.7353	1183.2	1204.2	1.195	3.798	68.482	22.088	4.073	0.122	0.220	0.012	0.009	0.000	0.000	0.000	0.000	0.000	1404.28	
12	0.7357	1184.1	1205.0	1.193	3.787	68.518	21.934	4.220	0.118	0.211	0.011	0.008	0.000	0.000	0.000	0.000	0.000	1404.90	
13	0.7354	1183.2	1204.2	1.199	3.796	68.540	21.955	4.158	0.119	0.213	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1404.23	
14	0.7353	1182.7	1203.6	1.200	3.824	68.597	21.828	4.185	0.123	0.222	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1403.61	
15	0.7342	1180.2	1201.1	1.190	3.879	69.097	21.028	4.414	0.132	0.238	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1401.78	
16	0.7319	1176.5	1197.3	1.205	3.870	69.067	21.548	3.936	0.125	0.227	0.012	0.009	0.000	0.000	0.000	0.000	0.000	1399.56	
17	0.7342	1181.4	1202.3	1.205	3.796	68.596	22.086	3.950	0.122	0.223	0.012	0.009	0.000	0.000	0.000	0.000	0.000	1403.10	
18	0.7350	1182.6	1203.5	1.205	3.796	68.556	22.004	4.077	0.121	0.220	0.012	0.009	0.000	0.000	0.000	0.000	0.000	1403.77	
19	0.7347	1181.9	1202.8	1.200	3.812	68.581	21.998	4.055	0.119	0.215	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1403.32	
20	0.7345	1181.7	1202.6	1.195	3.821	68.584	22.011	4.031	0.120	0.217	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1403.17	
21	0.7351	1182.9	1203.9	1.185	3.815	68.547	21.969	4.125	0.120	0.217	0.012	0.009	0.000	0.000	0.000	0.000	0.000	1404.09	
22	0.7349	1182.8	1203.8	1.181	3.807	68.586	21.955	4.106	0.122	0.222	0.012	0.009	0.000	0.000	0.000	0.000	0.000	1404.17	
23	0.7345	1182.2	1203.2	1.185	3.800	68.681	21.840	4.138	0.120	0.216	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1403.85	
24	0.7355	1183.3	1204.2	1.196	3.811	68.584	21.838	4.200	0.124	0.225	0.012	0.009	0.000	0.000	0.000	0.000	0.000	1404.15	
25	0.7352	1182.5	1203.4	1.196	3.828	68.589	21.863	4.167	0.119	0.216	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1403.52	
26	0.7345	1181.4	1202.3	1.199	3.829	68.714	21.733	4.177	0.117	0.211	0.011	0.008	0.000	0.000	0.000	0.000	0.000	1402.86	
27	0.7336	1180.1	1201.0	1.199	3.821	68.731	21.925	3.958	0.122	0.222	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1402.20	
28	0.7337	1180.2	1201.1	1.201	3.827	68.710	21.941	3.938	0.127	0.232	0.013	0.010	0.000	0.000	0.000	0.000	0.000	1402.15	
29	0.7355	1182.9	1203.9	1.202	3.817	68.616	21.815	4.151	0.133	0.243	0.013	0.011	0.000	0.000	0.000	0.000	0.000	1403.82	
30	0.7387	1188.3	1209.3	1.198	3.798	68.382	21.629	4.613	0.126	0.231	0.013	0.010	0.000	0.000	0.000	0.000	0.000	1407.06	
Avg	0.7355	1183.0	1204.1	1.197	3.813	68.536	21.937	4.155	0.122	0.220	0.012	0.009	0.000	0.000	0.000	0.000	0.000	1404.05	

Zone 211

GQ Source Analysis

GQ Source Number:	0602330	Specific Gravity:	0.6986
GQ Source Name:	WILLISTON BORDER	Dry Heat Value:	1174.22
Effective Date:	4/1/2015 9:00:00 AM	Wet Heat Value:	1153.79
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1174.22
Pressure Base:	14.730	Sample Pressure:	318.00
Viscosity:		Sample Temperature:	

	<u>Mol %</u>	<u>Liquid Content</u>		<u>Mol %</u>	
C1	Methane	73.480	CO2	Carbon Dioxide	0.793
C2	Ethane	20.411	N2	Nitrogen	2.726
C3	Propane	2.336	O2	Oxygen	0.000
IC4	Isobutane	0.075	He	Helium	
NC4	n-Butane	0.154	H2	Hydrogen	
IC5	Isopentane	0.012	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.013	Ar	Argon	
C6	Hexanes	0.000	CO	Carbon Monoxide	
C7	Heptanes		H2	Water	
C8	Octanes		Neo-C5	Neopentane	
C9	Nonanes				
C10	Decanes				

Totals 100.000% 6.166 GPM

Sample Date: 5/1/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: Rocky R.
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 24, 264

GQ Source Analysis

GQ Source Number:	0602160	Specific Gravity:	0.7321
GQ Source Name:	FAIRVIEW BORDER	Dry Heat Value:	1198.37
Effective Date:	4/1/2015 9:00:00 AM	Wet Heat Value:	1177.51
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1198.37
Pressure Base:	14.730	Sample Pressure:	364.00
Viscosity:		Sample Temperature:	

	<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>	
C1	Methane	68.770		CO2	Carbon Dioxide	1.198
C2	Ethane	21.797	5.8121	N2	Nitrogen	3.790
C3	Propane	4.057	1.1144	O2	Oxygen	0.012
IC4	Isobutane	0.130	0.0426	He	Helium	
NC4	n-Butane	0.224	0.0704	H2	Hydrogen	
IC5	Isopentane	0.012	0.0043	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.009	0.0034	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% 7.047 GPM

Sample Date: 5/1/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: Rocky R.
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 241

GQ Source Analysis

GQ Source Number:	0602230	Specific Gravity:	0.7295
GQ Source Name:	WATFORD CITY BORDER	Dry Heat Value:	1211.88
Effective Date:	4/1/2015 9:00:00 AM	Wet Heat Value:	1190.79
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1211.88
Pressure Base:	14.730	Sample Pressure:	357.00
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	69.418		CO2	Carbon Dioxide	0.965
C2	Ethane	22.188	0.0000	N2	Nitrogen	3.092
C3	Propane	3.651	1.0030	O2	Oxygen	0.007
IC4	Isobutane	0.205	0.0668	He	Helium	
NC4	n-Butane	0.406	0.1278	H2	Hydrogen	
IC5	Isopentane	0.032	0.0117	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.032	0.0116	Ar	Argon	
C6	Hexanes	0.002	0.0010	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					

Totals 100.000% 1.222 GPM

Sample Date: 5/1/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 25

GQ Source Daily Summary

April 2015

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	CCT
1	0.6153	1019.0	1037.0	0.237	3.987	88.224	6.671	0.773	0.027	0.064	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	1321.74
2	0.6548	1078.6	1097.7	0.455	3.736	81.731	12.077	1.717	0.072	0.173	0.017	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1356.34
3	0.5900	981.2	998.5	0.078	4.150	92.627	2.798	0.298	0.012	0.029	0.003	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1299.94
4	0.5795	965.7	982.8	0.012	4.213	94.421	1.245	0.088	0.005	0.012	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1290.98
5	0.6296	1039.6	1058.1	0.304	3.963	86.006	8.334	1.191	0.051	0.122	0.012	0.015	0.000	0.000	0.000	0.000	0.000	0.000	1333.40
6	0.6385	1053.0	1071.6	0.368	3.897	84.334	9.903	1.309	0.049	0.115	0.011	0.014	0.000	0.000	0.000	0.000	0.000	0.000	1341.05
7	0.6301	1039.6	1058.0	0.302	4.026	85.754	8.587	1.163	0.044	0.102	0.010	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1332.77
8	0.6375	1054.5	1073.2	0.252	3.890	83.905	10.862	0.984	0.030	0.065	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1343.92
9	0.6074	1007.6	1025.4	0.171	4.041	89.525	5.586	0.599	0.021	0.048	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1315.68
10	0.5888	979.6	997.0	0.066	4.155	92.773	2.721	0.249	0.010	0.022	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1299.22
11	0.5862	976.2	993.5	0.034	4.162	93.182	2.432	0.161	0.008	0.018	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1297.64
12	0.5796	966.7	983.8	0.008	4.169	94.384	1.344	0.077	0.004	0.011	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1292.19
13	0.5865	977.1	994.4	0.053	4.112	93.206	2.383	0.211	0.009	0.022	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1298.42
14	0.5834	970.8	988.0	0.031	4.233	93.707	1.863	0.142	0.006	0.015	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1293.57
15	0.5795	965.1	982.1	0.007	4.261	94.383	1.256	0.075	0.004	0.011	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1290.12
16	0.5936	986.0	1003.4	0.093	4.176	91.966	3.349	0.363	0.014	0.032	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1302.40
17	0.5969	991.4	1009.0	0.107	4.135	91.381	3.893	0.424	0.016	0.036	0.003	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1305.93
18	0.5962	992.3	1009.8	0.106	4.015	91.529	3.881	0.413	0.016	0.035	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1307.87
19	0.6165	1020.7	1038.8	0.229	4.006	88.006	6.831	0.821	0.029	0.066	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1323.00
20	0.6132	1015.3	1033.3	0.207	4.057	88.538	6.361	0.751	0.025	0.054	0.004	0.005	0.000	0.000	0.000	0.000	0.000	0.000	1319.56
21	0.6188	1024.4	1042.5	0.249	3.965	87.631	7.169	0.879	0.029	0.064	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1325.30
22	0.6099	1011.0	1028.9	0.193	4.035	89.159	5.823	0.701	0.024	0.055	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1317.46
23	0.6028	999.1	1016.7	0.147	4.166	90.354	4.711	0.549	0.020	0.045	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1309.50
24	0.5935	986.0	1003.5	0.092	4.167	91.957	3.390	0.346	0.013	0.030	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1302.52
25	0.5995	995.4	1013.0	0.123	4.118	90.919	4.299	0.478	0.017	0.039	0.003	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1308.25
26	0.5972	992.1	1009.7	0.108	4.117	91.321	3.970	0.427	0.016	0.035	0.002	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1306.54
27	0.5952	988.1	1005.6	0.101	4.184	91.650	3.640	0.375	0.014	0.031	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1303.46
28	0.5919	984.0	1001.4	0.080	4.155	92.224	3.191	0.310	0.011	0.025	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1301.67
29	0.5912	985.5	1003.0	0.064	4.025	92.305	3.311	0.258	0.010	0.023	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1304.42
30	0.6303	1041.8	1060.2	0.320	3.880	85.676	8.858	1.129	0.037	0.084	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	1335.19
Avg	0.6044	1003.0	1020.7	0.153	4.073	90.093	5.025	0.575	0.021	0.049	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1312.67

Zone 261

GQ Source Daily Summary

April 2015

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	ICS	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7334	1159.5	1180.0	0.703	5.812	68.595	20.069	4.301	0.158	0.336	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1377.89	
2	0.7202	1148.1	1168.5	0.664	5.325	70.801	18.881	3.842	0.144	0.314	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1376.86	
3	0.7438	1176.3	1197.1	0.768	5.663	66.936	21.478	4.609	0.166	0.349	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1388.07	
4	0.7501	1180.3	1201.2	0.787	5.978	65.909	21.895	4.868	0.173	0.360	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1386.99	
5	0.7464	1176.8	1197.6	0.769	5.880	66.546	21.475	4.768	0.172	0.360	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1386.19	
6	0.7266	1152.4	1172.8	0.689	5.627	69.751	19.334	4.110	0.148	0.313	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1375.82	
7	0.7369	1166.9	1187.5	0.744	5.630	68.007	20.730	4.376	0.156	0.325	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1383.34	
8	0.7357	1164.3	1184.9	0.733	5.682	68.235	20.472	4.371	0.153	0.323	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1381.53	
9	0.7393	1169.0	1189.7	0.745	5.715	67.615	20.949	4.458	0.157	0.328	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1383.72	
10	0.7435	1175.7	1196.5	0.743	5.709	66.890	21.551	4.582	0.158	0.334	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1387.67	
11	0.7442	1174.4	1195.2	0.757	5.833	66.851	21.347	4.678	0.162	0.340	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1385.50	
12	0.7489	1179.4	1200.3	0.776	5.939	66.101	21.803	4.823	0.170	0.355	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1387.02	
13	0.7478	1178.1	1199.0	0.770	5.924	66.293	21.649	4.807	0.171	0.354	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1386.52	
14	0.7443	1173.8	1194.6	0.759	5.880	66.787	21.404	4.634	0.164	0.341	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1384.63	
15	0.7418	1170.2	1191.0	0.748	5.874	67.218	21.054	4.581	0.161	0.335	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1382.80	
16	0.7435	1172.7	1193.5	0.752	5.877	66.995	21.183	4.634	0.169	0.359	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1384.12	
17	0.7381	1165.3	1185.9	0.729	5.859	67.912	20.452	4.500	0.165	0.353	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1380.38	
18	0.7349	1161.1	1181.7	0.713	5.835	68.452	20.055	4.405	0.162	0.349	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1378.43	
19	0.7359	1163.2	1183.7	0.719	5.796	68.332	20.145	4.458	0.165	0.356	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1379.92	
20	0.7319	1159.7	1180.3	0.697	5.663	69.025	19.701	4.385	0.160	0.341	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1379.60	
21	0.7332	1161.4	1182.0	0.714	5.662	68.750	19.985	4.358	0.159	0.342	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1380.33	
22	0.7350	1163.5	1184.1	0.722	5.685	68.504	20.119	4.420	0.164	0.354	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1381.16	
23	0.7349	1162.6	1183.2	0.721	5.729	68.503	20.096	4.396	0.165	0.358	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1380.23	
24	0.7377	1165.0	1185.6	0.730	5.840	68.031	20.336	4.498	0.169	0.365	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1380.38	
25	0.7416	1170.1	1190.8	0.743	5.874	67.404	20.779	4.613	0.174	0.380	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1382.78	
26	0.7343	1160.2	1180.7	0.713	5.841	68.567	19.938	4.388	0.164	0.358	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1377.83	
27	0.7363	1161.4	1181.9	0.726	5.936	68.203	20.159	4.418	0.166	0.362	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1377.41	
28	0.7363	1163.7	1184.3	0.721	5.800	68.297	20.131	4.486	0.169	0.366	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1380.16	
29	0.7381	1165.7	1186.4	0.729	5.829	68.004	20.339	4.523	0.171	0.373	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1380.92	
30	0.7398	1166.8	1187.4	0.739	5.914	67.737	20.422	4.610	0.172	0.374	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1380.51	
Avg	0.7385	1167.0	1187.6	0.734	5.787	67.842	20.598	4.497	0.163	0.349	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1381.96	

Zone 2b2

GQ Source Analysis

GQ Source Number:	2501030	Specific Gravity:	0.6479
GQ Source Name:	LIGNITE PLANT	Dry Heat Value:	1089.97
Effective Date:	4/1/2015 9:00:00 AM	Wet Heat Value:	1071.00
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1089.97
Pressure Base:	14.730	Sample Pressure:	300.00
Viscosity:		Sample Temperature:	

	<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>	
C1	Methane	80.971		CO2	Carbon Dioxide	0.100
C2	Ethane	14.102	3.7602	N2	Nitrogen	4.067
C3	Propane	0.749	0.2056	O2	Oxygen	0.009
IC4	Isobutane	0.000	0.0000	He	Helium	
NC4	n-Butane	0.000	0.0000	H2	Hydrogen	
IC5	Isopentane	0.000	0.0000	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.000	0.0000	Ar	Argon	
C6	Hexanes	0.003	0.0014	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					

Totals 100.000% 3.967 GPM

Sample Date: 5/1/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 2b3

*** End of Report ***

GQ Source Daily Summary

April 2015

Number: 161

Pressure Base: 14.730

Contract Day: 1

Name: NORTH TIOGA TRANSFER-PORTAL

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	0.7153	1166.7	1187.4	0.837	3.475	71.274	21.093	2.892	0.110	0.263	0.025	0.031	0.000	0.000	0.000	0.000	0.000	1403.85	
2	0.7176	1170.6	1191.3	0.827	3.466	71.169	20.945	3.086	0.128	0.310	0.030	0.038	0.000	0.000	0.000	0.000	0.000	1406.29	
3	0.7135	1163.4	1184.0	0.839	3.501	71.503	20.953	2.804	0.103	0.244	0.024	0.030	0.000	0.000	0.000	0.000	0.000	1401.69	
4	0.7145	1166.1	1186.7	0.812	3.471	71.397	20.943	2.980	0.108	0.245	0.020	0.023	0.000	0.000	0.000	0.000	0.000	1403.95	
5	0.7182	1171.0	1191.7	0.837	3.479	71.096	20.980	3.101	0.128	0.309	0.030	0.039	0.000	0.000	0.000	0.000	0.000	1406.21	
6	0.7154	1166.7	1187.3	0.838	3.483	71.269	21.068	2.922	0.110	0.258	0.024	0.029	0.000	0.000	0.000	0.000	0.000	1403.75	
7	0.7155	1167.1	1187.8	0.812	3.499	71.325	20.919	3.019	0.111	0.261	0.024	0.029	0.000	0.000	0.000	0.000	0.000	1404.24	
8	0.7135	1163.9	1184.5	0.832	3.484	71.326	21.175	2.870	0.088	0.193	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1402.28	
9	0.7106	1159.1	1179.7	0.823	3.517	71.701	20.990	2.656	0.085	0.192	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1399.37	
10	0.7109	1160.0	1180.5	0.823	3.494	71.612	21.069	2.714	0.082	0.178	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1400.12	
11	0.7147	1165.5	1186.1	0.838	3.484	71.340	21.017	2.947	0.101	0.229	0.020	0.025	0.000	0.000	0.000	0.000	0.000	1403.08	
12	0.7121	1162.1	1182.7	0.824	3.476	71.487	21.140	2.754	0.090	0.197	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1401.49	
13	0.7111	1160.3	1180.9	0.828	3.480	71.702	20.955	2.703	0.091	0.204	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1400.35	
14	0.7105	1160.1	1180.7	0.819	3.446	71.851	20.803	2.778	0.084	0.185	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1400.76	
15	0.7081	1156.6	1177.1	0.819	3.444	72.006	20.875	2.601	0.074	0.159	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1396.79	
16	0.7122	1161.8	1182.4	0.862	3.441	71.535	21.102	2.737	0.090	0.199	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1401.07	
17	0.7128	1163.3	1183.9	0.838	3.446	71.320	21.371	2.717	0.086	0.189	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1402.25	
18	0.7114	1160.4	1181.0	0.843	3.487	71.525	21.142	2.719	0.083	0.176	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1400.10	
19	0.7141	1164.5	1185.1	0.855	3.472	71.269	21.222	2.839	0.093	0.209	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1402.36	
20	0.7120	1161.8	1182.3	0.827	3.480	71.500	21.101	2.799	0.084	0.182	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1401.20	
21	0.7129	1162.9	1183.5	0.853	3.451	71.448	21.110	2.827	0.087	0.190	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1401.73	
22	0.7124	1161.8	1182.3	0.837	3.495	71.626	20.852	2.853	0.091	0.205	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1400.87	
23	0.7131	1163.7	1184.3	0.848	3.432	71.431	21.118	2.840	0.091	0.204	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1402.48	
24	0.7113	1159.9	1180.5	0.862	3.468	71.748	20.832	2.769	0.088	0.196	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1399.71	
25	0.7103	1159.4	1179.9	0.848	3.437	71.893	20.765	2.733	0.088	0.199	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1399.95	
26	0.7102	1159.4	1179.9	0.841	3.439	71.900	20.732	2.781	0.087	0.190	0.014	0.017	0.000	0.000	0.000	0.000	0.000	1400.06	
27	0.7092	1158.0	1178.5	0.839	3.433	72.083	20.611	2.723	0.085	0.191	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1399.34	
28	0.7106	1161.0	1181.6	0.840	3.375	71.840	20.812	2.840	0.084	0.181	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1401.68	
29	0.7106	1160.0	1180.5	0.854	3.410	71.975	20.600	2.836	0.090	0.199	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1400.50	
30	0.7112	1161.7	1182.3	0.837	3.390	71.821	20.804	2.825	0.089	0.197	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1401.95	
Avg	0.7125	1163.0	1183.2	0.836	3.462	71.566	20.970	2.822	0.094	0.211	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1401.72	

Zone 265

GQ Source Daily Summary

April 2015

Number: 043

Pressure Base: 14.730

Contract Day: 1

Name: BISMARCK STATION-CLEVELAND STATION

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	0.7342	1161.8	1182.4	0.694	5.754	68.555	20.126	4.331	0.160	0.346	0.016	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1379.94	
2	0.7125	1139.6	1159.8	0.650	5.136	72.140	18.053	3.556	0.137	0.294	0.018	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1374.07	
3	0.7375	1173.4	1194.2	0.731	5.302	67.898	21.300	4.248	0.156	0.326	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1390.62	
4	0.7458	1178.7	1199.6	0.755	5.724	66.604	21.722	4.642	0.168	0.349	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1389.04	
5	0.7356	1169.4	1190.1	0.739	5.364	68.295	20.813	4.266	0.159	0.328	0.019	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1387.54	
6	0.7153	1145.3	1165.6	0.647	5.058	71.522	18.786	3.551	0.132	0.271	0.017	0.016	0.000	0.000	0.000	0.000	0.000	0.000	1378.19	
7	0.7272	1158.2	1178.8	0.697	5.316	69.631	19.863	4.016	0.144	0.299	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1382.25	
8	0.7312	1161.5	1182.0	0.704	5.480	69.006	20.122	4.194	0.146	0.310	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1382.34	
9	0.7391	1170.2	1190.9	0.731	5.651	67.686	20.975	4.433	0.156	0.331	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1385.25	
10	0.7407	1172.3	1193.1	0.729	5.672	67.461	21.082	4.528	0.156	0.334	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1386.28	
11	0.7455	1177.0	1197.8	0.750	5.806	66.742	21.403	4.739	0.167	0.354	0.019	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1387.32	
12	0.7515	1183.7	1204.7	0.777	5.918	65.738	22.074	4.912	0.176	0.368	0.019	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1389.68	
13	0.7452	1176.0	1196.8	0.747	5.844	66.781	21.338	4.731	0.169	0.354	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1386.40	
14	0.7408	1170.1	1190.8	0.734	5.814	67.418	20.957	4.545	0.159	0.337	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1383.50	
15	0.7428	1173.0	1193.8	0.740	5.817	67.114	21.171	4.600	0.167	0.355	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1385.07	
16	0.7413	1170.6	1191.4	0.731	5.830	67.418	20.861	4.567	0.169	0.367	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1383.69	
17	0.7343	1160.8	1181.3	0.705	5.810	68.631	19.890	4.412	0.163	0.355	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1378.61	
18	0.7351	1162.5	1183.1	0.710	5.779	68.488	20.041	4.428	0.163	0.355	0.017	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1379.82	
19	0.7347	1162.7	1183.3	0.703	5.732	68.635	19.909	4.455	0.166	0.363	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1380.53	
20	0.7319	1160.4	1180.9	0.692	5.635	69.089	19.642	4.401	0.161	0.345	0.017	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1380.32	
21	0.7316	1159.9	1180.4	0.698	5.619	69.100	19.722	4.320	0.159	0.346	0.017	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1380.11	
22	0.7350	1164.2	1184.8	0.714	5.655	68.585	20.037	4.445	0.165	0.362	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1381.97	
23	0.7337	1161.5	1182.0	0.708	5.705	68.782	19.859	4.379	0.165	0.366	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1380.01	
24	0.7402	1169.1	1189.8	0.733	5.816	67.758	20.475	4.622	0.175	0.384	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1382.93	
25	0.7350	1161.8	1182.4	0.710	5.811	68.516	19.987	4.409	0.166	0.366	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1379.12	
26	0.7385	1166.6	1187.3	0.727	5.822	67.954	20.392	4.524	0.170	0.375	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1381.52	
27	0.7338	1160.9	1181.5	0.703	5.755	68.744	19.848	4.382	0.165	0.366	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1379.28	
28	0.7377	1166.4	1187.0	0.720	5.765	68.148	20.254	4.526	0.171	0.379	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1382.06	
29	0.7387	1166.2	1186.8	0.724	5.862	68.016	20.206	4.601	0.173	0.380	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1380.90	
30	0.7367	1162.9	1183.5	0.711	5.899	68.362	19.871	4.565	0.173	0.381	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1378.84	
Avg	0.7361	1166.0	1186.2	0.717	5.672	68.294	20.360	4.411	0.162	0.348	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1382.57	

Zone 271

GQ Source Daily Summary

April 2015

Number: 063

Pressure Base: 14.730

Contract Day: 1

Name: CLEVELAND STATION-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	0.7323	1158.0	1178.6	0.695	5.808	68.794	19.912	4.266	0.156	0.337	0.016	0.016	0.000					1377.22	
2	0.7292	1155.1	1175.5	0.685	5.716	69.340	19.560	4.177	0.155	0.333	0.017	0.017	0.000					1376.54	
3	0.7179	1150.4	1170.8	0.684	4.938	71.147	19.150	3.619	0.137	0.288	0.019	0.018	0.000					1381.77	
4	0.7434	1176.2	1197.0	0.750	5.657	66.944	21.576	4.532	0.164	0.341	0.019	0.018	0.000					1388.38	
5	0.7425	1175.6	1196.4	0.757	5.607	67.138	21.427	4.527	0.166	0.341	0.019	0.018	0.000					1388.38	
6	0.7176	1147.7	1168.0	0.669	5.103	71.135	19.021	3.626	0.136	0.275	0.018	0.016	0.000					1378.76	
7	0.7237	1154.1	1174.5	0.678	5.262	70.172	19.537	3.885	0.140	0.291	0.018	0.017	0.000					1380.70	
8	0.7267	1155.3	1175.7	0.698	5.443	69.637	19.770	3.981	0.141	0.295	0.017	0.017	0.000					1379.25	
9	0.7356	1165.2	1185.9	0.721	5.644	68.255	20.496	4.373	0.153	0.321	0.018	0.019	0.000					1382.61	
10	0.7411	1172.1	1192.9	0.731	5.719	67.287	21.243	4.498	0.156	0.329	0.018	0.019	0.000					1385.68	
11	0.7433	1173.6	1194.4	0.743	5.820	67.039	21.196	4.660	0.162	0.342	0.019	0.020	0.000					1385.33	
12	0.7456	1175.4	1196.2	0.755	5.904	66.644	21.446	4.699	0.166	0.348	0.019	0.019	0.000					1385.38	
13	0.7502	1181.2	1202.1	0.772	5.962	65.922	21.900	4.872	0.174	0.361	0.019	0.019	0.000					1387.87	
14	0.7400	1168.6	1189.3	0.729	5.833	67.567	20.804	4.533	0.161	0.336	0.018	0.018	0.000					1382.55	
15	0.7391	1167.1	1187.8	0.730	5.842	67.684	20.727	4.490	0.158	0.334	0.017	0.018	0.000					1381.58	
16	0.7422	1171.1	1191.9	0.737	5.876	67.254	20.961	4.605	0.169	0.362	0.018	0.018	0.000					1383.45	
17	0.7361	1162.8	1183.3	0.714	5.850	68.272	20.177	4.437	0.163	0.352	0.017	0.017	0.000					1379.22	
18	0.7345	1160.8	1181.4	0.706	5.827	68.561	19.960	4.398	0.162	0.352	0.017	0.017	0.000					1378.45	
19	0.7359	1163.2	1183.8	0.713	5.804	68.350	20.129	4.446	0.165	0.358	0.018	0.018	0.000					1379.95	
20	0.7311	1158.3	1178.9	0.687	5.687	69.198	19.532	4.355	0.160	0.346	0.018	0.018	0.000					1378.71	
21	0.7337	1162.4	1183.0	0.706	5.660	68.724	19.970	4.403	0.160	0.341	0.018	0.018	0.000					1381.02	
22	0.7315	1159.4	1179.9	0.698	5.647	69.087	19.716	4.309	0.160	0.347	0.018	0.018	0.000					1379.52	
23	0.7352	1163.7	1184.3	0.715	5.701	68.517	20.074	4.430	0.165	0.360	0.018	0.019	0.000					1381.21	
24	0.7340	1161.1	1181.7	0.709	5.759	68.677	19.916	4.378	0.164	0.361	0.018	0.019	0.000					1379.27	
25	0.7421	1171.1	1191.9	0.739	5.862	67.362	20.814	4.626	0.175	0.383	0.019	0.020	0.000					1383.56	
26	0.7307	1155.8	1176.3	0.691	5.801	69.182	19.510	4.272	0.160	0.349	0.018	0.018	0.000					1376.05	
27	0.7343	1160.2	1180.8	0.708	5.838	68.607	19.910	4.379	0.164	0.358	0.018	0.018	0.000					1377.96	
28	0.7362	1163.5	1184.1	0.716	5.810	68.333	20.108	4.461	0.168	0.367	0.018	0.018	0.000					1379.99	
29	0.7379	1165.6	1186.2	0.722	5.835	68.077	20.248	4.538	0.171	0.373	0.019	0.019	0.000					1380.87	
30	0.7386	1165.3	1185.9	0.723	5.917	67.982	20.206	4.582	0.173	0.378	0.019	0.019	0.000					1379.86	
Avg	0.7354	1164.0	1184.6	0.716	5.704	68.363	20.300	4.379	0.160	0.342	0.018	0.018	0.000					1381.37	

Zone 272

GQ Source Daily Summary

April 2015

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	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7296	1153.4	1173.8	0.695	5.841	69.081	19.799	4.119	0.143	0.297	0.012	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1374.18
2	0.7248	1147.4	1167.7	0.689	5.761	69.800	19.391	3.939	0.132	0.268	0.011	0.009	0.000	0.000	0.000	0.000	0.000	0.000	1371.62
3	0.7139	1143.7	1163.9	0.682	4.974	71.558	18.987	3.421	0.118	0.236	0.013	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1377.58
4	0.7345	1160.8	1181.4	0.755	5.761	67.853	21.227	4.041	0.121	0.227	0.008	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1378.43
5	0.7326	1158.2	1178.7	0.763	5.723	68.170	21.021	3.977	0.118	0.215	0.007	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1377.19
6	0.7152	1143.6	1163.8	0.670	5.122	71.373	18.938	3.504	0.124	0.243	0.014	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1376.20
7	0.7225	1152.0	1172.4	0.679	5.283	70.262	19.512	3.826	0.134	0.273	0.015	0.014	0.000	0.000	0.000	0.000	0.000	0.000	1379.24
8	0.7253	1152.4	1172.8	0.701	5.486	69.743	19.742	3.900	0.132	0.269	0.014	0.013	0.000	0.000	0.000	0.000	0.000	0.000	1377.11
9	0.7341	1162.5	1183.1	0.724	5.665	68.422	20.433	4.272	0.146	0.304	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1380.77
10	0.7394	1169.3	1190.0	0.734	5.736	67.437	21.230	4.376	0.147	0.307	0.016	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1383.84
11	0.7419	1171.3	1192.1	0.744	5.826	67.182	21.150	4.579	0.156	0.326	0.018	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1383.96
12	0.7440	1172.5	1193.2	0.757	5.932	66.819	21.361	4.607	0.160	0.331	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1383.39
13	0.7483	1177.7	1198.5	0.773	5.994	66.143	21.781	4.760	0.167	0.346	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1385.53
14	0.7398	1168.1	1188.8	0.730	5.845	67.573	20.804	4.522	0.159	0.332	0.017	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1382.13
15	0.7386	1166.2	1186.9	0.731	5.845	67.744	20.697	4.466	0.156	0.327	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1381.04
16	0.7412	1169.3	1190.0	0.738	5.890	67.365	20.910	4.549	0.164	0.350	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1382.25
17	0.7360	1162.6	1183.2	0.714	5.850	68.279	20.179	4.431	0.163	0.350	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1379.13
18	0.7345	1160.8	1181.3	0.706	5.829	68.554	19.968	4.395	0.162	0.351	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1378.40
19	0.7352	1161.8	1182.4	0.714	5.818	68.415	20.106	4.406	0.161	0.346	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1379.02
20	0.7312	1158.4	1179.0	0.688	5.688	69.184	19.543	4.356	0.160	0.346	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1378.74
21	0.7335	1161.8	1182.4	0.706	5.672	68.751	19.950	4.387	0.159	0.339	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1380.55
22	0.7315	1159.1	1179.6	0.698	5.657	69.095	19.700	4.309	0.160	0.346	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1379.27
23	0.7353	1163.8	1184.5	0.717	5.703	68.485	20.105	4.428	0.165	0.360	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1381.27
24	0.7339	1160.9	1181.5	0.708	5.762	68.699	19.895	4.374	0.164	0.361	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1379.13
25	0.7419	1170.8	1191.6	0.739	5.864	67.389	20.793	4.618	0.174	0.383	0.019	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1383.37
26	0.7282	1152.5	1173.0	0.682	5.775	69.595	19.219	4.197	0.156	0.341	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1374.54
27	0.7303	1155.3	1175.8	0.691	5.793	69.232	19.499	4.244	0.158	0.346	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1375.83
28	0.7356	1162.5	1183.1	0.715	5.809	68.432	20.042	4.434	0.167	0.365	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1379.48
29	0.7376	1165.0	1185.6	0.721	5.841	68.120	20.215	4.523	0.170	0.372	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1380.49
30	0.7383	1164.7	1185.3	0.723	5.922	68.031	20.169	4.567	0.173	0.377	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1379.47
Avg	0.7336	1161.0	1181.5	0.716	5.722	68.560	20.212	4.284	0.152	0.321	0.016	0.016	0.000	0.000	0.000	0.000	0.000	0.000	1379.44

Zone 273

GQ Source Daily Summary

April 2015

Number: 041

Pressure Base: 14.730

Contract Day: 1

Name: BISMARCK STATION-GLEN ULLIN STATION

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	0.7309	1158.9	1179.4	0.700	5.616	69.079	19.895	4.184	0.156	0.335	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1379.61
2	0.6500	1085.4	1104.6	1.081	1.916	82.924	13.064	0.760	0.103	0.085	0.045	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1369.96
3	0.6727	1127.9	1147.8	0.484	2.376	77.336	18.834	0.828	0.055	0.054	0.021	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1399.59
4	0.6690	1126.1	1146.0	0.442	2.205	77.794	18.787	0.656	0.048	0.038	0.020	0.010	0.000	0.000	0.000	0.000	0.000	0.000	1401.15
5	0.6592	1106.4	1126.0	0.603	2.241	80.172	16.073	0.755	0.064	0.052	0.026	0.013	0.000	0.000	0.000	0.000	0.000	0.000	1386.71
6	0.6620	1108.3	1127.9	0.475	2.583	79.441	16.505	0.866	0.053	0.048	0.020	0.010	0.000	0.000	0.000	0.000	0.000	0.000	1386.22
7	0.6562	1088.1	1107.4	0.416	3.351	80.781	14.041	1.283	0.050	0.058	0.013	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1366.99
8	0.6642	1101.6	1121.1	0.427	3.268	79.262	15.523	1.397	0.049	0.055	0.013	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1375.56
9	0.6855	1118.2	1138.0	0.502	4.132	76.014	16.797	2.298	0.083	0.147	0.014	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1374.68
10	0.7253	1155.9	1176.4	0.686	5.291	69.927	19.689	3.948	0.138	0.287	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1381.44
11	0.7447	1176.1	1196.9	0.748	5.797	66.861	21.329	4.709	0.165	0.351	0.019	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1386.90
12	0.7511	1183.1	1204.1	0.776	5.921	65.794	22.029	4.899	0.175	0.367	0.019	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1389.34
13	0.7322	1162.6	1183.2	0.708	5.499	68.844	20.210	4.236	0.153	0.316	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1382.87
14	0.7361	1165.6	1186.2	0.713	5.677	68.156	20.582	4.360	0.154	0.323	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1382.67
15	0.7426	1172.6	1193.4	0.740	5.817	67.151	21.145	4.592	0.166	0.354	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1384.87
16	0.7415	1170.9	1191.6	0.732	5.830	67.393	20.898	4.574	0.169	0.368	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1383.83
17	0.7341	1160.5	1181.1	0.704	5.804	68.671	19.863	4.408	0.163	0.354	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1378.55
18	0.7352	1162.5	1183.1	0.711	5.779	68.482	20.044	4.429	0.164	0.356	0.017	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1379.84
19	0.7351	1163.2	1183.8	0.704	5.737	68.572	19.954	4.466	0.167	0.364	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1380.73
20	0.7316	1159.9	1180.4	0.690	5.633	69.151	19.596	4.391	0.160	0.344	0.017	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1380.08
21	0.7315	1159.9	1180.4	0.698	5.615	69.104	19.723	4.319	0.159	0.346	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1380.16
22	0.7347	1163.9	1184.5	0.713	5.650	68.622	20.021	4.431	0.165	0.361	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1381.86
23	0.7336	1161.4	1182.0	0.708	5.706	68.786	19.852	4.380	0.166	0.366	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1379.99
24	0.7393	1167.8	1188.4	0.730	5.816	67.894	20.382	4.588	0.173	0.380	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1382.21
25	0.7359	1163.0	1183.6	0.713	5.817	68.389	20.058	4.446	0.168	0.371	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1379.70
26	0.7381	1166.0	1186.7	0.724	5.821	68.024	20.340	4.510	0.170	0.374	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1381.22
27	0.7339	1161.1	1181.7	0.705	5.755	68.714	19.878	4.382	0.165	0.365	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1379.37
28	0.7376	1166.1	1186.7	0.719	5.773	68.169	20.227	4.524	0.171	0.379	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1381.82
29	0.7382	1165.6	1186.2	0.723	5.853	68.096	20.157	4.583	0.172	0.379	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1380.69
30	0.7369	1163.1	1183.7	0.712	5.905	68.327	19.893	4.571	0.173	0.382	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1378.88
Avg	0.7173	1150.0	1170.1	0.673	4.939	71.198	19.180	3.559	0.137	0.279	0.019	0.016	0.000	0.000	0.000	0.000	0.000	0.000	1381.92

Zone 28

GQ Source Daily Summary

April 2015

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	0.6830	1153.2	1173.6	0.000	2.547	74.071	22.676	0.689	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.11	
2	0.6822	1152.0	1172.4	0.000	2.546	74.187	22.600	0.651	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.47	
3	0.6810	1148.0	1168.4	0.029	2.626	74.629	21.892	0.799	0.011	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.83	
4	0.6757	1139.8	1160.0	0.020	2.643	75.624	20.960	0.730	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1411.14	
5	0.6696	1126.3	1146.3	0.048	2.854	76.900	19.401	0.768	0.012	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1400.74	
6	0.6633	1099.6	1119.0	0.198	3.656	78.967	15.677	1.420	0.032	0.048	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1373.96	
7	0.6682	1109.2	1128.8	0.158	3.591	77.961	16.758	1.464	0.027	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1380.90	
8	0.6551	1090.3	1109.6	0.099	3.605	80.138	15.039	1.074	0.019	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1370.83	
9	0.6563	1093.8	1113.1	0.101	3.496	80.059	15.114	1.159	0.027	0.042	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1374.03	
10	0.6594	1103.5	1123.1	0.076	3.233	79.141	16.590	0.918	0.017	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1382.99	
11	0.6702	1123.6	1143.5	0.060	3.050	77.145	18.606	1.078	0.023	0.037	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1396.76	
12	0.6659	1112.5	1132.2	0.085	3.286	78.018	17.454	1.103	0.021	0.031	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1387.43	
13	0.6675	1116.0	1135.8	0.082	3.228	77.472	18.271	0.910	0.015	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1390.12	
14	0.6746	1131.9	1152.0	0.048	2.980	76.000	20.037	0.909	0.011	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1402.50	
15	0.6804	1145.7	1166.0	0.019	2.731	74.745	21.647	0.833	0.009	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.51	
16	0.6763	1134.7	1154.8	0.047	2.968	75.702	20.315	0.940	0.012	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1404.24	
17	0.6614	1107.1	1126.8	0.488	2.574	79.413	16.576	0.838	0.046	0.040	0.017	0.008	0.000	0.000	0.000	0.000	0.000	0.000	1385.09	
18	0.6217	1036.0	1054.4	1.653	1.384	89.376	6.629	0.604	0.146	0.106	0.069	0.033	0.000	0.000	0.000	0.000	0.000	0.000	1337.26	
19	0.6717	1131.6	1151.7	0.311	2.319	76.943	19.643	0.705	0.033	0.027	0.013	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1404.88	
20	0.6827	1152.8	1173.2	0.000	2.548	74.105	22.659	0.672	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.85	
21	0.6824	1151.8	1172.2	0.000	2.573	74.164	22.586	0.661	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.03	
22	0.6828	1152.8	1173.2	0.000	2.547	74.180	22.507	0.748	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.89	
23	0.6769	1132.2	1152.3	0.113	3.073	75.775	19.940	1.050	0.019	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1400.57	
24	0.6813	1145.9	1166.2	0.052	2.747	74.728	21.501	0.940	0.013	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.90	
25	0.6784	1139.5	1159.7	0.068	2.838	75.361	20.731	0.958	0.017	0.027	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1408.03	
26	0.6613	1107.4	1127.0	0.551	2.453	79.482	16.594	0.800	0.049	0.045	0.017	0.008	0.000	0.000	0.000	0.000	0.000	0.000	1385.52	
27	0.6518	1069.6	1088.5	1.425	2.518	83.634	10.532	1.520	0.139	0.154	0.051	0.026	0.000	0.000	0.000	0.000	0.000	0.000	1346.42	
28	0.6515	1064.2	1083.0	1.498	2.707	84.286	9.194	1.851	0.169	0.202	0.060	0.032	0.000	0.000	0.000	0.000	0.000	0.000	1341.82	
29	0.6495	1061.9	1080.7	1.546	2.585	84.707	8.904	1.794	0.170	0.199	0.062	0.032	0.000	0.000	0.000	0.000	0.000	0.000	1340.99	
30	0.6447	1056.1	1074.8	1.590	2.426	85.593	8.300	1.634	0.169	0.190	0.064	0.033	0.000	0.000	0.000	0.000	0.000	0.000	1338.52	
Avg	0.6676	1116.0	1136.1	0.346	2.811	78.083	17.645	1.007	0.042	0.048	0.012	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1390.24	

Zone 31

GQ Source Analysis

GQ Source Number:	0202080	Specific Gravity:	0.6518
GQ Source Name:	RICHARDTON-GLEN ULLIN COMPRE	Dry Heat Value:	1095.80
Effective Date:	4/1/2015 9:00:00 AM	Wet Heat Value:	1076.73
Effective End Date:	1/18/2038 9:14:00 PM	As Deliv. Heat Value:	1095.80
Pressure Base:	14.730	Sample Pressure:	336.00
Viscosity:		Sample Temperature:	0.00

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	83.193		CO2	Carbon Dioxide	1.189
C2	Ethane	11.649	3.1060	N2	Nitrogen	2.448
C3	Propane	1.129	0.3100	O2	Oxygen	
IC4	Isobutane	0.127	0.0410	He	Hellum	
NC4	n-Butane	0.127	0.0400	H2	Hydrogen	
IC5	Isopentane	0.049	0.0180	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.025	0.0090	Ar	Argon	
C6	Hexanes	0.060	0.0250	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	0.004
C9	Nonanes					
C10	Decanes					

Totals 100.000% 3.549 GPM

Sample Date: 5/1/2014 10:29:00 AM
Sample Type: Composite
Sample Tech: RR
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 311

GQ Source Daily Summary

April 2015

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 Wet	Heating Value Dry																
				CO2	N2	C1	C2	C3	IC4	NC4	ICS	NC5	C6	C7	C8	C9	C10	Webbe	CCT
1	0.6846	1150.3	1170.6	0.068	2.769	74.089	22.080	0.956	0.014	0.022	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1414.83	
2	0.6451	1061.9	1080.7	0.308	4.066	82.980	10.947	1.588	0.042	0.064	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1345.42	
3	0.6738	1102.0	1121.5	0.416	4.160	77.790	15.368	2.122	0.052	0.085	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1366.26	
4	0.6659	1090.6	1109.9	0.390	4.154	79.362	13.850	2.098	0.053	0.086	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1360.01	
5	0.6571	1079.2	1098.3	0.312	4.137	80.714	12.934	1.790	0.042	0.066	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1354.89	
6	0.6582	1082.7	1101.9	0.250	4.120	80.373	13.405	1.753	0.038	0.058	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1358.13	
7	0.6523	1075.0	1094.0	0.168	4.160	81.154	12.978	1.471	0.028	0.039	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1354.54	
8	0.6386	1054.1	1072.8	0.169	4.140	83.908	10.323	1.367	0.035	0.054	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1342.45	
9	0.6362	1049.8	1068.4	0.186	4.145	84.439	9.762	1.364	0.038	0.060	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1339.55	
10	0.6439	1059.8	1078.6	0.193	4.252	82.891	11.135	1.446	0.032	0.047	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1344.18	
11	0.6457	1061.6	1080.4	0.200	4.303	82.457	11.565	1.396	0.031	0.045	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1344.58	
12	0.6486	1066.7	1085.6	0.212	4.253	81.707	12.507	1.260	0.024	0.034	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1347.95	
13	0.6562	1078.9	1098.0	0.219	4.212	80.374	13.682	1.450	0.025	0.036	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1355.47	
14	0.6645	1089.4	1108.7	0.324	4.194	79.114	14.546	1.728	0.035	0.055	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1360.04	
15	0.6603	1082.0	1101.2	0.316	4.264	79.801	13.939	1.590	0.033	0.052	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1355.08	
16	0.6712	1099.0	1118.5	0.373	4.155	78.179	15.144	2.007	0.050	0.085	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1365.28	
17	0.6711	1105.5	1125.1	0.287	3.891	77.754	16.274	1.688	0.038	0.064	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1373.26	
18	0.6858	1156.7	1177.1	0.015	2.582	73.573	23.050	0.760	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.39	
19	0.6864	1157.7	1178.2	0.015	2.571	73.500	23.093	0.799	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.12	
20	0.6862	1158.0	1178.5	0.007	2.549	73.451	23.249	0.726	0.007	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.64	
21	0.6705	1097.2	1116.6	0.386	4.188	78.212	15.157	1.930	0.045	0.075	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1363.64	
22	0.6695	1095.1	1114.5	0.368	4.240	78.917	13.976	2.305	0.066	0.116	0.007	0.005	0.000	0.000	0.000	0.000	0.000	1362.09	
23	0.6604	1082.3	1101.5	0.298	4.272	80.138	13.277	1.892	0.045	0.072	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1355.45	
24	0.6643	1089.3	1108.6	0.263	4.276	79.191	14.331	1.837	0.039	0.058	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1360.10	
25	0.6702	1097.7	1117.1	0.354	4.175	78.378	14.900	2.068	0.046	0.073	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1364.59	
26	0.6710	1104.2	1123.7	0.359	3.850	78.067	15.759	1.840	0.046	0.070	0.006	0.004	0.000	0.000	0.000	0.000	0.000	1371.78	
27	0.6774	1134.0	1154.1	0.410	2.561	76.290	19.615	0.992	0.049	0.060	0.016	0.008	0.000	0.000	0.000	0.000	0.000	1402.22	
28	0.6774	1134.0	1154.1	0.410	2.561	76.290	19.615	0.992	0.049	0.060	0.016	0.008	0.000	0.000	0.000	0.000	0.000	1402.22	
29	0.6774	1134.0	1154.1	0.410	2.561	76.290	19.615	0.992	0.049	0.060	0.016	0.008	0.000	0.000	0.000	0.000	0.000	1402.22	
30	0.6774	1134.0	1154.1	0.410	2.561	76.290	19.615	0.992	0.049	0.060	0.016	0.008	0.000	0.000	0.000	0.000	0.000	1402.22	
Avg	0.6649	1099.0	1118.2	0.270	3.744	78.856	15.523	1.507	0.037	0.056	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1371.15	

Zone 32

GQ Source Daily Summary

April 2015

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	Heating Value Dry										Wobbe	CCT				
		Wet	Dry		N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7			C8	C9	C10	
1	0.6872	1159.6	1180.2	0.002	2.544	73.196	23.579	0.663	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.69	
2	0.6862	1158.8	1179.3	0.004	2.504	73.393	23.423	0.660	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.63	
3	0.6865	1159.7	1180.2	0.004	2.473	73.370	23.447	0.689	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.48	
4	0.6858	1158.4	1178.9	0.004	2.493	73.508	23.279	0.700	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.53	
5	0.6860	1158.2	1178.7	0.004	2.517	73.443	23.356	0.665	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.18	
6	0.6864	1158.9	1179.4	0.003	2.513	73.359	23.446	0.664	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.63	
7	0.6867	1159.2	1179.7	0.003	2.527	73.335	23.413	0.706	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.59	
8	0.6871	1159.7	1180.3	0.003	2.534	73.272	23.439	0.735	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.84	
9	0.6864	1158.7	1179.2	0.004	2.527	73.391	23.361	0.701	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.33	
10	0.6869	1159.9	1180.4	0.003	2.506	73.334	23.389	0.751	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.23	
11	0.6878	1161.2	1181.7	0.004	2.505	73.255	23.383	0.834	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.94	
12	0.6873	1160.2	1180.8	0.003	2.523	73.280	23.418	0.744	0.010	0.019	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1424.23	
13	0.6872	1159.6	1180.1	0.004	2.547	73.246	23.470	0.715	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.60	
14	0.6888	1162.1	1182.7	0.004	2.544	73.008	23.619	0.808	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.05	
15	0.6881	1160.9	1181.4	0.004	2.553	73.109	23.557	0.761	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.26	
16	0.6889	1162.3	1182.9	0.003	2.545	73.008	23.598	0.827	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.13	
17	0.6877	1161.1	1181.7	0.004	2.505	73.156	23.590	0.731	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.91	
18	0.6879	1161.2	1181.8	0.004	2.516	73.136	23.578	0.750	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.84	
19	0.6877	1160.8	1181.4	0.004	2.514	73.155	23.590	0.721	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.67	
20	0.6872	1159.4	1179.9	0.003	2.559	73.194	23.564	0.666	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.37	
21	0.6867	1158.8	1179.3	0.003	2.557	73.301	23.433	0.691	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.06	
22	0.6873	1160.2	1180.7	0.003	2.520	73.237	23.496	0.727	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.25	
23	0.6872	1160.3	1180.8	0.004	2.505	73.233	23.540	0.703	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.46	
24	0.6871	1160.3	1180.8	0.004	2.501	73.273	23.474	0.731	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.47	
25	0.6868	1160.2	1180.7	0.003	2.473	73.302	23.521	0.685	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.76	
26	0.6863	1159.0	1179.5	0.004	2.500	73.394	23.411	0.677	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.79	
27	0.6871	1159.6	1180.1	0.003	2.538	73.264	23.468	0.711	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.70	
28	0.6857	1158.2	1178.7	0.002	2.494	73.516	23.288	0.684	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.45	
29	0.6869	1159.7	1180.3	0.003	2.517	73.317	23.410	0.736	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.02	
30	0.6864	1159.4	1179.9	0.003	2.492	73.392	23.392	0.705	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.09	
Avg	0.6870	1160.0	1180.4	0.003	2.518	73.279	23.464	0.718	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.07	

Zone 33

GQ Source Analysis

GQ Source Number:	1202160	Specific Gravity:	0.7541
GQ Source Name:	BOWMAN BORDER	Dry Heat Value:	1123.45
Effective Date:	4/1/2015 9:00:00 AM	Wet Heat Value:	1103.90
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1123.45
Pressure Base:	14.730	Sample Pressure:	
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	62.469		CO2	Carbon Dioxide	1.649
C2	Ethane	23.340	6.2240	N2	Nitrogen	9.731
C3	Propane	2.506	0.6880	O2	Oxygen	
IC4	Isobutane	0.071	0.0230	He	Hellum	
NC4	n-Butane	0.199	0.0630	H2	Hydrogen	
IC5	Isopentane	0.008	0.0030	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.022	0.0080	Ar	Argon	
C6	Hexanes	0.005	0.0020	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					

Totals 100.000% 7.011 GPM

Sample Date: 4/1/2014 1:01:00 PM
Sample Type: Composite
Sample Tech: MIKE GENTILINI
H2S: ppm

Sample Remarks:

Analysis Tech: MIKE GENTILINI

Analysis Remarks:

Zone 34

Apr-15

ZONE 610

Watford City
01320
Watford City Border

01312
Watford City East Border

Weighted

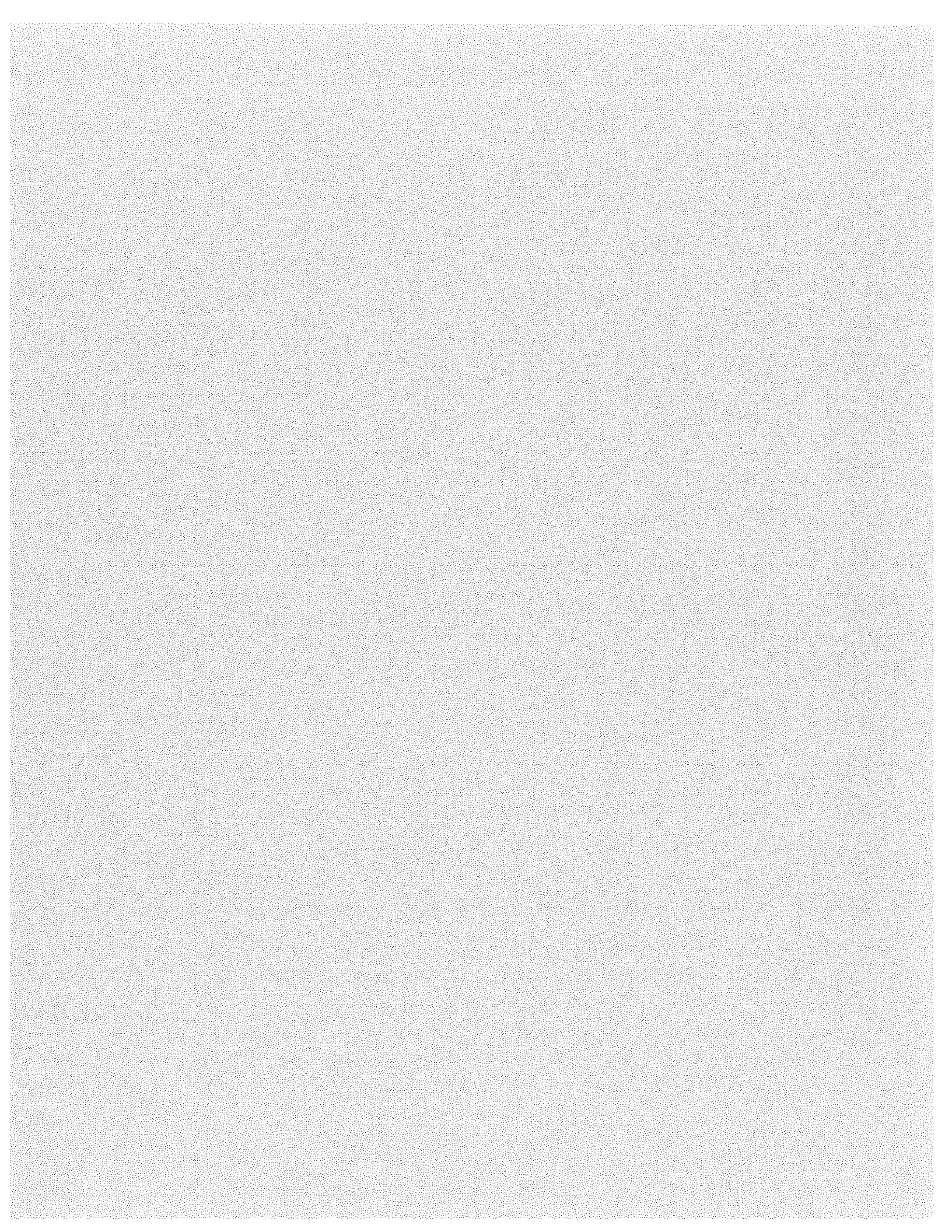
Begin Date	End Date	MCF		DK	BTU	MCF		DK	BTU	AVG	
		Zone 25	Zone 43	Zone 25	Zone 43	Zone 25	Zone 43	BTU			
4/1/2015	4/2/2015	142	172		1.212	235	278		1.184	1.195	4/1/2015
4/2/2015	4/3/2015	394	478		1.212	300	353		1.175	1.196	4/2/2015
4/3/2015	4/4/2015	308	373		1.212	239	281		1.181	1.198	4/3/2015
4/4/2015	4/5/2015	196	237		1.212	204	242		1.184	1.198	4/4/2015
4/5/2015	4/6/2015	367	444		1.212	329	389		1.183	1.198	4/5/2015
4/6/2015	4/7/2015	411	499		1.212	346	408		1.179	1.197	4/6/2015
4/7/2015	4/8/2015	283	343		1.212	266	313		1.175	1.194	4/7/2015
4/8/2015	4/9/2015	289	350		1.212	286	336		1.176	1.194	4/8/2015
4/9/2015	4/10/2015	185	225		1.212	209	247		1.182	1.196	4/9/2015
4/10/2015	4/11/2015	74	89		1.212	215	252		1.174	1.184	4/10/2015
4/11/2015	4/12/2015	24	30		1.212	172	202		1.176	1.180	4/11/2015
4/12/2015	4/13/2015	165	200		1.212	207	245		1.181	1.195	4/12/2015
4/13/2015	4/14/2015	116	140		1.212	203	240		1.183	1.194	4/13/2015
4/14/2015	4/15/2015	81	99		1.212	143	170		1.185	1.195	4/14/2015
4/15/2015	4/16/2015	205	248		1.212	47	55		1.171	1.204	4/15/2015
4/16/2015	4/17/2015	222	269		1.212	51	60		1.171	1.204	4/16/2015
4/17/2015	4/18/2015	179	217		1.212	32	38		1.190	1.209	4/17/2015
4/18/2015	4/19/2015	217	263		1.212	53	63		1.188	1.207	4/18/2015
4/19/2015	4/20/2015	357	433		1.212	87	102		1.174	1.205	4/19/2015
4/20/2015	4/21/2015	332	402		1.212	75	89		1.190	1.208	4/20/2015
4/21/2015	4/22/2015	336	408		1.212	84	101		1.194	1.208	4/21/2015
4/22/2015	4/23/2015	292	354		1.212	46	56		1.196	1.210	4/22/2015
4/23/2015	4/24/2015	357	432		1.212	96	115		1.194	1.208	4/23/2015
4/24/2015	4/25/2015	197	239		1.212	30	36		1.193	1.209	4/24/2015
4/25/2015	4/26/2015	277	335		1.212	41	49		1.197	1.210	4/25/2015
4/26/2015	4/27/2015	269	327		1.212	50	59		1.185	1.208	4/26/2015
4/27/2015	4/28/2015	295	357		1.212	70	85		1.208	1.211	4/27/2015
4/28/2015	4/29/2015	196	238		1.212	28	35		1.270	1.219	4/28/2015
4/29/2015	4/30/2015	142	172		1.212	28	35		1.230	1.215	4/29/2015
4/30/2015	5/1/2015	181	219		1.212	32	38		1.202	1.210	4/30/2015
		7,089	8,592			4,204	4,972		1.1890	1.2020	

Gas Quality
 | Gas Quality Download - Chromatograph |

ROW ID	LOCATION DESCRIPTION	GROSS HEATING VALUE (BTU/G)	SPECIFIC GRAVITY	WOBBE (Btu)	CRICONDENTHERM (Deg F)	NITROGEN (mole percent)	CARBON DIOXIDE (mole percent)	METHANE (mole percent)	ETHANE (mole percent)	PROPANE (mole percent)	NORMAL BUTANE (mole percent)	ISO BUTANE (mole percent)	PENTANE (mole percent)	ISO PENTANE (mole percent)	NEO PENTANE (mole percent)	HEXANES PLUS (mole percent)	HYDROGEN (mole percent)	HELIUM (mole percent)	PRODUCTION DATE	POSTING DATE	ChangeTimeStamp	NOTES
11587	GLEN ULLIN	1052	0.6031	1352.2	-67.3	1.2742	0.8141	90.4459	6.7571	0.4418	0.0339	0.0256	0.0039	0.0055	0	0.0023	0.179	0.0188	3/31/2015	4/1/2015	4/1/2015 2:25:01 PM	
11587	GLEN ULLIN	1053.3	0.6066	1352.4	-68.2	1.2933	0.8296	90.1391	7.0422	0.4171	0.032	0.0244	0.0037	0.0053	0	0.0022	0.1944	0.0188	4/1/2015	4/2/2015	4/2/2015 2:24:20 PM	
11587	GLEN ULLIN	1053.3	0.6066	1352.4	-68.2	1.2933	0.8296	90.1391	7.0422	0.4171	0.032	0.0244	0.0037	0.0053	0	0.0022	0.1944	0.0188	4/1/2015	4/3/2015	4/3/2015 2:24:04 PM	
11587	GLEN ULLIN	1074.5	0.6214	1363.1	-37	1.3074	0.8975	87.8618	8.7447	0.7898	0.0646	0.0696	0.0129	0.0173	0	0.011	0.1867	0.0188	4/3/2015	4/4/2015	4/4/2015 2:24:49 PM	
11587	GLEN ULLIN	1075	0.6218	1363.3	-38	1.2978	0.9119	87.8363	8.7337	0.8434	0.0794	0.0652	0.0118	0.016	0	0.0104	0.179	0.0188	4/4/2015	4/5/2015	4/5/2015 2:24:11 PM	
11587	GLEN ULLIN	1075.2	0.6215	1363.9	-37.8	1.2885	0.8925	87.8579	8.7318	0.8388	0.082	0.0674	0.0121	0.0163	0	0.0104	0.1874	0.0188	4/5/2015	4/6/2015	4/6/2015 2:24:25 PM	
11587	GLEN ULLIN	1074.8	0.6215	1363.4	-37.7	1.3068	0.8945	87.9141	8.7802	0.7791	0.0799	0.0654	0.0119	0.0162	0	0.0108	0.1255	0.0188	4/6/2015	4/7/2015	4/7/2015 2:23:53 PM	
11587	GLEN ULLIN	1084.3	0.6274	1368.9	-26.2	1.299	0.8886	87.094	9.3049	0.9923	0.1131	0.0945	0.0175	0.024	0	0.0173	0.1379	0.0188	4/7/2015	4/8/2015	4/8/2015 2:24:27 PM	
11587	GLEN ULLIN	1079.8	0.6246	1366.2	-28	1.2844	0.9053	87.5488	8.8909	0.9352	0.1089	0.091	0.017	0.0234	0	0.0165	0.1611	0.0188	4/8/2015	4/9/2015	4/9/2015 2:25:00 PM	
11587	GLEN ULLIN	1077.5	0.6231	1363	-31	1.2816	0.9044	87.7813	8.7226	0.9018	0.1005	0.0845	0.0154	0.0213	0	0.0145	0.1552	0.0188	4/9/2015	4/10/2015	4/10/2015 2:25:16 PM	
11587	GLEN ULLIN	1060.1	0.6113	1355.9	-56.2	1.2775	0.8659	89.4835	7.5684	0.5289	0.0463	0.038	0.0068	0.0091	0	0.0044	0.1545	0.0188	4/10/2015	4/11/2015	4/11/2015 2:25:05 PM	
11587	GLEN ULLIN	1061.7	0.6122	1356.4	-53.7	1.3245	0.8525	89.3315	7.7168	0.5408	0.0506	0.041	0.0077	0.0102	0	0.0051	0.1025	0.0188	4/11/2015	4/12/2015	4/12/2015 2:25:28 PM	
11587	GLEN ULLIN	1066.3	0.616	1358.5	-52	1.363	0.8559	88.6484	8.3287	0.5667	0.0495	0.0404	0.0076	0.01	0	0.0055	0.1079	0.0188	4/12/2015	4/13/2015	4/13/2015 2:25:13 PM	
11587	GLEN ULLIN	1063.6	0.6138	1357.6	-53.6	1.3322	0.8411	89.0663	7.9498	0.5679	0.0479	0.0387	0.0073	0.0095	0	0.0049	0.1166	0.0188	4/13/2015	4/14/2015	4/14/2015 2:25:20 PM	
11587	GLEN ULLIN	1061.2	0.6128	1355.7	-57.4	1.3572	0.8561	89.2334	7.8091	0.5193	0.0446	0.0362	0.0065	0.0087	0	0.004	0.1077	0.0188	4/14/2015	4/15/2015	4/15/2015 2:25:41 PM	
11587	GLEN ULLIN	1060.1	0.6121	1354.9	-58	1.3822	0.8413	89.3294	7.726	0.4995	0.0419	0.0338	0.0061	0.0082	0	0.004	0.1083	0.0188	4/15/2015	4/16/2015	4/16/2015 2:24:46 PM	
11587	GLEN ULLIN	1060.1	0.6123	1354.8	-57.1	1.3628	0.8644	89.3266	7.765	0.4804	0.04	0.0328	0.0059	0.0081	0	0.0044	0.092	0.0188	4/16/2015	4/17/2015	4/17/2015 2:25:37 PM	
11587	GLEN ULLIN	1062.5	0.6139	1356.1	-58	1.391	0.8546	89.1285	7.9143	0.5545	0.0418	0.0337	0.0057	0.0078	0	0.0038	0.0481	0.0188	4/17/2015	4/18/2015	4/18/2015 2:24:01 PM	
11587	GLEN ULLIN	1059.5	0.6118	1354.6	-59.6	1.3799	0.849	89.4327	7.624	0.5203	0.0403	0.0319	0.0053	0.0073	0	0.0035	0.0887	0.0188	4/18/2015	4/19/2015	4/19/2015 2:25:06 PM	
11587	GLEN ULLIN	1059.2	0.6114	1354.7	-58.4	1.3629	0.8472	89.5331	7.5074	0.5367	0.0441	0.0347	0.0062	0.0083	0	0.0039	0.0974	0.0188	4/19/2015	4/20/2015	4/20/2015 2:25:41 PM	
11587	GLEN ULLIN	1062.7	0.6134	1356.8	-55.5	1.3409	0.8499	89.1554	7.8438	0.5741	0.0475	0.0374	0.0069	0.009	0	0.0044	0.1138	0.0188	4/20/2015	4/21/2015	4/21/2015 2:24:47 PM	
11587	GLEN ULLIN	1063.6	0.6139	1357.5	-53.7	1.34	0.8397	89.103	7.834	0.6334	0.0489	0.0395	0.0072	0.0095	0	0.0048	0.1235	0.0188	4/21/2015	4/22/2015	4/22/2015 2:25:38 PM	
11587	GLEN ULLIN	1063.6	0.6139	1357.5	-53.7	1.34	0.8397	89.103	7.834	0.6334	0.0489	0.0395	0.0072	0.0095	0	0.0048	0.1235	0.0188	4/21/2015	4/23/2015	4/23/2015 2:25:00 PM	
11587	GLEN ULLIN	1059.6	0.6109	1355.7	-56.5	1.3402	0.8144	89.6369	7.4215	0.5707	0.0436	0.035	0.0061	0.0082	0	0.0043	0.1066	0.0188	4/23/2015	4/24/2015	4/24/2015 2:26:04 PM	
11587	GLEN ULLIN	1058.3	0.6114	1353.4	-59.2	1.4294	0.8424	89.2774	7.5199	0.5709	0.0417	0.0326	0.0053	0.0072	0	0.0036	0.2325	0.0188	4/24/2015	4/25/2015	4/25/2015 2:25:07 PM	
11587	GLEN ULLIN	1058.7	0.6118	1353.5	-60.8	1.4164	0.8613	89.2815	7.5537	0.5782	0.0437	0.0331	0.0054	0.0073	0	0.003	0.1997	0.0188	4/25/2015	4/26/2015	4/26/2015 2:24:36 PM	
11587	GLEN ULLIN	1057.4	0.6107	1353.1	-69.7	1.4085	0.8433	89.377	7.6098	0.4941	0.0309	0.0227	0.0033	0.0045	0	0.0012	0.1879	0.0188	4/26/2015	4/27/2015	4/27/2015 2:24:33 PM	
11587	GLEN ULLIN	1054.3	0.6081	1352	-74.7	1.3636	0.8404	89.7991	7.3321	0.4273	0.0197	0.0148	0.0018	0.0026	0	0	0.1813	0.0188	4/27/2015	4/28/2015	4/28/2015 2:25:13 PM	
11587	GLEN ULLIN	1058.3	0.6111	1353.8	-66.1	1.3296	0.8877	89.52	7.3836	0.6024	0.0431	0.0316	0.0037	0.0052	0	0.0015	0.1756	0.0188	4/28/2015	4/29/2015	4/29/2015 2:23:49 PM	
11587	GLEN ULLIN	1075	0.6223	1362.8	-43.6	1.3476	0.9083	87.7151	8.7892	0.8884	0.0734	0.0576	0.0094	0.0127	0	0.0072	0.1755	0.0188	4/29/2015	4/30/2015	4/30/2015 2:24:33 PM	

30 record(s) retrieved

Zone 802



GQ Source Daily Summary

May 2015

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 Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7352	1182.1	1203.1	1.211	3.824	68.749	21.599	4.217	0.133	0.244	0.013	0.011	0.000	0.000	0.000	0.000	0.000	1403.12	
2	0.7344	1181.3	1202.2	1.207	3.813	68.669	21.917	4.006	0.129	0.236	0.013	0.010	0.000	0.000	0.000	0.000	0.000	1402.83	
3	0.7333	1180.0	1200.9	1.197	3.807	68.727	22.004	3.892	0.124	0.226	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1402.32	
4	0.7343	1181.6	1202.5	1.195	3.806	68.600	22.053	3.971	0.125	0.228	0.013	0.010	0.000	0.000	0.000	0.000	0.000	1403.30	
5	0.7365	1185.0	1206.0	1.186	3.814	68.421	21.992	4.184	0.134	0.244	0.014	0.011	0.000	0.000	0.000	0.000	0.000	1405.23	
6	0.7348	1182.1	1203.0	1.195	3.818	68.523	22.103	3.981	0.127	0.230	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1403.44	
7	0.7332	1179.5	1200.4	1.198	3.821	68.840	21.793	3.973	0.125	0.228	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1401.88	
8	0.7333	1179.6	1200.4	1.199	3.825	68.776	21.900	3.915	0.128	0.233	0.013	0.010	0.000	0.000	0.000	0.000	0.000	1401.87	
9	0.7331	1179.4	1200.3	1.190	3.828	68.728	22.037	3.831	0.128	0.234	0.013	0.010	0.000	0.000	0.000	0.000	0.000	1401.92	
10	0.7313	1176.4	1197.3	1.192	3.842	69.014	21.805	3.764	0.127	0.232	0.013	0.011	0.000	0.000	0.000	0.000	0.000	1400.02	
11	0.7325	1178.7	1199.5	1.184	3.824	68.926	21.768	3.918	0.127	0.231	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1401.61	
12	0.7343	1181.5	1202.4	1.191	3.814	68.696	21.880	4.024	0.131	0.239	0.013	0.011	0.000	0.000	0.000	0.000	0.000	1403.18	
13	0.7346	1181.8	1202.7	1.196	3.817	68.531	22.120	3.965	0.124	0.225	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1403.28	
14	0.7340	1180.7	1201.6	1.203	3.816	68.683	21.939	3.986	0.124	0.226	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1402.54	
15	0.7328	1178.8	1199.7	1.200	3.820	68.844	21.869	3.891	0.125	0.228	0.013	0.010	0.000	0.000	0.000	0.000	0.000	1401.47	
16	0.7329	1179.4	1200.3	1.197	3.803	68.857	21.822	3.956	0.122	0.221	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1402.02	
17	0.7344	1181.8	1202.8	1.194	3.794	68.605	22.030	4.019	0.120	0.217	0.012	0.009	0.000	0.000	0.000	0.000	0.000	1403.56	
18	0.7350	1182.5	1203.4	1.202	3.802	68.582	21.965	4.068	0.126	0.231	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1403.70	
19	0.7346	1181.9	1202.8	1.200	3.804	68.657	21.911	4.040	0.129	0.236	0.013	0.010	0.000	0.000	0.000	0.000	0.000	1403.37	
20	0.7342	1181.0	1202.0	1.202	3.817	68.683	21.924	3.979	0.130	0.240	0.013	0.011	0.000	0.000	0.000	0.000	0.000	1402.74	
21	0.7340	1180.4	1201.3	1.204	3.836	68.746	21.824	3.987	0.132	0.245	0.014	0.011	0.000	0.000	0.000	0.000	0.000	1402.14	
22	0.7348	1181.9	1202.8	1.202	3.818	68.700	21.782	4.095	0.133	0.245	0.014	0.011	0.000	0.000	0.000	0.000	0.000	1403.20	
23	0.7343	1181.1	1202.1	1.204	3.817	68.719	21.831	4.030	0.131	0.242	0.014	0.011	0.000	0.000	0.000	0.000	0.000	1402.75	
24	0.7350	1182.2	1203.2	1.203	3.821	68.684	21.740	4.163	0.129	0.236	0.013	0.011	0.000	0.000	0.000	0.000	0.000	1403.34	
25	0.7344	1181.2	1202.1	1.207	3.815	68.746	21.777	4.052	0.133	0.244	0.014	0.011	0.000	0.000	0.000	0.000	0.000	1402.74	
26	0.7346	1181.7	1202.7	1.204	3.807	68.681	21.880	4.012	0.136	0.252	0.015	0.012	0.000	0.000	0.000	0.000	0.000	1403.19	
27	0.7334	1179.6	1200.5	1.209	3.817	68.753	21.961	3.856	0.132	0.246	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1401.82	
28	0.7339	1181.3	1202.3	1.188	3.787	68.698	22.035	3.883	0.133	0.247	0.016	0.014	0.000	0.000	0.000	0.000	0.000	1403.43	
29	0.7348	1182.4	1203.3	1.209	3.782	68.565	22.085	3.958	0.131	0.244	0.014	0.011	0.000	0.000	0.000	0.000	0.000	1403.74	
30	0.7341	1181.1	1202.0	1.212	3.785	68.655	22.055	3.890	0.131	0.245	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1402.94	
31	0.7354	1183.4	1204.4	1.209	3.774	68.538	22.040	4.026	0.135	0.251	0.015	0.012	0.000	0.000	0.000	0.000	0.000	1404.41	
Avg	0.7341	1181.0	1201.9	1.200	3.812	68.697	21.917	3.985	0.129	0.236	0.013	0.011	0.000	0.000	0.000	0.000	0.000	1402.81	

Zone 211

GQ Source Analysis

GQ Source Number:	0602330	Specific Gravity:	0.7166
GQ Source Name:	WILLISTON BORDER	Dry Heat Value:	1206.13
Effective Date:	5/1/2015 9:00:00 AM	Wet Heat Value:	1185.14
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1206.13
Pressure Base:	14.730	Sample Pressure:	348.00
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	71.240		CO2	Carbon Dioxide	0.825
C2	Ethane	21.618	5.7642	N2	Nitrogen	2.444
C3	Propane	3.513	0.9650	O2	Oxygen	0.000
IC4	Isobutane	0.110	0.0358	He	Helium	
NC4	n-Butane	0.219	0.0689	H2	Hydrogen	
IC5	Isopentane	0.015	0.0055	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.017	0.0061	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%		6.845 GPM	

Sample Date: 5/1/2015 9:00:00 AM
Sample Type: Composite
Sample Tech: sampler
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 24,

GQ Source Analysis

GQ Source Number:	0602160	Specific Gravity:	0.7314
GQ Source Name:	FAIRVIEW BORDER	Dry Heat Value:	1197.36
Effective Date:	5/1/2015 9:00:00 AM	Wet Heat Value:	1176.52
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1197.36
Pressure Base:	14.730	Sample Pressure:	3.00
Viscosity:		Sample Temperature:	

	<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>	
C1	Methane	68.935		CO2	Carbon Dioxide	1.201
C2	Ethane	21.628	5.7670	N2	Nitrogen	3.783
C3	Propane	4.062	1.1159	O2	Oxygen	0.010
IC4	Isobutane	0.130	0.0424	He	Helium	
NC4	n-Butane	0.228	0.0717	H2	Hydrogen	
IC5	Isopentane	0.013	0.0047	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.010	0.0038	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% 7.005 GPM

Sample Date: 5/1/2015 9:00:00 AM
Sample Type: Composite
Sample Tech: Rocky
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 241

GQ Source Analysis

GQ Source Number:	0602230	Specific Gravity:	0.7308
GQ Source Name:	WATFORD CITY BORDER	Dry Heat Value:	1220.22
Effective Date:	5/1/2015 9:00:00 AM	Wet Heat Value:	1198.98
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1220.22
Pressure Base:	14.730	Sample Pressure:	313.00
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	69.846		CO2	Carbon Dioxide	0.970
C2	Ethane	21.610	0.0000	N2	Nitrogen	2.700
C3	Propane	4.105	1.1277	O2	Oxygen	0.007
IC4	Isobutane	0.225	0.0735	He	Helium	
NC4	n-Butane	0.467	0.1468	H2	Hydrogen	
IC5	Isopentane	0.035	0.0127	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.034	0.0124	Ar	Argon	
C6	Hexanes	0.002	0.0009	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					

Totals 100.000% 1.374 GPM

Sample Date: 5/1/2015 9:00:00 AM
Sample Type: Composite
Sample Tech: sampler
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 25

GQ Source Daily Summary

May 2015

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	CCT
1	0.6295	1040.9	1059.3	0.309	3.880	85.787	8.766	1.134	0.036	0.078	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1334.92	
2	0.5873	979.9	997.3	0.023	4.056	93.090	2.522	0.264	0.013	0.028	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1301.34	
3	0.5923	987.4	1004.9	0.048	4.032	92.236	3.246	0.377	0.018	0.038	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1305.77	
4	0.5912	983.8	1001.2	0.054	4.143	92.424	2.982	0.338	0.016	0.036	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1302.13	
5	0.5862	977.6	994.9	0.033	4.087	93.235	2.402	0.208	0.010	0.022	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1299.36	
6	0.5797	967.6	984.7	0.001	4.130	94.352	1.435	0.068	0.004	0.009	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1293.36	
7	0.5795	967.5	984.6	0.000	4.125	94.377	1.419	0.065	0.004	0.008	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1293.36	
8	0.6078	1008.6	1026.4	0.170	4.022	89.511	5.563	0.647	0.023	0.053	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1316.47	
9	0.6147	1018.9	1036.9	0.205	3.984	88.270	6.678	0.767	0.027	0.059	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1322.51	
10	0.6124	1015.6	1033.5	0.191	3.989	88.767	6.186	0.755	0.030	0.069	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1320.75	
11	0.5889	980.4	997.8	0.050	4.140	92.752	2.763	0.256	0.011	0.024	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1300.20	
12	0.5830	971.3	988.5	0.011	4.194	93.773	1.860	0.136	0.007	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1294.71	
13	0.5883	979.9	997.2	0.033	4.143	92.858	2.669	0.257	0.012	0.026	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1300.15	
14	0.5888	980.7	998.1	0.033	4.134	92.784	2.738	0.269	0.012	0.027	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1300.74	
15	0.5888	980.7	998.1	0.033	4.134	92.784	2.738	0.269	0.012	0.027	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1300.74	
16	0.5888	980.7	998.1	0.033	4.134	92.784	2.738	0.269	0.012	0.027	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1300.74	
17	0.5888	980.7	998.1	0.033	4.134	92.784	2.738	0.269	0.012	0.027	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1300.74	
18	0.6072	1007.8	1025.6	0.147	4.050	89.464	5.720	0.550	0.019	0.042	0.003	0.004	0.000	0.000	0.000	0.000	0.000	1316.30	
19	0.5999	996.2	1013.8	0.125	4.106	90.771	4.509	0.439	0.014	0.031	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1308.81	
20	0.6284	1038.4	1056.8	0.309	3.921	85.927	8.713	0.997	0.034	0.080	0.008	0.011	0.000	0.000	0.000	0.000	0.000	1332.33	
21	0.5851	973.3	990.5	0.035	4.238	93.393	2.142	0.166	0.007	0.016	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1294.96	
22	0.5826	969.9	987.0	0.020	4.232	93.825	1.791	0.112	0.006	0.013	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1293.20	
23	0.5802	967.1	984.3	0.006	4.194	94.257	1.459	0.068	0.004	0.010	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1292.22	
24	0.5810	967.6	984.7	0.008	4.242	94.087	1.572	0.074	0.004	0.010	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1291.91	
25	0.5811	967.2	984.3	0.010	4.280	94.056	1.558	0.079	0.004	0.010	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1291.16	
26	0.5811	966.6	983.7	0.009	4.314	94.063	1.515	0.082	0.005	0.012	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1290.43	
27	0.5833	970.5	987.7	0.024	4.260	93.677	1.898	0.120	0.006	0.013	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1293.16	
28	0.6009	997.2	1014.9	0.130	4.119	90.650	4.560	0.481	0.017	0.037	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1309.11	
29	0.6046	1003.1	1020.8	0.149	4.088	90.032	5.086	0.563	0.021	0.050	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1312.79	
30	0.6172	1022.7	1040.8	0.215	3.975	87.900	6.947	0.844	0.032	0.074	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1324.69	
31	0.5966	991.4	1008.9	0.108	4.112	91.414	3.905	0.405	0.015	0.034	0.003	0.004	0.000	0.000	0.000	0.000	0.000	1306.15	
Avg	0.5944	988.0	1005.9	0.082	4.116	91.809	3.575	0.365	0.014	0.032	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1304.68	

Zone 2b1

GQ Source Daily Summary

May 2015

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	0.7380	1163.8	1184.4	0.724	5.948	68.054	20.127	4.567	0.172	0.376	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1378.68	
2	0.7012	1126.7	1146.7	0.571	4.978	74.257	16.283	3.430	0.136	0.312	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1369.38	
3	0.7331	1163.1	1183.7	0.740	5.505	68.743	20.223	4.254	0.158	0.344	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1382.48	
4	0.7436	1173.5	1194.3	0.763	5.820	67.062	21.132	4.635	0.175	0.381	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1384.96	
5	0.7385	1166.3	1187.0	0.732	5.833	67.887	20.475	4.504	0.169	0.369	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1381.17	
6	0.7381	1165.0	1185.6	0.725	5.878	67.989	20.312	4.527	0.170	0.369	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1380.08	
7	0.7427	1171.0	1191.7	0.748	5.918	67.218	20.874	4.652	0.175	0.383	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1382.79	
8	0.7429	1171.5	1192.3	0.747	5.902	67.249	20.798	4.715	0.176	0.382	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1383.26	
9	0.7325	1158.5	1179.0	0.695	5.794	68.925	19.668	4.363	0.164	0.361	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1377.61	
10	0.7363	1164.6	1185.3	0.720	5.744	68.332	20.150	4.477	0.170	0.374	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1381.28	
11	0.7380	1166.3	1187.0	0.731	5.782	68.042	20.347	4.517	0.172	0.376	0.017	0.016	0.000	0.000	0.000	0.000	0.000	1381.69	
12	0.7459	1175.4	1196.2	0.759	5.925	66.806	21.080	4.811	0.183	0.401	0.018	0.017	0.000	0.000	0.000	0.000	0.000	1385.10	
13	0.7477	1178.4	1199.2	0.770	5.895	66.535	21.301	4.877	0.185	0.402	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1386.93	
14	0.7461	1175.4	1196.2	0.762	5.941	66.736	21.155	4.795	0.183	0.394	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1384.86	
15	0.7395	1167.3	1188.0	0.728	5.870	67.807	20.401	4.609	0.174	0.377	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1381.43	
16	0.7413	1169.2	1189.9	0.742	5.900	67.481	20.657	4.642	0.174	0.372	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1382.00	
17	0.7363	1163.5	1184.1	0.719	5.810	68.305	20.128	4.471	0.170	0.366	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1379.95	
18	0.7312	1157.7	1178.2	0.701	5.717	69.114	19.624	4.296	0.163	0.353	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1377.80	
19	0.7400	1167.7	1188.4	0.749	5.854	67.641	20.659	4.518	0.171	0.373	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1381.51	
20	0.7409	1169.8	1190.5	0.750	5.815	67.496	20.797	4.564	0.172	0.373	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1383.08	
21	0.7359	1163.1	1183.7	0.720	5.799	68.332	20.164	4.415	0.168	0.369	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1379.84	
22	0.7414	1170.0	1190.7	0.743	5.859	67.460	20.735	4.614	0.175	0.381	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1382.86	
23	0.7464	1175.6	1196.4	0.766	5.948	66.664	21.231	4.782	0.182	0.394	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1384.88	
24	0.7460	1175.8	1196.6	0.772	5.892	66.701	21.298	4.731	0.180	0.391	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1385.44	
25	0.7463	1175.9	1196.7	0.772	5.915	66.729	21.179	4.779	0.184	0.405	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1385.26	
26	0.7445	1172.7	1193.5	0.756	5.958	67.094	20.778	4.780	0.186	0.412	0.019	0.018	0.000	0.000	0.000	0.000	0.000	1383.28	
27	0.7434	1171.4	1192.1	0.749	5.952	67.284	20.622	4.758	0.186	0.412	0.019	0.018	0.000	0.000	0.000	0.000	0.000	1382.63	
28	0.7437	1171.3	1192.1	0.752	5.981	67.207	20.668	4.762	0.185	0.408	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1382.28	
29	0.7448	1173.4	1194.2	0.753	5.950	67.030	20.844	4.794	0.185	0.408	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1383.79	
30	0.7333	1159.5	1180.1	0.700	5.805	68.860	19.632	4.423	0.170	0.376	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1378.02	
31	0.7377	1166.1	1186.8	0.731	5.765	68.141	20.237	4.544	0.172	0.378	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1381.74	
Avg	0.7393	1167.0	1188.1	0.735	5.828	67.845	20.438	4.568	0.174	0.380	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1381.81	

Zone 2b2

GQ Source Analysis

GQ Source Number:	2501030	Specific Gravity:	0.6479
GQ Source Name:	LIGNITE PLANT	Dry Heat Value:	1089.97
Effective Date:	5/1/2015 9:00:00 AM	Wet Heat Value:	1071.00
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1089.97
Pressure Base:	14.730	Sample Pressure:	300.00
Viscosity:		Sample Temperature:	

	<u>Mol %</u>	<u>Liquid Content</u>		<u>Mol %</u>	
C1	Methane	80.971	CO2	Carbon Dioxide	0.100
C2	Ethane	14.102	N2	Nitrogen	4.067
C3	Propane	0.749	O2	Oxygen	0.009
IC4	Isobutane	0.000	He	Helium	
NC4	n-Butane	0.000	H2	Hydrogen	
IC5	Isopentane	0.000	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.000	Ar	Argon	
C6	Hexanes	0.003	CO	Carbon Monoxide	
C7	Heptanes		H2	Water	
C8	Octanes		Neo-C5	Neopentane	
C9	Nonanes				
C10	Decanes				

Totals 100.001% 3.967 GPM

Sample Date: 5/1/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 263

*** End of Report ***

GQ Source Analysis

GQ Source Number:	0702010	Specific Gravity:	0.7067
GQ Source Name:	EPPING BORDER	Dry Heat Value:	1189.34
Effective Date:	5/1/2015 9:00:00 AM	Wet Heat Value:	1168.65
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1189.34
Pressure Base:	14.730	Sample Pressure:	367.00
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	72.483		CO2	Carbon Dioxide	0.816
C2	Ethane	21.000	5.5996	N2	Nitrogen	2.534
C3	Propane	2.843	0.7810	O2	Oxygen	0.009
IC4	Isobutane	0.094	0.0305	He	Helium	
NC4	n-Butane	0.191	0.0601	H2	Hydrogen	
IC5	Isopentane	0.014	0.0050	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.015	0.0056	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%		6.482 GPM	

Sample Date: 5/1/2015 9:00:00 AM
Sample Type: Composite
Sample Tech: sampler
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 264

GQ Source Daily Summary

May 2015

Number: 161

Pressure Base: 14.730

Contract Day: 1

Name: NORTH TIOGA TRANSFER-PORTAL

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	0.7099	1159.6	1180.2	0.839	3.395	71.912	20.789	2.784	0.082	0.175	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1400.69	
2	0.7117	1161.7	1182.3	0.858	3.404	71.738	20.839	2.846	0.087	0.192	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1401.47	
3	0.7085	1157.8	1178.3	0.819	3.407	72.088	20.721	2.677	0.082	0.179	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1399.84	
4	0.7103	1160.3	1180.8	0.850	3.376	71.949	20.724	2.782	0.088	0.196	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1401.09	
5	0.7120	1162.8	1183.4	0.851	3.372	71.832	20.674	2.928	0.094	0.210	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1402.55	
6	0.7102	1159.7	1180.2	0.827	3.434	71.881	20.777	2.780	0.085	0.187	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1400.48	
7	0.7120	1161.6	1182.1	0.861	3.438	71.638	20.964	2.758	0.093	0.210	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1400.97	
8	0.7135	1164.6	1185.3	0.862	3.389	71.374	21.242	2.802	0.090	0.203	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1403.22	
9	0.7126	1164.3	1184.9	0.828	3.380	71.334	21.433	2.722	0.086	0.189	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1403.69	
10	0.7169	1170.8	1191.6	0.844	3.358	71.005	21.411	2.971	0.110	0.253	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1407.33	
11	0.7142	1167.2	1187.8	0.816	3.376	71.201	21.417	2.854	0.095	0.210	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1405.52	
12	0.7133	1165.5	1186.2	0.854	3.335	71.379	21.317	2.781	0.091	0.205	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1404.43	
13	0.7124	1164.3	1184.9	0.832	3.358	71.361	21.445	2.707	0.084	0.185	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1403.83	
14	0.7143	1166.6	1187.3	0.866	3.341	71.148	21.524	2.805	0.089	0.196	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1404.81	
15	0.7162	1169.1	1189.8	0.851	3.386	71.274	20.976	3.106	0.110	0.250	0.021	0.026	0.000	0.000	0.000	0.000	0.000	1405.88	
16	0.7151	1168.1	1188.8	0.843	3.357	71.313	21.132	2.953	0.109	0.248	0.021	0.024	0.000	0.000	0.000	0.000	0.000	1405.79	
17	0.7187	1173.6	1194.4	0.861	3.330	70.859	21.435	3.059	0.121	0.280	0.025	0.030	0.000	0.000	0.000	0.000	0.000	1408.89	
18	0.7129	1165.4	1186.0	0.814	3.364	71.365	21.392	2.746	0.089	0.195	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1404.65	
19	0.7109	1161.6	1182.2	0.821	3.400	71.547	21.294	2.673	0.078	0.164	0.011	0.011	0.000	0.000	0.000	0.000	0.000	1402.06	
20	0.7126	1163.6	1184.2	0.847	3.398	71.462	21.213	2.764	0.087	0.195	0.015	0.019	0.000	0.000	0.000	0.000	0.000	1402.77	
21	0.7150	1168.1	1188.8	0.830	3.375	71.185	21.342	2.916	0.097	0.216	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1405.82	
22	0.7134	1165.1	1185.8	0.841	3.385	71.313	21.312	2.843	0.088	0.190	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1403.88	
23	0.7159	1168.7	1189.4	0.862	3.374	71.057	21.405	2.951	0.096	0.215	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1405.67	
24	0.7147	1167.0	1187.7	0.842	3.389	71.118	21.443	2.890	0.090	0.196	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1404.89	
25	0.7162	1169.3	1190.0	0.851	3.372	70.970	21.540	2.921	0.095	0.212	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1406.23	
26	0.7208	1177.4	1198.3	0.835	3.340	70.527	21.634	3.213	0.118	0.276	0.026	0.032	0.000	0.000	0.000	0.000	0.000	1411.31	
27	0.7162	1169.4	1190.1	0.862	3.355	70.842	21.788	2.828	0.089	0.199	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1406.28	
28	0.7157	1169.2	1189.9	0.828	3.373	70.816	21.844	2.837	0.086	0.187	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1406.54	
29	0.7176	1172.4	1193.1	0.840	3.340	70.790	21.703	2.928	0.106	0.245	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1408.44	
30	0.7189	1174.5	1195.3	0.832	3.342	70.568	21.856	3.008	0.106	0.243	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1409.73	
31	0.7166	1170.0	1190.7	0.848	3.382	70.812	21.738	2.870	0.093	0.212	0.021	0.024	0.000	0.000	0.000	0.000	0.000	1406.55	
Avg	0.7142	1166.0	1187.1	0.842	3.375	71.279	21.301	2.861	0.094	0.210	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1404.69	

Zone 2b5

GQ Source Daily Summary

May 2015

Number: 043

Pressure Base: 14.730

Contract Day: 1

Name: BISMARCK STATION-CLEVELAND STATION

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	CGT
1	0.7119	1139.0	1159.2	0.636	5.137	72.442	17.577	3.717	0.140	0.314	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1373.89	
2	0.7371	1167.7	1188.3	0.746	5.597	68.146	20.542	4.405	0.165	0.361	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1384.10	
3	0.7445	1176.0	1196.8	0.759	5.761	66.966	21.243	4.666	0.176	0.389	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1387.03	
4	0.7374	1165.5	1186.1	0.717	5.795	68.145	20.275	4.487	0.169	0.375	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1381.30	
5	0.7366	1164.4	1185.0	0.711	5.798	68.321	20.068	4.520	0.170	0.375	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1380.73	
6	0.7446	1173.8	1194.6	0.751	5.916	66.984	21.010	4.723	0.179	0.397	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1384.37	
7	0.7409	1170.1	1190.9	0.729	5.820	67.614	20.611	4.629	0.175	0.385	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1383.54	
8	0.7419	1170.6	1191.3	0.732	5.884	67.469	20.615	4.703	0.176	0.385	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1383.14	
9	0.7283	1154.7	1175.2	0.672	5.666	69.650	19.241	4.214	0.161	0.359	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1377.06	
10	0.7394	1169.4	1190.1	0.728	5.732	67.883	20.478	4.577	0.174	0.387	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1384.01	
11	0.7408	1170.4	1191.1	0.729	5.796	67.698	20.510	4.654	0.178	0.396	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1383.92	
12	0.7460	1176.4	1197.2	0.752	5.883	66.847	21.065	4.820	0.183	0.407	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1386.18	
13	0.7457	1176.1	1196.9	0.752	5.881	66.912	20.981	4.846	0.183	0.404	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1386.01	
14	0.7451	1174.9	1195.7	0.749	5.899	66.953	20.993	4.786	0.182	0.398	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1385.22	
15	0.7391	1167.4	1188.1	0.724	5.831	67.912	20.346	4.599	0.173	0.377	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1381.97	
16	0.7414	1170.2	1190.9	0.738	5.854	67.530	20.628	4.657	0.174	0.380	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1383.09	
17	0.7352	1163.1	1183.7	0.706	5.752	68.521	20.013	4.431	0.169	0.371	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1380.50	
18	0.7328	1160.0	1180.6	0.702	5.716	68.918	19.745	4.354	0.166	0.362	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1379.16	
19	0.7399	1168.9	1189.6	0.740	5.789	67.739	20.590	4.552	0.173	0.379	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1382.97	
20	0.7373	1165.7	1186.3	0.720	5.772	68.199	20.220	4.499	0.172	0.379	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1381.58	
21	0.7449	1174.5	1195.3	0.749	5.907	66.973	20.992	4.757	0.182	0.400	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1384.87	
22	0.7468	1177.8	1198.6	0.771	5.852	66.629	21.359	4.763	0.181	0.402	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1386.97	
23	0.7441	1173.6	1194.4	0.747	5.889	67.199	20.746	4.778	0.185	0.414	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1384.56	
24	0.7441	1173.1	1193.9	0.746	5.919	67.222	20.678	4.786	0.188	0.419	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1383.99	
25	0.7416	1170.0	1190.7	0.735	5.892	67.633	20.382	4.716	0.185	0.414	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1382.62	
26	0.7449	1173.6	1194.4	0.749	5.962	67.090	20.718	4.832	0.188	0.419	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1383.80	
27	0.7419	1170.8	1191.5	0.735	5.869	67.556	20.505	4.697	0.184	0.412	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1383.31	
28	0.7474	1177.7	1198.6	0.756	5.928	66.683	21.073	4.908	0.189	0.421	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1386.43	
29	0.7326	1159.3	1179.9	0.690	5.766	69.022	19.530	4.402	0.169	0.381	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1378.42	
30	0.7345	1162.6	1183.2	0.709	5.710	68.744	19.771	4.475	0.171	0.381	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1380.62	
31	0.7375	1166.2	1186.8	0.732	5.746	68.089	20.412	4.435	0.169	0.378	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1381.95	
Avg	0.7396	1168.0	1189.2	0.729	5.797	67.861	20.417	4.593	0.175	0.388	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1382.82	

Zone 271

GQ Source Daily Summary

May 2015

Number: 063

Pressure Base: 14.730

Contract Day: 1

Name: CLEVELAND STATION-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	0.7143	1137.3	1157.4	0.612	5.504	72.054	17.449	3.865	0.149	0.331	0.018	0.018	0.000					1369.47	
2	0.7264	1156.6	1177.0	0.709	5.321	69.919	19.462	4.073	0.150	0.327	0.019	0.020	0.000					1381.08	
3	0.7459	1177.4	1198.2	0.776	5.787	66.643	21.552	4.649	0.174	0.380	0.019	0.019	0.000					1387.34	
4	0.7402	1169.3	1190.0	0.738	5.797	67.647	20.692	4.540	0.171	0.377	0.019	0.019	0.000					1383.18	
5	0.7368	1163.9	1184.5	0.713	5.838	68.247	20.136	4.491	0.168	0.369	0.018	0.019	0.000					1380.03	
6	0.7392	1166.9	1187.6	0.724	5.868	67.850	20.415	4.556	0.172	0.378	0.019	0.019	0.000					1381.28	
7	0.7435	1172.0	1192.7	0.746	5.935	67.127	20.912	4.678	0.177	0.388	0.019	0.019	0.000					1383.23	
8	0.7419	1170.6	1191.3	0.744	5.871	67.433	20.701	4.657	0.174	0.383	0.018	0.018	0.000					1383.05	
9	0.7347	1161.3	1181.9	0.701	5.821	68.607	19.852	4.447	0.167	0.366	0.019	0.019	0.000					1378.88	
10	0.7320	1159.3	1179.8	0.692	5.703	69.071	19.628	4.332	0.166	0.368	0.020	0.020	0.000					1378.98	
11	0.7384	1167.3	1187.9	0.727	5.768	68.022	20.353	4.538	0.172	0.380	0.020	0.020	0.000					1382.42	
12	0.7454	1175.2	1196.0	0.748	5.910	66.918	21.003	4.794	0.183	0.403	0.020	0.020	0.000					1385.25	
13	0.7468	1177.6	1198.5	0.757	5.879	66.685	21.213	4.840	0.183	0.401	0.021	0.021	0.000					1386.84	
14	0.7444	1173.8	1194.6	0.748	5.904	67.046	20.937	4.753	0.180	0.392	0.020	0.020	0.000					1384.53	
15	0.7411	1169.6	1190.3	0.730	5.876	67.565	20.584	4.649	0.175	0.381	0.020	0.020	0.000					1382.67	
16	0.7418	1170.2	1190.9	0.738	5.898	67.416	20.702	4.657	0.174	0.375	0.019	0.020	0.000					1382.65	
17	0.7400	1168.5	1189.2	0.735	5.830	67.720	20.554	4.576	0.172	0.373	0.020	0.021	0.000					1382.43	
18	0.7300	1155.9	1176.4	0.686	5.730	69.362	19.393	4.277	0.162	0.354	0.018	0.019	0.000					1376.91	
19	0.7374	1165.0	1185.6	0.729	5.812	68.115	20.299	4.467	0.169	0.371	0.019	0.019	0.000					1380.67	
20	0.7373	1165.3	1186.0	0.721	5.790	68.158	20.277	4.472	0.170	0.375	0.019	0.019	0.000					1381.20	
21	0.7416	1170.2	1190.9	0.736	5.873	67.490	20.660	4.639	0.176	0.386	0.019	0.020	0.000					1382.92	
22	0.7458	1175.6	1196.4	0.757	5.911	66.776	21.192	4.749	0.180	0.394	0.020	0.021	0.000					1385.36	
23	0.7465	1176.9	1197.7	0.769	5.881	66.674	21.303	4.746	0.182	0.402	0.021	0.022	0.000					1386.21	
24	0.7435	1172.2	1192.9	0.744	5.924	67.279	20.660	4.755	0.185	0.411	0.021	0.021	0.000					1383.45	
25	0.7435	1171.8	1192.5	0.743	5.951	67.287	20.617	4.760	0.186	0.414	0.021	0.021	0.000					1382.97	
26	0.7426	1170.2	1190.9	0.740	5.959	67.433	20.505	4.730	0.184	0.408	0.021	0.021	0.000					1382.03	
27	0.7443	1172.5	1193.3	0.747	5.969	67.140	20.726	4.780	0.186	0.411	0.021	0.021	0.000					1383.19	
28	0.7423	1170.9	1191.6	0.735	5.900	67.451	20.586	4.698	0.183	0.406	0.021	0.021	0.000					1383.07	
29	0.7416	1169.5	1190.2	0.732	5.921	67.572	20.461	4.695	0.180	0.398	0.020	0.020	0.000					1382.10	
30	0.7342	1160.9	1181.5	0.703	5.798	68.742	19.728	4.445	0.170	0.376	0.020	0.020	0.000					1378.82	
31	0.7337	1161.1	1181.7	0.707	5.734	68.767	19.834	4.385	0.167	0.368	0.019	0.019	0.000					1379.52	
Avg	0.7393	1168.0	1188.2	0.729	5.828	67.878	20.400	4.571	0.174	0.382	0.020	0.020	0.000					1381.99	

Zone 272

GQ Source Daily Summary

May 2015

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	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7342	1160.5	1181.1	0.701	5.820	68.726	19.732	4.442	0.169	0.371	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1378.40	
2	0.7262	1156.4	1176.9	0.710	5.313	69.952	19.443	4.065	0.150	0.329	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1381.06	
3	0.7451	1176.0	1196.8	0.777	5.789	66.740	21.508	4.610	0.170	0.370	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1386.52	
4	0.7396	1168.1	1188.8	0.738	5.810	67.708	20.664	4.507	0.168	0.367	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1382.35	
5	0.7367	1163.8	1184.4	0.713	5.842	68.247	20.135	4.488	0.168	0.369	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1379.92	
6	0.7387	1166.0	1186.7	0.723	5.877	67.910	20.372	4.539	0.170	0.373	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1380.69	
7	0.7433	1171.5	1192.2	0.747	5.939	67.150	20.907	4.660	0.175	0.384	0.019	0.018	0.000	0.000	0.000	0.000	0.000	1382.87	
8	0.7418	1170.3	1191.0	0.745	5.875	67.436	20.708	4.647	0.174	0.380	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1382.87	
9	0.7347	1161.2	1181.7	0.701	5.828	68.609	19.848	4.443	0.168	0.367	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1378.72	
10	0.7317	1158.8	1179.3	0.691	5.707	69.118	19.591	4.322	0.165	0.367	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1378.68	
11	0.7378	1166.2	1186.9	0.727	5.776	68.086	20.320	4.512	0.170	0.373	0.019	0.018	0.000	0.000	0.000	0.000	0.000	1381.77	
12	0.7432	1171.5	1192.3	0.749	5.929	67.147	20.907	4.686	0.173	0.375	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1382.97	
13	0.7460	1176.1	1196.9	0.758	5.896	66.775	21.164	4.799	0.179	0.390	0.020	0.019	0.000	0.000	0.000	0.000	0.000	1385.78	
14	0.7439	1172.9	1193.7	0.747	5.911	67.102	20.908	4.730	0.178	0.386	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1383.98	
15	0.7410	1169.4	1190.1	0.730	5.878	67.589	20.563	4.645	0.175	0.381	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1382.53	
16	0.7416	1169.6	1190.3	0.739	5.910	67.437	20.686	4.647	0.173	0.371	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1382.20	
17	0.7396	1167.8	1188.4	0.737	5.838	67.755	20.539	4.555	0.171	0.368	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1381.88	
18	0.7300	1156.0	1176.5	0.687	5.730	69.356	19.396	4.278	0.163	0.354	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1376.92	
19	0.7374	1164.9	1185.5	0.729	5.813	68.125	20.290	4.465	0.169	0.371	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1380.58	
20	0.7373	1165.3	1186.0	0.722	5.793	68.139	20.298	4.466	0.170	0.374	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1381.16	
21	0.7415	1170.1	1190.8	0.737	5.875	67.493	20.658	4.637	0.176	0.386	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1382.85	
22	0.7457	1175.3	1196.1	0.756	5.917	66.807	21.152	4.753	0.180	0.395	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1385.16	
23	0.7465	1176.8	1197.7	0.769	5.880	66.681	21.294	4.749	0.182	0.402	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1386.21	
24	0.7435	1172.1	1192.8	0.744	5.929	67.277	20.659	4.754	0.185	0.411	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1383.36	
25	0.7435	1171.6	1192.3	0.743	5.957	67.294	20.605	4.758	0.186	0.414	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1382.81	
26	0.7426	1170.2	1190.9	0.740	5.963	67.424	20.511	4.728	0.184	0.409	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1381.98	
27	0.7443	1172.4	1193.2	0.746	5.977	67.141	20.719	4.778	0.186	0.412	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1383.02	
28	0.7420	1170.5	1191.2	0.735	5.904	67.493	20.548	4.690	0.183	0.406	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1382.80	
29	0.7418	1169.7	1190.5	0.734	5.925	67.533	20.488	4.702	0.180	0.398	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1382.20	
30	0.7337	1160.1	1180.6	0.700	5.800	68.832	19.657	4.427	0.169	0.375	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1378.36	
31	0.7336	1160.8	1181.3	0.707	5.742	68.799	19.797	4.378	0.168	0.371	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1379.24	
Avg	0.7396	1168.0	1188.5	0.732	5.843	67.803	20.454	4.576	0.173	0.381	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1381.93	

*** End of Report***

Zone 273

GQ Source Daily Summary

May 2015

Number: 041

Pressure Base: 14.730

Contract Day: 1

Name: BISMARCK STATION-GLEN ULLIN STATION

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	0.7144	1141.6	1161.8	0.641	5.210	72.028	17.814	3.802	0.143	0.324	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1374.52	
2	0.7324	1162.5	1183.0	0.730	5.494	68.920	20.064	4.248	0.158	0.349	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1382.41	
3	0.7447	1176.3	1197.1	0.761	5.759	66.930	21.275	4.671	0.176	0.389	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1387.21	
4	0.7371	1165.3	1186.0	0.716	5.777	68.197	20.250	4.478	0.169	0.375	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1381.40	
5	0.7362	1163.7	1184.3	0.710	5.807	68.388	20.009	4.505	0.170	0.375	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1380.25	
6	0.7443	1173.3	1194.0	0.750	5.917	67.043	20.965	4.711	0.179	0.396	0.020	0.019	0.000	0.000	0.000	0.000	0.000	1384.07	
7	0.7410	1170.2	1191.0	0.729	5.824	67.596	20.621	4.632	0.175	0.386	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1383.57	
8	0.7419	1170.6	1191.3	0.732	5.882	67.478	20.603	4.705	0.176	0.386	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1383.16	
9	0.7284	1154.7	1175.1	0.672	5.677	69.640	19.235	4.219	0.161	0.359	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1376.91	
10	0.7391	1169.1	1189.8	0.727	5.723	67.932	20.447	4.570	0.174	0.387	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1383.97	
11	0.7404	1170.2	1190.9	0.728	5.774	67.758	20.494	4.635	0.177	0.395	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1384.03	
12	0.7454	1175.8	1196.6	0.750	5.865	66.948	21.008	4.798	0.183	0.406	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1386.05	
13	0.7459	1176.3	1197.1	0.752	5.886	66.886	20.992	4.855	0.184	0.405	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1386.07	
14	0.7454	1175.3	1196.1	0.751	5.901	66.907	21.026	4.794	0.182	0.399	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1385.39	
15	0.7389	1167.0	1187.6	0.722	5.836	67.958	20.305	4.592	0.173	0.377	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1381.67	
16	0.7413	1170.0	1190.7	0.738	5.855	67.552	20.606	4.656	0.174	0.380	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1382.97	
17	0.7358	1163.7	1184.3	0.710	5.767	68.420	20.079	4.444	0.169	0.373	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1380.65	
18	0.7337	1161.2	1181.8	0.707	5.722	68.773	19.844	4.386	0.166	0.364	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1379.70	
19	0.7394	1168.2	1188.8	0.739	5.787	67.827	20.518	4.539	0.172	0.378	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1382.58	
20	0.7368	1165.1	1185.7	0.717	5.768	68.269	20.175	4.482	0.172	0.378	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1381.33	
21	0.7445	1173.8	1194.6	0.747	5.911	67.046	20.922	4.750	0.182	0.402	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1384.50	
22	0.7463	1177.1	1198.0	0.768	5.842	66.723	21.295	4.748	0.181	0.400	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1386.76	
23	0.7442	1173.7	1194.5	0.749	5.887	67.182	20.768	4.773	0.185	0.414	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1384.61	
24	0.7439	1172.8	1193.6	0.745	5.918	67.251	20.656	4.780	0.187	0.419	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1383.87	
25	0.7417	1170.1	1190.8	0.736	5.892	67.621	20.388	4.721	0.185	0.415	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1382.71	
26	0.7447	1173.4	1194.2	0.749	5.954	67.127	20.696	4.825	0.188	0.419	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1383.78	
27	0.7415	1170.1	1190.9	0.734	5.869	67.615	20.467	4.679	0.183	0.411	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1382.97	
28	0.7477	1178.2	1199.0	0.757	5.926	66.644	21.103	4.918	0.189	0.422	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1386.68	
29	0.7328	1159.4	1180.0	0.691	5.768	69.005	19.540	4.406	0.170	0.381	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1378.46	
30	0.7340	1162.0	1182.6	0.706	5.707	68.832	19.700	4.466	0.170	0.380	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1380.32	
31	0.7371	1165.3	1186.0	0.729	5.757	68.173	20.330	4.427	0.169	0.377	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1381.41	
Avg	0.7394	1168.0	1188.9	0.729	5.796	67.893	20.393	4.588	0.175	0.388	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1382.71	

Zone 28

GQ Source Daily Summary

May 2015

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 Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6485	1059.7	1078.5	1.589	2.557	84.912	8.723	1.759	0.169	0.196	0.062	0.032	0.000	0.000	0.000	0.000	0.000	1339.25	
2	0.6526	1064.0	1082.9	1.578	2.698	84.163	9.213	1.881	0.170	0.203	0.061	0.032	0.000	0.000	0.000	0.000	0.000	1340.48	
3	0.6619	1074.4	1093.4	1.476	3.101	82.405	10.333	2.201	0.171	0.226	0.056	0.030	0.000	0.000	0.000	0.000	0.000	1343.90	
4	0.6440	1053.7	1072.3	1.636	2.435	85.698	8.180	1.606	0.164	0.187	0.061	0.033	0.000	0.000	0.000	0.000	0.000	1336.25	
5	0.6619	1071.9	1090.9	1.704	2.898	82.498	10.372	2.063	0.166	0.211	0.056	0.031	0.000	0.000	0.000	0.000	0.000	1340.93	
6	0.6746	1089.5	1108.7	1.425	3.447	80.035	12.065	2.531	0.171	0.246	0.051	0.029	0.000	0.000	0.000	0.000	0.000	1349.96	
7	0.6470	1056.3	1075.0	1.705	2.450	85.260	8.419	1.703	0.171	0.199	0.061	0.032	0.000	0.000	0.000	0.000	0.000	1336.48	
8	0.6310	1036.7	1055.0	1.930	1.805	88.357	6.281	1.185	0.171	0.167	0.069	0.034	0.000	0.000	0.000	0.000	0.000	1328.11	
9	0.6434	1051.6	1070.3	1.787	2.275	86.009	7.891	1.579	0.171	0.189	0.064	0.033	0.000	0.000	0.000	0.000	0.000	1334.25	
10	0.6789	1143.7	1163.9	0.171	2.483	75.285	21.218	0.781	0.023	0.028	0.006	0.003	0.000	0.000	0.000	0.000	0.000	1412.42	
11	0.6833	1154.7	1175.2	0.000	2.482	74.025	22.781	0.696	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.68	
12	0.6832	1154.1	1174.5	0.000	2.512	74.033	22.751	0.687	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.97	
13	0.6748	1137.9	1158.0	0.239	2.345	76.076	20.614	0.688	0.016	0.015	0.004	0.002	0.000	0.000	0.000	0.000	0.000	1409.39	
14	0.6556	1101.8	1121.3	0.744	1.962	80.844	15.654	0.645	0.064	0.049	0.026	0.012	0.000	0.000	0.000	0.000	0.000	1384.19	
15	0.6135	1015.4	1033.4	2.156	1.112	91.633	4.140	0.558	0.166	0.119	0.078	0.037	0.000	0.000	0.000	0.000	0.000	1319.27	
16	0.6444	1055.6	1074.2	1.614	2.386	85.709	8.223	1.612	0.171	0.181	0.068	0.034	0.000	0.000	0.000	0.000	0.000	1338.25	
17	0.6754	1128.0	1148.0	0.487	2.622	77.035	18.456	1.221	0.065	0.081	0.021	0.011	0.000	0.000	0.000	0.000	0.000	1396.54	
18	0.6850	1156.2	1176.6	0.000	2.555	73.745	22.907	0.775	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.66	
19	0.6829	1152.8	1173.2	0.000	2.561	74.091	22.641	0.691	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.72	
20	0.6847	1155.9	1176.3	0.000	2.545	73.861	22.749	0.826	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.59	
21	0.6839	1154.9	1175.3	0.000	2.533	73.972	22.700	0.777	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.17	
22	0.6844	1155.9	1176.4	0.000	2.510	73.935	22.705	0.831	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.03	
23	0.6841	1155.7	1176.1	0.000	2.503	73.931	22.773	0.775	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.96	
24	0.6842	1155.8	1176.2	0.000	2.505	73.920	22.776	0.780	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.00	
25	0.6844	1156.0	1176.5	0.000	2.509	73.923	22.731	0.819	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.07	
26	0.6837	1154.5	1174.9	0.000	2.535	74.027	22.634	0.785	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.93	
27	0.6846	1156.4	1176.9	0.000	2.496	73.980	22.619	0.863	0.013	0.025	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1422.44	
28	0.6667	1124.3	1144.2	0.401	2.163	78.097	18.507	0.733	0.043	0.035	0.014	0.007	0.000	0.000	0.000	0.000	0.000	1400.93	
29	0.6544	1076.8	1095.9	1.237	2.610	83.018	11.098	1.651	0.144	0.164	0.051	0.026	0.000	0.000	0.000	0.000	0.000	1354.87	
30	0.6669	1083.6	1102.8	1.320	3.241	81.443	11.094	2.399	0.174	0.244	0.054	0.031	0.000	0.000	0.000	0.000	0.000	1350.42	
31	0.6719	1089.2	1108.5	1.233	3.502	80.444	11.749	2.564	0.172	0.255	0.051	0.030	0.000	0.000	0.000	0.000	0.000	1352.34	
Avg	0.6670	1109.0	1128.6	0.788	2.527	79.238	15.968	1.247	0.086	0.101	0.029	0.016	0.000	0.000	0.000	0.000	0.000	1381.50	

Zone 31

GQ Source Analysis

GQ Source Number:	0202080	Specific Gravity:	0.7217
GQ Source Name:	RICHARDTON-GLEN ULLIN COMPRE	Dry Heat Value:	1171.23
Effective Date:	5/1/2015 9:00:00 AM	Wet Heat Value:	1150.85
Effective End Date:	1/18/2038 9:14:00 PM	As Deliv. Heat Value:	1171.23
Pressure Base:	14.730	Sample Pressure:	336.00
Viscosity:		Sample Temperature:	0.00

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	70.919		CO2	Carbon Dioxide	0.790
C2	Ethane	18.729	4.9940	N2	Nitrogen	5.101
C3	Propane	3.902	1.0720	O2	Oxygen	
IC4	Isobutane	0.161	0.0530	He	Helium	
NC4	n-Butane	0.333	0.1050	H2	Hydrogen	
IC5	Isopentane	0.025	0.0090	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.020	0.0070	Ar	Argon	
C6	Hexanes	0.020	0.0080	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	0.000
C9	Nonanes					
C10	Decanes					
Totals		100.000%	6.248 GPM			

Sample Date: 5/1/2014 10:29:00 AM
Sample Type: Composite
Sample Tech: RR
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 311

GQ Source Daily Summary

May 2015

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 Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6782	1138.7	1158.8	0.334	2.471	75.865	20.342	0.883	0.040	0.046	0.013	0.007	0.000	0.000	0.000	0.000	0.000	1407.12	
2	0.6778	1134.2	1154.3	0.416	2.574	76.224	19.650	1.006	0.049	0.056	0.016	0.008	0.000	0.000	0.000	0.000	0.000	1402.10	
3	0.6775	1131.1	1151.1	0.489	2.629	76.482	19.165	1.081	0.057	0.070	0.018	0.010	0.000	0.000	0.000	0.000	0.000	1398.49	
4	0.6827	1142.6	1162.8	0.313	2.682	75.075	20.778	1.035	0.042	0.057	0.012	0.006	0.000	0.000	0.000	0.000	0.000	1407.37	
5	0.6785	1137.4	1157.5	0.382	2.498	75.975	20.064	0.962	0.044	0.053	0.014	0.007	0.000	0.000	0.000	0.000	0.000	1405.30	
6	0.6774	1128.1	1148.1	0.603	2.630	76.714	18.743	1.143	0.061	0.077	0.019	0.010	0.000	0.000	0.000	0.000	0.000	1394.81	
7	0.6765	1124.8	1144.7	0.435	2.999	76.808	18.257	1.345	0.055	0.079	0.014	0.008	0.000	0.000	0.000	0.000	0.000	1391.64	
8	0.6822	1126.9	1146.9	0.767	2.892	76.638	17.768	1.669	0.092	0.131	0.027	0.015	0.000	0.000	0.000	0.000	0.000	1388.56	
9	0.6839	1145.1	1165.4	0.262	2.722	74.835	20.975	1.090	0.040	0.059	0.010	0.006	0.000	0.000	0.000	0.000	0.000	1409.19	
10	0.6861	1158.3	1178.8	0.004	2.522	73.438	23.348	0.672	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.16	
11	0.6578	1108.5	1128.1	0.033	2.849	79.062	17.500	0.540	0.008	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1389.94	
12	0.6846	1155.7	1176.1	0.007	2.539	73.754	22.989	0.694	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.43	
13	0.6872	1160.3	1180.8	0.003	2.512	73.238	23.515	0.714	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.39	
14	0.6884	1161.5	1182.1	0.004	2.548	73.041	23.626	0.759	0.008	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.65	
15	0.6883	1160.2	1180.8	0.004	2.610	73.076	23.512	0.779	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.27	
16	0.6751	1133.8	1153.9	0.447	2.300	76.538	19.829	0.791	0.039	0.033	0.015	0.007	0.000	0.000	0.000	0.000	0.000	1404.32	
17	0.6716	1123.6	1143.5	0.527	2.470	77.692	18.120	1.061	0.053	0.050	0.019	0.009	0.000	0.000	0.000	0.000	0.000	1395.34	
18	0.6815	1135.6	1155.7	0.407	2.851	75.869	19.306	1.418	0.054	0.070	0.016	0.008	0.000	0.000	0.000	0.000	0.000	1399.91	
19	0.6861	1153.8	1174.2	0.148	2.576	73.988	22.288	0.934	0.024	0.033	0.006	0.003	0.000	0.000	0.000	0.000	0.000	1417.60	
20	0.6757	1136.8	1156.9	0.046	2.788	75.923	20.206	1.003	0.014	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1407.04	
21	0.6876	1138.9	1159.0	0.265	3.443	74.921	19.083	2.182	0.039	0.062	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1397.48	
22	0.6876	1160.1	1180.7	0.004	2.553	73.214	23.438	0.772	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.83	
23	0.6883	1161.6	1182.2	0.004	2.527	73.117	23.524	0.808	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.95	
24	0.6892	1163.2	1183.8	0.004	2.515	73.008	23.571	0.883	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.97	
25	0.6878	1161.2	1181.8	0.004	2.502	73.215	23.467	0.793	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.98	
26	0.6883	1162.1	1182.6	0.003	2.501	73.097	23.593	0.787	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.48	
27	0.6877	1161.0	1181.6	0.003	2.503	73.210	23.496	0.769	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.89	
28	0.6869	1157.4	1177.9	0.018	2.631	73.544	22.845	0.933	0.011	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1421.15	
29	0.6783	1144.0	1164.3	0.229	2.316	75.479	21.153	0.759	0.027	0.025	0.008	0.004	0.000	0.000	0.000	0.000	0.000	1413.59	
30	0.6796	1139.0	1159.1	0.356	2.544	75.776	20.167	1.036	0.046	0.054	0.014	0.007	0.000	0.000	0.000	0.000	0.000	1406.14	
31	0.6823	1137.6	1157.8	0.425	2.778	75.644	19.676	1.296	0.062	0.092	0.018	0.010	0.000	0.000	0.000	0.000	0.000	1401.61	
Avg	0.6820	1145.0	1164.9	0.224	2.628	74.983	21.096	0.987	0.030	0.039	0.008	0.004	0.000	0.000	0.000	0.000	0.000	1410.51	

Zone 32

GQ Source Daily Summary

May 2015

Number: 111

Pressure Base: 14.730

Contract Day: 1

Name: LITTLE KNIFE-BELFIELD TRANSFER

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	0.6872	1159.8	1180.3	0.004	2.541	73.264	23.430	0.745	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.76	
2	0.6869	1158.8	1179.3	0.003	2.573	73.293	23.394	0.721	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.90	
3	0.6871	1159.5	1180.1	0.004	2.540	73.254	23.484	0.703	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.65	
4	0.6879	1161.9	1182.4	0.003	2.478	73.130	23.631	0.742	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.64	
5	0.6875	1161.7	1182.3	0.003	2.452	73.192	23.614	0.723	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.86	
6	0.6855	1157.8	1178.3	0.001	2.498	73.720	22.936	0.821	0.010	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.19	
7	0.6848	1156.3	1176.8	0.000	2.528	73.834	22.816	0.792	0.011	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1422.05	
8	0.6863	1157.7	1178.2	0.001	2.583	73.423	23.247	0.725	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.22	
9	0.6873	1160.4	1181.0	0.003	2.505	73.215	23.563	0.698	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.55	
10	0.6879	1161.8	1182.4	0.003	2.477	73.114	23.673	0.717	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.63	
11	0.6886	1162.6	1183.1	0.002	2.500	72.966	23.796	0.720	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.81	
12	0.6887	1162.6	1183.2	0.002	2.509	72.947	23.798	0.728	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.75	
13	0.6895	1162.8	1183.4	0.003	2.566	72.824	23.827	0.763	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.19	
14	0.6897	1162.7	1183.3	0.003	2.594	72.804	23.789	0.793	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.82	
15	0.6904	1164.1	1184.7	0.004	2.575	72.711	23.851	0.841	0.007	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.79	
16	0.6896	1163.8	1184.4	0.004	2.511	72.914	23.692	0.861	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.36	
17	0.6895	1163.7	1184.3	0.003	2.515	72.831	23.859	0.775	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.26	
18	0.6893	1162.9	1183.5	0.003	2.550	72.848	23.822	0.760	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.42	
19	0.6891	1162.8	1183.4	0.003	2.536	72.953	23.671	0.818	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.52	
20	0.6893	1163.2	1183.8	0.002	2.529	72.924	23.703	0.824	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.82	
21	0.6895	1163.9	1184.5	0.003	2.503	72.903	23.736	0.837	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.48	
22	0.6894	1163.8	1184.4	0.003	2.501	72.906	23.743	0.830	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.49	
23	0.6892	1163.6	1184.2	0.003	2.491	72.931	23.752	0.805	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.46	
24	0.6889	1163.1	1183.7	0.003	2.493	72.979	23.724	0.784	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.15	
25	0.6891	1163.2	1183.8	0.003	2.508	72.973	23.675	0.824	0.007	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.02	
26	0.6897	1164.1	1184.7	0.003	2.506	72.971	23.594	0.883	0.013	0.026	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1426.58	
27	0.6890	1163.8	1184.4	0.003	2.463	72.986	23.718	0.812	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.87	
28	0.6888	1163.1	1183.7	0.003	2.482	73.011	23.692	0.795	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.30	
29	0.6882	1162.2	1182.7	0.003	2.487	73.087	23.646	0.759	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.70	
30	0.6882	1162.2	1182.8	0.003	2.483	73.113	23.608	0.776	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.75	
31	0.6878	1161.9	1182.5	0.003	2.464	73.185	23.564	0.766	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.80	
Avg	0.6884	1162.0	1182.6	0.003	2.514	73.071	23.614	0.779	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.32	

Zone 33

GQ Source Analysis

GQ Source Number:	1202160	Specific Gravity:	0.6863
GQ Source Name:	BOWMAN BORDER	Dry Heat Value:	1129.81
Effective Date:	5/1/2015 9:00:00 AM	Wet Heat Value:	1110.15
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1129.81
Pressure Base:	14.730	Sample Pressure:	
Viscosity:		Sample Temperature:	

	<u>Mol %</u>	<u>Liquid Content</u>		<u>Mol %</u>	
C1	Methane	74.291	C02	Carbon Dioxide	0.135
C2	Ethane	18.512	N2	Nitrogen	5.268
C3	Propane	1.692	O2	Oxygen	
IC4	Isobutane	0.031	He	Helium	
NC4	n-Butane	0.062	H2	Hydrogen	
IC5	Isopentane	0.003	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.004	Ar	Argon	
C6	Hexanes	0.002	CO	Carbon Monoxide	
C7	Heptanes		H2	Water	
C8	Octanes		Neo-C5	Neopentane	
C9	Nonanes				
C10	Decanes				
Totals		100.000%	5.434 GPM		

Sample Date: 5/1/2015 9:00:00 AM
Sample Type: Composite
Sample Tech: MIKE GENTILINI
H2S: ppm

Sample Remarks:

Analysis Tech: MIKE GENTILINI

Analysis Remarks:

Zone 34

May-15

ZONE 610

		Watford City			01312			Weighted		
		01320			Watford City East Border					
		Watford City Border								
Begin Date	End Date	MCF	DK	BTU	MCF	DK	BTU	AVG	BTU	
				Zone 25			Zone 43			
5/1/2015	5/2/2015	147	179	1.220	33	39	1.193	1.215	5/1/2015	
5/2/2015	5/3/2015	125	153	1.220	19	22	1.196	1.217	5/2/2015	
5/3/2015	5/4/2015	183	223	1.220	38	45	1.184	1.214	5/3/2015	
5/4/2015	5/5/2015	164	200	1.220	24	29	1.202	1.218	5/4/2015	
5/5/2015	5/6/2015	126	154	1.220	27	32	1.202	1.217	5/5/2015	
5/6/2015	5/7/2015	187	228	1.220	26	31	1.193	1.217	5/6/2015	
5/7/2015	5/8/2015	259	316	1.220	45	53	1.182	1.214	5/7/2015	
5/8/2015	5/9/2015	277	338	1.220	36	44	1.197	1.217	5/8/2015	
5/9/2015	5/10/2015	259	316	1.220	25	30	1.187	1.217	5/9/2015	
5/10/2015	5/11/2015	296	361	1.220	41	49	1.188	1.216	5/10/2015	
5/11/2015	5/12/2015	222	271	1.220	74	87	1.181	1.210	5/11/2015	
5/12/2015	5/13/2015	200	244	1.220	35	42	1.195	1.216	5/12/2015	
5/13/2015	5/14/2015	238	290	1.220	29	35	1.212	1.219	5/13/2015	
5/14/2015	5/15/2015	267	326	1.220	43	52	1.217	1.220	5/14/2015	
5/15/2015	5/16/2015	174	212	1.220	26	31	1.201	1.218	5/15/2015	
5/16/2015	5/17/2015	218	265	1.220	17	20	1.213	1.219	5/16/2015	
5/17/2015	5/18/2015	386	471	1.220	114	139	1.210	1.218	5/17/2015	
5/18/2015	5/19/2015	289	352	1.220	47	56	1.198	1.217	5/18/2015	
5/19/2015	5/20/2015	227	277	1.220	43	51	1.194	1.216	5/19/2015	
5/20/2015	5/21/2015	158	192	1.220	219	263	1.193	1.204	5/20/2015	
5/21/2015	5/22/2015	130	159	1.220	289	348	1.205	1.210	5/21/2015	
5/22/2015	5/23/2015	116	141	1.220	16	19	1.202	1.218	5/22/2015	
5/23/2015	5/24/2015	107	131	1.220	12	15	1.187	1.217	5/23/2015	
5/24/2015	5/25/2015	107	131	1.220	11	13	1.192	1.217	5/24/2015	
5/25/2015	5/26/2015	113	137	1.220	24	29	1.184	1.214	5/25/2015	
5/26/2015	5/27/2015	107	131	1.220	24	29	1.197	1.216	5/26/2015	
5/27/2015	5/28/2015	113	137	1.220	20	24	1.196	1.216	5/27/2015	
5/28/2015	5/29/2015	125	153	1.220	18	22	1.197	1.217	5/28/2015	
5/29/2015	5/30/2015	196	240	1.220	20	24	1.194	1.218	5/29/2015	
5/30/2015	5/31/2015	185	225	1.220	18	21	1.193	1.218	5/30/2015	
5/31/2015	6/1/2015	147	179	1.220	19	22	1.181		5/31/2015	
		5,848	7,132		1,432	1,716	1.1957	1.2160		

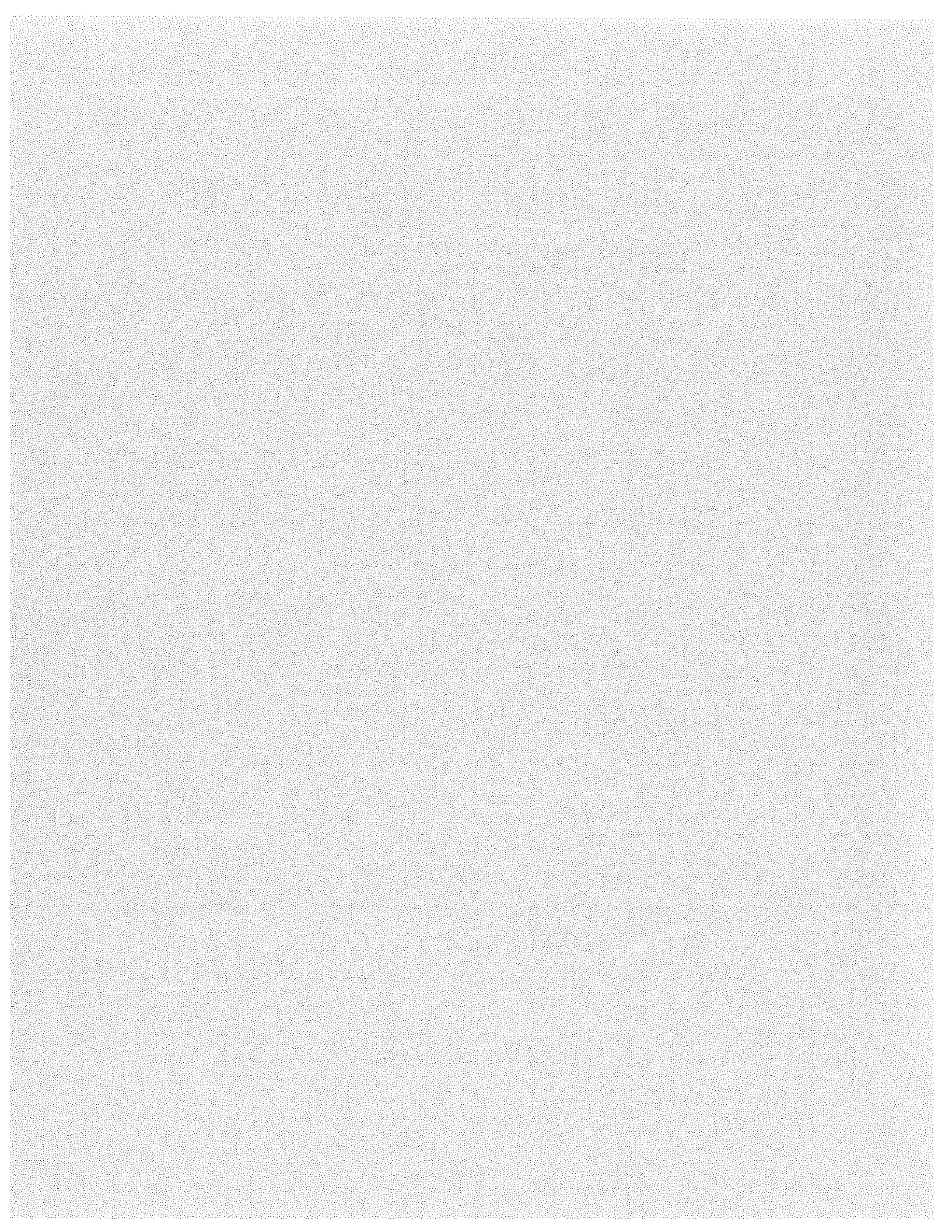
Gas Quality

[Gas Quality Download - Chromatograph]

ROW ID	LOCATION DESCRIPTION	GROSS HEATING VALUE (BTU/CF)	SPECIFIC GRAVITY	WOBBE (cal/ci)	CRIC ONDENTHERM (deg F)	NITROGEN (mole percent)	CARBON DIOXIDE (mole percent)	METHANE (mole percent)	ETHANE (mole percent)	PROPANE (mole percent)	NORMAL BUTANE (mole percent)	ISO BUTANE (mole percent)	PENTANE (mole percent)	ISO PENTANE (mole percent)	NEO PENTANE (mole percent)	HEXANES PLUS (mole percent)	HYDROGEN (mole percent)	HELIUM (mole percent)	PRODUCTION DATE	POSTING DATE	Change timestamp	NOTES
11587	GLEN ULLIN	1076	0.6226	1363.7	-44.9	1.3345	0.8985	87.5648	9.0197	0.8477	0.0642	0.0518	0.0092	0.0122	0	0.0068	0.1737	0.0188	4/30/2015	5/1/2015	5/1/2015 2:24:35 PM	
11587	GLEN ULLIN	1076.1	0.6235	1362.8	-41.3	1.3983	0.9085	87.3997	9.0669	0.8511	0.0742	0.058	0.0105	0.014	0	0.0084	0.1948	0.0188	5/1/2015	5/2/2015	5/2/2015 2:24:23 PM	
11587	GLEN ULLIN	1078.2	0.6245	1364.3	-42.4	1.4067	0.8802	87.2206	9.2461	0.8799	0.0764	0.059	0.0104	0.0139	0	0.0073	0.1841	0.0188	5/2/2015	5/3/2015	5/3/2015 2:26:26 PM	
11587	GLEN ULLIN	1077.1	0.6235	1364.1	-44.5	1.4072	0.8611	87.2841	9.3053	0.8014	0.065	0.0519	0.0092	0.0124	0	0.0071	0.1797	0.0188	5/3/2015	5/4/2015	5/4/2015 2:24:26 PM	
11587	GLEN ULLIN	1070.5	0.6187	1361	-45.4	1.3521	0.861	88.3421	8.253	0.8454	0.0691	0.0551	0.0097	0.013	0	0.0069	0.177	0.0188	5/4/2015	5/5/2015	5/5/2015 2:25:44 PM	
11587	GLEN ULLIN	1072.3	0.6204	1361.4	-43.6	1.3945	0.8695	88.078	8.4141	0.9139	0.0692	0.0537	0.0093	0.0123	0	0.0064	0.1629	0.0188	5/5/2015	5/6/2015	5/6/2015 2:23:43 PM	
11587	GLEN ULLIN	1077	0.6233	1364.2	-40.3	1.3808	0.8713	87.6053	8.8478	0.9557	0.0777	0.0611	0.0107	0.0144	0	0.0086	0.1492	0.0188	5/6/2015	5/7/2015	5/7/2015 2:24:14 PM	
11587	GLEN ULLIN	1057.1	0.6112	1352.2	-72.9	1.4341	0.871	89.2771	7.7342	0.4852	0.0167	0.0118	0.0002	0.0004	0	0	0.1513	0.0188	5/7/2015	5/8/2015	5/8/2015 2:24:21 PM	
11587	GLEN ULLIN	1061.1	0.6135	1354.8	-61.4	1.4249	0.8622	89.0413	7.8007	0.6182	0.0383	0.0292	0.0046	0.0063	0	0.0027	0.1544	0.0188	5/8/2015	5/9/2015	5/9/2015 2:23:49 PM	
11587	GLEN ULLIN	1059.6	0.6125	1353.9	-72.1	1.4215	0.8666	88.9753	8.0869	0.4626	0.014	0.0088	0.0001	0.0002	0	0	0.1466	0.0188	5/9/2015	5/10/2015	5/10/2015 2:24:02 PM	
11587	GLEN ULLIN	1055.9	0.6097	1352.3	-73.5	1.3835	0.8622	89.635	7.4343	0.5028	0.0168	0.0122	0.001	0.0018	0	0	0.133	0.0188	5/10/2015	5/11/2015	5/11/2015 2:23:34 PM	
11587	GLEN ULLIN	1059.3	0.6128	1353.2	-70.8	1.4307	0.8892	88.9728	7.9415	0.5363	0.0184	0.0133	0.0012	0.002	0	0	0.1778	0.0188	5/11/2015	5/12/2015	5/12/2015 2:23:30 PM	
11587	GLEN ULLIN	1057.7	0.6118	1352.3	-72.4	1.4023	0.9048	89.1619	7.8493	0.4695	0.0167	0.0122	0.0008	0.0016	0	0	0.1649	0.0188	5/12/2015	5/13/2015	5/13/2015 2:23:51 PM	
11587	GLEN ULLIN	1057.2	0.6115	1352	-72.2	1.4231	0.8946	89.2705	7.6871	0.5171	0.0187	0.0125	0.0009	0.0015	0	0	0.158	0.0188	5/13/2015	5/14/2015	5/14/2015 2:23:49 PM	
11587	GLEN ULLIN	1059.5	0.6119	1354.4	-69.3	1.3788	0.8616	89.3617	7.5483	0.6483	0.0255	0.0186	0.002	0.0028	0	0.0005	0.1371	0.0188	5/14/2015	5/15/2015	5/15/2015 2:23:56 PM	
11587	GLEN ULLIN	1058.6	0.6118	1353.5	-71.7	1.4623	0.8308	89.1466	7.7717	0.5713	0.0156	0.0103	0.0001	0.0005	0	0	0.1727	0.0188	5/15/2015	5/16/2015	5/16/2015 2:23:56 PM	
11587	GLEN ULLIN	1060.1	0.6127	1354.3	-70.6	1.4422	0.8438	89.0311	7.8806	0.5924	0.0184	0.0122	0.0008	0.001	0	0	0.1611	0.0188	5/16/2015	5/17/2015	5/17/2015 2:24:41 PM	
11587	GLEN ULLIN	1056.9	0.6106	1352.6	-73	1.4251	0.8513	89.3897	7.5961	0.5334	0.0147	0.0093	0.0001	0.0001	0	0	0.1633	0.0188	5/17/2015	5/18/2015	5/18/2015 2:23:50 PM	
11587	GLEN ULLIN	1053.9	0.6085	1351	-74.6	1.4014	0.8528	89.8136	7.1968	0.5226	0.0146	0.0097	0.0004	0.0005	0	0	0.1712	0.0188	5/18/2015	5/19/2015	5/19/2015 2:23:25 PM	
11587	GLEN ULLIN	1057.4	0.6108	1352.9	-71	1.416	0.8461	89.449	7.4899	0.5704	0.0244	0.0173	0.0023	0.0031	0	0.0004	0.1631	0.0188	5/19/2015	5/20/2015	5/20/2015 2:23:50 PM	
11587	GLEN ULLIN	1054.3	0.609	1351	-72.2	1.4189	0.8572	89.8055	7.1474	0.545	0.0255	0.0181	0.0026	0.0035	0	0.0006	0.1583	0.0188	5/20/2015	5/21/2015	5/21/2015 2:23:27 PM	
11587	GLEN ULLIN	1059.9	0.6126	1354.2	-62.6	1.4152	0.8601	89.2701	7.5357	0.6608	0.0403	0.03	0.0044	0.0062	0	0.0025	0.1588	0.0188	5/21/2015	5/22/2015	5/22/2015 2:23:59 PM	
11587	GLEN ULLIN	1066.4	0.6172	1357.4	-59	1.4661	0.8532	88.4186	8.2644	0.7335	0.0455	0.0327	0.0052	0.0069	0	0.0026	0.1553	0.0188	5/22/2015	5/23/2015	5/23/2015 2:24:04 PM	
11587	GLEN ULLIN	1062.3	0.6152	1354.4	-65.1	1.5128	0.8626	88.6423	8.1012	0.6251	0.0369	0.0249	0.0038	0.0049	0	0.0013	0.1656	0.0188	5/23/2015	5/24/2015	5/24/2015 2:24:06 PM	
11587	GLEN ULLIN	1061.5	0.6153	1353.3	-68	1.4982	0.909	88.6523	8.11	0.6185	0.0266	0.0177	0.0022	0.0029	0	0.0002	0.1464	0.0188	5/24/2015	5/25/2015	5/25/2015 2:24:01 PM	
11587	GLEN ULLIN	1062.3	0.6157	1353.9	-67.1	1.526	0.8843	88.5156	8.2424	0.6038	0.0288	0.0185	0.0028	0.0034	0	0.0005	0.1576	0.0188	5/25/2015	5/26/2015	5/26/2015 2:23:21 PM	
11587	GLEN ULLIN	1060.7	0.6143	1353.4	-68.4	1.5183	0.8691	88.782	7.9554	0.6388	0.027	0.0181	0.0024	0.003	0	0	0.1683	0.0188	5/26/2015	5/27/2015	5/27/2015 2:25:45 PM	
11587	GLEN ULLIN	1062.7	0.6157	1354.4	-66.1	1.5185	0.8721	88.618	8.0276	0.7281	0.0285	0.02	0.0022	0.0032	0	0.0005	0.1632	0.0188	5/27/2015	5/28/2015	5/28/2015 2:24:42 PM	
11587	GLEN ULLIN	1059	0.6121	1353.6	-69.5	1.4367	0.8475	89.3388	7.4478	0.7123	0.0238	0.0174	0.0021	0.0028	0	0	0.1538	0.0188	5/28/2015	5/29/2015	5/29/2015 2:24:14 PM	
11587	GLEN ULLIN	1076.5	0.6235	1363.3	-27.8	1.4692	0.8387	88.1188	7.7811	1.3365	0.1223	0.0958	0.0178	0.0235	0	0.0151	0.1621	0.0188	5/29/2015	5/30/2015	5/30/2015 2:24:37 PM	
11587	GLEN ULLIN	1078.1	0.6255	1363.2	-23.4	1.5401	0.8535	87.7852	8.0645	1.286	0.1365	0.1073	0.0207	0.0273	0	0.0185	0.1416	0.0188	5/30/2015	5/31/2015	5/31/2015 2:24:18 PM	

31 record(s) retrieved

2-one 802



GQ Source Daily Summary

June 2015

Number: 251 Pressure Base: 14.730 Contract Day: 1
 Name: SIDNEY BORDER-MONDAK JUNCTN-SIDNEY 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	0.7386	1188.8	1209.8	1.179	3.790	68.329	21.841	4.399	0.149	0.282	0.016	0.013	0.000	0.000	0.000	0.000	0.000	1407.71	
2	0.7144	1185.0	1205.9	0.040	3.497	69.445	24.451	2.510	0.024	0.031	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1426.75	
3	0.7165	1182.9	1203.9	0.188	3.591	69.571	23.719	2.821	0.040	0.064	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1422.30	
4	0.7307	1174.5	1195.3	1.190	3.900	69.482	20.947	4.089	0.128	0.237	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1398.36	
5	0.7381	1186.3	1207.3	1.182	3.890	68.851	20.804	4.790	0.157	0.294	0.017	0.014	0.000	0.000	0.000	0.000	0.000	1405.19	
6	0.7334	1178.4	1199.3	1.178	3.933	69.282	20.809	4.364	0.142	0.263	0.016	0.013	0.000	0.000	0.000	0.000	0.000	1400.39	
7	0.7337	1179.1	1200.0	1.173	3.922	69.342	20.674	4.429	0.150	0.280	0.017	0.014	0.000	0.000	0.000	0.000	0.000	1400.99	
8	0.7342	1180.4	1201.3	1.173	3.895	69.167	20.954	4.340	0.153	0.285	0.017	0.014	0.000	0.000	0.000	0.000	0.000	1402.00	
9	0.7299	1172.4	1193.2	1.178	3.972	69.802	20.495	4.069	0.154	0.294	0.019	0.016	0.000	0.000	0.000	0.000	0.000	1396.56	
10	0.7335	1179.8	1200.7	1.199	3.831	68.736	21.937	3.903	0.128	0.239	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1401.96	
11	0.7352	1182.5	1203.4	1.194	3.836	68.492	22.087	3.994	0.129	0.242	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1403.47	
12	0.7330	1177.7	1198.6	1.193	3.918	69.111	21.235	4.119	0.138	0.258	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1399.94	
13	0.7309	1174.1	1194.9	1.187	3.950	69.502	20.848	4.082	0.141	0.262	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1397.65	
14	0.7305	1173.4	1194.2	1.186	3.953	69.547	20.843	4.042	0.140	0.260	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1397.23	
15	0.7338	1179.9	1200.8	1.193	3.862	68.791	21.745	4.015	0.129	0.239	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1401.75	
16	0.7337	1179.7	1200.6	1.201	3.851	68.807	21.736	4.022	0.125	0.233	0.014	0.011	0.000	0.000	0.000	0.000	0.000	1401.63	
17	0.7353	1182.6	1203.5	1.198	3.834	68.510	22.026	4.039	0.128	0.239	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1403.51	
18	0.7333	1179.9	1200.8	1.206	3.796	68.585	22.326	3.701	0.125	0.234	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1402.25	
19	0.7348	1181.3	1202.3	1.201	3.857	68.485	22.147	3.922	0.124	0.237	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1402.49	
20	0.7417	1191.1	1212.1	1.183	3.938	67.196	23.192	4.153	0.105	0.208	0.014	0.011	0.000	0.000	0.000	0.000	0.000	1407.50	
21	0.7358	1182.9	1203.8	1.202	3.855	68.547	21.822	4.190	0.123	0.232	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1403.36	
22	0.7398	1190.2	1211.3	1.203	3.779	68.130	21.958	4.520	0.133	0.250	0.015	0.012	0.000	0.000	0.000	0.000	0.000	1408.27	
23	0.7363	1184.4	1205.4	1.209	3.792	68.424	22.070	4.100	0.131	0.246	0.015	0.012	0.000	0.000	0.000	0.000	0.000	1404.81	
24	0.7379	1187.3	1208.3	1.206	3.772	68.200	22.228	4.177	0.135	0.253	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1406.67	
25	0.7425	1194.2	1215.3	1.202	3.791	67.919	21.887	4.723	0.154	0.291	0.018	0.015	0.000	0.000	0.000	0.000	0.000	1410.37	
26	0.7378	1186.5	1207.5	1.203	3.813	68.392	21.839	4.314	0.142	0.267	0.016	0.014	0.000	0.000	0.000	0.000	0.000	1405.84	
27	0.7380	1186.6	1207.6	1.204	3.823	68.341	21.881	4.327	0.137	0.258	0.016	0.013	0.000	0.000	0.000	0.000	0.000	1405.79	
28	0.7378	1186.3	1207.3	1.203	3.826	68.337	21.924	4.283	0.138	0.259	0.016	0.013	0.000	0.000	0.000	0.000	0.000	1405.57	
29	0.7447	1197.7	1218.9	1.194	3.801	67.690	21.827	5.062	0.137	0.256	0.018	0.015	0.000	0.000	0.000	0.000	0.000	1412.36	
30	0.7483	1203.5	1224.8	1.174	3.810	67.431	21.619	5.530	0.140	0.259	0.020	0.017	0.000	0.000	0.000	0.000	0.000	1415.83	
Avg	0.7348	1184.0	1204.6	1.121	3.836	68.681	21.796	4.168	0.129	0.242	0.015	0.012	0.000	0.000	0.000	0.000	0.000	1405.28	

Zone 211

GQ Source Analysis

GQ Source Number:	0602330	Specific Gravity:	0.7073
GQ Source Name:	WILLISTON BORDER	Dry Heat Value:	1187.40
Effective Date:	6/1/2015 9:00:00 AM	Wet Heat Value:	1166.74
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1187.40
Pressure Base:	14.730	Sample Pressure:	349.00
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	72.394		CO2	Carbon Dioxide	0.805
C2	Ethane	20.847	5.5586	N2	Nitrogen	2.735
C3	Propane	2.891	0.7942	O2	Oxygen	0.000
IC4	Isobutane	0.098	0.0319	He	Helium	
NC4	n-Butane	0.202	0.0635	H2	Hydrogen	
IC5	Isopentane	0.014	0.0051	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.015	0.0054	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% 6.459 GPM

Sample Date: 7/1/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 24

GQ Source Analysis

GQ Source Number:	0602160	Specific Gravity:	0.7303
GQ Source Name:	FAIRVIEW BORDER	Dry Heat Value:	1195.37
Effective Date:	6/1/2015 9:00:00 AM	Wet Heat Value:	1174.56
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1195.37
Pressure Base:	14.730	Sample Pressure:	456.00
Viscosity:		Sample Temperature:	

	<u>Mol %</u>	<u>Liquid Content</u>		<u>Mol %</u>	
C1	Methane	69.234	CO2	Carbon Dioxide	1.166
C2	Ethane	21.198	N2	Nitrogen	3.857
C3	Propane	4.115	O2	Oxygen	0.012
IC4	Isobutane	0.140	He	Helium	
NC4	n-Butane	0.250	H2	Hydrogen	
IC5	Isopentane	0.015	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.013	Ar	Argon	
C6	Hexanes	0.000	CO	Carbon Monoxide	
C7	Heptanes		H2	Water	
C8	Octanes		Neo-C5	Neopentane	
C9	Nonanes				
C10	Decanes				

Totals 100.000% 6.918 GPM

Sample Date: 7/1/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: RR
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 241

GQ Source Analysis

GQ Source Number:	0602230	Specific Gravity:	0.7254
GQ Source Name:	WATFORD CITY BORDER	Dry Heat Value:	1207.27
Effective Date:	6/1/2015 9:00:00 AM	Wet Heat Value:	1186.25
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1207.27
Pressure Base:	14.730	Sample Pressure:	300.00
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	70.546		CO2	Carbon Dioxide	0.989
C2	Ethane	20.983	0.0000	N2	Nitrogen	2.941
C3	Propane	3.829	1.0518	O2	Oxygen	0.008
IC4	Isobutane	0.208	0.0680	He	Helium	
NC4	n-Butane	0.428	0.1346	H2	Hydrogen	
IC5	Isopentane	0.033	0.0121	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.033	0.0118	Ar	Argon	
C6	Hexanes	0.002	0.0008	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					

Totals 100.000% 1.279 GPM

Sample Date: 7/1/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 25

GQ Source Daily Summary

June 2015

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	CCT
1	0.6168	1022.8	1040.9	0.217	3.923	87.875	7.103	0.796	0.024	0.052	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1324.98	
2	0.6975	1150.8	1171.1	0.737	2.926	74.237	19.210	2.625	0.076	0.159	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1402.24	
3	0.6750	1111.9	1131.6	0.587	3.403	77.386	16.831	1.644	0.044	0.090	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1377.39	
4	0.6693	1099.4	1118.9	0.578	3.638	79.087	14.532	1.890	0.070	0.164	0.018	0.023	0.000	0.000	0.000	0.000	0.000	1367.60	
5	0.5910	984.7	1002.1	0.068	4.053	92.452	3.064	0.309	0.013	0.036	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1303.36	
6	0.5796	967.5	984.6	0.003	4.123	94.389	1.406	0.065	0.004	0.009	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1293.33	
7	0.5803	969.1	986.3	0.006	4.084	94.314	1.475	0.084	0.004	0.030	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1294.74	
8	0.5833	973.6	990.8	0.022	4.066	93.790	1.923	0.167	0.009	0.020	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1297.39	
9	0.6064	1007.2	1025.0	0.154	3.998	89.871	5.183	0.678	0.035	0.071	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1315.91	
10	0.6286	1039.1	1057.5	0.304	3.913	85.984	8.577	1.071	0.040	0.092	0.008	0.011	0.000	0.000	0.000	0.000	0.000	1333.01	
11	0.5912	983.2	1000.7	0.068	4.158	92.386	3.029	0.293	0.024	0.037	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1301.37	
12	0.5883	979.5	996.8	0.047	4.149	92.874	2.630	0.252	0.015	0.028	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1299.55	
13	0.5852	974.6	991.9	0.027	4.181	93.429	2.130	0.182	0.018	0.029	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1296.57	
14	0.5909	983.0	1000.4	0.067	4.148	92.418	3.019	0.293	0.018	0.032	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1301.36	
15	0.5961	991.1	1008.6	0.099	4.097	91.483	3.875	0.396	0.015	0.031	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1306.31	
16	0.6127	1015.1	1033.1	0.203	4.034	88.640	6.289	0.743	0.025	0.056	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1319.74	
17	0.6038	1002.4	1020.1	0.139	4.064	90.199	4.944	0.577	0.022	0.048	0.003	0.004	0.000	0.000	0.000	0.000	0.000	1312.85	
18	0.6105	1012.1	1030.0	0.187	4.037	89.023	5.961	0.699	0.025	0.056	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1318.15	
19	0.6124	1014.9	1032.9	0.191	4.029	88.753	6.155	0.768	0.029	0.063	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1319.90	
20	0.5956	990.1	1007.6	0.094	4.114	91.606	3.731	0.397	0.016	0.035	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1305.60	
21	0.5921	985.8	1003.3	0.078	4.075	92.234	3.228	0.331	0.014	0.033	0.003	0.004	0.000	0.000	0.000	0.000	0.000	1303.74	
22	0.6071	1007.5	1025.3	0.162	4.034	89.677	5.363	0.666	0.027	0.061	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1315.85	
23	0.6202	1026.6	1044.8	0.255	3.958	87.349	7.430	0.900	0.030	0.066	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1326.52	
24	0.6138	1017.8	1035.8	0.215	3.951	88.457	6.526	0.759	0.025	0.057	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1322.12	
25	0.6089	1010.0	1027.9	0.182	4.014	89.298	5.772	0.656	0.022	0.048	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1317.07	
26	0.6100	1012.0	1029.9	0.189	3.989	89.205	5.792	0.724	0.027	0.061	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1318.35	
27	0.5815	969.3	986.5	0.007	4.182	94.013	1.693	0.089	0.005	0.010	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1293.68	
28	0.5857	975.7	993.0	0.035	4.150	93.297	2.306	0.183	0.007	0.018	0.001	0.003	0.000	0.000	0.000	0.000	0.000	1297.49	
29	0.5905	983.5	1000.9	0.058	4.091	92.481	3.035	0.295	0.012	0.023	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1302.42	
30	0.5853	975.7	993.0	0.035	4.111	93.381	2.271	0.172	0.007	0.018	0.002	0.004	0.000	0.000	0.000	0.000	0.000	1297.94	
Avg	0.6070	1008.0	1025.7	0.167	3.990	89.653	5.483	0.624	0.023	0.051	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1316.22	

Zone 2b1

GQ Source Daily Summary

June 2015

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	Wobba	CCT
1	0.7356	1162.3	1182.9	0.723	5.807	68.378	20.131	4.393	0.167	0.368	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1379.27	
2	0.7376	1165.3	1186.0	0.739	5.799	67.990	20.489	4.414	0.168	0.369	0.017	0.016	0.000	0.000	0.000	0.000	0.000	1380.84	
3	0.7315	1161.4	1182.0	0.728	5.474	68.907	20.242	4.127	0.154	0.339	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1382.07	
4	0.6947	1143.0	1163.2	0.693	3.197	74.678	18.593	2.569	0.079	0.173	0.008	0.010	0.000	0.000	0.000	0.000	0.000	1395.56	
5	0.7054	1134.0	1154.1	0.656	4.813	72.894	18.223	3.018	0.112	0.255	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1374.09	
6	0.7025	1132.4	1152.4	0.690	4.581	73.474	17.973	2.895	0.107	0.245	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1374.98	
7	0.7336	1166.2	1186.8	0.776	5.312	68.504	20.826	4.048	0.154	0.343	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1385.66	
8	0.7407	1172.8	1193.6	0.764	5.592	67.551	21.014	4.480	0.174	0.386	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1386.86	
9	0.7538	1185.2	1206.2	0.774	6.045	65.496	21.998	5.026	0.195	0.427	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1389.34	
10	0.7535	1185.1	1206.0	0.772	6.031	65.566	21.929	5.044	0.195	0.424	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1389.39	
11	0.7515	1184.0	1204.9	0.767	5.919	65.905	21.786	4.963	0.193	0.425	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1389.93	
12	0.7458	1175.4	1196.2	0.753	5.933	66.881	20.954	4.840	0.187	0.414	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1385.07	
13	0.7388	1165.7	1186.4	0.720	5.906	67.996	20.163	4.605	0.178	0.395	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1380.28	
14	0.7410	1168.6	1189.3	0.740	5.906	67.578	20.559	4.608	0.178	0.395	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1381.65	
15	0.7443	1172.8	1193.5	0.755	5.944	67.027	20.940	4.720	0.181	0.397	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1383.43	
16	0.7402	1167.6	1188.3	0.732	5.904	67.685	20.495	4.588	0.176	0.386	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1381.20	
17	0.7377	1164.6	1185.2	0.722	5.874	68.100	20.193	4.521	0.174	0.382	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1379.89	
18	0.7345	1161.1	1181.6	0.710	5.808	68.629	19.843	4.436	0.168	0.373	0.017	0.016	0.000	0.000	0.000	0.000	0.000	1378.72	
19	0.7333	1160.0	1180.6	0.704	5.767	68.809	19.767	4.387	0.166	0.368	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1378.63	
20	0.7365	1164.0	1184.6	0.723	5.791	68.300	20.130	4.475	0.170	0.377	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1380.38	
21	0.7358	1163.5	1184.1	0.703	5.785	68.555	19.804	4.542	0.177	0.397	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1380.46	
22	0.7339	1161.0	1181.6	0.700	5.770	68.781	19.725	4.436	0.171	0.382	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1379.21	
23	0.7386	1165.5	1186.1	0.731	5.888	67.941	20.313	4.538	0.172	0.382	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1380.18	
24	0.7390	1165.8	1186.5	0.728	5.912	67.906	20.265	4.601	0.173	0.381	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1380.16	
25	0.7352	1161.6	1182.2	0.707	5.843	68.582	19.757	4.529	0.171	0.377	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1378.74	
26	0.7312	1157.3	1177.8	0.684	5.759	69.298	19.250	4.436	0.168	0.373	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1377.43	
27	0.7309	1157.4	1177.9	0.685	5.729	69.331	19.259	4.425	0.168	0.370	0.017	0.016	0.000	0.000	0.000	0.000	0.000	1377.79	
28	0.7359	1163.7	1184.3	0.717	5.763	68.510	19.867	4.556	0.172	0.380	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1380.58	
29	0.7391	1168.0	1188.7	0.734	5.773	67.951	20.332	4.619	0.174	0.384	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1382.73	
30	0.7427	1172.0	1192.8	0.736	5.862	67.450	20.540	4.781	0.185	0.409	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1384.11	
Avg	0.7352	1164.0	1184.9	0.726	5.650	68.488	20.179	4.387	0.167	0.369	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1381.95	

Zone 262

GQ Source Analysis

GQ Source Number:	2501030	Specific Gravity:	0.6574
GQ Source Name:	LIGNITE PLANT	Dry Heat Value:	1107.10
Effective Date:	6/1/2015 9:00:00 AM	Wet Heat Value:	1087.84
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1107.10
Pressure Base:	14.730	Sample Pressure:	356.00
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	79.378		CO2	Carbon Dioxide	0.101
C2	Ethane	15.495	4.1317	N2	Nitrogen	3.924
C3	Propane	1.089	0.2992	O2	Oxygen	0.009
IC4	Isobutane	0.002	0.0005	He	Helium	
NC4	n-Butane	0.000	0.0000	H2	Hydrogen	
IC5	Isopentane	0.000	0.0000	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.000	0.0000	Ar	Argon	
C6	Hexanes	0.002	0.0011	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					
Totals			100.000%		4.432 GPM	

Sample Date: 7/1/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 263

*** End of Report ***

GQ Source Analysis

GQ Source Number:	0702010	Specific Gravity:	0.7058
GQ Source Name:	EPPING BORDER	Dry Heat Value:	1187.48
Effective Date:	6/1/2015 9:00:00 AM	Wet Heat Value:	1166.81
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1187.48
Pressure Base:	14.730	Sample Pressure:	327.00
Viscosity:		Sample Temperature:	

	<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>	
C1	Methane	72.755		CO2	Carbon Dioxide	0.801
C2	Ethane	20.615	5.4969	N2	Nitrogen	2.578
C3	Propane	2.926	0.8038	O2	Oxygen	0.008
IC4	Isobutane	0.094	0.0308	He	Helium	
NC4	n-Butane	0.193	0.0606	H2	Hydrogen	
IC5	Isopentane	0.014	0.0052	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.016	0.0058	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%		6.403 GPM		

Sample Date: 7/1/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: SR
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 264

GQ Source Daily Summary

June 2015

Number: 161

Pressure Base: 14.730

Contract Day: 1

Name: NORTH TIOGA TRANSFER-PORTAL

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	0.7142	1167.9	1188.5	0.776	3.396	71.023	21.694	2.823	0.082	0.178	0.013	0.016	0.000	0.000	0.000	0.000	0.000	1406.37	
2	0.7172	1171.6	1192.4	0.847	3.333	70.740	21.859	2.858	0.096	0.223	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1408.01	
3	0.7052	1153.9	1174.3	0.748	3.442	71.990	21.459	2.167	0.057	0.120	0.008	0.009	0.000	0.000	0.000	0.000	0.000	1398.46	
4	0.7204	1175.4	1196.3	0.890	3.334	70.488	21.850	2.995	0.114	0.269	0.026	0.033	0.000	0.000	0.000	0.000	0.000	1409.43	
5	0.7167	1172.0	1192.8	0.810	3.325	70.967	21.502	3.010	0.106	0.239	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1408.86	
6	0.7155	1168.0	1188.7	0.861	3.374	70.871	21.814	2.786	0.082	0.179	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1405.32	
7	0.7199	1175.4	1196.3	0.820	3.401	70.514	21.730	3.114	0.116	0.260	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1409.85	
8	0.7223	1178.6	1199.5	0.832	3.405	70.357	21.662	3.270	0.130	0.289	0.024	0.029	0.000	0.000	0.000	0.000	0.000	1411.37	
9	0.7215	1178.6	1199.4	0.828	3.342	70.451	21.646	3.276	0.126	0.284	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1412.09	
10	0.7123	1162.3	1182.9	0.840	3.455	71.483	21.172	2.715	0.093	0.205	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1401.57	
11	0.7140	1164.8	1185.4	0.855	3.447	71.189	21.424	2.755	0.091	0.201	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1402.80	
12	0.7124	1162.5	1183.1	0.830	3.472	71.419	21.192	2.784	0.087	0.187	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1401.65	
13	0.7105	1158.5	1179.0	0.844	3.516	71.818	20.777	2.730	0.086	0.193	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1398.71	
14	0.7111	1159.6	1180.1	0.837	3.513	71.716	20.885	2.735	0.088	0.191	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1399.44	
15	0.7081	1155.9	1176.4	0.796	3.513	72.039	20.761	2.618	0.080	0.168	0.011	0.013	0.000	0.000	0.000	0.000	0.000	1398.05	
16	0.7123	1161.9	1182.5	0.836	3.487	71.516	21.051	2.791	0.087	0.196	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1401.09	
17	0.7139	1165.0	1185.6	0.853	3.417	71.313	21.200	2.895	0.090	0.199	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1403.27	
18	0.7116	1161.1	1181.6	0.852	3.445	71.640	20.992	2.753	0.087	0.194	0.016	0.021	0.000	0.000	0.000	0.000	0.000	1400.77	
19	0.7163	1168.0	1188.7	0.857	3.454	71.052	21.282	2.993	0.098	0.221	0.019	0.024	0.000	0.000	0.000	0.000	0.000	1404.54	
20	0.7172	1169.5	1190.2	0.851	3.461	71.062	21.097	3.119	0.113	0.252	0.020	0.025	0.000	0.000	0.000	0.000	0.000	1405.34	
21	0.7178	1170.2	1190.9	0.871	3.437	71.134	20.969	3.128	0.122	0.282	0.025	0.032	0.000	0.000	0.000	0.000	0.000	1405.69	
22	0.7150	1166.6	1187.3	0.828	3.463	71.511	20.674	3.089	0.119	0.269	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1404.09	
23	0.7124	1162.7	1183.3	0.862	3.404	71.604	20.980	2.813	0.092	0.206	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1401.97	
24	0.7144	1166.0	1186.6	0.869	3.389	71.245	21.294	2.867	0.092	0.206	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1403.85	
25	0.7140	1165.7	1186.3	0.859	3.386	71.244	21.340	2.857	0.089	0.195	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1403.89	
26	0.7165	1169.4	1190.1	0.874	3.366	71.042	21.357	3.010	0.097	0.216	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1405.94	
27	0.7115	1162.3	1182.8	0.827	3.404	71.741	20.836	2.884	0.087	0.191	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1402.27	
28	0.7131	1164.3	1184.9	0.841	3.404	71.581	20.905	2.932	0.090	0.205	0.018	0.023	0.000	0.000	0.000	0.000	0.000	1403.20	
29	0.7128	1164.9	1185.6	0.797	3.404	71.433	21.172	2.895	0.085	0.183	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1404.27	
30	0.7130	1164.9	1185.5	0.848	3.354	71.487	21.146	2.830	0.089	0.203	0.019	0.024	0.000	0.000	0.000	0.000	0.000	1403.95	
Avg	0.7144	1166.0	1186.9	0.838	3.418	71.256	21.257	2.883	0.096	0.213	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1404.20	

Zone 265

GQ Source Daily Summary

June 2015

Number: 043

Pressure Base: 14.730

Contract Day: 1

Name: BISMARCK STATION-CLEVELAND STATION

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	0.7359	1162.8	1183.4	0.728	5.798	68.317	20.221	4.367	0.165	0.367	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1379.57	
2	0.6965	1128.8	1148.7	0.609	4.362	74.626	17.079	2.974	0.101	0.223	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1376.31	
3	0.6948	1146.6	1166.9	0.725	2.945	74.622	19.007	2.428	0.076	0.167	0.013	0.016	0.000	0.000	0.000	0.000	0.000	1399.86	
4	0.6907	1124.1	1144.0	0.623	4.080	75.144	17.490	2.386	0.079	0.176	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1376.71	
5	0.7371	1170.1	1190.8	0.761	5.422	68.150	20.796	4.278	0.167	0.381	0.022	0.024	0.000	0.000	0.000	0.000	0.000	1367.04	
6	0.7548	1186.8	1207.8	0.781	6.036	65.452	21.942	5.101	0.199	0.445	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1390.17	
7	0.7529	1184.7	1205.7	0.779	5.985	65.767	21.748	5.045	0.196	0.435	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1389.52	
8	0.7508	1183.4	1204.4	0.773	5.877	66.096	21.636	4.948	0.193	0.432	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1389.95	
9	0.7465	1177.3	1198.1	0.746	5.885	66.883	20.922	4.903	0.191	0.428	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1386.74	
10	0.7360	1163.4	1184.0	0.702	5.819	68.515	19.821	4.530	0.176	0.396	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1380.05	
11	0.7394	1167.0	1187.6	0.723	5.884	67.901	20.298	4.575	0.178	0.400	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1381.17	
12	0.7455	1175.0	1195.8	0.754	5.919	66.914	21.003	4.775	0.183	0.410	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1384.99	
13	0.7386	1166.1	1186.8	0.720	5.862	68.021	20.234	4.555	0.175	0.393	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1380.93	
14	0.7396	1168.0	1188.6	0.724	5.846	67.838	20.397	4.586	0.176	0.394	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1382.11	
15	0.7373	1165.2	1185.9	0.713	5.812	68.228	20.122	4.521	0.174	0.391	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1381.03	
16	0.7332	1160.5	1181.1	0.697	5.737	68.893	19.698	4.392	0.168	0.377	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1379.31	
17	0.7348	1162.9	1183.4	0.707	5.727	68.644	19.893	4.440	0.169	0.380	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1380.60	
18	0.7349	1163.2	1183.8	0.698	5.734	68.734	19.710	4.509	0.176	0.398	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1380.84	
19	0.7322	1159.5	1180.0	0.691	5.710	69.148	19.454	4.401	0.170	0.385	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1379.04	
20	0.7327	1159.3	1179.9	0.695	5.765	69.005	19.549	4.400	0.167	0.379	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1378.37	
21	0.7408	1169.0	1189.7	0.735	5.875	67.670	20.470	4.637	0.176	0.396	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1382.26	
22	0.7359	1163.2	1183.8	0.704	5.812	68.534	19.799	4.556	0.172	0.385	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1380.00	
23	0.7299	1156.5	1177.0	0.675	5.702	69.595	19.023	4.421	0.168	0.379	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1377.65	
24	0.7350	1163.5	1184.1	0.705	5.710	68.762	19.654	4.565	0.174	0.391	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1381.15	
25	0.7351	1163.6	1184.2	0.710	5.708	68.689	19.770	4.530	0.171	0.384	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1381.15	
26	0.7369	1165.2	1185.8	0.709	5.776	68.426	19.879	4.592	0.177	0.400	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1381.43	
27	0.7481	1180.8	1201.7	0.747	5.821	66.767	20.949	5.015	0.198	0.454	0.024	0.024	0.000	0.000	0.000	0.000	0.000	1389.35	
28	0.7508	1181.9	1202.8	0.753	5.997	66.344	21.027	5.183	0.200	0.450	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1388.15	
29	0.7490	1181.4	1202.4	0.754	5.858	66.656	20.938	5.085	0.200	0.459	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1389.26	
30	0.7431	1171.7	1192.4	0.736	5.921	67.454	20.416	4.829	0.183	0.415	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1383.31	
Avg	0.7356	1166.0	1186.4	0.719	5.613	68.526	20.098	4.451	0.170	0.382	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1383.27	

Zone 271

GQ Source Daily Summary

June 2015

Number: 063

Pressure Base: 14.730

Contract Day: 1

Name: CLEVELAND STATION-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	0.7377	1165.6	1186.3	0.735	5.787	67.987	20.525	4.393	0.167	0.369	0.019	0.019	0.000					1381.20	
2	0.7130	1134.3	1154.4	0.622	5.549	72.026	17.667	3.659	0.138	0.307	0.016	0.016	0.000					1367.14	
3	0.6949	1145.6	1165.9	0.704	3.044	74.690	18.702	2.611	0.074	0.152	0.011	0.013	0.000					1398.49	
4	0.6869	1132.2	1152.3	0.663	3.167	75.659	18.235	2.047	0.064	0.142	0.011	0.013	0.000					1390.31	
5	0.7137	1143.6	1163.9	0.696	4.941	71.684	18.886	3.352	0.125	0.280	0.018	0.020	0.000					1377.76	
6	0.7466	1178.4	1199.3	0.766	5.799	66.701	21.348	4.739	0.186	0.415	0.022	0.023	0.000					1387.98	
7	0.7539	1185.4	1206.4	0.781	6.035	65.520	21.965	5.026	0.195	0.433	0.022	0.022	0.000					1389.41	
8	0.7526	1184.0	1204.9	0.778	6.010	65.755	21.772	5.020	0.194	0.427	0.022	0.022	0.000					1388.87	
9	0.7513	1184.3	1205.3	0.771	5.873	66.029	21.670	4.985	0.194	0.432	0.022	0.023	0.000					1390.52	
10	0.7383	1165.2	1185.8	0.713	5.904	68.129	20.029	4.610	0.178	0.395	0.020	0.020	0.000					1380.07	
11	0.7357	1161.9	1182.4	0.704	5.878	68.515	19.808	4.490	0.175	0.390	0.021	0.021	0.000					1378.58	
12	0.7446	1174.1	1194.9	0.755	5.886	67.018	21.007	4.708	0.181	0.402	0.022	0.022	0.000					1384.79	
13	0.7403	1167.5	1188.1	0.727	5.932	67.717	20.404	4.614	0.176	0.390	0.020	0.020	0.000					1380.92	
14	0.7392	1166.6	1187.3	0.724	5.890	67.857	20.375	4.553	0.174	0.386	0.020	0.020	0.000					1380.88	
15	0.7390	1166.5	1187.2	0.723	5.873	67.929	20.308	4.565	0.175	0.388	0.020	0.020	0.000					1381.03	
16	0.7354	1161.9	1182.5	0.705	5.847	68.515	19.877	4.466	0.171	0.379	0.020	0.020	0.000					1378.90	
17	0.7357	1162.7	1183.3	0.710	5.819	68.467	19.942	4.472	0.170	0.379	0.020	0.020	0.000					1379.55	
18	0.7310	1157.2	1177.7	0.688	5.745	69.239	19.428	4.333	0.164	0.366	0.019	0.019	0.000					1377.47	
19	0.7362	1163.9	1184.5	0.717	5.782	68.365	20.090	4.459	0.169	0.377	0.020	0.020	0.000					1380.51	
20	0.7339	1161.5	1182.0	0.690	5.755	68.885	19.576	4.484	0.174	0.393	0.021	0.021	0.000					1379.76	
21	0.7355	1162.0	1182.5	0.711	5.839	68.493	19.924	4.446	0.169	0.377	0.020	0.020	0.000					1378.90	
22	0.7392	1166.4	1187.0	0.724	5.905	67.903	20.268	4.605	0.173	0.383	0.020	0.020	0.000					1380.60	
23	0.7326	1158.9	1179.5	0.687	5.793	69.071	19.393	4.471	0.169	0.377	0.019	0.019	0.000					1377.96	
24	0.7312	1158.2	1178.7	0.684	5.711	69.326	19.263	4.436	0.168	0.374	0.019	0.019	0.000					1378.40	
25	0.7355	1163.9	1184.5	0.713	5.728	68.597	19.833	4.535	0.172	0.383	0.020	0.020	0.000					1381.08	
26	0.7343	1162.1	1182.7	0.701	5.736	68.793	19.682	4.497	0.171	0.382	0.020	0.020	0.000					1380.16	
27	0.7417	1172.0	1192.8	0.727	5.783	67.661	20.445	4.738	0.184	0.417	0.022	0.023	0.000					1385.02	
28	0.7552	1187.5	1208.6	0.768	6.040	65.618	21.551	5.311	0.205	0.459	0.024	0.024	0.000					1390.77	
29	0.7454	1175.0	1195.8	0.733	5.945	67.137	20.569	4.944	0.192	0.434	0.024	0.024	0.000					1385.02	
30	0.7471	1177.4	1198.2	0.753	5.925	66.864	20.802	4.982	0.192	0.434	0.023	0.023	0.000					1386.27	
Avg	0.7353	1165.0	1185.5	0.719	5.631	68.538	20.112	4.418	0.168	0.374	0.020	0.020	0.000					1382.61	

Zone 272

GQ Source Daily Summary

June 2015

Number: 041

Pressure Base: 14.730

Contract Day: 1

Name: BISMARCK STATION-GLEN ULLIN STATION

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	0.7368	1164.4	1185.1	0.733	5.776	68.186	20.333	4.396	0.166	0.371	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1380.64	
2	0.6965	1126.1	1146.0	0.600	4.538	74.585	16.963	2.961	0.102	0.226	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1373.11	
3	0.6965	1149.4	1169.8	0.731	2.921	74.512	18.931	2.609	0.083	0.181	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1401.63	
4	0.6930	1127.7	1147.6	0.635	4.062	74.799	17.733	2.484	0.082	0.181	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1378.71	
5	0.7329	1165.7	1186.3	0.754	5.310	68.809	20.438	4.117	0.161	0.365	0.021	0.023	0.000	0.000	0.000	0.000	0.000	1385.73	
6	0.7542	1186.1	1207.1	0.780	6.017	65.548	21.897	5.072	0.198	0.443	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1390.01	
7	0.7529	1184.7	1205.7	0.779	5.982	65.767	21.755	5.043	0.196	0.436	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1389.59	
8	0.7484	1180.9	1201.8	0.769	5.810	66.458	21.470	4.841	0.188	0.421	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1389.21	
9	0.7470	1178.3	1199.1	0.748	5.867	66.801	21.014	4.905	0.191	0.429	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1387.44	
10	0.7358	1163.1	1183.7	0.701	5.820	68.546	19.796	4.524	0.176	0.396	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1379.89	
11	0.7384	1165.6	1186.2	0.717	5.884	68.075	20.151	4.557	0.177	0.399	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1380.47	
12	0.7462	1176.1	1196.9	0.759	5.910	66.797	21.109	4.788	0.184	0.411	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1385.64	
13	0.7383	1165.8	1186.5	0.719	5.862	68.063	20.196	4.553	0.175	0.393	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1380.79	
14	0.7395	1167.9	1188.5	0.724	5.843	67.852	20.393	4.581	0.175	0.393	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1382.09	
15	0.7375	1165.5	1186.2	0.714	5.811	68.200	20.142	4.527	0.174	0.392	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1381.20	
16	0.7306	1160.4	1180.9	0.702	5.495	69.275	19.719	4.248	0.161	0.362	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1381.59	
17	0.7342	1162.4	1183.0	0.705	5.704	68.732	19.853	4.420	0.168	0.378	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1380.61	
18	0.7354	1163.9	1184.5	0.700	5.736	68.651	19.769	4.525	0.177	0.400	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1381.19	
19	0.7319	1159.3	1179.9	0.692	5.695	69.189	19.439	4.392	0.169	0.384	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1379.11	
20	0.7325	1159.1	1179.6	0.693	5.764	69.051	19.503	4.402	0.168	0.380	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1378.28	
21	0.7403	1168.4	1189.1	0.734	5.868	67.744	20.429	4.615	0.175	0.394	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1381.99	
22	0.7361	1163.3	1183.9	0.705	5.823	68.498	19.815	4.563	0.172	0.386	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1379.94	
23	0.7300	1156.6	1177.1	0.676	5.706	69.564	19.044	4.424	0.168	0.379	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1377.69	
24	0.7344	1162.7	1183.3	0.700	5.714	68.856	19.572	4.554	0.174	0.390	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1380.71	
25	0.7352	1163.7	1184.3	0.708	5.712	68.689	19.752	4.542	0.172	0.386	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1381.20	
26	0.7363	1164.6	1185.2	0.709	5.760	68.507	19.843	4.568	0.176	0.396	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1381.25	
27	0.7460	1178.2	1199.1	0.740	5.788	67.098	20.748	4.933	0.196	0.449	0.024	0.024	0.000	0.000	0.000	0.000	0.000	1388.32	
28	0.7496	1180.4	1201.3	0.749	5.984	66.520	20.925	5.133	0.198	0.445	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1387.47	
29	0.7483	1180.1	1201.0	0.750	5.873	66.770	20.842	5.063	0.199	0.455	0.024	0.024	0.000	0.000	0.000	0.000	0.000	1388.40	
30	0.7434	1172.4	1193.2	0.739	5.904	67.408	20.464	4.837	0.184	0.418	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1383.86	
Avg	0.7353	1165.0	1186.1	0.719	5.598	68.585	20.068	4.439	0.169	0.381	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1383.26	

Zone 28

GQ Source Daily Summary

June 2015

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 Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Webbe	CCT
1	0.6769	1095.6	1115.0	1.183	3.666	79.450	12.476	2.716	0.170	0.262	0.047	0.028	0.000	0.000	0.000	0.000	0.000	1355.13	
2	0.6619	1073.0	1092.0	1.558	3.061	82.417	10.304	2.185	0.166	0.226	0.054	0.030	0.000	0.000	0.000	0.000	0.000	1342.22	
3	0.6778	1135.9	1156.0	0.316	2.630	76.097	19.728	1.103	0.045	0.061	0.013	0.007	0.000	0.000	0.000	0.000	0.000	1403.92	
4	0.6826	1153.5	1173.9	0.000	2.495	74.167	22.615	0.706	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.84	
5	0.6379	1063.4	1082.2	1.397	1.636	85.492	10.519	0.694	0.110	0.085	0.045	0.021	0.000	0.000	0.000	0.000	0.000	1354.39	
6	0.6701	1081.9	1101.1	1.578	3.257	80.739	11.780	2.191	0.156	0.216	0.053	0.030	0.000	0.000	0.000	0.000	0.000	1345.07	
7	0.6899	1108.6	1128.2	1.293	3.927	77.184	14.045	3.014	0.175	0.288	0.045	0.029	0.000	0.000	0.000	0.000	0.000	1358.26	
8	0.6902	1110.5	1130.1	1.240	3.912	77.291	13.834	3.153	0.187	0.308	0.046	0.029	0.000	0.000	0.000	0.000	0.000	1360.38	
9	0.6366	1043.2	1061.7	1.896	1.979	87.319	7.004	1.344	0.174	0.177	0.070	0.036	0.000	0.000	0.000	0.000	0.000	1330.63	
10	0.6861	1099.6	1119.1	1.558	3.710	78.203	13.095	2.896	0.180	0.277	0.050	0.030	0.000	0.000	0.000	0.000	0.000	1351.07	
11	0.6848	1104.3	1123.9	1.198	3.844	78.145	13.297	2.971	0.179	0.288	0.047	0.030	0.000	0.000	0.000	0.000	0.000	1358.16	
12	0.6762	1094.1	1113.5	1.159	3.721	79.566	12.331	2.708	0.173	0.266	0.048	0.029	0.000	0.000	0.000	0.000	0.000	1354.09	
13	0.6822	1100.9	1120.4	1.160	3.871	78.457	13.137	2.852	0.174	0.275	0.046	0.029	0.000	0.000	0.000	0.000	0.000	1356.50	
14	0.6811	1099.7	1119.1	1.197	3.780	78.746	12.916	2.834	0.176	0.272	0.048	0.030	0.000	0.000	0.000	0.000	0.000	1356.11	
15	0.6762	1094.3	1113.7	1.178	3.681	79.553	12.403	2.676	0.171	0.260	0.048	0.028	0.000	0.000	0.000	0.000	0.000	1354.31	
16	0.6785	1097.6	1117.0	1.143	3.755	79.056	12.822	2.720	0.169	0.259	0.047	0.028	0.000	0.000	0.000	0.000	0.000	1356.02	
17	0.6825	1144.9	1165.2	0.173	2.746	74.819	21.144	1.023	0.033	0.050	0.008	0.005	0.000	0.000	0.000	0.000	0.000	1410.30	
18	0.6837	1154.2	1174.7	0.000	2.551	73.984	22.699	0.749	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.64	
19	0.6839	1154.4	1174.9	0.000	2.556	73.981	22.659	0.786	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.69	
20	0.6826	1153.2	1173.6	0.000	2.508	74.206	22.536	0.731	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.52	
21	0.6809	1150.6	1170.9	0.000	2.513	74.491	22.296	0.683	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1419.00	
22	0.6817	1152.1	1172.5	0.000	2.490	74.348	22.447	0.697	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.14	
23	0.6817	1152.2	1172.6	0.000	2.489	74.354	22.434	0.706	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.18	
24	0.6529	1098.9	1118.4	0.699	1.950	81.296	15.252	0.656	0.066	0.050	0.023	0.010	0.000	0.000	0.000	0.000	0.000	1383.85	
25	0.6620	1080.7	1099.8	1.221	3.112	81.994	11.094	2.126	0.158	0.212	0.053	0.030	0.000	0.000	0.000	0.000	0.000	1351.88	
26	0.6671	1084.0	1103.2	1.265	3.320	81.344	11.126	2.443	0.171	0.247	0.053	0.031	0.000	0.000	0.000	0.000	0.000	1350.73	
27	0.6750	1093.3	1112.6	1.201	3.596	79.849	12.171	2.672	0.171	0.259	0.049	0.030	0.000	0.000	0.000	0.000	0.000	1354.26	
28	0.6514	1063.7	1082.5	1.536	2.666	84.401	9.000	1.907	0.173	0.224	0.059	0.034	0.000	0.000	0.000	0.000	0.000	1341.26	
29	0.6622	1079.4	1098.5	1.357	3.004	82.386	10.493	2.245	0.177	0.240	0.061	0.036	0.000	0.000	0.000	0.000	0.000	1349.88	
30	0.6766	1094.8	1114.2	1.288	3.517	79.833	12.034	2.776	0.184	0.281	0.054	0.034	0.000	0.000	0.000	0.000	0.000	1354.58	
Avg	0.6738	1107.0	1126.7	0.926	3.065	78.772	14.990	1.899	0.120	0.172	0.036	0.021	0.000	0.000	0.000	0.000	0.000	1372.50	

Zone 31

GQ Source Analysis

GQ Source Number:	0202080	Specific Gravity:	0.7215
GQ Source Name:	RICHARDTON-GLEN ULLIN COMPRE	Dry Heat Value:	1168.34
Effective Date:	6/1/2015 9:00:00 AM	Wet Heat Value:	1148.01
Effective End Date:	1/18/2038 9:14:00 PM	As Deliv. Heat Value:	1168.34
Pressure Base:	14.730	Sample Pressure:	336.00
Viscosity:		Sample Temperature:	0.00

	<u>Mol %</u>	<u>Liquid Content</u>		<u>Mol %</u>	
C1	Methane	71.205	CO2	Carbon Dioxide	0.867
C2	Ethane	18.194	N2	Nitrogen	5.137
C3	Propane	4.004	O2	Oxygen	
IC4	Isobutane	0.171	He	Helium	
NC4	n-Butane	0.353	H2	Hydrogen	
IC5	Isopentane	0.028	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.023	Ar	Argon	
C6	Hexanes	0.018	CO	Carbon Monoxide	
C7	Heptanes		H2	Water	
C8	Octanes		Neo-C5	Neopentane	
C9	Nonanes				
C10	Decanes				

Totals 100.000% 6.143 GPM

Sample Date: 6/1/2015 10:29:00 AM
Sample Type: Composite
Sample Tech: RR
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 311

GQ Source Daily Summary

June 2015

Number: 111

Pressure Base: 14.730

Contract Day: 1

Name: LITTLE KNIFE-BELFIELD TRANSFER

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	0.6887	1163.4	1184.0	0.003	2.456	73.096	23.565	0.863	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.76	
2	0.6877	1161.5	1182.1	0.003	2.483	73.189	23.544	0.764	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.39	
3	0.6883	1162.3	1182.9	0.002	2.493	73.086	23.616	0.784	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.71	
4	0.6883	1162.2	1182.8	0.003	2.495	73.061	23.663	0.761	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.65	
5	0.6889	1163.3	1183.9	0.002	2.486	72.985	23.716	0.794	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.35	
6	0.6886	1162.4	1183.0	0.001	2.511	73.000	23.714	0.756	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.60	
7	0.6893	1163.5	1184.1	0.002	2.504	72.940	23.708	0.828	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.29	
8	0.6894	1163.8	1184.4	0.003	2.505	72.961	23.631	0.879	0.008	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.40	
9	0.6897	1164.0	1184.6	0.003	2.518	72.887	23.708	0.866	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.36	
10	0.6890	1162.7	1183.3	0.003	2.526	72.953	23.707	0.794	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.59	
11	0.6894	1163.3	1183.9	0.003	2.531	72.947	23.630	0.871	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.84	
12	0.6904	1164.9	1185.5	0.002	2.528	72.767	23.794	0.890	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.79	
13	0.6894	1163.3	1183.9	0.003	2.528	72.898	23.737	0.816	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.89	
14	0.6887	1162.3	1182.9	0.003	2.531	73.000	23.658	0.790	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.29	
15	0.6883	1161.4	1182.0	0.002	2.543	73.051	23.631	0.756	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.71	
16	0.6878	1160.7	1181.3	0.003	2.536	73.136	23.574	0.734	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.38	
17	0.6888	1162.3	1182.9	0.002	2.536	73.001	23.641	0.802	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.26	
18	0.6884	1161.7	1182.3	0.004	2.536	73.040	23.632	0.771	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.90	
19	0.6886	1162.2	1182.8	0.002	2.518	73.088	23.539	0.834	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.40	
20	0.6871	1160.6	1181.1	0.001	2.486	73.263	23.517	0.718	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.88	
21	0.6862	1159.0	1179.5	0.000	2.490	73.442	23.354	0.698	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.98	
22	0.6866	1160.1	1180.6	0.000	2.464	73.372	23.436	0.711	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.86	
23	0.6862	1159.4	1179.9	0.000	2.473	73.456	23.338	0.716	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.36	
24	0.6884	1162.1	1182.7	0.000	2.517	73.004	23.732	0.730	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.39	
25	0.6884	1162.6	1183.2	0.003	2.475	73.107	23.585	0.812	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.11	
26	0.6883	1162.7	1183.3	0.003	2.461	73.259	23.322	0.935	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.25	
27	0.6875	1161.5	1182.1	0.002	2.462	73.353	23.293	0.871	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.62	
28	0.6868	1160.3	1180.8	0.002	2.473	73.415	23.293	0.800	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.82	
29	0.6883	1162.6	1183.2	0.001	2.466	73.198	23.442	0.874	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.22	
30	0.6866	1159.9	1180.4	0.002	2.473	73.425	23.326	0.757	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.60	
Avg	0.6883	1162.0	1182.6	0.002	2.500	73.113	23.568	0.799	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.52	

Zone 33

GQ Source Analysis

GQ Source Number:	1202160	Specific Gravity:	0.7731
GQ Source Name:	BOWMAN BORDER	Dry Heat Value:	1120.55
Effective Date:	6/1/2015 9:00:00 AM	Wet Heat Value:	1101.05
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1120.55
Pressure Base:	14.730	Sample Pressure:	
Viscosity:		Sample Temperature:	

	<u>Mol %</u>	<u>Liquid Content</u>		<u>Mol %</u>	
C1	Methane	59.076	CO2	Carbon Dioxide	2.075
C2	Ethane	24.746	N2	Nitrogen	11.054
C3	Propane	2.702	O2	Oxygen	
IC4	Isobutane	0.076	He	Helium	
NC4	n-Butane	0.228	H2	Hydrogen	
IC5	Isopentane	0.010	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.027	Ar	Argon	
C6	Hexanes	0.006	CO	Carbon Monoxide	
C7	Heptanes		H2	Water	
C8	Octanes		Neo-C5	Neopentane	
C9	Nonanes				
C10	Decanes				

Totals 100.000% 7.453 GPM

Sample Date: 6/1/2015 9:00:00 AM
Sample Type: Composite
Sample Tech: MIKE GENTILINI
H2S: ppm

Sample Remarks:

Analysis Tech: MIKE GENTILINI

Analysis Remarks:

Zone 34

Jun-15

ZONE 610

Watford City
01320
Watford City Border

01312
Watford City East Border

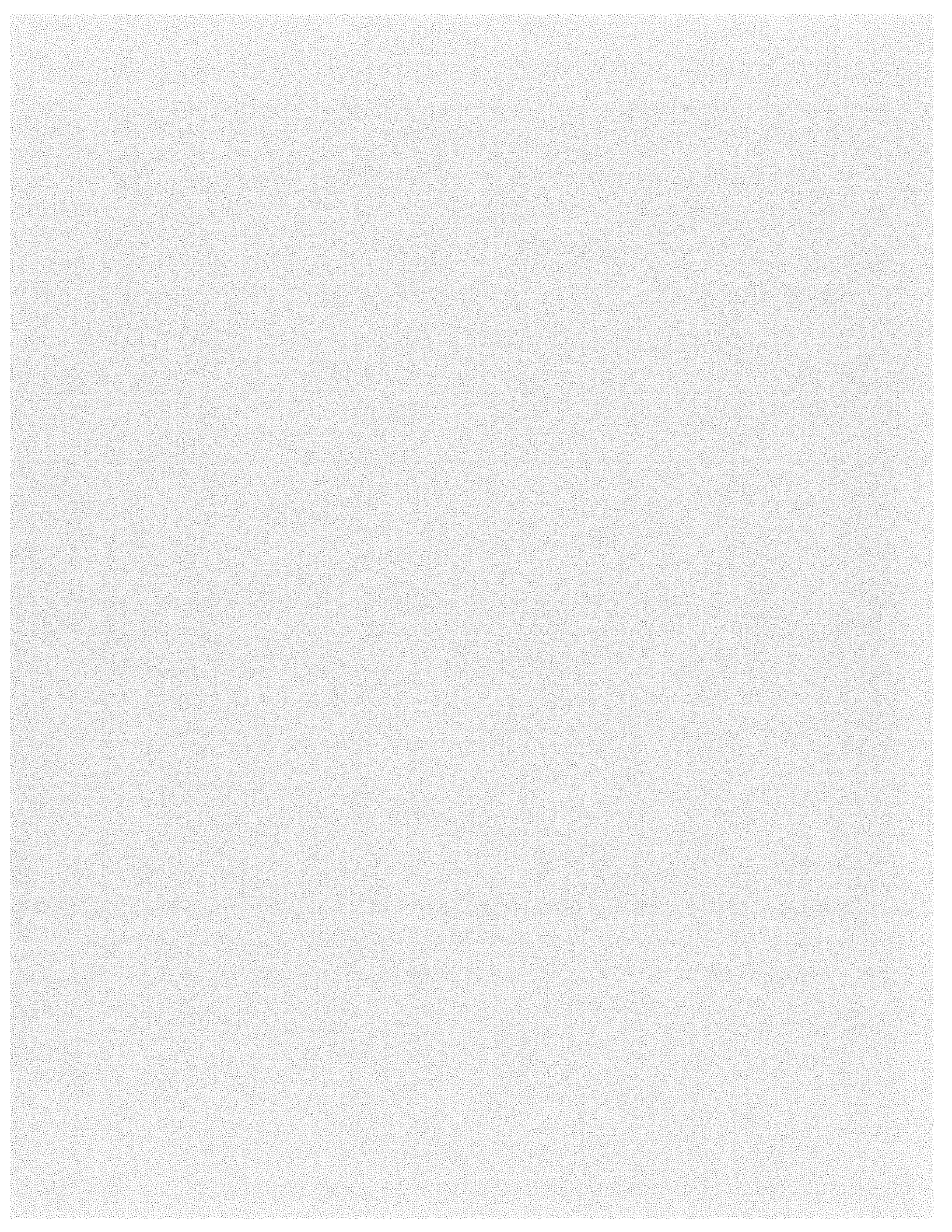
Weighted

Begin Date	End Date	MCF	DK	BTU Zone 25	MCF	DK	BTU Zone 43	AVG BTU	
6/1/2015	6/2/2015	106	128	1.207	26	31	1.181	1.202	6/1/2015
6/2/2015	6/3/2015	127	153	1.207	17	20	1.175	1.203	6/2/2015
6/3/2015	6/4/2015	127	153	1.207	33	37	1.113	1.188	6/3/2015
6/4/2015	6/5/2015	131	158	1.207	25	26	1.051	1.182	6/4/2015
6/5/2015	6/6/2015	104	125	1.207	21	22	1.060	1.182	6/5/2015
6/6/2015	6/7/2015	108	131	1.207	14	15	1.071	1.191	6/6/2015
6/7/2015	6/8/2015	105	126	1.207	13	14	1.078	1.193	6/7/2015
6/8/2015	6/9/2015	101	121	1.207	31	33	1.088	1.179	6/8/2015
6/9/2015	6/10/2015	107	129	1.207	22	24	1.094	1.188	6/9/2015
6/10/2015	6/11/2015	134	162	1.207	17	19	1.093	1.194	6/10/2015
6/11/2015	6/12/2015	106	128	1.207	25	27	1.096	1.186	6/11/2015
6/12/2015	6/13/2015	100	120	1.207	22	24	1.097	1.187	6/12/2015
6/13/2015	6/14/2015	104	125	1.207	13	14	1.091	1.194	6/13/2015
6/14/2015	6/15/2015	116	140	1.207	17	18	1.078	1.191	6/14/2015
6/15/2015	6/16/2015	112	135	1.207	26	29	1.099	1.187	6/15/2015
6/16/2015	6/17/2015	134	162	1.207	21	23	1.103	1.193	6/16/2015
6/17/2015	6/18/2015	110	133	1.207	17	19	1.104	1.193	6/17/2015
6/18/2015	6/19/2015	130	157	1.207	19	21	1.108	1.194	6/18/2015
6/19/2015	6/20/2015	96	116	1.207	21	24	1.105	1.189	6/19/2015
6/20/2015	6/21/2015	96	116	1.207	27	30	1.105	1.185	6/20/2015
6/21/2015	6/22/2015	116	140	1.207	18	20	1.106	1.193	6/21/2015
6/22/2015	6/23/2015	106	128	1.207	15	16	1.101	1.194	6/22/2015
6/23/2015	6/24/2015	107	130	1.207	20	22	1.104	1.191	6/23/2015
6/24/2015	6/25/2015	104	126	1.207	15	17	1.106	1.194	6/24/2015
6/25/2015	6/26/2015	98	118	1.207	15	17	1.081	1.190	6/25/2015
6/26/2015	6/27/2015	5	6	1.207	100	110	1.097	1.102	6/26/2015
6/27/2015	6/28/2015	0	0	1.207	103	113	1.098	1.098	6/27/2015
6/28/2015	6/29/2015	0	0	1.207	109	120	1.102	1.102	6/28/2015
6/29/2015	6/30/2015	0	0	1.207	112	123	1.094	1.094	6/29/2015
6/30/2015	7/1/2015	0	0	1.207	126	137	1.093	1.093	6/30/2015
		2,790	3,366		1,060	1,165	1.0991	1.1751	

ROW ID	LOCATION DESCRIPTION	GROSS HEATING VALUE (BTU/GAL)	SPECIFIC GRAVITY	WOBBE (BTU/GAL)	CRF (CENTIGRADE)	NITROGEN (MOLE PERCENT)	CARBON DIOXIDE (MOLE PERCENT)	METHANE (MOLE PERCENT)	ETHANE (MOLE PERCENT)	PROPANE (MOLE PERCENT)	NORMAL BUTANE (MOLE PERCENT)	ISO BUTANE (MOLE PERCENT)	PENTANE (MOLE PERCENT)	ISO PENTANE (MOLE PERCENT)	NEO PENTANE (MOLE PERCENT)	HEXANES PLUS (MOLE PERCENT)	HYDROGEN (MOLE PERCENT)	HELIUM (MOLE PERCENT)	PRODUCTION DATE	POSTING DATE	ChangeTimestamp	NOTES
11587	GLEN ULLIN	1078.3	0.6253	1363.7	-23.6	1.518	0.8463	87.77	8.1163	1.2675	0.1347	0.1062	0.0264	0.0269	0	0.0187	0.1557	0.0188	6/12/2015	6/12/2015	6/12/2015 2:24:21 PM	
11587	GLEN ULLIN	1080.2	0.6261	1365.1	-23.1	1.4959	0.8412	87.6259	8.2167	1.3153	0.128	0.1089	0.0208	0.0276	0	0.0186	0.1723	0.0188	6/12/2015	6/12/2015	6/12/2015 2:24:24 PM	
11587	GLEN ULLIN	1072.3	0.6211	1360.7	-23.7	1.4519	0.866	88.4416	7.606	1.1332	0.1278	0.1031	0.0196	0.0264	0	0.0175	0.1864	0.0188	6/12/2015	6/12/2015	6/12/2015 2:24:27 PM	
11587	GLEN ULLIN	1072.2	0.621	1360.6	-27.4	1.4267	0.8553	88.3473	7.8045	1.0433	0.1226	0.0992	0.0191	0.0255	0	0.0165	0.1894	0.0188	6/12/2015	6/12/2015	6/12/2015 2:24:46 PM	
11587	GLEN ULLIN	1074	0.6221	1361.7	-26.8	1.4883	0.843	88.0585	8.0715	1.0532	0.1176	0.0951	0.0184	0.0241	0	0.0171	0.1921	0.0188	6/12/2015	6/12/2015	6/12/2015 2:24:48 PM	
11587	GLEN ULLIN	1078.5	0.6252	1363.9	-23.9	1.4512	0.8444	87.5828	8.4703	1.1159	0.1246	0.1004	0.0193	0.0258	0	0.0192	0.1867	0.0188	6/12/2015	6/12/2015	6/12/2015 2:24:46 PM	
11587	GLEN ULLIN	1081	0.6264	1365.9	-22.2	1.4374	0.8652	87.4397	8.5385	1.1972	0.1297	0.1046	0.0204	0.0269	0	0.0204	0.1843	0.0188	6/12/2015	6/12/2015	6/12/2015 2:24:44 PM	
11587	GLEN ULLIN	1079.8	0.6254	1365.4	-22.7	1.4154	0.8653	87.3938	8.4717	1.1419	0.1324	0.1057	0.0206	0.0275	0	0.02	0.1855	0.0188	6/12/2015	6/12/2015	6/12/2015 2:24:38 PM	
11587	GLEN ULLIN	1071	0.6189	1361.4	-20.5	1.3713	0.8363	89.1474	6.8098	1.2316	0.1464	0.1198	0.0233	0.0213	0	0.0223	0.1629	0.0188	6/12/2015	6/12/2015	6/12/2015 2:24:15 PM	
11587	GLEN ULLIN	1069.9	0.6183	1360.6	-20.4	1.3821	0.8337	89.2604	6.7365	1.2387	0.1436	0.1196	0.0229	0.021	0	0.0226	0.1698	0.0188	6/12/2015	6/12/2015	6/12/2015 2:24:24 PM	
11587	GLEN ULLIN	1069.9	0.618	1361	-20.4	1.3228	0.8311	89.3489	6.574	1.2791	0.1401	0.1176	0.022	0.023	0	0.0228	0.1705	0.0188	6/12/2015	6/12/2015	6/12/2015 2:23:17 PM	
11587	GLEN ULLIN	1070.9	0.6191	1361.1	-20.8	1.3741	0.8498	89.1665	6.7951	1.2986	0.145	0.1204	0.0218	0.0299	0	0.0221	0.1588	0.0188	6/12/2015	6/12/2015	6/12/2015 2:23:19 PM	
11587	GLEN ULLIN	1069.2	0.618	1360.1	-21.7	1.3734	0.8469	89.369	6.6568	1.2478	0.1469	0.1213	0.0218	0.0298	0	0.0213	0.1479	0.0188	6/12/2015	6/12/2015	6/12/2015 2:23:46 PM	
11587	GLEN ULLIN	1068.3	0.6181	1358.8	-21.3	1.4126	0.8654	89.1246	6.6788	1.223	0.143	0.1188	0.0215	0.0295	0	0.0219	0.1452	0.0188	6/12/2015	6/12/2015	6/12/2015 2:24:57 PM	
11587	GLEN ULLIN	1067.1	0.6173	1358.1	-22.5	1.4284	0.8368	89.4429	6.5954	1.2043	0.1368	0.1135	0.0211	0.0285	0	0.0211	0.1445	0.0188	6/12/2015	6/12/2015	6/12/2015 2:24:42 PM	
11587	GLEN ULLIN	1068.6	0.6175	1359.9	-21.3	1.4475	0.8386	89.4523	6.6254	1.2382	0.141	0.1173	0.0215	0.0293	0	0.0219	0.1473	0.0188	6/12/2015	6/12/2015	6/12/2015 2:25:09 PM	
11587	GLEN ULLIN	1072.1	0.6204	1361.1	-20.6	1.42	0.8314	88.9117	7.0224	1.2866	0.1472	0.1191	0.0221	0.0297	0	0.0221	0.1498	0.0188	6/12/2015	6/12/2015	6/12/2015 2:25:08 PM	
11587	GLEN ULLIN	1070.7	0.6197	1360.2	-22.4	1.4141	0.8684	89.0035	6.9306	1.2676	0.1404	0.1159	0.0207	0.0282	0	0.0205	0.1548	0.0188	6/12/2015	6/12/2015	6/12/2015 2:24:38 PM	
11587	GLEN ULLIN	1072.6	0.6213	1360.8	-20.3	1.4313	0.8823	88.772	7.0625	1.319	0.1531	0.1226	0.0228	0.0305	0	0.0218	0.1654	0.0188	6/12/2015	6/12/2015	6/12/2015 2:27:02 PM	
11587	GLEN ULLIN	1069.4	0.6184	1359.8	-20.3	1.3876	0.8584	89.373	6.5169	1.2442	0.1556	0.1256	0.0234	0.0314	0	0.022	0.1653	0.0188	6/12/2015	6/12/2015	6/12/2015 2:25:32 PM	
11587	GLEN ULLIN	1060.7	0.6133	1354.4	-33.1	1.428	0.8616	89.7744	6.5227	0.966	0.1034	0.0828	0.0155	0.0206	0	0.0136	0.1628	0.0188	6/12/2015	6/12/2015	6/12/2015 2:25:35 PM	
11587	GLEN ULLIN	1057.5	0.6114	1352.4	-53.3	1.4255	0.874	89.6453	7.0624	0.6843	0.0588	0.0458	0.0081	0.0106	0	0.0052	0.1636	0.018	6/12/2015	6/12/2015	6/12/2015 2:25:22 PM	
11587	GLEN ULLIN	1057	0.6109	1352.3	-53.4	1.4264	0.8608	89.7648	6.9363	0.7993	0.0582	0.0453	0.0078	0.0101	0	0.0048	0.1592	0.0173	6/12/2015	6/12/2015	6/12/2015 2:26:00 PM	
11587	GLEN ULLIN	1055.1	0.6104	1350.4	-53.6	1.4424	0.8968	89.884	6.7869	0.692	0.0581	0.0454	0.0078	0.0102	0	0.0048	0.1549	0.0161	6/12/2015	6/12/2015	6/12/2015 2:25:58 PM	
11587	GLEN ULLIN	1055.4	0.6088	1352.6	-53.6	1.324	0.8637	90.1744	6.6802	0.6648	0.0564	0.0448	0.0078	0.0103	0	0.005	0.1524	0.0153	6/12/2015	6/12/2015	6/12/2015 2:26:30 PM	
11587	GLEN ULLIN	1053.7	0.6085	1330.7	-51.4	1.3608	0.8905	90.2642	6.5769	0.6627	0.0591	0.0472	0.0085	0.0112	0	0.0057	0.1537	0.0153	6/12/2015	6/12/2015	6/12/2015 2:25:35 PM	
11587	GLEN ULLIN	1057.9	0.6105	1353.9	-43.2	1.3111	0.8782	90.9639	6.6718	0.7772	0.0778	0.0627	0.0116	0.0153	0	0.0086	0.1559	0.0153	6/12/2015	6/12/2015	6/12/2015 2:25:23 PM	
11587	GLEN ULLIN	1057	0.61	1353.3	-49.4	1.3325	0.8702	89.9973	6.7943	0.6922	0.0659	0.0514	0.0094	0.012	0	0.0061	0.1526	0.0153	6/12/2015	6/12/2015	6/12/2015 2:25:52 PM	
11587	GLEN ULLIN	1057.4	0.6104	1353.5	-49.5	1.3566	0.8882	89.9298	6.8318	0.7035	0.0686	0.0524	0.0097	0.0122	0	0.006	0.1527	0.0153	6/12/2015	6/12/2015	6/12/2015 2:25:34 PM	
11587	GLEN ULLIN	1057.2	0.6095	1354.1	-48.1	1.3075	0.8469	90.1298	6.6823	0.7079	0.0706	0.0561	0.0103	0.0132	0	0.0067	0.1533	0.0153	6/12/2015	6/12/2015	6/12/2015 2:25:22 PM	

30 record(s) retrieved

Zone 802



GQ Source Analysis

GQ Source Number:	0602330	Specific Gravity:	0.7051
GQ Source Name:	WILLISTON BORDER	Dry Heat Value:	1185.29
Effective Date:	7/1/2015 9:00:00 AM	Wet Heat Value:	1164.66
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1185.29
Pressure Base:	14.730	Sample Pressure:	356.00
Viscosity:		Sample Temperature:	

	<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>	
C1	Methane	72.800		CO2	Carbon Dioxide	0.716
C2	Ethane	20.435	5.4488	N2	Nitrogen	2.787
C3	Propane	2.934	0.8061	O2	Oxygen	0.000
IC4	Isobutane	0.097	0.0317	He	Helium	
NC4	n-Butane	0.201	0.0631	H2	Hydrogen	
IC5	Isopentane	0.014	0.0051	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.016	0.0057	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%	6.361 GPM		

Sample Date: 8/3/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: Eric
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 24

GQ Source Analysis

GQ Source Number:	0602160	Specific Gravity:	0.7305
GQ Source Name:	FAIRVIEW BORDER	Dry Heat Value:	1195.34
Effective Date:	7/1/2015 9:00:00 AM	Wet Heat Value:	1174.53
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1195.34
Pressure Base:	14.730	Sample Pressure:	455.00
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	69.245		CO2	Carbon Dioxide	1.150
C2	Ethane	21.104	0.0000	N2	Nitrogen	3.895
C3	Propane	4.177	1.1475	O2	Oxygen	0.011
IC4	Isobutane	0.139	0.0452	He	Helium	
NC4	n-Butane	0.249	0.0783	H2	Hydrogen	
IC5	Isopentane	0.016	0.0058	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.014	0.0050	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%		1.282	GPM	

Sample Date: 8/3/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: Rocky
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 241

GQ Source Number:	0602230	Specific Gravity:	0.7115
GQ Source Name:	WATFORD CITY BORDER	Dry Heat Value:	1187.81
Effective Date:	7/1/2015 9:00:00 AM	Wet Heat Value:	1167.14
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1187.81
Pressure Base:	14.730	Sample Pressure:	321.00
Viscosity:		Sample Temperature:	

	<u>Mol %</u>	<u>Liquid Content</u>		<u>Mol %</u>	
C1	Methane	73.178	CO2	Carbon Dioxide	0.932
C2	Ethane	18.704	N2	Nitrogen	2.884
C3	Propane	3.563	O2	Oxygen	0.008
IC4	Isobutane	0.208	He	Helium	
NC4	n-Butane	0.444	H2	Hydrogen	
IC5	Isopentane	0.038	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.038	Ar	Argon	
C6	Hexanes	0.002	CO	Carbon Monoxide	
C7	Heptanes		H2	Water	
C8	Octanes		Neo-C5	Neopentane	
C9	Nonanes				
C10	Decanes				

Totals 100.000% 6.203 GPM

Sample Date: 8/3/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: Eric
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 25

GQ Source Daily Summary

July 2015

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	CCT
1	0.5809	968.7	985.8	0.005	4.173	94.115	1.615	0.075	0.004	0.009	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1293.43	
2	0.5804	968.8	985.9	0.002	4.124	94.212	1.576	0.069	0.004	0.009	0.001	0.003	0.000	0.000	0.000	0.000	0.000	1294.12	
3	0.5885	980.4	997.7	0.041	4.116	92.813	2.763	0.231	0.010	0.022	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1300.62	
4	0.5838	973.3	990.5	0.022	4.134	93.649	2.024	0.143	0.006	0.017	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1296.38	
5	0.5898	981.4	998.8	0.062	4.146	92.586	2.902	0.266	0.010	0.023	0.002	0.004	0.000	0.000	0.000	0.000	0.000	1300.52	
6	0.6023	999.9	1017.6	0.139	4.073	90.433	4.774	0.511	0.018	0.041	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1311.26	
7	0.6172	1024.3	1042.4	0.208	3.889	88.211	6.511	0.990	0.047	0.118	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1326.74	
8	0.5942	989.7	1007.2	0.096	4.003	91.878	3.608	0.361	0.014	0.032	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1306.62	
9	0.5830	972.0	989.2	0.018	4.144	93.777	1.905	0.132	0.006	0.015	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1295.58	
10	0.5819	970.0	987.2	0.011	4.179	93.942	1.747	0.102	0.005	0.012	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1294.09	
11	0.5804	967.4	984.5	0.003	4.212	94.192	1.510	0.069	0.004	0.009	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1292.23	
12	0.5803	967.5	984.6	0.002	4.192	94.226	1.493	0.072	0.004	0.010	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1292.55	
13	0.5805	967.0	984.1	0.003	4.245	94.171	1.495	0.071	0.004	0.009	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1291.57	
14	0.5807	967.1	984.3	0.002	4.251	94.132	1.536	0.066	0.004	0.009	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1291.63	
15	0.5801	966.9	984.0	0.002	4.209	94.274	1.425	0.072	0.004	0.011	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1291.95	
16	0.5795	966.4	983.5	0.003	4.186	94.405	1.303	0.082	0.005	0.012	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1291.91	
17	0.5819	969.7	986.8	0.022	4.176	93.980	1.688	0.114	0.005	0.012	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1293.71	
18	0.5828	969.7	986.8	0.003	4.292	93.718	1.891	0.080	0.005	0.010	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1292.65	
19	0.5816	968.4	985.5	0.017	4.234	94.028	1.587	0.108	0.006	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1292.29	
20	0.6486	1083.1	1102.2	0.003	3.581	80.346	15.977	0.079	0.004	0.009	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1367.67	
21	0.6895	1152.6	1173.0	0.011	3.186	72.068	24.618	0.101	0.004	0.010	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1412.62	
22	0.6864	1148.4	1168.7	0.005	3.163	72.704	23.999	0.109	0.005	0.012	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1410.60	
23	0.6864	1149.1	1169.5	0.007	3.114	72.702	24.059	0.100	0.004	0.012	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1411.54	
24	0.6872	1149.0	1169.3	0.014	3.185	72.528	24.167	0.093	0.003	0.008	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1410.42	
25	0.5818	967.9	985.0	0.017	4.291	93.920	1.681	0.070	0.005	0.013	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1291.35	
26	0.5949	991.4	1009.0	0.010	4.099	91.264	4.535	0.069	0.005	0.015	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1308.04	
27	0.6184	1032.0	1050.3	0.004	3.849	86.475	9.582	0.072	0.004	0.010	0.001	0.003	0.000	0.000	0.000	0.000	0.000	1335.54	
28	0.6296	1046.3	1064.8	0.179	3.756	85.148	10.131	0.701	0.024	0.050	0.004	0.006	0.000	0.000	0.000	0.000	0.000	1341.78	
29	0.6080	1014.5	1032.5	0.040	3.876	88.811	7.035	0.200	0.009	0.023	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1324.11	
30	0.6166	1026.7	1044.9	0.052	3.931	87.146	8.546	0.273	0.013	0.032	0.003	0.004	0.000	0.000	0.000	0.000	0.000	1330.54	
31	0.6161	1026.8	1045.0	0.012	3.933	87.037	8.852	0.137	0.008	0.018	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1331.31	
Avg	0.6062	1011.0	1028.4	0.033	3.966	89.125	6.662	0.181	0.008	0.020	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1320.17	

Zone 261

GQ Source Daily Summary

July 2015

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																	Wobbe	CCT
				CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10				
1	0.7523	1183.5	1204.5	0.765	6.022	66.026	21.288	5.215	0.200	0.442	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1388.69		
2	0.7492	1179.3	1200.2	0.755	5.997	66.517	20.974	5.082	0.197	0.438	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1386.68		
3	0.7482	1178.8	1199.7	0.766	5.925	66.639	20.994	5.008	0.194	0.433	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1386.93		
4	0.7433	1171.1	1191.8	0.741	5.968	67.369	20.464	4.823	0.185	0.411	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1382.45		
5	0.7473	1176.1	1196.9	0.755	6.023	66.714	20.911	4.938	0.191	0.427	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1384.54		
6	0.7538	1184.9	1205.9	0.783	6.054	65.716	21.577	5.173	0.203	0.451	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1388.89		
7	0.7463	1175.8	1196.6	0.748	5.957	66.952	20.728	4.946	0.194	0.434	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1385.13		
8	0.7456	1174.9	1195.7	0.744	5.953	67.064	20.646	4.926	0.193	0.432	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1384.69		
9	0.7456	1174.9	1195.7	0.744	5.953	67.064	20.646	4.926	0.193	0.432	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1384.69		
10	0.7456	1174.9	1195.7	0.744	5.953	67.064	20.646	4.926	0.193	0.432	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1384.69		
11	0.7456	1174.9	1195.7	0.744	5.953	67.064	20.646	4.926	0.193	0.432	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1384.69		
12	0.7456	1174.9	1195.7	0.744	5.953	67.064	20.646	4.926	0.193	0.432	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1384.69		
13	0.7461	1176.4	1197.2	0.737	5.917	66.958	20.805	4.911	0.193	0.436	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1386.05		
14	0.7486	1179.6	1200.5	0.744	5.951	66.491	21.180	4.964	0.194	0.435	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1387.45		
15	0.7526	1184.5	1205.4	0.771	5.989	65.845	21.611	5.107	0.198	0.438	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1389.46		
16	0.7549	1187.4	1208.4	0.778	6.011	65.502	21.816	5.210	0.201	0.442	0.019	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1390.82		
17	0.7546	1187.4	1208.5	0.783	5.979	65.496	21.905	5.166	0.198	0.435	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1391.09		
18	0.7546	1187.0	1208.0	0.783	6.002	65.521	21.842	5.173	0.198	0.440	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1390.62		
19	0.7552	1187.6	1208.7	0.790	6.004	65.395	21.970	5.171	0.197	0.435	0.020	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1390.87		
20	0.7538	1186.4	1207.4	0.785	5.963	65.578	21.914	5.102	0.193	0.427	0.019	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1390.61		
21	0.7471	1178.4	1199.2	0.751	5.869	66.664	21.208	4.876	0.186	0.411	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1387.46		
22	0.7521	1183.5	1204.5	0.779	5.980	65.802	21.782	5.018	0.189	0.413	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1388.91		
23	0.7496	1180.5	1201.4	0.768	5.949	66.220	21.480	4.954	0.186	0.405	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1387.62		
24	0.7503	1181.7	1202.6	0.771	5.942	66.129	21.531	4.991	0.188	0.411	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1388.35		
25	0.7475	1177.6	1198.5	0.759	5.939	66.600	21.162	4.912	0.185	0.407	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1386.24		
26	0.7522	1182.7	1203.6	0.782	6.044	65.826	21.634	5.066	0.191	0.421	0.018	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1387.77		
27	0.7552	1186.3	1207.4	0.791	6.086	65.395	21.869	5.185	0.198	0.438	0.020	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1389.30		
28	0.7553	1187.0	1208.0	0.790	6.059	65.419	21.842	5.212	0.199	0.439	0.021	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1389.93		
29	0.7555	1187.4	1208.4	0.793	6.047	65.343	21.937	5.225	0.195	0.421	0.019	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1390.24		
30	0.7550	1187.0	1208.0	0.792	6.027	65.427	21.885	5.226	0.193	0.411	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1390.23		
31	0.7238	1160.5	1181.0	0.541	5.095	69.690	20.623	3.593	0.134	0.295	0.014	0.014	0.000	0.000	0.000	0.000	0.000	0.000	1388.29		
Avg	0.7494	1180.0	1201.3	0.759	5.954	66.341	21.295	4.996	0.192	0.424	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1387.68		

Zone 2b2

GQ Source Analysis

GQ Source Number:	2501030	Specific Gravity:	0.6638
GQ Source Name:	LIGNITE PLANT	Dry Heat Value:	1120.62
Effective Date:	7/1/2015 9:00:00 AM	Wet Heat Value:	1101.12
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1120.62
Pressure Base:	14.730	Sample Pressure:	318.00
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	77.953		CO2	Carbon Dioxide	0.087
C2	Ethane	17.235	4.5956	N2	Nitrogen	3.739
C3	Propane	0.976	0.2681	O2	Oxygen	0.007
IC4	Isobutane	0.000	0.0000	He	Helium	
NC4	n-Butane	0.000	0.0000	H2	Hydrogen	
IC5	Isopentane	0.000	0.0000	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.000	0.0000	Ar	Argon	
C6	Hexanes	0.003	0.0012	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					
Totals		100.000%		4.865	GPM	

Sample Date: 8/3/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: Eric
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 2b3

*** End of Report ***

GQ Source Analysis

GQ Source Number:	0702010	Specific Gravity:	0.6947
GQ Source Name:	EPPING BORDER	Dry Heat Value:	1169.71
Effective Date:	7/1/2015 9:00:00 AM	Wet Heat Value:	1149.35
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1169.71
Pressure Base:	14.730	Sample Pressure:	316.00
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	74.503		CO2	Carbon Dioxide	0.700
C2	Ethane	19.213	5.1231	N2	Nitrogen	2.769
C3	Propane	2.483	0.6820	O2	Oxygen	0.000
IC4	Isobutane	0.094	0.0305	He	Helium	
NC4	n-Butane	0.201	0.0633	H2	Hydrogen	
IC5	Isopentane	0.016	0.0059	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.019	0.0070	Ar	Argon	
C6	Hexanes	0.002	0.0009	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					
Totals			100.000%		5.913 GPM	

Sample Date: 8/3/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: Eric
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 264

GQ Source Daily Summary

July 2015

Number: 161 Pressure Base: 14.730 Contract Day: 1
 Name: NORTH TIOGA TRANSFER-PORTAL 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	0.7130	1165.4	1186.0	0.826	3.357	71.404	21.260	2.837	0.086	0.192	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1404.57	
2	0.7150	1167.1	1187.7	0.858	3.389	71.271	21.160	2.973	0.093	0.210	0.020	0.025	0.000	0.000	0.000	0.000	0.000	1404.65	
3	0.7157	1168.4	1189.0	0.847	3.394	71.146	21.269	2.996	0.093	0.211	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1405.50	
4	0.7164	1169.4	1190.1	0.862	3.371	70.965	21.446	3.027	0.092	0.202	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1406.09	
5	0.7140	1165.4	1186.1	0.859	3.395	71.354	21.178	2.877	0.091	0.206	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1403.65	
6	0.7140	1165.4	1186.1	0.851	3.410	71.256	21.362	2.782	0.091	0.207	0.020	0.023	0.000	0.000	0.000	0.000	0.000	1403.65	
7	0.7144	1166.2	1186.8	0.812	3.451	71.532	20.790	2.986	0.113	0.262	0.025	0.029	0.000	0.000	0.000	0.000	0.000	1404.20	
8	0.7162	1167.8	1188.5	0.884	3.418	70.990	21.481	2.855	0.100	0.228	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1404.35	
9	0.7160	1168.0	1188.7	0.837	3.453	71.057	21.340	2.935	0.102	0.231	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1404.85	
10	0.7119	1161.8	1182.4	0.849	3.434	71.489	21.218	2.719	0.082	0.180	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1401.35	
11	0.7154	1166.8	1187.4	0.885	3.404	71.066	21.466	2.845	0.090	0.204	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1403.92	
12	0.7130	1163.4	1184.0	0.858	3.425	71.268	21.418	2.748	0.081	0.175	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1402.24	
13	0.7155	1166.8	1187.4	0.887	3.416	71.050	21.452	2.851	0.093	0.210	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1403.74	
14	0.7128	1164.4	1185.1	0.763	3.483	71.658	20.819	2.869	0.108	0.249	0.023	0.028	0.000	0.000	0.000	0.000	0.000	1403.68	
15	0.7174	1170.2	1190.9	0.887	3.382	70.792	21.638	2.937	0.099	0.225	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1406.06	
16	0.7176	1171.2	1191.9	0.890	3.337	70.883	21.528	2.976	0.103	0.235	0.021	0.026	0.000	0.000	0.000	0.000	0.000	1406.99	
17	0.7126	1163.1	1183.7	0.894	3.358	71.237	21.638	2.587	0.080	0.177	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1402.18	
18	0.7176	1171.1	1191.9	0.895	3.326	70.872	21.586	2.914	0.108	0.251	0.021	0.026	0.000	0.000	0.000	0.000	0.000	1407.02	
19	0.7204	1176.0	1196.8	0.891	3.302	70.552	21.735	3.082	0.116	0.268	0.024	0.030	0.000	0.000	0.000	0.000	0.000	1410.08	
20	0.7174	1171.1	1191.9	0.872	3.345	70.909	21.502	2.964	0.110	0.252	0.020	0.025	0.000	0.000	0.000	0.000	0.000	1407.17	
21	0.7176	1170.8	1191.5	0.905	3.335	71.033	21.268	3.032	0.114	0.258	0.024	0.031	0.000	0.000	0.000	0.000	0.000	1406.55	
22	0.7157	1167.9	1188.6	0.860	3.399	71.162	21.252	2.963	0.099	0.222	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1404.97	
23	0.7144	1166.4	1187.1	0.846	3.395	71.342	21.136	2.912	0.101	0.226	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1404.38	
24	0.7168	1170.1	1190.8	0.863	3.367	71.040	21.380	2.944	0.110	0.246	0.023	0.029	0.000	0.000	0.000	0.000	0.000	1406.53	
25	0.7231	1181.7	1202.6	0.814	3.320	70.608	21.250	3.409	0.151	0.368	0.036	0.045	0.000	0.000	0.000	0.000	0.000	1414.14	
26	0.7148	1167.0	1187.7	0.865	3.366	71.323	21.166	2.904	0.103	0.230	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1404.74	
27	0.7201	1175.1	1195.9	0.862	3.368	70.792	21.319	3.183	0.124	0.286	0.029	0.037	0.000	0.000	0.000	0.000	0.000	1409.32	
28	0.7071	1154.9	1175.4	0.784	3.495	72.666	19.900	2.784	0.105	0.227	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1397.78	
29	0.7345	1199.6	1220.9	0.829	3.263	69.747	21.050	4.268	0.209	0.512	0.054	0.068	0.000	0.000	0.000	0.000	0.000	1424.48	
30	0.7241	1182.6	1203.6	0.854	3.298	70.394	21.414	3.494	0.144	0.336	0.030	0.036	0.000	0.000	0.000	0.000	0.000	1414.39	
31	0.7219	1178.9	1199.8	0.859	3.311	70.543	21.504	3.292	0.129	0.299	0.028	0.033	0.000	0.000	0.000	0.000	0.000	1412.07	
Avg	0.7167	1170.0	1190.5	0.856	3.360	71.077	21.288	2.998	0.107	0.245	0.022	0.027	0.000	0.000	0.000	0.000	0.000	1406.30	

Zone 265

GQ Source Daily Summary

July 2015

Number: 043

Pressure Base: 14.730

Contract Day: 1

Name: BISMARCK STATION-CLEVELAND STATION

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	0.7429	1171.4	1192.1	0.729	5.938	67.511	20.333	4.829	0.187	0.427	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1383.06	
2	0.7518	1182.9	1203.8	0.762	6.015	66.096	21.323	5.097	0.200	0.459	0.024	0.024	0.000	0.000	0.000	0.000	0.000	1388.44	
3	0.7514	1183.0	1204.0	0.763	5.969	66.206	21.230	5.125	0.201	0.459	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1388.93	
4	0.7412	1169.3	1190.0	0.719	5.912	67.866	20.022	4.813	0.189	0.433	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1382.27	
5	0.7415	1170.6	1191.4	0.723	5.854	67.712	20.318	4.742	0.185	0.423	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1383.58	
6	0.7381	1167.3	1187.9	0.708	5.765	68.243	20.024	4.630	0.179	0.408	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1382.73	
7	0.7286	1155.0	1175.4	0.673	5.679	69.786	18.940	4.324	0.169	0.387	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1377.01	
8	0.7364	1164.6	1185.2	0.704	5.778	68.622	19.626	4.612	0.185	0.427	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1381.12	
9	0.7429	1174.8	1195.6	0.726	5.731	67.543	20.530	4.794	0.190	0.438	0.024	0.024	0.000	0.000	0.000	0.000	0.000	1387.14	
10	0.7469	1177.5	1198.3	0.745	5.911	66.879	20.854	4.925	0.194	0.444	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1386.59	
11	0.7519	1184.3	1205.3	0.760	5.943	66.054	21.445	5.106	0.199	0.449	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1389.99	
12	0.7545	1187.9	1208.9	0.768	5.955	65.658	21.701	5.222	0.201	0.451	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1391.79	
13	0.7536	1187.3	1208.3	0.773	5.899	65.715	21.809	5.124	0.196	0.441	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1391.96	
14	0.7523	1185.0	1206.0	0.764	5.929	65.978	21.526	5.117	0.197	0.446	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1390.49	
15	0.7549	1187.6	1208.6	0.783	5.993	65.486	21.894	5.160	0.197	0.444	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1391.06	
16	0.7547	1188.1	1209.2	0.776	5.947	65.534	21.898	5.161	0.197	0.444	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1391.91	
17	0.7504	1183.6	1204.6	0.761	5.847	66.141	21.633	4.964	0.188	0.423	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1390.53	
18	0.7466	1178.4	1199.3	0.739	5.839	66.789	21.117	4.868	0.186	0.419	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1387.98	
19	0.7509	1183.1	1204.1	0.767	5.911	66.082	21.579	5.013	0.189	0.418	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1389.55	
20	0.7503	1182.9	1203.8	0.759	5.886	66.206	21.476	5.020	0.190	0.420	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1389.77	
21	0.7458	1176.7	1197.6	0.743	5.855	66.957	20.932	4.877	0.185	0.411	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1386.78	
22	0.7528	1184.6	1205.5	0.775	5.989	65.825	21.637	5.107	0.193	0.433	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1389.48	
23	0.7549	1186.9	1207.9	0.783	6.031	65.546	21.751	5.193	0.200	0.452	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1390.26	
24	0.7558	1188.9	1210.0	0.779	6.002	65.431	21.824	5.268	0.200	0.452	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1391.77	
25	0.7546	1187.1	1208.1	0.782	5.997	65.529	21.837	5.192	0.193	0.427	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1390.75	
26	0.7550	1187.8	1208.8	0.783	5.988	65.526	21.781	5.263	0.194	0.421	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1391.19	
27	0.7544	1186.9	1207.9	0.787	5.985	65.575	21.790	5.210	0.192	0.418	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1390.68	
28	0.7512	1183.4	1204.3	0.768	5.926	65.988	21.665	5.022	0.185	0.402	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1389.52	
29	0.7304	1163.0	1183.6	0.633	5.425	68.967	20.413	4.049	0.150	0.327	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1384.96	
30	0.7511	1185.5	1206.5	0.772	5.777	65.996	21.888	4.908	0.190	0.424	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1392.16	
31	0.7514	1184.5	1205.4	0.772	5.865	66.086	21.596	4.980	0.198	0.455	0.024	0.024	0.000	0.000	0.000	0.000	0.000	1390.68	
AVG	0.7484	1180.0	1200.9	0.751	5.888	66.566	21.174	4.959	0.190	0.428	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1388.20	

Zone 271

GQ Source Daily Summary

July 2015

Number: 063

Pressure Base: 14.730

Contract Day: 1

Name: CLEVELAND STATION-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	0.7408	1168.0	1188.6	0.722	5.954	67.803	20.134	4.754	0.181	0.408	0.022	0.022	0.000					1381.04	
2	0.7465	1175.2	1196.0	0.746	6.016	66.876	20.782	4.911	0.191	0.432	0.024	0.024	0.000					1384.27	
3	0.7551	1187.0	1208.0	0.779	6.054	65.538	21.707	5.210	0.204	0.460	0.024	0.024	0.000					1390.16	
4	0.7443	1173.5	1194.3	0.734	5.933	67.292	20.486	4.886	0.191	0.432	0.023	0.023	0.000					1384.26	
5	0.7418	1169.7	1190.5	0.722	5.938	67.698	20.186	4.797	0.188	0.426	0.023	0.023	0.000					1382.23	
6	0.7388	1166.6	1187.3	0.715	5.862	68.087	20.063	4.651	0.178	0.402	0.021	0.021	0.000					1381.31	
7	0.7353	1162.9	1183.4	0.700	5.790	68.686	19.652	4.554	0.176	0.399	0.022	0.021	0.000					1380.07	
8	0.7255	1149.1	1169.5	0.663	5.755	70.275	18.494	4.232	0.165	0.374	0.020	0.021	0.000					1373.03	
9	0.7413	1171.7	1192.4	0.723	5.772	67.784	20.328	4.726	0.188	0.430	0.024	0.025	0.000					1384.98	
10	0.7467	1177.4	1198.2	0.743	5.901	66.895	20.865	4.908	0.195	0.444	0.025	0.025	0.000					1386.69	
11	0.7475	1178.9	1199.8	0.746	5.880	66.702	21.075	4.930	0.192	0.430	0.022	0.023	0.000					1387.73	
12	0.7535	1185.9	1206.9	0.764	5.991	65.763	21.620	5.170	0.201	0.446	0.022	0.023	0.000					1390.40	
13	0.7548	1188.3	1209.4	0.773	5.956	65.484	21.933	5.178	0.197	0.435	0.021	0.022	0.000					1391.98	
14	0.7514	1183.5	1204.5	0.762	5.939	66.050	21.523	5.056	0.194	0.433	0.022	0.021	0.000					1389.54	
15	0.7550	1187.3	1208.3	0.779	6.023	65.449	21.910	5.155	0.197	0.442	0.023	0.023	0.000					1390.64	
16	0.7544	1186.7	1207.7	0.777	6.006	65.541	21.858	5.144	0.195	0.435	0.022	0.022	0.000					1390.48	
17	0.7542	1187.4	1208.4	0.778	5.949	65.534	21.960	5.114	0.193	0.429	0.021	0.021	0.000					1391.43	
18	0.7443	1175.5	1196.4	0.733	5.810	67.144	20.896	4.783	0.182	0.410	0.021	0.022	0.000					1386.70	
19	0.7520	1184.0	1204.9	0.769	5.961	65.848	21.761	5.014	0.189	0.417	0.021	0.021	0.000					1389.50	
20	0.7466	1177.4	1198.2	0.745	5.895	66.746	21.112	4.875	0.183	0.402	0.020	0.021	0.000					1386.72	
21	0.7506	1182.7	1203.6	0.763	5.921	66.125	21.531	5.012	0.190	0.416	0.021	0.022	0.000					1389.25	
22	0.7476	1177.6	1198.4	0.753	5.962	66.610	21.114	4.925	0.186	0.409	0.020	0.020	0.000					1386.03	
23	0.7541	1185.0	1206.0	0.785	6.074	65.562	21.774	5.135	0.195	0.433	0.021	0.021	0.000					1388.75	
24	0.7553	1187.2	1208.2	0.780	6.061	65.433	21.831	5.205	0.198	0.446	0.023	0.022	0.000					1390.19	
25	0.7551	1187.1	1208.1	0.780	6.050	65.465	21.809	5.216	0.197	0.439	0.022	0.022	0.000					1390.22	
26	0.7545	1186.4	1207.4	0.782	6.025	65.505	21.850	5.195	0.190	0.410	0.021	0.022	0.000					1390.08	
27	0.7549	1187.1	1208.1	0.786	6.020	65.466	21.848	5.229	0.193	0.414	0.022	0.023	0.000					1390.46	
28	0.7539	1185.1	1206.1	0.791	6.035	65.561	21.850	5.131	0.187	0.401	0.021	0.022	0.000					1389.11	
29	0.7323	1165.5	1186.1	0.636	5.447	68.622	20.686	4.092	0.151	0.328	0.018	0.019	0.000					1386.17	
30	0.7500	1182.8	1203.8	0.766	5.854	66.104	21.749	4.905	0.184	0.396	0.021	0.022	0.000					1389.96	
31	0.7490	1181.6	1202.6	0.768	5.826	66.337	21.573	4.833	0.190	0.429	0.023	0.023	0.000					1389.52	
Avg	0.7480	1179.0	1199.7	0.750	5.924	66.580	21.160	4.933	0.188	0.420	0.022	0.022	0.000					1387.19	

Zone 272

GQ Source Daily Summary

July 2015

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	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7408	1167.9	1188.6	0.723	5.956	67.803	20.134	4.752	0.181	0.408	0.022	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1380.97
2	0.7465	1175.1	1195.9	0.746	6.020	66.881	20.776	4.907	0.190	0.432	0.024	0.024	0.000	0.000	0.000	0.000	0.000	0.000	1384.14
3	0.7549	1186.8	1207.8	0.779	6.052	65.560	21.695	5.203	0.204	0.460	0.024	0.024	0.000	0.000	0.000	0.000	0.000	0.000	1390.05
4	0.7444	1173.6	1194.4	0.734	5.930	67.287	20.493	4.887	0.191	0.431	0.023	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1384.34
5	0.7417	1169.7	1190.4	0.722	5.938	67.704	20.183	4.794	0.188	0.425	0.023	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1382.17
6	0.7387	1166.6	1187.2	0.715	5.856	68.097	20.067	4.644	0.178	0.401	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1381.33
7	0.7353	1162.7	1183.3	0.700	5.790	68.702	19.639	4.551	0.176	0.399	0.022	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1379.98
8	0.7255	1149.2	1169.5	0.664	5.753	70.269	18.500	4.233	0.166	0.374	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1373.08
9	0.7411	1171.5	1192.3	0.722	5.768	67.807	20.316	4.720	0.188	0.429	0.024	0.025	0.000	0.000	0.000	0.000	0.000	0.000	1384.93
10	0.7467	1177.3	1198.2	0.744	5.909	66.885	20.869	4.906	0.195	0.444	0.024	0.024	0.000	0.000	0.000	0.000	0.000	0.000	1386.56
11	0.7474	1178.7	1199.5	0.746	5.890	66.710	21.060	4.928	0.192	0.430	0.022	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1387.48
12	0.7535	1185.8	1206.8	0.764	5.993	65.768	21.619	5.167	0.200	0.445	0.022	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1390.30
13	0.7548	1188.2	1209.2	0.773	5.961	65.495	21.918	5.176	0.197	0.436	0.021	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1391.82
14	0.7513	1183.4	1204.4	0.762	5.941	66.056	21.517	5.054	0.194	0.432	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1389.47
15	0.7550	1187.3	1208.3	0.779	6.025	65.449	21.902	5.160	0.197	0.442	0.023	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1390.62
16	0.7544	1186.9	1207.9	0.778	6.001	65.523	21.885	5.139	0.195	0.435	0.022	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1390.63
17	0.7541	1187.2	1208.3	0.778	5.948	65.548	21.953	5.108	0.193	0.429	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1391.37
18	0.7444	1175.5	1196.3	0.733	5.819	67.125	20.903	4.786	0.182	0.409	0.021	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1386.59
19	0.7521	1184.0	1205.0	0.769	5.963	65.831	21.773	5.016	0.189	0.416	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1389.51
20	0.7466	1177.4	1198.2	0.745	5.897	66.748	21.106	4.877	0.183	0.402	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1386.69
21	0.7505	1182.5	1203.4	0.762	5.923	66.140	21.519	5.007	0.190	0.417	0.021	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1389.13
22	0.7475	1177.4	1198.2	0.753	5.966	66.628	21.094	4.923	0.186	0.410	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1385.89
23	0.7541	1185.0	1205.9	0.783	6.074	65.575	21.764	5.134	0.195	0.433	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1388.75
24	0.7553	1187.2	1208.2	0.780	6.061	65.435	21.829	5.206	0.198	0.446	0.023	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1390.18
25	0.7551	1187.1	1208.1	0.780	6.047	65.468	21.808	5.218	0.197	0.438	0.022	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1390.28
26	0.7545	1186.3	1207.4	0.783	6.033	65.496	21.853	5.193	0.190	0.410	0.021	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1389.95
27	0.7549	1187.0	1208.0	0.784	6.025	65.479	21.831	5.229	0.193	0.414	0.022	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1390.37
28	0.7539	1185.1	1206.0	0.790	6.039	65.561	21.848	5.130	0.187	0.401	0.021	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1389.05
29	0.7314	1164.1	1184.7	0.632	5.452	68.790	20.544	4.064	0.151	0.331	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1385.38
30	0.7499	1182.4	1203.4	0.766	5.867	66.121	21.724	4.899	0.184	0.396	0.021	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1389.60
31	0.7490	1181.6	1202.5	0.768	5.827	66.343	21.556	4.841	0.190	0.428	0.023	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1389.50
Avg	0.7479	1179.0	1199.6	0.750	5.927	66.590	21.151	4.931	0.188	0.419	0.022	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1387.10

*** End of Report***

Zone 273

GQ Source Daily Summary

July 2015

Number: 041

Pressure Base: 14.730

Contract Day: 1

Name: BISMARCK STATION-GLEN ULLIN STATION

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	0.7422	1170.5	1191.2	0.726	5.928	67.633	20.250	4.806	0.186	0.425	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1382.68	
2	0.7511	1182.1	1203.1	0.760	6.006	66.193	21.259	5.077	0.199	0.457	0.024	0.024	0.000	0.000	0.000	0.000	0.000	1388.12	
3	0.7519	1183.7	1204.7	0.765	5.971	66.127	21.285	5.143	0.202	0.460	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1389.28	
4	0.7411	1169.4	1190.1	0.718	5.904	67.872	20.024	4.813	0.189	0.433	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1382.41	
5	0.7417	1170.9	1191.6	0.723	5.856	67.695	20.315	4.757	0.186	0.425	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1383.71	
6	0.7384	1167.4	1188.1	0.709	5.779	68.197	20.045	4.639	0.179	0.409	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1382.66	
7	0.7300	1157.0	1177.5	0.678	5.679	69.560	19.106	4.372	0.171	0.391	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1378.13	
8	0.7358	1163.5	1184.1	0.703	5.784	68.726	19.541	4.590	0.184	0.425	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1380.47	
9	0.7419	1173.4	1194.2	0.722	5.725	67.709	20.406	4.767	0.189	0.435	0.024	0.024	0.000	0.000	0.000	0.000	0.000	1386.48	
10	0.7463	1176.7	1197.6	0.743	5.903	66.982	20.779	4.908	0.194	0.444	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1386.30	
11	0.7512	1183.5	1204.5	0.758	5.929	66.167	21.380	5.078	0.198	0.446	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1389.70	
12	0.7544	1187.7	1208.8	0.767	5.956	65.673	21.686	5.220	0.201	0.452	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1391.72	
13	0.7526	1185.6	1206.6	0.769	5.915	65.910	21.620	5.100	0.197	0.445	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1390.87	
14	0.7510	1183.5	1204.5	0.759	5.906	66.201	21.374	5.077	0.196	0.444	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1389.92	
15	0.7550	1187.8	1208.8	0.782	5.990	65.479	21.901	5.160	0.197	0.446	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1391.18	
16	0.7547	1188.1	1209.1	0.775	5.954	65.532	21.889	5.166	0.197	0.444	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1391.83	
17	0.7513	1184.7	1205.6	0.765	5.860	66.005	21.718	4.995	0.189	0.426	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1390.94	
18	0.7459	1177.5	1198.4	0.736	5.829	66.914	21.032	4.844	0.186	0.418	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1387.60	
19	0.7515	1183.9	1204.9	0.770	5.922	65.975	21.655	5.028	0.189	0.420	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1389.83	
20	0.7503	1182.8	1203.7	0.759	5.887	66.222	21.462	5.017	0.190	0.421	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1389.68	
21	0.7464	1177.6	1198.4	0.745	5.858	66.859	21.002	4.895	0.185	0.413	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1387.20	
22	0.7522	1183.8	1204.8	0.772	5.983	65.925	21.566	5.089	0.193	0.431	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1389.14	
23	0.7548	1186.8	1207.9	0.783	6.029	65.549	21.755	5.190	0.199	0.451	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1390.26	
24	0.7556	1188.7	1209.7	0.778	5.998	65.458	21.814	5.256	0.200	0.451	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1391.67	
25	0.7546	1187.2	1208.3	0.782	5.990	65.538	21.833	5.191	0.194	0.429	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1390.89	
26	0.7550	1187.8	1208.8	0.783	5.987	65.526	21.782	5.263	0.194	0.421	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1391.20	
27	0.7546	1187.3	1208.3	0.787	5.977	65.556	21.805	5.219	0.192	0.419	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1390.97	
28	0.7518	1184.0	1205.0	0.771	5.940	65.899	21.702	5.057	0.186	0.402	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1389.72	
29	0.7316	1164.5	1185.1	0.642	5.430	68.819	20.475	4.108	0.153	0.336	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1385.66	
30	0.7513	1186.0	1207.0	0.772	5.775	65.948	21.928	4.920	0.190	0.422	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1392.43	
31	0.7513	1184.5	1205.4	0.772	5.859	66.085	21.620	4.968	0.197	0.452	0.024	0.024	0.000	0.000	0.000	0.000	0.000	1390.73	
Avg	0.7483	1180.0	1200.8	0.751	5.887	66.578	21.162	4.959	0.190	0.429	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1388.17	

Zone 28

GQ Source Daily Summary

July 2015

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 Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6956	1116.5	1136.2	1.131	4.220	76.286	14.406	3.375	0.184	0.320	0.045	0.031	0.000	0.000	0.000	0.000	0.000	1362.37	
2	0.6959	1115.4	1135.2	1.073	4.405	76.057	14.525	3.374	0.178	0.316	0.042	0.029	0.000	0.000	0.000	0.000	0.000	1360.78	
3	0.6957	1115.7	1135.5	1.147	4.254	76.228	14.439	3.351	0.184	0.321	0.046	0.031	0.000	0.000	0.000	0.000	0.000	1361.35	
4	0.7029	1124.9	1144.8	1.122	4.403	75.018	15.237	3.612	0.191	0.342	0.044	0.030	0.000	0.000	0.000	0.000	0.000	1365.56	
5	0.7018	1118.9	1138.7	1.226	4.513	75.189	14.963	3.525	0.181	0.333	0.041	0.029	0.000	0.000	0.000	0.000	0.000	1359.29	
6	0.7163	1137.2	1157.3	1.020	5.077	72.484	16.808	3.994	0.185	0.368	0.035	0.028	0.000	0.000	0.000	0.000	0.000	1367.43	
7	0.7099	1142.3	1162.5	0.700	4.657	72.537	18.293	3.334	0.142	0.290	0.025	0.022	0.000	0.000	0.000	0.000	0.000	1379.84	
8	0.7285	1154.3	1174.7	0.686	5.690	69.884	18.727	4.413	0.175	0.378	0.024	0.023	0.000	0.000	0.000	0.000	0.000	1376.30	
9	0.7221	1144.6	1164.9	0.693	5.667	70.956	17.907	4.192	0.168	0.374	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1370.83	
10	0.7037	1157.9	1178.5	0.278	3.771	72.185	21.079	2.400	0.083	0.184	0.009	0.010	0.000	0.000	0.000	0.000	0.000	1405.36	
11	0.6841	1155.6	1176.0	0.007	2.492	74.165	22.338	0.971	0.011	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.89	
12	0.6939	1156.9	1177.4	0.136	3.129	73.139	21.780	1.666	0.045	0.095	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1413.84	
13	0.7447	1174.4	1195.2	0.731	5.921	67.264	20.463	4.949	0.195	0.431	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1384.93	
14	0.7502	1181.4	1202.3	0.746	5.981	66.339	21.127	5.136	0.197	0.430	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1388.14	
15	0.7466	1175.9	1196.8	0.763	5.954	66.871	20.797	4.968	0.189	0.418	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1385.04	
16	0.7307	1170.6	1191.3	0.567	5.086	68.789	21.061	4.001	0.145	0.320	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1394.22	
17	0.7405	1172.5	1193.2	0.742	5.624	67.773	20.609	4.626	0.180	0.400	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1386.84	
18	0.7492	1179.3	1200.2	0.760	5.997	66.441	21.090	5.055	0.192	0.424	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1386.59	
19	0.7437	1173.4	1194.2	0.738	5.869	67.295	20.632	4.838	0.183	0.405	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1384.79	
20	0.7451	1174.3	1195.1	0.741	5.942	67.061	20.734	4.890	0.185	0.406	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1384.53	
21	0.7454	1174.8	1195.6	0.734	5.948	66.998	20.789	4.905	0.185	0.401	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1384.88	
22	0.7430	1171.8	1192.6	0.723	5.928	67.392	20.488	4.854	0.182	0.394	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1383.53	
23	0.7404	1168.1	1188.8	0.712	5.921	67.834	20.150	4.772	0.180	0.393	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1381.64	
24	0.7484	1177.5	1198.3	0.734	6.074	66.540	20.953	5.048	0.192	0.419	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1385.18	
25	0.7499	1179.7	1200.6	0.735	6.074	66.372	21.014	5.132	0.196	0.433	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1386.43	
26	0.7497	1179.6	1200.5	0.736	6.063	66.396	21.000	5.144	0.194	0.425	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1386.48	
27	0.7491	1178.6	1199.5	0.751	6.041	66.459	20.998	5.122	0.187	0.399	0.020	0.021	0.000	0.000	0.000	0.000	0.000	1385.88	
28	0.7366	1174.9	1195.7	0.599	5.331	67.922	21.323	4.310	0.155	0.325	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1393.65	
29	0.7330	1173.1	1193.9	0.566	5.149	68.341	21.407	4.060	0.143	0.304	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1395.06	
30	0.7164	1170.2	1190.9	0.338	4.124	70.296	21.901	3.020	0.096	0.202	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1407.66	
31	0.7315	1170.9	1191.6	0.562	5.159	68.571	21.208	4.033	0.141	0.296	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1393.59	
Avg	0.7272	1160.0	1180.6	0.716	5.176	69.841	19.621	4.099	0.163	0.341	0.023	0.020	0.000	0.000	0.000	0.000	0.000	1384.64	

Zone 31

GQ Source Analysis

GQ Source Number:	0202080	Specific Gravity:	0.7486
GQ Source Name:	RICHARDTON-GLEN ULLIN COMPRE	Dry Heat Value:	1200.41
Effective Date:	7/1/2015 9:00:00 AM	Wet Heat Value:	1179.52
Effective End Date:	1/18/2038 9:14:00 PM	As Deliv. Heat Value:	1200.41
Pressure Base:	14.730	Sample Pressure:	336.00
Viscosity:		Sample Temperature:	0.00

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	66.572		CO2	Carbon Dioxide	0.750
C2	Ethane	21.074	5.6190	N2	Nitrogen	5.946
C3	Propane	4.961	1.3630	O2	Oxygen	
IC4	Isobutane	0.193	0.0630	He	Helium	
NC4	n-Butane	0.439	0.1380	H2	Hydrogen	
IC5	Isopentane	0.024	0.0090	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.025	0.0090	Ar	Argon	
C6	Hexanes	0.016	0.0070	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					
Totals		100.000%		7.208	GPM	

Sample Date: 7/1/2015 10:29:00 AM
Sample Type: Composite
Sample Tech: RR
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 311

GQ Source Daily Summary

July 2015

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 Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6854	1137.9	1158.0	0.512	2.920	75.522	19.234	1.582	0.076	0.119	0.021	0.013	0.000	0.000	0.000	0.000	0.000	1398.74	
2	0.6989	1152.2	1172.6	0.450	3.405	73.201	20.627	2.055	0.085	0.140	0.022	0.014	0.000	0.000	0.000	0.000	0.000	1402.65	
3	0.6940	1147.8	1168.1	0.433	3.239	73.895	20.356	1.840	0.075	0.132	0.017	0.012	0.000	0.000	0.000	0.000	0.000	1402.22	
4	0.6932	1146.6	1166.9	0.465	3.190	74.150	20.063	1.885	0.079	0.138	0.018	0.012	0.000	0.000	0.000	0.000	0.000	1401.55	
5	0.6948	1147.1	1167.4	0.498	3.260	73.936	20.096	1.951	0.082	0.148	0.018	0.012	0.000	0.000	0.000	0.000	0.000	1400.55	
6	0.6937	1145.7	1166.0	0.496	3.245	74.006	20.165	1.846	0.076	0.139	0.016	0.011	0.000	0.000	0.000	0.000	0.000	1399.95	
7	0.6954	1148.2	1168.5	0.452	3.318	73.748	20.265	1.964	0.078	0.146	0.016	0.012	0.000	0.000	0.000	0.000	0.000	1401.28	
8	0.6938	1151.3	1171.7	0.306	3.209	73.431	21.250	1.618	0.057	0.111	0.011	0.008	0.000	0.000	0.000	0.000	0.000	1406.69	
9	0.6960	1157.5	1178.0	0.182	3.221	72.751	22.070	1.616	0.048	0.102	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1412.15	
10	0.7002	1159.9	1180.4	0.211	3.431	72.338	21.829	1.987	0.059	0.131	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1410.62	
11	0.6931	1154.4	1174.8	0.159	3.172	73.205	21.793	1.524	0.043	0.093	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1411.24	
12	0.6873	1161.2	1181.8	0.001	2.462	73.498	23.050	0.965	0.009	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.49	
13	0.7011	1164.5	1185.1	0.178	3.287	71.975	22.488	1.887	0.054	0.119	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1415.56	
14	0.7071	1167.6	1188.3	0.246	3.556	71.253	22.464	2.245	0.069	0.151	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1413.14	
15	0.6926	1162.8	1183.3	0.063	2.766	72.913	22.851	1.329	0.024	0.049	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1421.96	
16	0.7007	1165.5	1186.1	0.164	3.205	71.978	22.646	1.843	0.049	0.106	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1417.00	
17	0.6904	1162.9	1183.5	0.034	2.596	73.127	23.036	1.155	0.018	0.033	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1424.40	
18	0.6945	1164.0	1184.6	0.087	2.834	72.671	22.876	1.432	0.030	0.064	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1421.52	
19	0.7023	1168.9	1189.6	0.156	3.157	71.700	22.927	1.902	0.047	0.101	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1419.58	
20	0.7038	1167.7	1188.4	0.192	3.321	71.586	22.672	2.046	0.054	0.117	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1416.54	
21	0.6992	1166.8	1187.5	0.126	3.046	71.994	23.002	1.698	0.040	0.086	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1420.14	
22	0.6994	1169.5	1190.2	0.103	2.935	71.966	23.181	1.709	0.033	0.067	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1423.15	
23	0.7049	1170.6	1191.3	0.173	3.275	71.457	22.751	2.166	0.053	0.112	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1418.94	
24	0.7057	1169.1	1189.8	0.199	3.398	71.356	22.687	2.156	0.060	0.132	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1416.38	
25	0.7125	1173.1	1193.8	0.258	3.712	70.327	23.016	2.451	0.070	0.153	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1414.31	
26	0.7066	1171.0	1191.8	0.194	3.378	71.126	22.961	2.153	0.056	0.121	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1417.76	
27	0.7067	1169.1	1189.8	0.213	3.473	71.177	22.752	2.179	0.060	0.133	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1415.36	
28	0.7076	1169.5	1190.2	0.223	3.523	71.043	22.772	2.236	0.061	0.129	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1414.85	
29	0.6985	1165.5	1186.1	0.122	3.070	72.091	22.971	1.621	0.039	0.079	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1419.24	
30	0.6886	1161.7	1182.3	0.005	2.545	73.211	23.254	0.961	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.78	
31	0.6953	1164.9	1185.5	0.079	2.864	72.433	23.149	1.387	0.028	0.055	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1421.98	
Av9	0.6982	1161.0	1181.4	0.225	3.162	72.550	22.105	1.787	0.052	0.104	0.008	0.006	0.000	0.000	0.000	0.000	0.000	1413.86	

Zone 32

GQ Source Daily Summary

July 2015

Number: 111

Pressure Base: 14.730

Contract Day: 1

Name: LITTLE KNIFE-BELFIELD TRANSFER

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	0.6873	1161.1	1181.6	0.002	2.465	73.330	23.379	0.808	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.36	
2	0.6873	1160.9	1181.4	0.003	2.476	73.350	23.331	0.822	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.10	
3	0.6876	1161.4	1181.9	0.002	2.479	73.299	23.358	0.844	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.36	
4	0.6877	1161.3	1181.9	0.002	2.488	73.306	23.316	0.869	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.23	
5	0.6860	1159.2	1179.7	0.002	2.465	73.547	23.196	0.773	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.32	
6	0.6860	1157.3	1177.8	0.000	2.579	73.547	23.089	0.764	0.009	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.01	
7	0.6852	1156.4	1176.9	0.000	2.558	73.720	22.921	0.774	0.010	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.78	
8	0.6855	1158.6	1179.1	0.002	2.451	73.619	23.180	0.731	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.11	
9	0.6863	1159.8	1180.3	0.000	2.453	73.524	23.206	0.799	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.81	
10	0.6887	1163.7	1184.3	0.001	2.442	73.219	23.345	0.970	0.009	0.014	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1427.06	
11	0.6884	1163.0	1183.5	0.000	2.457	73.300	23.230	0.988	0.009	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.51	
12	0.6884	1163.2	1183.7	0.000	2.451	73.263	23.297	0.964	0.009	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.68	
13	0.6883	1162.7	1183.3	0.000	2.467	73.290	23.257	0.961	0.009	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.26	
14	0.6884	1162.4	1183.0	0.002	2.488	73.343	23.110	1.031	0.009	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.80	
15	0.6876	1161.5	1182.1	0.001	2.472	73.430	23.101	0.971	0.009	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.53	
16	0.6890	1164.2	1184.8	0.002	2.442	73.212	23.288	1.030	0.010	0.015	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1427.32	
17	0.6891	1163.9	1184.5	0.003	2.468	73.186	23.295	1.022	0.010	0.016	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1426.84	
18	0.6904	1165.8	1186.5	0.004	2.462	73.013	23.394	1.099	0.010	0.016	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1427.98	
19	0.6904	1165.9	1186.5	0.003	2.465	73.023	23.373	1.112	0.010	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.99	
20	0.6907	1166.1	1186.7	0.004	2.480	72.916	23.500	1.075	0.010	0.016	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1427.94	
21	0.6922	1168.3	1188.9	0.003	2.486	72.715	23.585	1.187	0.010	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1429.06	
22	0.6936	1170.6	1191.3	0.003	2.476	72.633	23.488	1.365	0.013	0.020	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1430.45	
23	0.6923	1168.7	1189.4	0.002	2.472	72.743	23.546	1.196	0.013	0.024	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1429.46	
24	0.6939	1169.9	1190.7	0.001	2.548	72.353	23.899	1.169	0.011	0.017	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1429.36	
25	0.6925	1168.5	1189.2	0.001	2.502	72.645	23.651	1.175	0.010	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1429.09	
26	0.6912	1166.4	1187.1	0.001	2.508	72.842	23.518	1.104	0.010	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.84	
27	0.6904	1165.0	1185.6	0.001	2.519	72.940	23.469	1.047	0.009	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.95	
28	0.6911	1166.2	1186.9	0.001	2.515	72.747	23.704	1.008	0.010	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.68	
29	0.6943	1171.1	1191.9	0.009	2.509	72.585	23.416	1.432	0.018	0.028	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1430.36	
30	0.6898	1163.6	1184.2	0.001	2.551	73.070	23.305	1.031	0.014	0.026	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1425.83	
31	0.6893	1164.3	1184.9	0.001	2.465	72.960	23.699	0.856	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.17	
Avg	0.6893	1164.0	1184.5	0.002	2.486	73.118	23.369	0.999	0.010	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.69	

Zone 33

GQ Source Analysis

GQ Source Number:	1202160	Specific Gravity:	0.8078
GQ Source Name:	BOWMAN BORDER	Dry Heat Value:	1176.17
Effective Date:	7/1/2015 9:00:00 AM	Wet Heat Value:	1155.70
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1176.17
Pressure Base:	14.730	Sample Pressure:	
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	54.869		CO2	Carbon Dioxide	2.014
C2	Ethane	26.482	7.0610	N2	Nitrogen	11.055
C3	Propane	4.858	1.3340	O2	Oxygen	
IC4	Isobutane	0.165	0.0540	He	Helium	
NC4	n-Butane	0.487	0.1530	H2	Hydrogen	
IC5	Isopentane	0.019	0.0070	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.045	0.0160	Ar	Argon	
C6	Hexanes	0.006	0.0020	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					

Totals 100.000% 8.627 GPM

Sample Date: 7/1/2015 9:00:00 AM
Sample Type: Composite
Sample Tech: MIKE GENTILINI
H2S: ppm

Sample Remarks:

Analysis Tech: MIKE GENTILINI

Analysis Remarks:

Zone 34

Jul-15

ZONE 610

Watford City
01320
Watford City Border

01312
Watford City East Border

Weighted

Begin Date	End Date	Watford City Border			Watford City East Border			Weighted AVG BTU	
		MCF	DK	BTU Zone 25	MCF	DK	BTU Zone 43		
7/1/2015	7/2/2015	0	0	1.188	119	130	1.091	1.091	7/1/2015
7/2/2015	7/3/2015	0	0	1.188	111	122	1.106	1.106	7/2/2015
7/3/2015	7/4/2015	0	0	1.188	103	114	1.114	1.114	7/3/2015
7/4/2015	7/5/2015	0	0	1.188	69	81	1.164	1.164	7/4/2015
7/5/2015	7/6/2015	0	0	1.188	104	115	1.102	1.102	7/5/2015
7/6/2015	7/7/2015	0	0	1.188	131	147	1.118	1.118	7/6/2015
7/7/2015	7/8/2015	0	0	1.188	124	137	1.098	1.098	7/7/2015
7/8/2015	7/9/2015	0	0	1.188	127	140	1.104	1.104	7/8/2015
7/9/2015	7/10/2015	0	0	1.188	107	118	1.104	1.104	7/9/2015
7/10/2015	7/11/2015	0	0	1.188	99	108	1.094	1.094	7/10/2015
7/11/2015	7/12/2015	0	0	1.188	98	108	1.096	1.096	7/11/2015
7/12/2015	7/13/2015	0	0	1.188	109	126	1.144	1.144	7/12/2015
7/13/2015	7/14/2015	0	0	1.188	110	121	1.105	1.105	7/13/2015
7/14/2015	7/15/2015	0	0	1.188	134	150	1.124	1.124	7/14/2015
7/15/2015	7/16/2015	0	0	1.188	116	133	1.146	1.146	7/15/2015
7/16/2015	7/17/2015	0	0	1.188	123	141	1.143	1.143	7/16/2015
7/17/2015	7/18/2015	0	0	1.188	103	118	1.139	1.139	7/17/2015
7/18/2015	7/19/2015	0	0	1.188	113	129	1.141	1.141	7/18/2015
7/19/2015	7/20/2015	0	0	1.188	100	114	1.147	1.147	7/19/2015
7/20/2015	7/21/2015	96	114	1.188	23	27	1.149	1.180	7/20/2015
7/21/2015	7/22/2015	108	128	1.188	0	0	1.148	1.188	7/21/2015
7/22/2015	7/23/2015	102	122	1.188	4	5	1.130	1.186	7/22/2015
7/23/2015	7/24/2015	107	128	1.188	2	2	1.132	1.187	7/23/2015
7/24/2015	7/25/2015	100	119	1.188	0	0	1.139	1.188	7/24/2015
7/25/2015	7/26/2015	84	100	1.188	0	0	1.128	1.188	7/25/2015
7/26/2015	7/27/2015	107	127	1.188	0	0	1.158	1.188	7/26/2015
7/27/2015	7/28/2015	114	135	1.188	0	0	1.142	1.188	7/27/2015
7/28/2015	7/29/2015	114	135	1.188	0	0	1.143	1.188	7/28/2015
7/29/2015	7/30/2015	131	156	1.188	43	50	1.138	1.176	7/29/2015
7/30/2015	7/31/2015	119	141	1.188	0	0	1.159	1.188	7/30/2015
7/31/2015	8/1/2015	100	119	1.188	38	44	1.156	1.179	7/31/2015
		1,282	1,524		2,210	2,480	1.1291	1.1453	

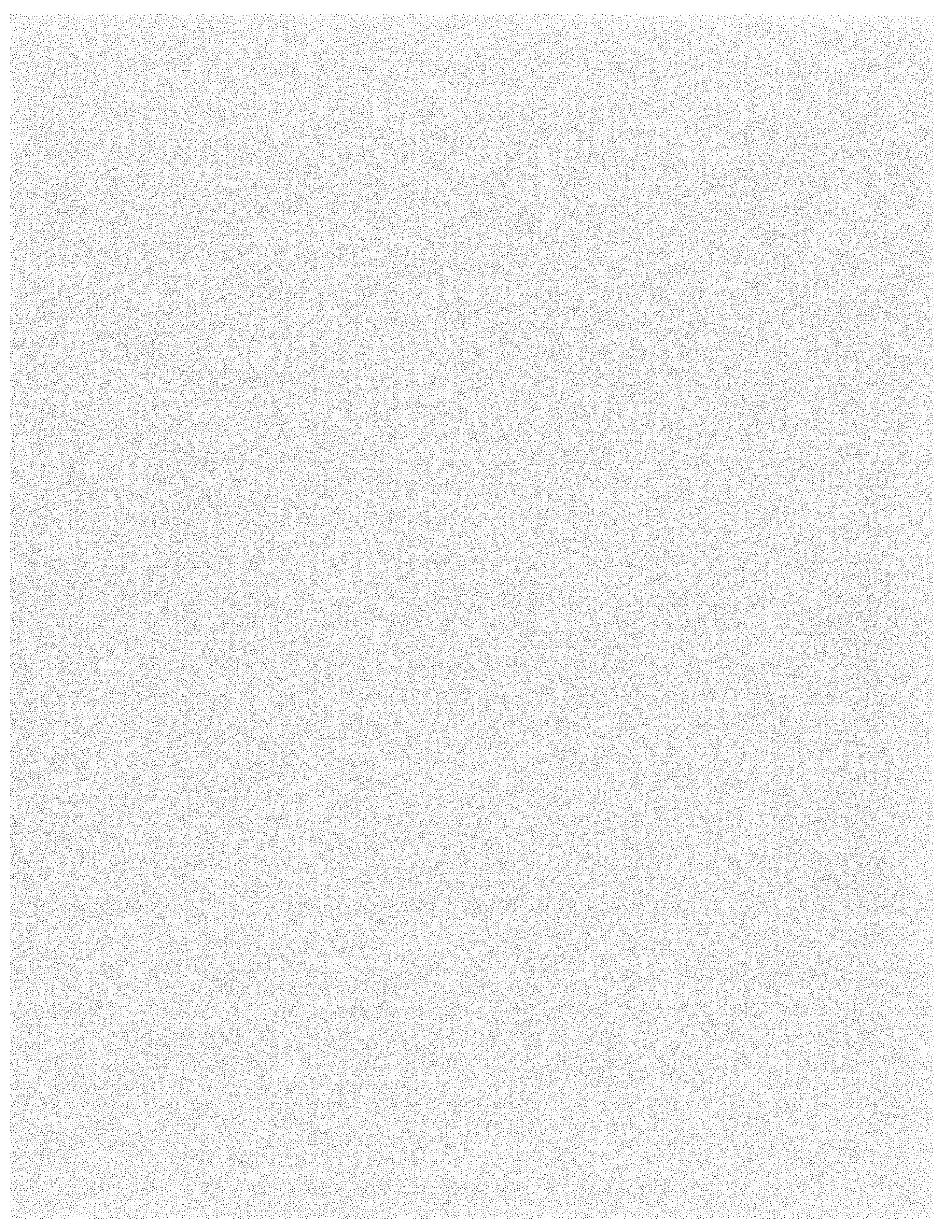
Gas Quality

[Gas Quality Download - Chromatograph]

ROW ID	LOCATION DESCRIPTION	GROSS HEATING VALUE (BTU/CF)	SPECIFIC GRAVITY	WOBBE (Btu)	CHICONDENTHERM (deg F)	NITROGEN (mole percent)	CARBON DIOXIDE (mole percent)	METHANE (mole percent)	ETHANE (mole percent)	PROPANE (mole percent)	NORMAL BUTANE (mole percent)	ISO BUTANE (mole percent)	PENTANE (mole percent)	ISO PENTANE (mole percent)	NEO PENTANE (mole percent)	HEXANES PLUS (mole percent)	HYDROGEN (mole percent)	HELIUM (mole percent)	PRODUCTION DATE	POSTING DATE	ChangeTimestamp	NOTES
11587	GLEN ULLIN	1059.1	0.6105	1355.4	-38.1	1.2881	0.8439	90.1806	6.4828	0.8333	0.0914	0.073	0.0138	0.0182	0	0.011	0.1488	0.0153	6/30/2015	7/1/2015	7/1/2015 2:25:24 PM	
11587	GLEN ULLIN	1061.7	0.6126	1356.5	-26.6	1.3372	0.8338	90.2004	6.1239	1.0555	0.1279	0.1052	0.0197	0.0264	0	0.018	0.134	0.0172	7/1/2015	7/2/2015	7/2/2015 2:25:26 PM	
11587	GLEN ULLIN	1056.3	0.6098	1352.7	-47.2	1.3504	0.8664	90.0824	6.6669	0.6992	0.0717	0.0568	0.0104	0.0135	0	0.007	0.1585	0.0171	7/2/2015	7/3/2015	7/3/2015 2:26:00 PM	
11587	GLEN ULLIN	1056.3	0.6098	1352.7	-47.2	1.3504	0.8664	90.0824	6.6669	0.6992	0.0717	0.0568	0.0104	0.0135	0	0.007	0.1585	0.0171	7/2/2015	7/4/2015	7/4/2015 2:25:45 PM	
11587	GLEN ULLIN	1054.8	0.6096	1351	-52.3	1.427	0.8631	90.1082	6.5647	0.7128	0.0738	0.053	0.0098	0.0122	0	0.0048	0.1525	0.0156	7/4/2015	7/5/2015	7/5/2015 2:26:18 PM	
11587	GLEN ULLIN	1053.6	0.6085	1350.6	-53	1.388	0.8703	90.2484	6.5243	0.6539	0.0641	0.0497	0.009	0.0116	0	0.0049	0.1593	0.0156	7/5/2015	7/6/2015	7/6/2015 2:20:28 PM	
11587	GLEN ULLIN	1051.9	0.6071	1350.1	-53.2	1.3813	0.8531	90.5502	6.2329	0.6735	0.0639	0.0499	0.0088	0.0115	0	0.0049	0.1536	0.0155	7/6/2015	7/7/2015	7/7/2015 2:20:39 PM	
11587	GLEN ULLIN	1050.4	0.6059	1349.5	-54.2	1.3481	0.8616	90.8169	5.9743	0.6864	0.0667	0.0511	0.0089	0.0116	0	0.0046	0.1523	0.0187	7/7/2015	7/8/2015	7/8/2015 2:20:45 PM	
11587	GLEN ULLIN	1050.6	0.6065	1349	-54.5	1.3844	0.8662	90.7008	6.0671	0.6796	0.0627	0.0497	0.0085	0.0114	0	0.0046	0.1455	0.0189	7/8/2015	7/9/2015	7/9/2015 2:21:17 PM	
11587	GLEN ULLIN	1055.8	0.6098	1352	-49.1	1.3708	0.8792	90.1832	6.4414	0.792	0.0759	0.0582	0.0103	0.0134	0	0.0057	0.1536	0.0189	7/9/2015	7/10/2015	7/10/2015 2:21:44 PM	
11587	GLEN ULLIN	1050.6	0.6068	1348.6	-51.4	1.4228	0.8622	90.6455	5.9787	0.7405	0.0703	0.0533	0.0096	0.0125	0	0.0055	0.1823	0.0189	7/10/2015	7/11/2015	7/11/2015 2:21:03 PM	
11587	GLEN ULLIN	1053.3	0.609	1349.7	-51.8	1.4352	0.8864	90.1911	6.4245	0.7246	0.0681	0.0517	0.0091	0.0119	0	0.0052	0.1749	0.0189	7/11/2015	7/12/2015	7/12/2015 2:21:10 PM	
11587	GLEN ULLIN	1054.2	0.6092	1350.6	-53.3	1.3967	0.8877	90.1564	6.5085	0.7234	0.069	0.0506	0.0087	0.0113	0	0.0046	0.1742	0.0189	7/12/2015	7/13/2015	7/13/2015 2:20:47 PM	
11587	GLEN ULLIN	1052.4	0.6076	1350.1	-54.2	1.3799	0.8723	90.4077	6.3351	0.6757	0.0638	0.0497	0.0085	0.0112	0	0.0047	0.1751	0.0189	7/13/2015	7/14/2015	7/14/2015 2:20:33 PM	
11587	GLEN ULLIN	1051	0.6064	1349.6	-54.3	1.4093	0.8311	90.614	6.1393	0.674	0.0655	0.0498	0.0086	0.0112	0	0.0046	0.1737	0.0189	7/14/2015	7/15/2015	7/15/2015 2:21:05 PM	
11587	GLEN ULLIN	1056.2	0.6085	1354	-51.9	1.2742	0.8442	90.3402	6.4597	0.7504	0.0713	0.0535	0.0093	0.012	0	0.0051	0.1626	0.0189	7/15/2015	7/16/2015	7/16/2015 2:20:49 PM	
11587	GLEN ULLIN	1057.1	0.6091	1354.4	-49.2	1.2258	0.8758	90.2906	6.5249	0.7501	0.0717	0.0557	0.0098	0.013	0	0.006	0.16	0.0189	7/16/2015	7/17/2015	7/17/2015 2:21:03 PM	
11587	GLEN ULLIN	1059.8	0.6122	1354.5	-49.5	1.3728	0.8644	89.6716	6.9524	0.7984	0.0784	0.0555	0.0101	0.0125	0	0.0054	0.1613	0.0189	7/17/2015	7/18/2015	7/18/2015 2:21:02 PM	
11587	GLEN ULLIN	1064.6	0.6151	1357.4	-48.7	1.3281	0.8882	89.1862	7.4164	0.8553	0.0761	0.0575	0.0096	0.0126	0	0.0054	0.149	0.0163	7/18/2015	7/19/2015	7/19/2015 2:21:08 PM	
11587	GLEN ULLIN	1062.7	0.6135	1356.8	-48.6	1.3117	0.8757	89.4697	7.1801	0.8344	0.0759	0.0579	0.0097	0.0127	0	0.0056	0.1514	0.0162	7/19/2015	7/20/2015	7/20/2015 2:27:24 PM	
11587	GLEN ULLIN	1059.6	0.6112	1355.4	-46.9	1.3403	0.8336	89.8443	6.8483	0.783	0.0787	0.0593	0.0108	0.0139	0	0.0067	0.1635	0.0162	7/20/2015	7/21/2015	7/21/2015 2:20:40 PM	
11587	GLEN ULLIN	1062.9	0.6131	1357.5	-46.8	1.301	0.8475	89.4913	7.197	0.8099	0.0792	0.0583	0.0107	0.0136	0	0.0064	0.1671	0.0162	7/21/2015	7/22/2015	7/22/2015 2:25:36 PM	
11587	GLEN ULLIN	1061.8	0.6123	1356.9	-50.8	1.2894	0.849	89.5412	7.2446	0.7436	0.0675	0.0525	0.009	0.0119	0	0.0053	0.1702	0.0159	7/22/2015	7/23/2015	7/23/2015 2:26:01 PM	
11587	GLEN ULLIN	1060.2	0.6114	1355.8	-52.8	1.3162	0.841	89.6316	7.1975	0.691	0.0625	0.0489	0.0081	0.011	0	0.0048	0.1707	0.0151	7/23/2015	7/24/2015	7/24/2015 2:25:45 PM	
11587	GLEN ULLIN	1062.1	0.6132	1356.4	-50	1.3614	0.846	89.3315	7.3946	0.7388	0.0655	0.0515	0.0088	0.0117	0	0.0056	0.1667	0.0151	7/24/2015	7/25/2015	7/25/2015 2:26:01 PM	
11587	GLEN ULLIN	1057.9	0.6104	1354	-52.1	1.3432	0.85	89.8972	6.844	0.7347	0.0655	0.051	0.0085	0.0113	0	0.0051	0.1726	0.0151	7/25/2015	7/26/2015	7/26/2015 2:25:47 PM	
11587	GLEN ULLIN	1059.5	0.6117	1354.6	-51	1.3526	0.8625	89.6973	6.9774	0.7795	0.0674	0.0517	0.0086	0.0113	0	0.0053	0.1719	0.0151	7/26/2015	7/27/2015	7/27/2015 2:25:32 PM	
11587	GLEN ULLIN	1059.3	0.6118	1354.6	-51.1	1.3722	0.8573	89.6467	7.0411	0.7587	0.0667	0.0511	0.0088	0.0114	0	0.0052	0.1668	0.0151	7/27/2015	7/28/2015	7/28/2015 2:27:24 PM	
11587	GLEN ULLIN	1058.7	0.6109	1354.5	-50.5	1.3372	0.8519	89.8755	6.8301	0.7767	0.0697	0.053	0.0089	0.0116	0	0.0054	0.1639	0.0151	7/28/2015	7/29/2015	7/29/2015 2:26:15 PM	
11587	GLEN ULLIN	1059.9	0.6121	1354.7	-51.4	1.3494	0.8711	89.6427	7.0114	0.7983	0.0662	0.0505	0.0084	0.0109	0	0.0049	0.1726	0.0151	7/29/2015	7/30/2015	7/30/2015 2:26:29 PM	
11587	GLEN ULLIN	1061.4	0.6135	1355.1	-52	1.377	0.8833	89.4288	7.1545	0.8341	0.073	0.0519	0.0087	0.0107	0	0.0044	0.1581	0.0151	7/30/2015	7/31/2015	7/31/2015 2:26:00 PM	

31 record(s) retrieved

Zone 802



GQ Source Analysis

GQ Source Number:	0602330	Specific Gravity:	0.7021
GQ Source Name:	WILLISTON BORDER	Dry Heat Value:	1178.81
Effective Date:	8/1/2015 9:00:00 AM	Wet Heat Value:	1158.29
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1178.81
Pressure Base:	14.730	Sample Pressure:	388.00
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	72.932		CO2	Carbon Dioxide	0.807
C2	Ethane	20.807	5.5480	N2	Nitrogen	2.755
C3	Propane	2.399	0.6590	O2	Oxygen	0.000
IC4	Isobutane	0.087	0.0283	He	Helium	
NC4	n-Butane	0.185	0.0581	H2	Hydrogen	
IC5	Isopentane	0.013	0.0049	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.015	0.0055	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%		6.304 GPM	

Sample Date: 9/1/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: Eric S.
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 24

GQ Source Analysis

GQ Source Number:	0602160	Specific Gravity:	0.7267
GQ Source Name:	FAIRVIEW BORDER	Dry Heat Value:	1188.41
Effective Date:	8/1/2015 9:00:00 AM	Wet Heat Value:	1167.73
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1188.41
Pressure Base:	14.730	Sample Pressure:	364.00
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	69.688		CO2	Carbon Dioxide	1.163
C2	Ethane	20.913	5.5764	N2	Nitrogen	3.938
C3	Propane	3.903	1.0722	O2	Oxygen	0.011
IC4	Isobutane	0.127	0.0414	He	Helium	
NC4	n-Butane	0.228	0.0717	H2	Hydrogen	
IC5	Isopentane	0.015	0.0055	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.013	0.0047	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%			6.772 GPM

Sample Date: 9/1/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: Rocky
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 241

GQ Source Analysis

GQ Source Number:	0602230	Specific Gravity:	0.7194
GQ Source Name:	WATFORD CITY BORDER	Dry Heat Value:	1197.76
Effective Date:	8/1/2015 9:00:00 AM	Wet Heat Value:	1176.92
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1197.76
Pressure Base:	14.730	Sample Pressure:	393.00
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	72.512		CO2	Carbon Dioxide	1.005
C2	Ethane	18.520	4.9384	N2	Nitrogen	2.914
C3	Propane	4.181	1.1485	O2	Oxygen	0.007
IC4	Isobutane	0.243	0.0795	He	Helium	
NC4	n-Butane	0.521	0.1638	H2	Hydrogen	
IC5	Isopentane	0.046	0.0168	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.048	0.0172	Ar	Argon	
C6	Hexanes	0.004	0.0017	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					
Totals			100.000%		6.365 GPM	

Sample Date: 9/1/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: Eric S.
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 25

GQ Source Daily Summary August 2015

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																	Wobbe	CCT
				CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10				
1	0.6207	1035.9	1054.2	0.010	3.819	86.055	9.987	0.105	0.005	0.014	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1338.08		
2	0.6154	1027.3	1045.5	0.011	3.842	87.322	8.538	0.241	0.013	0.028	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1332.51		
3	0.6325	1056.5	1075.2	0.012	3.672	83.783	12.305	0.187	0.013	0.025	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1351.90		
4	0.6722	1116.8	1136.6	0.492	2.995	77.477	17.681	1.221	0.040	0.081	0.007	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1386.23		
5	0.6889	1143.2	1163.5	0.403	3.090	74.022	21.064	1.303	0.036	0.073	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1401.77		
6	0.6929	1147.3	1167.6	0.507	3.069	73.217	21.847	1.241	0.034	0.075	0.005	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1402.57		
7	0.6183	1025.4	1043.6	0.206	3.924	87.308	7.909	0.586	0.019	0.042	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1326.41		
8	0.5799	968.4	985.5	0.001	4.106	94.361	1.401	0.108	0.006	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1294.11		
9	0.5804	967.1	984.2	0.002	4.225	94.284	1.353	0.086	0.005	0.043	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1291.87		
10	0.6032	1001.7	1019.4	0.112	4.094	90.109	5.190	0.441	0.015	0.034	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1312.08		
11	0.5818	965.4	982.5	0.001	4.460	93.923	1.492	0.101	0.006	0.014	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1288.09		
12	0.5830	967.9	985.0	0.009	4.412	93.740	1.672	0.138	0.008	0.018	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1290.07		
13	0.5816	966.7	983.8	0.004	4.362	94.008	1.477	0.121	0.008	0.018	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1290.01		
14	0.6202	1028.4	1046.6	0.138	4.030	86.898	8.228	0.629	0.021	0.047	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1328.29		
15	0.5810	965.2	982.3	0.001	4.396	94.094	1.387	0.098	0.006	0.014	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1288.75		
16	0.5838	970.3	987.4	0.015	4.336	93.623	1.832	0.160	0.009	0.021	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1292.30		
17	0.5854	973.1	990.3	0.004	4.329	93.287	2.189	0.159	0.009	0.021	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1294.29		
18	0.5808	965.2	982.3	0.002	4.383	94.092	1.438	0.069	0.004	0.010	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1288.86		
19	0.5810	966.3	983.4	0.002	4.332	94.051	1.532	0.067	0.004	0.010	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1290.17		
20	0.5817	965.5	982.6	0.004	4.443	93.910	1.549	0.075	0.005	0.012	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1288.34		
21	0.5867	974.2	991.5	0.002	4.387	92.910	2.591	0.091	0.005	0.011	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1294.35		
22	0.5827	966.3	983.4	0.003	4.489	93.709	1.700	0.081	0.005	0.011	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1288.27		
23	0.5866	972.7	990.0	0.001	4.471	92.900	2.526	0.083	0.004	0.010	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1292.49		
24	0.5954	984.8	1002.2	0.093	4.416	91.578	3.508	0.338	0.016	0.040	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.000	1298.71		
25	0.5887	977.0	994.3	0.047	4.333	92.716	2.652	0.218	0.009	0.020	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1295.85		
26	0.5813	966.6	983.7	0.002	4.345	93.988	1.580	0.068	0.004	0.010	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1290.17		
27	0.5895	978.4	995.7	0.046	4.325	92.555	2.820	0.221	0.009	0.020	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1296.82		
28	0.5829	968.2	985.3	0.014	4.377	93.744	1.724	0.116	0.006	0.015	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1290.55		
29	0.5836	968.3	985.4	0.001	4.460	93.500	1.951	0.070	0.004	0.010	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1289.89		
30	0.5812	964.9	981.9	0.004	4.434	94.023	1.442	0.079	0.005	0.011	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1288.04		
31	0.5817	964.8	981.9	0.001	4.487	93.920	1.490	0.081	0.005	0.012	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1287.41		
Avg	0.6002	997.0	1014.7	0.069	4.156	90.487	4.970	0.277	0.011	0.025	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1309.33		

Zone 2b1

GQ Source Daily Summary

August 2015

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	0.7299	1166.0	1186.7	0.606	5.236	68.802	21.008	3.863	0.143	0.311	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1389.00	
2	0.7497	1182.1	1203.1	0.763	5.865	66.073	21.841	4.848	0.182	0.391	0.018	0.019	0.000	0.000	0.000	0.000	0.000	1389.49	
3	0.7504	1183.0	1203.9	0.779	5.862	66.088	21.712	4.895	0.193	0.429	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1389.74	
4	0.7528	1185.2	1206.2	0.779	5.948	65.751	21.820	5.017	0.198	0.444	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1390.20	
5	0.7523	1184.5	1205.5	0.756	5.981	65.808	21.759	5.020	0.196	0.439	0.021	0.020	0.000	0.000	0.000	0.000	0.000	1389.80	
6	0.7514	1183.7	1204.7	0.752	5.948	65.976	21.648	5.001	0.196	0.438	0.021	0.020	0.000	0.000	0.000	0.000	0.000	1389.72	
7	0.7499	1182.5	1203.4	0.740	5.896	66.290	21.403	4.989	0.197	0.443	0.021	0.020	0.000	0.000	0.000	0.000	0.000	1389.71	
8	0.7313	1166.3	1187.0	0.676	5.236	68.835	20.724	3.988	0.155	0.351	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1388.07	
9	0.7302	1172.9	1193.6	0.647	4.788	68.365	22.307	3.439	0.130	0.294	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1396.83	
10	0.7337	1175.6	1196.4	0.693	4.878	67.759	22.696	3.521	0.131	0.293	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1396.77	
11	0.7466	1183.5	1204.4	0.765	5.493	66.146	22.722	4.303	0.165	0.369	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1393.97	
12	0.7547	1189.5	1210.5	0.799	5.835	65.083	22.853	4.806	0.179	0.401	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1393.47	
13	0.7548	1189.4	1210.4	0.803	5.843	65.079	22.831	4.824	0.176	0.399	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1393.27	
14	0.7525	1187.5	1208.6	0.777	5.784	65.385	22.736	4.705	0.174	0.395	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1393.19	
15	0.7540	1189.0	1210.1	0.790	5.816	65.160	22.844	4.775	0.174	0.396	0.022	0.023	0.000	0.000	0.000	0.000	0.000	1393.54	
16	0.7539	1187.3	1208.3	0.789	5.910	65.206	22.651	4.843	0.171	0.387	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1391.65	
17	0.7554	1188.1	1209.2	0.784	6.004	65.239	22.229	5.092	0.185	0.420	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1391.24	
18	0.7476	1176.2	1197.0	0.760	6.040	66.552	21.098	4.940	0.180	0.392	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1384.37	
19	0.7518	1181.2	1202.1	0.784	6.090	65.686	21.897	4.952	0.180	0.379	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1386.43	
20	0.7474	1177.3	1198.2	0.784	5.917	66.335	21.675	4.711	0.173	0.372	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1385.91	
21	0.7502	1181.0	1201.9	0.799	5.930	65.962	21.884	4.810	0.182	0.399	0.017	0.017	0.000	0.000	0.000	0.000	0.000	1387.66	
22	0.7521	1183.1	1204.1	0.804	5.967	65.743	21.929	4.907	0.190	0.422	0.019	0.018	0.000	0.000	0.000	0.000	0.000	1388.45	
23	0.7492	1179.0	1199.9	0.781	5.981	66.287	21.418	4.876	0.191	0.426	0.020	0.019	0.000	0.000	0.000	0.000	0.000	1386.29	
24	0.7487	1177.9	1198.8	0.781	6.010	66.353	21.331	4.882	0.188	0.418	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1385.36	
25	0.7509	1180.7	1201.6	0.795	6.026	65.964	21.639	4.932	0.189	0.418	0.019	0.018	0.000	0.000	0.000	0.000	0.000	1386.58	
26	0.7505	1180.4	1201.3	0.762	6.056	65.994	21.628	4.919	0.188	0.417	0.019	0.018	0.000	0.000	0.000	0.000	0.000	1386.61	
27	0.7419	1170.5	1191.3	0.720	5.903	67.427	20.680	4.657	0.178	0.398	0.018	0.018	0.000	0.000	0.000	0.000	0.000	1383.07	
28	0.7452	1173.8	1194.6	0.742	5.986	66.886	20.994	4.765	0.183	0.408	0.019	0.018	0.000	0.000	0.000	0.000	0.000	1383.84	
29	0.7483	1176.6	1197.4	0.786	6.038	66.403	21.289	4.843	0.187	0.415	0.020	0.019	0.000	0.000	0.000	0.000	0.000	1384.24	
30	0.7511	1180.4	1201.3	0.800	6.043	65.954	21.629	4.922	0.191	0.423	0.020	0.019	0.000	0.000	0.000	0.000	0.000	1386.21	
31	0.7475	1176.7	1197.6	0.786	5.958	66.512	21.322	4.782	0.186	0.415	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1385.13	
Avg	0.7479	1180.0	1201.3	0.761	5.815	66.294	21.813	4.704	0.178	0.397	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1389.03	

Zone 2b2

GQ Source Analysis

GQ Source Number:	2501030	Specific Gravity:	0.6622
GQ Source Name:	LIGNITE PLANT	Dry Heat Value:	1117.37
Effective Date:	8/1/2015 9:00:00 AM	Wet Heat Value:	1097.92
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1117.37
Pressure Base:	14.730	Sample Pressure:	400.00
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	78.229		CO2	Carbon Dioxide	0.119
C2	Ethane	17.015	4.5369	N2	Nitrogen	3.736
C3	Propane	0.891	0.2447	O2	Oxygen	0.008
IC4	Isobutane	0.000	0.0000	He	Hellum	
NC4	n-Butane	0.000	0.0000	H2	Hydrogen	
IC5	Isopentane	0.000	0.0000	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.000	0.0000	Ar	Argon	
C6	Hexanes	0.002	0.0012	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					
Totals		100.000%	4.783 GPM			

Sample Date: 9/1/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: Eric S.
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 263

*** End of Report ***

GQ Source Analysis

GQ Source Number:	0702010	Specific Gravity:	0.6849
GQ Source Name:	EPPING BORDER	Dry Heat Value:	1146.49
Effective Date:	8/1/2015 9:00:00 AM	Wet Heat Value:	1126.54
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1146.49
Pressure Base:	14.730	Sample Pressure:	1,004.00
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	75.963		CO2	Carbon Dioxide	0.723
C2	Ethane	17.764	4.7366	N2	Nitrogen	3.191
C3	Propane	2.057	0.5651	O2	Oxygen	0.017
IC4	Isobutane	0.078	0.0255	He	Helium	
NC4	n-Butane	0.176	0.0552	H2	Hydrogen	
IC5	Isopentane	0.014	0.0053	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.017	0.0063	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%			5.394 GPM

Sample Date: 9/1/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: Eric S.
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 264

GQ Source Daily Summary

August 2015

Number: 161

Pressure Base: 14,730

Contract Day: 1

Name: NORTH TIOGA TRANSFER-PORTAL

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	0.7168	1171.2	1192.0	0.820	3.361	70.873	21.604	2.997	0.097	0.212	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1407.90	
2	0.7184	1173.2	1193.9	0.850	3.353	70.805	21.528	3.050	0.110	0.255	0.023	0.026	0.000	0.000	0.000	0.000	0.000	1408.60	
3	0.7157	1168.4	1189.1	0.860	3.368	71.138	21.386	2.852	0.104	0.244	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1405.59	
4	0.6971	1144.0	1164.3	0.621	3.481	73.319	20.386	2.041	0.044	0.093	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1394.44	
5	0.6883	1134.9	1155.0	0.437	3.492	74.427	19.916	1.630	0.028	0.060	0.006	0.004	0.000	0.000	0.000	0.000	0.000	1392.12	
6	0.7022	1153.2	1173.7	0.706	3.277	71.741	22.633	1.565	0.024	0.049	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1400.56	
7	0.7034	1150.1	1170.4	0.800	3.428	72.182	21.426	2.004	0.048	0.101	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1395.60	
8	0.7147	1166.0	1186.6	0.880	3.397	71.273	21.250	2.819	0.103	0.240	0.017	0.022	0.000	0.000	0.000	0.000	0.000	1403.61	
9	0.7146	1166.3	1186.9	0.879	3.374	71.121	21.488	2.809	0.093	0.210	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1404.06	
10	0.7169	1169.4	1190.1	0.899	3.362	70.969	21.472	2.901	0.112	0.245	0.017	0.023	0.000	0.000	0.000	0.000	0.000	1405.60	
11	0.7130	1163.4	1184.0	0.872	3.404	71.388	21.261	2.756	0.086	0.196	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1402.21	
12	0.7195	1173.7	1194.4	0.866	3.397	70.773	21.315	3.227	0.113	0.261	0.022	0.027	0.000	0.000	0.000	0.000	0.000	1408.14	
13	0.7215	1176.7	1197.6	0.882	3.374	70.601	21.365	3.309	0.121	0.287	0.027	0.034	0.000	0.000	0.000	0.000	0.000	1409.86	
14	0.7155	1169.1	1189.8	0.821	3.370	71.126	21.320	3.023	0.096	0.209	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1406.59	
15	0.7176	1171.1	1191.8	0.876	3.365	70.973	21.337	3.054	0.105	0.240	0.023	0.029	0.000	0.000	0.000	0.000	0.000	1406.87	
16	0.7164	1168.1	1188.8	0.895	3.399	70.910	21.578	2.858	0.098	0.222	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1404.57	
17	0.7132	1162.8	1183.4	0.886	3.438	71.358	21.272	2.702	0.092	0.211	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1401.30	
18	0.7127	1163.0	1183.6	0.858	3.422	71.354	21.378	2.668	0.086	0.196	0.017	0.021	0.000	0.000	0.000	0.000	0.000	1402.03	
19	0.7149	1165.7	1186.4	0.891	3.419	71.106	21.427	2.821	0.093	0.208	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1403.07	
20	0.7165	1168.3	1189.0	0.891	3.402	70.947	21.513	2.891	0.096	0.218	0.019	0.023	0.000	0.000	0.000	0.000	0.000	1404.70	
21	0.7153	1167.5	1188.2	0.866	3.376	71.041	21.531	2.848	0.094	0.209	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1404.92	
22	0.7165	1168.3	1189.0	0.922	3.354	70.894	21.691	2.758	0.099	0.233	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1404.71	
23	0.7149	1166.7	1187.4	0.878	3.372	71.127	21.475	2.792	0.096	0.219	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1404.31	
24	0.7178	1169.8	1190.6	0.925	3.380	70.845	21.587	2.942	0.106	0.246	0.023	0.028	0.000	0.000	0.000	0.000	0.000	1405.25	
25	0.7216	1176.2	1197.0	0.946	3.323	70.351	21.770	3.198	0.112	0.254	0.021	0.025	0.000	0.000	0.000	0.000	0.000	1409.08	
26	0.7226	1177.3	1198.2	0.978	3.293	70.334	21.706	3.243	0.117	0.272	0.025	0.031	0.000	0.000	0.000	0.000	0.000	1409.52	
27	0.7191	1173.1	1193.9	0.910	3.325	70.859	21.309	3.182	0.111	0.253	0.023	0.029	0.000	0.000	0.000	0.000	0.000	1407.90	
28	0.7198	1174.6	1195.4	0.886	3.341	70.704	21.397	3.266	0.112	0.250	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1408.92	
29	0.7212	1176.4	1197.3	0.902	3.329	70.652	21.346	3.322	0.119	0.274	0.024	0.030	0.000	0.000	0.000	0.000	0.000	1409.82	
30	0.7210	1176.2	1197.1	0.923	3.294	70.496	21.624	3.260	0.111	0.249	0.020	0.023	0.000	0.000	0.000	0.000	0.000	1409.77	
31	0.7161	1169.1	1189.8	0.876	3.338	71.122	21.325	2.959	0.101	0.233	0.020	0.025	0.000	0.000	0.000	0.000	0.000	1406.06	
Avg	0.7147	1167.0	1187.6	0.855	3.374	71.187	21.404	2.831	0.094	0.215	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1404.76	

Zone 265

GQ Source Daily Summary August 2015

Number: 063

Pressure Base: 14,730

Contract Day: 1

Name: CLEVELAND STATION-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	0.7540	1186.7	1207.7	0.776	5.970	65.618	21.863	5.065	0.201	0.458	0.025	0.024	0.000					1390.88	
2	0.7511	1183.3	1204.2	0.760	5.934	66.070	21.570	4.982	0.195	0.443	0.023	0.023	0.000					1389.50	
3	0.7493	1181.1	1202.0	0.754	5.907	66.349	21.405	4.910	0.193	0.436	0.023	0.023	0.000					1388.59	
4	0.7493	1180.8	1201.7	0.754	5.927	66.376	21.322	4.945	0.194	0.437	0.023	0.022	0.000					1388.20	
5	0.7188	1152.2	1172.6	0.627	4.999	70.705	19.753	3.450	0.132	0.300	0.017	0.017	0.000					1383.13	
6	0.7243	1165.6	1186.2	0.663	4.651	69.613	21.198	3.421	0.128	0.290	0.017	0.018	0.000					1393.80	
7	0.7321	1174.8	1195.6	0.675	4.800	67.955	22.728	3.406	0.125	0.279	0.016	0.016	0.000					1397.40	
8	0.7410	1178.3	1199.2	0.733	5.336	66.981	22.360	4.038	0.155	0.355	0.021	0.022	0.000					1393.12	
9	0.7549	1190.1	1211.1	0.793	5.832	65.106	22.801	4.834	0.177	0.407	0.025	0.026	0.000					1393.94	
10	0.7539	1188.9	1209.9	0.794	5.811	65.204	22.815	4.749	0.174	0.403	0.024	0.026	0.000					1393.45	
11	0.7521	1187.4	1208.4	0.792	5.733	65.501	22.656	4.711	0.169	0.390	0.024	0.025	0.000					1393.41	
12	0.7537	1186.1	1207.1	0.799	5.946	65.248	22.573	4.834	0.168	0.384	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1390.42	
13	0.7562	1189.6	1210.7	0.793	5.980	65.126	22.345	5.082	0.188	0.434	0.026	0.027	0.000					1392.18	
14	0.7551	1186.4	1207.4	0.799	6.063	65.398	21.903	5.184	0.185	0.418	0.024	0.025	0.000					1389.41	
15	0.7420	1172.6	1193.4	0.738	5.763	67.671	20.357	4.830	0.186	0.410	0.022	0.022	0.000					1385.39	
16	0.7530	1182.5	1203.4	0.794	6.106	65.594	21.858	5.038	0.184	0.388	0.019	0.019	0.000					1386.87	
17	0.7463	1176.2	1197.0	0.769	5.904	66.530	21.544	4.675	0.171	0.368	0.019	0.019	0.000					1385.63	
18	0.7498	1181.1	1202.1	0.788	5.904	66.063	21.815	4.802	0.182	0.405	0.020	0.020	0.000					1388.17	
19	0.7524	1184.0	1205.0	0.792	5.960	65.738	21.925	4.919	0.192	0.431	0.022	0.021	0.000					1389.19	
20	0.7497	1180.3	1201.2	0.778	5.952	66.224	21.510	4.871	0.191	0.430	0.022	0.021	0.000					1387.38	
21	0.7466	1175.8	1196.6	0.756	5.972	66.786	20.988	4.834	0.190	0.430	0.022	0.022	0.000					1384.88	
22	0.7480	1177.6	1198.4	0.769	5.973	66.545	21.174	4.890	0.187	0.419	0.021	0.021	0.000					1385.70	
23	0.7494	1179.1	1200.0	0.778	6.001	66.235	21.464	4.877	0.187	0.417	0.021	0.021	0.000					1386.21	
24	0.7504	1180.1	1201.0	0.783	6.022	66.075	21.568	4.903	0.188	0.419	0.021	0.021	0.000					1386.48	
25	0.7421	1169.7	1190.4	0.748	5.931	67.445	20.597	4.656	0.179	0.402	0.021	0.020	0.000					1381.91	
26	0.7463	1174.5	1195.3	0.767	6.014	66.755	21.037	4.784	0.185	0.416	0.022	0.022	0.000					1383.54	
27	0.7513	1181.2	1202.2	0.794	6.023	65.946	21.655	4.916	0.191	0.430	0.023	0.023	0.000					1386.96	
28	0.7442	1173.3	1194.0	0.761	5.890	67.102	20.922	4.688	0.182	0.411	0.022	0.022	0.000					1384.16	
29	0.7467	1176.6	1197.4	0.771	5.906	66.756	21.106	4.803	0.187	0.425	0.023	0.023	0.000					1385.76	
30	0.7409	1168.9	1189.6	0.742	5.882	67.723	20.344	4.669	0.183	0.414	0.022	0.022	0.000					1382.03	
31	0.7377	1165.1	1185.7	0.720	5.846	68.285	19.917	4.599	0.181	0.408	0.022	0.021	0.000					1380.47	
Avg	0.7465	1178.0	1199.3	0.760	5.804	66.604	21.518	4.689	0.178	0.402	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1388.00	

Zone 272

GQ Source Daily Summary August 2015

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	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7542	1187.0	1208.1	0.778	5.965	65.589	21.884	5.078	0.201	0.456	0.025	0.024	0.000	0.000	0.000	0.000	0.000	1391.07	
2	0.7512	1183.3	1204.2	0.760	5.939	66.056	21.575	4.987	0.195	0.441	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1389.45	
3	0.7492	1181.1	1202.0	0.752	5.902	66.367	21.386	4.915	0.193	0.437	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1388.69	
4	0.7492	1180.5	1201.4	0.754	5.930	66.411	21.276	4.948	0.195	0.440	0.023	0.022	0.000	0.000	0.000	0.000	0.000	1388.04	
5	0.7190	1152.5	1173.0	0.629	4.994	70.678	19.774	3.459	0.132	0.299	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1383.34	
6	0.7247	1166.2	1186.9	0.668	4.644	69.542	21.263	3.431	0.128	0.289	0.017	0.018	0.000	0.000	0.000	0.000	0.000	1394.16	
7	0.7320	1174.6	1195.4	0.676	4.801	67.985	22.690	3.411	0.125	0.280	0.016	0.016	0.000	0.000	0.000	0.000	0.000	1397.26	
8	0.7408	1178.0	1198.8	0.733	5.339	67.004	22.346	4.026	0.155	0.355	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1392.91	
9	0.7548	1189.8	1210.9	0.792	5.836	65.121	22.786	4.831	0.177	0.406	0.025	0.026	0.000	0.000	0.000	0.000	0.000	1393.77	
10	0.7539	1188.9	1209.9	0.794	5.802	65.216	22.817	4.745	0.174	0.402	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1393.54	
11	0.7522	1187.4	1208.5	0.793	5.739	65.481	22.668	4.712	0.169	0.390	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1393.36	
12	0.7536	1185.9	1206.9	0.801	5.951	65.251	22.569	4.830	0.168	0.384	0.023	0.024	0.000	0.000	0.000	0.000	0.000	1390.27	
13	0.7562	1189.4	1210.5	0.793	5.986	65.134	22.335	5.080	0.187	0.432	0.026	0.027	0.000	0.000	0.000	0.000	0.000	1392.01	
14	0.7551	1186.2	1207.2	0.800	6.068	65.398	21.906	5.175	0.184	0.419	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1389.25	
15	0.7419	1172.2	1192.9	0.739	5.773	67.696	20.332	4.821	0.186	0.410	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1385.00	
16	0.7529	1182.4	1203.3	0.794	6.106	65.607	21.851	5.033	0.183	0.387	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1386.78	
17	0.7462	1176.0	1196.8	0.768	5.907	66.548	21.532	4.668	0.170	0.368	0.019	0.019	0.000	0.000	0.000	0.000	0.000	1385.47	
18	0.7498	1181.0	1201.9	0.788	5.908	66.075	21.802	4.799	0.182	0.405	0.020	0.020	0.000	0.000	0.000	0.000	0.000	1388.02	
19	0.7523	1183.9	1204.9	0.792	5.962	65.744	21.919	4.917	0.192	0.430	0.022	0.021	0.000	0.000	0.000	0.000	0.000	1389.10	
20	0.7495	1180.0	1200.8	0.778	5.961	66.244	21.490	4.863	0.191	0.430	0.022	0.021	0.000	0.000	0.000	0.000	0.000	1387.06	
21	0.7465	1175.6	1196.4	0.757	5.972	66.801	20.982	4.825	0.190	0.429	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1384.77	
22	0.7474	1176.8	1197.6	0.767	5.972	66.633	21.115	4.863	0.188	0.421	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1385.30	
23	0.7494	1179.0	1199.9	0.778	6.004	66.238	21.461	4.873	0.187	0.416	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1386.10	
24	0.7503	1179.9	1200.8	0.783	6.026	66.082	21.562	4.898	0.188	0.418	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1386.34	
25	0.7418	1169.3	1190.0	0.747	5.930	67.496	20.555	4.650	0.179	0.402	0.021	0.020	0.000	0.000	0.000	0.000	0.000	1381.71	
26	0.7463	1174.4	1195.2	0.767	6.011	66.761	21.037	4.781	0.184	0.415	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1383.53	
27	0.7512	1181.0	1201.9	0.794	6.027	65.962	21.643	4.909	0.190	0.429	0.023	0.022	0.000	0.000	0.000	0.000	0.000	1386.77	
28	0.7441	1173.1	1193.9	0.762	5.895	67.108	20.912	4.686	0.182	0.411	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1384.00	
29	0.7466	1176.4	1197.2	0.771	5.911	66.767	21.096	4.799	0.187	0.423	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1385.59	
30	0.7409	1168.7	1189.4	0.742	5.888	67.722	20.345	4.663	0.183	0.413	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1381.85	
31	0.7375	1164.6	1185.3	0.721	5.853	68.311	19.895	4.591	0.180	0.407	0.022	0.021	0.000	0.000	0.000	0.000	0.000	1380.17	
Avg	0.7465	1178.0	1199.1	0.760	5.807	66.614	21.510	4.686	0.178	0.401	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1387.89	

*** End of Report***

Zone 223

GQ Source Analysis

GQ Source Number:	0202080	Specific Gravity:	0.7081
GQ Source Name:	RICHARDTON-GLEN ULLIN COMPRE	Dry Heat Value:	1158.25
Effective Date:	8/1/2015 9:00:00 AM	Wet Heat Value:	1138.09
Effective End Date:	1/18/2038 9:14:00 PM	As Deliv. Heat Value:	1158.25
Pressure Base:	14.730	Sample Pressure:	336.00
Viscosity:		Sample Temperature:	0.00

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	73.203		CO2	Carbon Dioxide	0.738
C2	Ethane	17.309	4.6150	N2	Nitrogen	4.684
C3	Propane	3.571	0.9810	O2	Oxygen	
IC4	Isobutane	0.139	0.0450	He	Helium	
NC4	n-Butane	0.315	0.0990	H2	Hydrogen	
IC5	Isopentane	0.018	0.0070	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.018	0.0070	Ar	Argon	
C6	Hexanes	0.005	0.0020	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					
Totals			100.000%		5.756 GPM	

Sample Date: 8/1/2015 10:29:00 AM
Sample Type: Composite
Sample Tech: RR
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 311

GQ Source Daily Summary August 2015

Number: 111

Pressure Base: 14.730

Contract Day: 1

Name: LITTLE KNIFE-BELFIELD TRANSFER

Temperature Base:

Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry											Wobbe	CCT					
				CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6			C7	C8	C9	C10	
1	0.6916	1167.8	1188.5	0.001	2.462	72.833	23.506	1.170	0.011	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1429.10	
2	0.6898	1164.9	1185.5	0.001	2.469	72.985	23.559	0.960	0.009	0.014	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1427.42	
3	0.6902	1165.5	1186.2	0.001	2.474	72.897	23.639	0.964	0.009	0.014	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1427.75	
4	0.6921	1168.4	1189.1	0.002	2.472	72.701	23.658	1.141	0.010	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1429.32	
5	0.6923	1168.5	1189.2	0.003	2.490	72.698	23.588	1.194	0.010	0.016	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1429.15	
6	0.6916	1167.4	1188.1	0.002	2.481	72.785	23.581	1.124	0.010	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1428.69	
7	0.6920	1168.1	1188.7	0.003	2.484	72.732	23.594	1.158	0.010	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1428.98	
8	0.6919	1167.8	1188.5	0.002	2.492	72.734	23.592	1.152	0.010	0.016	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1428.76	
9	0.6916	1167.2	1187.8	0.003	2.501	72.778	23.562	1.128	0.010	0.017	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1428.32	
10	0.6927	1168.8	1189.5	0.003	2.502	72.631	23.640	1.197	0.010	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1429.20	
11	0.6936	1170.6	1191.3	0.003	2.482	72.536	23.665	1.280	0.012	0.020	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1430.40	
12	0.7013	1183.0	1203.9	0.003	2.444	71.909	23.438	2.120	0.031	0.052	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1437.56	
13	0.6956	1174.1	1194.9	0.003	2.450	72.368	23.639	1.501	0.015	0.023	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1432.67	
14	0.7024	1184.8	1205.7	0.003	2.431	71.807	23.446	2.230	0.031	0.050	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1438.67	
15	0.6971	1176.5	1197.3	0.003	2.445	72.329	23.434	1.732	0.021	0.034	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1434.01	
16	0.6936	1170.9	1191.6	0.004	2.460	72.702	23.438	1.296	0.030	0.063	0.004	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1430.77	
17	0.6908	1166.3	1187.0	0.003	2.478	72.874	23.556	1.064	0.009	0.014	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1428.09	
18	0.6904	1165.9	1186.5	0.004	2.464	72.951	23.514	1.039	0.010	0.017	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1427.99	
19	0.6906	1166.3	1187.0	0.002	2.462	72.880	23.604	1.025	0.010	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1428.27	
20	0.6913	1167.5	1188.1	0.003	2.448	72.829	23.596	1.097	0.010	0.016	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1429.06	
21	0.6941	1171.8	1192.5	0.003	2.454	72.595	23.484	1.423	0.016	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1431.34	
22	0.6907	1166.1	1186.7	0.004	2.485	72.836	23.647	1.001	0.009	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1427.85	
23	0.6903	1165.4	1186.0	0.003	2.490	72.910	23.576	0.997	0.009	0.014	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1427.44	
24	0.6915	1167.1	1187.8	0.003	2.494	72.719	23.714	1.042	0.010	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1428.36	
25	0.6929	1169.4	1190.1	0.003	2.485	72.560	23.758	1.163	0.011	0.018	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1429.72	
26	0.6928	1169.7	1190.4	0.003	2.456	72.609	23.719	1.184	0.010	0.017	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1430.16	
27	0.6933	1170.6	1191.3	0.003	2.451	72.523	23.788	1.207	0.010	0.016	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1430.73	
28	0.6943	1171.3	1192.0	0.002	2.506	72.298	23.968	1.199	0.010	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1430.53	
29	0.7011	1181.9	1202.8	0.003	2.492	71.699	23.834	1.906	0.024	0.040	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1436.46	
30	0.6938	1170.4	1191.1	0.002	2.515	72.848	23.957	1.151	0.010	0.016	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1429.94	
31	0.6947	1171.9	1192.7	0.003	2.501	72.230	24.027	1.211	0.010	0.016	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1430.94	
Avg	0.6933	1170.0	1190.9	0.003	2.475	72.590	23.636	1.260	0.013	0.022	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1430.25	

Zone 33

GQ Source Analysis

GQ Source Number:	1202160	Specific Gravity:	0.7638
GQ Source Name:	BOWMAN BORDER	Dry Heat Value:	1133.49
Effective Date:	8/1/2015 9:00:00 AM	Wet Heat Value:	1113.76
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1133.49
Pressure Base:	14.730	Sample Pressure:	
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	60.612		CO2	Carbon Dioxide	1.438
C2	Ethane	24.504	6.5340	N2	Nitrogen	10.359
C3	Propane	2.658	0.7300	O2	Oxygen	
IC4	Isobutane	0.089	0.0290	He	Helium	
NC4	n-Butane	0.280	0.0880	H2	Hydrogen	
IC5	Isopentane	0.014	0.0050	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.038	0.0140	Ar	Argon	
C6	Hexanes	0.008	0.0030	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					
Totals			100.000%		7.403 GPM	

Sample Date: 8/1/2015 9:00:00 AM
Sample Type: Composite
Sample Tech: MIKE GENTILINI
H2S: ppm

Sample Remarks:

Analysis Tech: MIKE GENTILINI
Analysis Remarks:

Zone 34

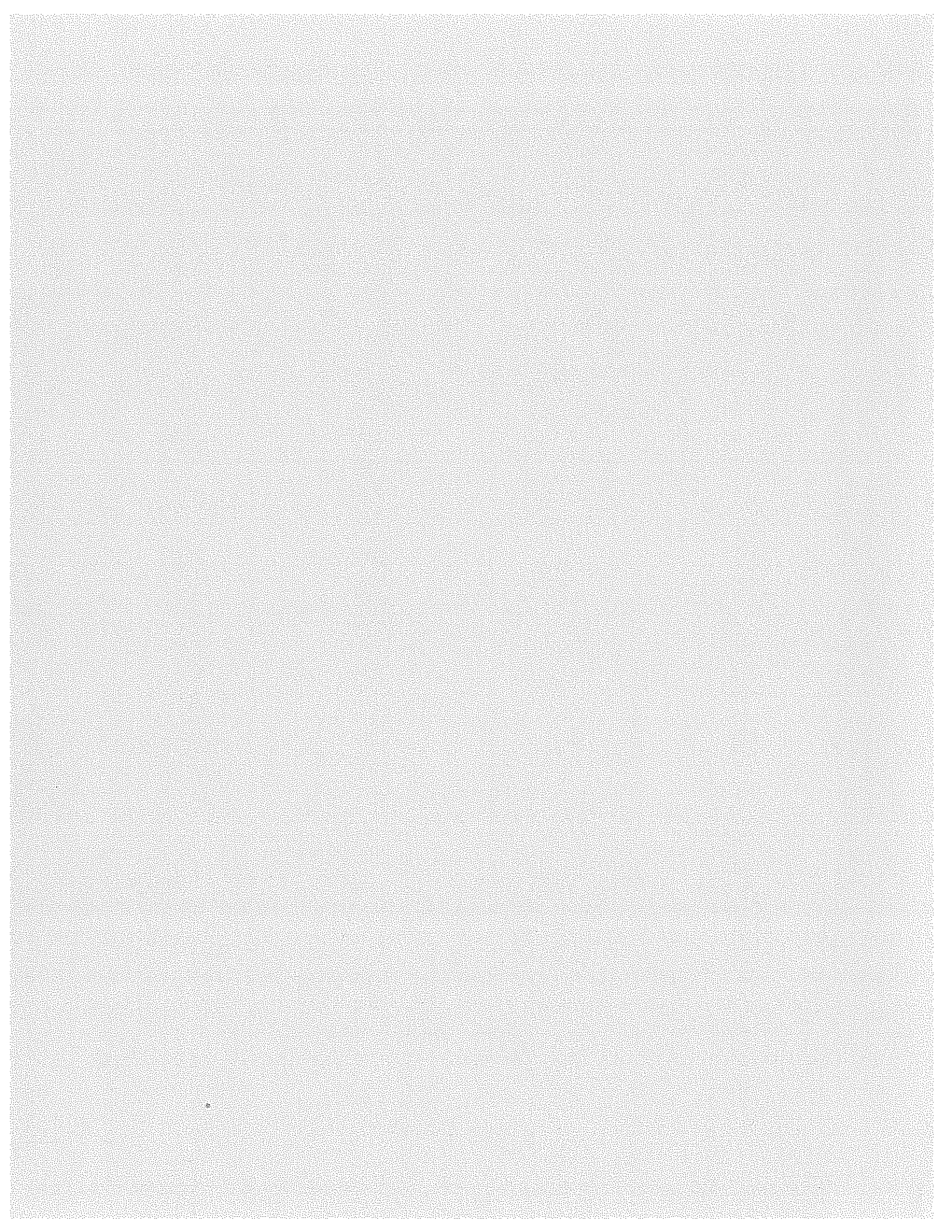
		Watford City			01312			Weighted		
		01320			Watford City East Border					
		Watford City Border								
Begin Date	End Date	MCF	DK	BTU	MCF	DK	BTU	AVG		
				Zone 25			Zone 43			BTU
8/1/2015	8/2/2015	97	116	1.198	22	26	1.174	1.194	8/1/2015	
8/2/2015	8/3/2015	111	133	1.198	23	27	1.158	1.191	8/2/2015	
8/3/2015	8/4/2015	109	131	1.198	0	0	1.159	1.198	8/3/2015	
8/4/2015	8/5/2015	118	141	1.198	0	0	1.197	1.198	8/4/2015	
8/5/2015	8/6/2015	113	135	1.198	0	0	1.208	1.198	8/5/2015	
8/6/2015	8/7/2015	113	135	1.198	0	0	1.194	1.198	8/6/2015	
8/7/2015	8/8/2015	97	116	1.198	0	0	1.194	1.198	8/7/2015	
8/8/2015	8/9/2015	95	114	1.198	0	0	1.185	1.198	8/8/2015	
8/9/2015	8/10/2015	104	124	1.198	0	0	1.180	1.198	8/9/2015	
8/10/2015	8/11/2015	99	119	1.198	0	0	1.151	1.198	8/10/2015	
8/11/2015	8/12/2015	100	119	1.198	4	4	1.152	1.196	8/11/2015	
8/12/2015	8/13/2015	108	129	1.198	0	0	1.145	1.198	8/12/2015	
8/13/2015	8/14/2015	96	115	1.198	0	0	1.148	1.198	8/13/2015	
8/14/2015	8/15/2015	93	112	1.198	0	0	1.131	1.198	8/14/2015	
8/15/2015	8/16/2015	96	115	1.198	1	1	1.143	1.197	8/15/2015	
8/16/2015	8/17/2015	105	126	1.198	0	0	1.137	1.198	8/16/2015	
8/17/2015	8/18/2015	107	128	1.198	0	0	1.147	1.198	8/17/2015	
8/18/2015	8/19/2015	112	134	1.198	28	35	1.155	1.189	8/18/2015	
8/19/2015	8/20/2015	110	132	1.198	0	0	1.134	1.198	8/19/2015	
8/20/2015	8/21/2015	109	131	1.198	1	1	1.112	1.197	8/20/2015	
8/21/2015	8/22/2015	97	116	1.198	0	0	1.157	1.198	8/21/2015	
8/22/2015	8/23/2015	131	157	1.198	0	0	1.113	1.198	8/22/2015	
8/23/2015	8/24/2015	131	157	1.198	0	0	1.113	1.198	8/23/2015	
8/24/2015	8/25/2015	113	136	1.198	0	0	1.158	1.198	8/24/2015	
8/25/2015	8/26/2015	111	132	1.198	0	0	1.192	1.198	8/25/2015	
8/26/2015	8/27/2015	111	133	1.198	0	0	1.183	1.198	8/26/2015	
8/27/2015	8/28/2015	107	128	1.198	0	0	1.180	1.198	8/27/2015	
8/28/2015	8/29/2015	107	128	1.198	0	0	1.189	1.198	8/28/2015	
8/29/2015	8/30/2015	94	113	1.198	0	0	1.192	1.198	8/29/2015	
8/30/2015	8/31/2015	105	126	1.198	0	0	1.193	1.198	8/30/2015	
8/31/2015	9/1/2015	109	130	1.198	0	0	1.152	1.198	8/31/2015	
		3,308	3,961		79	94	1.1621	1.1973		

| Gas Quality Download - Chromatograph |

ROW ID	LOCATION DESCRIPTION	GROSS HEATING VALUE (BTU/GF)	SPECIFIC GRAVITY	WOBBE (cal)	CRICONDENTHERM (deg F)	NITROGEN (mole percent)	CARBON DIOXIDE (mole percent)	METHANE (mole percent)	ETHANE (mole percent)	PROPANE (mole percent)	NORMAL BUTANE (mole percent)	ISO BUTANE (mole percent)	PENTANE (mole percent)	ISO PENTANE (mole percent)	NEO PENTANE (mole percent)	HEXANES PLUS (mole percent)	HYDROGEN (mole percent)	HELIUM (mole percent)	PRODUCTION DATE	POSTING DATE	Change(timestamp)	NOTES
11587	GLEN ULLIN	1058.6	0.6119	1353.3	-60.3	1.4332	0.8587	89.5076	7.1747	0.7241	0.0616	0.0365	0.0067	0.0072	0	0.0024	0.1742	0.0151	7/31/2015	8/1/2015	8/1/2015 2:25:47 PM	
11587	GLEN ULLIN	1054	0.6081	1351.6	-60.2	1.3944	0.8275	90.2734	6.5023	0.7071	0.0623	0.0373	0.0071	0.0076	0	0.0027	0.1618	0.0151	8/1/2015	8/2/2015	8/2/2015 2:26:03 PM	
11587	GLEN ULLIN	1053.7	0.6084	1350.9	-58	1.3926	0.8575	90.2443	6.5182	0.6977	0.058	0.0402	0.0064	0.0081	0	0.0035	0.1581	0.0152	8/2/2015	8/3/2015	8/3/2015 2:24:59 PM	
11587	GLEN ULLIN	1059.9	0.6125	1354.3	-58.1	1.4397	0.8361	89.6137	7.155	0.7552	0.0618	0.0414	0.0064	0.0079	0	0.003	0.0666	0.0149	8/3/2015	8/4/2015	8/4/2015 2:26:04 PM	
11587	GLEN ULLIN	1056.2	0.6099	1352.5	-64.4	1.4217	0.8303	89.941	6.7879	0.7416	0.0607	0.0358	0.0053	0.006	0	0.0013	0.1318	0.0149	8/4/2015	8/5/2015	8/5/2015 2:26:53 PM	
11587	GLEN ULLIN	1056	0.6098	1352.3	-60.2	1.4194	0.8343	90.0021	6.662	0.7728	0.0678	0.0403	0.0066	0.0073	0	0.0024	0.1685	0.0149	8/5/2015	8/6/2015	8/6/2015 2:27:23 PM	
11587	GLEN ULLIN	1060.5	0.6125	1355	-57.8	1.4149	0.8286	89.5277	7.1163	0.8107	0.0738	0.0404	0.0077	0.0078	0	0.0026	0.1532	0.0149	8/6/2015	8/7/2015	8/7/2015 2:26:06 PM	
11587	GLEN ULLIN	1064.4	0.615	1357.2	-48.6	1.4109	0.8369	89.191	7.3388	0.885	0.0924	0.0534	0.0113	0.0119	0	0.0051	0.1491	0.0149	8/7/2015	8/8/2015	8/8/2015 2:26:09 PM	
11587	GLEN ULLIN	1057.9	0.6112	1353.1	-57.2	1.4294	0.8443	89.7844	6.7862	0.8272	0.0762	0.0419	0.0084	0.0084	0	0.0029	0.1753	0.0149	8/8/2015	8/9/2015	8/9/2015 2:25:51 PM	
11587	GLEN ULLIN	1059.2	0.6127	1353.2	-55.8	1.4867	0.8383	89.7873	6.9218	0.8009	0.0802	0.0398	0.0094	0.0085	0	0.0031	0.0061	0.0149	8/9/2015	8/10/2015	8/10/2015 2:25:57 PM	
11587	GLEN ULLIN	1051.3	0.6073	1348.9	-68.4	1.4657	0.8472	90.5473	6.2962	0.6917	0.0485	0.0295	0.0044	0.005	0	0.0012	0.0484	0.0149	8/10/2015	8/11/2015	8/11/2015 2:25:58 PM	
11587	GLEN ULLIN	1051.3	0.6064	1350	-59.8	1.3612	0.8515	90.5765	6.2115	0.6844	0.0572	0.0379	0.0067	0.008	0	0.0031	0.1875	0.0149	8/11/2015	8/12/2015	8/12/2015 2:26:43 PM	
11587	GLEN ULLIN	1047.7	0.6028	1349.5	-64	1.2837	0.8203	91.3103	5.6363	0.6553	0.0621	0.0374	0.0071	0.0079	0	0.0022	0.1599	0.0149	8/12/2015	8/13/2015	8/13/2015 2:26:01 PM	
11587	GLEN ULLIN	1046.2	0.6027	1347.6	-74.1	1.3514	0.8286	91.2915	5.688	0.6283	0.0389	0.0271	0.0036	0.0048	0	0.0007	0.1217	0.0149	8/13/2015	8/14/2015	8/14/2015 2:26:21 PM	
11587	GLEN ULLIN	1047.4	0.6028	1349.1	-64.8	1.3102	0.8107	91.4316	5.6124	0.6584	0.0434	0.0324	0.0047	0.0063	0	0.0026	0.0716	0.0182	8/14/2015	8/15/2015	8/15/2015 2:26:11 PM	
11587	GLEN ULLIN	1052.1	0.6053	1352.2	-61.9	1.3054	0.7887	90.982	6.0086	0.7262	0.0506	0.0361	0.0056	0.0072	0	0.0027	0.0697	0.0149	8/15/2015	8/16/2015	8/16/2015 2:27:17 PM	
11587	GLEN ULLIN	1051	0.6053	1350.8	-64.1	1.3706	0.7895	90.7861	6.0885	0.7112	0.044	0.0323	0.0051	0.0066	0	0.0025	0.1439	0.0203	8/16/2015	8/17/2015	8/17/2015 2:26:10 PM	
11587	GLEN ULLIN	1058	0.6096	1355	-59.4	1.3184	0.8116	90.0495	6.7366	0.8142	0.0475	0.0354	0.0056	0.0074	0	0.003	0.1537	0.0153	8/17/2015	8/18/2015	8/18/2015 2:25:53 PM	
11587	GLEN ULLIN	1066.8	0.6163	1359	-52.1	1.3909	0.832	88.9368	7.4841	1.0345	0.0642	0.0486	0.0072	0.0096	0	0.0039	0.1703	0.0153	8/18/2015	8/19/2015	8/19/2015 2:26:19 PM	
11587	GLEN ULLIN	1067.2	0.6162	1359.5	-46.6	1.3335	0.8455	89.0476	7.4247	1.0187	0.0701	0.0553	0.0096	0.0126	0	0.006	0.1607	0.0153	8/19/2015	8/20/2015	8/20/2015 2:25:58 PM	
11587	GLEN ULLIN	1067.2	0.6162	1359.5	-46.6	1.3335	0.8455	89.0476	7.4247	1.0187	0.0701	0.0553	0.0096	0.0126	0	0.006	0.1607	0.0153	8/19/2015	8/21/2015	8/21/2015 2:26:06 PM	
11587	GLEN ULLIN	1056.4	0.6094	1353.3	-64	1.3823	0.8185	89.9796	6.7723	0.7768	0.0406	0.0296	0.0044	0.0059	0	0.0019	0.1726	0.0153	8/21/2015	8/22/2015	8/22/2015 2:26:14 PM	
11587	GLEN ULLIN	1058.6	0.6111	1354.2	-63.8	1.3704	0.848	89.6726	7.0988	0.7653	0.0387	0.0283	0.0041	0.0055	0	0.0019	0.151	0.0153	8/22/2015	8/23/2015	8/23/2015 2:26:02 PM	
11587	GLEN ULLIN	1056.8	0.6103	1352.7	-69.8	1.4064	0.8453	89.7132	7.1394	0.6796	0.0289	0.0201	0.0027	0.0035	0	0.0006	0.1429	0.0153	8/23/2015	8/24/2015	8/24/2015 2:26:30 PM	
11587	GLEN ULLIN	1053.2	0.6072	1351.6	-71.3	1.3621	0.8221	90.3909	6.5523	0.6778	0.0306	0.0209	0.003	0.0038	0	0.0008	0.116	0.0183	8/24/2015	8/25/2015	8/25/2015 2:26:39 PM	
11587	GLEN ULLIN	1054.1	0.6081	1351.8	-68.3	1.3944	0.8224	90.3031	6.5118	0.7697	0.0335	0.0236	0.0034	0.0043	0	0.0012	0.1148	0.0135	8/25/2015	8/26/2015	8/26/2015 2:26:38 PM	
11587	GLEN ULLIN	1050.7	0.6058	1349.9	-72.6	1.3667	0.8315	90.7286	6.1509	0.7244	0.0313	0.0216	0.0028	0.0037	0	0.0003	0.1212	0.0135	8/26/2015	8/27/2015	8/27/2015 2:25:49 PM	
11587	GLEN ULLIN	1050.1	0.6055	1349.5	-74.5	1.3808	0.8288	90.6962	6.2365	0.6681	0.0279	0.0186	0.0019	0.0025	0	0	0.1212	0.0135	8/27/2015	8/28/2015	8/28/2015 2:26:39 PM	
11587	GLEN ULLIN	1050.4	0.6046	1350.8	-74.8	1.2966	0.8167	90.9603	6.0693	0.6908	0.0277	0.0193	0.002	0.0027	0	0	0.0981	0.0135	8/28/2015	8/29/2015	8/29/2015 2:26:11 PM	
11587	GLEN ULLIN	1050.8	0.6049	1351.1	-73.6	1.3024	0.8102	90.9223	6.0392	0.7325	0.0335	0.0222	0.0022	0.0028	0	0	0.1147	0.0135	8/29/2015	8/30/2015	8/30/2015 2:26:56 PM	
11587	GLEN ULLIN	1051.3	0.6068	1352.2	-71.8	1.3254	0.8173	90.5675	6.341	0.7557	0.0354	0.0237	0.0025	0.0032	0	0.0001	0.1101	0.0135	8/30/2015	8/31/2015	8/31/2015 2:26:35 PM	

3) -nd(s) retrieved

Zone 802



GQ Source Daily Summary

September 2015

Number: 251

Pressure Base: 14.730

Contract Day: 1

Name: SIDNEY BORDER-MONDAK JCTN-SIDNEY 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	0.7281	1173.5	1194.3	1.131	3.802	69.842	20.907	3.912	0.128	0.248	0.016	0.014	0.000	0.000	0.000	0.000	0.000	1399.72	
2	0.7229	1170.4	1191.2	1.080	3.589	70.534	20.788	3.628	0.117	0.232	0.016	0.014	0.000	0.000	0.000	0.000	0.000	1400.95	
3	0.7217	1168.2	1188.9	1.078	3.616	70.677	20.722	3.520	0.119	0.236	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1399.42	
4	0.7175	1163.7	1184.3	1.047	3.543	71.162	20.655	3.243	0.109	0.214	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1398.15	
5	0.7200	1165.4	1186.1	1.085	3.617	70.890	20.631	3.400	0.116	0.231	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1397.75	
6	0.7228	1166.6	1187.2	1.111	3.766	70.423	20.823	3.503	0.117	0.228	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1396.44	
7	0.7230	1166.7	1187.3	1.116	3.769	70.383	20.857	3.505	0.116	0.226	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1396.38	
8	0.7260	1170.5	1191.2	1.136	3.795	69.991	20.999	3.695	0.121	0.235	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1397.98	
9	0.7278	1172.9	1193.6	1.143	3.807	69.804	21.012	3.832	0.126	0.246	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1399.09	
10	0.7267	1171.7	1192.5	1.136	3.780	69.902	21.070	3.721	0.123	0.239	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1398.84	
11	0.7293	1174.7	1195.5	1.150	3.819	69.542	21.228	3.857	0.128	0.247	0.016	0.013	0.000	0.000	0.000	0.000	0.000	1399.91	
12	0.7312	1174.9	1195.7	1.188	3.932	69.341	21.112	4.013	0.132	0.252	0.016	0.014	0.000	0.000	0.000	0.000	0.000	1398.27	
13	0.7315	1174.6	1195.4	1.200	3.961	69.274	21.145	4.010	0.131	0.249	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1397.61	
14	0.7297	1171.7	1192.5	1.200	3.968	69.439	21.170	3.816	0.130	0.249	0.016	0.013	0.000	0.000	0.000	0.000	0.000	1395.94	
15	0.7302	1172.1	1192.9	1.204	3.981	69.373	21.181	3.864	0.127	0.242	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1395.97	
16	0.7289	1169.5	1190.2	1.197	4.033	69.458	21.202	3.727	0.124	0.233	0.015	0.012	0.000	0.000	0.000	0.000	0.000	1394.04	
17	0.7283	1169.5	1190.2	1.202	3.963	69.591	21.139	3.724	0.123	0.233	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1394.71	
18	0.7305	1173.0	1193.8	1.195	3.963	69.394	21.098	3.955	0.127	0.240	0.015	0.012	0.000	0.000	0.000	0.000	0.000	1396.79	
19	0.7320	1175.0	1195.8	1.196	3.984	69.168	21.203	4.078	0.120	0.225	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1397.65	
20	0.7307	1173.7	1194.5	1.189	3.953	69.380	21.096	3.985	0.127	0.241	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1397.38	
21	0.7207	1178.3	1199.2	0.541	3.725	69.722	22.554	3.217	0.081	0.145	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1412.64	
22	0.7254	1201.4	1222.7	0.041	3.515	68.869	23.795	3.350	0.119	0.267	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1435.52	
23	0.7229	1176.4	1197.3	0.681	3.833	69.411	22.588	3.253	0.079	0.140	0.008	0.007	0.000	0.000	0.000	0.000	0.000	1408.19	
24	0.7276	1167.1	1187.7	1.225	4.016	69.698	20.987	3.710	0.117	0.221	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1392.41	
25	0.7295	1171.0	1191.8	1.192	3.994	69.588	20.871	3.978	0.121	0.228	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1395.36	
26	0.7297	1171.2	1191.9	1.194	4.005	69.577	20.836	4.005	0.124	0.233	0.015	0.012	0.000	0.000	0.000	0.000	0.000	1395.33	
27	0.7260	1165.1	1185.7	1.201	4.019	69.953	20.811	3.643	0.120	0.227	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1391.62	
28	0.7256	1164.3	1184.9	1.199	4.035	69.960	20.854	3.583	0.119	0.224	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1391.02	
29	0.7264	1165.4	1186.0	1.199	4.040	69.938	20.744	3.700	0.122	0.229	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1391.59	
30	0.7303	1172.5	1193.2	1.193	3.982	69.500	20.915	4.011	0.129	0.242	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1396.30	
Avg	0.7268	1172.0	1192.5	1.088	3.860	69.793	21.166	3.715	0.120	0.230	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1398.77	

Zone 211

GQ Source Analysis

GQ Source Number:	0602330	Specific Gravity:	0.6949
GQ Source Name:	WILLISTON BORDER	Dry Heat Value:	1166.15
Effective Date:	9/1/2015 9:00:00 AM	Wet Heat Value:	1145.86
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1166.15
Pressure Base:	14.730	Sample Pressure:	356.00
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	74.164		CO2	Carbon Dioxide	0.815
C2	Ethane	19.730	0.0000	N2	Nitrogen	2.826
C3	Propane	2.184	0.5999	O2	Oxygen	0.000
IC4	Isobutane	0.080	0.0261	He	Helium	
NC4	n-Butane	0.172	0.0543	H2	Hydrogen	
IC5	Isopentane	0.013	0.0048	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.015	0.0055	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%		0.691 GPM	

Sample Date: 10/1/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: Eric Smeltzer
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 24

GQ Source Analysis

GQ Source Number:	0602160	Specific Gravity:	0.7149
GQ Source Name:	FAIRVIEW BORDER	Dry Heat Value:	1176.65
Effective Date:	9/1/2015 9:00:00 AM	Wet Heat Value:	1156.18
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1176.65
Pressure Base:	14.730	Sample Pressure:	312.00
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	71.276		CO2	Carbon Dioxide	1.032
C2	Ethane	20.404	5.4407	N2	Nitrogen	3.690
C3	Propane	3.196	0.8779	O2	Oxygen	0.050
IC4	Isobutane	0.111	0.0363	He	Helium	
NC4	n-Butane	0.212	0.0667	H2	Hydrogen	
IC5	Isopentane	0.015	0.0053	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.014	0.0051	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%	6.432	GPM	

Sample Date: 10/1/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: Rocky Robson
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 241

GQ Source Analysis

GQ Source Number:	0602230	Specific Gravity:	0.7194
GQ Source Name:	WATFORD CITY BORDER	Dry Heat Value:	1197.76
Effective Date:	8/1/2015 9:00:00 AM	Wet Heat Value:	1176.92
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1197.76
Pressure Base:	14.730	Sample Pressure:	393.00
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	72.512		CO2	Carbon Dioxide	1.005
C2	Ethane	18.520	4.9384	N2	Nitrogen	2.914
C3	Propane	4.181	1.1485	O2	Oxygen	0.007
IC4	Isobutane	0.243	0.0795	He	Helium	
NC4	n-Butane	0.521	0.1638	H2	Hydrogen	
IC5	Isopentane	0.046	0.0168	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.048	0.0172	Ar	Argon	
C6	Hexanes	0.004	0.0017	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					

Totals 100.000% 6.366 GPM

Sample Date: 9/1/2015 12:00:00 AM
 Sample Type: Composite
 Sample Tech: Eric S.
 H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 25

GQ Source Daily Summary

September 2015

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	CCT
1	0.5830	966.4	983.5	0.002	4.517	93.662	1.695	0.102	0.006	0.014	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1288.05	
2	0.5936	983.7	1001.1	0.035	4.404	91.629	3.726	0.180	0.007	0.015	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1299.40	
3	0.5943	985.5	1003.0	0.001	4.409	91.331	4.172	0.071	0.004	0.009	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1301.09	
4	0.5858	970.8	988.0	0.003	4.508	93.048	2.349	0.076	0.004	0.009	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1290.87	
5	0.5900	977.9	995.2	0.006	4.468	92.211	3.216	0.083	0.004	0.010	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1295.61	
6	0.5953	986.0	1003.5	0.021	4.445	91.196	4.193	0.124	0.006	0.013	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1300.62	
7	0.5883	973.7	990.9	0.011	4.553	92.573	2.752	0.094	0.005	0.011	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1291.95	
8	0.5850	968.0	985.1	0.018	4.576	93.285	1.985	0.115	0.006	0.013	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1288.04	
9	0.5819	966.0	983.1	0.009	4.418	93.900	1.567	0.087	0.005	0.011	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1288.85	
10	0.6449	1070.4	1089.3	0.022	3.960	83.038	11.139	1.622	0.072	0.140	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1354.10	
11	0.5841	967.0	984.1	0.013	4.567	93.454	1.830	0.114	0.006	0.013	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1287.62	
12	0.5829	964.9	982.0	0.005	4.595	93.645	1.655	0.079	0.005	0.013	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1286.15	
13	0.5819	964.8	981.9	0.004	4.506	93.871	1.517	0.080	0.006	0.014	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1287.13	
14	0.6261	1040.1	1058.5	0.033	4.027	85.330	10.116	0.463	0.009	0.019	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1337.53	
15	0.6040	1004.3	1022.1	0.003	4.176	89.435	6.243	0.125	0.005	0.010	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1314.83	
16	0.6381	1053.4	1072.0	0.321	3.908	84.057	10.491	1.063	0.040	0.097	0.010	0.013	0.000	0.000	0.000	0.000	0.000	1341.91	
17	0.6630	1090.6	1109.9	0.482	3.735	80.037	13.787	1.690	0.067	0.163	0.018	0.023	0.000	0.000	0.000	0.000	0.000	1362.91	
18	0.6972	1140.7	1160.9	0.744	3.493	74.427	18.395	2.569	0.096	0.226	0.022	0.027	0.000	0.000	0.000	0.000	0.000	1390.22	
19	0.6888	1128.5	1148.5	0.679	3.550	75.812	17.264	2.349	0.089	0.210	0.021	0.027	0.000	0.000	0.000	0.000	0.000	1383.77	
20	0.6487	1075.7	1094.7	0.138	3.826	81.371	13.705	0.873	0.024	0.053	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1358.74	
21	0.6756	1115.7	1135.5	0.519	3.333	77.311	17.024	1.605	0.058	0.128	0.011	0.013	0.000	0.000	0.000	0.000	0.000	1381.35	
22	0.6932	1145.4	1165.7	0.822	2.716	74.600	19.572	2.054	0.069	0.144	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1400.12	
23	0.6394	1056.3	1075.0	0.284	3.909	83.385	11.475	0.859	0.029	0.053	0.003	0.004	0.000	0.000	0.000	0.000	0.000	1344.19	
24	0.6140	1019.6	1037.7	0.020	4.156	87.606	7.883	0.310	0.008	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1324.33	
25	0.6378	1052.6	1071.3	0.226	4.069	83.835	10.792	0.942	0.036	0.084	0.007	0.009	0.000	0.000	0.000	0.000	0.000	1341.01	
26	0.6096	1010.4	1028.3	0.002	4.332	88.322	7.134	0.198	0.004	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1317.08	
27	0.6096	1010.6	1028.5	0.002	4.325	88.316	7.148	0.197	0.004	0.007	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1317.27	
28	0.6094	1011.0	1028.9	0.001	4.282	88.357	7.150	0.197	0.004	0.007	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1318.05	
29	0.6092	1010.8	1028.7	0.001	4.274	88.406	7.109	0.198	0.004	0.007	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1318.03	
30	0.6076	1010.1	1027.9	0.001	4.170	88.729	6.915	0.178	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1318.75	
Avg	0.6187	1024.0	1042.2	0.148	4.140	87.206	7.800	0.623	0.023	0.051	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1324.32	

Zone 261

GQ Source Analysis

GQ Source Number:	2501030	Specific Gravity:	0.6541
GQ Source Name:	LIGNITE PLANT	Dry Heat Value:	1104.13
Effective Date:	9/1/2015 9:00:00 AM	Wet Heat Value:	1084.92
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1104.13
Pressure Base:	14.730	Sample Pressure:	348.00
Viscosity:		Sample Temperature:	

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	79.733		CO2	Carbon Dioxide	0.082
C2	Ethane	15.598	4.1591	N2	Nitrogen	3.820
C3	Propane	0.743	0.2041	O2	Oxygen	0.011
IC4	Isobutane	0.004	0.0013	He	Helium	
NC4	n-Butane	0.008	0.0024	H2	Hydrogen	
IC5	Isopentane	0.000	0.0000	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.000	0.0000	Ar	Argon	
C6	Hexanes	0.002	0.0009	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					
Totals			100.000%		4.368 GPM	

Sample Date: 10/1/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: Eric Smeltzer
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 263

*** End of Report ***

GQ Source Analysis

GQ Source Number:	0702010	Specific Gravity:	0.6884
GQ Source Name:	EPPING BORDER	Dry Heat Value:	1154.47
Effective Date:	9/1/2015 9:00:00 AM	Wet Heat Value:	1134.38
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1154.47
Pressure Base:	14.730	Sample Pressure:	500.00
Viscosity:		Sample Temperature:	

	<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>	
C1	Methane	75.435		CO2	Carbon Dioxide	0.755
C2	Ethane	18.354	4.8941	N2	Nitrogen	2.992
C3	Propane	2.159	0.5931	O2	Oxygen	0.011
IC4	Isobutane	0.082	0.0266	He	Helium	
NC4	n-Butane	0.178	0.0561	H2	Hydrogen	
IC5	Isopentane	0.015	0.0053	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.017	0.0063	Ar	Argon	
C6	Hexanes	0.002	0.0008	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					
Totals			100.000%	5.582 GPM		

Sample Date: 10/1/2015 12:00:00 AM
Sample Type: Composite
Sample Tech: Eric Smeltzer
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 264

GQ Source Daily Summary

September 2015

Number: 161

Pressure Base: 14.730

Contract Day: 1

Name: NORTH TIOGA TRANSFER-PORTAL

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	0.7170	1171.2	1191.9	0.863	3.320	71.089	21.280	3.038	0.109	0.250	0.023	0.029	0.000	0.000	0.000	0.000	0.000	1407.61	
2	0.7146	1167.6	1188.3	0.860	3.318	71.219	21.381	2.882	0.094	0.209	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1405.68	
3	0.7150	1166.8	1187.5	0.896	3.349	71.201	21.365	2.840	0.093	0.212	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1404.31	
4	0.7118	1162.3	1182.9	0.883	3.343	71.490	21.324	2.660	0.084	0.185	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1402.08	
5	0.7135	1164.1	1184.7	0.907	3.359	71.262	21.483	2.658	0.088	0.202	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1402.50	
6	0.7102	1159.5	1180.1	0.869	3.383	71.892	20.865	2.661	0.088	0.202	0.018	0.022	0.000	0.000	0.000	0.000	0.000	1400.27	
7	0.7102	1159.5	1180.0	0.885	3.363	71.778	21.055	2.623	0.083	0.183	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1400.20	
8	0.7115	1161.3	1181.9	0.877	3.380	71.641	21.122	2.664	0.085	0.192	0.017	0.022	0.000	0.000	0.000	0.000	0.000	1401.19	
9	0.7132	1164.3	1185.0	0.862	3.377	71.546	21.008	2.837	0.098	0.227	0.020	0.024	0.000	0.000	0.000	0.000	0.000	1403.16	
10	0.7141	1164.8	1185.4	0.890	3.394	71.453	21.016	2.848	0.101	0.236	0.023	0.029	0.000	0.000	0.000	0.000	0.000	1402.80	
11	0.7182	1171.7	1192.5	0.899	3.344	71.044	21.177	3.084	0.116	0.275	0.027	0.034	0.000	0.000	0.000	0.000	0.000	1407.08	
12	0.7218	1175.6	1196.4	0.981	3.321	70.306	21.815	3.175	0.110	0.247	0.020	0.025	0.000	0.000	0.000	0.000	0.000	1408.23	
13	0.7239	1177.6	1198.4	1.017	3.339	70.090	21.896	3.208	0.118	0.274	0.026	0.032	0.000	0.000	0.000	0.000	0.000	1408.59	
14	0.7236	1177.7	1198.5	0.999	3.340	70.070	22.012	3.119	0.119	0.280	0.027	0.034	0.000	0.000	0.000	0.000	0.000	1408.91	
15	0.7242	1178.8	1199.7	0.998	3.327	69.937	22.098	3.203	0.117	0.268	0.023	0.028	0.000	0.000	0.000	0.000	0.000	1409.72	
16	0.7200	1172.5	1193.2	0.964	3.369	70.608	21.594	3.026	0.113	0.267	0.026	0.032	0.000	0.000	0.000	0.000	0.000	1406.22	
17	0.7196	1173.3	1194.0	0.906	3.366	70.887	21.240	3.100	0.124	0.303	0.032	0.041	0.000	0.000	0.000	0.000	0.000	1407.58	
18	0.7187	1172.0	1192.7	0.921	3.338	70.985	21.164	3.137	0.118	0.278	0.026	0.033	0.000	0.000	0.000	0.000	0.000	1406.92	
19	0.7186	1171.5	1192.2	0.934	3.343	71.001	21.170	3.105	0.115	0.271	0.027	0.034	0.000	0.000	0.000	0.000	0.000	1406.41	
20	0.7179	1170.3	1191.0	0.923	3.362	70.985	21.251	3.055	0.113	0.261	0.023	0.028	0.000	0.000	0.000	0.000	0.000	1405.72	
21	0.7080	1156.3	1176.8	0.776	3.508	72.608	19.895	2.780	0.112	0.265	0.025	0.030	0.000	0.000	0.000	0.000	0.000	1398.45	
22	0.6892	1124.0	1143.9	0.802	3.679	74.967	18.521	1.826	0.056	0.125	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1377.87	
23	0.7060	1153.5	1173.9	0.825	3.425	72.458	20.452	2.570	0.078	0.167	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1397.06	
24	0.7221	1177.1	1198.0	0.932	3.326	70.556	21.452	3.215	0.132	0.316	0.031	0.039	0.000	0.000	0.000	0.000	0.000	1409.78	
25	0.7222	1177.6	1198.4	0.933	3.309	70.467	21.573	3.225	0.129	0.302	0.027	0.034	0.000	0.000	0.000	0.000	0.000	1410.19	
26	0.7186	1172.8	1193.6	0.873	3.356	70.846	21.396	3.093	0.113	0.267	0.024	0.030	0.000	0.000	0.000	0.000	0.000	1407.94	
27	0.7180	1170.8	1191.6	0.913	3.363	70.781	21.625	2.915	0.105	0.245	0.023	0.029	0.000	0.000	0.000	0.000	0.000	1406.17	
28	0.7176	1171.3	1192.0	0.864	3.367	71.166	21.068	3.023	0.130	0.314	0.030	0.038	0.000	0.000	0.000	0.000	0.000	1407.15	
29	0.7146	1165.8	1186.4	0.879	3.395	71.574	20.808	2.878	0.117	0.282	0.029	0.037	0.000	0.000	0.000	0.000	0.000	1403.50	
30	0.7163	1169.0	1189.7	0.874	3.368	71.262	21.088	2.961	0.116	0.274	0.025	0.032	0.000	0.000	0.000	0.000	0.000	1405.72	
Avg	0.7157	1167.0	1188.0	0.900	3.371	71.239	21.173	2.914	0.106	0.246	0.023	0.028	0.000	0.000	0.000	0.000	0.000	1404.30	

Zone 265

GQ Source Daily Summary

September 2015

Number: 043

Pressure Base: 14,730

Contract Day: 1

Name: BISMARCK STATION-CLEVELAND STATION

Temperature Base:

Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry																	Wobbe	CCT
				CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10				
1	0.7423	1170.1	1190.8	0.751	5.919	67.488	20.509	4.700	0.181	0.410	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1382.20		
2	0.7432	1171.3	1192.1	0.757	5.926	67.338	20.632	4.698	0.183	0.420	0.023	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1382.73		
3	0.7532	1184.5	1205.4	0.791	6.012	65.941	21.358	5.170	0.207	0.472	0.025	0.025	0.000	0.000	0.000	0.000	0.000	0.000	1388.92		
4	0.7526	1183.5	1204.5	0.792	6.011	65.896	21.537	5.069	0.198	0.451	0.023	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1388.39		
5	0.7556	1189.6	1210.7	0.787	5.924	65.508	21.853	5.195	0.207	0.476	0.025	0.025	0.000	0.000	0.000	0.000	0.000	0.000	1392.84		
6	0.7566	1192.2	1213.4	0.789	5.863	65.247	22.210	5.172	0.204	0.468	0.024	0.024	0.000	0.000	0.000	0.000	0.000	0.000	1394.89		
7	0.7540	1187.3	1208.3	0.792	5.915	65.629	21.891	5.083	0.197	0.448	0.023	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1391.48		
8	0.7542	1187.7	1208.7	0.797	5.899	65.663	21.828	5.107	0.201	0.458	0.024	0.024	0.000	0.000	0.000	0.000	0.000	0.000	1391.79		
9	0.7531	1191.8	1212.9	0.809	5.528	65.650	22.470	4.874	0.189	0.433	0.023	0.024	0.000	0.000	0.000	0.000	0.000	0.000	1397.67		
10	0.7518	1185.3	1206.3	0.804	5.815	65.671	22.312	4.772	0.179	0.404	0.021	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1391.19		
11	0.7516	1183.9	1204.8	0.801	5.886	65.751	22.126	4.799	0.181	0.412	0.022	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1389.71		
12	0.7537	1186.8	1207.8	0.799	5.899	65.667	21.934	5.003	0.197	0.451	0.025	0.025	0.000	0.000	0.000	0.000	0.000	0.000	1391.26		
13	0.7530	1185.8	1206.8	0.804	5.886	65.736	21.942	4.942	0.194	0.446	0.025	0.025	0.000	0.000	0.000	0.000	0.000	0.000	1390.80		
14	0.7535	1186.2	1207.2	0.800	5.915	65.663	21.945	4.990	0.195	0.445	0.024	0.024	0.000	0.000	0.000	0.000	0.000	0.000	1390.79		
15	0.7532	1184.6	1205.5	0.798	5.992	65.769	21.695	5.060	0.195	0.444	0.023	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1389.09		
16	0.7478	1178.1	1199.0	0.764	5.925	66.690	21.028	4.915	0.193	0.439	0.023	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1386.57		
17	0.7556	1189.0	1210.0	0.795	5.956	65.442	21.920	5.176	0.202	0.461	0.024	0.024	0.000	0.000	0.000	0.000	0.000	0.000	1392.01		
18	0.7543	1186.2	1207.2	0.798	6.001	65.564	21.876	5.061	0.198	0.453	0.024	0.024	0.000	0.000	0.000	0.000	0.000	0.000	1389.93		
19	0.7529	1184.8	1205.8	0.798	5.954	65.817	21.705	5.028	0.198	0.451	0.024	0.024	0.000	0.000	0.000	0.000	0.000	0.000	1389.61		
20	0.7518	1181.2	1202.1	0.799	6.064	66.014	21.489	4.963	0.191	0.433	0.023	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1386.42		
21	0.7310	1155.8	1176.3	0.695	5.816	69.249	19.364	4.293	0.166	0.377	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1375.82		
22	0.7197	1160.1	1180.6	0.704	4.489	70.768	20.057	3.504	0.134	0.307	0.018	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1391.64		
23	0.7271	1172.4	1193.2	0.832	4.236	69.614	21.171	3.647	0.141	0.319	0.019	0.020	0.000	0.000	0.000	0.000	0.000	0.000	1399.31		
24	0.7502	1188.0	1209.0	0.815	5.484	66.231	21.924	4.893	0.188	0.421	0.021	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1395.80		
25	0.7484	1183.9	1204.9	0.806	5.572	66.520	21.619	4.830	0.186	0.424	0.022	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1392.74		
26	0.7499	1185.4	1206.4	0.807	5.619	66.350	21.628	4.918	0.193	0.440	0.023	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1393.13		
27	0.7493	1185.2	1206.2	0.795	5.595	66.443	21.581	4.909	0.192	0.439	0.023	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1393.43		
28	0.7499	1186.4	1207.4	0.799	5.575	66.335	21.689	4.930	0.191	0.435	0.023	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1394.23		
29	0.7501	1185.8	1206.8	0.803	5.621	66.248	21.754	4.915	0.189	0.426	0.022	0.022	0.000	0.000	0.000	0.000	0.000	0.000	1393.40		
30	0.7453	1178.8	1199.7	0.785	5.625	66.975	21.247	4.736	0.181	0.409	0.021	0.021	0.000	0.000	0.000	0.000	0.000	0.000	1389.62		
Avg	0.7488	1182.0	1203.3	0.789	5.731	66.429	21.543	4.845	0.188	0.429	0.023	0.023	0.000	0.000	0.000	0.000	0.000	0.000	1390.58		

Zone 271

GQ Source Daily Summary

September 2015

Number: 063

Pressure Base: 14.730

Contract Day: 1

Name: CLEVELAND STATION-MAPLETON

Temperature Base:

Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry																	Wobbe	CCT						
				CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10										
1	0.7401	1167.2	1187.9	0.734	5.913	67.834	20.247	4.648	0.180	0.403	0.021	0.021	0.000												1380.86		
2	0.7466	1175.0	1195.8	0.770	6.005	66.709	21.066	4.802	0.185	0.418	0.022	0.022	0.000													1383.89	
3	0.7438	1172.1	1192.9	0.746	5.948	67.180	20.771	4.708	0.184	0.417	0.023	0.023	0.000													1383.14	
4	0.7538	1184.9	1205.9	0.794	6.031	65.767	21.542	5.150	0.205	0.462	0.025	0.025	0.000													1388.98	
5	0.7534	1184.7	1205.7	0.792	6.013	65.756	21.640	5.104	0.199	0.449	0.024	0.023	0.000													1389.08	
6	0.7562	1190.7	1211.8	0.788	5.918	65.400	21.931	5.231	0.209	0.474	0.025	0.025	0.000													1393.50	
7	0.7547	1187.8	1208.8	0.789	5.948	65.499	21.978	5.093	0.198	0.449	0.023	0.023	0.000													1391.52	
8	0.7538	1186.4	1207.4	0.795	5.946	65.675	21.804	5.087	0.199	0.448	0.024	0.024	0.000													1390.64	
9	0.7541	1186.5	1207.5	0.796	5.959	65.639	21.812	5.096	0.200	0.451	0.024	0.023	0.000													1390.55	
10	0.7517	1190.5	1211.6	0.814	5.469	65.656	22.757	4.686	0.176	0.398	0.022	0.023	0.000													1397.46	
11	0.7515	1183.3	1204.2	0.802	5.907	65.734	22.141	4.788	0.179	0.404	0.022	0.022	0.000													1389.14	
12	0.7526	1185.1	1206.1	0.800	5.905	65.680	22.060	4.893	0.188	0.426	0.023	0.024	0.000													1390.23	
13	0.7532	1185.5	1206.5	0.803	5.932	65.677	21.945	4.954	0.195	0.443	0.025	0.026	0.000													1390.14	
14	0.7530	1184.8	1205.7	0.802	5.958	65.660	21.979	4.920	0.192	0.437	0.025	0.025	0.000													1389.48	
15	0.7532	1184.5	1205.5	0.799	5.997	65.704	21.798	5.026	0.194	0.436	0.023	0.023	0.000													1388.99	
16	0.7498	1179.7	1200.6	0.778	5.999	66.288	21.320	4.946	0.192	0.431	0.023	0.023	0.000													1386.52	
17	0.7511	1182.0	1202.9	0.783	5.973	66.111	21.449	5.004	0.195	0.439	0.023	0.023	0.000													1388.03	
18	0.7553	1186.8	1207.8	0.798	6.052	65.450	21.849	5.149	0.201	0.453	0.024	0.024	0.000													1389.77	
19	0.7530	1183.8	1204.7	0.799	6.024	65.755	21.714	5.018	0.196	0.444	0.024	0.024	0.000													1388.31	
20	0.7528	1183.3	1204.2	0.799	6.030	65.805	21.673	5.010	0.195	0.439	0.024	0.024	0.000													1387.95	
21	0.7486	1176.2	1197.0	0.785	6.092	66.385	21.253	4.835	0.186	0.419	0.023	0.022	0.000													1383.50	
22	0.7147	1143.9	1164.1	0.627	5.122	71.501	18.855	3.437	0.130	0.294	0.017	0.018	0.000													1377.00	
23	0.7276	1169.4	1190.1	0.786	4.533	69.563	20.842	3.759	0.146	0.331	0.020	0.020	0.000													1395.23	
24	0.7407	1177.5	1198.4	0.813	5.232	67.467	21.597	4.319	0.165	0.365	0.021	0.022	0.000													1392.48	
25	0.7483	1180.7	1201.7	0.792	5.774	66.403	21.622	4.770	0.183	0.413	0.021	0.021	0.000													1389.16	
26	0.7503	1181.9	1202.8	0.796	5.889	66.125	21.653	4.871	0.190	0.430	0.023	0.023	0.000													1388.59	
27	0.7510	1183.0	1203.9	0.792	5.892	66.025	21.720	4.903	0.191	0.432	0.023	0.023	0.000													1389.26	
28	0.7489	1181.2	1202.1	0.777	5.831	66.387	21.480	4.855	0.189	0.426	0.023	0.023	0.000													1389.07	
29	0.7514	1183.5	1204.4	0.792	5.904	65.953	21.749	4.942	0.189	0.426	0.022	0.022	0.000													1389.44	
30	0.7475	1177.8	1198.7	0.778	5.903	66.529	21.368	4.787	0.183	0.410	0.021	0.021	0.000													1386.41	
Avg	0.7487	1181.0	1201.6	0.784	5.837	66.377	21.521	4.827	0.187	0.422	0.023	0.023	0.000													1388.61	

Zone 272

GQ Source Daily Summary

September 2015

Number: 041	Pressure Base: 14.730	Contract Day: 1
Name: BISMARCK STATION-GLEN ULLIN STATION	Temperature Base:	Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	H2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7415	1169.2	1189.9	0.748	5.909	67.609	20.425	4.679	0.180	0.408	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1381.84	
2	0.7458	1174.8	1195.6	0.767	5.939	66.927	20.924	4.783	0.187	0.428	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1384.46	
3	0.7515	1181.8	1202.7	0.786	6.015	66.189	21.204	5.093	0.203	0.462	0.024	0.024	0.000	0.000	0.000	0.000	0.000	1387.45	
4	0.7528	1183.9	1204.9	0.792	6.008	65.878	21.538	5.084	0.199	0.454	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1388.64	
5	0.7555	1189.4	1210.5	0.787	5.926	65.521	21.842	5.194	0.207	0.474	0.025	0.025	0.000	0.000	0.000	0.000	0.000	1392.70	
6	0.7566	1192.2	1213.3	0.789	5.863	65.264	22.187	5.176	0.204	0.469	0.024	0.024	0.000	0.000	0.000	0.000	0.000	1394.84	
7	0.7541	1187.4	1208.4	0.792	5.915	65.611	21.906	5.087	0.197	0.447	0.023	0.022	0.000	0.000	0.000	0.000	0.000	1391.57	
8	0.7542	1187.7	1208.7	0.797	5.896	65.668	21.821	5.110	0.201	0.458	0.024	0.024	0.000	0.000	0.000	0.000	0.000	1391.85	
9	0.7533	1191.3	1212.4	0.808	5.580	65.646	22.380	4.911	0.191	0.437	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1396.89	
10	0.7520	1186.8	1207.8	0.805	5.738	65.651	22.408	4.768	0.179	0.406	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1392.80	
11	0.7515	1183.6	1204.5	0.801	5.897	65.754	22.119	4.793	0.181	0.410	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1389.44	
12	0.7537	1186.9	1207.9	0.799	5.902	65.656	21.936	5.009	0.197	0.451	0.025	0.025	0.000	0.000	0.000	0.000	0.000	1391.28	
13	0.7530	1185.9	1206.9	0.803	5.884	65.744	21.930	4.948	0.194	0.447	0.025	0.025	0.000	0.000	0.000	0.000	0.000	1390.84	
14	0.7534	1186.2	1207.2	0.800	5.913	65.666	21.949	4.984	0.195	0.445	0.024	0.025	0.000	0.000	0.000	0.000	0.000	1390.79	
15	0.7533	1184.9	1205.8	0.798	5.981	65.755	21.720	5.060	0.195	0.444	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1389.37	
16	0.7477	1178.1	1198.9	0.764	5.926	66.693	21.030	4.910	0.192	0.438	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1386.50	
17	0.7554	1188.7	1209.8	0.795	5.951	65.471	21.907	5.165	0.202	0.460	0.024	0.024	0.000	0.000	0.000	0.000	0.000	1391.93	
18	0.7545	1186.5	1207.5	0.798	6.000	65.545	21.884	5.074	0.199	0.453	0.024	0.024	0.000	0.000	0.000	0.000	0.000	1390.11	
19	0.7529	1184.7	1205.7	0.799	5.959	65.820	21.697	5.028	0.198	0.451	0.024	0.024	0.000	0.000	0.000	0.000	0.000	1389.49	
20	0.7520	1181.9	1202.8	0.799	6.043	65.981	21.516	4.985	0.193	0.437	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1387.06	
21	0.7355	1161.2	1181.7	0.719	5.879	68.546	19.805	4.445	0.172	0.392	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1377.92	
22	0.7174	1155.5	1175.9	0.681	4.589	71.185	19.576	3.490	0.134	0.307	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1388.30	
23	0.7280	1172.0	1192.7	0.822	4.364	69.497	21.081	3.726	0.144	0.326	0.019	0.020	0.000	0.000	0.000	0.000	0.000	1397.89	
24	0.7471	1185.4	1206.4	0.818	5.340	66.685	21.808	4.717	0.181	0.407	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1395.76	
25	0.7480	1183.5	1204.5	0.806	5.560	66.572	21.601	4.813	0.185	0.420	0.021	0.022	0.000	0.000	0.000	0.000	0.000	1392.66	
26	0.7500	1185.2	1206.2	0.808	5.638	66.338	21.618	4.919	0.193	0.440	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1392.80	
27	0.7494	1185.2	1206.2	0.797	5.603	66.417	21.603	4.904	0.192	0.438	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1393.32	
28	0.7496	1185.9	1206.9	0.798	5.568	66.394	21.658	4.913	0.190	0.433	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1394.05	
29	0.7502	1185.7	1206.7	0.804	5.640	66.238	21.740	4.919	0.189	0.427	0.022	0.022	0.000	0.000	0.000	0.000	0.000	1393.11	
30	0.7451	1178.6	1199.5	0.784	5.623	67.008	21.225	4.729	0.181	0.409	0.021	0.021	0.000	0.000	0.000	0.000	0.000	1389.54	
Avg	0.7488	1182.0	1203.3	0.789	5.735	66.431	21.535	4.847	0.188	0.429	0.023	0.023	0.000	0.000	0.000	0.000	0.000	1390.51	

Zone 28

GQ Source Analysis

GQ Source Number:	0202080	Specific Gravity:	0.7148
GQ Source Name:	RICHARDTON-GLEN ULLIN COMPRE	Dry Heat Value:	1168.03
Effective Date:	9/1/2015 9:00:00 AM	Wet Heat Value:	1147.70
Effective End Date:	1/18/2038 9:14:00 PM	As Deliv. Heat Value:	1168.03
Pressure Base:	14.730	Sample Pressure:	336.00
Viscosity:		Sample Temperature:	0.00

		<u>Mol %</u>	<u>Liquid Content</u>			<u>Mol %</u>
C1	Methane	71.978		CO2	Carbon Dioxide	0.728
C2	Ethane	18.329	4.8870	N2	Nitrogen	4.741
C3	Propane	3.728	1.0240	O2	Oxygen	
IC4	Isobutane	0.141	0.0460	He	Helium	
NC4	n-Butane	0.316	0.0990	H2	Hydrogen	
IC5	Isopentane	0.017	0.0060	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.017	0.0060	Ar	Argon	
C6	Hexanes	0.005	0.0020	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					
		Totals	100.000%	6.070 GPM		

Sample Date: 9/1/2015 10:29:00 AM
Sample Type: Composite
Sample Tech: RR
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 311

GQ Source Daily Summary

September 2015

Number: 111

Pressure Base: 14,730

Contract Day: 1

Name: LITTLE KNIFE-BELFIELD TRANSFER

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	0.6946	1171.3	1192.0	0.004	2.526	72.347	23.791	1.304	0.011	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1430.29	
2	0.6925	1168.1	1188.8	0.001	2.526	72.627	23.659	1.155	0.013	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1428.58	
3	0.6906	1165.6	1186.2	0.001	2.506	72.846	23.629	0.991	0.010	0.016	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1427.42	
4	0.6917	1167.8	1188.5	0.003	2.473	72.738	23.653	1.105	0.009	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1428.96	
5	0.6914	1167.3	1188.0	0.003	2.468	72.783	23.642	1.078	0.010	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1428.76	
6	0.6916	1167.2	1187.9	0.004	2.497	72.737	23.651	1.085	0.010	0.016	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1428.36	
7	0.6921	1168.0	1188.7	0.003	2.498	72.631	23.753	1.089	0.010	0.015	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1428.82	
8	0.6916	1166.9	1187.6	0.003	2.514	72.725	23.658	1.072	0.010	0.016	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1428.03	
9	0.6905	1165.3	1185.9	0.002	2.513	72.859	23.615	0.988	0.009	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.15	
10	0.6910	1165.6	1186.2	0.004	2.540	72.765	23.669	0.992	0.010	0.017	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1426.98	
11	0.6922	1167.6	1188.3	0.004	2.529	72.708	23.549	1.180	0.011	0.018	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1428.24	
12	0.6915	1166.7	1187.4	0.004	2.511	72.830	23.481	1.147	0.010	0.016	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.93	
13	0.6934	1169.6	1190.3	0.004	2.522	72.651	23.432	1.350	0.015	0.024	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1429.36	
14	0.6902	1164.5	1185.1	0.002	2.529	72.899	23.582	0.964	0.009	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.55	
15	0.6894	1164.0	1184.6	0.001	2.493	73.002	23.572	0.909	0.008	0.013	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1426.66	
16	0.6896	1164.0	1184.6	0.002	2.504	72.992	23.541	0.937	0.009	0.014	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1426.56	
17	0.6899	1164.7	1185.4	0.003	2.485	72.966	23.560	0.962	0.009	0.014	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1427.14	
18	0.6899	1164.9	1185.5	0.003	2.478	72.992	23.514	0.989	0.009	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.28	
19	0.6896	1164.4	1185.0	0.004	2.478	73.063	23.431	0.999	0.009	0.014	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1427.00	
20	0.6901	1165.1	1185.7	0.003	2.484	72.998	23.451	1.040	0.009	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.34	
21	0.6938	1164.8	1185.5	0.004	2.478	72.811	23.379	1.020	0.169	0.138	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1423.37	
22	0.6885	1162.6	1183.2	0.004	2.484	73.209	23.356	0.923	0.009	0.014	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1425.97	
23	0.6887	1163.1	1183.7	0.005	2.476	73.211	23.328	0.949	0.010	0.018	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1426.29	
24	0.6887	1163.2	1183.8	0.003	2.468	73.228	23.306	0.968	0.010	0.016	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1426.47	
25	0.6903	1165.5	1186.1	0.004	2.477	73.006	23.406	1.082	0.010	0.015	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1427.62	
26	0.6917	1167.8	1188.5	0.004	2.473	72.885	23.360	1.247	0.012	0.019	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1428.92	
27	0.6895	1164.0	1184.6	0.011	2.491	73.088	23.385	0.998	0.010	0.015	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1426.63	
28	0.6897	1163.9	1184.5	0.004	2.519	72.993	23.502	0.958	0.009	0.014	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1426.29	
29	0.6898	1164.2	1184.8	0.003	2.513	73.022	23.427	1.011	0.009	0.014	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1426.54	
30	0.6913	1166.4	1187.0	0.003	2.517	72.914	23.398	1.104	0.018	0.038	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1427.66	
Avg	0.6909	1166.0	1186.4	0.003	2.499	72.884	23.523	1.053	0.015	0.021	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1427.44	

Zone 33

GQ Source Analysis

GQ Source Number:	1202160	Specific Gravity:	0.6381
GQ Source Name:	BOWMAN BORDER	Dry Heat Value:	1024.75
Effective Date:	9/1/2015 9:00:00 AM	Wet Heat Value:	1006.92
Effective End Date:	1/18/2038 9:14:07 PM	As Deliv. Heat Value:	1024.75
Pressure Base:	14.730	Sample Pressure:	
Viscosity:		Sample Temperature:	

	<u>Mol %</u>	<u>Liquid Content</u>		<u>Mol %</u>
C1 Methane	85.375		CO2 Carbon Dioxide	0.780
C2 Ethane	6.164	1.6440	N2 Nitrogen	6.033
C3 Propane	1.064	0.2920	O2 Oxygen	
IC4 Isobutane	0.059	0.0190	He Helium	
NC4 n-Butane	0.239	0.0750	H2 Hydrogen	
IC5 Isopentane	0.039	0.0140	H2S Hydrogen Sulfide	
NCS n-Pentane	0.150	0.0540	Ar Argon	
C6 Hexanes	0.097	0.0400	CO Carbon Monoxide	
C7 Heptanes			H2O Water	
C8 Octanes			Neo-C5 Neopentane	
C9 Nonanes				
C10 Decanes				

Totals 100.000% 2.138 GPM

Sample Date: 9/1/2015 9:00:00 AM
Sample Type: Composite
Sample Tech: MIKE GENTILINI
H2S: ppm

Sample Remarks:

Analysis Tech: MIKE GENTILINI

Analysis Remarks:

Zone 34

ROW ID	LOCATION DESCRIPTION	GROSS HEATING VALUE (BTU/CF)	SPECIFIC GRAVITY	WOBBE INDEX	CHLORIDE (deg F)	NITROGEN (mole percent)	CARBON DIOXIDE (mole percent)	METHANE (mole percent)	ETHANE (mole percent)	PROPANE (mole percent)	NORMAL BUTANE (mole percent)	ISO BUTANE (mole percent)	PENTANE (mole percent)	ISO PENTANE (mole percent)	NEO PENTANE (mole percent)	HEXANES PLUS (mole percent)	HYDROGEN (mole percent)	HELIUM (mole percent)	PRODUCTION DATE	POSTING DATE	CHANGESTAMP	NOTES
11587	GLEN ULLIN	1051.8	0.6074	1332.1	-72.1	1.3474	0.8266	90.384	6.4741	0.7684	0.0279	0.0188	0.0017	0.0023	0	0	0.133	0.0135	8/31/2015	9/1/2015	9/1/2015 2:27:12 PM	
11587	GLEN ULLIN	1051.9	0.606	1331.2	-73.1	1.3148	0.8311	90.702	6.2366	0.7381	0.0292	0.0194	0.0017	0.0022	0	0	0.0902	0.0135	9/1/2015	9/2/2015	9/2/2015 2:26:50 PM	
11587	GLEN ULLIN	1050.9	0.605	1331.1	-73.5	1.2504	0.8474	90.9335	6.0411	0.7234	0.033	0.0234	0.0026	0.0032	0	0	0.0901	0.0135	9/2/2015	9/3/2015	9/3/2015 2:26:53 PM	
11587	GLEN ULLIN	1052.7	0.606	1332.2	-73.1	1.2651	0.8322	90.6789	6.297	0.7344	0.0301	0.0218	0.0018	0.0025	0	0	0.1303	0.0135	9/3/2015	9/4/2015	9/4/2015 2:27:11 PM	
11587	GLEN ULLIN	1051.5	0.6083	1333.4	-69.6	1.3397	0.8143	90.3363	6.4676	0.8316	0.0409	0.0284	0.0026	0.0035	0	0	0.1183	0.0135	9/4/2015	9/5/2015	9/5/2015 2:27:06 PM	
11587	GLEN ULLIN	1057.9	0.6101	1354.3	-63.2	1.3313	0.8364	90.1089	6.6061	0.8781	0.0528	0.0383	0.0042	0.0057	0	0.0015	0.1193	0.0135	9/5/2015	9/6/2015	9/6/2015 2:27:21 PM	
11587	GLEN ULLIN	1053.8	0.607	1332.6	-72.2	1.2895	0.8369	90.4841	6.4282	0.7534	0.0327	0.0221	0.0012	0.0017	0	0	0.1349	0.0135	9/6/2015	9/7/2015	9/7/2015 2:26:28 PM	
11587	GLEN ULLIN	1051.2	0.6053	1331.2	-71.5	1.2834	0.8365	90.7645	6.3019	0.6603	0.0213	0.0145	0.0002	0.0004	0	0	0.1034	0.0135	9/7/2015	9/8/2015	9/8/2015 2:27:37 PM	
11587	GLEN ULLIN	1049.9	0.6047	1330.1	-74.9	1.2718	0.8383	90.9282	6.1405	0.6302	0.0294	0.0206	0.0022	0.0029	0	0.0002	0.1018	0.0135	9/8/2015	9/9/2015	9/9/2015 2:27:32 PM	
11587	GLEN ULLIN	1047.4	0.603	1348.9	-76.7	1.2452	0.8671	91.206	5.8914	0.593	0.0297	0.021	0.0022	0.003	0	0.0001	0.1265	0.0135	9/9/2015	9/10/2015	9/10/2015 2:27:32 PM	
11587	GLEN ULLIN	1048.4	0.6034	1349.6	-70.9	1.2387	0.8567	91.1226	5.9876	0.5775	0.0342	0.0257	0.0022	0.0046	0	0.0015	0.1337	0.0135	9/10/2015	9/11/2015	9/11/2015 2:27:29 PM	
11587	GLEN ULLIN	1047.6	0.6026	1349.5	-74.5	1.2307	0.8485	91.2019	5.9822	0.5283	0.0307	0.0227	0.0028	0.0041	0	0.0008	0.1326	0.0135	9/11/2015	9/12/2015	9/12/2015 2:27:07 PM	
11587	GLEN ULLIN	1047.9	0.6028	1349.6	-75.3	1.2323	0.8496	91.1828	6.0094	0.5282	0.0319	0.0224	0.0029	0.004	0	0.0008	0.1202	0.0135	9/12/2015	9/13/2015	9/13/2015 2:27:37 PM	
11587	GLEN ULLIN	1052	0.6059	1351.5	-73.9	1.2378	0.8565	90.763	6.4066	0.5909	0.031	0.0214	0.0027	0.0036	0	0.0003	0.0474	0.0135	9/13/2015	9/14/2015	9/14/2015 2:27:52 PM	
11587	GLEN ULLIN	1051.7	0.606	1351	-73.3	1.2777	0.8636	90.7602	6.3828	0.5953	0.0327	0.0225	0.0029	0.0039	0	0.0006	0.0427	0.0135	9/14/2015	9/15/2015	9/15/2015 2:26:53 PM	
11587	GLEN ULLIN	1056.2	0.6089	1353.5	-71.5	1.3569	0.8124	90.1486	6.872	0.6774	0.0313	0.021	0.0025	0.0032	0	0	0.0594	0.0135	9/15/2015	9/16/2015	9/16/2015 2:27:49 PM	
11587	GLEN ULLIN	1058.2	0.6095	1355.5	-69.1	1.3208	0.7925	90.0739	6.957	0.7114	0.0382	0.0245	0.0033	0.0041	0	0.0005	0.0553	0.0135	9/16/2015	9/17/2015	9/17/2015 2:27:15 PM	
11587	GLEN ULLIN	1058.8	0.6103	1355.3	-65.7	1.3594	0.7964	89.9959	6.9227	0.7715	0.0436	0.0294	0.0038	0.0043	0	0.0014	0.0529	0.0135	9/17/2015	9/18/2015	9/18/2015 2:27:20 PM	
11587	GLEN ULLIN	1057.2	0.6093	1354.4	-69.2	1.3333	0.8148	90.1242	6.8833	0.7053	0.0353	0.0247	0.0031	0.0042	0	0.0009	0.0562	0.0135	9/18/2015	9/19/2015	9/19/2015 2:27:11 PM	
11587	GLEN ULLIN	1059.2	0.6108	1355.3	-69.1	1.3813	0.7908	89.8177	7.1742	0.7139	0.0334	0.0229	0.0028	0.0037	0	0.0004	0.0435	0.0135	9/19/2015	9/20/2015	9/20/2015 2:27:44 PM	
11587	GLEN ULLIN	1061.2	0.6121	1356.5	-68.5	1.3731	0.8023	89.5901	7.3486	0.7686	0.0309	0.0214	0.0023	0.003	0	0.0001	0.0425	0.0135	9/20/2015	9/21/2015	9/21/2015 2:28:52 PM	
11587	GLEN ULLIN	1062.5	0.6128	1357.3	-67.9	1.371	0.7994	89.4194	7.5027	0.7759	0.0311	0.0219	0.0021	0.0027	0	0	0.0579	0.0135	9/21/2015	9/22/2015	9/22/2015 2:27:03 PM	
11587	GLEN ULLIN	1055.7	0.6081	1353.8	-72.2	1.3601	0.7814	90.237	6.827	0.6615	0.0277	0.0189	0.0022	0.0029	0	0.0002	0.0655	0.0135	9/22/2015	9/23/2015	9/23/2015 2:28:08 PM	
11587	GLEN ULLIN	1057.5	0.6098	1354.2	-70.8	1.3917	0.7962	89.8944	7.1411	0.6422	0.0284	0.0215	0.0025	0.0036	0	0.0003	0.0626	0.0135	9/23/2015	9/24/2015	9/24/2015 2:28:51 PM	
11587	GLEN ULLIN	1059.1	0.6114	1354.5	-67.8	1.4366	0.8009	89.6819	7.1978	0.736	0.0353	0.0247	0.0031	0.0042	0	0.0008	0.061	0.0135	9/24/2015	9/25/2015	9/25/2015 2:28:21 PM	
11587	GLEN ULLIN	1057.2	0.6095	1354.1	-70	1.3708	0.8024	89.9297	7.0435	0.658	0.034	0.0226	0.0032	0.0042	0	0.0007	0.0641	0.0135	9/25/2015	9/26/2015	9/26/2015 2:28:44 PM	
11587	GLEN ULLIN	1060.6	0.6116	1356.1	-68.5	1.3741	0.8006	89.5622	7.3991	0.7078	0.0309	0.0224	0.0029	0.004	0	0.0004	0.0791	0.0135	9/26/2015	9/27/2015	9/27/2015 2:28:46 PM	
11587	GLEN ULLIN	1062.4	0.6129	1357	-68.1	1.3845	0.8002	89.3425	7.6057	0.7292	0.0303	0.0211	0.0027	0.0036	0	0.0001	0.0637	0.0135	9/27/2015	9/28/2015	9/28/2015 2:28:00 PM	
11587	GLEN ULLIN	1059.8	0.611	1355.8	-70.5	1.4149	0.7623	89.6149	7.4157	0.6623	0.026	0.0177	0.0021	0.0028	0	0	0.0631	0.0191	9/28/2015	9/29/2015	9/29/2015 2:28:23 PM	
11587	GLEN ULLIN	1058.8	0.6098	1355.8	-70.8	1.3499	0.7737	89.7597	7.2769	0.6302	0.0267	0.0193	0.0023	0.0031	0	0.0002	0.1191	0.0235	9/29/2015	9/30/2015	9/30/2015 2:28:51 PM	

30 record(s) retrieved

Zone 802

Watford City

01320

Watford City Border

01312

Watford City East Border

Weighted

Begin Date	End Date	BTU			BTU			AVG	
		MCF	DK	Zone 25	MCF	DK	Zone 43		
9/1/2015	9/2/2015	103	123	1.198	1	1	1.200	1.198	9/1/2015
9/2/2015	9/3/2015	100	120	1.198	0	0	1.205	1.198	9/2/2015
9/3/2015	9/4/2015	127	152	1.198	35	42	1.206	1.200	9/3/2015
9/4/2015	9/5/2015	96	115	1.198	1	1	1.155	1.198	9/4/2015
9/5/2015	9/6/2015	97	116	1.198	9	10	1.126	1.192	9/5/2015
9/6/2015	9/7/2015	101	121	1.198	0	0	1.127	1.198	9/6/2015
9/7/2015	9/8/2015	118	141	1.198	1	2	1.125	1.197	9/7/2015
9/8/2015	9/9/2015	119	143	1.198	0	0	1.104	1.198	9/8/2015
9/9/2015	9/10/2015	117	140	1.198	2	2	1.102	1.196	9/9/2015
9/10/2015	9/11/2015	140	168	1.198	0	0	1.101	1.198	9/10/2015
9/11/2015	9/12/2015	113	136	1.198	0	0	1.075	1.198	9/11/2015
9/12/2015	9/13/2015	103	123	1.198	0	0	1.074	1.198	9/12/2015
9/13/2015	9/14/2015	114	136	1.198	0	0	1.079	1.198	9/13/2015
9/14/2015	9/15/2015	108	129	1.198	0	0	1.081	1.198	9/14/2015
9/15/2015	9/16/2015	126	151	1.198	2	2	1.078	1.196	9/15/2015
9/16/2015	9/17/2015	124	149	1.198	0	0	1.078	1.198	9/16/2015
9/17/2015	9/18/2015	148	177	1.198	0	0	1.078	1.198	9/17/2015
9/18/2015	9/19/2015	147	176	1.198	5	6	1.077	1.194	9/18/2015
9/19/2015	9/20/2015	120	144	1.198	0	0	1.077	1.198	9/19/2015
9/20/2015	9/21/2015	114	136	1.198	0	0	1.087	1.198	9/20/2015
9/21/2015	9/22/2015	122	147	1.198	0	0	1.084	1.198	9/21/2015
9/22/2015	9/23/2015	155	185	1.198	10	11	1.083	1.191	9/22/2015
9/23/2015	9/24/2015	158	189	1.198	0	0	1.083	1.198	9/23/2015
9/24/2015	9/25/2015	123	147	1.198	0	0	1.078	1.198	9/24/2015
9/25/2015	9/26/2015	102	122	1.198	0	0	1.070	1.198	9/25/2015
9/26/2015	9/27/2015	96	115	1.198	0	0	1.071	1.198	9/26/2015
9/27/2015	9/28/2015	126	151	1.198	0	0	1.075	1.198	9/27/2015
9/28/2015	9/29/2015	165	197	1.198	1	1	1.067	1.197	9/28/2015
9/29/2015	9/30/2015	135	161	1.198	0	0	1.078	1.198	9/29/2015
9/30/2015	10/1/2015	113	136	1.198	0	0	1.074	1.198	9/30/2015
		3,630	4,346		67	78	1.0999	1.1973	

NORTH DAKOTA HEATING VALUE ZONES		
<i>ZONES</i>	<i>MEASURING DEVICE</i>	<i>LOCATION</i>
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	Monthly Sampler	Taylor Take-Off – Glen Ullin Comp
32	Chromatograph	Cabin Creek – Dickinson
33	Chromatograph	Killdeer
34	Monthly Sampler	Bowman Area
600	Chromatograph	Hankinson Area
610	Monthly Sampler & Chromatograph	Watford City
802	Chromatograph	Linton

MONTANA DAKOTA UTILITIES CO
 NORTH DAKOTA
 HEATING VALUE DATA

STATE	ZONE	ZONE BOUNDARY	12 MONTH AVERAGE	APRIL 15	MAR 15	FEB 15	JAN 15	DEC 14	NOV 14	OCT 14	SEPT 14	AUG 14	JULY 14	JUNE 14	MAY 14	ZONE
MT/ND	211	Sidney Area	1210	1204	1205	1209	1215	1214	1215	1211	1204	1209	1212	1207	1212	211
ND	24	Williston Area	1181	1174	1171	1180	1173	1180	1182	1190	1189	1186	1184	1183	1180	24
ND	25	Watford City Border	1211	1212	1207	1196	1203	1201	1199	1207	1217	1205	1219	1226	1241	25
ND/MT	241	Fairview Area	1202	1198	1196	1202	1203	1203	1203	1197	1205	1201	1208	1202	1204	241
ND	261	Williston - Tioga - Minot Line	1043	1021	992	1004	1015	1035	1058	1021	1027	1013	1094	1115	1118	261
ND	262	Minot Area	1165	1188	1175	1173	1173	1169	1171	1155	1150	1149	1154	1166	1161	262
ND	263	Tioga - Portal	1093	1090	1084	1121	1097	1094	1097	1103	1103	1089	1098	1078	1062	263
ND	264	Williston - Ray	1181	1174	1171	1180	1173	1180	1182	1190	1189	1186	1184	1183	1180	264
ND	265	North Tioga Transfer - Portal	1190	1183	1187	1197	1195	1190	0	0	0	0	0	0	0	265
ND	271	Bismarck - Cleveland	1158	1186	1171	1139	1151	1160	1159	1155	1147	1148	1152	1164	1162	271
ND	272	Cleveland - Mapleton	1157	1185	1169	1137	1149	1157	1157	1154	1146	1148	1151	1163	1162	272
ND	273	Cleveland - Grafton	1156	1182	1167	1137	1149	1158	1158	1154	1146	1148	1151	1163	1162	273
ND	28	Bismarck - Cabin Creek	1136	1170	1133	1089	1101	1116	1118	1140	1147	1148	1151	1163	1155	28
ND	31	Dickinson Area	1142	1136	1139	1091	1104	1122	1125	1154	1170	1174	1176	1171	1140	31
ND	311	Taylor Take-Off - Glen Ullin Comp	1114	1096	1115	1090	1094	1114	1121	1116	1130	1114	1131	1138	1105	311
ND/MT	32	Cabin Creek - Dickinson	1120	1118	1110	1079	1091	1103	1110	1144	1164	1134	1147	1134	1100	32
ND	33	Killdeer	1180	1180	1179	1177	1177	1178	1176	1180	1182	1182	1183	1183	1183	33
ND	34	Bowman Area	1109	1123	1099	1068	1049	1089	1116	1136	1128	1127	1130	1119	1123	34
ND	610	MDU-Watford City BTU	1198	1202	1192	1190	1189	1195	1193	1205	1210	1204	1204	1195		
ND	802	Linton	1054	1064	1054	1054	1056	1055	1054	1051	1054	1060	1050	1047	1047	802
ND	903	Hettinger Propane	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	903

MONTANA DAKOTA UTILITIES CO
 NORTH DAKOTA
 HEATING VALUE DATA

STATE	ZONE	ZONE BOUNDARY	12 MONTH AVERAGE	MAY 15	APRIL 15	MAR 15	FEB 15	JAN 15	DEC 14	NOV 14	OCT 14	SEPT 14	AUG 14	JULY 14	JUNE 14	ZONE
MT/ND	211	Sidney Area	1209	1202	1204	1205	1209	1215	1214	1215	1211	1204	1209	1212	1207	211
ND	24	Williston Area	1183	1206	1174	1171	1180	1173	1180	1182	1190	1189	1186	1184	1183	24
ND	25	Watford City Border	1209	1220	1212	1207	1196	1203	1201	1199	1207	1217	1205	1219	1226	25
ND/MT	241	Fairview Area	1201	1197	1198	1196	1202	1203	1203	1203	1197	1205	1201	1208	1202	241
ND	261	Williston - Tioga - Minot Line	1033	1006	1021	992	1004	1015	1035	1058	1021	1027	1013	1094	1115	261
ND	262	Minot Area	1168	1188	1188	1175	1173	1173	1169	1171	1155	1150	1149	1154	1166	262
ND	263	Tioga - Portal	1095	1090	1090	1084	1121	1097	1094	1097	1103	1103	1089	1098	1078	263
ND	264	Williston - Ray	1182	1189	1174	1171	1180	1173	1180	1182	1190	1189	1186	1184	1183	264
ND	265	North Tioga Transfer - Portal	1190	1197	1183	1187	1197	1195	1190	0	0	0	0	0	0	265
ND	271	Bismarck - Cleveland	1160	1189	1186	1171	1139	1151	1160	1159	1155	1147	1148	1152	1164	271
ND	272	Cleveland - Mapleton	1159	1188	1185	1169	1137	1149	1157	1157	1154	1146	1148	1151	1163	272
ND	273	Cleveland - Grafton	1159	1189	1182	1167	1137	1149	1158	1158	1154	1146	1148	1151	1163	273
ND	28	Bismarck - Cabin Creek	1139	1189	1170	1133	1089	1101	1116	1118	1140	1147	1148	1151	1163	28
ND	31	Dickinson Area	1141	1129	1136	1139	1091	1104	1122	1125	1154	1170	1174	1176	1171	31
ND	311	Taylor Take-Off - Glen Ullin Comp	1119	1171	1096	1115	1090	1094	1114	1121	1116	1130	1114	1131	1138	311
ND/MT	32	Cabin Creek - Dickinson	1125	1185	1118	1110	1079	1091	1103	1110	1144	1164	1134	1147	1134	32
ND	33	Killdeer	1180	1183	1180	1179	1177	1177	1178	1176	1180	1182	1182	1183	1183	33
ND	34	Bowman Area	1110	1130	1123	1099	1088	1049	1089	1116	1136	1128	1127	1130	1119	34
ND	610	MDU-Watford City BTU	1200	1216	1202	1192	1190	1189	1195	1193	1205	1210	1204	1204	1195	
ND	802	Linton	1055	1064	1064	1054	1054	1056	1055	1054	1051	1054	1060	1050	1047	802
ND	903	Hettinger Propane	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	903

MONTANA DAKOTA UTILITIES CO
 NORTH DAKOTA
 HEATING VALUE DATA

STATE	ZONE	ZONE BOUNDARY	12 MONTH AVERAGE	JUNE 15	MAY 15	APRIL 15	MAR 15	FEB 15	JAN 15	DEC 14	NOV 14	OCT 14	SEPT 14	AUG 14	JULY 14	ZONE
MT/ND	211	Sidney Area	1209	1205	1202	1204	1205	1209	1215	1214	1215	1211	1204	1209	1212	211
ND	24	Williston Area	1184	1187	1206	1174	1171	1180	1173	1180	1182	1190	1189	1186	1184	24
ND	25	Watford City Border	1208	1207	1220	1212	1207	1196	1203	1201	1199	1207	1217	1205	1219	25
ND/MT	241	Fairview Area	1201	1195	1197	1198	1196	1202	1203	1203	1203	1197	1205	1201	1208	241
ND	261	Williston - Tioga - Minot Line	1026	1026	1006	1021	992	1004	1015	1035	1058	1021	1027	1013	1094	261
ND	262	Minot Area	1169	1185	1188	1188	1175	1173	1173	1169	1171	1155	1150	1149	1154	262
ND	263	Tioga - Portal	1098	1107	1090	1090	1084	1121	1097	1094	1097	1103	1103	1089	1098	263
ND	264	Williston - Ray	1182	1187	1189	1174	1171	1180	1173	1180	1182	1190	1189	1186	1184	264
ND	265	North Tioga Transfer - Portal	1189	1187	1187	1183	1187	1195	1195	1190	0	0	0	0	0	265
ND	271	Bismarck - Cleveland	1162	1186	1189	1186	1171	1139	1151	1160	1159	1155	1147	1148	1152	271
ND	272	Cleveland - Mapleton	1161	1186	1188	1185	1169	1137	1149	1157	1157	1154	1146	1148	1151	272
ND	273	Cleveland - Grafton	1160	1185	1189	1182	1167	1137	1149	1158	1158	1154	1146	1148	1151	273
ND	28	Bismarck - Cabin Creek	1141	1186	1189	1170	1133	1089	1101	1116	1118	1140	1147	1148	1151	28
ND	31	Dickinson Area	1137	1127	1129	1136	1139	1091	1104	1122	1125	1154	1170	1174	1176	31
ND	311	Taylor Take-Off - Glen Ullin Comp	1122	1168	1171	1096	1115	1090	1094	1114	1121	1116	1130	1114	1131	311
ND/MT	32	Cabin Creek - Dickinson	1128	1169	1165	1118	1110	1079	1091	1103	1110	1144	1164	1134	1147	32
ND	33	Killdeer	1180	1183	1183	1180	1179	1177	1177	1178	1176	1180	1182	1182	1183	33
ND	34	Bowman Area	1110	1121	1130	1123	1099	1068	1049	1089	1116	1136	1128	1127	1130	34
ND	610	MDU-Watford City BTU	1198	1175	1216	1202	1192	1190	1189	1195	1193	1205	1210	1204	1204	
ND	802	Linton	1057	1068	1064	1064	1054	1054	1056	1055	1054	1051	1054	1060	1050	802
ND	903	Hettinger Propane	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	903

MONTANA DAKOTA UTILITIES CO
 NORTH DAKOTA
 HEATING VALUE DATA

STATE	ZONE	ZONE BOUNDARY	12 MONTH AVERAGE	JULY 15	JUNE 15	MAY 15	APRIL 15	MAR 15	FEB 15	JAN 15	DEC 14	NOV 14	OCT 14	SEPT 14	AUG 14	ZONE
MT/ND	211	Sidney Area	1208	1199	1205	1202	1204	1205	1209	1215	1214	1215	1211	1204	1209	211
ND	24	Williston Area	1184	1185	1187	1206	1174	1171	1180	1173	1180	1182	1190	1189	1186	24
ND	25	Walford City Border	1205	1188	1207	1220	1212	1207	1196	1203	1201	1199	1207	1217	1205	25
ND/MT	241	Fairview Area	1200	1195	1195	1197	1198	1196	1202	1203	1203	1203	1197	1205	1201	241
ND	261	Williston - Tioga - Minot Line	1021	1028	1026	1006	1021	992	1004	1015	1035	1058	1021	1027	1013	261
ND	262	Minot Area	1173	1201	1185	1188	1188	1175	1173	1173	1169	1171	1155	1150	1149	262
ND	263	Tioga - Portal	1100	1121	1107	1090	1090	1084	1121	1097	1094	1097	1103	1103	1089	263
ND	264	Williston - Ray	1181	1170	1187	1189	1174	1171	1180	1173	1180	1182	1190	1189	1186	264
ND	265	North Tioga Transfer - Portal	1190	1191	1187	1187	1183	1187	1197	1195	1190	0	0	0	0	265
ND	271	Bismarck - Cleveland	1166	1201	1186	1189	1186	1171	1139	1151	1160	1159	1155	1147	1148	271
ND	272	Cleveland - Mapleton	1165	1200	1186	1188	1185	1169	1137	1149	1157	1157	1154	1146	1148	272
ND	273	Cleveland - Grafton	1164	1200	1185	1189	1182	1167	1137	1149	1158	1158	1154	1146	1148	273
ND	28	Bismarck - Cabin Creek	1145	1201	1186	1189	1170	1133	1089	1101	1116	1118	1140	1147	1148	28
ND	31	Dickinson Area	1138	1181	1127	1129	1136	1139	1091	1104	1122	1125	1154	1170	1174	31
ND	311	Taylor Take-Off - Glen Ullin Comp	1127	1200	1168	1171	1096	1115	1090	1094	1114	1121	1116	1130	1114	311
ND/MT	32	Cabin Creek - Dickinson	1131	1181	1169	1165	1118	1110	1079	1091	1103	1110	1144	1164	1134	32
ND	33	Killdeer	1180	1185	1183	1183	1180	1179	1177	1177	1178	1176	1180	1182	1182	33
ND	34	Bowman Area	1114	1176	1121	1130	1123	1099	1068	1049	1089	1116	1136	1128	1127	34
ND	610	MDU-Walford City BTU	1193	1145	1175	1216	1202	1192	1190	1189	1195	1193	1205	1210	1204	
ND	802	Linton	1058	1057	1068	1064	1064	1054	1054	1055	1055	1054	1051	1054	1050	802
ND	903	Hettinger Propane	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	903

MONTANA DAKOTA UTILITIES CO
 NORTH DAKOTA
 HEATING VALUE DATA

STATE	ZONE	ZONE BOUNDARY	12 MONTH AVERAGE	AUG 15	JULY 15	JUNE 15	MAY 15	APRIL 15	MAR 15	FEB 15	JAN 15	DEC 14	NOV 14	OCT 14	SEPT 14	ZONE
MT/ND	211	Sidney Area	1207	1196	1199	1205	1202	1204	1205	1209	1215	1214	1215	1211	1204	211
ND	24	Williston Area	1183	1179	1185	1187	1206	1174	1171	1180	1173	1180	1182	1190	1189	24
ND	25	Watford City Border	1205	1198	1188	1207	1220	1212	1207	1196	1203	1201	1199	1207	1217	25
ND/MT	241	Fairview Area	1199	1188	1195	1195	1197	1198	1196	1202	1203	1203	1203	1197	1205	241
ND	261	Williston - Tioga - Minot Line	1021	1015	1028	1026	1006	1021	992	1004	1015	1035	1058	1021	1027	261
ND	262	Minot Area	1177	1201	1201	1185	1188	1188	1175	1173	1173	1169	1171	1155	1150	262
ND	263	Tioga - Portal	1102	1117	1121	1107	1090	1090	1084	1121	1097	1094	1097	1103	1103	263
ND	264	Williston - Ray	1178	1146	1170	1187	1189	1174	1171	1180	1173	1180	1182	1190	1189	264
ND	265	North Tioga Transfer - Portal	1189	1188	1191	1187	1187	1183	1187	1197	1195	1190	0	0	0	265
ND	271	Bismarck - Cleveland	1170	1199	1201	1186	1189	1186	1171	1139	1151	1160	1159	1155	1147	271
ND	272	Cleveland - Mapleton	1169	1199	1200	1186	1188	1185	1169	1137	1149	1157	1157	1154	1146	272
ND	273	Cleveland - Grafton	1169	1199	1200	1185	1189	1182	1167	1137	1149	1158	1158	1154	1146	273
ND	28	Bismarck - Cabin Creek	1149	1200	1201	1186	1189	1170	1133	1089	1101	1116	1118	1140	1147	28
ND	31	Dickinson Area	1135	1145	1181	1127	1129	1136	1139	1091	1104	1122	1125	1154	1170	31
ND	311	Taylor Take-Off - Glen Ullin Comp	1131	1158	1200	1168	1171	1096	1115	1090	1094	1114	1121	1116	1130	311
ND/MT	32	Cabin Creek - Dickinson	1134	1173	1181	1169	1165	1118	1110	1079	1091	1103	1110	1144	1164	32
ND	33	Killdeer	1181	1191	1185	1183	1183	1180	1179	1177	1177	1178	1176	1160	1182	33
ND	34	Bowman Area	1114	1133	1176	1121	1130	1123	1099	1068	1049	1089	1116	1136	1128	34
ND	610	MDU-Watford City BTU	1192	1197	1145	1175	1216	1202	1192	1190	1189	1195	1193	1205	1210	
ND	802	Linton	1057	1055	1057	1068	1064	1064	1054	1054	1056	1055	1054	1051	1054	802
ND	903	Hettinger Propane	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	903

MONTANA DAKOTA UTILITIES CO
 NORTH DAKOTA
 HEATING VALUE DATA

STATE	ZONE	ZONE BOUNDARY	12 MONTH AVERAGE	SEPT 15	AUG 15	JULY 15	JUNE 15	MAY 15	APRIL 15	MAR 15	FEB 15	JAN 15	DEC 14	NOV 14	OCT 14	ZONE
MT/ND	211	Sidney Area	1206	1193	1196	1199	1205	1202	1204	1205	1209	1215	1214	1215	1211	211
ND	24	Williston Area	1181	1166	1179	1185	1187	1206	1174	1171	1180	1173	1180	1182	1190	24
ND	25	Walford City Border	1203	1198	1198	1188	1207	1220	1212	1207	1196	1203	1201	1199	1207	25
ND/MT	241	Fairview Area	1196	1177	1188	1195	1195	1197	1198	1196	1202	1203	1203	1203	1197	241
ND	261	Williston - Tioga - Minot Line	1022	1042	1015	1028	1026	1006	1021	992	1004	1015	1035	1058	1021	261
ND	262	Minot Area	1182	1201	1201	1201	1185	1188	1188	1175	1173	1173	1169	1171	1155	262
ND	263	Tioga - Portal	1102	1104	1117	1121	1107	1090	1090	1084	1121	1097	1094	1097	1103	263
ND	264	Williston - Ray	1175	1154	1146	1170	1187	1189	1174	1171	1180	1173	1180	1182	1190	264
ND	265	North Tioga Transfer - Portal	1189	1188	1188	1191	1187	1187	1183	1187	1197	1195	1190	0	0	265
ND	271	Bismarck - Cleveland	1175	1203	1199	1201	1186	1189	1186	1171	1139	1151	1160	1159	1155	271
ND	272	Cleveland - Mapleton	1174	1202	1199	1200	1186	1188	1185	1169	1137	1149	1157	1157	1154	272
ND	273	Cleveland - Grafton	1173	1203	1199	1200	1185	1189	1182	1167	1137	1149	1158	1158	1154	273
ND	28	Bismarck - Cabin Creek	1154	1203	1200	1201	1186	1189	1170	1133	1089	1101	1116	1118	1140	28
ND	31	Dickinson Area	1135	1161	1145	1181	1127	1129	1135	1139	1091	1104	1122	1125	1154	31
ND	311	Taylor Take-Off - Glen Ullin Comp	1134	1168	1158	1200	1168	1171	1096	1115	1090	1094	1114	1121	1116	311
ND/MT	32	Cabin Creek - Dickinson	1135	1176	1173	1181	1169	1165	1118	1110	1079	1091	1103	1110	1144	32
ND	33	Killdeer	1181	1186	1191	1185	1183	1183	1180	1179	1177	1177	1178	1176	1180	33
ND	34	Bowman Area	1105	1025	1133	1176	1121	1130	1123	1099	1068	1049	1089	1116	1136	34
ND	610	MDU-Walford City BTU	1191	1197	1197	1145	1175	1216	1202	1192	1190	1189	1195	1193	1205	
ND	802	Linton	1057	1055	1055	1057	1068	1064	1064	1054	1054	1056	1055	1054	1051	802
ND	903	Heltinger Propane	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	2549	903

**THERMAL ZONE VARIANCE
DOCUMENTATION**

April 2015

<i>ZONE</i>	<i>BTU VARIANCE</i>	<i>REASON</i>
261	29	Change in Supply Receipt
28	37	Change in Direction of Gas Flow
34	24	Change in Direction of Gas Flow

**THERMAL ZONE VARIANCE
DOCUMENTATION**

May 2015

<i>ZONE</i>	<i>BTU VARIANCE</i>	<i>REASON</i>
24	32	Change in Volume and/or Direction of Gas Flow
311	75	Change in Volume and/or Direction of Gas Flow
32	47	Change in Volume and/or Direction of Gas Flow

**THERMAL ZONE VARIANCE
DOCUMENTATION**

June 2015

<i>ZONE</i>	<i>BTU VARIANCE</i>	<i>REASON</i>
261	20	Change in Volume at Receipt Point

**THERMAL ZONE VARIANCE
DOCUMENTATION**

July 2015

<i>ZONE</i>	<i>BTU VARIANCE</i>	<i>REASON</i>
43	30	Operational Changes at Receipt Point
311	32	Supply Change
31	54	Supply Change
34	55	Supply Change

**THERMAL ZONE VARIANCE
DOCUMENTATION**

August 2015

<i>ZONE</i>	<i>BTU VARIANCE</i>	<i>REASON</i>
43	33	Supply Changes
264	-24	Operational/Maintenance Changes
311	-42	Direction/Volume Changes
31	-36	Direction/Volume Changes
34	-43	Volume Changes

**THERMAL ZONE VARIANCE
DOCUMENTATION**

September 2015

<i>ZONE</i>	<i>BTU VARIANCE</i>	<i>REASON</i>
43	-62	Operational Changes
261	27	Operational Changes
34	-108	Operational/Directional Changes