



September 2, 2014

Burl W. Haar Executive Secretary Minnesota Public Utilities Commission 121 7th Place East, Suite 350 St. Paul, Minnesota 55101-2147

RE: Comments of the Minnesota Department of Commerce, Division of Energy Resources

Docket No. G022/M-14-651

Dear Dr. Haar:

Attached are the *Comments* of the Minnesota Department of Commerce, Division of Energy Resources (Department) in the following matter:

A Request by Greater Minnesota Gas, Inc. (Greater Minnesota or the Company) for Approval by the Minnesota Public Utilities Commission (Commission) of a Change in Contract Demand Entitlement Units Effective November 1, 2014.

The filing was submitted on July 31, 2014. The petitioner is:

Kristine A. Anderson Corporate Attorney Greater Minnesota Gas, Inc. 202 South Main Street, P.O. Box 68 Le Sueur, Minnesota 56058

The Department recommends that the Commission:

- Approve Greater Minnesota's proposed level of demand entitlements, subject to any possible changes in anticipated entitlements between the filing of these *Comments* and November 1, 2014, as shown in the Company's *Petition*; and
- Allow Greater Minnesota to recover associated demand costs, subject to any possible changes in anticipated entitlements between the filing of these *Comments* and November 1, 2014, through the monthly Purchased Gas Adjustment effective November 1, 2014.

The Department also recommends that the Commission require Greater Minnesota to provide additional information in future demand entitlement filings, as detailed in the body of these *Comments*, and that Greater Minnesota make a supplemental filing in this docket on, or about, November 1, 2014 detailing final costs.

The Department is available to answer any questions that the Commission may have.

Sincerely,

/s/ ADAM J. HEINEN Rates Analyst 651-539-1825

AJH/It Attachment



BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

COMMENTS OF THE MINNESOTA DEPARTMENT OF COMMERCE DIVISION OF ENERGY RESOURCES

DOCKET NO. G022/M-14-651

I. BACKGROUND

Pursuant to Minnesota Rules 7825.2910, subpart 2, Greater Minnesota Gas, Inc. (Greater Minnesota or the Company) filed a *Petition for Approval of Changes in Contract Demand Entitlements* (*Petition*) on July 31, 2014 with the Minnesota Public Utilities Commission (Commission). The Company proposed that the changes in its demand entitlements be effective on November 1, 2014. Greater Minnesota made its last demand entitlement filing (Docket No. G022/M-13-730) early, and on its own volition, in response to the Minnesota Department of Commerce, Division of Energy Resources' (Department) request of other gas utilities that these filings be made during the summer. The Commission subsequently required the Company to file future demand entitlements filings by August 1 of each year in Ordering Point No. 3 of its April 25, 2014 *Order* in Docket No. G022/M-13-730. Greater Minnesota complied with this ordering point.

In its *Petition*, Greater Minnesota requested that the Commission accept the following changes in the Company's overall level of contracted capacity.

Greater Minnesota's Propose	ed Total Entitlement Changes
Type of Entitlement	Proposed Changes Increase (decrease) (Dekatherms (Dth)) ¹
Viking Forward Haul/Emerson	100

The Company's proposal would increase the Company's proposed design-day (winter) capacity by 100 Dth/day from 9,559 Dth/day to 9,659 Dth/day.

The Company did not add additional capacity specifically for non-peak periods. Greater Minnesota did, however, modify the terms of its Viking Forward Haul/Emerson agreement. The Company first entered into this agreement for the 2013-2014 heating season, and the contracted demand was only available for a four-month period during the heating season. Greater Minnesota has modified the agreement and these volumes are now available for the

¹ Dekatherms (Dth).

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entire calendar year; as such, the Company can call on these volumes to serve both peak and non-peak demand.

The Department discusses the various effects of the entitlement changes on the Company's rates for different customer classes below; however, Greater Minnesota's proposal would increase capacity and decrease demand rates for residential heating customers by \$7.66 for customers using 101 Dth per year.²

The Company describes the factors contributing to the need for changing demand entitlements as follows:

- Insure that the Company has sufficient reserve to meet its customers' need; and
- Continued, expected, growth in the number of customers during the upcoming heating season, although not at the same level as previous heating seasons.

The Department reviews Greater Minnesota's *Petition* in greater detail below.

II. THE DEPARTMENT'S ANALYSIS OF THE COMPANY'S PROPOSAL

The Department's analysis of the Company's request includes the following sections:

- the proposed overall demand entitlement level;
- the design-day requirement;
- the reserve margin; and
- the PGA cost recovery proposal.

A. THE COMPANY'S DEMAND ENTITLEMENT LEVEL

1. Proposed Overall Demand Entitlement Level

As indicated in DOC Attachment 2, the Company proposed to increase its total entitlement level in Dth as follows:

Previous	Proposed	Entitlement	% Change From
Entitlement	Entitlement	Changes	Previous
(Dth)	(Dth)	(Dth)	Year
9,559	9,659	100	1.05

The Department analyzes below the proposed changes, the proposed design day requirement, and proposed reserve margin. The Department concludes that the Company's proposed recovery of overall demand costs is reasonable.

² The Department notes that Greater Minnesota used an average residential customer consumption figure of 87.1 Dth per year in last year's demand entitlement filing.

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2. Design-Day Requirement

In last heating season's demand entitlement filing, Greater Minnesota employed a two-part design-day process as the result of adding new service areas. Given a decrease in overall system growth and the presence of historical data for the new service areas, the Company did not employ a two-part process in this analysis, but rather relied strictly upon regression analysis to estimate its design-day throughput.

The Company used Ordinary Least Squares (OLS) regression to calculate the projected design day for Greater Minnesota's service territory using four separate regression models, one for each area the Company serves (Mankato, Faribault, Shakopee, and Swanville), assuming area-specific weather parameters and Town Border Station (TBS) data. The Company's analysis was based on actual daily heating season TBS throughput and weather data over the period November 1, 2011 to March 31, 2014 for the Mankato, Faribault, and Shakopee models and actual daily TBS throughput and weather data from November 1, 2013 to March 31, 2014 for the Swanville model. From these four separate regression equations, the Company estimated baseload usage and average use per heating degree day (HDD). Greater Minnesota provided a summary of its regression outputs in Attachment A, Page 2 of 3, of its *Petition*, but not its input data; these data were provided in an informal information request (DOC Attachment 3). While reviewing Greater Minnesota's model outputs and regression results, the Department observed two issues.

First, the Department observed that two of Greater Minnesota's regression models (Fairbault and Shakopee) estimate negative baseload (non-heat sensitive load). At first glance, this result appears inappropriate because baseload, by definition, is a specific, positive amount. However, it appears that the decision to report negative baseload is solely a result of the regression outputs, and not a real expectation. When interpreting a regression output for gas consumption, the constant term is analogous to baseload; however, it is possible that a model is correctly specified, and appropriate, but still produces a negative constant value.

When the regression output returns a negative value for the constant, it is inappropriate to use this term as an estimate for baseload. The Department observed negative baseload in the Company's last demand entitlement filing³ and recommended that Greater Minnesota use different baseload estimates when regression models produced negative figures. As noted above, the Company continued to use negative baseload figures in its 2014-2015 design-day calculations.

The Department concludes that Greater Minnesota should have, instead, estimated baseload consumption, in this instance and any other time when the Company's regression results report a negative term for the constant, by examining actual consumption data from the summer months. Summer data was not used in the Company's analysis, however, the Department reviewed the regression input data in DOC Attachment 3 and identified three days in March 2012 where zero HDDs were registered. These days with zero HDDs allow the

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³ Docket No. G022/M-13-730.

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Department to approximate baseload usage for the models that had negative values. When the average throughput of the days with zero HDDs were included in the regression equations with negative baseload, the resulting calculated design-day for the upcoming heating season is approximately 450 Dkt/day greater than the Company's calculation (DOC Attachment 4). This result suggests that Greater Minnesota's regression analysis underestimated peak-day consumption.⁴

Second, the Department reviewed the Company's output data from its regression models and compared the results to actual TBS throughput data. Based on these data, the Department notes that Greater Minnesota's regression models consistently under-estimate consumption. This result raises concerns about the regression models and their ability to estimate design-day consumption. Further, the result is a strong indication that the estimated design-day throughput, based on the regression model, may be too low. Underestimating consumption is a serious issue because it can put system reliability at risk if the reserve margin is too small. The model bias toward under-estimation strongly suggests that there is a factor having an upward influence on sales that Greater Minnesota has failed to model. The under-estimation of sales may be related to something simple, such as the day of the week, the temperature on proceeding days, or something more complex that is difficult to model (e.g., Greater Minnesota's small system size).

Although these issues should be addressed by the Company, they may not have a significant impact on reliability during the upcoming heating season. The potential impact of these issues can be estimated by looking at historical peak day data. The weather conditions during the most recent heating season were unusually harsh and resulted in near peak day weather⁵ and, in terms of the Company, the past heating season resulted in an all-time system peak sendout. At Attachment A, Page 3 of 3, in the Company's *Petition*, Greater Minnesota stated that its peak day occurred on January 6, 2014 at 82 HDD and resulted in a firm sales throughput of 7,730 Dth/Day. Since the Company's peak day occurred at a temperature warmer than 90 HDD, the overall system throughput on a 90 HDD peak day would be higher. Using historical throughput data from the peak day during the last heating season, baseload consumption based on historical data (as discussed above), and expected customer growth for the upcoming heating season, the Department estimated Greater Minnesota's potential all-time peak day consumption (DOC Attachment 4). The Department's method results in an estimated 90 HDD peak day sendout of 9,423 Dth/day, which is 454 Dth/day greater than Greater Minnesota's design-day figure.

Despite the higher calculated throughput value, the Department notes that its calculation is still lower than Greater Minnesota's total procured entitlement of 9,659 Dkt/day, which

⁴ It is important to note that combining the average, actual baseload consumption with the slope value (weather sensitive change in consumption) of the regression equation is a rough approximation. If a different base figure is included in a regression output, it is likely that the slope value will also be different; as such, the Department notes that its calculation in DOC Attachment 4 should not be considered a robust calculation of design-day usage but, rather, an illustration of the issues associated with using negative baseload in design-day calculations.

 $^{^5}$ Peak day weather, in a demand entitlement filing, is typically defined as an average temperature of -25F (90 HDD) for 24 hours.

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suggests that, despite the issues with the Company's design-day estimates, the Company has sufficient entitlements to ensure firm reliability on a peak day.

The design-day issues identified above are a concern; however, the Department does not believe that the Company is intentionally under-estimating its design-day. Rather, the nature of the Company's system may be a significant factor in the difficulty in modeling Greater Minnesota's design day. As discussed in previous demand entitlement filings, Greater Minnesota is a small, relatively fast growing natural gas utility that serves smaller communities and areas throughout rural Minnesota. The small size of the utility, coupled with higher growth rates, can make regression results unstable year-to-year because new customer groups can have a significant impact on estimated peak-day usage, especially compared to other larger utilities.

Despite these shortcomings with regression analysis as it relates to the Greater Minnesota system, the technique still has its advantages. One such advantage is design-day regression analyses are typically based on newer or updated data, while design-day analyses based solely on historical, mathematically based techniques (e.g., historical day modified to reflect current system characteristics) can become outdated and unreliable, especially if the peak-day sendout occurred many years in the past. There is no guarantee that any forecast technique will be accurate, but a way to validate, or confirm, the regression and historical peak-day-based methods is to regularly complete both analyses and compare the results. If the results are similar, it suggests that the throughput estimate is acceptable.

Based on the issues identified above, and Greater Minnesota's system characteristics, the Department recommends that the Commission require Greater Minnesota to:

- review its regression models and attempt to determine what factor, or factors, may be driving the under-estimation bias regarding consumption identified by the Department;
- explore other methods to estimate baseload consumption if regression models calculate negative baseload; and
- maintain, on a going-forward basis, a two-part design-day process involving both regression analysis and mathematical analysis based on the Company's historical all-time peak day sendout.

The Department is available to assist Greater Minnesota with any questions it may have regarding estimating its design-day through a two-part process or any other regression-related questions.

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3. Reserve Margin

As indicated in DOC Attachment 2, the reserve margin, as proposed by the Company, is as follows:

Total Entitlement (Dth)	Design-day Estimate (Dth)	Difference (Dth)	Reserve Margin %	% Change From Previous Year ⁶
9,659	8,969	690	7.69%	2.73%

The figures in the above table include design-day estimates from the Company's four service area regression models. The reserve margin is necessary since it provides an extra cushion which helps ensure firm reliability on a peak day; however, carrying too great a reserve margin results in customers paying higher demand costs than are necessary to provide reasonable service.

The Department has generally used a 5 percent reserve margin as an indicator of an adequate reserve margin, and the Company proposed a reserve margin that is above 5 percent. However; for Greater Minnesota, the Department has recommended, in previous demand entitlement filings, that the Commission accept higher reserve margins given the system dynamics, the higher level of growth experienced by this utility, and the fact that Greater Minnesota is a small utility with limited operational history. In addition, as noted in the previous section of these Comments, the Department identified potential issues with Greater Minnesota's design-day analysis which may understate peak day consumption and result in a lower effective reserve margin than calculated by Greater Minnesota. The Department estimated a peak day consumption figure of approximately 9,423 Dkt/day in the previous section. When this figure is compared to the Company's proposed total entitlement level, it results in a reserve margin of 2.51 percent. This revised amount is below the 5 percent rule-of-thumb; however, as noted above, the Department concludes that Greater Minnesota's total entitlement level should ensure firm deliverability on a peak day. As such, the Department concludes that the Company's proposed reserve margin is acceptable in this proceeding.

4. The Company's PGA Cost Recovery Proposal

The demand entitlement amounts listed in DOC Attachment 1 represent the demand entitlements for which the Company's firm customers will pay. In Attachment D Page 1 of 5 to its *Petition*, the Company compared its November 2013 Purchased Gas Adjustment (PGA), assuming no demand entitlement changes, to its November 2014 PGA with the Company's proposed changes as a means of calculating the bill impact of its proposed changes. According to the Company, Greater Minnesota's demand entitlement proposal would result in the following annual rate impacts:

⁶ As shown on DOC Attachment 2, the Company's average reserve margin since 1996 is 13.48 percent.

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- Annual bill decrease of \$7.66, or approximately 1.53 percent, for the average Residential customer consuming 101.1 Dth annually; and
- Annual bill decrease of \$229.51, or approximately 1.53 percent, for the average Commercial and Industrial Firm customer consuming 3,031.8 Dth annually.

Subject to possible changes in anticipated entitlements between now and November 1, 2014, the Department recommends that the Commission allow recovery of associated demand costs effective November 1, 2014. Given the possibility of changes in final entitlements, and costs, the Department also recommends that Greater Minnesota make a supplemental filing on November 1, 2014 with final demand costs.

III. THE DOC'S RECOMMENDATIONS

The Department recommends that the Commission:

- Approve Greater Minnesota's proposed level of demand entitlements, subject to any possible changes in anticipated entitlements between the filing of these *Comments* and November 1, 2014, as shown in the Company's *Petition*; and
- Allow Greater Minnesota to recover associated demand costs, subject to any possible changes in anticipated entitlements between the filing of these *Comments* and November 1, 2014, through the monthly Purchased Gas Adjustment effective November 1, 2014.

The Department also recommends that the Commission require Greater Minnesota to undertake the following prior to its next demand entitlement filing and detail its findings in its next demand entitlement filing:

- review of its regression models and attempt to determine what factor, or factors, may be driving the under-estimation bias regarding consumption identified by the Department;
- explore other methods to estimate baseload consumption if regression models calculate negative baseload; and
- maintain, on a going-forward basis, a two-part design-day process involving both regression analysis and mathematical analysis based on the Company's historical all-time peak-day sendout.

Given the possibility of changes in final entitlements, and costs, the Department also recommends that the Commission require Greater Minnesota to make a supplemental filing on, or about, November 1, 2014 detailing final demand entitlements and costs.

DOC Attachment 1 Details of Greater Minnesota Gas's Demand Entitlements Historical and Current Proposal

	5	Change in		Ű	Change in		Cha	Change in		ð	Change in			Change in
2010-2011 Heating Season	Quantity (Mcf. Quantity	vigue	2012-2013 Heating Season	Quantity (Mcf) Quantity	Villandi	2013-2014 Heating Season (Initial)	Quantity (Mcf) Quantity	utity	2013-2014 Heating Season (Final)	Quantity (Mcf) Quantity	vantity	2014-2015 Heating Season	Quantity (Mcf)	Quantity
TF-7 (AprOct.)	300	0	TF-7 (AprOct.)	•	(300)	TF-7 (AprOct.)	0	0	TF-7 (AprOct.)	0	0	TF-7 (AprOct.)	•	
TEX (Summer-AprOct.)	210	210	TFX (Summer-AprOct.)	210	0	TF12 (NovOct.)	630	420	TF12 (NovOct.)	210	(420)	TF12 (NovOct.)	210	_
TFX-5 (Nov-Mar.)	0	(300)	TEX-5 (NovMar.)	8	06	TFX-5 (NovMar.)	270	180	TEX-5 (NovMar.)	0	(270)	TFX-5 (NovMar.)	0	
TFX-5 (NovMar.)	4.244	0	TFX-5 (NovMar.)	6,344	2,100	TFX-5 (NovMar.)	6.844	200	TFX-5 (NovMar.)	6,344	(200)	TFX-5 (NovMar.)	6,344	
Viking Zone 1	0		Viking Zone 1	2,000	_	Vikina Zone 1	2.000	0	Viking Zone 1	2,000	0	Viking Zone 1	2,000	_
Delivery Contract			Viking Forward Haul/Emetson	1,300	_	Delivery Contract	950	0	Delivery Contract	920	0	Delivery Confract	950	
TEX (Apr. and Oct.)	200	200	Delivery Contract	950	_	TFX (Apr. and Oct.)	999	0	TFX (Apr. and Oct.)	965	0	TFX (Apr. and Oct.)	992	_
TFX (NovMar.)	300	300	TFX (Apr. and Oct.)	965	165	TFX (NovMar.)	0	0	TPS (NovMar.)	96	8	TF5 (NovMar.)	06)
TEX (Nov -Mar.)	200	200	TEX (NovMar.)	0	(300)	TFX (NovMar.)	0	(999)	Viking Forward Haul/Emerson	1,300	1,300	Viking Forward Haul/Emerson	1.400	Ď
SWS	1.300	1,300	TFX (NovMar.)	999	165	SMS	1,300	0	SMS	1,300	1,300	SMS	1,300	1.300
			SMS	1,300	0		_	_						
Total Demand Entitlement	5.044	200	Total Demand Entitlement	7,089	2,055	Total Demand Entitlement	9,359	2.260	Total Demand Entitlement	9,559	200	Total Demand Entitlement	9,659	100
Total Transportation	5,254	410	Total Transportation	11.559	6,305	Total Transportation	11.359	(200)	Total Transportation	11.559	200	Total Transportation	11,659	- 10
Total Annual Transportation		(300)	Total Annual Transportation		0	Total Annual Transportation		0	Total Annual Transportation	_	0	Total Annual Transportation		_
Total Seasonal Transport	5.044	200	Total Seasonal Transport	7,099	2,055	Total Seasonal Transport	8328	2.260	Total Seasonal Transport	8,559	200	Total Seasonal Transport	11.659	
Percent Annual on Greater Minnesota System	9,000	-6.19%	Percent Annual on Greater Minnesota System	0.00%	%00.0	Percent Annual on Greater Minnesota System	%000	2,00%	Percent Annual on Greater Minnesota System	0.00%	96000	Percent Annual on Greater Minnesota System	%00'0	9,0000
Domont Concent on Oranter Minnergh Surfam	260000	2 206%	Percent Sessonal on Greater Minnesota System	61.42%	34.59%	Percent Seasonal on Greater Minnesota System	3C 399K 2E	20 08%	Percent Seasonal on Greater Minnesota System	82.70%	0.30%	Percent Seasonal on Greater Minnesota System	100.00%	17,30%

DOC Attachment 2 Details of Greater Minnesota Gas's Demand Entitlements Historical and Current Proposal

	Number	Number of Firm Customers	ners	Des	Design Day Requirement	irement	Total Entit	Total Entitlement + Peak Shaving	lng	Reserve
	(£)	(2)	(9)	(4)	(2)	(9)	2013-2014 Heating Season	+ reak Shaving (8)	(6)	Margin (10)
Heating	Number of Design Day	Change from	% Change From	Design Day	Change from	% Change From	Total Entitlement	Change from	% Change From	% of Reserve
Season	Customers	Previous Year	Previous Year	(Mcf)	Previous Year	Previous Year	(Maf)	Previous Year	Previous Year	Margin [(7)-(4)]/(4)
2014-2015	5,900	595	11.22%	8,969	52	0.58%	69'6	100	1.05%	7.69%
2013-2014	5,305	531	11.12%	8,917	3,953	79.63%	9,559	4,350	83.51%	7.20%
2012-2013	4,774	558	13.24%	4,964	514	11.55%	5,209	165	3.27%	4.94%
2011-2012	4,216	296	7.55%	4,450	0	%00.0	5,044	0	%00.0	13.35%
2010-2011	3,920	198	5.32%	4,450	239	5.68%	5,044	200	11.00%	13.35%
2009-2010	3,722	162	4.55%	4,211	(71)	-1.66%	4,544	300	7.07%	7.91%
2008-2009	3,560	182	5.39%	4,282	566	15,23%	4,244	244	6.10%	-0.89%
2007-2008	3,378	170	5.30%	3,716	166	4.68%	4,000	350	9.59%	7.64%
2006-2007	3,208	237	7.98%	3,550	583	19.65%	3,650	350	10.61%	2.82%
2005-2006	2,971	290	10.82%	2,967	270	10.01%	3,300	300	10.00%	11.22%
2004-2005	2,681	336	14.33%	2,697	269	34.85%	3,000	009	25.00%	11.23%
2003-2004	2,345	181	8.36%	2,000	(200)	%60'6-	2,400	(200)	-7.69%	20.00%
2002-2003	2,164	300	16.09%	2,200	400	22.22%	2,600	400	18.18%	18.18%
2001-2002	1,864	301	19.26%	1,800	400	28.57%	2,200	200	29.41%	22.22%
2000-2001	1,563	393	33.59%	1,400	300	27.27%	1,700	300	21.43%	21.43%
1999-2000	1,170	279	31.31%	1,100	250	29.41%	1,400	150	12.00%	27.27%
1998-1999	891	289	48.01%	850	350	%00'02	1,250	750	150.00%	47.06%
1997-1998	602	339	128.90%	200	200	%2999	500	200	%299	0.00%
1996-1997	263	263		300	300		300	300		
Average Change Per Year:	ige Per Year:		21.24%			23.07%			25.40%	13.48%

Firm Peak Day Sendout

	Peak Day Sendout per	DD Customer (11)/(1)		1.4854	1.0526	0.8674	0.9962	0.9817	1.1315	1.2137	1.1066	0.9465	0.9426	0.9987	0.8110	0.5408	0.7601	0.7667	0.9001	0.6728	0.6540	0.9349	
	Entitlement per	DD Customer (7)/(1)	1.6371	1.8019	1.0911	1.1964	1.2867	1.2208	1.1921	1.1841	1.1378	1.1107	1.1190	1.0235	1.2015	1.1803	1.0877	1.1966	1.4029	0.8306	1.1407	1.2127	
	Design Day per	Customer (4)/(1)	1.5202	1.6809	1.0398	1.0555	1.1352	1.1314	1.2028	1.1001	1.1066	0.9987	1.0060	0.8529	1.0166	0.9657	0.8957	0.9402	0.9540	0.8306	1.1407	1.0828	
	Excess per Customer	[(7) - (4)]/(1)	0.1169	0.1210	0.0513	0.1409	0.1515	0.0895	(0.0107)	0.0841	0.0312	0.1121	0.1130	0.1706	0.1848	0.2146	0.1919	0.2564	0.4489	0.000	0.000	0.1299	
	% Change From	Previous Year		56.82%	37.41%	-6.35%	6.87%	-9.29%	-1.76%	15.49%	26.24%	11.28%	7.90%	33.45%	74.11%	-15.15%	32.44%	11.85%	98.02%	135.47%		30.28%	
	Change from	Previous Year		2,855	1,368	(248)	251	(374)	(72)	220	738	285	185	587	747	(180)	291	95	397	233	172		
(11)	Firm Peak Day	Send out (Mcf)		7,880	5,025	3,657	3,905	3,654	4,028	4,100	3,550	2,812	2,527	2,342	1,755	1,008	1,188	897	802	405	172	Per Year:	
	Heating	Season *	2014-2015	2013-2014	2012-2013	2011-2012	2010-2011	2009-2010	2008-2009	2007-2008	2006-2007	2005-2006	2004-2005	2003-2004	2002-2003	2001-2002	2000-2001	1999-2000	1998-1999	1997-1998	1996-1997	Average Change Per Y	,

Demand Entitlement Calculation Analysis Period: November thru March 2011-2014

	Y Intercept	Slope	Design HDD	Estimated DE Dths	Regression Coefficient
Rapidan and Madison Links	11.88	17.77	90	1,612	0.8646
Forest, Heidelberg, and Faribault 5	-222.52	46.25	90	3,940	0.8136
Marystown	-4.20	7.17	90	641	0.9321
Randall	394.75	16.86	90	<u>1,912</u>	0.8491
	Avera De Customer	ited Int Sch Net De ige Custon sign Dths/	sign Dths ner Count Customer 2014-2015	8,105 40 8,065 5,305 1.5202 5,900 8,969	

			Interr		Mankato						
	RAP	MAD	Asphalt	<u>Total</u>	HDD						
11/1/2011	125	233	212	146	19	0	0	350	-204	88	58
11/2/2011	153	391	100	444	25	0	0	456	-12	88	356
11/3/2011 11/4/2011	148 134	451 253	184 195	415 192	25 25	0 0	0 0	456 456	-41 264	88	327
11/5/2011	123	158	193	281	17	0	0	456 314	-26 <u>4</u> -33	88 88	104 193
11/6/2011	143	282	0	425	19	Ö	Ö	350	75	88	337
11/7/2011	131	216	143	204	25	0	0	456	-252	88	116
11/8/2011	160	261	0	421	25	0	0	456	-35	88	333
11/9/2011 11/10/2011	162	268 289	86	344	24	0 0	0 0	438	-94	88	256
11/11/2011	166 111	198	37 0	418 309	31 23	0	0	563 421	-145 -112	88 88	330 221
11/12/2011	104	130	0	234	21	Ö	ő	385	-151	88	146
11/13/2011	141	190	0	331	21	0	0	385	-54	88	243
11/14/2011	136	183	0	319	22	0	0	403	-84	88	231
11/15/2011 11/16/2011	173 209	244 348	0 0	4 17 557	26	0	0 0	474	-57	88	329
11/17/2011	192	346	0	508	37 4 2	0	0	670 758	-113 -250	88 88	469 420
11/18/2011	148	226	0	374	23	Ö	Ö	421	-47	88	286
11/19/2011	209	395	0	604	37	0	0	670	-66	88	516
11/20/2011	211	393	0	604	47	0	0	847	-243	88	516
11/21/2011	170	283	0	453	37	0	0	670	-217	88	365
11/22/2011 11/23/2011	159 153	255 190	0	414	29 22	0 0	0	527	-113	88	326
11/24/2011	127	96	0	343 223	22 15	0	0 0	403 279	-60 -56	88 88	255 135
11/25/2011	139	114	0	253	17	0	0	314	-61	88	165
11/26/2011	203	253	0	456	22	Ō	ō	403	53	88	368
11/27/2011	219	329	0	548	33	0	0	598	-50	88	460
11/28/2011	195	293	0	488	34	0	0	616	-128	88	400
11/29/2011	186	373	0	559	36	0	0	652	-93	88	471
11/30/2011 12/1/2011	166 236	308 435	0 0	474 671	33 41	0 0	0 0	598 741	-124 -70	88 88	386 583
12/2/2011	200	390	0	590	43	0	0	741	-186	88	502
12/3/2011	189	358	0	547	35	Ö	ő	634	-87	88	459
12/4/2011	221	430	0	651	41	0	0	741	-90	88	563
12/5/2011	228	518	0	746	47	0	0	847	-101	88	658
12/6/2011	269	564	0	833	57	0	0	1,025	-192	88	745
12/7/2011 12/8/2011	212 234	456 542	0	668 776	46 43	0	0 0	830 776	-162 0	88	580
12/9/2011	299	613	0	912	43 57	0	0	776 1,025	-113	88 88	688 82 4
12/10/2011	240	484	0	724	51	0	ő	918	-194	88	636
12/11/2011	181	354	0	535	37	0	0	670	-135	88	447
12/12/2011	160	298	0	458	29	0	0	527	-69	88	370
12/13/2011	164	285	0	449	31	0	0	563	-114	88	361
12/14/2011 12/15/2011	178 255	280 443	0	458 698	27 37	0 0	0 0	492	-34	88	370
12/16/2011	243	397	0	640	43	0	0	670 776	28 -136	88 88	610 552
12/17/2011	224	359	0	583	37	Ö	ő	670	-87	88	495
12/18/2011	177	267	0	444	31	0	0	563	-119	88	356
12/19/2011	221	419	0	640	35	0	0	634	6	88	552
12/20/2011	206	461	0	667	42	0	0	758	-91	88	579
12/21/2011 12/22/2011	208 240	429 473	0	637 713	41 42	0 0	0 0	741 758	-104	88 88	549
12/23/2011	229	447	0	676	38	0	0	687	-45 -11	88	625 588
12/24/2011	166	300	Ō	466	33	Ö	Ö	598	-132	88	378
12/25/2011	167	345	0	512	31	0	0	563	-51	88	424
12/26/2011	140	305	0	445	27	0	0	492	-47	88	357
12/27/2011	202	402	0	604	34	0	0	616	-12	88	516
12/28/2011 12/29/2011	161 181	313 334	0	474 515	35 31	0 0	0 0	634 563	-160 <i>-</i> 48	88 88	386
12/30/2011	187	321	0	508	35	0	0	634	-126	88	427 420
12/31/2011	187	349	0	536	29	Ö	ő	527	9	88	448
1/1/2012	266	545	0	811	39	0	0	705	106	88	723
1/2/2012	281	570	0	851	51	0	0	918	-67	88	763
1/3/2012	238	475	0	713	45	0	0	812	-99	88	625
1/4/2012	181	339	0	520	34	0	0	616	-96	88	432
1/5/2012 1/6/2012	142 160	260 308	0	402 468	25 25	0 0	0	456 456	-54 12	88 88	314 380
1/7/2012	182	337	0	519	33	0	0	598	-79	88	431
1/8/2012	181	318	Ō	499	35	Ö	Ö	634	-135	88	411
1/9/2012	165	265	0	430	24	0	0	438	-8	88	342
1/10/2012	165	231	0	396	25	0	0	456	-60	88	308
1/11/2012	295	587	0	882	41	0	0	741	141	88	794
1/12/2012 1/13/2012	327 304	711 629	0	1,038 933	53 57	0 0	0 0	954 1 025	84	88	950
1/13/2012	304 241	505	0	933 746	57 47	0	0	1,025 847	-92 -101	88 88	845 658
1/15/2012	141	389	0	530	35	Ö	Ö	634	-104	88	442
1/16/2012	208	545	0	753	39	0	0	705	48	88	665

			Intore		Manicata						
	RAP	MAD	Interr Asphalt	Total	Mankato HDD						
1/17/2012	307	686	Aspirant 0	993	54	0	0	972	21	88	905
1/18/2012	348	720	Ö	1,068	51	Ö	0	918	150	88	980
1/19/2012	311	742	0	1,053	67	Ō	Ō	1,203	-150	88	965
1/20/2012	280	721	0	1,001	60	0	0	1,078	-77	88	913
1/21/2012	273	660	0	933	59	0	0	1,061	-128	88	845
1/22/2012	182	485	0	667	41	0	0	741	-74	88	579
1/23/2012	213	544	0	757	42	0	0	758	-1	88	669
1/24/2012	189	497	0	686	43	0	0	776	-90	88	598
1/25/2012	157	433	0	590	37	0	0	670	-80	88	502
1/26/2012	157	409	0	566	33	0	0	598	-32	88	478
1/27/2012	201	505	0	706	38	0	0	687	19	88	618
1/28/2012	155	473	0	628	41	0	0	741	-113	88	540
1/29/2012	172	499	0	671	45	0	0	812	-141	88	583
1/30/2012	99	350	0	449	30	0	0	545	-96	88	361
1/31/2012	97	342	0	439	27	0	0	· 492	-53	88	351
2/1/2012	128	402	0	530	31	0	0	563	-33	88	442
2/2/2012	107	340	0	447	28	0	0	510	-63	88	359
2/3/2012	164	432	0 .	596	35	0	0	634	-38	88	508
2/4/2012	168	435	0	603	37	0	0	670	-67	- 88	515
2/5/2012	177	452	0	629	37	0	0	670	-41	88	541
2/6/2012	134	347	0	481	31	0	0	563	-82	88	393
2/7/2012	230	532	0	762	42	0	0	758	4	88	674
2/8/2012	205	499	0	704	47	0	0	847	-143	88	616
2/9/2012	202	461	0	663	39	0	0	705	-42	88	575
2/10/2012	330	690	0	1,020	48	0	0	865	155	88	932
2/11/2012	275	667	0	942	57	0	0	1,025	-83	88	854
2/12/2012	184	509	0	693	45	0	0	812	-119	88	605
2/13/2012	185	514	0	699	43	0	0	776	-77	88	611
2/14/2012	174	491	0	665	40	0	0	723	-58	88	577
2/15/2012	143	434	0	577	39	0	0	705	-128	88	489
2/16/2012	146	407	0	553	33	0	0	598	-4 5	88	465
2/17/2012	170	438	0	608	32	0	0	581	27	88	520
2/18/2012	167	436	0	603	. 39	0	0	705	-102	88	515
2/19/2012	157	396	0	553	35	0	0	634	-81	88	465
2/20/2012	169	403	0	572	29	0	0	527	45	88	484
2/21/2012	169	419	0	588	32	0	0	581	7	88	500
2/22/2012	148	372	0	520	34	0	0	616	-96	88	432
2/23/2012	168	403	0	571	34	0	0	616	-45	88	483
2/24/2012	248	565	0	813	42	0	0	758	55	88	725
2/25/2012	183	463	0	646	45	0	0	812	-166	88	558
2/26/2012	212	530	0	742	34	0	0	616	126	88	654
2/27/2012	167	462	0	629	42	0	0	758	-129	88	541
2/28/2012	176	442	0	618	35	0	0 .	634	-16	88	530
2/29/2012	148	409	0	557	30	0	0	545	12	88	469
3/1/2012	137	396	0	533	33	0	0	598	-65	88	445
3/2/2012	178	448	0	626	33	0	0	598	28	88	538
3/3/2012	228	568	0	796	45	0	0	812	-16	88	708
3/4/2012 3/5/2012	194 149	585 454	0	779 603	49 41	0 0	0 0	883	-104	88	691
3/6/2012	48	227	0	275	17	0	0	741 314	-138	88	515 497
3/7/2012	163	454	0	617	25	0	0	456	-39 161	88 88	187
3/8/2012	184	416	0	600	33	0	0	598	2	88	529 512
3/9/2012	296	202	0	498	33 37	0	0	670	-172	88	410
3/10/2012	186	78	0	264	15	0	0	279	-172	88	176
3/11/2012	169	77	0	246	13	0	0	243	3	88	158
3/12/2012	150	165	0	315	17	0	0	314	1	88	227
3/13/2012	105	73	0	178	14	0	0	261	-83	88	90
3/14/2012	91	54	0	145	9	Ö	0	172	-27	88	57
3/15/2012	97	45	0	142	11	. 0	0	207	-65	88	54
3/16/2012	86	1	0	87	3	0	0 .	65	22	88	-1
3/17/2012	87	Ó	0	87	Ō	1	87	12	75	88	-1
3/18/2012	90	0	Ö	90	0	1	90	12	78	88	2
3/19/2012	82	5	0	87	. 0	i	87	12	75	88	-1
3/20/2012	94	13	0	107	6	Ö	0	119	-12	88	19
3/21/2012	97	6	0	103	6	Ö	0	119	-16	88	15
3/22/2012	99	6	0	105	3	ő	Ö	65	40	88	17
3/23/2012	85	1	0	86	4	Ö	0	83	3	88	-2
3/24/2012	101	26	0	127	7	Ö	Ö	136	-9	88	39
3/25/2012	127	88	0	215	18	Ō	Ō	332	-117	88	127
3/26/2012	162	201	Ō	363	21	Ö	Ö	385	-22	88	275
3/27/2012	112	47	0	159	7	Ō	Ō	136	23	88	71
3/28/2012	121	95	0	216	19	Ō	0	350	-134	88	128
3/29/2012	111	50	Ō	161	13	Ō	Ō	243	-82	88	73
3/30/2012	123	71	0	194	15	0	0	279	-85	88	106
3/31/2012	138	99	0	237	17	0	0	314	-77	88	149
11/1/2012	168	740	447	461	28	0	0	510	-49	88	373
11/2/2012	172	456	394	234	32	0	0	581	-347	88	146

			Interr		Mankato						
	RAP	MAD	<u>Asphalt</u>	<u>Total</u>	HDD						
11/3/2012	186	213	0	399	25	0	0	456	-57	88	
11/4/2012 11/5/2012	164 167	367 387	0 328	531 226	23 23	0 0	0 0	421 421	110 -195	8	
11/6/2012	179	329	326 82	426	23	0	0	421	-195	88	
11/7/2012	166	325	75	416	24	0	0	438	-22	8	
11/8/2012	155	177	18	314	19	ő	Ö	350	-36	8	
11/9/2012	152	136	0	288	20	0	ō	367	-79	8	
11/10/2012	118	61	0	179	6	0	0	119	60	8	3 91
11/11/2012	251	401	0	652	27	0	0	492	160	8	3 564
11/12/2012	287	446	0	733	42	0	0	758	-25	8	
11/13/2012	196	578	122	652	33	0	0	598	54	8	
11/14/2012	124	612	408	328	24	0 0	0 0	438	-110	8	
11/15/2012 11/16/2012	171 103	538 464	225 245	484 322	27 33	0	0	492 598	-8 -276	8i 8i	
11/17/2012	119	207	243	326	19	0	0	350	-24	8:	
11/18/2012	115	211	Ō	326	13	ō	Ö	243	83	8	
11/19/2012	132	151	66	217	16	0	0	296	-79	8	
11/20/2012	121	189	0	310	25	0	0	456	-146	8	3 222
11/21/2012	113	74	0	187	9	0	0	172	15	8	
11/22/2012	127	445	0	572	23	0	0	421	151	8	
11/23/2012	284	504	. 0	788	45	0	0	812	-24	8	
11/24/2012	245	402	0	647	45	0	0	812	-165	8	
11/25/2012 11/26/2012	247 287	379 490	0	626 777	35 47	0 0	0 0	634 847	-8 -70	8:	
11/27/2012	248	383	0	631	39	0	0	705	-70 -74	8	
11/28/2012	229	327	0	556	37	0	0	670	-114	8	
11/29/2012	210	269	0	479	31	0	0	563	-84	8	
11/30/2012	225	274	0	499	33	0	0	598	-99	8	
12/1/2012	205	218	0	423	23	0	0	421	2	8	3 335
12/2/2012	173	150	0	323	25	0	0	456	-133	8	
12/3/2012	189	162	0	351	18	0	0	332	19	8	
12/4/2012	267	349	0	616	37	0	0	670	-54	8	
12/5/2012 12/6/2012	234 216	298 244	0	532 460	35 27	0 0	0 0	634 492	-102 -32	8	
12/7/2012	263	327	0	590	39	0	0	705	-32 -115	8	
12/8/2012	253	309	0	562	39	0	0	705	-143	8	
12/9/2012	294	408	0	702	39	Ö	Ö	705	-3	8	
12/10/2012	363	559	0	922	57	0	0	1,025	-103	8	834
12/11/2012	289	481	0	770	49	0	0	883	-113	8	8 682
12/12/2012	216	311	0	527	37	0	0	670	-143	. 8	
12/13/2012	264	443	0	707	39	0	. 0	705	2	8	
12/14/2012	188	298	0	486	39	0	0	705	-219	8	
12/15/2012	215	299	0	514	29	0	0	527	-13	8	
12/16/2012 12/17/2012	285 235	459 414	0	744 649	41 42	0 0	0 0	741 758	3 -109	8	
12/18/2012	225	396	0	621	39	0	0	705	-109	8	
12/19/2012	230	409	0	639	39	0	Ö	705	-66	8	
12/20/2012	335	625	Õ	960	49	Õ	Ö	883	77	8	
12/21/2012	317	594	0	911	59	0	0	1,061	-150	8	
12/22/2012	279	507	0	786	48	0	0	865	-79	8	8 698
12/23/2012	281	525	0	806	51	0	0	918	-112	8	
12/24/2012	350	647	0	997	56	0	0	1,007	-10	8	
12/25/2012	367	691	0	1,058	65	0	0	1,167	-109	8	
12/26/2012	330	616	0	946	58	0	0	1,043	-97	8	
12/27/2012 12/28/2012	295 283	554 511	0	849 794	52 49	0 0	0 0	936 883	-87 - 89	8 8	
12/29/2012	330	612	0	942	57	0	0	1,025	-83	8	
12/30/2012	288	539	0	827	52	0 .	Ö	936	-109	8	
12/31/2012	358	686	ŏ	1,044	59	0	Ō	1,061	-17	8	
1/1/2013	331	648	0	979	60	0	0	1,078	-99	8	
1/2/2013	295	587	0	882	48	0	0	865	17	8	8 794
1/3/2013	309	608	0	917	55	0	0	990	-73	8	
1/4/2013	265	501	0	766	45	0	0	812	-46	8	
1/5/2013	296	557	0	853	47	0	0	847	6	8	
1/6/2013	277	533	0	810	50	0	0	901	-91	8	
1/7/2013 1/8/2013	239 226	444 424	0	683 650	37 41	0	0 0	670 741	13 -91	8	
1/9/2013	196	365	0	561	33	0	0	598	-91 -37	8	
1/10/2013	198	359	0	557	31	0	0	563	-6	8	
1/11/2013	206	371	ő	577	27	0 -	Ö	492	85	8	
1/12/2013	348	655	0	1,003	45	0	0	812	191	8	
1/13/2013	365	706	0	1,071	60	0	0	1,078	-7	8	
1/14/2013	320	635	0	955	53	0	0	954	1	8	
1/15/2013	255	490	0	745	45	0	0	812	-67	8	
1/16/2013	284	550	0	834	35	0	0	634	200	8	
1/17/2013 1/18/2013	278 186	550 352	0	828 538	51 32	0 0	0 0	918 581	-90 -43	8	8 740 8 450
1/10/2013	100	332	U	550	32	U	U	301	-43	Ö	o 450

			Interr		Mankato						
4/40/0040	RAP	MAD	Asphalt	Total	HDD	0	0	776	107	0.0	055
1/19/2013 1/20/2013	321 401	622 806	0 0	943 1,207	43 61	0	0	776 1,096	167 111	88 88	855 1,119
1/21/2013	438	879	Ö	1,317	69	Ö	Ö	1,238	79	88	1,229
1/22/2013	361	736	0	1,097	65	0	0	1,167	-70	88	1,009
1/23/2013	387	771	0	1,158	59	0	0	1,061	97	88	1,070
1/24/2013 1/25/2013	368 378	739 708	0 0	1,107 1,086	58 54	0 0	0 0	1,043 972	64 114	88 88	1,019 998
1/26/2013	306	572	0	878	51	0	0	918	-40	88	790
1/27/2013	227	413	Ö	640	35	Ö	0	634	6	88	552
1/28/2013	214	380	0	594	33	0	0	598	-4	88	506
1/29/2013	245	443	0	688	34	0	0	616	72	88	600
1/30/2013 1/31/2013	392 489	730 930	0	1,122 1,419	50 67	0 0	0 0	901 1,203	221 216	88 88	1,034 1,331
2/1/2013	380	693	0	1,419	63	0	0	1,132	-59	88	985
2/2/2013	348	622	ő	970	56	Ö	Ö	1,007	-37	88	882
2/3/2013	339	611	0	950	53	0	0	954	-4	88	862
2/4/2013	301	539	0	840	55	0	0	990	-150	88	752
2/5/2013 2/6/2013	304	531 429	0	835 670	45 46	0 0	0 0	812 830	23 -160	88 88	747 582
2/7/2013	241 267	476	0	743	39	0	0	705	38	88	655
2/8/2013	264	475	0	739	40	Ö	0	723	16	88	651
2/9/2013	242	415	0	657	35	0	0	634	23	88	569
2/10/2013	235	398	0	633	33	0	0	598	35	88	545
2/11/2013	295	547	0	842	41	0	0	741	101	88	754
2/12/2013 2/13/2013	237 195	408 314	0	645 509	38 36	0 0	0 0	687 652	-42 -143	88 88	557 421
2/13/2013	297	531	0	828	43	0	0	776	52	88	740
2/15/2013	318	582	0	900	.5 55	Õ	Ö	990	-90	88	812
2/16/2013	278	511	0	789	51	0	0	918	-129	88	701
2/17/2013	233	413	0	646	41	0	0	741	-95	88	558
2/18/2013	392	733	0	1,125	47	0 0	0 0	847	278	88 88	1,037
2/19/2013 2/20/2013	465 349	874 673	0	1,339 1,022	67 65	0	0	1,203 1,167	136 -1 4 5	88	1,251 934
2/21/2013	306	591	0	897	52	0	0	936	-39	88	809
2/22/2013	264	518	0	782	43	0	0	776	6	88	694
2/23/2013	277	549	0	826	49	0	0	883	-57	88	738
2/24/2013	214	458	0	672	52	0	0	936	-264	88	584
2/25/2013 2/26/2013	225 215	469 446	0	694 661	42 44	0 0	0 0	758 794	-64 -133	88 88	606 573
2/27/2013	232	467	0	699	35	0	0	634	65	88	611
2/28/2013	236	487	0	723	39	0	0	705	18	88	635
3/1/2013	267	540	0	807	43	0	0	776	31	88	719
3/2/2013	201	465	0	666	47	0	0	847	-181	88	578
3/3/2013 3/4/2013	207 217	469 492	0	676 709	39 37	0 0	0 . 0	705 670	-29 39	88 88	588 621
3/5/2013	206	469	0	675	40	0	0	723	-48	88	587
3/6/2013	251	525	0	776	41	Ō	Ō	741	35	88	688
3/7/2013	222	508	0	730	47	0	0	847	-117	88	642
3/8/2013	161	377	0	538	38	0	0	687	-149	88	450
3/9/2013 3/10/2013	171 217	383 475	0	554 692	29 35	0 0	0 0	527 634	27 58	88 88	466 604
3/11/2013	217	485	0	701	38	0	0	687	14	88	613
3/12/2013	250	557	Ō	807	42	Ō	Ö	758	49	88	719
3/13/2013	199	448	0	647	44	0	0	794	-147	88	559
3/14/2013	133	346	0	479	33	0	0 (598	-119	88	391
3/15/2013 3/16/2013	169 252	407 555	0	576 807	32 43	0 0	0 0	581 776	-5 31	88 88	488 719
3/17/2013	220	492	0	712	43 47	0	0	847	-135	88	624
3/18/2013	305	665	Ö	970	43	Ö	Ö	776	194	88	882
3/19/2013	311	669	0	980	52	0	0	936	44	88	892
3/20/2013	315	671	0	986	54	0	0	972	14	88	898
3/21/2013	231	530	0	761	53	0	0	954	-193	88	673
3/22/2013 3/23/2013	184 190	455 446	0	639 636	47 41	0 0	0 0	847 741	-208 -105	88 88	551 548
3/24/2013	190	456	0	653	37	0	0	670	-103	88	565
3/25/2013	203	460	0	663	37	Ō	Ö	670	-7	88	575
3/26/2013	172	417	0	589	39	0	0	705	-116	88	501
3/27/2013	148	370	0	518	37	0	0	670	-152	88	430
3/28/2013 3/29/2013	127	321 228	0	448 317	30 35	0 0	0 0	545 456	-97 -139	88 88	360 229
3/29/2013	89 107	228	0	405	25 24	0	0	438	-139 -33	88	229 317
3/31/2013	195	450	0	645	34	0	Ö	616	29	88	557
11/1/2013	509	523	87	1,032	21	0	0	385	647	88	944
11/2/2013	510	497	0	1,007	24	0	0	438	569	88	919
11/3/2013	450	579	105	1,029	19 24	0	0	350 438	679 743	88	941
11/4/2013 11/5/2013	499 403	682 453	195 0	1,181 856	24 31	0	0 0	438 563	743 293	88 88	1,093 768
11.0/2010	700	700	J	000	01	•	3	555	200	55	700

			Interr		Mankato						
	RAP	MAD	Asphalt	<u>Total</u>	<u>HDD</u>	_	_				
11/6/2013 11/7/2013	327 493	501	720	828	33	0	0	598		88	740
11/8/2013	493	1,322 1,132	720 670	1,815 1,563	34 27	0 0	0 0	616 492		88 88	1,727 1,475
11/9/2013	444	724	464	1,168	25	0	0	456	.,	88	1,080
11/10/2013	324	413	0	737	. 31	0	0	563		88	649
11/11/2013	401	511	0	912	41	0	0	741	171	88	824
11/12/2013	386	494	0	880	48	0	0	865		88	792
11/13/2013 11/14/2013	329 375	786 820	318 369	1,115 1,195	29 23	0 0	0	527 421	588 774	88 88	1,027
11/15/2013	232	476	356	708	23	0	0	421	287	88	1,107 620
11/16/2013	193	236	86	429	19	ō	Ö	350		88	341
11/17/2013	250	295	0	545	27	0	0	492	53	88	457
11/18/2013	289	336	0	625	35	0	0	634		88	537
11/19/2013	227	265	0	492	31	0	0	563		88	404
11/20/2013 11/21/2013	239 377	263 418	0	502 795	. 24 34	0 0	0 0	438 616		88 88	414 707
11/22/2013	391	425	0	816	43	0	0	776		88	707 728
11/23/2013	462	493	0	955	55	0	0	990		88	867
11/24/2013	366	401	0	767	47	0	0	847		88	679
11/25/2013	281	318	0	599	31	0	0	563	36	88	511
11/26/2013	432	483	0	915	43	0	0	776		88	827
11/27/2013	403	444	0	847	51	0	0	918		88	759
11/28/2013 11/29/2013	381 343	416 366	0	797 709	44 43	0 0	0	794 776		88	709
11/30/2013	257	257	0	514	30	. 0	0	545		88 88	621 426
12/1/2013	294	309	0	603	37	0	Ö	670		88	515
12/2/2013	266	299	0	565	31	0	0	563		88	477
12/3/2013	261	293	0	554	32	0	0	581	-27	88	466
12/4/2013	399	453	0	852	43	0	0	776		88	764
12/5/2013	550	633	0	1,183	60	0	0	1,078		88	1,095
12/6/2013 12/7/2013	471 406	828 737	0	1,299 1,143	69 70	0 0	0	1,238 1,256		88 88	1,211 1,055
12/8/2013	363	651	0	1,014	57	0	0	1,025		88	926
12/9/2013	422	803	0	1,225	62	ō	Ō	1,114		88	1,137
12/10/2013	389	720	0	1,109	55	0	0	990	119	88	1,021
12/11/2013	421	781	0	1,202	64	0	0	1,149		88	1,114
12/12/2013	328	595	0	923	53	0	0	954		88	835
12/13/2013 12/14/2013	347 388	625 695	0	972 1,083	50 59	0 0	0 0	901 1,061	71 22	88 88	884 995
12/15/2013	387	709	0	1,003	63	0	0	1,132		88	1,008
12/16/2013	321	577	Ö	898	50	0	Ö	901		88	810
12/17/2013	320	594	0	914	40	0	0	723		88	826
12/18/2013	266	443	0	709	41	0	0	741	-32	88	621
12/19/2013	320	578	0	898	41	0	0	741	157	88	810
12/20/2013 12/21/2013	329 314	570 551	0 0	899 865	49 49	0 0	0 0 ·	883 883		88	811
12/22/2013	429	797	0	1,226	57	0	0	1,025		88 88	777 1,138
12/23/2013	493	934	Ö	1,427	71	Ö	Ö	1,274		88	1,339
12/24/2013	394	732	0	1,126	67	0	0	1,203		88	1,038
12/25/2013	302	539	0	841	45	0	0	812	29	88	753
12/26/2013	260	439	0	699	42	0	0	758		88	611
12/27/2013 12/28/2013	240 282	388 470	0	628 752	35 35	0	0 0	634		88	540
12/29/2013	473	869	0	1,342	61	0	0	634 1,096		88 88	664 1,254
12/30/2013	444	827	0	1,271	68	0	0	1,221		88	1,183
12/31/2013	444	843	0	1,287	69	0	0	1,238		88	1,199
1/1/2014	434	816	0	1,250	67	0	0	1,203		88	1,162
1/2/2014	462	872	0	1,334	73	0	0	1,309		88	1,246
1/3/2014	353	660	0	1,013	59	0	0	1,061		88	925
1/4/2014 1/5/2014	416 558	757 1,061	0 0	1,173 1,619	47 75	0 0	0 0	847 1,345		88 88	1,085 1,531
1/6/2014	543	1,026	0	1,569	81	0	0	1,452		88	1,481
1/7/2014	447	818	Ō	1,265	68	Ö	0	1,221		88	1,177
1/8/2014	447	825	0	1,272	69	0	0	1,238		88	1,184
1/9/2014	357	661	0	1,018	58	0	0	1,043		88	930
1/10/2014	287	484	0	771	41	0	0	741		88	683
1/11/2014 1/12/2014	286 228	484 363	0	770 591	41 36	0 0	0 0	741		88	682
1/12/2014	242 242	407	0	649	34	0	0	652 616		88 88	503 561
1/14/2014	374	659	0	1,033	43	0	0	776		88	945
1/15/2014	322	584	0	906	47	Ö	Ö	847		88	818
1/16/2014	416	754	0	1,170	44	0	0	794	376	88	1,082
1/17/2014	369	670	0	1,039	59	0	0	1,061		88	951
1/18/2014	316	554	0	870 611	49	0	0	883		88	782
1/19/2014 1/20/2014	227 411	384 760	0	611 1, 1 71	37 52	0 0	0 0	670 936		88	523
1/20/2014	440	830	0	1,171	52 68	0	0	1,221		88 88	1,083 1,182
		300	J	.,_,	00	v	ŭ	المحدا	73	50	1,102

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			Interr		Mankato						
	RAP	MAD	<u>Asphalt</u>	Total	HDD	_					
1/22/2014	506	957	0	1,463	65	0	0	1,167	296	88	1,375
1/23/2014	459	867	0	1,326	71	0	0	1,274	52	88	1,238
1/24/2014	310	556	0	866	45	0	0	812	54 154	88	778
1/25/2014	364	673	0	1,037	49	0	0 0	883	154	88	949
1/26/2014	476	894	0	1,370	57 75	0 0	0	1,025	345	88 88	1,282
1/27/2014	524	988	0	1,512	75 00			1,345	167		1,424
1/28/2014	463	849	0	1,312	69	0	0	1,238	74	88	1,224
1/29/2014	301	530	0	831	50	0	0 0	901	-70	88	743
1/30/2014	410	727	0	1,137	53	0	0	954	183 -5 1	88	1,049
1/31/2014	394	722	0	1,116	65			1,167		88	1,028
2/1/2014	409	716	0	1,125	56	0	0	1,007	118	88	1,037
2/2/2014	395	706	0	1,101	61	0	0	1,096	5	88 88	1,013
2/3/2014	381	692	0	1,073	59	0	0	1,061	12	88	985
2/4/2014	432	798	0	1,230	61 67	0	0	1,096 1,203	134 166	88	1,142 1,281
2/5/2014	474	895	0	1,369	68	0	0		69	88	
2/6/2014	452	838		1,290		0	0	1,221 1,096	53	88	1,202 1,061
2/7/2014	401	748	0	1,149	61 59	0	0	1,090	16	88	989
2/8/2014	381	696		1,077		0	0			88	
2/9/2014	444	819	0	1,263	65	0	0	1,167	96 81	88	1,175
2/10/2014	463	856		1,319	69	0	0	1,238		88	1,231
2/11/2014	398	752 500	0	1,150	65 47	0	0	1,167	-17 76		1,062 835
2/12/2014	327	596	0	923	47			847		88	
2/13/2014	378	700	0	1,078	47	0	0 0	847	231	88	990
2/14/2014	394	715	0	1,109	59		0	1,061	48	88	1,021
2/15/2014	358	636	0	994	55	0		990	4	88	906
2/16/2014	330	594	0	924	53	0 0	0	954 670	-30 65	88 88	836
2/17/2014	267	468	0	735	37						647
2/18/2014	230	375	0	605	32	0 0	0 0	581 598	24 -75	88 88	517
2/19/2014	199	324	0	523	33	0	0				435 758
2/20/2014	303	543	0	846	37			670	176	88	
2/21/2014	341	606	0	947	54	0 0	0	972 990	-25	88	859
2/22/2014	351	618	0	969	55 57				-21	88	881
2/23/2014	360	645	0	1,005	57	0	0	1,025	-20	88	917
2/24/2014	397	733	0	1,130	61	0	0	1,096	34	88	1,042
2/25/2014	458	845	0	1,303	65	0	0	1,167	136	88	1,215
2/26/2014	430	812	0	1,242	. 59	0	0	1,061	181	88	1,154
2/27/2014	446	823	0	1,269	73	0	0	1,309	-40	88	1,181
2/28/2014	413	752	0	1,165	61	0	0	1,096	69	88	1,077
3/1/2014	493	900	0	1,393	65 ·	. 0	0	1,167	226	88	1,305
3/2/2014	454	818	0	1,272	73	0	0	1,309	-37	88	1,184
3/3/2014	397	735	0	1,132	65	0	0	1,167	-35	88	1,044
3/4/2014	324	576	0	900	51	0	0	918	-18 -7	88	812
3/5/2014	329	565	0	894	50	0	0	901	-7 20	88	806
3/6/2014	306	531	0	837	48	0	0	865	-28	88	749
3/7/2014	294	481	0	775 707	37	0	0 0	670	105	88 88	687
3/8/2014	277	450	0	727	47		0	847	-120		639
3/9/2014	214	316	0	530	37	0	0	670	-140	88	442
3/10/2014	172	215	0	387	23			421	-34	88	299
3/11/2014	248	384	0	632	31	0	0	563	69	88	544
3/12/2014	262	416	0	678	42	0	0	758 456	-80	88 88	590 294
3/13/2014	174	208	0	382	25	0	0		-74		
3/14/2014	228	336	0	564	29	0	0	527	37	88	476
3/15/2014	282	449	0	731	39	•	U	705	26	88	643
3/16/2014	270	439	0	709	45	0	0	812	-103	88	621
3/17/2014	224	339	0	563	31	0	0	563	0	88	475
3/18/2014	245	376	0	621	33	0	0	598	23	88	533
3/19/2014	236	347	0	583	33	0	0	598	-15	88	495
3/20/2014	198	261	0	459	29	0	0	527	-68	88	371
3/21/2014	270	421	0	691	31	0	0	563	128	88	603
3/22/2014	329	539	0	868	49	0	0	883	-15	88	780
3/23/2014	284	457	0	741	47	0	0	847	-106	88	653
3/24/2014	298	500	0	798	37	0	0	670	128	88	710
3/25/2014	322	551	0	873	47	0	0	847	26	88	785
3/26/2014	212	332	0	544	34	0	0	616	-72 400	88	456
3/27/2014	234	358	0	592	27	0	0	492	100	88	504
3/28/2014	241	344	0	585	33	0	0	598	-13	88	497
3/29/2014	192	257	0	.449	31	0	0	563	-114	88	361
3/30/2014	141	146	0	287	15	0	0	279	8	88	199
3/31/2014	207	281	0	488	20	0 3	0 88	367	121	88	400
							88				

					Faribault						
	Forest	<u>Heid</u>	Faribault 5	Total	HDD						
11/1/2011	73	336	38	447	19	0	0	656	-209	136	311
11/2/2011	93	446	49	588	23	0	0	841	-253	136	452
11/3/2011	95 86	433	56 60	584	27	0	0	1,026	-442	136	448
11/4/2011		402	60	548	27		0	1,026	-478	136	412
11/5/2011 11/6/2011	75 89	327 375	50 42	452 506	19 19	0	0	656	-204	136	316
11/7/2011	92	385	42	520	26	0	0	656 980	-150 -460	136	370
11/8/2011	107	428	43	578	26 27	0	0	1,026		136	384
11/9/2011	111	481	44	636	24	0	0	888	-448 -252	136 136	442 500
11/10/2011	146	608	55	809	35	0	0	1,396	-587	136	673
11/11/2011	107	409	48	564	27	0	0	1,026	-462	136	428
11/12/2011	85	299	47	431	21	0	0	749	-318	136	295
11/13/2011	113	440	50	603	23	0	0	841	-238	136	467
11/14/2011	112	407	49	568	24	ō	Ö	888	-320	136	432
11/15/2011	130	513	57	700	25	ō	ō	934	-234	136	564
11/16/2011	175	766	62	1,003	36	0	0	1,443	-440	136	867
11/17/2011	154	683	53	890	40	0	0	1,628	-738	136	754
11/18/2011	140	482	38	660	23	0	0	841	-181	136	524
11/19/2011	216	805	48	1,069	35	0	0	1,396	-327	136	933
11/20/2011	215	805	50	1,070	43	0	0	1,766	-696	136	934
11/21/2011	161	600	42	803	35	0	0	1,396	-593	136	667
11/22/2011	146	544	41	731	29	0	0	1,119	-388	136	595
11/23/2011	127	412	40	579	21	0	0	749	-170	136	443
11/24/2011	88	281	31	400	17	0	0	564	-164	136	264
11/25/2011	92	302	30	424	17	0	0	564	-140	136	288
11/26/2011	159	562	36	757	23	0	0	841	-84	136	621
11/27/2011	191	695	64	950	33	0	0	1,304	-354	136	814
11/28/2011	202	621	100	923	35	0	0	1,396	-473	136	787
11/29/2011	225	682	140	1,047	37	0	0	1,489	-442	136	911
11/30/2011	188	628	103	919	35	0	0	1,396	-477	136	783
12/1/2011	258	856	213	1,327	40	0	0	1,628	-301	136	1,191
12/2/2011	240	768	151	1,159	43	0	0	1,766	-607	136	1,023
12/3/2011	215	721	108	1,044	35	0	0	1,396	-352	136	908
12/4/2011	253	826	131	1,210	41	0	0	1,674	-464	136	1,074
12/5/2011	277	919	160	1,356	49	0	0	2,044	-688	136	1,220
12/6/2011 12/7/2011	302 260	1,045 888	168	1,515	55	0	0	2,321	-806	136	1,379
12/7/2011	305	1,049	115 152	1,263 1,506	45 47	0	0	1,859	-596 -445	136	1,127
12/9/2011	343	1,222	192	1,757	60	0	0	1,951 2,553	- 7445	136 136	1,370 1,621
12/10/2011	286	996	176	1,458	53	0	0	2,229	-730 -771	136	1,322
12/11/2011	212	696	86	994	37	0	Ö	1,489	-495	136	858
12/12/2011	163	571	25	759	29	0	ő	1,119	-360	136	623
12/13/2011	162	585	32	779	29	0	Ō	1,119	-340	136	643
12/14/2011	161	607	39	807	27	0	0	1,026	-219	136	671
12/15/2011	317	935	118	1,370	37	0	0	1,489	-119	136	1,234
12/16/2011	270	829	84	1,183	43	0	0	1,766	-583	136	1,047
12/17/2011	256	774	90	1,120	42	0	0	1,720	-600	136	984
12/18/2011	192	573	57	822	33	0	0	1,304	-482	136	686
12/19/2011	276	821	91	1,188	38	0	0	1,535	-347	136	1,052
12/20/2011	270	832	132	1,234	44	0	0	1,813	-579	136	1,098
12/21/2011	253	789	96	1,138	41	0	0	1,674	-536	136	1,002
12/22/2011	304	904	161	1,369	45	0	0	1,859	-490	136	1,233
12/23/2011	295	897	144	1,336	41	0	0	1,674	-338	136	1,200
12/24/2011	197	640	67	904	39	0	0	1,581	-677	136	768
12/25/2011	207	637	105	949	33	0	0	1,304	-355	136	813
12/26/2011	183	570	82	835	29	0	0	1,119	-284	136	699
12/27/2011	232	735	107	1,074	36	0	0	1,443	-369	136	938
12/28/2011	187	614	72	873	35	0	0	1,396	-523	136	737
12/29/2011	204	685	74	963	33	0	0	1,304	-341	136	827
12/30/2011	195	658	69	922	36	0	0	1,443	-521	136	786
12/31/2011	202	670	82	954	29	0	0	1,119	-165	136	818

					Faribault						
	Forest	<u>Heid</u>	Faribault 5	<u>Total</u>	<u>HDD</u>						
1/1/2012	333	1,093	165	1,591	39	0	0	1,581	10		1,455
1/2/2012	336	1,110	186	1,632	52	0	0	2,183	-551	136	1,496
1/3/2012	287	940	123	1,350	47	0	0	1,951	-601	136	1,214
1/4/2012	204	677	67	948	37	. 0	0	1,489	-541	136	812
1/5/2012	154	555	43	752	29	0	0	1,119	-367	136	616
1/6/2012	171	573	35	779	25	0	0	934	-155	136	643
1/7/2012	201	681	58	940	35	0	0	1,396	-456	136	804
1/8/2012	188	633	57	878	37	0	0	1,489	-611	136	742
1/9/2012	169	515	48	732	29	0	0	1,119	-387	136	596
1/10/2012	147	448	38	633	27	-	-	1,026	-393	136	497
1/11/2012	320	1,080	149	1,549	41 5	0 0	0 0	1,674 9	-125 1,935	136 136	1,413
1/12/2012 1/13/2012	423 406	1,340	181 196	1,944 1,875	5 59	0	0	2,506	-631	136	1,808 1,739
1/13/2012	324	1,273 1,008	109	1,441	59 51	0	0	2,136	-695	136	1,739
1/14/2012	244	711	48	1,003	35	0	0	1,396	-393	136	867
1/16/2012	308	972	114	1,394	39	0	0	1,581	-187	136	1,258
1/17/2012	407	1,317	213	1,937	55	0	0	2,321	-384	136	1,801
1/18/2012	437	1,454	201	2,092	53	0	0	2,229	-137	136	1,956
1/19/2012	475	1,524	198	2,092	69	0	0	2,969	-772	136	2,061
1/20/2012	458	1,403	183	2,044	65	0	0	2,784	-740	136	1,908
1/21/2012	419	1,293	214	1,926	60	0	0	2,553	-627	136	1,790
1/22/2012	315	972	82	1,369	41	0	0	1,674	-305	136	1,233
1/23/2012	334	1,047	157	1,538	42	0	0	1,720	-182	136	1,402
1/24/2012	287	948	156	1,391	45	0	0	1,859	-468	136	1,255
1/25/2012	250	800	150	1,200	39	0	Ö	1,581	-381	136	1,064
1/26/2012	226	690	141	1,057	37	0	0	1,489	-432	136	921
1/27/2012	299	932	129	1,360	40	0	0	1,628	-268	136	1,224
1/28/2012	274	884	106	1,264	42	0	0	1,720	-456	136	1,128
1/29/2012	283	907	127	1,317	49	0	Ō	2,044	-727	136	1,181
1/30/2012	179	528	20	727	31	0	0	1,211	-484	136	591
1/31/2012	183	568	52	803	27	0	0	1,026	-223	136	667
2/1/2012	203	643	70	916	32	0	0	1,258	-342	136	780
2/2/2012	191	653	56	900	34	0	0	1,350	-450	136	764
2/3/2012	231	784	37	1,052	35	0	0	1,396	-344	136	916
2/4/2012	229	769	34	1,032	37	0	0	1,489	-457	136	896
2/5/2012	245	814	40	1,099	37	0	0	1,489	-390	136	963
2/6/2012	186	578	43	807	31	0	0	1,211	-404	136	671
2/7/2012	300	997	144	1,441	44	0	0	1,813	-372	136	1,305
2/8/2012	272	906	123	1,301	47	0	0	1,951	-650	136	1,165
2/9/2012	260	822	111	1,193	41	0	0	1,674	-481	136	1,057
2/10/2012	380	1373	210	1,963	49	0	0	2,044	-81	136	1,827
2/11/2012	381	1303	173	1,857	55	0	0	2,321	-464	136	1,721
2/12/2012	277	940	134	1,351	47	0	0	1,951	-600	136	1,215
2/13/2012	265	861	107	1,233	43	0	0	1,766	-533	136	1,097
2/14/2012	243	777	104	1,124	. 37	0	0	1,489	-365	136	988
2/15/2012	207	718	70	995	35	0	0	1,396	-401	136	859
2/16/2012	203	675	83	961	35	0	0	1,396	-435	136	825
2/17/2012	213	728	99	1,040	33	0	0	1,304	-264	136	904
2/18/2012	210	741	132	1,083	39	0	0	1,581	-498	136	947
2/19/2012	198	647	112	957	35	0	0	1,396	-439	136	821
2/20/2012	215	704	113	1,032	30	0	-	1,165	-133	136	896
2/21/2012	231	777	114	1,122	34	0	0	1,350	-228	136	986
2/22/2012	199	655	92	946	38	0	0	1,535	-589	136	810
2/23/2012	205 322	691 1089	72 159	968 4.570	33 45	0	0 0	1,304 1,859	-336 -289	136 136	832 1,434
2/24/2012 2/25/2012		839	123	1,570 1,209	45 47	0	0	1,859	-269 -742	136	1,434
	247 275	962	119		47 35	0	0	1,396	-742 -40	136	1,073
2/26/2012 2/27/2012	275	962 812		1,356 1,149	35 41	0	0	1,674	-525	136	1,220
2/28/2012	236	810	90	1,149	35	0	0	1,396	-260	136	1,013
2/29/2012	194	713	81	988	33	0	0	1,304	-316	136	852
,212012012	134	, 10	01	500	33	U	U	1,004	010	100	002

					Faribault						
0///00/0	Forest	<u>Heid</u>	Faribault 5	<u>Total</u>	HDD			4.004		400	
3/1/2012	179	643 803	68 99	890	33 33	0 0	0	1,304	-414 -170	136 136	754 998
3/2/2012 3/3/2012	232 280	1146	163	1,134 1,589	33 47	0	0	1,304 1,951	-362	136	1,453
3/4/2012	299	921	133	1,353	47	0	0	1,951	-598	136	1,217
3/5/2012	225	780	109	1,114	39	0	0	1,581	-467	136	978
3/6/2012	104	329	34	467	17	0	0	564	-97	136	331
3/7/2012	215	712	79	1,006	27	0	0	1,026	-20	136	870
3/8/2012	231	807	82	1,120	35	0	0	1,396	-276	136	984
3/9/2012	180	662	58	900	39	0	0	1,581	-681	136	764
3/10/2012	82	309	25	416	15	0	0	471	-55	136	280
3/11/2012	76	286	24	386	14	0	0	425	-39	136	250
3/12/2012 3/13/2012	106 56	391 207	30 22	527 285	17 18	0	0	564 610	-37 -325	136 136	391 149
3/14/2012	32	177	20	229	9	0	0	194	35	136	93
3/15/2012	46	195	19	260	11	0	0	286	-26	136	124
3/16/2012	7	120	13	140	6	0	0	55	85	136	4
3/17/2012	3	118	11	132	0	1	132	-223	355	136	-4
3/18/2012	9	125	11	145	0	1	145	-223	368	136	9
3/19/2012	6	111	13	130	0	1	130	-223	353	136	-6
3/20/2012	19	120	23 .	162	6	0	0	55	107	136	26
3/21/2012	20	126	4	150	5	0	0	9	141	136	14
3/22/2012 3/23/2012	24 13	128 119	0 18	152 150	5 3	0 0	0	9 -84	143 234	136 136	16 14
3/24/2012	23	184	21	228	5	0	0	9	219	136	92
3/25/2012	46	347	23	416	. 17	0	0	564	-148	136	280
3/26/2012	147	609	68	824	24	0	Ö	888	-64	136	688
3/27/2012	43	280	9	332	9	0	0	194	138	136	196
3/28/2012	76	337	9	422	19	0	0	656	-234	136	286
3/29/2012	49	275	12	336	15	0	0	471	-135	136	200
3/30/2012	77	348	53	478	17	0	0	564	-86	136	342
3/31/2012	80	382	54	516	17	0	0	564	-48	136	380
11/1/2012	211	543	125	879	29	0	0 0	1,119	-240	136	743
11/2/2012 11/3/2012	239 206	574 546	104 110	917 862	37 27	0	0	1,489 1,026	-572 -164	136 136	781 726
11/4/2012	192	484	91	767	25	0	0	934	-167	136	631
11/5/2012	219	502	138	859	23	0	0	841	18	136	723
11/6/2012	211	486	106	803	24	0	0	888	-85	136	667
11/7/2012	223	491	116	830	25	0	0	934	-104	136	694
11/8/2012	170	395	79	644	23	0	0	841	-197	136	508
11/9/2012	153	374	72	599	25	0	0	934	-335	136	463
11/10/2012	95	218	58	371	6	0	0	55	316	136	235
11/11/2012	354	856	166	1,376	27	0	0 0	1,026 1,766	350 -262	136	1,240 1,368
11/12/2012 11/13/2012	396 243	952 610	156 96	1,504 949	43 35	0	0	1,396	-202 -447	136 136	813
11/14/2012	164	440	74	678	24	0	0	888	-210	136	542
11/15/2012	211	551	88	850	25	0	Ö	934	-84	136	714
11/16/2012	220	539	85	844	35	0	0	1,396	-552	136	708
11/17/2012	172	373	69	614	19	0	0	656	-42	136	478
11/18/2012	130	299	65	494	13	0	0	379	115	136	358
11/19/2012	131	316	76	523	19	0	0	656	-133	136	387
11/20/2012	150	355	68	573	25	0	0	934	-361	136	437
11/21/2012	117 286	199	42	358	13 24	0 0	0 0	379 888	-21 155	136 136	222 907
11/22/2012 11/23/2012	446	647 1,053	110 131	1,043 1,630	45	0	0	1,859	-229	136	1,494
11/24/2012	373	868	103	1,344	47	ő	0	1,951	-607	136	1,208
11/25/2012	353	866	81	1,300	37	0	0	1,489	-189	136	1,164
11/26/2012	424	1,051	108	1,583	49	0	0	2,044	-461	136	1,447
11/27/2012	357	842	87	1,286	41	0	0	1,674	-388	136	1,150
11/28/2012	306	673	74	1,053	37	0	0	1,489	-436	136	917
11/29/2012	271	630	74	975	35	0	0	1,396	-421	136	839
11/30/2012	276	639	58	973	. 32	0	0	1,258	-285	136	837
12/1/2012	237	530	49	816	24	0	0	888	-72	136	680
12/2/2012 12/3/2012	205 202	439 405	41 36	685 643	27 18	0 0	0	1,026 610	-341 33	136 136	549 507
12/4/2012	337	798	93	1,228	39	0	0	1,581	-353	136	1,092
12/5/2012	313	779	71	1,163	39	0	0	1,581	-418	136	1,027
12/6/2012	260	653	63	976	29	Ö	0	1,119	-143	136	840
12/7/2012	340	844	124	1,308	41	0	0	1,674	-366	136	1,172
12/8/2012	316	777	111	1,204	39	0	0	1,581	-377	136	1,068
12/9/2012	397	908	135	1,440	39	0	0	1,581	-141	136	1,304
12/10/2012	542	1,222	249	2,013	55	0	0	2,321	-308	136	1,877
12/11/2012	470	1,103	200	1,773	50	0	0	2,090	-317	136	1,637
12/12/2012	323	722	150 96	1,195	39	0	0	1,581	-386 -357	136	1,059
12/13/2012 12/14/2012	· 363 283	858 684	96	1,317 1,061	41 41	0	0	1,674 1,674	-357 -613	136 136	1,181 925
12/14/2012	293	689	104	1,081	31	0	0	1,211	-125	136	950
	200	000	,04	.,000	01	•	,	.,		,	

					Faribault					
10/10/0010	Forest	Heid	Faribault 5	<u>Total</u>	HDD			4.504	•	100 1110
12/16/2012 12/17/2012	432 382	967 890	185 156	1,584 1,428	39 43	0	0 0	1,581 1,766	3 -338	136 1,448 136 1,292
12/17/2012	357	837	132	1,426	39	0	0	1,581	-255	136 1,190
12/19/2012	377	846	149	1,372	35	ő	ő	1,396	-24	136 1,236
12/20/2012	553	1,201	241	1,995	47	0	0	1,951	44	136 1,859
12/21/2012	535	1,212	251	1,998	55	0	0	2,321	-323	136 1,862
12/22/2012	460	1,036	199	1,695	49	0	0	2,044	-349	136 1,559
12/23/2012	486	1,129	217	1,832	52	0	0	2,183	-351	136 1,696
12/24/2012 12/25/2012	554 588	1,273 1,377	260 247	2,087 2,212	54 61	0	0	2,275 2,599	-188 -387	136 1,951 136 2,076
12/26/2012	538	1,377	203	1,998	57	0	0	2,414	-416	136 1,862
12/27/2012	495	1,166	179	1,840	55	ō	Ō	2,321	-481	136 1,704
12/28/2012	449	1,070	171	1,690	49	0	0	2,044	-354	136 1,554
12/29/2012	556	1,327	287	2,170	57	0	0	2,414	-244	136 2,034
12/30/2012	512	1,193	213	1,918	52	. 0	0	2,183	-265	136 1,782
12/31/2012	630	1,438	252	2,320	65 65	0 0	0 0	2,784	-464 -539	136 2,184 136 2,109
1/1/2013	603 515	1,403 1,193	239 167	2,245 1,875	49	0	0	2,784 2,044	-169	136 2,109 136 1,739
1/3/2013	563	1,293	212	2,068	52	0	0	2,183	-115	136 1,932
1/4/2013	450	1,058	194	1,702	46	0	0	1,905	-203	136 1,566
1/5/2013	497	1,143	207	1,847	50	0	0	2,090	-243	136 1,711
1/6/2013	489	1,127	188	1,804	52	0	0	2,183	-379	136 1,668
1/7/2013	397	948	228	1,573	39	0	0	1,581	-8	136 1,437
1/8/2013	377	905	185	1,467	43	0	. 0	1,766	-299	136 1,331 136 1,153
1/9/2013 1/10/2013	339 313	780 774	170 140	1,289 1,227	37 31	0	0	1,489 1,211	-200 16	136 1,153 136 1,091
1/11/2013	339	698	140	1,177	27	0	0	1,026	151	136 1,041
1/12/2013	616	1,442	259	2,317	45	ō	0	1,859	458	136 2,181
1/13/2013	651	1,511	267	2,429	60	0	0	2,553	-124	136 2,293
1/14/2013	572	1,360	231	2,163	57	0	0	2,414	-251	136 2,027
1/15/2013	463	1,046	174	1,683	45	0	0	1,859	-176	136 1,547
1/16/2013	494 523	1,125	181 178	1,800 1,886	41 55	, 0 0	0 0	1,674 2,321	126 -435	136 1,664 136 1,750
1/17/2013 1/18/2013	323	1,185 729	176	1,000	34	0	0	1,350	-193	136 1,730
1/19/2013	580	1,344	227	2,151	45	ő	0	1,859	292	136 2,015
1/20/2013	726	1,699	285	2,710	61	0	0	2,599	111	136 2,574
1/21/2013	806	1,898	323	3,027	71	0	0	3,062	-35	136 2,891
1/22/2013	659	1,558	259	2,476	66	0	0	2,830	-354	136 2,340
1/23/2013	678	1,597	281	2,556	59	0	0	2,506	50	136 2,420
1/24/2013	675	1,557	283	2,515	60 54	0	0	2,553 2,275	-38 75	136 2,379 136 2,214
1/25/2013 1/26/2013	638 518	1,457 1,213	255 195	2,350 1,926	53	0	0	2,279	-303	136 2,214
1/27/2013	388	911	118	1,417	35	0	0	1,396	21	136 1,281
1/28/2013	348	832	112	1,292	33	0	0	1,304	-12	136 1,156
1/29/2013	409	895	176	1,480	34	0	0	1,350	130	136 1,344
1/30/2013	648	1,502	306	2,456	47	0	0	1,951	505	136 2,320
1/31/2013 2/1/2013	842	1916	332	3,090	66	0	0	2,830	260	136 2,954
2/1/2013	659 585	1471 1351	265 239	2,395 2,175	65 59	0	0	2,784 2,506	-389 -331	136 2,259 136 2,039
2/3/2013	580	1328	239	2,173	57	0	0	2,414	-267	136 2,011
2/4/2013	553	1201	239	1,993	57	0	Ö.	2,414	-421	136 1,857
2/5/2013	541	1194	242	1,977	49	0	0	2,044	-67	136 1,841
2/6/2013	442	1020	215	1,677	50	0	0	2,090	-413	136 1,541
2/7/2013	464	1011	247	1,722	43	0	0	1,766	-44	136 1,586
2/8/2013 2/9/2013	469	1012 945	253	1,734 1,589	42 37	0	0 0	1,720 1,489	14 100	136 1,598 136 1,453
2/10/2013	417 382	945 897	227 194	1,509	33	0	0	1,304	169	136 1,453
2/11/2013	507	1129	214	1,850	42	0	0	1,720	130	136 1,714
2/12/2013	397	898	134	1,429	39	0	0	1,581	-152	136 1,293
2/13/2013	329	761	83	1,173	39	0	0	1,581	-408	136 1,037
2/14/2013	496	1084	181	1,761	43	0	0	1,766	-5	136 1,625
2/15/2013	577	1295	193	2,065	55	0	0	2,321	-256	136 1,929
2/16/2013	518 414	1211 936	160 146	1,889	55 44	0	0 0	2,321 1,813	-432 -317	136 1,753 136 1,360
2/17/2013 2/18/2013	414 629	1409	146 227	1,496 2,265	47	0	0	1,813	314	136 1,360
2/19/2013	781	1725	294	2,800	67	0	0	2,877	-77	136 2,129
2/20/2013	595	1357	173	2,125	63	Ö	0	2,692	-567	136 1,989
2/21/2013	525	1218	144	1,887	55	0	0	2,321	-434	136 1,751
2/22/2013	433	1008	141	1,582	43	0	0	1,766	-184	136 1,446
2/23/2013	477	1136	198	1,811	50	0	0	2,090	-279	136 1,675
2/24/2013	357	845	95 175	1,297	52	0	0	2,183	-886	136 1,161
2/25/2013 2/26/2013	369 345	860 817	175 144	1,404 1,306	43 43	0 0	0 0	1,766 1,766	-362 -460	136 1,268 136 1,170
2/20/2013	345	786	144	1,272	34	0	0	1,350	-78	136 1,176
2/28/2013	407	932		1,499	39	0	0	1,581	-82	136 1,363

					Faribault					
2/4/0042	Forest	<u>Heid</u>	Faribault 5	Total	HDD 40	0	0	4.005	000	400 4 407
3/1/2013 3/2/2013	434 374	938 906	201 167	1,573 1,447	4 6 51	0 0	0 0	1,905 2,136	-332 -689	136 1,437 136 1,311
3/3/2013	374	880	172	1,423	41	0	0	1,674	-251	136 1,287
3/4/2013	413	967	200	1,580	41	0	0	1,674	-94	136 1,444
3/5/2013	394	905	179	1,478	41	0	0	1,674	-196	136 1,342
3/6/2013	449	983	248	1,680	51	0	0	2,136	-456	136 1,544
3/7/2013	408	924	218	1,550	54	0	0	2,275	-725	136 1,414
3/8/2013 3/9/2013	313 317	706 734	139 114	1,158 1,165	41 30	0 0	0 0	1,674 1,165	-516 0	136 1,022 136 1,029
3/10/2013	390	902	138	1,430	34	0	Ö	1,350	80	136 1,294
3/11/2013	411	923	192	1,526	41	0	0	1,674	-148	136 1,390
3/12/2013	447	1000	230	1,677	43	0	0	1,766	-89	136 1,541
3/13/2013	383	855	205	1,443	46	0	0	1,905	-462	136 1,307
3/14/2013	282	632	139	1,053	36	0	0	1,443	-390	136 917
3/15/2013 3/16/2013	360 443	831 1011	141 220	1,332 1,674	35 47	0 0	0	1,396 1,951	-64 -277	136 1,196 136 1,538
3/17/2013	424	975	190	1,589	47	0	0	1,951	-362	136 1,453
3/18/2013	595	1317	266	2,178	45	Ō	ō	1,859	319	136 2,042
3/19/2013	603	1321	279	2,203	53	0	0	2,229	-26	136 2,067
3/20/2013	581	1268	285	2,134	55	0	0	2,321	-187	136 1,998
3/21/2013	453	1006	226	1,685	55	0	0	2,321	-636	136 1,549
3/22/2013 3/23/2013	356	810	180	1,346	49	0	0	2,044	-698	136 1,210
3/24/2013	331 369	765 806	155 160	1,251 1,335	42 39	0 0	0	1,720 1,581	-469 -246	136 1,115 136 1,199
3/25/2013	344	739	186	1,269	37	0	0	1,489	-220	136 1,133
3/26/2013	331	755	190	1,276	37	Ō	ō	1,489	-213	136 1,140
3/27/2013	287	647	130	1,064	41	0	0	1,674	-610	136 928
3/28/2013	270	604	128	1,002	37	0	0	1,489	-487	136 866
3/29/2013	214	474	107	795	27	0	0	1,026	-231	136 659
3/30/2013 3/31/2013	237	537	129	903	25	0	0 0	934	-31	136 767
11/1/2013	358 251	845 1,032	208 1,321	1,411 2,604	36 21	0	0	1,443 749	-32 1,855	136 1,275 136 2,468
11/2/2013	307	1,250	1,431	2,988	26	0	0 .		2,008	136 2,852
11/3/2013	262	925	706	1,893	21	0	Ō		1,144	136 1,757
11/4/2013	292	908	842	2,042	26	0	0	980	1,062	136 1,906
11/5/2013	303	869	548	1,720	30	0	0	1,165	555	136 1,584
11/6/2013	281	875	645	1,801	29	0	0	1,119	682	136 1,665
11/7/2013 11/8/2013	329 318	913 927	404 573	1,646 1,818	31 27	0 0	0 0	1,211 1,026	435 792	136 1,510 136 1,682
11/9/2013	332	1,029	818	2,179	23	0	0		1,338	136 2,043
11/10/2013	303	938	1,068	2,309	25	0	Ö		1,375	136 2,173
11/11/2013	457	1,155	556	2,168	35	0	0	1,396	772	136 2,032
11/12/2013	452	1,053	771	2,276	45	0	0	1,859	417	136 2,140
11/13/2013	298	750	1,277	2,325	25	0	0		1,391	136 2,189
11/14/2013 11/15/2013	280 227	749 565	1,055 833	2,084 1,625	23 21	0	0 0	841 749	1,243 876	136 1,948
11/16/2013	221	534	612	1,825	15	0	0	471	899	136 1,489 136 1,234
11/17/2013	357	796	372	1,525	24	Ö	0	888	637	136 1,389
11/18/2013	371	922	1,012	2,305	34	0	0	1,350	955	136 2,169
11/19/2013	305	815	624	1,744	31	0	0	1,211	533	136 1,608
11/20/2013	293	778	391	1,462	23	0	0	841	621	136 1,326
11/21/2013	457 504	1,030	557	2,044	32	0	0	1,258	786	136 1,908
11/22/2013 11/23/2013	504 605	1,143 1,342	809 943	2,456 2,890	40 51	0	0	1,628 2,136	828 754	136 2,320 136 2,754
11/24/2013	533	1,155	711	2,399	45	0	0	1,859	540	136 2,263
11/25/2013	386	831	486	1,703	29	0	0	1,119	584	136 1,567
11/26/2013	584	1,221	743	2,548	40	0	0	1,628	920	136 2,412
11/27/2013	492	1,074	460	2,026	45	0	0	1,859	167	136 1,890
11/28/2013	485	1,067	443	1,995	43 42	0 0	0 0	1,766	229	136 1,859
11/29/2013 11/30/2013	431 320	948 798	421 286	1,800 1,404	30	0	0	1,720 1,165	80 239	136 1,664 136 1,268
12/1/2013	353	835	487	1,675	36	0	Ö	1,443	232	136 1,539
12/2/2013	322	715	408	1,445	27	ō	0	1,026	419	136 1,309
12/3/2013	332	739	459	1,530	27	0	0	1,026	504	136 1,394
12/4/2013	531	1,163	546	2,240	39	0	0	1,581	659	136 2,104
12/5/2013	762	1,630	764	3,156	57	0	0	2,414	742	136 3,020
12/6/2013	810 753	1,760 1,675	749 582	3,319 3,010	63 65	0	0	2,692	627 226	136 3,183
12/7/2013 12/8/2013	753 662	1,675 1,431	582 578	3,010 2,671	65 53	0 0	0 0	2,784 2,229	226 442	136 2,874 136 2,535
12/9/2013	793	1,663	818	3,274	58	0	0	2,460	814	136 2,535
12/10/2013	727	1,521	737	2,985	53	Ő	Ö	2,229	756	136 2,849
12/11/2013	779	1,646	797	3,222	60	0	0	2,553	669	136 3,086
12/12/2013	550	1,190	574	2,314	50	0	0	2,090	224	136 2,178
12/13/2013	624	1,348	675	2,647	47	0	0	1,951	696	136 2,511
12/14/2013 12/15/2013	702 698	1,479 1,483	778 777	2,959 2,958	55 60	0 0	0 0	2,321 2,553	638 405	136 2,823 136 2,822
12/10/2013	050	1,403	111	۵,500	00	U	J	2,000	400	100 2,022

					Faribault					
40/40/0040	Forest 500	Heid 4.000	Faribault 5	<u>Total</u>	HDD	0	0	0.420	004	400 0 004
12/16/2013 12/17/2013	596 547	1,269 1,134	565 522	2,430 2,203	51 43	0 0	0	2,136 1,766	294 437	136 2,294 136 2,067
12/17/2013	433	888	299	1,620	41	0	0	1,674	-54	136 1,484
12/19/2013	603	1,189	516	2,308	42	0	0	1,720	588	136 2,172
12/20/2013	555	1,143	428	2,126	45	0	0	1,859	267	136 1,990
12/21/2013	548	1,128	417	2,093	43	0	0	1,766	327	136 1,957
12/22/2013	742	1,461	662	2,865	52	0	0	2,183	682	136 2,729
12/23/2013 12/24/2013	885 739	1,791 1,600	831 727	3,507 3,066	67 63	0	0	2,877 2,692	630 374	136 3,371 136 2,930
12/25/2013	551	1,131	409	2,091	41	0	0	1,674	417	136 2,930
12/26/2013	455	1,021	300	1,776	42	Ö	0	1,720	56	136 1,640
12/27/2013	385	846	244	1,475	37	0	0	1,489	-14	136 1,339
12/28/2013	428	962	337	1,727	29	0	0	1,119	608	136 1,591
12/29/2013	816	1,798	756	3,370	57	0	0	2,414	956	136 3,234
12/30/2013	795	1,832	691	3,318	67 67	0 0	0	2,877	441	136 3,182
12/31/2013 1/1/2014	806 786	1,858 1,784	689 640	3,353 3,210	65	0	0	2,877 2,784	476 426	136 3,217 136 3,074
1/2/2014	794	1,754	706	3,316	69	. 0	0	2,764	347	136 3,180
1/3/2014	657	1,452	579	2,688	55	Ö	0	2,321	367	136 2,552
1/4/2014	715	1,531	581	2,827	46	0	0	1,905	922	136 2,691
1/5/2014	980	2,263	769	4,012	73	0	0	3,154	858	136 3,876
1/6/2014	982	2,341	773	4,096	79	0	0	3,432	664	136 3,960
1/7/2014	768	1,704	629	3,101	66	0	0	2,830	271	136 2,965
1/8/2014	792	1,767	823	3,382	69	0	0	2,969	413	136 3,246
1/9/2014 1/10/2014	638 455	1,436 1,060	649 351	2,723 1,866	57 37	0	0	2,414 1,489	309 377	136 2,587 136 1,730
1/11/2014	485	1,085	413	1,983	37	0	0	1,489	494	136 1,730
1/12/2014	356	830	290	1,476	31	0	0	1,211	265	136 1,340
1/13/2014	393	851	348	1,592	33	0	0	1,304	288	136 1,456
1/14/2014	638	1,359	720	2,717	43	0	0	1,766	951	136 2,581
1/15/2014	599	1,270	589	2,458	49	0	0	2,044	414	136 2,322
1/16/2014	707	1,499	751	2,957	42	0	0	1,720	1,237	136 2,821
1/17/2014	653	1,403	746	2,802	57	0	0	2,414	388	136 2,666
1/18/2014 1/19/2014	550 378	1,193 828	583 331	2,326 1,537	45 35	0	. 0	1,859 1,396	467 141	136 2,190 136 1,401
1/20/2014	724	1,541	767	3,032	49	0	0	2,044	988	136 2,896
1/21/2014	773	1,772	777	3,322	67	Ō	0	2,877	445	136 3,186
1/22/2014	881	1,903	929	3,713	63	0	. 0	2,692	1,021	136 3,577
1/23/2014	852	1,917	828	3,597	70	0	0	3,015	582	136 3,461
1/24/2014	544	1,276	492	2,312	42	0	0	1,720	592	136 2,176
1/25/2014	671	1,525	672	2,868	47	0	0	1,951	917	136 2,732
1/26/2014 1/27/2014	848 914	1,909 2,102	837 914	3,594 3,930	57 75	0 0	0 0	2,414 3,247	1,180 683	136 3,458 136 3,794
1/28/2014	826	1,870	778	3,474	71	0	0	3,062	412	136 3,338
1/29/2014	501	1,218	435	2,154	50	0	ō	2,090	64	136 2,018
1/30/2014	581	1,520	668	2,769	50	0	0	2,090	679	136 2,633
1/31/2014	605	1581	635	2,821	67	0	0	2,877	-56	136 2,685
2/1/2014	578	1521	643	2,742	53	0	0	2,229	513	136 2,606
2/2/2014	606	1535	667	2,808	63	0	0	2,692	116	136 2,672
2/3/2014 2/4/2014	577 667	1409 1611	586 784	2,572 3,062	56 62	0	0	2,368 2,645	204 417	136 2,436 136 2,926
2/5/2014	763	1828	881	3,472	65	0	0	2,784	688	136 3,336
2/6/2014	760	1791	822	3,373	66	0	Ö	2,830	543	136 3,237
2/7/2014	672	1595	764	3,031	60	0	0	2,553	478	136 2,895
2/8/2014	605	1445	645	2,695	59	0	0	2,506	189	136 2,559
2/9/2014	732	1707	834	3,273	63	0	0	2,692	581	136 3,137
2/10/2014	746	1723	791	3,260	70	0	0	3,015	245	136 3,124
2/11/2014 2/12/2014	659 493	1540 1198	755 657	2,954 2,348	65 43	0 0	0 0	2,784 1,766	170 582	136 2,818 136 2,212
2/13/2014	615	1450	803	2,868	45	0	0	1,859	1,009	136 2,732
2/14/2014	611	1469	852	2,932	57	0	0	2,414	518	136 2,796
2/15/2014	569	1384	713	2,666	55	0	0	2,321	345	136 2,530
2/16/2014	504	1247	713	2,464	49	0	0	2,044	420	136 2,328
2/17/2014	427	1051	530	2,008	39	0	0	1,581	427	136 1,872
2/18/2014	312	826	407	1,545	31	0	0	1,211	334	136 1,409
2/19/2014 2/20/2014	271 468	734 1118	380 631	1,385 2,217	35 37	0	0	1,396 1,489	-11 728	136 1,2 4 9 136 2,081
2/20/2014	594	1424	775	2,793	49	0	0	2,044	749	136 2,081 136 2,657
2/22/2014	600	1417	804	2,821	53	0	0	2,229	592	136 2,685
2/23/2014	613	1440	775	2,828	55	Ō	0	2,321	507	136 2,692
2/24/2014	667	1531	852	3,050	58	0	0	2,460	590	136 2,914
2/25/2014	779	1724	1035	3,538	63	0	0	2,692	846	136 3,402
2/26/2014	768	1751	956	3,475	59	0	0	2,506	969	136 3,339
2/27/2014	767 685	1727	1005	3,499	70 60	0	0	3,015	484 531	136 3,363
2/28/2014 3/1/2014	685 831	1,583 1875	816 1000	3,084 3,706	60 63	0	0 0	2,553 2,692	531 1,014	136 2,948 136 3,570
0/ 1/20 14	001	1013	1000	0,700	. 03	J	U	2,002	1,017	100 0,010

					Faribault						
	Forest	Heid	Faribault 5	Total	HDD .						
3/2/2014	766	1761	964	3,491	71	0	0	3,062	429	136	3,355
3/3/2014	669	1529	883	3,081	69	0	0	2,969	112	136	2,945
3/4/2014	518	1195	647	2,360	49	0	0	2,044	316	136	2,224
3/5/2014	510	1132	753	2,395	47	0	0	1,951	444	136	2,259
3/6/2014	491	1083	679	2,253	43	0	0	1,766	487	136	2,117
3/7/2014	407	926	520	1,853	33	0	0	1,304	549	136	1,717
3/8/2014	414	932	623	1,969	43	0	0	1,766	203	136	1,833
3/9/2014	289	681	390	1,360	35	0	0	1,396	-36	136	1,224
3/10/2014	211	479	285	975	21	0	0	749	226	136	839
3/11/2014	357	751	448	1,556	27	0	0	1,026	530	136	1,420
3/12/2014	379	833	588	1,800	41	0	0	1,674	126	136	1,664
3/13/2014	220	512	343	1,075	27	0	0	1,026	49	136	939
3/14/2014	323	715	434	1,472	27	0	0	1,026	446	136	1,336
3/15/2014	424	957	615	1,996	37	0	0	1,489	507	136	1,860
3/16/2014	431	971	615	2,017	45	0	0	1,859	158	136	1,881
3/17/2014	344	789	449	1,582	32	0	0	1,258	324	136	1,446
3/18/2014	347	816	399	1,562	29	0	0	1,119	443	136	1,426
3/19/2014	344	766	413	1,523	31	0	0	1,211	312	136	1,387
3/20/2014	256	583	324	1,163	33	0	0	1,304	-141	136	1,027
3/21/2014	403	900	512	1,815	29	0	0	1,119	696	136	1,679
3/22/2014	536	1172	710	2,418	45	0	0	1,859	559	136	2,282
3/23/2014	452	1018	544	2,014	46	0	0	1,905	109	136	1,878
3/24/2014	478	1048	564	2,090	37	0	0	1,489	601	136	1,954
3/25/2014	524	1125	691	2,340	47	0	0	1,951	389	136	2,204
3/26/2014	336	759	422	1,517	33	0	0	1,304	213	136	1,381
3/27/2014	351	788	390	1,529	27	0	0	1,026	503	136	1,393
3/28/2014	302	715	403	1,420	29	0	0	1,119	301	136	1,284
3/29/2014	246	607	332	1,185	29	0	0	1,119	66	136	1,049
3/30/2014	131	416	202	749	13	0	0	379	370	136	613
3/31/2014	260	609	448	1,317	19	0	0	656	661	136	1,181
						3	136				

		Shakopee						
	<u>Mary</u>	<u>HDD</u>						
11/1/2011	91	15	0	0	103		42	49
11/2/2011	146	22	0	0	150		42	104
11/3/2011	145	25	0	0	178		42	103
11/4/2011	143	23	0	0	16		42	101
11/5/2011	123	15	0	0	103		42	81
11/6/2011	150	17	0	0	118		42	108
11/7/2011	146	23	0	0	16		42	104
11/8/2011	156	25	0	0	175		42	114
11/9/2011	165	23	0	0	16		42	123
11/10/2011	214	32	0	0	225		42	172
11/11/2011	149	25	0	0	175		42	107
11/12/2011	111	17	0	0	118		42	69
11/13/2011	164	23	0	0	161		42	122
11/14/2011	152	22	0	0	150		42	110
11/15/2011 11/16/2011	191 266	· 25 35	0	0 0	175 247		42 42	149
11/17/2011	200	43	0	0	304		42	224
11/17/2011	172	43 25	0	0	175		42	182 130
11/19/2011	276	35	0	0	247		42	
11/20/2011	279	44	0	0	31		42	234 237
11/21/2011	209	37	0	0	26		42	237 167
11/22/2011	203	29	0	0	204		42	159
11/23/2011	149	23	0	0	16		42	107
11/24/2011	112	17	0	0	118		42	70
11/25/2011	128	18	0	0	125	-	42	76 86
11/26/2011	212	21	0	0	146		42	170
11/27/2011	256	33	0	0	232		42	214
11/28/2011	227	35	0	Ö	247		42	185
11/29/2011	232	33	0	0	232		42	190
11/30/2011	186	34	ő	ő	239		42	144
12/1/2011	277	42	ő	ő	297		42	235
12/2/2011	253	44	ő	ő	31		42	211
12/3/2011	240	37	Ö	0	26		42	198
12/4/2011	283	41	0	0	290		42	241
12/5/2011	311	47	0	0	333		42	269
12/6/2011	346	53	0	0	376		42	304
12/7/2011	301	46	0	0	325	5 -24	42	259
12/8/2011	341	47	0	0	333	3 8	42	299
12/9/2011	391	56	0	0	39	7 -6	42	349
12/10/2011	316	51	0	0	36 ⁻	1 -45	42	274
12/11/2011	221	37	0	0	26	1 -40	42	179
12/12/2011	186	28	0	0	196	3 -10	42	144
12/13/2011	193	29	0	0	20	4 -11	42	151
12/14/2011	193	29	0	0	20		42	151
12/15/2011	297 -	38	0	0	268		42	255
12/16/2011	264	45	0	0	318		42	222
12/17/2011	256	38	0	0	26		42	214
12/18/2011	179	31	0	0	218		42	137
12/19/2011	270	39	0	0	27		42	228
12/20/2011	278	43	0	0	30-		42	236
12/21/2011	266	41	, 0	0	29		42	224
12/22/2011	307	45	0	0	31:		42	265
12/23/2011	298	39	0	0	27		42	256
12/24/2011	195	37	0	0 .	26		42	153
12/25/2011	196	32	0	0	22		42	154
12/26/2011	177	27	0	0	18		42	135
12/27/2011	225	35	0	0	24		42	183
12/28/2011	192	35	0	0	24		42	150
12/29/2011	220	34	0	0	23		42	178
12/30/2011	216	35	0	0	24		42	174
12/31/2011	220	29	0	0	20-	4 16	42	178

		Shakopee						
	Mary	HDD						
1/1/2012	353	38	0	0	268	85	42	311
1/2/2012	360	51	0	0	361	-1	42	318
1/3/2012	310	47	0	0	333	-23	42	268
1/4/2012	220	35	0	0	247	-27	42	178
1/5/2012	180	29	0	0	204	-24	42	138
1/6/2012	189	23	0	0	161	28	42	147
1/7/2012	240	34	0	0	239	1	42	198
1/8/2012	227	35	0	0	247	-20	42	185
1/9/2012	197	23	0	0	161	36	42	155
1/10/2012	170	25 39	0	0 0	175	-5 82	42	128
1/11/2012 1/12/2012	357 426	53	0	0	275 376	50	42 42	315 384
1/13/2012	409	55 55	0	0	390	19	42 42	367
1/13/2012	325	50 50	0	0	354	-29	42	283
1/15/2012	230	. 34	0	0	239	-2 9 -9	42	188
1/16/2012	288	39	0	0	275	13	42	246
1/17/2012	393	54	0	0	383	10	42	351
1/18/2012	443	53	0	ő	376	67	42	401
1/19/2012	460	67	Ö	ő	476	-16	42	418
1/20/2012	430	59	ō	Õ	419	11	42	388
1/21/2012	389	55	0	0	390	-1	42	347
1/22/2012	291	41	0	o	290	1	42	249
1/23/2012	320	41	0	0	290	30	42	278
1/24/2012	288	47	0	0	333	-45	42	246
1/25/2012	238	36	0	0	254	-16	42	196
1/26/2012	245	33	0	0	232	13	42	203
1/27/2012	325	38	0	0	268	57	42	283
1/28/2012	314	41	0	0	290	24	42	272
1/29/2012	317	48	0	0	340	-23	42	275
1/30/2012	218	33	0	0	232	-14	42	176
1/31/2012	225	26	0	0	182	43	42	183
2/1/2012	242	31	0	0	218	24	42	200
2/2/2012	255	33	0	0	232	23	42	213
2/3/2012	271	34 35	0	0 0	239	32	42	229
2/4/2012 2/5/2012	270 280	36	0	0	247 254	23 26	42 42	228 238
2/6/2012	230	31	0	0	218	12	42	236 188
2/7/2012	329	41	0	0	290	39	42	287
2/8/2012	310	44	0	0	311	-1	42	268
2/9/2012	285	38	0	ő	268	17	42	243
2/10/2012	436	49	Ö	ō	347	89	42	394
2/11/2012	406	55	0	Ō	390	16	42	364
2/12/2012	315	47	0	0	333	-18	42	273
2/13/2012	286	41	0	0	290	-4	42	244
2/14/2012	255	37	0	0	261	-6	42	213
2/15/2012	244	37	0	0	261	-17	42	202
2/16/2012	233	33	0	0	232	1	42	191
2/17/2012	255	31	0	0	218	37	42	213
2/18/2012	249	39	0	0	275	-26	42	207
2/19/2012	236	34	0	0	239	-3	42	194
2/20/2012	252	29	0	0	204	48	42	210
2/21/2012	261	33	0	0	232	29	42	219
2/22/2012	227	39	0	0	275	-48	42	185
2/23/2012	240	33	0	0	232	8	42	198
2/24/2012	346	43	0	0	304	42	42	304
2/25/2012	287	47 33	0 0	0 0	333	-46 79	42	245
2/26/2012 2/27/2012	311 272	33 40	0	0	232 282	-10	42 42	269 230
2/28/2012	272 275	40 36	0	0	282 254	-10 21	42 42	230
2/29/2012		31	0	0	218	23	42	233 199
212012012	471	31	J	U	2.10	20	74	100

		Shakopee						
	<u>Mary</u>	<u>HDD</u>						
3/1/2012	221	32	0	0	225	-4	42	179
3/2/2012	265	35	0	0	247	18	42	223
3/3/2012	348	45	0	0	318	30	42	306
3/4/2012	296	48	0	0	340	-44	42	254
3/5/2012	252	41	0	0	290	-38	42	210
3/6/2012	105	21	0	0	146	-41	42	63
3/7/2012	252	26	0	0	182	70	42	210
3/8/2012	274	35	0	0	247	27	42	232
3/9/2012	220	40	0	0	282	-62	42	178
3/10/2012	92	15	0	0	103	-11	42	50
3/11/2012	82	11	0	0	75	7	42	40
3/12/2012	134	19	0	0	132	2	42	92
3/13/2012	74	15	0	0	103	-29	42	32
3/14/2012 3/15/2012	54 73	6 12	0 0	0 0	39 82	15 -9	42 42	12
3/16/2012	73 26	2	0	0	10	-9 16	42	31 - 1 6
3/17/2012	41	0	1	41	-4	45	42	-10 -1
3/18/2012	49	0	1	49	-4	53	42	7
3/19/2012	45	0	1	45	-4	49	42	3
3/20/2012	52	5	ò	0	32	20	42	10
3/21/2012	56	5	0	0	32	24	42	14
3/22/2012	56	2	0	Ö	10	46	42	14
3/23/2012	31	0	1	31	-4	35	42	-11
3/24/2012	53	5	ò	Ö	32	21	42	11
3/25/2012	69	17	Ō	Ō	118	-49	42	27
3/26/2012	186	22	0	0	153	33	42	144
3/27/2012	55	9	0	0	60	-5	42	13
3/28/2012	71	17	0	0	118	-47	42	29
3/29/2012	59	14	0	0	96	-37	42	17
3/30/2012	101	18	0	. 0	125	-24	42	59
3/31/2012	106	17	0	0	118	-12	42	64
11/1/2012	179	27	0	0	189	-10	42	137
11/2/2012	183	33	0	0	232	-49	42	141
11/3/2012	184	26	0	0	182	2	42	142
11/4/2012	170	27	0	0	189	-19	42	128
11/5/2012	178	25	0	0	175	3	42	136
11/6/2012	183	24	0	0	168	15	42	141
11/7/2012	178	24	0	0	168	10	42	136
11/8/2012	125	21	0	0	146	-21	42	83
11/9/2012	125	20	0	0	139	-14	42	83
11/10/2012	57 301	8	0	0 0	53	4 105	42	15
11/11/2012 11/12/2012	335	28 43	0	0	196 304	31	42 42	259 293
11/13/2012	185	37	0	0	261	-76	42	143
11/14/2012	130	24	0	0	168	-38	42	88
11/15/2012	177	25	0	0	175	2	42	135
11/16/2012	178	33	ő	0	232	-54	42	136
11/17/2012	136	19	ŏ	ő	132	4	42	94
11/18/2012	113	15	0	Ö	103	10	42	71
11/19/2012	131	16	0	Ō	110	21	42	89
11/20/2012	143	23	0	0	161	-18	42	101
11/21/2012	93	14	0	0	96	-3	42	51
11/22/2012	238	26	Ō	0	182	56	42	196
11/23/2012	348	45	0	0	318	30	42	306
11/24/2012	296	47	0	0	333	-37	42	254
11/25/2012	285	39	0	0	275	10	42	243
11/26/2012	336	50	0	0	354	-18	42	294
11/27/2012	290	39	0	0	275	15	42	248
11/28/2012	245	35	0	. 0	247	-2	42	203
11/29/2012	233	35	0	0	247	-14	42	191
11/30/2012	241	33 -	0	0	232	9	42	199

		Shakopee						
	Mary	HDD						
12/1/2012	196	25	0	0	175	21	42	154
12/2/2012	182	32	0	0	225	-43	4 2	140
12/3/2012	169	19	0	0	132	37	42	127
12/4/2012	243	33	0	0	232	11	42	201
12/5/2012	196	36	0	0	254	-58	42	154
12/6/2012	164	29	0	0	204	-40	42	122
12/7/2012	248	41	0	0	290	-42	42	206
12/8/2012	227	37	0	0	261	-34	42	185
12/9/2012	272	41	0	0	290	-18	42	230
12/10/2012	374	58	0	0	411	-37	42	332
12/11/2012	342	55	0	0	390	-48	42	300
12/12/2012	197	43	0	0	304	-107	42	155
12/13/2012	250	38	0	0	268	-18	42	208
12/14/2012	200	39	0	0	275	-75	42	158
12/15/2012	201	29	0	0	204	-3	42	159
12/16/2012	306	39	0	0	275	31	4 2	264
12/17/2012	283	43	0	0	304	-21	42	241
12/18/2012	259	41	0	0	290	-31	42	217
12/19/2012	258	39	0	0	275	-17	42	216
12/20/2012	362	47	0	0	333	29	42	320
12/21/2012	365	53	0	0	376	-11	42	323
12/22/2012	305	48	0	0	340	-35	42	263
12/23/2012	336	51	0	0	361	-25	42	294
12/24/2012	375	55	0	0	390	-15	42	333
12/25/2012	416	62	0	0	440	-24	42	374
12/26/2012	365	55	0	0	390	-25	42	323
12/27/2012	339	52	0	0	368	-29	42	297
12/28/2012	297	48	0	0	340	-43	42	255
12/29/2012	376	57	0	0	404	-28	42	334
12/30/2012	334	53	0	0	376	-42	42	292
12/31/2012 1/1/2013	405 402	61 60	0 0	0 0	433	-28	42	363
1/2/2013	343	47	0	0	426 333	-24 10	42 42	360
1/3/2013	370	50	0	0	354	16	42 42	301 328
1/4/2013	287	44	0	0	311	-24	42 42	326 245
1/5/2013	320	49	0	. 0	347	-27	42	278
1/6/2013	315	51	0	0	361	-46	42	273
1/7/2013	247	37	0	0	261	-14	42	205
1/8/2013	256	39	0	0	275	-19	42	214
1/9/2013	207	37	0	Ö	261	-54	4 2	165
1/10/2013	197	32	0	Ö	225	-28	42	155
1/11/2013	214	27	Ō	Ö	189	25	4 2	172
1/12/2013	418	43	ō	Ö	304	114	42	376
1/13/2013	452	59	ō	Ö	419	33	42	410
1/14/2013	410	57	0	0	404	6	42	368
1/15/2013	305	45	0	0	318	-13	42	263
1/16/2013	321	40	0	0	282	39	42	279
1/17/2013	349	53	0	0	376	-27	42	307
1/18/2013	207	35	0	0	247	-40	42	165
1/19/2013	385	43	0	0	304	81	42	343
1/20/2013	501	61	0	0	433	68	42	459
1/21/2013	553	71	0	0	505	48	42	511
1/22/2013	457	68	0	0	483	-26	42	415
1/23/2013	418	59	0	0	419	-1	42	376
1/24/2013	458	61	0	0	433	25	42	416
1/25/2013	417	53	0	0	376	41	42	375
1/26/2013	346	53	0	0	376	-30	42	304
1/27/2013	195	36	0	0	254	-59	42	153
1/28/2013	156	32	0	0	225	-69	42	114
1/29/2013	239	33	0	0	232	7	42	197
1/30/2013	395	47	0	0	333	62	42	353
1/31/2013	529	65	0	0	462	67	42	487

		Shakopee						
	Mary	HDD						
2/1/2013	447	69	0	0	490	-43	42	405
2/2/2013	398	59	0	0	419	-21	42	356
2/3/2013	388	57	0	0	404	-16	42	346
2/4/2013	340	55	0	0	390	-50	42	298
2/5/2013	336	47	0	0	333	3	42	294
2/6/2013	298	51	0	0	361	-63	42	256
2/7/2013	288	40	0	0	282	6	42	246
2/8/2013	289	43	0	0	304	-15	42	247
2/9/2013	270	36	0	0	254	16	42	228
2/10/2013	248	33	0	0	232	16	42	206
2/11/2013	320	42	0	0	297	23	42	278
2/12/2013	239	41		0	290	-51	42	197
2/13/2013	199 291	38 41	0	0 0	268	-69	42	157
2/14/2013	369	41 55	0 0	0	290 390	1 -21	42 42	249
2/15/2013 2/16/2013	344	56 56	0	0	390	-21 -53	42 42	327 302
2/17/2013	269	45	0	0	318	-55 -49	42 42	227
2/17/2013	395	45 45	0	0	318	- 4 9 77	42	353
2/19/2013	445	63	0	0	447	-2	42	403
2/20/2013	384	61	0	0	433	-49	42	342
2/21/2013	343	51	0	0	361	- 1 8	42	301
2/22/2013	267	41	0	0	290	-23	42	225
2/23/2013	303	45	0	0	318	-15	42	261
2/24/2013	224	47	0 .	0	333	-109	42	182
2/25/2013	224	39	0	0	275	-51	42	182
2/26/2013	218	39	Ö	ő	275	-57	42	176
2/27/2013	203	31	Ö	ō	218	-15	42	161
2/28/2013	262	37	0	Ō	261	1	42	220
3/1/2013	272	41	0	0	290	-18	42	230
3/2/2013	247	47	0	0	333	-86	42	205
3/3/2013	244	40	0	0	282	-38	42	202
3/4/2013	298	39	0	0	275	23	42	256
3/5/2013	257	39	0	0	275	-18	42	215
3/6/2013	280	44	0	0	311	-31	42	238
3/7/2013	258	47	0	0	333	-75	42	216
3/8/2013	178	38	0	0	268	-90	42	136
3/9/2013	194	29	0	0	204	-10	42	152
3/10/2013	256	33	0	0	232	24	42	214
3/11/2013	263	39	0	0	275	-12	42	221
3/12/2013	285	41	0	0	290	-5	42	243
3/13/2013	234	44	0	0	311	-77	42	192
3/14/2013	160	33	0	0	232	-72	42	118
3/15/2013	230	35	0	0	247	-17	42	188
3/16/2013	284	46	0	0	325	-41	42	242
3/17/2013	290	46	0	0 '	325	-35	42	248
3/18/2013	380	44	0	0	311	69	42	338
3/19/2013	385	51	0	0	361	24	42	343
3/20/2013	371	52	0	0	368	3	42	329
3/21/2013	284	50 45	0 0	0	354	-70 -98	42	242
3/22/2013 3/23/2013	220 210	45 39	0	0 0	318 275	-98 -65	42 42	178 168
3/23/2013	230	35	0	0	247	-65 -17	42 42	188
3/25/2013	204	35 35	0	0	247 247	-17 -43	42 42	162
3/25/2013	204	35 34	0	0	239	-43 -35	42 42	162
3/27/2013	171	35	0	0	247	-35 -76	42 42	129
3/28/2013	166	33	0	0	232	-66	42	129
3/29/2013	122	25	0	0	175	-53	42	80
3/30/2013	138	21	0	0	146	-8	42	96
3/31/2013	239	33	0	Ö	232	7	42	197
						•		

		Shakopee						
	Mary	<u>HDD</u>						
11/1/2013	295	20	0	0	139	156	42	253
11/2/2013	364	23	0	0	161	203	42	322
11/3/2013 11/4/2013	293 262	19 23	0 0	0 _. 0	132	161	42	251
11/5/2013	202	23 29	0	0	161 204	101 21	42 42	220
11/6/2013	239	31	0	0	218	21	42	183 197
11/7/2013	255	35	0	0	247	8	42	213
11/8/2013	219	31	ō	Ö	218	1	42	177
11/9/2013	244	25	0	0	175	69	42	202
11/10/2013	239	27	0	0	189	50	42	197
11/11/2013	355	37	0	0	261	94	42	313
11/12/2013	318	45	0	0	318	0	42	276
11/13/2013	196	28	0	0	196	0	42	154
11/14/2013	174	21	0	0	146	28	42	132
11/15/2013	112 124	21	0	0	146	-34	42	70
11/16/2013 11/17/2013	202	20 27	0	0 0	139 189	-15 13	42 42	82 160
11/18/2013	246	35	0	0	247	-1	42	204
11/19/2013	196	30	0	0	211	-15	42	154
11/20/2013	187	23	Ö	ő	161	26	42	145
11/21/2013	275	33	0	0	232	43	42	233
11/22/2013	309	41	0	0	290	19	42	267
11/23/2013	385	52	0	0	368	17	42	343
11/24/2013	314	46	0	0	325	-11	42	272
11/25/2013	214	31	0	0	218	-4	42	172
11/26/2013	358	43	0	0	304	54	42	316
11/27/2013	303	49	0	0	347	-44	42	261
11/28/2013 11/29/2013	315 261	44 43	0 0	0 0	311	4	42	273
11/30/2013	209	32	0	0	304 225	- 4 3 -16	42 42	219
12/1/2013	233	38	0	0	268	-35	42	167 191
12/2/2013	207	31	0	0	218	-11	42	165
12/3/2013	220	31	Ő	Ö	218	2	42	178
12/4/2013	331	43	0	0	304	27	42	289
12/5/2013	480	60	0	0	426	54	42	438
12/6/2013	528	69	0	0	490	38	42	486
12/7/2013	513	72	0	0	512	1	42	471
12/8/2013	433	60	0	0	426	7	42	391
12/9/2013	505	63	0	0	447	58	42	463
12/10/2013	464	57	0	0	404	60	42	422
12/11/2013 12/12/2013	510	67 55	0	0 0	476	34	42	468
12/13/2013	377 416	50	0 0	0	390 354	-13 62	42 42	335 374
12/14/2013	462	57	0	0	404	58	42	420
12/15/2013	476	63	0	0	447	29	42	434
12/16/2013	389	53	0	0	376	13	42	347
12/17/2013	366	43	0	0	304	62	42	324
12/18/2013	285	43	0	0	304	-19	42	243
12/19/2013	385	43	0	0	304	81	4 2	343
12/20/2013	370	49	0	0	347	23	42	328
12/21/2013	361	45	0	0	318	43	42	319
12/22/2013	471	55	0	0	390	81	42	429
12/23/2013	586	69	0	0	490	96	42	544
12/24/2013 12/25/2013	503 370	67 45	0	0 0	476 318	27 52	42 42	461 328
12/26/2013	312	45 47	0	_	333		40	0770
12/27/2013	214	37	0	0	261	-21 -47	42 42	270 172
12/28/2013	228	33	Ō	0	232	-4	42	186
12/29/2013	518	63	0	0	447	71	42	476
12/30/2013	517	71	0	0	505	12	42	475
12/31/2013	527	70	0	0	497	30	42	485
1/1/2014	503	67	0	0	476	27	42	461
1/2/2014	505	69	0	0	490	15	42	463
1/3/2014	411	57	0	0	404		42	369
1/4/2014	450	48	0	0	340	110	42	408
1/5/2014	597	75	0	0	533	64	42	555
1/6/2014 1/7/2014	586 482	82 71	0	0	583	3	42	544
1/8/2014	482 505	71 67	0 0	0 0	505 476	-23 29	42 42	440 463
1/9/2014	381	59	0	0	419	-38	42	339
1/10/2014	241	41	0	0	290	-49	42	199
1/11/2014	262	39	Ő	Ö	275	-13	42	220
1/12/2014	198	34	Ö	Ö	239	-41	42	156
1/13/2014	212	35	0	0	247	-35	42	170
1/14/2014	415	47	0	0	333	82	42	373
1/15/2014	395	53	0	0	376	19	42	353
1/16/2014	462	44	0	0	311	151	42	420
1/17/2014	430	59	0	0	419	11	42	388
1/18/2014	355	49	0	0	347	8	42	313
1/19/2014 1/20/2014	224 464	37 52	0 0	0 0	261 368	-37 96	42	182
1/20/2014	704	52	U	U	300	90	42	422

	,	Challanaa						
	Mary	Shakopee <u>HDD</u>						
1/21/2014	475	71	0	0	505	-30	42	433
1/22/2014	519	65	0	0	462	57	42	477
1/23/2014	519	73	0	. 0	519	0	42	477
1/24/2014	287	47	0	0	333	-46	42	245
1/25/2014	391	51	0	0	361	30	42	349
1/26/2014	516	60	0	0	426	90	42	474
1/27/2014	547 513	77 75	0	0 0	548 533	-1 -20	42	505
1/28/2014 1/29/2014	275	75 53	0	0	376	-20 -101	42 42	471 233
1/30/2014	388	53	0	Ö	376	12	42	346
1/31/2014	411	68	0	0	483	-72	42	369
2/1/2014	387	55	0	0	390	-3	42	345
2/2/2014	404	65	0	0	462	-58	42	362
2/3/2014	414	57	0	0	404	10	42	372
2/4/2014	479 547	61	0	0 0	433	46 71	42	437
2/5/2014 2/6/2014	547 535	67 70	0	0	476 497	71 38	42 42	505 493
2/7/2014	470	63	0	0	447	23	42	428
2/8/2014	423	59	ő	ő	419	4	42	381
2/9/2014	504	65	0	0	462	42	42	462
2/10/2014	514	69	0	0	490	24	42	472
2/11/2014	444	65	0	0	462	-18	42	402
2/12/2014	327	46	0	0	325	2	42	285
2/13/2014 2/14/2014	415 421	47 57	0	0 0	333 404	82 17	42 42	373 379
2/14/2014	397	57 57	0	0	404	-7	42 42	355
2/16/2014	352	51	0	ő	361	-9	42	310
2/17/2014	286	41	0	0	290	-4	42	244
2/18/2014	195	35	0	0	247	-52	42	153
2/19/2014	157	36	0	0	254	-97	42	115
2/20/2014	303	38	0	0	268	35	42	261
2/21/2014	408	53	0	0	376	32	42	366
2/22/2014 2/23/2014	404 413	57 58	0	0 0	404 411	0 2	42 42	362 371
2/24/2014	444	61	o	0	433	11	42	402
2/25/2014	506	69	Õ	Õ	490	16	42	464
2/26/2014	514	62	0	0	440	74	42	472
2/27/2014	504	73	0	0	519	-15	42	462
2/28/2014	458	63	0	0	447	11	42	416
3/1/2014	553	65 73	0	0	462 519	91 -7	42	511
3/2/2014 3/3/2014	512 434	73 68	0	0	483	-49	42 42	4 70 392
3/4/2014	369	51	Ö	Ö	361	8	42	327
3/5/2014	355	47	0	Ō	333	22	42	313
3/6/2014	334	46	0	. 0	325	9	42	292
3/7/2014	291	36	0	0	254	37	42	249
3/8/2014	287	43	0	0	304	-17	42	245
3/9/2014 3/10/2014	209 132	35 23	0	0 0	2 47 161	-38 -29	42 42	167 90
3/11/2014	241	23 27	0	0	189	52	42 42	199
3/12/2014	264	42	Ō	Ö	297	-33	42	222
3/13/2014	141	31	0	0	218	-77	42	99
3/14/2014	225	31	0	0	218	7	42	183
3/15/2014	305	39	0	0	275	30	42	263
3/16/2014	306	46	0	0	325	-19	42	264
3/17/2014 3/18/2014	241 252	. 34 32	0 0	0 0	239 225	2 27	42 42	199 210
3/19/2014	232	33	0	0	232	-1	42	189
3/20/2014	163	31	Ő	ő	218	-55	42	121
3/21/2014	276	33	0	0	232	44	42	234
3/22/2014	368	49	0	0	347	21	42	326
3/23/2014	323	49	0	0	347	-24	42	281
3/24/2014	322	40	0	0	282	40	42	280
3/25/2014	346	48	0	0	340	6 45	42	304
3/26/2014 3/27/2014	216 238	37 27	0 0	0 0	261 189	-45 49	42 42	174 196
3/28/2014	213	33	0	0	232	-19	42	171
3/29/2014	167	33	Ö	. 0	232	-65	42	125
3/30/2014	78	15	0	0	103	-25	42	36
3/31/2014	160	21	0	0	146	14	42	118
			1	4.2				

	Viking TBS Swanville	Alexandria HDD						
11/1/2013		1100 27	0	0	850	-148	0	702
11/2/2013		25	0	0	816	-146		618
11/3/2013		21	0	0	749	-130	0	
11/4/2013		25	-				0	619
			0	0	816	-80	0	736
11/5/2013		34	0	0	968	-72	0	896
11/6/2013		33	0	0	951	-16	0	935
11/7/2013		34	0	0	968	15	0	983
11/8/2013		32	0	0	934	-175	0	759
11/9/2013		28	0	0	867	-63	0	804
11/10/2013		34	0	0	968	-23	0	945
11/11/2013		47	0	0	1,187	16	0	1,203
11/12/2013	•	46	0	0	1,170	-110	0	1,060
11/13/2013		26	0	0	833	-141	0	692
11/14/2013		25	0	0	816	-109	0	707
11/15/2013		26	0	0	833	-205	0	628
11/16/2013		25	0	0	816	-188	0	628
11/17/2013	957	30	0	0	901	56	0	957
11/18/2013	1,063	39	0	0	1,052	11	0	1,063
11/19/2013	739	30	0	0	901	-162	0	739
11/20/2013	854	26	0	0	833	21	0	854
11/21/2013	1,271	44	0	0	1,137	134	0	1,271
11/22/2013	1,361	50	0	0	1,238	123	.0	1,361
11/23/2013		58	0	0	1,373	-7	0	1,366
11/24/2013	,	43	0	0	1,120	-151	0	969
11/25/2013		35	0	0	985	149	0	1,134
11/26/2013		49	0	0	1,221	130	0	1,351
11/27/2013	•	52	0	0	1,271	-70	0	1,201
11/28/2013		49	0	0	1,221	21	0	1,242
11/29/2013		44	0	0	1,137	-45	0	1,092
11/30/2013		41	0	0	1,086	-116	0	970
12/1/2013		41	0	0	1,086	-117	0	969
12/2/2013		35	0	0	985	-129	0	856
12/3/2013		35	0	0	985	-121	0	864
12/4/2013		48	0	0	1,204	-99	0	1,105
12/5/2013	,	66	0	0	1,507	-102	0	1,105
12/6/2013	'	75	0	0	1,659	-212	0	1,447
12/7/2013		75 76	0	0	1,676	-331		1,345
12/8/2013		70	0	0	1,575	-400	0	
12/9/2013		69	0		1,558	- 4 00 -217	0	1,175
12/10/2013	•	66	0	0		-217 -175	0	1,341
12/10/2013	,			0	1,507		0	1,332
	•	73	0	0	1,625	-257	0	1,368
12/12/2013		60	0	0	1,406	-240	0	1,166
12/13/2013		58	0	0	1,373	-66	0	1,307
12/14/2013		67	0	0	1,524	-249	0	1,275
12/15/2013		68	0	0	1,541	-284	0	1,257
12/16/2013	•	49	0	0	1,221	-178	0	1,043
12/17/2013	·	48	0	0	1,204	-53	0	1,151
12/18/2013		45	0	0	1,153	-202	0	951
12/19/2013	·	55	0	0	1,322	-35	0	1,287
12/20/2013		61	0	0	1,423	-297	0	1,126
12/21/2013		60	0	0	1,406	-311	0	1,095
12/22/2013	•	65	0	0	1,491	-142	0	1,349
12/23/2013		82	0	0	1,777	-249	0	1,528
12/24/2013	•	71	0	0	1,592	-389	0	1,203
12/25/2013	·	49	0	0	1,221	-172	0	1,049
12/26/2013	984	49	0	0	1,221	-237	0	984

	Viking TBS	Alexandria			Č			
	Swanville	HDD						
12/27/2013		34	0	0	968	-187	0	781
12/28/2013		45	0	0	1,153	-70	0	1,083
12/29/2013	•	75	0	0	1,659	-156	0	1,503
12/29/2013	,	73 72	0	0	•			
	,				1,609	-33	0	1,576
12/31/2013	•	78 74	0	0	1,710	-152	0	1,558
1/1/2014	•	71	0	0	1,592	-52	0	1,540
1/2/2014	·	76	0	0	1,676	-142	0	1,534
1/3/2014	,	54	0	0	1,305	-217	0	1,088
1/4/2014		54	0	0	1,305	86	0	1,391
1/5/2014	•	83	0	0	1,794	-136	0	1,658
1/6/2014		84	0	0	1,811	-167	0	1,644
1/7/2014	1,565	74	0	0	1,642	-77	0	1,565
1/8/2014	1,611	77	0	0	1,693	-82	0	1,611
1/9/2014		56	0	0	1,339	-12	0	1,327
1/10/2014	•	41	0	0	1,086	19	0	1,105
1/11/2014		42	Ō	0	1,103	-1	0	1,102
1/12/2014	•	33	Ö	0	951	43	0	994
1/13/2014		42	0	0	1,103	164	0	1,267
1/13/2014		49	0	0				
1/15/2014	•				1,221	234	0	1,455
	,	50	0	0	1,238	17	0	1,255
1/16/2014	• •	49	0	0	1,221	440	0	1,661
1/17/2014	,	64	0	0	1,474	-34	0	1,440
1/18/2014		49	0	0	1,221	-84	0	1,137
1/19/2014	•	38	0	0	1,035	25	0	1,060
1/20/2014		61	0	0	1,423	377	0	1,800
1/21/2014	1,693	75	0	0	1,659	34	0	1,693
1/22/2014	1,880	71	0	0	1,592	288	0	1,880
1/23/2014	1,692	73	0	0	1,625	67	0	1,692
1/24/2014	1,446	44	0	0	1,137	309	0	1,446
1/25/2014	1,551	60	0	0	1,406	145	0	1,551
1/26/2014		66	0	0	1,507	344	0	1,851
1/27/2014		81	0	0	1,760	228	0	1,988
1/28/2014	· ·	76	0	Ö	1,676	213	0	1,889
1/29/2014	•	57	0	0	1,356	34	0	1,390
1/30/2014		62	0	0	1,440	378	0	1,818
1/31/2014	•	69	0	0				
					1,558	9	0	1,567
2/1/2014		63	0	0	1,457	99	0	1,556
2/2/2014		66	0	0	1,507	20	0	1,527
2/3/2014		61	0	0	1,423	50	. 0	1,473
2/4/2014		67	0	0	1,524	128	0	1,652
2/5/2014		70	0	0	1,575	184	0	1,759
2/6/2014		71	0	0	1,592	146	0	1,738
2/7/2014		66	0	0	1,507	223	0	1,730
2/8/2014	1590	67	0	0	1,524	66	0	1,590
2/9/2014	1777	73	0	0	1,625	152	0	1,777
2/10/2014	1803	75	0	0	1,659	144	0	1,803
2/11/2014	1411	64	0	0	1,474	-63	0	1,411
2/12/2014		56	0	0	1,339	-39	0	1,300
2/13/2014		51	Ŏ	Ő	1,255	368	0	1,623
2/14/2014		67	0	0	1,524	29	0	1,553
2/15/2014		56	0		1,339			
2/16/2014				0		-16	0	1,323
		58	0	0	1,373	26 70	0	1,399
2/17/2014		41	0	0	1,086	72	0	1,158
2/18/2014		37	0	0	1,019	107	0	1,126
2/19/2014		39	0	0	1,052	-81	0	971
2/20/2014	1350	42	0	0	1,103	247	0	1,350

	Viking TBS Swanville	Alexandria HDD						
2/21/201		60	0	0	1,406	104	0	1,510
2/22/201		61	0	0	1,423	-6	0	1,417
2/23/201		60	0	0	1,406	16	0	1,422
2/24/201		68	0	0	1,541	125	0	1,666
2/25/201		71	0	0	1,592	207	0	1,799
2/26/201		62	0	0	1,440	262	0	1,702
2/27/201		77	0	0	1,693	42	0	1,735
2/28/201		63	Ö	0	1,457	104	0	1,561
3/1/201		77	0	0	1,693	30	0	1,723
3/2/201		75	0	0	1,659	-46	ő	1,613
3/3/201		68	Ö	0	1,541	-3	0	1,538
3/4/201		56	Ő	0	1,339	145	ő	1,484
3/5/201		53	Ö	0	1,288	100	0	1,388
3/6/201		43	Ö	0	1,120	74	ő	1,194
3/7/201		45	0	0	1,153	105	0	1,258
3/8/201		52	0	0	1,271	-210	0	1,061
3/9/201		33	. 0	0	951	-253	0	698
3/10/201		24	0	0	799	-112	ő	687
3/11/201		35	0	0	985	89	0	1,074
3/12/201		44	0	0	1,137	-3	Ő	1,134
3/13/201		25	0	0	816	-43	0	773
3/14/201		36	Ő	0	1,002	179	0	1,181
3/15/201		44	0	0	1,137	126	Ö	1,263
3/16/201		47	0	0	1,187	-8	0	1,179
3/17/201		31	0	0	917	172	0	1,089
3/18/201		35	0	0	985	114	0	1,099
3/19/201		36	0	0	1,002	137	0	1,139
3/20/201		37	0	0	1,019	-21	0	998
3/21/201		42	0	0	1,103	449	0	1,552
3/22/201		54	0	0	1,305	260	0	1,565
3/23/201		51	0	0	1,255	149	0	1,404
3/24/201		46	0	0	1,170	307	0	1,477
3/25/201		50	0	0	1,238	264	0	1,502
3/26/201		38	0	0	1,035	-19	0	1,016
3/27/201		35	0	0	985	236	0	1,221
3/28/201		43	0	0	1,120	108	0	1,228
3/29/201		40	0	0	1,069	-152	0	917
3/30/201		24	0	0	799	-110	0	689
3/31/201		34	0	0	968	161	0	1,129
			303	0				•

Avg Syst Temp	27	34	34	22	4	4	φ	വ	2	7	7	11	14	9	2	14	22	23	20	14	16	œ	L-	-2	20	20	29	30	-	ς	9	ကု	<i>L</i> -	0	16	-12	-17	ကို	φ	80	25	25	32	58	20
Firm	3,474	3,067	3,162	4,520	6,213	6,581	000'9	5,283	6,334	5,879	6,291	4,771	5,332	5,769	5,777	4,751	4,626	3,559	4,869	4,513	4,406	2,900	7,035	5,887	4,343	3,764	3,092	3,783	6,721	6,670	6,713	6,491	6,677	5,190	5,830	7,872	7,880	6,401	6,758	5,439	3,976	4,109	3,253	3,713	5,610
Inter Load Total	9	9	9	œ	11	12	11	10	1	11	11	6	10	10	10	6	80	9	0	80	8	11	13	11	8	7	9	7	12	12	12	12	12	10	11	4	15	. 12	12	10	7	80	9	7	10
Total TBS Int	3,480	3,073	3,168	4,528	6,224	6,593	6,011	5,293	6,345	5,890	6,302	4,780	5,342	5,779	5,787	4,760	4,634	3,565	4,878	4,521	4,414	5,911	7,048	5,898	4,351	3,771	3,098	3,790	6,733	6,682	6,725	6,503	6,689	5,200	5,841	7,886	7,895	6,413	6,770	5,449	3,983	4,117	3,259	3,720	5,620
Swanville	696	856	864	1,105	1,405	1,447	1,345	1,175	1,341	1,332	1,368	1,166	1,307	1,275	1,257	1,043	1,151	951	1,287	1,126	1,095	1,349	1,528	1,203	1,049	984	781	1,083	1,503	1,576	1,558	1,540	1,534	1,088	1,391	1,658	1,644	1,565	1,611	1,327	1,105	1,102	994	1,267	1,455
Marystown	233	207	220	331	480	528	513	433	505	464	510	377	416	462	476	389	366	285	385	370	361	471	586	503	370	312	214	228	518	517	527	503	505	411	450	297	586	482	505	381	241	262	198	212	415
Faribault 5		408	459	546	764	749	582	578	818	737	797	574	675	778	777	565	522	299	516	428	417	662	831	727	409	300	244	337	756	691	689	640	706	629	581	692	773	629	823	649	351	413	290	348	720
Heidelberg		715	739	1,163	1,630	1,760	1,675	1,431	1,663	1,521	1,646	1,190	1,348	1,479	1,483	1,269	1,134	888	1,189	1,143	1,128	1,461	1,791	1,600	1,131	1,021	846	962	1,798	1,832	1,858	1,784	1,816	1,452	1,531	2,263	2,341	1,704	1,767	1,436	1,060	1,085	830	851	1,359
Forest .	353	322	332	531	762	810	753	662	793	727	779	550	624	702	869	296	547	433	603	555	548	742	885	739	551	455	385	428	816	795	806	786	794	657	715	086	982	768	792	638	455	485	356	393	638
Rapidan & Madison	603	565	554	852	1,183	1,299	1,143	1,014	1,225	1,109	1,202	923	972	1,083	1,096	868	914	402	868	668	865	1,226	1,427	1,126	841	669	628	752	1,342	1,271	1,287	1,250	1,334	1,013	1,173	1,619	1,569	1,265	1,272	1,018	177	770	591	649	1,033
œ	12/1/2013	12/2/2013	12/3/2013	12/4/2013	12/5/2013	12/6/2013	12/7/2013	12/8/2013	12/9/2013	12/10/2013	12/11/2013	12/12/2013	12/13/2013	12/14/2013	12/15/2013	12/16/2013	12/17/2013	12/18/2013	12/19/2013	12/20/2013	12/21/2013	12/22/2013	12/23/2013	12/24/2013	12/25/2013	12/26/2013	12/27/2013	12/28/2013	12/29/2013	12/30/2013	12/31/2013	1/1/2014	1/2/2014	1/3/2014	1/4/2014	1/5/2014	1/6/2014	1/7/2014	1/8/2014	1/9/2014	1/10/2014	1/11/2014	1/12/2014	1/13/2014	1/14/2014

Avg Syst Temp	15	20	က	17	28	12	5	-	<i>L</i> -	21	13	S.	-12	ထု	13	11	-5	ω	_	7	2	-2	4	r	4	-2	9-	0	17	18	S	6	12	26	31	29	27		0	80	ო	7	5	œ) m
Total Firm	5,005	6,239	5,701	4,679	3,426	6,455	6,748	7,561	7,121	4,902	5,836	7,318	7,962	7,175	4,641	6,101	5,904	5,802	5,832	5,525	6,414	7,137	6,927	6,371	5,777	6,808	6,887	5,951	4,891	5,976	6,007	5,373	5,132	4,181	3,466	3,032	4,710	5,650	5,603	2,660	6,282	7,136	6,924	6 998	6,260
Inter Load	O	1	10	6	9	12	12	14	13	6	#	13	15	13	6	=	=======================================	8	80	7	6	10	6	6	80	O	6	80	7	80	80	7	7	9	5	4	9	80	8	8	89	10	6	o	, ∞
Total TBS	5,014	6,250	5,711	4,688	3,432	6,467	6,760	7,575	7,134	4,911	5,847	7,331	7,977	7,188	4,650	6,112	5,915	5,810	5,840	5,532	6,423	7,147	986'9	6,380	5,785	6,817	968'9	5,959	4,898	5,984	6,015	5,380	5,139	4,187	3,471	3,036	4,716	5,658	5,611	5,668	6,290	7,146	6,933	7.007	6,268
Swanville	1,255	1,661	1,440	1,137	1,060	1,800	1,693	1,880	1,692	1,446	1,551	1,851	1,988	1,889	1,390	1,818	1,567	1,556	1,527	1,473	1,652	1,759	1,738	1,730	1,590	1,777	1,803	1,411	1,300	1,623	1,553	1,323	1,399	1,158	1,126	971	1,350	1,510	1,417	1,422	1,666	1,799	1,702	1.735	1,561
Marystown	395	462	430	355	224	464	475	519	519	287	391	516	547	513	275	388	411	387	404	414	479	247	535	470	423	504	514	444	327	415	421	397	352	286	195	157	303	408	404	413	444	206	514	504	458
Faribault 5	289	751	746	583	331	167	777	929	828	492	672	837	914	778	435	899	635	643	299	586	784	881	822	764	645	834	791	755	657	803	852	713	713	530	407	380	631	775	804	775	852	1,035	926	1.005	816
Heidelberg	1,270	1,499	1,403	1,193	828	1,541	1,772	1,903	1,917	1,276	1,525	1,909	2,102	1,870	1,218	1,520	1,581	1,521	1,535	1,409	1,611	1,828	1,791	1,595	1,445	1,707	1,723	1,540	1,198	1,450	1,469	1,384	1,247	1,051	826	734	1,118	1,424	1,417	1,440	1,531	1,724	1,751	1.727	1,583
Forest	299	707	653	550	378	724	773	881	852	544	671	848	914	826	501	581	605	578	909	277	299	763	160	672	909	732	746	629	493	615	611	569	504	427	312	271	468	594	009	613	299	779	768	167	685
Rapidan & Madison	906	1,170	1,039	870	611	1,171	1,270	1,463	1,326	866	1,037	1,370	1,512	1,312	831	1,137	1,116	1,125	1,101	1,073	1,230	1,369	1,290	1,149	1,077	1,263	1,319	1,150	923	1,078	1,109	994	924	735	605	523	846	947	696	1,005	1,130	1,303	1,242	1.269	1,165
	1/15/2014	1/16/2014	1/17/2014	1/18/2014	1/19/2014	1/20/2014	1/21/2014	1/22/2014	1/23/2014	1/24/2014	1/25/2014	1/26/2014	1/27/2014	1/28/2014	1/29/2014	1/30/2014	1/31/2014	2/1/2014	2/2/2014	2/3/2014	2/4/2014	2/5/2014	2/6/2014	2/7/2014	2/8/2014	2/9/2014	2/10/2014	2/11/2014	2/12/2014	2/13/2014	2/14/2014	2/15/2014	2/16/2014	2/17/2014	2/18/2014	2/19/2014	2/20/2014	2/21/2014	2/22/2014	2/23/2014	2/24/2014	2/25/2014	2/26/2014	2/27/2014	2/28/2014

DOC Attachment 4 DOC Estimate of Greater Minnesota Peak Day

DOC Demand Entitlement Calculation Analysis Period: November thru March 2011-2014

Rapidan and Madison Links	Y Intercept 11.88	Slope 17.77	Design HDD 90	Estimated DE Dths 1,612	Regression Coefficient 0.8646
Forest, Heidelberg, and Faribault 5	136.00	46.25	90	4,299	0.8136
Marystown	45.00	7.17	90	690	0.9321
Randall	394.75	16.86	90	<u>1,912</u>	0.8491
	Avera De Customer	ted Int Sch Net De ge Custon sign Dths/	sign Dths ner Count Customer 2014-2015	8,512 <u>40</u> 8,472 <u>5,305</u> 1.5971 <u>5,900</u> 9,423	

CERTIFICATE OF SERVICE

I, Linda Chavez, hereby certify that I have this day served copies of the following document on the attached list of persons by electronic filing, e-mail, or by depositing a true and correct copy thereof properly enveloped with postage paid in the United States Mail at St. Paul, Minnesota.

MINNESOTA DEPARTMENT OF COMMERCE – COMMENTS

Docket Nos.	G022/M-14-651
Dated this 2n	d day of September, 2014
/s/Linda Chav	/ez

First Name	Last Name	Email	Company Name	Address	Delivery Method	View Trade Secret	Service List Name
Julia	Anderson	Julia.Anderson@ag.state.m n.us	Office of the Attorney General-DOC	1800 BRM Tower 445 Minnesota St St. Paul, MN 551012134	Electronic Service	Yes	OFF_SL_14-651_M-14-651
Kristine	Anderson	kanderson@greatermngas. com	Greater Minnesota Gas, Inc.	202 S. Main Street Le Sueur, MN 56058	Electronic Service	No	OFF_SL_14-651_M-14-651
Sharon	Ferguson	sharon.ferguson@state.mn .us	Department of Commerce	85 7th Place E Ste 500 Saint Paul, MN 551012198	Electronic Service	No	OFF_SL_14-651_M-14-651
Burl W.	Haar	burl.haar@state.mn.us	Public Utilities Commission	Suite 350 121 7th Place East St. Paul, MN 551012147	Electronic Service	Yes	OFF_SL_14-651_M-14-651
Nicolle	Kupser	nkupser@greatermngas.co m	Greater Minnesota Gas, Inc.	202 South Main Street P.O. Box 68 Le Sueur, MN 56058	Electronic Service	No	OFF_SL_14-651_M-14-651
John	Lindell	agorud.ecf@ag.state.mn.us	Office of the Attorney General-RUD	1400 BRM Tower 445 Minnesota St St. Paul, MN 551012130	Electronic Service	Yes	OFF_SL_14-651_M-14-651
Greg	Palmer	gpalmer@greatermngas.co m	Greater Minnesota Gas, Inc.	PO Box 68 202 South Main Stree Le Sueur, MN 56058	Electronic Service	No	OFF_SL_14-651_M-14-651
Eric	Swanson	eswanson@winthrop.com	Winthrop Weinstine	225 S 6th St Ste 3500 Capella Tower Minneapolis, MN 554024629	Electronic Service	No	OFF_SL_14-651_M-14-651