

Moorhead Generation Addition

Transmission Service

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Generation Interconnection Study

Performed by

Western Area Power Administration

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Version for Public Posting

1.0 Executive Summary

The Upper Great Plains Region (UGPR) of the Western Area Power Administration (Western) received a completed application from Missouri River Energy Services (MRES) for an interconnection of 11 MW diesel generator located on the City of Moorhead's 115-kV distribution system. The Generating Facility is ultimately connected to the Western/Heartland Consumers Power District/Basin Electric Power Cooperative Integrated System (IS) at the Fargo/Moorhead 230-kV Substations. This request is identified as Request No GI-0825 on Western's Generation Interconnection Queue posted on its Open Access Same-Time Information System (OASIS).

Moorhead Public Service (MPS), an S-1 member of MRES, is planning on retiring their existing Brown Boveri combustion turbine that was installed in the 1960's. This unit has 6.3 MW of injection rights recognized by the MAPP Design Review Subcommittee currently. MPS further plans on installing five high speed diesel units capable of approximately 2 MW each. Since it is possible that a slightly higher amount of generation could be injected to the system, MRES made a generation interconnection request, GI-0825 and a transmission service request (TSR) (OASIS #72831344) for a total of 11 MW for new diesel generation to normally be connected to the MPS Centennial substation and delivered to MRES load in the IS. Western is performing this SIS on an out-of-queue basis at the request of the Interconnection Customer. This transmission study report evaluates the additional generation amount of 4.7 MW of injection to the system from an interconnection and a delivery perspective.

Due to the small incremental size of the generation addition (4.7 MW), it was anticipated that the entire output of the unit would be absorbed by the local loads and thus off-load the area system. The Transmission Owner ad-hoc group determined that no stability studies would need to be performed. Therefore, Western respectfully requests the MAPP Design Review Subcommittee (DRS) accepts this study as meeting the minimum requirements study and waive the need for stability studies.

The study results presented indicate that the addition of the 11 MW generator on the City of Moorhead's 115-kV distribution system which ultimately connects to the IS system at the Fargo/Moorhead 230-kV Substations does not degrade the reliability of the MAPP system and does not result in any unacceptable loading or voltage conditions in the area. No new constrained interfaces are required to accommodate the new network resource and no impacts to existing MAPP constrained flowgates were noted.

2.0 Introduction

Moorhead Public Service (MPS), an S-1 member of Missouri River Energy Services (MRES), is planning on retiring their existing Brown Boveri combustion turbine that was installed in the 1960's. This unit has 6.3 MW of injection rights recognized by the MAPP Design Review Subcommittee currently. The existing unit is connected to the MPS distribution system which is connected to either the Centennial 115 kV / distribution substation or the Brookdale 115 kV / distribution substation. MPS load is served by a 115 kV line between the Moorhead and Fargo 230/115 kV substations via four 115 kV / distribution substations. In 2008, the minimum MPS load was approximately 27.6 MW, and the maximum load was approximately 76.3 MW.

MPS further plans on installing five high speed diesel units capable of approximately 2 MW each. Since it is possible that a slightly higher amount of generation could be injected to the system, MRES made a generation interconnection request, GI-0825 and a transmission service request (TSR) (OASIS #72831344) for a total of 11 MW for new diesel generation to normally be connected to the MPS Centennial substation and delivered to MRES load in the IS. *The combined requests are intended to reflect usage of the existing 6.3 MW of transmission rights along with up to 4.7 MW of additional network resource for a total of 11 MW.*

This transmission study report evaluates the incremental generation amount of 4.7 MW of injection to the system from an interconnection and a delivery perspective. An ad hoc study group was formed to provide input on the scenarios that should be studied. Based on their input it was determined that no stability studies would need to be performed, and that a 2009 and a 2015 summer peak scenario would address all steady state concerns. The ad hoc group provided input on what prior queued requests should be added to the power flow cases.

Figure 1 on the following page shows a one-line diagram of the Moorhead area that points out the location of the new generation.

The following entities participate in the ad hoc scoping call: Basin Electric Power Cooperative, Corn Belt Power Cooperative, Great River Energy, Montana Dakota Utilities, Minnkota Power Cooperative, North Western Energy, Otter Tail Power and Xcel Energy. The study work was administered by the Western Area Power Administration as the transmission service and generation interconnection requests are in the respective Integrated System queues. The study work was performed by Western Area Power Administration and Missouri River Energy Services. Throughout the report reference will be given to advice and instructions provided by the ad hoc study group.

(Diagram removed due to Critical Energy Infrastructure Information (CEII) limitations.)

Figure 1: One-line diagram of the Moorhead Area

3.0 Scope of Study Work

Based on discussion with the ad hoc study group, it was determined that a somewhat abbreviated study could be performed for the additional diesel fired peaking generation considering the small size of the project and that it will likely have very limited run time during the course of a year as the generation will be relatively expensive to run. This included eliminating the need to perform winter peak steady state contingency analysis and stability analysis. The ad hoc group further agreed that contingency analysis should be performed on near term (2009) and outyear (2015) summer peak scenarios. It was further determined that the summer peak scenarios should have North Dakota Export (NDEX) modeled at the 2080 MW level, and that reaching this NDEX level should be achievable when laying in the prior queued generation interconnection requests in the power flow cases. These scenarios were determined to address all the concerns that the ad hoc study group had.

The power flow cases proposed to be used were a 2009 summer peak model from the latest NMORWG package (as of 5/19/2009) and a related 2015 summer peak model.

The ad hoc study group also provided feedback on what contingencies should be run, and all requested contingencies were run in the steady state analysis.

The following sections will describe the power flow cases, the contingency list simulated and the prior queued requests included in the models in more detail.

4.0 Methods and Criteria

4.1 Methods

PSS/E Revision 29.4.0 was utilized to complete all the analysis. This version was selected as elements of the NMORWG (Northern MAPP Operating Review Group) study package was utilized in this study. Activity “ACCC” was utilized to perform automated contingency analysis using the following parameters:

- Full Newton-Raphson Solution or Fixed Slope Decoupled Newton-Raphson
- All case were solved first with transformer taps, switched shunts, DC taps and phase shifters not allowed to move, and then with all these devices allowed to move.
- VAR limits were applied immediately.
- Area control was disabled
- Mismatch tolerance was set to 0.5 MVA.
- Non-divergent solution algorithm was **NOT** allowed to be used.
- ACCC reporting parameters of significance
 - All voltage changes from pre- to post contingent of less than 1% were ignored, and
 - All flow changes due to a contingency of less than 0.1 MVA were ignored, and
 - All loadings above 100% of Rate A were flagged

In addition PSS/E revision 31.0.3 was utilized to generate all of the one-line diagrams shown in the report.

4.2 Criteria

The criteria used for screening the results were conformant with MAPP DRS Policies and Procedures Version 7.0 as of March 2009.

4.2.1 Thermal Screening Criteria

All monitored facilities were screened against 100% of Rate A for both system intact and post contingent scenarios. Where overloads with respect to Rate A occurred, further review was conducted to see if an emergency rating would be applicable to use. A distribution factor (DF) cut-off of 5% relative to the MW size (4.7 MW) of the additional generation was applied to any system intact overloads. A DF cut-off of 3% relative to the MW size (4.7 MW) of the additional generation was applied to any post contingent overloads. Impacts to any facilities, regardless of the DF or the loading that is less than 1 MW are not regarded as constraints.

4.2.2 Voltage Screening Criteria

All bus voltages monitored in the contingency analysis were flagged if they were outside of 0.97 – 1.05 per unit range and were impacted by more than 1% by the additional Moorhead generation. The 0.97 – 1.05 criteria reflects the most stringent criteria in the relevant region. Further manual review was then conducted to apply the appropriate voltage criteria as noted in the MAPP Reliability Criteria and Study Procedures Manual.

4.2.3 Contingencies Simulated

The ad hoc study group provided feedback on which contingencies to be simulated. Table 1 below shows a list of buses that defines a subsystem within which all single element contingencies were simulated. All branches and transformers within this system and tie-lines to this system were also included in the simulation. This was the case, regardless of voltage level.

Table 1: Single element contingency subsystem

Bus #	Bus Name [full]	kV
66553	Moorhead	230
66587	Moorhead	115
67460	MPS North East	115
67459	MPS Centennial	115

67466	MPS Southeast	115
67467	MPS Brookdale	115
66436	Fargo	115
66440	Fargo – Xfmr Y point	230
66446	Fargo – Xfmr Y point	230
66435	Fargo	230
66434	Fargo SVC	13.2
66707	Caledonia	115
66203	Fargo	69
67000	Maple River	69
66783	Maple River RT	69
60136	Maple River	115
60133	Sheyenne	230
66754	Maple River	230
66700	Pillsbury	230
63189	Maple River Xfmr Y point	345
63190	Maple River Xfmr Y point	345
66792	Maple River	345
66750	Frontier	230
60137	Red River	115
60135	Cass County	115
66761	Moderow	115
60172	Sheyenne	115
63204	Fargo Tap	115
63203	Mapleton	115
60349	Buffalo	345
63198	Buffalo Xfmr Y point	345
63158	Buffalo	41.6
63258	Buffalo	115
60349	Cass County Tap	115
63180	Casselton (2015 only)	115
91982	G821 Tap (2015 only)	230

In addition to the single element contingencies within and tying in to the subsystem defined in Table 1, the following multi-element contingencies were simulated:

- Common-tower outage of:
 - Maple River – Sheyenne 230 kV
 - Maple River – Frontier 230 kV
- Single outage of: Morris – Granite Falls 230 kV
- Single outage of: Center – Jamestown 345 kV
- Multi-terminal contingency of
 - Fargo – Moorhead 230 kV
 - Both Moorhead 230/115 kV transformers
- Multi-terminal contingency of (contingency ‘190)

- Fargo – Caledonia 115 kV
- Caledonia – East Grand Forks Industrial 115 kV
- East Grand Forks Industrial – Grand Forks 115 kV
- Caledonia 115/69/13.2 kV transformer
- Multi-terminal contingency of (contingency ‘220)
 - Jamestown – Buffalo 345 kV
 - Buffalo – Maple River 345 kV
 - Maple River 345/230 kV transformers
- Multi-terminals contingency of (contingency ‘510)
 - Granite Falls – Morris 230 kV
 - Morris 230/115 kV transformer
 - Morris – Moorhead 230 kV
- Common-tower and multi-terminal contingency of (contingency ‘535 1)
 - Sheyenne – Cass County 115 kV
 - Moderow – Sheyenne 115 kV
 - Moderow – Cass County 115 kV
 - Cass County – Red River 115 kV
- Common-tower and multi-terminal contingency of (contingency ‘535 2)
 - Sheyenne – Cass County 115 kV
 - Cass County – Moderow 115 kV
 - Moderow – Sheyenne 115 kV

4.2.4 Monitored Facilities

The facilities that were monitored were all facilities within the WAPA (area 652) and Otter Tail Power (area 626) areas regardless of the nominal operating voltage of the facilities or who owns the facilities.

5.0 Model Adjustments and Prior Queued Requests

Both the 2009 summer peak and 2015 summer peak case are from the latest NMORWG package posted on 5/19/2009, and further background information can be found in the posted package.

The ad hoc study group was consulted to provide input on what prior queued requests should be added in the models. Table 2 below shows the list of prior queued requests added/turned on and the dispatch level in each model. This was based on advice from the ad hoc study group.

Table 2: Prior queued projects added to the models

Project – POI	MW Level Modeled	
	2009 Summer Peak	2015 Summer Peak
GM00500 – Maple River 230 kV	358 MW	358 MW
G821 – Sheyenne – Audubon 230 kV	Not in-service by then	201 MW
H099 – Near Audubon 230 kV	Not in-service by then	150 MW
J001 – Sheyenne – Audubon 230 kV	Not in-service by then	150 MW
GI-0719 – Moorhead – Morris 230 kV	201 MW	201 MW
G132 – Ellendale – Wishek 230 kV	180 MW	180 MW
G291 – (OTP) – Edgeley 34.5 kV	19 MW	19 MW
G359 – Near Ellendale 230 kV	150 MW	150 MW
G474 – Cyrus – Hoffman 41.6 kV (Modeled at Elbow Lake 115 kV)	20 MW	20 MW
G637 – Graceville – Wahpeton 115 kV	20 MW	20 MW
G645 + G788 – Ladish 115 kV	99 MW	99 MW
G846 – Pelican – Tansem 41.6 kV (modeled at Tamarac 115 kV)	4 MW	4 MW

Per MISO instructions projects G821, H099 and J001 were only included in the 2015 summer peak model.

All additional generation turned on were sunk to the south and east to a combination of generation in Illinois, Missouri, Wisconsin and to the power flow model system swing at Browns Ferry in Alabama.

Both the 2009 and 2015 summer peak cases were adjusted such that NDEX had a flow of approximately 2080 MW. In order to achieve this high NDEX flow, additional generation had to be turned on-line.

In the 2009 summer peak model load was not scaled by using ‘setexports’ or by other means. Other generation within NDEX was ramped up or turned on to achieve the desired NDEX level. After adding the prior queued requests in Table 2 into this case, NDEX only reached a level of approximately 1030 MW. Additional generation ramped up included turning some of the internal NDEX units up to their URGE levels as well as turning on/ramping up generation in the case such as Oliver County, Langdon, North Dakota Prairie Wind, Wilton, Edgeley (BEPC), Rugby, Edgeley, Diamond Willow Wind and G297. This additional generation was sunk similarly to that of the prior queued generation.

The 2015 summer peak case was provided with NDEX at 2080 to begin with, but with quite a low load level within the NDEX interface boundary. Similar to the 2009 summer peak case, additional generation beyond the prior queued project identified in Table 2 were ramped up. As generation was ramped up the ‘setexports’ routine was applied to help control NDEX to maintain at approximately 2080 MW, and to

bring the load within NDEX up to the maximum peak load level for the 2015 summer peak scenario defined in the NMORWG package. The Casselton ethanol plant was also added in to the 2015 power flow case along with the associated 115 kV line from Mapleton – Casselton – Buffalo.

6.0 Contingency Simulations and Analysis

In the ad hoc study group scoping discussion, it was a unanimously decided that stability studies would not be needed for this project. No such studies were therefore performed, and a waiver of such studies will be requested from the MAPP DRS.

PSS/E activity ‘ACCC’ was utilized to run the steady state contingency simulations. The results were generated by created ‘spreadsheet overload’ report using the associated PSS/E reporting functionality. The following simulations were performed:

- **2009 Summer Peak**
 - Base case, w/ 6.3 MW of “old” Moorhead generation online
 - Change case, w/ 11 MW of new generation turned online with the old generator turned offline, and 4.7 MW sunk to Exira #3, which is an MRES owned combustion turbine on the IS system in WAPA’s control area.
- **2015 Summer Peak**
 - Base case, w/ 6.3 MW of “old” Moorhead generation online
 - Change case, w/ 11 MW of new generation turned online with the old generator turned offline, and 4.7 MW sunk to Exira #3, which is an MRES owned combustion turbine on the IS system in WAPA’s control area.

All simulations were performed without allowing for shunts and transformer taps to switch. Only if a voltage issues presented itself, were simulations with shunts and taps allowed to switch performed to assess if the issues could be mitigated with existing reactive support. As will be shown later, there were no significantly impacted voltage concerns observed.

There were no non-convergent contingencies in any of the simulations.

The 2009 summer peak change case results were then compared with the 2009 summer peak base case results, and the same for the 2015 summer peak results respectively.

Appendix A contains the full set of simulation results and comparisons thereof. In some instances the automated ACCC functionality had not reported on a value in the base case scenarios. As needed such values were obtained manually in order be able to compare scenarios with and without the new generation in Moorhead.

The following sections will discuss any issues flagged as possible Significantly Affected Facilities (SAF’s). In order to read Tables 3 and 4 on the following pages, note that “FLOW_CHNG” reference post contingent MVA flow in the change case, “%_CHNG” reference the % loading with respect to Rate A in the change case, “FLOW_BASE” reference post contingent MVA flow in the base case, “%_BASE” reference the % loading with respect to Rate A in the base case, “DELTA” is the change case post contingent flow less the base case post contingent flow and finally the “DF%” is the distribution factor expressed in % relative to the 4.7 MW of incremental generation.

6.1 2009 Summer Peak Analysis

The 2009 summer peak analysis showed that system voltages are, as expected, barely impacted by the interconnection and delivery of the additional 4.7 MW (11 MW total) of Moorhead diesel generation.

The thermal analysis showed two instances of an overloaded facility being impacted by 1 MVA. Table 3 shows a summary.

Table 3: 2009 Summer Peak: Overloads impact by ≥ 1 MVA

MONITORED ELEMENT	CONTINGENCY	RATE	FLOW_CHNG	%_CHNG	FLOW_BASE	%_BASE	DELTA	DF %
Sheyenne - Audubon 230 kV	Moorhead - GI-0719 230 kV	254	280.8 MVA	110.1	279.8 MVA	109.7	1 MVA	21.28
Sheyenne - Audubon 230 kV	MPL_DBL230	254	267.0 MVA	107.5	265.9 MVA	107	1.1 MVA	23.40

Both instances are for overloads on the Sheyenne – Audubon 230 kV facility. The first overload occurs for the outage of the 230 kV line from Moorhead – GI-0719. This is a segment of what is currently the Moorhead – Morris 230 kV line. GI-0719 references a prior queued 201 MW wind project in the IS queue, which is one of the prior queued projects taken into account in this study. The flow on Sheyenne – Audubon 230 kV goes from barely below the 280 MVA emergency rating to barely above, impacting the line by “exactly” 1 MVA.

The prior queued Maple River Wind (GM00500) is online in this case, and has requirements attached to it to upgrade the facility to obtain a rating of 340 MVA prior to G821 going online. (G821 is a prior queued request to the Moorhead generation and is off-line in this scenario, but on-line in the 2015 summer peak scenario based on comments from MISO). The GM00500 project is planning on dynamically rating the line to achieve this rating. The simulation results in this scenario, where the flow is only 0.8 MVA above the non-dynamic emergency rating indicates that there is enough room on this MISO facility to accommodate the additional 1 MVA flow by the Moorhead generation in this scenario based on the dynamic rating of the line. A summer peak scenario without wind generation online would significantly reduce the flow on the Sheyenne – Audubon 230 kV line and flows would be significantly lower than the emergency rating. Manual simulations with this scenarios showed that the Sheyenne – Audubon flow was 216.6 MVA if GM00500/Maple River Wind is not injecting power.

The second element in Table 3 is the overload with respect to the normal rating of Sheyenne – Audubon 230 kV for the common-tower outage of Maple River – Frontier 230 kV and Maple River – Sheyenne 230 kV. The flow increases by 1.1 MVA and brings the loading up to 267.0 MVA. This is less than the non-dynamic emergency rating of the facility though, and according to MISO criteria therefore not a constraint.

Appendix C shows one-line diagrams for 2009 summer peak conditions pre- and post project, system intact and post contingent of the Maple River – Frontier 230 kV and Maple River – Sheyenne 230 kV common-tower contingency.

6.2 2015 Summer Peak Analysis

As in the 2009 summer peak analysis, the 2015 summer peak analysis showed that system voltages are, as expected, barely impacted by the interconnection and delivery of the additional 4.7 MW (11 MW total) of Moorhead diesel generation.

Two facilities were identified as overloaded and impacted by 1 MVA or more for various contingencies. Table 4 shows a summary.

Table 4: 2015 Summer Peak: Overloads impact by >= 1 MVA

MONITORED ELEMENT	CONTINGENCY	RAT E	FLOW_CHN G	%_CHN G	FLOW_BAS E	%_BAS E	CHANG E	DF %
Morris - GI0719 230 kV	Sheyenne - Fargo 230 kV	239	244.0 MVA	100.7	242.7 MVA	242.7	1.3 MVA	27.6
Audubon - GI821 230 kV	Sheyenne - Maple River 230 kV	254	299.9 MVA	117	298.9 MVA	298.9	1 MVA	21.2
Morris - GI0719 230 kV	Maple River - Frontier 230 kV	239	284.5 MVA	117.4	283.5 MVA	283.5	1 MVA	8
Morris - GI0719 230 kV	MPS Centennial - MPS SE 115 kV	239	244.4 MVA	100.9	243.4 MVA	243.4	1 MVA	21.2
Audubon - GI821 230 kV	MPL_DBL230	254	340.9 MVA	133.9	339.9 MVA	339.9	1 MVA	8
Morris - GI0719 230 kV	MPL_DBL230	239	268.7 MVA	110.9	267.7 MVA	267.7	1 MVA	21.2
								8

The GI821 – Audubon 230 kV facility is listed as overloaded and impacted by 1 MVA for loss of either the Sheyenne – Maple River 230 kV line or for the Maple River – Sheyenne 230 kV line and Maple River – Frontier 230 kV line (MPL_DBL230) common-tower contingency. This is essentially the same issue seen on the Sheyenne – Audubon 230 kV line in the 2009 summer peak scenario. GI821 is a point along the Sheyenne – Audubon 230 kV line where two prior queued wind projects are modeled (GI 821 and J001) totaling 351 MW. The flow goes from Sheyenne to Audubon in the 2009 summer peak case. In this scenario the flow has increased on the GI821 – Audubon segment, and decreased on the Sheyenne – GI821 segment. The highest loading observed is for the common-tower contingency. The loading with the new Moorhead generation online is 340.9 MVA. This is significantly more than the present non-dynamic emergency rating of 280 MVA. The GM00500 prior queued project is required to raise the emergency rating to about 399 MVA prior to GI-821 coming online. Again, this case reflects GI-821, GM00500, as well as J001 which is an additional 150 MW (queued after GM00500) on the same point of interconnection as GI 821. A 399 MVA dynamic rating in this scenario would accommodate the flow levels observed in Table 4.

Some additional sensitivity simulations were performed to observe the flow on GI821-Audubon during the common-tower outage as the local wind ramps down. With GM00500 offline the flow reduces to approximately 300 MVA. Tripping G821 and J001 off-line as well reduces the flow all the way to 157.3 MVA (post contingent). I.e. without the wind blowing and the wind farms local to this line generating power, and thereby not relying on a dynamic rating, the non-dynamic rating of 254 MVA is more than enough to accommodate the additional flow from the Moorhead generation.

The Morris – GI0719 230 kV line is a segment of what today is the Moorhead – Morris 230 kV line. GI-0719 is the interconnection point of a prior queued 201 MW wind farm project in the IS queue, which is modeled online in this scenario. The highest loading observed is 284.5 MVA, which is higher than the emergency rating of 263 MVA in the NMORWG model. After review of this rating, it was found that the Morris-Moorhead 230 kV line presently as a normal rating of 320 MVA and emergency rating of 352 MVA. With this updated information, this facility is not of concern for the Moorhead generation project.

Appendix C shows one-line diagrams for 2015 summer peak conditions pre- and post project, system intact and post contingent of the Maple River – Frontier 230 kV and Maple River – Sheyenne 230 kV contingency.

7.0 Flowgate Analysis (DFCALC)

The DFCALC tool and flowgate definition file provided with the NMORWG package was utilized for flowgate analysis. The following DFCALC simulations were performed:

- 2009 Summer Peak
 - Generation – Generation: 11 MW of new Moorhead generation online dispatched to the old generation (6.3 MW) and to Exira 3 (4.7 MW), compared to a base case. (Same cases used for the contingency analysis)
 - Generation – Load: 11 MW of new Moorhead generation online dispatched to the old generation (6.3 MW) and to MRES network load in the IS footprint / WAPA control area.
- 2015 Summer Peak
 - Generation – Generation: 11 MW of new Moorhead generation online dispatched to the old generation (6.3 MW) and to Exira 3 (4.7 MW), compared to a base case. (Same cases used for the contingency analysis)
 - Generation – Load: 11 MW of new Moorhead generation online dispatched to the old generation (6.3 MW) and to MRES network load in the IS footprint / WAPA control area

The distribution factors were calculated relative to the 4.7 MW of additional generation added to the system. The full output of these DFCALC runs can be found in Appendix B.

The following were the impacts observed to be 1 MW or higher:

- 2009 Summer peak – generation to generation: NDEX – 97.1% - 4.6 MW
- 2009 Summer peak – generation to IS load: NDEX – 81.2% - 3.9 MW
- 2015 Summer peak – generation to generation: NDEX – 95.6% - 4.5 MW
- 2015 Summer peak – generation to IS load: NDEX – 77.4% - 3.8 MW

Based on the results shown above, it is concluded that the only significantly impacted flowgate is NDEX. These impacts are a result of dispatching the proposed plant against MRES network resources outside the NDEX boundary. The customer has not requested service reflecting an increase in NDEX, and the impact is within the capacity available to the IS across the flowgate. NDEX is therefore not a constraint for these scenarios.

8.0 Short Circuit Analysis

Short-circuit calculations were performed to determine the impact of the proposed project on fault current levels at nearby substations. Three-phase and single line to ground symmetrical fault current levels were calculated at local area buses under existing system conditions. A review of the existing system margin indicates that there will be adequate interrupting capability following the addition of this small 4.7 MW incremental generation addition.

BUS			MIN. BREAKER RATING AMP	Existing	
NO.	NAME	kV		FAULT CURRENT (AMP)	
				3-PH	SLG
66435	FARGO4	230	15,000	7222.4	7512.5
66436	FARGO7	115	20,000	8433.3	9995.4
66553	MOORHED4	230		5422.0	4761.0
66587	MOORHED7	115		4227.6	4013.2

9.0 Conclusion

9.1 *Stability Analysis*

The ad hoc study group unanimously agreed on that stability studies would not have to be performed for study. The MAPP DRS will there be asked to waive the requirement to perform a stability study.

9.2 *Contingency Analysis*

The following conclusions can be drawn from the steady state analysis:

- There is no voltage constraints associated with interconnection and delivering 4.7MW of additional generation (11 MW total) on/from the MPS 115 kV system.
- There are no thermal constraints in the 2009 summer peak case associated with interconnection and delivery of 4.7MW of additional generation (11 MW total) on/from the MPS 115 kV system.

9.3 *Flowgate Analysis*

Flowgate Analysis concluded with that there are no flowgate constraints for this project.

9.4 *Short Circuit Analysis*

Short Circuit Analysis concluded with that there are no short circuit limitations for this project.

APPENDIX

Appendix A: Contingency Analysis Results

Appendix A.1: 2009 summer peak contingency analysis results (electronic only)

Appendix A.2: 2015 summer peak contingency analysis results (electronic only)

Appendix B: DFCALC Results

Note: Some entries in the following DFCALC results show that the flowgate was not defined correctly or the case did not converge during the simulations. The flowgates impacted by this were not deemed to be

Appendix B.1: 2009 SUPK – Generation – Generation dispatch

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***** BASE TRANSACTION AMOUNT FOR DF CALCULATION:      4.700

## PTFD INTERFACES ##

39247 ARCADN3 - 36420 ZION ; B  BASE:  -121.2 CHNG:  -121.1 DIFF:   -0.1%
SUBTOTALS FOR: ADNZIO__PTDF      BASE:  -121.2 CHNG:  -121.1 DIFF:   -0.1%
                                DIFF:    0.1  DF:    1.6%
*****

36407 WEMPL; R - 39058 PAD 345  BASE:   248.3 CHNG:   248.2 DIFF:    0.0%
SUBTOTALS FOR: WEMPAD__PTDF      BASE:   248.3 CHNG:   248.2 DIFF:    0.0%
                                DIFF:    0.0  DF:   -0.9%
*****

60304 EAU CL 3 - 39244 ARP 345  BASE:   318.0 CHNG:   318.2 DIFF:    0.1%
SUBTOTALS FOR: EAUARP__PTDF      BASE:   318.0 CHNG:   318.2 DIFF:    0.1%
                                DIFF:    0.2  DF:    3.7%
*****

69503 CASVILL5 - 39010 NED 161  BASE:   115.2 CHNG:   115.1 DIFF:    0.0%
SUBTOTALS FOR: CSVNED__PTDF      BASE:   115.2 CHNG:   115.1 DIFF:    0.0%
                                DIFF:   -0.1  DF:   -1.1%
*****

36406 WEMPL; B - 39119 ROE 345  BASE:   497.1 CHNG:   497.0 DIFF:    0.0%
SUBTOTALS FOR: WEMROE__PTDF     BASE:   497.1 CHNG:   497.0 DIFF:    0.0%
                                DIFF:   -0.1  DF:   -2.0%
*****

31230 MONTGMRY - 31992 SPENCER  BASE:   462.8 CHNG:   462.8 DIFF:    0.0%
SUBTOTALS FOR: MTGSPC__PTDF     BASE:   462.8 CHNG:   462.8 DIFF:    0.0%
                                DIFF:    0.0  DF:    0.1%
*****

31408 OVERTON - 59201 SIBLEY 7  BASE:    26.2 CHNG:    26.4 DIFF:    0.5%
SUBTOTALS FOR: OVESIB__PTDF     BASE:    26.2 CHNG:    26.4 DIFF:    0.5%
                                DIFF:    0.1  DF:    3.1%
*****

38894 N APP 3 - 38928 WERNER W  BASE:    72.5 CHNG:    72.2 DIFF:   -0.3%
SUBTOTALS FOR: NAPRRN__PTDF     BASE:    72.5 CHNG:    72.2 DIFF:   -0.3%
                                DIFF:   -0.2  DF:   -5.1%
*****

36420 ZION ; B - 39247 ARCADN3  BASE:   121.7 CHNG:   121.6 DIFF:   -0.1%
SUBTOTALS FOR: ZIOARC__PTDF     BASE:   121.7 CHNG:   121.6 DIFF:   -0.1%
                                DIFF:   -0.1  DF:   -1.6%
*****

36421 ZION ; R - 38849 PLS PR2  BASE:   -56.3 CHNG:   -56.4 DIFF:    0.2%
```

SUBTOTALS FOR: ZIOPLP__PTDF		BASE:	-56.3	CHNG:	-56.4	DIFF:	0.2%
						DIFF:	-0.1 DF: -2.8%

36407	WEMPL; R - 39058 PAD 345	BASE:	248.3	CHNG:	248.2	DIFF:	0.0%
36406	WEMPL; B - 39119 ROE 345	BASE:	497.1	CHNG:	497.0	DIFF:	0.0%
SUBTOTALS FOR: SWWISC__PTDF		BASE:	745.3	CHNG:	745.2	DIFF:	0.0%
						DIFF:	-0.1 DF: -2.9%

34093	ARNOLD 3 - 34018 HAZLTON3	BASE:	101.1	CHNG:	100.6	DIFF:	-0.4%
SUBTOTALS FOR: ARNHAZ__PTDF		BASE:	101.1	CHNG:	100.6	DIFF:	-0.4%
						DIFF:	-0.4 DF: -8.9%

36382	QUAD ; - 34036 ROCK CK3	BASE:	501.9	CHNG:	501.9	DIFF:	0.0%
64400	MECCORD3 - 64403 E MOLIN3	BASE:	285.2	CHNG:	285.3	DIFF:	0.0%
SUBTOTALS FOR: QUARCKCORMOL		BASE:	787.1	CHNG:	787.2	DIFF:	0.0%
						DIFF:	0.1 DF: 2.0%

34036	ROCK CK3 - 34037 ROCK CK5	BASE:	234.5	CHNG:	234.5	DIFF:	0.0%
SUBTOTALS FOR: RCKXFM__PTDF		BASE:	234.5	CHNG:	234.5	DIFF:	0.0%
						DIFF:	0.0 DF: 0.0%

36382	QUAD ; - 34036 ROCK CK3	BASE:	501.9	CHNG:	501.9	DIFF:	0.0%
SUBTOTALS FOR: QUARCK__PTDF		BASE:	501.9	CHNG:	501.9	DIFF:	0.0%
						DIFF:	0.0 DF: -0.7%

67105	LELANDO3 - 66506 FTTHOMP3	BASE:	284.2	CHNG:	284.6	DIFF:	0.1%
67105	LELANDO3 - 67160 GROTON 3	BASE:	350.4	CHNG:	350.6	DIFF:	0.1%
67101	ANTELOP3 - 67120 BRDLAND3	BASE:	301.1	CHNG:	301.4	DIFF:	0.1%
63314	BIGSTON4 - 66503 BLAIR 4	BASE:	256.4	CHNG:	256.8	DIFF:	0.2%
66554	MORRIS 4 - 66550 GRANITF4	BASE:	133.1	CHNG:	133.7	DIFF:	0.5%
63336	AUDUBON4 - 63053 HUBBARD4	BASE:	190.0	CHNG:	190.6	DIFF:	0.3%
66521	SULLYBT4 - 66519 OAHE 4	BASE:	61.5	CHNG:	61.8	DIFF:	0.5%
63052	INMAN 4 - 61611 WINGRIV4	BASE:	165.9	CHNG:	166.2	DIFF:	0.2%
66470	BISON 4 - 66497 MAURINE4	BASE:	-6.8	CHNG:	-6.7	DIFF:	-2.1%
66716	LAPORTE7 - 61638 AKELEY7	BASE:	21.9	CHNG:	22.0	DIFF:	0.6%
63222	ALEXAND7 - 60144 DGLASCO7	BASE:	59.3	CHNG:	59.4	DIFF:	0.2%
67327	ELLENDL7 - 67401 ABDNJCT7	BASE:	74.3	CHNG:	74.4	DIFF:	0.2%
66432	EDGELEY7 - 66534 ORDWAY 7	BASE:	30.9	CHNG:	31.1	DIFF:	0.4%
66438	FORMAN 7 - 66522 SUMMIT-7	BASE:	27.1	CHNG:	27.3	DIFF:	0.4%
63211	CANBY 7 - 66551 GRANITF7	BASE:	29.0	CHNG:	29.0	DIFF:	0.2%
62006	KERKHO 7 - 62005 KERKHOT7	BASE:	34.9	CHNG:	35.0	DIFF:	0.3%
66752	DRAYTON4 - 67557 LETELER4	BASE:	-93.0	CHNG:	-92.5	DIFF:	-0.5%
63379	RUGBY 4 - 67523 GLENBOR4	BASE:	185.9	CHNG:	186.0	DIFF:	0.1%
SUBTOTALS FOR: NDEX		BASE:	2106.0	CHNG:	2110.6	DIFF:	0.2%
						DIFF:	4.6 DF: 97.1%

67557	LETELER4 - 66752 DRAYTON4	BASE:	93.0	CHNG:	92.5	DIFF:	-0.5%
67564	DORSEY 2 - 60173 ROSEAUN2	BASE:	1292.4	CHNG:	1292.9	DIFF:	0.0%
67576	RICHER 4 - 60175 ROSEAU 4	BASE:	98.4	CHNG:	98.4	DIFF:	0.1%
67523	GLENBOR4 - 63379 RUGBY 4	BASE:	-185.9	CHNG:	-186.0	DIFF:	0.1%
SUBTOTALS FOR: MHEX_S		BASE:	1297.9	CHNG:	1297.9	DIFF:	0.0%
						DIFF:	0.0 DF: -0.5%

60173	ROSEAUN2 - 67564 DORSEY 2	BASE:	-1271.4	CHNG:	-1271.9	DIFF:	0.0%
60175	ROSEAU 4 - 67576 RICHER 4	BASE:	-97.2	CHNG:	-97.2	DIFF:	0.1%
66752	DRAYTON4 - 67557 LETELER4	BASE:	-92.4	CHNG:	-91.9	DIFF:	-0.5%
63379	RUGBY 4 - 67523 GLENBOR4	BASE:	193.7	CHNG:	193.9	DIFF:	0.1%

SUBTOTALS FOR: MHEX_N		BASE:	-1267.2	CHNG:	-1267.2	DIFF:	0.0%
						DIFF:	0.1 DF: 1.1%

60105	PR ISLD3 - 61950 BYRON 3	BASE:	32.9	CHNG:	33.5	DIFF:	1.9%
60304	EAU CL 3 - 39244 ARP 345	BASE:	318.0	CHNG:	318.2	DIFF:	0.1%
SUBTOTALS FOR: MWSI		BASE:	350.9	CHNG:	351.7	DIFF:	0.2%
						DIFF:	0.8 DF: 17.0%

64832	GENTLMN4 - 64909 N.PLATT4	BASE:	155.9	CHNG:	155.9	DIFF:	0.0%
64832	GENTLMN4 - 64909 N.PLATT4	BASE:	156.4	CHNG:	156.4	DIFF:	0.0%
64832	GENTLMN4 - 64909 N.PLATT4	BASE:	159.9	CHNG:	159.9	DIFF:	0.0%
64831	GENTLMN3 - 64984 SWEET W3	BASE:	283.3	CHNG:	283.4	DIFF:	0.0%
64831	GENTLMN3 - 64984 SWEET W3	BASE:	341.6	CHNG:	341.7	DIFF:	0.0%
64831	GENTLMN3 - 64943 REDWILO3	BASE:	304.8	CHNG:	304.8	DIFF:	0.0%
SUBTOTALS FOR: GGS		BASE:	1401.9	CHNG:	1402.0	DIFF:	0.0%
						DIFF:	0.1 DF: 2.9%

64831	GENTLMN3 - 64943 REDWILO3	BASE:	304.8	CHNG:	304.8	DIFF:	0.0%
SUBTOTALS FOR: WNE_WKS		BASE:	304.8	CHNG:	304.8	DIFF:	0.0%
						DIFF:	0.0 DF: 0.7%

64933	PAULINE3 - 64902 MOORE 3	BASE:	92.6	CHNG:	92.7	DIFF:	0.1%
64839	GR ISLD4 - 64780 COLMB.W4	BASE:	125.1	CHNG:	125.1	DIFF:	0.0%
66571	GR ISLD3 - 64896 MCCOOL 3	BASE:	193.6	CHNG:	193.8	DIFF:	0.1%
SUBTOTALS FOR: GRIS_LNC		BASE:	411.2	CHNG:	411.6	DIFF:	0.1%
						DIFF:	0.4 DF: 9.0%

64786	COOPER 3 - 59393 ST JOE 3	BASE:	81.5	CHNG:	81.5	DIFF:	0.0%
64786	COOPER 3 - 96039 7FAIRPT	BASE:	99.2	CHNG:	99.2	DIFF:	0.0%
SUBTOTALS FOR: COOPER_S		BASE:	180.7	CHNG:	180.7	DIFF:	0.0%
						DIFF:	0.0 DF: 0.2%

60105	PR ISLD3 - 61950 BYRON 3	BASE:	32.9	CHNG:	33.5	DIFF:	1.9%
SUBTOTALS FOR: PR_ISL_BYRON		BASE:	32.9	CHNG:	33.5	DIFF:	1.9%
						DIFF:	0.6 DF: 13.3%

65351	S3451 3 - 65354 S3454 3	BASE:	83.2	CHNG:	83.2	DIFF:	0.1%
65351	S3451 3 - 65359 S3459 3	BASE:	139.0	CHNG:	139.2	DIFF:	0.1%
65451	S1251 5 - 65497 S1297 5	BASE:	69.8	CHNG:	69.9	DIFF:	0.1%
SUBTOTALS FOR: FTCAL_S		BASE:	292.0	CHNG:	292.3	DIFF:	0.1%
						DIFF:	0.3 DF: 5.9%

67564	DORSEY 2 - 60173 ROSEAUN2	BASE:	1292.4	CHNG:	1292.9	DIFF:	0.0%
SUBTOTALS FOR: D602F		BASE:	1292.4	CHNG:	1292.9	DIFF:	0.0%
						DIFF:	0.6 DF: 12.0%

36382	QUAD ; - 64405 SUB 91 3	BASE:	423.6	CHNG:	423.7	DIFF:	0.0%
64400	MECCORD3 - 64403 E MOLIN3	BASE:	285.2	CHNG:	285.3	DIFF:	0.0%
SUBTOTALS FOR: QUADCITY_W		BASE:	708.8	CHNG:	709.1	DIFF:	0.0%
						DIFF:	0.3 DF: 6.1%

64095	MNTZUMA3 - 64064 BONDRNT3	BASE:	55.9	CHNG:	56.4	DIFF:	0.9%
SUBTOTALS FOR: MNTZUMA_W		BASE:	55.9	CHNG:	56.4	DIFF:	0.9%
						DIFF:	0.5 DF: 10.8%

```

*****
59394 ST JOE 5 - 59392 MIDWAY 5  BASE:  103.0  CHNG:  103.3  DIFF:   0.3%
SUBTOTALS FOR: SJOMDY__PTDF      BASE:  103.0  CHNG:  103.3  DIFF:   0.3%
                                   DIFF:    0.3   DF:   6.3%
*****
57982 IATAN  7 - 59393 ST JOE 3  BASE:  396.0  CHNG:  396.2  DIFF:   0.1%
SUBTOTALS FOR: IATSJO__PTDF      BASE:  396.0  CHNG:  396.2  DIFF:   0.1%
                                   DIFF:    0.2   DF:   4.3%
*****
64352 TIFFIN 3 - 34093 ARNOLD 3  BASE:  132.2  CHNG:  131.9  DIFF:  -0.2%
SUBTOTALS FOR: TIFARN__PTDF      BASE:  132.2  CHNG:  131.9  DIFF:  -0.2%
                                   DIFF:   -0.3   DF:  -6.9%
*****
60101 FORBES 2 - 60198 CHIS-N 2  BASE: 1132.8  CHNG: 1133.5  DIFF:   0.1%
SUBTOTALS FOR: FORCHS__PTDF      BASE: 1132.8  CHNG: 1133.5  DIFF:   0.1%
                                   DIFF:    0.7   DF:  14.5%
*****

## OTDF INTERFACES ##

36382 QUAD ; - 36368 H471 ; *CONTINGENCY* BASE:  0.0  CHNG:  0.0
-----
36284 CORDO; B - 36362 NELSO; B  BASE:  870.9  CHNG:  870.7  DIFF:   0.0%
SUBTOTALS FOR: CDVNELQUA471      BASE:  870.9  CHNG:  870.7  DIFF:   0.0%
                                   DIFF:   -0.2   DF:  -4.6%
*****
38849 PLS PR2 - 36421 ZION ; R *CONTINGENCY* BASE:  0.0  CHNG:  0.0
-----
39247 ARCADN3 - 36420 ZION ; B  BASE:  -93.3  CHNG:  -93.1  DIFF:  -0.1%
SUBTOTALS FOR: ADNZIOPLPZIO      BASE:  -93.3  CHNG:  -93.1  DIFF:  -0.1%
                                   DIFF:    0.1   DF:   2.9%
*****
38849 PLS PR2 - 36421 ZION ; R *CONTINGENCY* BASE:  0.0  CHNG:  0.0
-----
39362 LAKEVIEW - 37384 ZION ;   BASE:  -26.2  CHNG:  -26.2  DIFF:  -0.1%
SUBTOTALS FOR: LKVZIOZIOPLP      BASE:  -26.2  CHNG:  -26.2  DIFF:  -0.1%
                                   DIFF:    0.0   DF:   0.8%
*****
36406 WEMPL; B - 39119 ROE 345  *CONTINGENCY* BASE:  0.0  CHNG:  0.0
-----
60304 EAU CL 3 - 39244 ARP 345   BASE:  351.3  CHNG:  351.4  DIFF:   0.0%
SUBTOTALS FOR: EAUARPWMPPAD      BASE:  351.3  CHNG:  351.4  DIFF:   0.0%
                                   DIFF:    0.2   DF:   3.6%
*****
36406 WEMPL; B - 39119 ROE 345  *CONTINGENCY* BASE:  0.0  CHNG:  0.0
-----
39058 PAD 345 - 39059 PAD 138    BASE:  444.1  CHNG:  444.0  DIFF:   0.0%
SUBTOTALS FOR: PADXFMWEMROE      BASE:  444.1  CHNG:  444.0  DIFF:   0.0%
                                   DIFF:   -0.1   DF:  -1.7%
*****
60105 PR ISLD3 - 61950 BYRON  3  *CONTINGENCY* BASE:  0.0  CHNG:  0.0
-----
60304 EAU CL 3 - 39244 ARP 345   BASE:  322.3  CHNG:  322.5  DIFF:   0.1%

```

SUBTOTALS FOR: EAUARPPRIBYR		BASE:	322.3	CHNG:	322.5	DIFF:	0.1%
				DIFF:	0.3	DF:	5.4%

39059	PAD 138 - 39141 TOWNLINE	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39059	PAD 138 - 38057 NWT 138		BASE:	147.1	CHNG:	147.1	DIFF: 0.0%
38057	NWT 138 - 39048 BLK 138		BASE:	136.1	CHNG:	136.1	DIFF: 0.0%
SUBTOTALS FOR: PADBLKPADTLR		BASE:	283.2	CHNG:	283.1	DIFF:	0.0%
				DIFF:	-0.1	DF:	-1.2%

39059	PAD 138 - 39141 TOWNLINE	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39048	BLK 138 - 39060 COR 138		BASE:	157.8	CHNG:	157.8	DIFF: 0.0%
SUBTOTALS FOR: BLKCORPADTLR		BASE:	157.8	CHNG:	157.8	DIFF:	0.0%
				DIFF:	0.0	DF:	-0.6%

36406	WEMPL; B - 39119 ROE 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39090	RSS 138 - 39120 ROE 138		BASE:	250.7	CHNG:	250.7	DIFF: 0.0%
SUBTOTALS FOR: RSSROEWEMROE		BASE:	250.7	CHNG:	250.7	DIFF:	0.0%
				DIFF:	0.0	DF:	-1.0%

39676	GARDR PK - 39785 ROCKY RN	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39786	ROCKY RN - 39788 NORTHPT		BASE:	-146.1	CHNG:	-146.1	DIFF: 0.0%
SUBTOTALS FOR: RRNNPTRRNGPK		BASE:	-146.1	CHNG:	-146.1	DIFF:	0.0%
				DIFF:	-0.1	DF:	-1.2%

36406	WEMPL; B - 39119 ROE 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39048	BLK 138 - 39060 COR 138		BASE:	193.9	CHNG:	193.9	DIFF: 0.0%
SUBTOTALS FOR: BLKCRDWEMROE		BASE:	193.9	CHNG:	193.9	DIFF:	0.0%
				DIFF:	0.0	DF:	-0.6%

39059	PAD 138 - 38057 NWT 138	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39059	PAD 138 - 39141 TOWNLINE		BASE:	133.9	CHNG:	133.9	DIFF: 0.0%
SUBTOTALS FOR: PADTLRPADBLK		BASE:	133.9	CHNG:	133.9	DIFF:	0.0%
				DIFF:	0.0	DF:	-0.7%

39119	ROE 345 - 39120 ROE 138	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39119	ROE 345 - 39120 ROE 138		BASE:	216.4	CHNG:	216.4	DIFF: 0.0%
SUBTOTALS FOR: ROE_T2ROE_T3		BASE:	216.4	CHNG:	216.4	DIFF:	0.0%
				DIFF:	0.0	DF:	-0.3%

39244	ARP 345 - 39785 ROCKY RN	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

60315	T-CRNR7 - 39706 WIEN		BASE:	-28.2	CHNG:	-28.1	DIFF: -0.1%
SUBTOTALS FOR: TCRWIEARPRRN		BASE:	-28.2	CHNG:	-28.1	DIFF:	-0.1%
				DIFF:	0.0	DF:	0.5%

60304	EAU CL 3 - 39244 ARP 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

60315	T-CRNR7 - 39706 WIEN		BASE:	16.1	CHNG:	16.2	DIFF: 0.3%
SUBTOTALS FOR: TCRWIEEARP_G		BASE:	16.1	CHNG:	16.2	DIFF:	0.3%

			DIFF:	0.0	DF:	0.9%

36406	WEMPL; B	- 39119 ROE 345	*CONTINGENCY*	BASE:	0.0	CHNG: 0.0

39059	PAD 138	- 39141 TOWNLINE		BASE:	165.0	CHNG: 165.0 DIFF: 0.0%

SUBTOTALS FOR: PADTLRWEMROE				BASE:	165.0	CHNG: 165.0 DIFF: 0.0%
					DIFF:	0.0 DF: -1.0%

38894	N APP 3	- 38928 WERNER W	*CONTINGENCY*	BASE:	0.0	CHNG: 0.0

39237	KIL 138	- 38302 KIL 69		BASE:	41.0	CHNG: 41.0 DIFF: 0.0%

SUBTOTALS FOR: KILXFMAPPWER				BASE:	41.0	CHNG: 41.0 DIFF: 0.0%
					DIFF:	0.0 DF: -0.3%

38928	WERNER W	- 39785 ROCKY RN	*CONTINGENCY*	BASE:	0.0	CHNG: 0.0

39235	WAU 138	- 39939 SAL 138		BASE:	-9.5	CHNG: -9.6 DIFF: 0.6%

SUBTOTALS FOR: WAUEDWERROR				BASE:	-9.5	CHNG: -9.6 DIFF: 0.6%
					DIFF:	-0.1 DF: -1.2%

30395	COFFEEN	- 31445 PANA	*CONTINGENCY*	BASE:	0.0	CHNG: 0.0
31445	PANA	- 36343 KINCA; R	*CONTINGENCY*	BASE:	0.0	CHNG: 0.0

31230	MONTGMRY	- 31992 SPENCER		BASE:	497.6	CHNG: 497.6 DIFF: 0.0%

SUBTOTALS FOR: MTGSPCCOFPAN				BASE:	497.6	CHNG: 497.6 DIFF: 0.0%
					DIFF:	0.0 DF: 0.0%

30154	BLAND	- 96041 7FRANKS	*CONTINGENCY*	BASE:	0.0	CHNG: 0.0

31088	MCCREDIE	- 31408 OVERTON		BASE:	263.8	CHNG: 263.9 DIFF: 0.1%

SUBTOTALS FOR: MCROVEBLAF_G				BASE:	263.8	CHNG: 263.9 DIFF: 0.1%
					DIFF:	0.1 DF: 2.9%

31088	MCCREDIE	- 31408 OVERTON	*CONTINGENCY*	BASE:	0.0	CHNG: 0.0

30154	BLAND	- 96041 7FRANKS		BASE:	321.6	CHNG: 321.6 DIFF: 0.0%

SUBTOTALS FOR: BLAFRAMCROVE				BASE:	321.6	CHNG: 321.6 DIFF: 0.0%
					DIFF:	0.0 DF: 0.6%

36281	BYRON; R	- 36289 CHERR; R	*CONTINGENCY*	BASE:	0.0	CHNG: 0.0

36280	BYRON; B	- 36288 CHERR; B		BASE:	1292.3	CHNG: 1292.3 DIFF: 0.0%

SUBTOTALS FOR: BYNCHEBYNCHE				BASE:	1292.3	CHNG: 1292.3 DIFF: 0.0%
					DIFF:	-0.1 DF: -1.1%

36281	BYRON; R	- 36407 WEMPL; R	*CONTINGENCY*	BASE:	0.0	CHNG: 0.0

36280	BYRON; B	- 36288 CHERR; B		BASE:	1130.4	CHNG: 1130.4 DIFF: 0.0%

SUBTOTALS FOR: BYCH_BBYNWEM				BASE:	1130.4	CHNG: 1130.4 DIFF: 0.0%
					DIFF:	-0.1 DF: -1.3%

36280	BYRON; B	- 36288 CHERR; B	*CONTINGENCY*	BASE:	0.0	CHNG: 0.0

36281	BYRON; R	- 36289 CHERR; R		BASE:	1351.8	CHNG: 1351.7 DIFF: 0.0%

SUBTOTALS FOR: BYRCHEBYRCHE				BASE:	1351.8	CHNG: 1351.7 DIFF: 0.0%
					DIFF:	-0.1 DF: -1.2%

```

*****
36281 BYRON; R - 36407 WEMPL; R *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36281 BYRON; R - 36289 CHERR; R BASE: 1257.4 CHNG: 1257.4 DIFF: 0.0%
SUBTOTALS FOR: BYCH_RBYNWEM BASE: 1257.4 CHNG: 1257.4 DIFF: 0.0%
DIFF: -0.1 DF: -1.5%
*****
36284 CORDO; B - 36362 NELSO; B *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36382 QUAD ; - 36368 H471 ; BASE: 875.4 CHNG: 875.2 DIFF: 0.0%
SUBTOTALS FOR: QUA471CDVNEL BASE: 875.4 CHNG: 875.2 DIFF: 0.0%
DIFF: -0.2 DF: -4.6%
*****
36382 QUAD ; - 36368 H471 ; *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36382 QUAD ; - 36284 CORDO; B BASE: 346.3 CHNG: 346.3 DIFF: 0.0%
36284 CORDO; B - 36362 NELSO; B BASE: 870.9 CHNG: 870.7 DIFF: 0.0%
SUBTOTALS FOR: QUACDVQUA471 BASE: 1217.3 CHNG: 1217.0 DIFF: 0.0%
DIFF: -0.3 DF: -5.9%
*****
36420 ZION ; B - 39247 ARCADN3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36407 WEMPL; R - 39058 PAD 345 BASE: 254.5 CHNG: 254.4 DIFF: 0.0%
SUBTOTALS FOR: WEMPADZIOARC BASE: 254.5 CHNG: 254.4 DIFF: 0.0%
DIFF: 0.0 DF: -0.9%
*****
36421 ZION ; R - 38849 PLS PR2 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36407 WEMPL; R - 39058 PAD 345 BASE: 243.2 CHNG: 243.1 DIFF: 0.0%
SUBTOTALS FOR: WEMPADZIOPLP BASE: 243.2 CHNG: 243.1 DIFF: 0.0%
DIFF: -0.1 DF: -1.1%
*****
36289 CHERR; R - 36389 SILVE; R *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36407 WEMPL; R - 39058 PAD 345 BASE: 333.8 CHNG: 333.7 DIFF: 0.0%
SUBTOTALS FOR: WEMPADCHVSLA BASE: 333.8 CHNG: 333.7 DIFF: 0.0%
DIFF: 0.0 DF: -0.9%
*****
36420 ZION ; B - 39247 ARCADN3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36421 ZION ; R - 38849 PLS PR2 BASE: 34.8 CHNG: 34.6 DIFF: -0.5%
SUBTOTALS FOR: ZIOPLPZIOARC BASE: 34.8 CHNG: 34.6 DIFF: -0.5%
DIFF: -0.2 DF: -3.9%
*****
36407 WEMPL; R - 39058 PAD 345 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36421 ZION ; R - 38849 PLS PR2 BASE: 0.7 CHNG: 0.6 DIFF: -19.2%
SUBTOTALS FOR: ZIOPLPWEMPAD BASE: 0.7 CHNG: 0.6 DIFF: -19.2%
DIFF: -0.1 DF: -3.0%
*****
36421 ZION ; R - 38849 PLS PR2 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36420 ZION ; B - 39247 ARCADN3 BASE: 93.7 CHNG: 93.6 DIFF: -0.1%
SUBTOTALS FOR: ZIOARCZIOPLP BASE: 93.7 CHNG: 93.6 DIFF: -0.1%
DIFF: -0.1 DF: -2.9%
*****

```

36362 NELSO; B	- 36310 ELECT; B	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

36289 CHERR; R	- 36389 SILVE; R		BASE:	1029.6	CHNG:	1029.5 DIFF: 0.0%

SUBTOTALS FOR: CHESILNELELC			BASE:	1029.6	CHNG:	1029.5 DIFF: 0.0%
					DIFF:	0.0 DF: -1.0%

36289 CHERR; R	- 36389 SILVE; R	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

36362 NELSO; B	- 36310 ELECT; B		BASE:	854.2	CHNG:	854.1 DIFF: 0.0%

SUBTOTALS FOR: NELELCCHESIL			BASE:	854.2	CHNG:	854.1 DIFF: 0.0%
					DIFF:	-0.1 DF: -1.8%

36407 WEMPL; R	- 39058 PAD 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

37632 LEECO;BP	- 36362 NELSO; B		BASE:	200.9	CHNG:	201.1 DIFF: 0.1%

SUBTOTALS FOR: LCONELWEMPAD			BASE:	200.9	CHNG:	201.1 DIFF: 0.1%
					DIFF:	0.1 DF: 2.9%

39253 ARCADN1	- 39329 GRANVL1	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39268 BUTLER	- 39327 GRANVL 5		BASE:	-270.8	CHNG:	-270.8 DIFF: 0.0%

SUBTOTALS FOR: BTRGVLARCGVL			BASE:	-270.8	CHNG:	-270.8 DIFF: 0.0%
					DIFF:	0.0 DF: -1.0%

38894 N APP 3	- 38928 WERNER W	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0
38928 WERNER W	- 39785 ROCKY RN	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

38892 ELLNGTN3	- 39534 HINTZ		BASE:	88.1	CHNG:	88.1 DIFF: -0.1%

SUBTOTALS FOR: ELNHNZNAPRRN			BASE:	88.1	CHNG:	88.1 DIFF: -0.1%
					DIFF:	-0.1 DF: -1.4%

38849 PLS PR2	- 36421 ZION ; R	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39345 KENOSH45	- 39362 LAKEVIEW		BASE:	12.9	CHNG:	12.9 DIFF: 0.3%

SUBTOTALS FOR: KSHLKVPLPZIO			BASE:	12.9	CHNG:	12.9 DIFF: 0.3%
					DIFF:	0.0 DF: 0.8%

38850 PLS PR3	- 39471 RACINE1	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39432 PLS PR1	- 39253 ARCADN1		BASE:	400.6	CHNG:	400.5 DIFF: 0.0%

SUBTOTALS FOR: PLPARCPLRRAC			BASE:	400.6	CHNG:	400.5 DIFF: 0.0%
					DIFF:	-0.1 DF: -1.9%

36420 ZION ; B	- 39247 ARCADN3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39432 PLS PR1	- 39253 ARCADN1		BASE:	202.9	CHNG:	202.9 DIFF: 0.0%

SUBTOTALS FOR: PLPARCZIOARC			BASE:	202.9	CHNG:	202.9 DIFF: 0.0%
					DIFF:	-0.1 DF: -1.8%

36289 CHERR; R	- 36389 SILVE; R	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

38849 PLS PR2	- 36421 ZION ; R		BASE:	173.6	CHNG:	173.7 DIFF: 0.1%

SUBTOTALS FOR: PLPZIOCHESIL			BASE:	173.6	CHNG:	173.7 DIFF: 0.1%
					DIFF:	0.1 DF: 2.7%

36420 ZION ; B	- 39247 ARCADN3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

38849 PLS PR2	- 36421 ZION ; R		BASE:	-34.7	CHNG:	-34.6 DIFF: -0.5%

SUBTOTALS FOR: PLPZIOZIOARC			BASE:	-34.7	CHNG:	-34.6 DIFF: -0.5%
					DIFF:	0.2 DF: 3.9%

39432 PLS PR1	- 39253 ARCADN1	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

38850 PLS PR3	- 39471 RACINE1		BASE:	642.3	CHNG:	642.2 DIFF: 0.0%

SUBTOTALS FOR: PLPRACPLPADN			BASE:	642.3	CHNG:	642.2 DIFF: 0.0%
					DIFF:	-0.1 DF: -2.2%

38898 PT BCH2	- 39304 FORST JT	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39556 FOXRIVER	- 39304 FORST JT		BASE:	483.4	CHNG:	483.5 DIFF: 0.0%

SUBTOTALS FOR: FXRFSTPTBFST			BASE:	483.4	CHNG:	483.5 DIFF: 0.0%
					DIFF:	0.1 DF: 1.5%

38928 WERNER W	- 39785 ROCKY RN	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

38929 WERNER W	- 39535 WHITE LK		BASE:	71.6	CHNG:	71.5 DIFF: -0.1%

SUBTOTALS FOR: WERWHLWERROR			BASE:	71.6	CHNG:	71.5 DIFF: -0.1%
					DIFF:	-0.1 DF: -1.6%

39785 ROCKY RN	- 39676 GARDR PK	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39210 CW8 115	- 39686 WESTON		BASE:	-186.9	CHNG:	-187.0 DIFF: 0.0%

SUBTOTALS FOR: RRNWESRRNGPK			BASE:	-186.9	CHNG:	-187.0 DIFF: 0.0%
					DIFF:	-0.1 DF: -1.3%

36407 WEMPL; R	- 39058 PAD 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

34093 ARNOLD 3	- 34018 HAZLTON3		BASE:	110.2	CHNG:	109.7 DIFF: -0.4%

SUBTOTALS FOR: ARNHAZWEMPAD			BASE:	110.2	CHNG:	109.7 DIFF: -0.4%
					DIFF:	-0.4 DF: -8.9%

36407 WEMPL; R	- 39058 PAD 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

34028 LORE 5	- 34033 TRK RIV5		BASE:	147.3	CHNG:	147.3 DIFF: 0.0%

SUBTOTALS FOR: LORTRKWEMPAD			BASE:	147.3	CHNG:	147.3 DIFF: 0.0%
					DIFF:	-0.1 DF: -1.2%

34093 ARNOLD 3	- 34018 HAZLTON3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

34007 LAKEFLD5	- 34008 FOX LK 5		BASE:	33.0	CHNG:	33.0 DIFF: -0.1%

SUBTOTALS FOR: LKJFOXARNHAZ			BASE:	33.0	CHNG:	33.0 DIFF: -0.1%
					DIFF:	0.0 DF: -0.4%

36382 QUAD ;	- 64405 SUB 91 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

34036 ROCK CK3	- 34037 ROCK CK5		BASE:	286.1	CHNG:	286.2 DIFF: 0.0%

SUBTOTALS FOR: RCKXFMQUADAV			BASE:	286.1	CHNG:	286.2 DIFF: 0.0%
					DIFF:	0.0 DF: 0.4%

36382 QUAD ;	- 64405 SUB 91 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

34035	ROCKCKW5	-	34124	DEWITT	5	BASE:	81.0	CHNG:	81.0	DIFF:	0.0%
SUBTOTALS FOR: RCKDWTQUAS91						BASE:	81.0	CHNG:	81.0	DIFF:	0.0%
								DIFF:	0.0	DF:	0.5%

36382	QUAD ;	-	64405	SUB	91 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34029	SALEM	3	-	34030	SALEM N5	BASE:	293.7	CHNG:	293.7	DIFF:	0.0%
SUBTOTALS FOR: SALXFMQUAS91						BASE:	293.7	CHNG:	293.7	DIFF:	0.0%
								DIFF:	0.0	DF:	-0.4%

64400	MECCORD3	-	64403	E MOLIN3		*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34029	SALEM	3	-	34030	SALEM N5	BASE:	279.9	CHNG:	279.8	DIFF:	0.0%
SUBTOTALS FOR: SALXFCORMOL						BASE:	279.9	CHNG:	279.8	DIFF:	0.0%
								DIFF:	0.0	DF:	-0.5%

36382	QUAD ;	-	64405	SUB	91 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34029	SALEM	3	-	34030	SALEM N5	BASE:	293.7	CHNG:	293.7	DIFF:	0.0%
SUBTOTALS FOR: SALXFMQUADAV						BASE:	293.7	CHNG:	293.7	DIFF:	0.0%
								DIFF:	0.0	DF:	-0.4%

64350	HILLS	3	-	64095	MNTZUMA3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

64352	TIFFIN	3	-	34093	ARNOLD 3	BASE:	123.3	CHNG:	123.1	DIFF:	-0.1%
SUBTOTALS FOR: TIFARNHILMON						BASE:	123.3	CHNG:	123.1	DIFF:	-0.1%
								DIFF:	-0.2	DF:	-3.5%

34093	ARNOLD	3	-	34018	HAZLTON3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34091	ARNOLD	5	-	34089	VINTON 5	BASE:	107.3	CHNG:	107.2	DIFF:	0.0%
SUBTOTALS FOR: ARNVINARNHAZ						BASE:	107.3	CHNG:	107.2	DIFF:	0.0%
								DIFF:	0.0	DF:	-0.4%

36382	QUAD ;	-	34036	ROCK CK3		*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

64425	DAVNPR5	-	34122	E CALMS5		BASE:	0.0	CHNG:	0.0	DIFF:	999.0%
SUBTOTALS FOR: DAVCALQUARCK						BASE:	0.0	CHNG:	0.0	DIFF:	999.0%
								DIFF:	0.0	DF:	0.0%

64095	MNTZUMA3	-	64064	BONDRNT3		*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34052	AMES	7	-	34076	BNE JCT7	BASE:	-4.4	CHNG:	-4.3	DIFF:	-2.3%
SUBTOTALS FOR: AMEBJCMTZBON						BASE:	-4.4	CHNG:	-4.3	DIFF:	-2.3%
								DIFF:	0.1	DF:	2.1%

34006	LAKEFLD3	-	60331	LKFLDXL3		*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34007	LAKEFLD5	-	34008	FOX LK	5	BASE:	61.7	CHNG:	61.6	DIFF:	-0.1%
SUBTOTALS FOR: LAKFOXLAFLKF						BASE:	61.7	CHNG:	61.6	DIFF:	-0.1%
								DIFF:	-0.1	DF:	-1.6%

34093	ARNOLD	3	-	34018	HAZLTON3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34087	DYSART	5	-	64269	WASHBRN5	BASE:	129.9	CHNG:	129.7	DIFF:	-0.1%

```

SUBTOTALS FOR: DYSWASARNHAZ      BASE:   129.9 CHNG:   129.7 DIFF:   -0.1%
                                  DIFF:   -0.2   DF:   -3.4%
*****
64080 SYCAMOR3 - 64198 GRIMES 3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
64067 BONDRNT5 - 34529 HUXLEYT5  BASE:    39.2 CHNG:    39.3 DIFF:    0.2%
SUBTOTALS FOR: BONBJCSYCLEH      BASE:    39.2 CHNG:    39.3 DIFF:    0.2%
                                  DIFF:    0.1   DF:    1.4%
*****
64202 LEHIGH 3 - 64200 WEBSTER3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
64067 BONDRNT5 - 34529 HUXLEYT5  BASE:    84.3 CHNG:    84.4 DIFF:    0.1%
SUBTOTALS FOR: BONBJCLEHWBS      BASE:    84.3 CHNG:    84.4 DIFF:    0.1%
                                  DIFF:    0.1   DF:    1.1%
*****
***** ERROR: OTDF # 64 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 34007 TO 34137 CKT 1 IERR= 2
***** ERROR: OTDF # 64 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 34007 TO 34137 CKT 1 IERR= 2
34007 LAKEFLD5 - 34137 TRIBOJI5  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34007 LAKEFLD5 - 34008 FOX LK 5  BASE:    31.8 CHNG:    31.8 DIFF:    0.0%
SUBTOTALS FOR: LKJFOXLKJTRI      BASE:    31.8 CHNG:    31.8 DIFF:    0.0%
                                  DIFF:    0.0   DF:   -0.3%
*****
***** ERROR: OTDF # 65 BASE CASE LAST SOLUTION DID NOT REACH TOLERANCE, FIX AND RERUN PROGRAM
***** ERROR: OTDF # 65 BASE CASE NOT SOLVED WELL, MISMATCH= 9551.537 FIX AND RERUN PROGRAM
***** ERROR: OTDF # 65 CHNG CASE LAST SOLUTION DID NOT REACH TOLERANCE, FIX AND RERUN PROGRAM
***** ERROR: OTDF # 65 CHNG CASE NOT SOLVED WELL, MISMATCH= 29004.85 FIX AND RERUN PROGRAM
60173 ROSEAUN2 - 67564 DORSEY 2  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34093 ARNOLD 3 - 34018 HAZLTON3  BASE:   259.7 CHNG:   113.5 DIFF:  -56.3%
SUBTOTALS FOR: ARNHAZDORFOR      BASE:   259.7 CHNG:   113.5 DIFF:  -56.3%
                                  DIFF: -146.3   DF: -999.0%
*****
60304 EAU CL 3 - 39244 ARP 345   *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34020 HAZL S 5 - 34135 DUNDEE 5  BASE:   112.7 CHNG:   112.7 DIFF:    0.0%
SUBTOTALS FOR: HAZDUNEAUARP      BASE:   112.7 CHNG:   112.7 DIFF:    0.0%
                                  DIFF:    0.0   DF:    0.5%
*****
63875 RAUN 3 - 34006 LAKEFLD3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
66563 SPENCER5 - 34137 TRIBOJI5  BASE:   -66.1 CHNG:   -66.3 DIFF:    0.4%
SUBTOTALS FOR: SPETRILAKRAU      BASE:   -66.1 CHNG:   -66.3 DIFF:    0.4%
                                  DIFF:   -0.2   DF:   -5.2%
*****
36407 WEMPL; R - 39058 PAD 345   *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34029 SALEM 3 - 34030 SALEM N5  BASE:   273.2 CHNG:   273.1 DIFF:    0.0%
SUBTOTALS FOR: SALXFMWEMPAD      BASE:   273.2 CHNG:   273.1 DIFF:    0.0%
                                  DIFF:    0.0   DF:   -0.7%
*****
64352 TIFFIN 3 - 34093 ARNOLD 3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
64350 HILLS 3 - 34110 HILLSIE5  BASE:    93.1 CHNG:    93.0 DIFF:   -0.1%

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SUBTOTALS FOR: HILXFMTIFARN      BASE:    93.1 CHNG:    93.0 DIFF:   -0.1%
                                  DIFF:   -0.1  DF:   -1.7%
*****
36407 WEMPL; R - 39058 PAD 345    *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34032 8TH ST.5 - 34028 LORE  5    BASE:    0.0 CHNG:    0.0 DIFF:   999.0%
SUBTOTALS FOR: 8STKERWEMPAD      BASE:    0.0 CHNG:    0.0 DIFF:   999.0%
                                  DIFF:    0.0  DF:    0.0%
*****
34093 ARNOLD 3 - 34018 HAZLTON3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34032 8TH ST.5 - 34028 LORE  5    BASE:    0.0 CHNG:    0.0 DIFF:   999.0%
SUBTOTALS FOR: 8STKERARNHAZ      BASE:    0.0 CHNG:    0.0 DIFF:   999.0%
                                  DIFF:    0.0  DF:    0.0%
*****
64095 MNTZUMA3 - 64064 BONDRNT3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34066 M-TOWN 7 - 34071 FERNALD7  BASE:    0.0 CHNG:    0.0 DIFF:   999.0%
SUBTOTALS FOR: MRTFERMTZBON      BASE:    0.0 CHNG:    0.0 DIFF:   999.0%
                                  DIFF:    0.0  DF:    0.0%
*****
64202 LEHIGH 3 - 64200 WEBSTER3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34015 LIME CK5 - 34016 EMERY  5    BASE:   -55.5 CHNG:   -55.4 DIFF:   -0.2%
SUBTOTALS FOR: LIMEMELEHWEB      BASE:   -55.5 CHNG:   -55.4 DIFF:   -0.2%
                                  DIFF:    0.1  DF:    1.8%
*****
36407 WEMPL; R - 39058 PAD 345    *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34028 LORE  5 - 34033 TRK RIV5    BASE:   147.3 CHNG:   147.3 DIFF:    0.0%
SUBTOTALS FOR: LORTRKWPAD_G      BASE:   147.3 CHNG:   147.3 DIFF:    0.0%
                                  DIFF:   -0.1  DF:   -1.2%
*****
34093 ARNOLD 3 - 34018 HAZLTON3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34089 VINTON 5 - 34087 DYSART  5    BASE:   103.5 CHNG:   103.5 DIFF:    0.0%
SUBTOTALS FOR: VINDYSARNHAZ      BASE:   103.5 CHNG:   103.5 DIFF:    0.0%
                                  DIFF:    0.0  DF:   -0.4%
*****
***** ERROR: OTDF # 76 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 60102 TO 34018 CKT 1 IERR= 2
***** ERROR: OTDF # 76 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 60102 TO 34018 CKT 1 IERR= 2
60102 ADAMS 3 - 34018 HAZLTON3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34015 LIME CK5 - 34016 EMERY  5    BASE:   -81.1 CHNG:   -81.0 DIFF:   -0.1%
SUBTOTALS FOR: LIMEMEADAHZ      BASE:   -81.1 CHNG:   -81.0 DIFF:   -0.1%
                                  DIFF:    0.1  DF:    1.9%
*****
36407 WEMPL; R - 39058 PAD 345    *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34030 SALEM N5 - 34508 JULIAN  5    BASE:   161.8 CHNG:   161.8 DIFF:    0.0%
SUBTOTALS FOR: SALJCRWEMPAD      BASE:   161.8 CHNG:   161.8 DIFF:    0.0%
                                  DIFF:    0.0  DF:   -0.8%
*****
60331 LKFLDXL3 - 60364 FIELD_N3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34007 LAKEFLD5 - 34008 FOX LK  5    BASE:    89.7 CHNG:    89.6 DIFF:   -0.1%

```

SUBTOTALS FOR: LKFFOXLKFWLM	BASE:	89.7	CHNG:	89.6	DIFF:	-0.1%
				DIFF:	-0.1	DF: -1.5%

64095 MNTZUMA3 - 64064 BONDRNT3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34093 ARNOLD 3 - 34018 HAZLTON3	BASE:	111.0	CHNG:	110.7	DIFF:	-0.3%
SUBTOTALS FOR: ARNHAZMTZBON	BASE:	111.0	CHNG:	110.7	DIFF:	-0.3%
				DIFF:	-0.3	DF: -7.0%

64352 TIFFIN 3 - 34093 ARNOLD 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34029 SALEM 3 - 34030 SALEM N5	BASE:	276.4	CHNG:	276.3	DIFF:	0.0%
SUBTOTALS FOR: SALXFMTIFARN	BASE:	276.4	CHNG:	276.3	DIFF:	0.0%
				DIFF:	-0.1	DF: -1.3%

64350 HILLS 3 - 64352 TIFFIN 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34029 SALEM 3 - 34030 SALEM N5	BASE:	277.2	CHNG:	277.1	DIFF:	0.0%
SUBTOTALS FOR: SALXFHML3TIF	BASE:	277.2	CHNG:	277.1	DIFF:	0.0%
				DIFF:	0.0	DF: -1.0%

64095 MNTZUMA3 - 64064 BONDRNT3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

64352 TIFFIN 3 - 34093 ARNOLD 3	BASE:	147.1	CHNG:	146.9	DIFF:	-0.1%
SUBTOTALS FOR: TIFARNMTZBON	BASE:	147.1	CHNG:	146.9	DIFF:	-0.1%
				DIFF:	-0.2	DF: -4.0%

34091 ARNOLD 5 - 34090 ARNOLD1G	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

64350 HILLS 3 - 34110 HILLSIE5	BASE:	106.8	CHNG:	106.7	DIFF:	0.0%
SUBTOTALS FOR: HILXFARNXFM	BASE:	106.8	CHNG:	106.7	DIFF:	0.0%
				DIFF:	0.0	DF: -0.5%

34016 EMERY 5 - 64252 FLOYD 5	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34016 EMERY 5 - 34015 LIME CK5	BASE:	116.4	CHNG:	116.3	DIFF:	-0.1%
SUBTOTALS FOR: EMELIMEMEFYD	BASE:	116.4	CHNG:	116.3	DIFF:	-0.1%
				DIFF:	-0.1	DF: -2.0%

34020 HAZL S 5 - 34018 HAZLTON3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34018 HAZLTON3 - 34019 HAZLTON5	BASE:	246.7	CHNG:	246.9	DIFF:	0.0%
SUBTOTALS FOR: HAZXF1HAZXF2	BASE:	246.7	CHNG:	246.9	DIFF:	0.0%
				DIFF:	0.1	DF: 2.2%

64095 MNTZUMA3 - 64350 HILLS 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34180 DENMARK5 - 34178 HENRYCO5	BASE:	46.9	CHNG:	47.0	DIFF:	0.2%
SUBTOTALS FOR: DENHENHILMNT	BASE:	46.9	CHNG:	47.0	DIFF:	0.2%
				DIFF:	0.1	DF: 2.3%

60331 LKFLDXL3 - 60364 FIELD_N3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34008 FOX LK 5 - 61931 *****	BASE:	0.0	CHNG:	0.0	DIFF:	999.0%
SUBTOTALS FOR: FXLRUTLKFWil	BASE:	0.0	CHNG:	0.0	DIFF:	999.0%
				DIFF:	0.0	DF: 0.0%

```

*****
60331 LKFLDXL3 - 60364 FIELD_N3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
61932 RUTLAND5 - 34009 WINBAGO5 BASE: 194.1 CHNG: 194.0 DIFF: -0.1%
SUBTOTALS FOR: RUTWINLKFWIL BASE: 194.1 CHNG: 194.0 DIFF: -0.1%
DIFF: -0.1 DF: -2.5%
*****
38850 PLS PR3 - 39471 RACINE1 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
39410 PARIS WE - 39249 ALBRS-12 BASE: -135.3 CHNG: -135.3 DIFF: 0.0%
SUBTOTALS FOR: PARALBPLPRAC BASE: -135.3 CHNG: -135.3 DIFF: 0.0%
DIFF: 0.0 DF: 0.3%
*****
39247 ARCADN3 - 36420 ZION ; B *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
38850 PLS PR3 - 39471 RACINE1 BASE: 608.7 CHNG: 608.6 DIFF: 0.0%
SUBTOTALS FOR: PLPRACARCZIO BASE: 608.7 CHNG: 608.6 DIFF: 0.0%
DIFF: -0.1 DF: -2.2%
*****
56769 LANG 7 - 56796 WICHITA7 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
57981 LACYGNE7 - 56793 NEOSHO 7 BASE: 223.7 CHNG: 223.6 DIFF: -0.1%
SUBTOTALS FOR: LACNEOLANWIC BASE: 223.7 CHNG: 223.6 DIFF: -0.1%
DIFF: -0.1 DF: -2.6%
*****
59396 LAKE RD5 - 58028 NASHUA-5 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
57982 IATAN 7 - 56772 STRANGR7 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
59393 ST JOE 3 - 57972 HAWTH 7 BASE: 312.6 CHNG: 312.3 DIFF: -0.1%
SUBTOTALS FOR: SJOHTHIATSTC BASE: 312.6 CHNG: 312.3 DIFF: -0.1%
DIFF: -0.4 DF: -7.5%
*****
59396 LAKE RD5 - 58028 NASHUA-5 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
59393 ST JOE 3 - 57972 HAWTH 7 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
57982 IATAN 7 - 56772 STRANGR7 BASE: 372.9 CHNG: 372.5 DIFF: -0.1%
SUBTOTALS FOR: IATSTRLRDNUA BASE: 372.9 CHNG: 372.5 DIFF: -0.1%
DIFF: -0.4 DF: -7.5%
*****
61950 BYRON 3 - 63032 PL VLLY3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
61948 BYRON 5 - 61906 MAPLE LF BASE: 23.8 CHNG: 23.9 DIFF: 0.3%
SUBTOTALS FOR: BYRMPLBYRPLV BASE: 23.8 CHNG: 23.9 DIFF: 0.3%
DIFF: 0.1 DF: 1.6%
*****
60102 ADAMS 3 - 63032 PL VLLY3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
61948 BYRON 5 - 61906 MAPLE LF BASE: 32.6 CHNG: 32.6 DIFF: 0.2%
SUBTOTALS FOR: BYRMPLPLVADM BASE: 32.6 CHNG: 32.6 DIFF: 0.2%
DIFF: 0.1 DF: 1.2%
*****
60186 AS KING3 - 60304 EAU CL 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
60304 EAU CL 3 - 39244 ARP 345 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
60304 EAU CL 3 - 60305 EAU CLA5 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
69543 ALMA 5 - 69551 ELK MND5 BASE: 123.5 CHNG: 123.5 DIFF: 0.0%

```

SUBTOTALS FOR: ALMELKKNGECL		BASE:	123.5	CHNG:	123.5	DIFF:	0.0%
						DIFF:	0.0 DF: -0.5%

65351	S3451 3 - 63875 RAUN 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

65426	S1226 5 - 64987 TEKAMAH5	BASE:	40.2	CHNG:	40.1	DIFF:	-0.2%
SUBTOTALS FOR: S12TEKS34RAU		BASE:	40.2	CHNG:	40.1	DIFF:	-0.2%
						DIFF:	-0.1 DF: -1.9%

65351	S3451 3 - 63875 RAUN 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

64987	TEKAMAH5 - 63876 RAUN 5	BASE:	-40.3	CHNG:	-40.4	DIFF:	0.1%
SUBTOTALS FOR: TEKRAUS34RAU		BASE:	-40.3	CHNG:	-40.4	DIFF:	0.1%
						DIFF:	0.0 DF: -1.0%

***** ERROR: OTDF # 99 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 34018 TO 60102 CKT 1 IERR= 2							
***** ERROR: OTDF # 99 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 34018 TO 60102 CKT 9 IERR= 2							
34018	HAZLTON3 - 60102 ADAMS 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

60102	ADAMS 3 - 34014 ADAMS 5	BASE:	0.0	CHNG:	0.0	DIFF:	999.0%
SUBTOTALS FOR: ADMXFMHAZADM		BASE:	0.0	CHNG:	0.0	DIFF:	999.0%
						DIFF:	0.0 DF: 0.0%

96039	7FAIRPT - 64786 COOPER 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	
96039	7FAIRPT - 59393 ST JOE 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

59394	ST JOE 5 - 59392 MIDWAY 5	BASE:	137.8	CHNG:	138.1	DIFF:	0.2%
SUBTOTALS FOR: STJ MIDSTJFRC		BASE:	137.8	CHNG:	138.1	DIFF:	0.2%
						DIFF:	0.3 DF: 7.2%

64350	HILLS 3 - 64095 MNTZUMA3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34110	HILLSIE5 - 34109 BERTRAM5	BASE:	68.9	CHNG:	68.9	DIFF:	0.0%
SUBTOTALS FOR: HL5PRLHL3MTZ		BASE:	68.9	CHNG:	68.9	DIFF:	0.0%
						DIFF:	0.0 DF: 0.1%

63041	COAL CR4 - 63042 COAL TP4	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

63049	STANTON4 - 63041 COAL CR4	BASE:	90.2	CHNG:	90.2	DIFF:	0.0%
SUBTOTALS FOR: SONCOCCOCCCT		BASE:	90.2	CHNG:	90.2	DIFF:	0.0%
						DIFF:	0.0 DF: 0.0%

63041	COAL CR4 - 63049 STANTON4	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

63041	COAL CR4 - 63042 COAL TP4	BASE:	-86.0	CHNG:	-86.0	DIFF:	0.0%
SUBTOTALS FOR: SONCCTCOCSO		BASE:	-86.0	CHNG:	-86.0	DIFF:	0.0%
						DIFF:	0.0 DF: 0.1%

64095	MNTZUMA3 - 64064 BONDRNT3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34191	REASNOR5 - 64062 DMOINES5	BASE:	-10.5	CHNG:	-10.3	DIFF:	-1.6%
SUBTOTALS FOR: READEMMTZBON		BASE:	-10.5	CHNG:	-10.3	DIFF:	-1.6%
						DIFF:	0.2 DF: 3.5%

60160	SHERCO 3 - 60002 SHERC33G	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34093	ARNOLD 3 - 34018 HAZLTON3	BASE:	270.6	CHNG:	270.1	DIFF:	-0.2%

```

SUBTOTALS FOR: ARNHAZSHRXFM          BASE:  270.6 CHNG:  270.1 DIFF:  -0.2%
                                      DIFF:  -0.4   DF:  -9.1%
*****
***** ERROR: OTDF # 106 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 64418 TO 64680 CKT 1 IERR= 1
***** ERROR: OTDF # 106 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 64418 TO 64680 CKT 1 IERR= 1
64400 MECCORD3 - 64403 E MOLIN3 *CONTINGENCY* BASE:  0.0 CHNG:  0.0
64418 E MOLINE - 64680 ***** *CONTINGENCY* BASE:  0.0 CHNG:  0.0
-----
36382 QUAD ; - 64405 SUB 91 3 BASE:  597.9 CHNG:  598.1 DIFF:  0.0%
SUBTOTALS FOR: QDCS91CORS39          BASE:  597.9 CHNG:  598.1 DIFF:  0.0%
                                      DIFF:  0.2   DF:  5.1%
*****
36382 QUAD ; - 64405 SUB 91 3 *CONTINGENCY* BASE:  0.0 CHNG:  0.0
64438 SB 91 5 - 64405 SUB 91 3 *CONTINGENCY* BASE:  0.0 CHNG:  0.0
-----
64400 MECCORD3 - 64403 E MOLIN3 BASE:  540.2 CHNG:  540.5 DIFF:  0.0%
SUBTOTALS FOR: CORS39QDCS91          BASE:  540.2 CHNG:  540.5 DIFF:  0.0%
                                      DIFF:  0.2   DF:  4.7%
*****
64402 LOUISA 3 - 64408 SUB T 3 *CONTINGENCY* BASE:  0.0 CHNG:  0.0
64350 HILLS 3 - 64408 SUB T 3 *CONTINGENCY* BASE:  0.0 CHNG:  0.0
-----
64406 SUB 92 3 - 64350 HILLS 3 BASE:  364.3 CHNG:  364.6 DIFF:  0.1%
SUBTOTALS FOR: S92HLLLOUHL          BASE:  364.3 CHNG:  364.6 DIFF:  0.1%
                                      DIFF:  0.3   DF:  5.6%
*****
***** ERROR: OTDF # 109 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 60102 TO 34014 CKT 1 IERR= 2
***** ERROR: OTDF # 109 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 60102 TO 34014 CKT 1 IERR= 2
60102 ADAMS 3 - 34014 ADAMS 5 *CONTINGENCY* BASE:  0.0 CHNG:  0.0
60102 ADAMS 3 - 63032 PL VLLY3 *CONTINGENCY* BASE:  0.0 CHNG:  0.0
61950 BYRON 3 - 63032 PL VLLY3 *CONTINGENCY* BASE:  0.0 CHNG:  0.0
-----
34570 ADAMS_N5 - 69547 ROCHSTR5 BASE:  151.1 CHNG:  151.0 DIFF:  -0.1%
SUBTOTALS FOR: ADMROCBYRADM          BASE:  151.1 CHNG:  151.0 DIFF:  -0.1%
                                      DIFF:  -0.2   DF:  -3.7%
*****
***** ERROR: OTDF # 110 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 61948 TO 61950 CKT 1 IERR= 3
***** ERROR: OTDF # 110 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 61948 TO 61950 CKT 1 IERR= 3
61948 BYRON 5 - 61950 BYRON 3 *CONTINGENCY* BASE:  0.0 CHNG:  0.0
-----
34570 ADAMS_N5 - 69547 ROCHSTR5 BASE:  148.6 CHNG:  148.5 DIFF:  -0.1%
SUBTOTALS FOR: ADMROCBYRXFM          BASE:  148.6 CHNG:  148.5 DIFF:  -0.1%
                                      DIFF:  -0.1   DF:  -1.8%
*****

```

Appendix B.2: 2009 SUPK – Generation – Load dispatch

***** BASE TRANSACTION AMOUNT FOR DF CALCULATION: 4.700

PTDF INTERFACES

39247	ARCADN3 - 36420 ZION ; B	BASE:	-121.2	CHNG:	-121.1	DIFF:	0.0%
SUBTOTALS FOR: ADNZIO__PTDF		BASE:	-121.2	CHNG:	-121.1	DIFF:	0.0%
				DIFF:	0.0	DF:	0.6%

36407	WEMPL; R - 39058 PAD 345	BASE:	248.3	CHNG:	248.2	DIFF:	0.0%
SUBTOTALS FOR: WEMPAD__PTDF		BASE:	248.3	CHNG:	248.2	DIFF:	0.0%
				DIFF:	0.0	DF:	-0.3%

60304	EAU CL 3 - 39244 ARP 345	BASE:	318.0	CHNG:	318.1	DIFF:	0.0%
SUBTOTALS FOR: EAUARP__PTDF		BASE:	318.0	CHNG:	318.1	DIFF:	0.0%
				DIFF:	0.1	DF:	1.2%

69503	CASVILL5 - 39010 NED 161	BASE:	115.2	CHNG:	115.2	DIFF:	0.0%
SUBTOTALS FOR: CSVNED__PTDF		BASE:	115.2	CHNG:	115.2	DIFF:	0.0%
				DIFF:	0.0	DF:	-0.4%

36406	WEMPL; B - 39119 ROE 345	BASE:	497.1	CHNG:	497.0	DIFF:	0.0%
SUBTOTALS FOR: WEMROE__PTDF		BASE:	497.1	CHNG:	497.0	DIFF:	0.0%
				DIFF:	0.0	DF:	-0.8%

31230	MONTGMRY - 31992 SPENCER	BASE:	462.8	CHNG:	462.8	DIFF:	0.0%
SUBTOTALS FOR: MTGSPC__PTDF		BASE:	462.8	CHNG:	462.8	DIFF:	0.0%
				DIFF:	0.0	DF:	0.2%

31408	OVERTON - 59201 SIBLEY 7	BASE:	26.2	CHNG:	26.3	DIFF:	0.3%
SUBTOTALS FOR: OVESIB__PTDF		BASE:	26.2	CHNG:	26.3	DIFF:	0.3%
				DIFF:	0.1	DF:	1.4%

38894	N APP 3 - 38928 WERNER W	BASE:	72.5	CHNG:	72.4	DIFF:	-0.1%
SUBTOTALS FOR: NAPRRN__PTDF		BASE:	72.5	CHNG:	72.4	DIFF:	-0.1%
				DIFF:	-0.1	DF:	-2.0%

36420	ZION ; B - 39247 ARCADN3	BASE:	121.7	CHNG:	121.7	DIFF:	0.0%
SUBTOTALS FOR: ZIOARC__PTDF		BASE:	121.7	CHNG:	121.7	DIFF:	0.0%
				DIFF:	0.0	DF:	-0.6%

36421	ZION ; R - 38849 PLS PR2	BASE:	-56.3	CHNG:	-56.3	DIFF:	0.1%
SUBTOTALS FOR: ZIOPLP__PTDF		BASE:	-56.3	CHNG:	-56.3	DIFF:	0.1%
				DIFF:	0.0	DF:	-1.0%

36407	WEMPL; R - 39058 PAD 345	BASE:	248.3	CHNG:	248.2	DIFF:	0.0%
36406	WEMPL; B - 39119 ROE 345	BASE:	497.1	CHNG:	497.0	DIFF:	0.0%

SUBTOTALS FOR: SWWISC__PTDF		BASE:	745.3	CHNG:	745.3	DIFF:	0.0%
				DIFF:	-0.1	DF:	-1.1%

34093	ARNOLD 3 - 34018 HAZLTON3	BASE:	101.1	CHNG:	100.9	DIFF:	-0.1%
SUBTOTALS FOR: ARNHAZ__PTDF		BASE:	101.1	CHNG:	100.9	DIFF:	-0.1%
				DIFF:	-0.1	DF:	-2.7%

36382	QUAD ; - 34036 ROCK CK3	BASE:	501.9	CHNG:	501.9	DIFF:	0.0%
64400	MECCORD3 - 64403 E MOLIN3	BASE:	285.2	CHNG:	285.3	DIFF:	0.0%
SUBTOTALS FOR: QUARCKCORMOL		BASE:	787.1	CHNG:	787.2	DIFF:	0.0%
				DIFF:	0.0	DF:	1.0%

34036	ROCK CK3 - 34037 ROCK CK5	BASE:	234.5	CHNG:	234.5	DIFF:	0.0%
SUBTOTALS FOR: RCKXFM__PTDF		BASE:	234.5	CHNG:	234.5	DIFF:	0.0%
				DIFF:	0.0	DF:	0.0%

36382	QUAD ; - 34036 ROCK CK3	BASE:	501.9	CHNG:	501.9	DIFF:	0.0%
SUBTOTALS FOR: QUARCK__PTDF		BASE:	501.9	CHNG:	501.9	DIFF:	0.0%
				DIFF:	0.0	DF:	-0.1%

67105	LELANDO3 - 66506 FTTHOMP3	BASE:	284.2	CHNG:	284.5	DIFF:	0.1%
67105	LELANDO3 - 67160 GROTON 3	BASE:	350.4	CHNG:	350.6	DIFF:	0.1%
67101	ANTELOP3 - 67120 BRDLAND3	BASE:	301.1	CHNG:	301.4	DIFF:	0.1%
63314	BIGSTON4 - 66503 BLAIR 4	BASE:	256.4	CHNG:	256.8	DIFF:	0.2%
66554	MORRIS 4 - 66550 GRANITF4	BASE:	133.1	CHNG:	133.7	DIFF:	0.4%
63336	AUDUBON4 - 63053 HUBBARD4	BASE:	190.0	CHNG:	190.4	DIFF:	0.2%
66521	SULLYBT4 - 66519 OAHE 4	BASE:	61.5	CHNG:	61.8	DIFF:	0.5%
63052	INMAN 4 - 61611 WINGRIV4	BASE:	165.9	CHNG:	166.1	DIFF:	0.1%
66470	BISON 4 - 66497 MAURINE4	BASE:	-6.8	CHNG:	-6.7	DIFF:	-1.8%
66716	LAPORTE7 - 61638 AKELEY7	BASE:	21.9	CHNG:	22.0	DIFF:	0.4%
63222	ALEXAND7 - 60144 DGLASCO7	BASE:	59.3	CHNG:	59.3	DIFF:	0.1%
67327	ELLENDL7 - 67401 ABDNJCT7	BASE:	74.3	CHNG:	74.4	DIFF:	0.2%
66432	EDGELEY7 - 66534 ORDWAY 7	BASE:	30.9	CHNG:	31.0	DIFF:	0.4%
66438	FORMAN 7 - 66522 SUMMIT-7	BASE:	27.1	CHNG:	27.3	DIFF:	0.5%
63211	CANBY 7 - 66551 GRANITF7	BASE:	29.0	CHNG:	29.0	DIFF:	0.1%
62006	KERKHO 7 - 62005 KERKHO7	BASE:	34.9	CHNG:	35.0	DIFF:	0.2%
66752	DRAYTON4 - 67557 LETELER4	BASE:	-93.0	CHNG:	-92.7	DIFF:	-0.4%
63379	RUGBY 4 - 67523 GLENBOR4	BASE:	185.9	CHNG:	185.9	DIFF:	0.0%
SUBTOTALS FOR: NDEX		BASE:	2106.0	CHNG:	2109.9	DIFF:	0.2%
				DIFF:	3.8	DF:	81.2%

67557	LETELER4 - 66752 DRAYTON4	BASE:	93.0	CHNG:	92.7	DIFF:	-0.4%
67564	DORSEY 2 - 60173 ROSEAUN2	BASE:	1292.4	CHNG:	1292.7	DIFF:	0.0%
67576	RICHER 4 - 60175 ROSEAU 4	BASE:	98.4	CHNG:	98.4	DIFF:	0.0%
67523	GLENBOR4 - 63379 RUGBY 4	BASE:	-185.9	CHNG:	-185.9	DIFF:	0.0%
SUBTOTALS FOR: MHEX_S		BASE:	1297.9	CHNG:	1297.9	DIFF:	0.0%
				DIFF:	0.0	DF:	-0.8%

60173	ROSEAUN2 - 67564 DORSEY 2	BASE:	-1271.4	CHNG:	-1271.7	DIFF:	0.0%
60175	ROSEAU 4 - 67576 RICHER 4	BASE:	-97.2	CHNG:	-97.2	DIFF:	0.0%
66752	DRAYTON4 - 67557 LETELER4	BASE:	-92.4	CHNG:	-92.0	DIFF:	-0.4%
63379	RUGBY 4 - 67523 GLENBOR4	BASE:	193.7	CHNG:	193.8	DIFF:	0.0%
SUBTOTALS FOR: MHEX_N		BASE:	-1267.2	CHNG:	-1267.2	DIFF:	0.0%
				DIFF:	0.1	DF:	1.1%

60105	PR ISLD3 - 61950 BYRON 3	BASE:	32.9	CHNG:	33.1	DIFF:	0.8%
60304	EAU CL 3 - 39244 ARP 345	BASE:	318.0	CHNG:	318.1	DIFF:	0.0%
SUBTOTALS FOR: MWSI		BASE:	350.9	CHNG:	351.2	DIFF:	0.1%

					DIFF:	0.3	DF:	6.5%

64832	GENTLMN4	- 64909	N.PLATT4	BASE:	155.9	CHNG:	155.9	DIFF: 0.0%
64832	GENTLMN4	- 64909	N.PLATT4	BASE:	156.4	CHNG:	156.4	DIFF: 0.0%
64832	GENTLMN4	- 64909	N.PLATT4	BASE:	159.9	CHNG:	159.9	DIFF: 0.0%
64831	GENTLMN3	- 64984	SWEET W3	BASE:	283.3	CHNG:	283.3	DIFF: 0.0%
64831	GENTLMN3	- 64984	SWEET W3	BASE:	341.6	CHNG:	341.6	DIFF: 0.0%
64831	GENTLMN3	- 64943	REDWILO3	BASE:	304.8	CHNG:	304.8	DIFF: 0.0%
SUBTOTALS FOR: GGS				BASE:	1401.9	CHNG:	1401.9	DIFF: 0.0%
					DIFF:	0.0	DF:	0.2%

64831	GENTLMN3	- 64943	REDWILO3	BASE:	304.8	CHNG:	304.8	DIFF: 0.0%
SUBTOTALS FOR: WNE_WKS				BASE:	304.8	CHNG:	304.8	DIFF: 0.0%
					DIFF:	0.0	DF:	-0.7%

64933	PAULINE3	- 64902	MOORE 3	BASE:	92.6	CHNG:	92.6	DIFF: 0.0%
64839	GR ISLD4	- 64780	COLMB.W4	BASE:	125.1	CHNG:	125.1	DIFF: 0.0%
66571	GR ISLD3	- 64896	MCCOOL 3	BASE:	193.6	CHNG:	193.6	DIFF: 0.0%
SUBTOTALS FOR: GRIS_LNC				BASE:	411.2	CHNG:	411.3	DIFF: 0.0%
					DIFF:	0.0	DF:	1.0%

64786	COOPER 3	- 59393	ST JOE 3	BASE:	81.5	CHNG:	81.4	DIFF: -0.1%
64786	COOPER 3	- 96039	7FAIRPT	BASE:	99.2	CHNG:	99.1	DIFF: -0.1%
SUBTOTALS FOR: COOPER_S				BASE:	180.7	CHNG:	180.5	DIFF: -0.1%
					DIFF:	-0.2	DF:	-3.8%

60105	PR ISLD3	- 61950	BYRON 3	BASE:	32.9	CHNG:	33.1	DIFF: 0.8%
SUBTOTALS FOR: PR_ISL_BYRON				BASE:	32.9	CHNG:	33.1	DIFF: 0.8%
					DIFF:	0.3	DF:	5.3%

65351	S3451 3	- 65354	S3454 3	BASE:	83.2	CHNG:	83.1	DIFF: -0.1%
65351	S3451 3	- 65359	S3459 3	BASE:	139.0	CHNG:	138.9	DIFF: -0.1%
65451	S1251 5	- 65497	S1297 5	BASE:	69.8	CHNG:	69.8	DIFF: 0.0%
SUBTOTALS FOR: FTCAL_S				BASE:	292.0	CHNG:	291.8	DIFF: -0.1%
					DIFF:	-0.2	DF:	-3.7%

67564	DORSEY 2	- 60173	ROSEAUN2	BASE:	1292.4	CHNG:	1292.7	DIFF: 0.0%
SUBTOTALS FOR: D602F				BASE:	1292.4	CHNG:	1292.7	DIFF: 0.0%
					DIFF:	0.4	DF:	7.6%

36382	QUAD ;	- 64405	SUB 91 3	BASE:	423.6	CHNG:	423.6	DIFF: 0.0%
64400	MECCORD3	- 64403	E MOLIN3	BASE:	285.2	CHNG:	285.3	DIFF: 0.0%
SUBTOTALS FOR: QUADCITY_W				BASE:	708.8	CHNG:	708.9	DIFF: 0.0%
					DIFF:	0.1	DF:	2.6%

64095	MNTZUMA3	- 64064	BONDRNT3	BASE:	55.9	CHNG:	56.1	DIFF: 0.4%
SUBTOTALS FOR: MNTZUMA_W				BASE:	55.9	CHNG:	56.1	DIFF: 0.4%
					DIFF:	0.2	DF:	4.3%

59394	ST JOE 5	- 59392	MIDWAY 5	BASE:	103.0	CHNG:	103.0	DIFF: 0.0%
SUBTOTALS FOR: SJOMDY__PTDF				BASE:	103.0	CHNG:	103.0	DIFF: 0.0%
					DIFF:	0.0	DF:	0.5%

57982 IATAN 7 - 59393 ST JOE 3	BASE:	396.0	CHNG:	396.1	DIFF:	0.0%
SUBTOTALS FOR: IATSJO__PTDF						
	BASE:	396.0	CHNG:	396.1	DIFF:	0.0%
			DIFF:	0.1	DF:	1.6%

64352 TIFFIN 3 - 34093 ARNOLD 3	BASE:	132.2	CHNG:	132.1	DIFF:	-0.1%
SUBTOTALS FOR: TIFARN__PTDF						
	BASE:	132.2	CHNG:	132.1	DIFF:	-0.1%
			DIFF:	-0.1	DF:	-1.8%

60101 FORBES 2 - 60198 CHIS-N 2	BASE:	1132.8	CHNG:	1133.3	DIFF:	0.0%
SUBTOTALS FOR: FORCHS__PTDF						
	BASE:	1132.8	CHNG:	1133.3	DIFF:	0.0%
			DIFF:	0.5	DF:	9.7%

## OTDF INTERFACES ##						
36382 QUAD ; - 36368 H471 ;	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

36284 CORDO; B - 36362 NELSO; B	BASE:	870.9	CHNG:	870.8	DIFF:	0.0%
SUBTOTALS FOR: CDVNELQUA471						
	BASE:	870.9	CHNG:	870.8	DIFF:	0.0%
			DIFF:	-0.1	DF:	-2.1%

38849 PLS PR2 - 36421 ZION ; R	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39247 ARCADN3 - 36420 ZION ; B	BASE:	-93.3	CHNG:	-93.2	DIFF:	-0.1%
SUBTOTALS FOR: ADNZIOPLPZIO						
	BASE:	-93.3	CHNG:	-93.2	DIFF:	-0.1%
			DIFF:	0.1	DF:	1.1%

38849 PLS PR2 - 36421 ZION ; R	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39362 LAKEVIEW - 37384 ZION ;	BASE:	-26.2	CHNG:	-26.2	DIFF:	-0.1%
SUBTOTALS FOR: LKVZIOZIOPLP						
	BASE:	-26.2	CHNG:	-26.2	DIFF:	-0.1%
			DIFF:	0.0	DF:	0.3%

36406 WEMPL; B - 39119 ROE 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

60304 EAU CL 3 - 39244 ARP 345	BASE:	351.3	CHNG:	351.3	DIFF:	0.0%
SUBTOTALS FOR: EAUARPWMPPAD						
	BASE:	351.3	CHNG:	351.3	DIFF:	0.0%
			DIFF:	0.1	DF:	1.1%

36406 WEMPL; B - 39119 ROE 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39058 PAD 345 - 39059 PAD 138	BASE:	444.1	CHNG:	444.1	DIFF:	0.0%
SUBTOTALS FOR: PADXFMWEMROE						
	BASE:	444.1	CHNG:	444.1	DIFF:	0.0%
			DIFF:	0.0	DF:	-0.6%

60105 PR ISLD3 - 61950 BYRON 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

60304 EAU CL 3 - 39244 ARP 345	BASE:	322.3	CHNG:	322.3	DIFF:	0.0%
SUBTOTALS FOR: EAUARPPRIBYR						
	BASE:	322.3	CHNG:	322.3	DIFF:	0.0%
			DIFF:	0.1	DF:	1.9%

39059 PAD 138 - 39141 TOWNLINE	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39059 PAD 138 - 38057 NWT 138	BASE:	147.1	CHNG:	147.1	DIFF:	0.0%
38057 NWT 138 - 39048 BLK 138	BASE:	136.1	CHNG:	136.1	DIFF:	0.0%

SUBTOTALS FOR: PADBLKPADTLR	BASE:	283.2	CHNG:	283.1	DIFF:	0.0%
				DIFF:	0.0	DF: -0.5%

39059 PAD 138 - 39141 TOWNLINE	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39048 BLK 138 - 39060 COR 138	BASE:	157.8	CHNG:	157.8	DIFF:	0.0%
SUBTOTALS FOR: BLKCORPADTLR	BASE:	157.8	CHNG:	157.8	DIFF:	0.0%
				DIFF:	0.0	DF: -0.2%

36406 WEMPL; B - 39119 ROE 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39090 RSS 138 - 39120 ROE 138	BASE:	250.7	CHNG:	250.7	DIFF:	0.0%
SUBTOTALS FOR: RSSROEWEMROE	BASE:	250.7	CHNG:	250.7	DIFF:	0.0%
				DIFF:	0.0	DF: -0.4%

39676 GARDR PK - 39785 ROCKY RN	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39786 ROCKY RN - 39788 NORTHPT	BASE:	-146.1	CHNG:	-146.1	DIFF:	0.0%
SUBTOTALS FOR: RRNNPTRRNGPK	BASE:	-146.1	CHNG:	-146.1	DIFF:	0.0%
				DIFF:	0.0	DF: -0.6%

36406 WEMPL; B - 39119 ROE 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39048 BLK 138 - 39060 COR 138	BASE:	193.9	CHNG:	193.9	DIFF:	0.0%
SUBTOTALS FOR: BLKCRDWEMROE	BASE:	193.9	CHNG:	193.9	DIFF:	0.0%
				DIFF:	0.0	DF: -0.2%

39059 PAD 138 - 38057 NWT 138	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39059 PAD 138 - 39141 TOWNLINE	BASE:	133.9	CHNG:	133.9	DIFF:	0.0%
SUBTOTALS FOR: PADTLRPADBLK	BASE:	133.9	CHNG:	133.9	DIFF:	0.0%
				DIFF:	0.0	DF: -0.3%

39119 ROE 345 - 39120 ROE 138	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39119 ROE 345 - 39120 ROE 138	BASE:	216.4	CHNG:	216.4	DIFF:	0.0%
SUBTOTALS FOR: ROE_T2ROE_T3	BASE:	216.4	CHNG:	216.4	DIFF:	0.0%
				DIFF:	0.0	DF: -0.1%

39244 ARP 345 - 39785 ROCKY RN	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

60315 T-CRNRS7 - 39706 WIEN	BASE:	-28.2	CHNG:	-28.2	DIFF:	0.0%
SUBTOTALS FOR: TCRWIEARPRRN	BASE:	-28.2	CHNG:	-28.2	DIFF:	0.0%
				DIFF:	0.0	DF: 0.1%

60304 EAU CL 3 - 39244 ARP 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

60315 T-CRNRS7 - 39706 WIEN	BASE:	16.1	CHNG:	16.2	DIFF:	0.1%
SUBTOTALS FOR: TCRWIEEARP_G	BASE:	16.1	CHNG:	16.2	DIFF:	0.1%
				DIFF:	0.0	DF: 0.3%

36406 WEMPL; B - 39119 ROE 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39059 PAD 138 - 39141 TOWNLINE	BASE:	165.0	CHNG:	165.0	DIFF:	0.0%
SUBTOTALS FOR: PADTLRWEMROE	BASE:	165.0	CHNG:	165.0	DIFF:	0.0%

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                                DIFF:    0.0   DF:   -0.4%
*****
38894 N APP 3 - 38928 WERNER W *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
39237 KIL 138 - 38302 KIL 69   BASE:    41.0 CHNG:    41.0 DIFF:    0.0%
SUBTOTALS FOR: KILXFMAPPWER   BASE:    41.0 CHNG:    41.0 DIFF:    0.0%
                                DIFF:    0.0   DF:   -0.1%
*****
38928 WERNER W - 39785 ROCKY RN *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
39235 WAU 138 - 39939 SAL 138  BASE:   -9.5 CHNG:   -9.5 DIFF:    0.2%
SUBTOTALS FOR: WAUEDWERROR    BASE:   -9.5 CHNG:   -9.5 DIFF:    0.2%
                                DIFF:    0.0   DF:   -0.5%
*****
30395 COFFEEN - 31445 PANA      *CONTINGENCY* BASE:    0.0 CHNG:    0.0
31445 PANA    - 36343 KINCA; R *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
31230 MONTGMRY - 31992 SPENCER  BASE:   497.6 CHNG:   497.6 DIFF:    0.0%
SUBTOTALS FOR: MTGSPCCOFPAN   BASE:   497.6 CHNG:   497.6 DIFF:    0.0%
                                DIFF:    0.0   DF:    0.1%
*****
30154 BLAND   - 96041 7FRANKS  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
31088 MCCREDIE - 31408 OVERTON  BASE:   263.8 CHNG:   263.8 DIFF:    0.0%
SUBTOTALS FOR: MCROVEBLAF_G   BASE:   263.8 CHNG:   263.8 DIFF:    0.0%
                                DIFF:    0.1   DF:    1.3%
*****
31088 MCCREDIE - 31408 OVERTON  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
30154 BLAND   - 96041 7FRANKS  BASE:   321.6 CHNG:   321.6 DIFF:    0.0%
SUBTOTALS FOR: BLAFRAMCROVE   BASE:   321.6 CHNG:   321.6 DIFF:    0.0%
                                DIFF:    0.0   DF:    0.3%
*****
36281 BYRON; R - 36289 CHERR; R *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
36280 BYRON; B - 36288 CHERR; B  BASE:   1292.3 CHNG:   1292.3 DIFF:    0.0%
SUBTOTALS FOR: BYNCHEBYNCHE   BASE:   1292.3 CHNG:   1292.3 DIFF:    0.0%
                                DIFF:    0.0   DF:   -0.5%
*****
36281 BYRON; R - 36407 WEMPL; R *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
36280 BYRON; B - 36288 CHERR; B  BASE:   1130.4 CHNG:   1130.4 DIFF:    0.0%
SUBTOTALS FOR: BYCH_BBYNWEM   BASE:   1130.4 CHNG:   1130.4 DIFF:    0.0%
                                DIFF:    0.0   DF:   -0.6%
*****
36280 BYRON; B - 36288 CHERR; B *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
36281 BYRON; R - 36289 CHERR; R  BASE:   1351.8 CHNG:   1351.8 DIFF:    0.0%
SUBTOTALS FOR: BYRCHEBYRCHE   BASE:   1351.8 CHNG:   1351.8 DIFF:    0.0%
                                DIFF:    0.0   DF:   -0.5%
*****
36281 BYRON; R - 36407 WEMPL; R *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
36281 BYRON; R - 36289 CHERR; R  BASE:   1257.4 CHNG:   1257.4 DIFF:    0.0%
SUBTOTALS FOR: BYCH_RBYNWEM   BASE:   1257.4 CHNG:   1257.4 DIFF:    0.0%
                                DIFF:    0.0   DF:   -0.6%

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*****
36284 CORDO; B - 36362 NELSO; B *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36382 QUAD ; - 36368 H471 ; BASE: 875.4 CHNG: 875.3 DIFF: 0.0%
SUBTOTALS FOR: QUA471CDVNEL BASE: 875.4 CHNG: 875.3 DIFF: 0.0%
DIFF: -0.1 DF: -2.1%
*****
36382 QUAD ; - 36368 H471 ; *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36382 QUAD ; - 36284 CORDO; B BASE: 346.3 CHNG: 346.3 DIFF: 0.0%
36284 CORDO; B - 36362 NELSO; B BASE: 870.9 CHNG: 870.8 DIFF: 0.0%
SUBTOTALS FOR: QUACDVQUA471 BASE: 1217.3 CHNG: 1217.2 DIFF: 0.0%
DIFF: -0.1 DF: -2.7%
*****
36420 ZION ; B - 39247 ARCADN3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36407 WEMPL; R - 39058 PAD 345 BASE: 254.5 CHNG: 254.4 DIFF: 0.0%
SUBTOTALS FOR: WEMPADZIOARC BASE: 254.5 CHNG: 254.4 DIFF: 0.0%
DIFF: 0.0 DF: -0.3%
*****
36421 ZION ; R - 38849 PLS PR2 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36407 WEMPL; R - 39058 PAD 345 BASE: 243.2 CHNG: 243.2 DIFF: 0.0%
SUBTOTALS FOR: WEMPADZIOPLP BASE: 243.2 CHNG: 243.2 DIFF: 0.0%
DIFF: 0.0 DF: -0.4%
*****
36289 CHERR; R - 36389 SILVE; R *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36407 WEMPL; R - 39058 PAD 345 BASE: 333.8 CHNG: 333.7 DIFF: 0.0%
SUBTOTALS FOR: WEMPADCHVSLA BASE: 333.8 CHNG: 333.7 DIFF: 0.0%
DIFF: 0.0 DF: -0.4%
*****
36420 ZION ; B - 39247 ARCADN3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36421 ZION ; R - 38849 PLS PR2 BASE: 34.8 CHNG: 34.7 DIFF: -0.2%
SUBTOTALS FOR: ZIOPLPZIOARC BASE: 34.8 CHNG: 34.7 DIFF: -0.2%
DIFF: -0.1 DF: -1.5%
*****
36407 WEMPL; R - 39058 PAD 345 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36421 ZION ; R - 38849 PLS PR2 BASE: 0.7 CHNG: 0.7 DIFF: -7.1%
SUBTOTALS FOR: ZIOPLPWEMPAD BASE: 0.7 CHNG: 0.7 DIFF: -7.1%
DIFF: -0.1 DF: -1.1%
*****
36421 ZION ; R - 38849 PLS PR2 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36420 ZION ; B - 39247 ARCADN3 BASE: 93.7 CHNG: 93.6 DIFF: -0.1%
SUBTOTALS FOR: ZIOARCZIOPLP BASE: 93.7 CHNG: 93.6 DIFF: -0.1%
DIFF: -0.1 DF: -1.1%
*****
36362 NELSO; B - 36310 ELECT; B *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36289 CHERR; R - 36389 SILVE; R BASE: 1029.6 CHNG: 1029.6 DIFF: 0.0%
SUBTOTALS FOR: CHESILNELELC BASE: 1029.6 CHNG: 1029.6 DIFF: 0.0%
DIFF: 0.0 DF: -0.6%
*****

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36289	CHERR; R	-	36389	SILVE; R	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

36362	NELSO; B	-	36310	ELECT; B		BASE:	854.2	CHNG:	854.1
						DIFF:			0.0%
SUBTOTALS FOR: NELELCCHESIL									
						BASE:	854.2	CHNG:	854.1
						DIFF:	0.0	DF:	-0.9%

36407	WEMPL; R	-	39058	PAD 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

37632	LEECO;BP	-	36362	NELSO; B		BASE:	200.9	CHNG:	201.0
						DIFF:			0.0%
SUBTOTALS FOR: LCONELWEMPAD									
						BASE:	200.9	CHNG:	201.0
						DIFF:	0.1	DF:	1.3%

39253	ARCADN1	-	39329	GRANVL1	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39268	BUTLER	-	39327	GRANVL 5		BASE:	-270.8	CHNG:	-270.8
						DIFF:			0.0%
SUBTOTALS FOR: BTRGVLARCGVL									
						BASE:	-270.8	CHNG:	-270.8
						DIFF:	0.0	DF:	-0.4%

38894	N APP 3	-	38928	WERNER W	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0
38928	WERNER W	-	39785	ROCKY RN	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

38892	ELLNGTN3	-	39534	HINTZ		BASE:	88.1	CHNG:	88.1
						DIFF:			0.0%
SUBTOTALS FOR: ELNHNZNAPRRN									
						BASE:	88.1	CHNG:	88.1
						DIFF:	0.0	DF:	-0.5%

38849	PLS PR2	-	36421	ZION ; R	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39345	KENOSH45	-	39362	LAKEVIEW		BASE:	12.9	CHNG:	12.9
						DIFF:			0.1%
SUBTOTALS FOR: KSHLKVPLPZIO									
						BASE:	12.9	CHNG:	12.9
						DIFF:	0.0	DF:	0.3%

38850	PLS PR3	-	39471	RACINE1	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39432	PLS PR1	-	39253	ARCADN1		BASE:	400.6	CHNG:	400.6
						DIFF:			0.0%
SUBTOTALS FOR: PLPARCPLRRAC									
						BASE:	400.6	CHNG:	400.6
						DIFF:	0.0	DF:	-0.7%

36420	ZION ; B	-	39247	ARCADN3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39432	PLS PR1	-	39253	ARCADN1		BASE:	202.9	CHNG:	202.9
						DIFF:			0.0%
SUBTOTALS FOR: PLPARCZIOARC									
						BASE:	202.9	CHNG:	202.9
						DIFF:	0.0	DF:	-0.7%

36289	CHERR; R	-	36389	SILVE; R	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

38849	PLS PR2	-	36421	ZION ; R		BASE:	173.6	CHNG:	173.6
						DIFF:			0.0%
SUBTOTALS FOR: PLPZIOCHESIL									
						BASE:	173.6	CHNG:	173.6
						DIFF:	0.0	DF:	1.0%

36420	ZION ; B	-	39247	ARCADN3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

38849	PLS PR2	-	36421	ZION ; R		BASE:	-34.7	CHNG:	-34.7
						DIFF:			-0.2%
SUBTOTALS FOR: PLPZIOZIOARC									
						BASE:	-34.7	CHNG:	-34.7
						DIFF:	0.1	DF:	1.5%

39432 PLS PR1	-	39253 ARCADN1	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

38850 PLS PR3	-	39471 RACINE1		BASE:	642.3	CHNG:	642.2 DIFF: 0.0%

SUBTOTALS FOR: PLPRACPLPADN				BASE:	642.3	CHNG:	642.2 DIFF: 0.0%
						DIFF:	0.0 DF: -0.8%

38898 PT BCH2	-	39304 FORST JT	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39556 FOXRIVER	-	39304 FORST JT		BASE:	483.4	CHNG:	483.4 DIFF: 0.0%

SUBTOTALS FOR: FXRFSTPTBFST				BASE:	483.4	CHNG:	483.4 DIFF: 0.0%
						DIFF:	0.0 DF: 0.6%

38928 WERNER W	-	39785 ROCKY RN	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

38929 WERNER W	-	39535 WHITE LK		BASE:	71.6	CHNG:	71.6 DIFF: 0.0%

SUBTOTALS FOR: WERWHLWERROR				BASE:	71.6	CHNG:	71.6 DIFF: 0.0%
						DIFF:	0.0 DF: -0.6%

39785 ROCKY RN	-	39676 GARDR PK	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39210 CW8 115	-	39686 WESTON		BASE:	-186.9	CHNG:	-187.0 DIFF: 0.0%

SUBTOTALS FOR: RRNWESRRNGPK				BASE:	-186.9	CHNG:	-187.0 DIFF: 0.0%
						DIFF:	0.0 DF: -0.6%

36407 WEMPL; R	-	39058 PAD 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

34093 ARNOLD 3	-	34018 HAZLTON3		BASE:	110.2	CHNG:	110.0 DIFF: -0.1%

SUBTOTALS FOR: ARNHAZWEMPAD				BASE:	110.2	CHNG:	110.0 DIFF: -0.1%
						DIFF:	-0.1 DF: -2.7%

36407 WEMPL; R	-	39058 PAD 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

34028 LORE 5	-	34033 TRK RIV5		BASE:	147.3	CHNG:	147.3 DIFF: 0.0%

SUBTOTALS FOR: LORTRKWEMPAD				BASE:	147.3	CHNG:	147.3 DIFF: 0.0%
						DIFF:	0.0 DF: -0.5%

34093 ARNOLD 3	-	34018 HAZLTON3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

34007 LAKEFLD5	-	34008 FOX LK 5		BASE:	33.0	CHNG:	33.0 DIFF: -0.1%

SUBTOTALS FOR: LKJFOXARNHAZ				BASE:	33.0	CHNG:	33.0 DIFF: -0.1%
						DIFF:	0.0 DF: -0.7%

36382 QUAD ;	-	64405 SUB 91 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

34036 ROCK CK3	-	34037 ROCK CK5		BASE:	286.1	CHNG:	286.2 DIFF: 0.0%

SUBTOTALS FOR: RCKXFMQUADAV				BASE:	286.1	CHNG:	286.2 DIFF: 0.0%
						DIFF:	0.0 DF: 0.2%

36382 QUAD ;	-	64405 SUB 91 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

34035 ROCKCKW5	-	34124 DEWITT 5		BASE:	81.0	CHNG:	81.0 DIFF: 0.0%

SUBTOTALS FOR: RCKDWTQUAS91				BASE:	81.0	CHNG:	81.0 DIFF: 0.0%
						DIFF:	0.0 DF: 0.3%

36382 QUAD ;	-	64405 SUB 91 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

34029 SALEM 3 - 34030 SALEM N5	BASE:	293.7	CHNG:	293.7	DIFF:	0.0%
SUBTOTALS FOR: SALXFMQUAS91	BASE:	293.7	CHNG:	293.7	DIFF:	0.0%
			DIFF:	0.0	DF:	0.0%

64400 MECCORD3 - 64403 E MOLIN3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	
34029 SALEM 3 - 34030 SALEM N5	BASE:	279.9	CHNG:	279.9	DIFF:	0.0%
SUBTOTALS FOR: SALXFMCORMOL	BASE:	279.9	CHNG:	279.9	DIFF:	0.0%
			DIFF:	0.0	DF:	-0.1%

36382 QUAD ; - 64405 SUB 91 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	
34029 SALEM 3 - 34030 SALEM N5	BASE:	293.7	CHNG:	293.7	DIFF:	0.0%
SUBTOTALS FOR: SALXFMQUADAV	BASE:	293.7	CHNG:	293.7	DIFF:	0.0%
			DIFF:	0.0	DF:	0.0%

64350 HILLS 3 - 64095 MNTZUMA3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	
64352 TIFFIN 3 - 34093 ARNOLD 3	BASE:	123.3	CHNG:	123.2	DIFF:	0.0%
SUBTOTALS FOR: TIFARNHILMON	BASE:	123.3	CHNG:	123.2	DIFF:	0.0%
			DIFF:	0.0	DF:	-0.6%

34093 ARNOLD 3 - 34018 HAZLTON3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	
34091 ARNOLD 5 - 34089 VINTON 5	BASE:	107.3	CHNG:	107.3	DIFF:	0.0%
SUBTOTALS FOR: ARNVINARNHAZ	BASE:	107.3	CHNG:	107.3	DIFF:	0.0%
			DIFF:	0.0	DF:	0.0%

36382 QUAD ; - 34036 ROCK CK3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	
64425 DAVNPR5 - 34122 E CALMS5	BASE:	0.0	CHNG:	0.0	DIFF:	999.0%
SUBTOTALS FOR: DAVCALQUARCK	BASE:	0.0	CHNG:	0.0	DIFF:	999.0%
			DIFF:	0.0	DF:	0.0%

64095 MNTZUMA3 - 64064 BONDRNT3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	
34052 AMES 7 - 34076 BNE JCT7	BASE:	-4.4	CHNG:	-4.4	DIFF:	-0.4%
SUBTOTALS FOR: AMEBJCMTZBON	BASE:	-4.4	CHNG:	-4.4	DIFF:	-0.4%
			DIFF:	0.0	DF:	0.4%

34006 LAKEFLD3 - 60331 LKFLDXL3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	
34007 LAKEFLD5 - 34008 FOX LK 5	BASE:	61.7	CHNG:	61.6	DIFF:	-0.1%
SUBTOTALS FOR: LAKFOXLAFLK	BASE:	61.7	CHNG:	61.6	DIFF:	-0.1%
			DIFF:	-0.1	DF:	-1.9%

34093 ARNOLD 3 - 34018 HAZLTON3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	
34087 DYSART 5 - 64269 WASHBRN5	BASE:	129.9	CHNG:	129.8	DIFF:	0.0%
SUBTOTALS FOR: DYSWASARNHAZ	BASE:	129.9	CHNG:	129.8	DIFF:	0.0%
			DIFF:	0.0	DF:	-0.9%

64080 SYCAMOR3 - 64198 GRIMES 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	
64067 BONDRNT5 - 34529 HUXLEYT5	BASE:	39.2	CHNG:	39.3	DIFF:	0.0%

```

SUBTOTALS FOR: BONBJCSYCLEH      BASE:    39.2 CHNG:    39.3 DIFF:    0.0%
                                  DIFF:    0.0   DF:    0.3%
*****
64202 LEHIGH 3 - 64200 WEBSTER3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
64067 BONDRNT5 - 34529 HUXLEYT5  BASE:    84.3 CHNG:    84.3 DIFF:    0.0%
SUBTOTALS FOR: BONBJCLEHWBS      BASE:    84.3 CHNG:    84.3 DIFF:    0.0%
                                  DIFF:    0.0   DF:    0.2%
*****
***** ERROR: OTDF # 64 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 34007 TO 34137 CKT 1 IERR= 2
***** ERROR: OTDF # 64 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 34007 TO 34137 CKT 1 IERR= 2
34007 LAKEFLD5 - 34137 TRIBOJI5 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34007 LAKEFLD5 - 34008 FOX LK 5  BASE:    31.8 CHNG:    31.8 DIFF:   -0.1%
SUBTOTALS FOR: LKJFOXLKJTRI      BASE:    31.8 CHNG:    31.8 DIFF:   -0.1%
                                  DIFF:    0.0   DF:   -0.6%
*****
***** ERROR: OTDF # 65 BASE CASE LAST SOLUTION DID NOT REACH TOLERANCE, FIX AND RERUN PROGRAM
***** ERROR: OTDF # 65 BASE CASE NOT SOLVED WELL, MISMATCH= 9551.537 FIX AND RERUN PROGRAM
***** ERROR: OTDF # 65 CHNG CASE LAST SOLUTION DID NOT REACH TOLERANCE, FIX AND RERUN PROGRAM
***** ERROR: OTDF # 65 CHNG CASE NOT SOLVED WELL, MISMATCH= 29020.6 FIX AND RERUN PROGRAM

60173 ROSEAUN2 - 67564 DORSEY 2 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34093 ARNOLD 3 - 34018 HAZLTON3  BASE:   259.7 CHNG:   113.5 DIFF:  -56.3%
SUBTOTALS FOR: ARNHAZDORFOR      BASE:   259.7 CHNG:   113.5 DIFF:  -56.3%
                                  DIFF:  -146.2   DF: -999.0%
*****
60304 EAU CL 3 - 39244 ARP 345  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34020 HAZL S 5 - 34135 DUNDEE 5  BASE:   112.7 CHNG:   112.7 DIFF:    0.0%
SUBTOTALS FOR: HAZDUNEAUARP      BASE:   112.7 CHNG:   112.7 DIFF:    0.0%
                                  DIFF:    0.0   DF:    0.0%
*****
63875 RAUN 3 - 34006 LAKEFLD3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
66563 SPENCER5 - 34137 TRIBOJI5  BASE:   -66.1 CHNG:   -66.2 DIFF:    0.2%
SUBTOTALS FOR: SPETRILAKRAU      BASE:   -66.1 CHNG:   -66.2 DIFF:    0.2%
                                  DIFF:   -0.1   DF:   -2.8%
*****
36407 WEMPL; R - 39058 PAD 345  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34029 SALEM 3 - 34030 SALEM N5  BASE:   273.2 CHNG:   273.1 DIFF:    0.0%
SUBTOTALS FOR: SALXFMWEMPAD      BASE:   273.2 CHNG:   273.1 DIFF:    0.0%
                                  DIFF:    0.0   DF:   -0.1%
*****
64352 TIFFIN 3 - 34093 ARNOLD 3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
64350 HILLS 3 - 34110 HILLSIE5  BASE:    93.1 CHNG:    93.1 DIFF:    0.0%
SUBTOTALS FOR: HILXFMTIFARN      BASE:    93.1 CHNG:    93.1 DIFF:    0.0%
                                  DIFF:    0.0   DF:   -0.4%
*****
36407 WEMPL; R - 39058 PAD 345  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34032 8TH ST.5 - 34028 LORE 5  BASE:    0.0 CHNG:    0.0 DIFF:   999.0%

```

```

SUBTOTALS FOR: 8STKERWEMPAD      BASE:      0.0 CHNG:      0.0 DIFF:    999.0%
                                  DIFF:      0.0  DF:      0.0%
*****
34093 ARNOLD 3 - 34018 HAZLTON3  *CONTINGENCY* BASE:      0.0 CHNG:      0.0
-----
34032 8TH ST.5 - 34028 LORE 5    BASE:      0.0 CHNG:      0.0 DIFF:    999.0%
SUBTOTALS FOR: 8STKERARNHAZ      BASE:      0.0 CHNG:      0.0 DIFF:    999.0%
                                  DIFF:      0.0  DF:      0.0%
*****
64095 MNTZUMA3 - 64064 BONDRNT3  *CONTINGENCY* BASE:      0.0 CHNG:      0.0
-----
34066 M-TOWN 7 - 34071 FERNALD7  BASE:      0.0 CHNG:      0.0 DIFF:    999.0%
SUBTOTALS FOR: MRTFERMTZBON      BASE:      0.0 CHNG:      0.0 DIFF:    999.0%
                                  DIFF:      0.0  DF:      0.0%
*****
64202 LEHIGH 3 - 64200 WEBSTER3  *CONTINGENCY* BASE:      0.0 CHNG:      0.0
-----
34015 LIME CK5 - 34016 EMERY 5    BASE:     -55.5 CHNG:    -55.4 DIFF:    -0.1%
SUBTOTALS FOR: LIMEMELEHWEB      BASE:     -55.5 CHNG:    -55.4 DIFF:    -0.1%
                                  DIFF:      0.1  DF:      1.1%
*****
36407 WEMPL; R - 39058 PAD 345    *CONTINGENCY* BASE:      0.0 CHNG:      0.0
-----
34028 LORE 5 - 34033 TRK RIV5    BASE:     147.3 CHNG:    147.3 DIFF:      0.0%
SUBTOTALS FOR: LORTRKWPAD_G      BASE:     147.3 CHNG:    147.3 DIFF:      0.0%
                                  DIFF:      0.0  DF:     -0.5%
*****
34093 ARNOLD 3 - 34018 HAZLTON3  *CONTINGENCY* BASE:      0.0 CHNG:      0.0
-----
34089 VINTON 5 - 34087 DYSART 5   BASE:     103.5 CHNG:    103.5 DIFF:      0.0%
SUBTOTALS FOR: VINDYSARNHAZ      BASE:     103.5 CHNG:    103.5 DIFF:      0.0%
                                  DIFF:      0.0  DF:      0.0%
*****
***** ERROR: OTDF # 76 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 60102 TO 34018 CKT 1 IERR= 2
***** ERROR: OTDF # 76 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 60102 TO 34018 CKT 1 IERR= 2
60102 ADAMS 3 - 34018 HAZLTON3  *CONTINGENCY* BASE:      0.0 CHNG:      0.0
-----
34015 LIME CK5 - 34016 EMERY 5    BASE:     -81.1 CHNG:    -81.0 DIFF:    -0.1%
SUBTOTALS FOR: LIMEMEADAHAZ      BASE:     -81.1 CHNG:    -81.0 DIFF:    -0.1%
                                  DIFF:      0.1  DF:      1.1%
*****
36407 WEMPL; R - 39058 PAD 345    *CONTINGENCY* BASE:      0.0 CHNG:      0.0
-----
34030 SALEM N5 - 34508 JULIAN 5    BASE:     161.8 CHNG:    161.8 DIFF:      0.0%
SUBTOTALS FOR: SALJCRWEMPAD      BASE:     161.8 CHNG:    161.8 DIFF:      0.0%
                                  DIFF:      0.0  DF:     -0.2%
*****
60331 LKFLDXL3 - 60364 FIELD_N3  *CONTINGENCY* BASE:      0.0 CHNG:      0.0
-----
34007 LAKEFLD5 - 34008 FOX LK 5   BASE:      89.7 CHNG:      89.6 DIFF:    -0.1%
SUBTOTALS FOR: LKFFOXLKFWLM      BASE:      89.7 CHNG:      89.6 DIFF:    -0.1%
                                  DIFF:     -0.1  DF:     -1.8%
*****
64095 MNTZUMA3 - 64064 BONDRNT3  *CONTINGENCY* BASE:      0.0 CHNG:      0.0
-----
34093 ARNOLD 3 - 34018 HAZLTON3  BASE:     111.0 CHNG:    110.9 DIFF:    -0.1%

```

SUBTOTALS FOR: ARNHAZMTZBON		BASE:	111.0	CHNG:	110.9	DIFF:	-0.1%
						DIFF:	-0.1 DF: -1.9%

64352	TIFFIN 3 - 34093 ARNOLD 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34029	SALEM 3 - 34030 SALEM N5		BASE:	276.4	CHNG:	276.4	DIFF: 0.0%
SUBTOTALS FOR: SALXFMTIFARN		BASE:	276.4	CHNG:	276.4	DIFF:	0.0%
						DIFF:	0.0 DF: -0.3%

64350	HILLS 3 - 64352 TIFFIN 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34029	SALEM 3 - 34030 SALEM N5		BASE:	277.2	CHNG:	277.1	DIFF: 0.0%
SUBTOTALS FOR: SALXFHML3TIF		BASE:	277.2	CHNG:	277.1	DIFF:	0.0%
						DIFF:	0.0 DF: -0.2%

64095	MNTZUMA3 - 64064 BONDRTN3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

64352	TIFFIN 3 - 34093 ARNOLD 3		BASE:	147.1	CHNG:	147.1	DIFF: 0.0%
SUBTOTALS FOR: TIFARNMTZBON		BASE:	147.1	CHNG:	147.1	DIFF:	0.0%
						DIFF:	0.0 DF: -0.6%

34091	ARNOLD 5 - 34090 ARNOLD1G	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

64350	HILLS 3 - 34110 HILLSIE5		BASE:	106.8	CHNG:	106.8	DIFF: 0.0%
SUBTOTALS FOR: HILXFARNXFM		BASE:	106.8	CHNG:	106.8	DIFF:	0.0%
						DIFF:	0.0 DF: -0.1%

34016	EMERY 5 - 64252 FLOYD 5	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34016	EMERY 5 - 34015 LIME CK5		BASE:	116.4	CHNG:	116.3	DIFF: 0.0%
SUBTOTALS FOR: EMELIMEMEFYD		BASE:	116.4	CHNG:	116.3	DIFF:	0.0%
						DIFF:	-0.1 DF: -1.2%

34020	HAZL S 5 - 34018 HAZLTON3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34018	HAZLTON3 - 34019 HAZLTON5		BASE:	246.7	CHNG:	246.8	DIFF: 0.0%
SUBTOTALS FOR: HAZXF1HAZXF2		BASE:	246.7	CHNG:	246.8	DIFF:	0.0%
						DIFF:	0.0 DF: 1.0%

64095	MNTZUMA3 - 64350 HILLS 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34180	DENMARK5 - 34178 HENRYCO5		BASE:	46.9	CHNG:	46.9	DIFF: 0.1%
SUBTOTALS FOR: DENHENHILMNT		BASE:	46.9	CHNG:	46.9	DIFF:	0.1%
						DIFF:	0.0 DF: 0.8%

60331	LKFLDXL3 - 60364 FIELD_N3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34008	FOX LK 5 - 61931 *****		BASE:	0.0	CHNG:	0.0	DIFF: 999.0%
SUBTOTALS FOR: FXLRUTLKFWil		BASE:	0.0	CHNG:	0.0	DIFF:	999.0%
						DIFF:	0.0 DF: 0.0%

60331	LKFLDXL3 - 60364 FIELD_N3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

61932	RUTLAND5 - 34009 WINBAGO5		BASE:	194.1	CHNG:	193.9	DIFF: -0.1%
SUBTOTALS FOR: RUTWINLKFWil		BASE:	194.1	CHNG:	193.9	DIFF:	-0.1%
						DIFF:	-0.1 DF: -3.2%

```

*****
38850 PLS PR3 - 39471 RACINE1 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
39410 PARIS WE - 39249 ALBRS-12 BASE: -135.3 CHNG: -135.3 DIFF: 0.0%
SUBTOTALS FOR: PARALBPLPRAC BASE: -135.3 CHNG: -135.3 DIFF: 0.0%
DIFF: 0.0 DF: 0.1%
*****
39247 ARCADN3 - 36420 ZION ; B *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
38850 PLS PR3 - 39471 RACINE1 BASE: 608.7 CHNG: 608.7 DIFF: 0.0%
SUBTOTALS FOR: PLPRACARCZIO BASE: 608.7 CHNG: 608.7 DIFF: 0.0%
DIFF: 0.0 DF: -0.8%
*****
56769 LANG 7 - 56796 WICHITA7 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
57981 LACYGNE7 - 56793 NEOSHO 7 BASE: 223.7 CHNG: 223.7 DIFF: 0.0%
SUBTOTALS FOR: LACNEOLANWIC BASE: 223.7 CHNG: 223.7 DIFF: 0.0%
DIFF: -0.1 DF: -1.1%
*****
59396 LAKE RD5 - 58028 NASHUA-5 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
57982 IATAN 7 - 56772 STRANGR7 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
59393 ST JOE 3 - 57972 HAWTH 7 BASE: 312.6 CHNG: 312.5 DIFF: 0.0%
SUBTOTALS FOR: SJOHTHIATSTC BASE: 312.6 CHNG: 312.5 DIFF: 0.0%
DIFF: -0.1 DF: -3.0%
*****
59396 LAKE RD5 - 58028 NASHUA-5 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
59393 ST JOE 3 - 57972 HAWTH 7 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
57982 IATAN 7 - 56772 STRANGR7 BASE: 372.9 CHNG: 372.8 DIFF: 0.0%
SUBTOTALS FOR: IATSTRLRDNUA BASE: 372.9 CHNG: 372.8 DIFF: 0.0%
DIFF: -0.1 DF: -2.9%
*****
61950 BYRON 3 - 63032 PL VLLY3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
61948 BYRON 5 - 61906 MAPLE LF BASE: 23.8 CHNG: 23.8 DIFF: 0.1%
SUBTOTALS FOR: BYRMPLBYRPLV BASE: 23.8 CHNG: 23.8 DIFF: 0.1%
DIFF: 0.0 DF: 0.4%
*****
60102 ADAMS 3 - 63032 PL VLLY3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
61948 BYRON 5 - 61906 MAPLE LF BASE: 32.6 CHNG: 32.6 DIFF: 0.0%
SUBTOTALS FOR: BYRMPLPLVADM BASE: 32.6 CHNG: 32.6 DIFF: 0.0%
DIFF: 0.0 DF: 0.3%
*****
60186 AS KING3 - 60304 EAU CL 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
60304 EAU CL 3 - 39244 ARP 345 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
60304 EAU CL 3 - 60305 EAU CLA5 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
69543 ALMA 5 - 69551 ELK MND5 BASE: 123.5 CHNG: 123.5 DIFF: 0.0%
SUBTOTALS FOR: ALMELKKNGECL BASE: 123.5 CHNG: 123.5 DIFF: 0.0%
DIFF: 0.0 DF: -0.3%
*****
65351 S3451 3 - 63875 RAUN 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
65426 S1226 5 - 64987 TEKAMAH5 BASE: 40.2 CHNG: 40.3 DIFF: 0.2%

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SUBTOTALS FOR: S12TEKS34RAU      BASE:    40.2 CHNG:    40.3 DIFF:    0.2%
                                  DIFF:    0.1  DF:    1.7%
*****
65351 S3451  3 - 63875 RAUN   3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
64987 TEKAMAH5 - 63876 RAUN   5  BASE:   -40.3 CHNG:   -40.3 DIFF:   -0.1%
SUBTOTALS FOR: TEKRAUS34RAU      BASE:   -40.3 CHNG:   -40.3 DIFF:   -0.1%
                                  DIFF:    0.1  DF:    1.3%
*****
***** ERROR: OTDF # 99 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 34018 TO 60102 CKT 1 IERR= 2
***** ERROR: OTDF # 99 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 34018 TO 60102 CKT 9 IERR= 2
34018 HAZLTON3 - 60102 ADAMS  3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
60102 ADAMS  3 - 34014 ADAMS  5  BASE:    0.0 CHNG:    0.0 DIFF:   999.0%
SUBTOTALS FOR: ADMXFMHAZADM      BASE:    0.0 CHNG:    0.0 DIFF:   999.0%
                                  DIFF:    0.0  DF:    0.0%
*****
96039 7FAIRPT - 64786 COOPER  3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
96039 7FAIRPT - 59393 ST JOE  3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
59394 ST JOE  5 - 59392 MIDWAY  5  BASE:   137.8 CHNG:   137.8 DIFF:    0.0%
SUBTOTALS FOR: STJ MIDSTJFRC      BASE:   137.8 CHNG:   137.8 DIFF:    0.0%
                                  DIFF:    0.0  DF:    0.5%
*****
64350 HILLS  3 - 64095 MNTZUMA3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34110 HILLSIE5 - 34109 BERTRAM5 BASE:    68.9 CHNG:    68.9 DIFF:    0.0%
SUBTOTALS FOR: HL5PRLHL3MTZ      BASE:    68.9 CHNG:    68.9 DIFF:    0.0%
                                  DIFF:    0.0  DF:    0.1%
*****
63041 COAL CR4 - 63042 COAL TP4 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
63049 STANTON4 - 63041 COAL CR4 BASE:    90.2 CHNG:    90.2 DIFF:    0.0%
SUBTOTALS FOR: SONCOCCOCCCT      BASE:    90.2 CHNG:    90.2 DIFF:    0.0%
                                  DIFF:    0.0  DF:   -0.5%
*****
63041 COAL CR4 - 63049 STANTON4 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
63041 COAL CR4 - 63042 COAL TP4 BASE:   -86.0 CHNG:   -86.0 DIFF:    0.0%
SUBTOTALS FOR: SONCCTCOCSO      BASE:   -86.0 CHNG:   -86.0 DIFF:    0.0%
                                  DIFF:    0.0  DF:    0.5%
*****
64095 MNTZUMA3 - 64064 BONDRNT3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34191 REASNOR5 - 64062 DMOINES5 BASE:   -10.5 CHNG:   -10.4 DIFF:   -0.6%
SUBTOTALS FOR: READEMMTZBON      BASE:   -10.5 CHNG:   -10.4 DIFF:   -0.6%
                                  DIFF:    0.1  DF:    1.4%
*****
60160 SHERCO  3 - 60002 SHERC33G *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34093 ARNOLD  3 - 34018 HAZLTON3 BASE:   270.6 CHNG:   270.4 DIFF:    0.0%
SUBTOTALS FOR: ARNHAZSHRXFM      BASE:   270.6 CHNG:   270.4 DIFF:    0.0%
                                  DIFF:   -0.1  DF:   -2.8%
*****
***** ERROR: OTDF # 106 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 64418 TO 64680 CKT 1 IERR= 1
***** ERROR: OTDF # 106 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 64418 TO 64680 CKT 1 IERR= 1
64400 MECCORD3 - 64403 E MOLIN3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0

```

64418 E MOLINE - 64680 ***** *CONTINGENCY* BASE: 0.0 CHNG: 0.0

36382 QUAD ; - 64405 SUB 91 3 BASE: 597.9 CHNG: 598.0 DIFF: 0.0%

SUBTOTALS FOR: QDCS91CORS39 BASE: 597.9 CHNG: 598.0 DIFF: 0.0%
DIFF: 0.1 DF: 2.2%

36382 QUAD ; - 64405 SUB 91 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
64438 SB 91 5 - 64405 SUB 91 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0

64400 MECCORD3 - 64403 E MOLIN3 BASE: 540.2 CHNG: 540.3 DIFF: 0.0%

SUBTOTALS FOR: CORS39QDCS91 BASE: 540.2 CHNG: 540.3 DIFF: 0.0%
DIFF: 0.1 DF: 2.0%

64402 LOUISA 3 - 64408 SUB T 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
64350 HILLS 3 - 64408 SUB T 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0

64406 SUB 92 3 - 64350 HILLS 3 BASE: 364.3 CHNG: 364.4 DIFF: 0.0%

SUBTOTALS FOR: S92HLLLOUHLL BASE: 364.3 CHNG: 364.4 DIFF: 0.0%
DIFF: 0.1 DF: 2.5%

***** ERROR: OTDF # 109 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 60102 TO 34014 CKT 1 IERR= 2
***** ERROR: OTDF # 109 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 60102 TO 34014 CKT 1 IERR= 2
60102 ADAMS 3 - 34014 ADAMS 5 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
60102 ADAMS 3 - 63032 PL VLLY3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
61950 BYRON 3 - 63032 PL VLLY3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0

34570 ADAMS_N5 - 69547 ROCHSTR5 BASE: 151.1 CHNG: 151.1 DIFF: 0.0%

SUBTOTALS FOR: ADMROCBYRADM BASE: 151.1 CHNG: 151.1 DIFF: 0.0%
DIFF: -0.1 DF: -1.6%

***** ERROR: OTDF # 110 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 61948 TO 61950 CKT 1 IERR= 3
***** ERROR: OTDF # 110 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 61948 TO 61950 CKT 1 IERR= 3
61948 BYRON 5 - 61950 BYRON 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0

34570 ADAMS_N5 - 69547 ROCHSTR5 BASE: 148.6 CHNG: 148.6 DIFF: 0.0%

SUBTOTALS FOR: ADMROCBYRXFM BASE: 148.6 CHNG: 148.6 DIFF: 0.0%
DIFF: 0.0 DF: -0.8%

Appendix B.3: 2015 SUPK – Generation – Generation dispatch

```

***** BASE TRANSACTION AMOUNT FOR DF CALCULATION:      4.700

## PTFD INTERFACES ##

39247 ARCADN3 - 36420 ZION ; B  BASE:  -239.3 CHNG:  -239.2 DIFF:    0.0%
SUBTOTALS FOR: ADNZIO__PTDF      BASE:  -239.3 CHNG:  -239.2 DIFF:    0.0%
                                DIFF:    0.1  DF:    1.5%
*****

36407 WEMPL; R - 39058 PAD 345  BASE:   319.5 CHNG:   319.5 DIFF:    0.0%
SUBTOTALS FOR: WEMPAD__PTDF      BASE:   319.5 CHNG:   319.5 DIFF:    0.0%
                                DIFF:    0.0  DF:   -0.8%
*****

60304 EAU CL 3 - 39244 ARP 345  BASE:   141.9 CHNG:   142.1 DIFF:    0.1%
SUBTOTALS FOR: EAUARP__PTDF      BASE:   141.9 CHNG:   142.1 DIFF:    0.1%
                                DIFF:    0.1  DF:    3.2%
*****

69503 CASVILL5 - 39010 NED 161  BASE:   175.5 CHNG:   175.4 DIFF:    0.0%
SUBTOTALS FOR: CSVNED__PTDF      BASE:   175.5 CHNG:   175.4 DIFF:    0.0%
                                DIFF:    0.0  DF:   -0.9%
*****

36406 WEMPL; B - 39119 ROE 345  BASE:   624.4 CHNG:   624.3 DIFF:    0.0%
SUBTOTALS FOR: WEMROE__PTDF      BASE:   624.4 CHNG:   624.3 DIFF:    0.0%
                                DIFF:   -0.1  DF:   -2.0%
*****

31230 MONTGMRY - 31992 SPENCER  BASE:   681.3 CHNG:   681.3 DIFF:    0.0%
SUBTOTALS FOR: MTGSPC__PTDF      BASE:   681.3 CHNG:   681.3 DIFF:    0.0%
                                DIFF:    0.0  DF:    0.2%
*****

31408 OVERTON - 59201 SIBLEY 7  BASE:   110.0 CHNG:   110.1 DIFF:    0.1%
SUBTOTALS FOR: OVESIB__PTDF      BASE:   110.0 CHNG:   110.1 DIFF:    0.1%
                                DIFF:    0.1  DF:    3.0%
*****

38894 N APP 3 - 38928 WERNER W  BASE:   346.6 CHNG:   346.4 DIFF:   -0.1%
SUBTOTALS FOR: NAPRRN__PTDF      BASE:   346.6 CHNG:   346.4 DIFF:   -0.1%
                                DIFF:   -0.2  DF:   -4.7%
*****

36420 ZION ; B - 39247 ARCADN3  BASE:   240.8 CHNG:   240.7 DIFF:    0.0%
SUBTOTALS FOR: ZIOARC__PTDF      BASE:   240.8 CHNG:   240.7 DIFF:    0.0%
                                DIFF:   -0.1  DF:   -1.5%
*****

36421 ZION ; R - 38849 PLS PR2  BASE:   151.4 CHNG:   151.3 DIFF:   -0.1%
SUBTOTALS FOR: ZIOPLP__PTDF      BASE:   151.4 CHNG:   151.3 DIFF:   -0.1%
                                DIFF:   -0.1  DF:   -2.6%
*****

36407 WEMPL; R - 39058 PAD 345  BASE:   319.5 CHNG:   319.5 DIFF:    0.0%
36406 WEMPL; B - 39119 ROE 345  BASE:   624.4 CHNG:   624.3 DIFF:    0.0%

```

SUBTOTALS FOR: SWWISC__PTDF		BASE:	944.0	CHNG:	943.8	DIFF:	0.0%
						DIFF:	-0.1 DF: -2.8%

34093	ARNOLD 3 - 34018 HAZLTON3	BASE:	422.5	CHNG:	422.1	DIFF:	-0.1%
SUBTOTALS FOR: ARNHAZ__PTDF		BASE:	422.5	CHNG:	422.1	DIFF:	-0.1%
						DIFF:	-0.4 DF: -8.4%

36382	QUAD ; - 34036 ROCK CK3	BASE:	596.2	CHNG:	596.2	DIFF:	0.0%
64400	MECCORD3 - 64403 E MOLIN3	BASE:	330.7	CHNG:	330.9	DIFF:	0.0%
SUBTOTALS FOR: QUARCKCORMOL		BASE:	927.0	CHNG:	927.1	DIFF:	0.0%
						DIFF:	0.1 DF: 2.2%

34036	ROCK CK3 - 34037 ROCK CK5	BASE:	258.7	CHNG:	258.7	DIFF:	0.0%
SUBTOTALS FOR: RCKXFM__PTDF		BASE:	258.7	CHNG:	258.7	DIFF:	0.0%
						DIFF:	0.0 DF: 0.0%

36382	QUAD ; - 34036 ROCK CK3	BASE:	596.2	CHNG:	596.2	DIFF:	0.0%
SUBTOTALS FOR: QUARCK__PTDF		BASE:	596.2	CHNG:	596.2	DIFF:	0.0%
						DIFF:	0.0 DF: -0.5%

67105	LELANDO3 - 66506 FTTHOMP3	BASE:	219.9	CHNG:	220.3	DIFF:	0.2%
67105	LELANDO3 - 67160 GROTON 3	BASE:	312.8	CHNG:	313.0	DIFF:	0.1%
67101	ANTELOP3 - 67120 BRDLAND3	BASE:	256.6	CHNG:	256.8	DIFF:	0.1%
63314	BIGSTON4 - 66503 BLAIR 4	BASE:	264.5	CHNG:	265.0	DIFF:	0.2%
66554	MORRIS 4 - 66550 GRANITF4	BASE:	164.0	CHNG:	164.6	DIFF:	0.4%
63336	AUDUBON4 - 63053 HUBBARD4	BASE:	321.4	CHNG:	321.9	DIFF:	0.2%
66521	SULLYBT4 - 66519 OAHE 4	BASE:	6.2	CHNG:	6.5	DIFF:	5.2%
63052	INMAN 4 - 61611 WINGRIV4	BASE:	192.3	CHNG:	192.5	DIFF:	0.1%
66470	BISON 4 - 66497 MAURINE4	BASE:	-4.9	CHNG:	-4.7	DIFF:	-3.9%
66716	LAPORTE7 - 61638 AKELEY7	BASE:	37.5	CHNG:	37.6	DIFF:	0.3%
63222	ALEXAND7 - 60144 DGLASCO7	BASE:	69.3	CHNG:	69.4	DIFF:	0.1%
67327	ELLENDL7 - 67401 ABDNJCT7	BASE:	72.1	CHNG:	72.2	DIFF:	0.2%
66432	EDGELEY7 - 66534 ORDWAY 7	BASE:	34.0	CHNG:	34.1	DIFF:	0.4%
66438	FORMAN 7 - 66522 SUMMIT-7	BASE:	22.8	CHNG:	22.9	DIFF:	0.5%
63211	CANBY 7 - 66551 GRANITF7	BASE:	36.2	CHNG:	36.2	DIFF:	0.1%
62006	KERKHO 7 - 62005 KERKHOT7	BASE:	37.4	CHNG:	37.5	DIFF:	0.2%
66752	DRAYTON4 - 67557 LETELER4	BASE:	-33.7	CHNG:	-33.2	DIFF:	-1.3%
63379	RUGBY 4 - 67523 GLENBOR4	BASE:	123.8	CHNG:	124.0	DIFF:	0.2%
SUBTOTALS FOR: NDEX		BASE:	2132.1	CHNG:	2136.6	DIFF:	0.2%
						DIFF:	4.5 DF: 95.6%

67557	LETELER4 - 66752 DRAYTON4	BASE:	33.7	CHNG:	33.2	DIFF:	-1.3%
67564	DORSEY 2 - 60173 ROSEAUN2	BASE:	1438.1	CHNG:	1438.7	DIFF:	0.0%
67576	RICHER 4 - 60175 ROSEAU 4	BASE:	102.2	CHNG:	102.2	DIFF:	0.1%
67523	GLENBOR4 - 63379 RUGBY 4	BASE:	-123.8	CHNG:	-124.0	DIFF:	0.2%
SUBTOTALS FOR: MHEX_S		BASE:	1450.2	CHNG:	1450.1	DIFF:	0.0%
						DIFF:	0.0 DF: -0.6%

60173	ROSEAUN2 - 67564 DORSEY 2	BASE:	-1411.9	CHNG:	-1412.4	DIFF:	0.0%
60175	ROSEAU 4 - 67576 RICHER 4	BASE:	-100.9	CHNG:	-101.0	DIFF:	0.0%
66752	DRAYTON4 - 67557 LETELER4	BASE:	-33.5	CHNG:	-33.1	DIFF:	-1.3%
63379	RUGBY 4 - 67523 GLENBOR4	BASE:	127.2	CHNG:	127.4	DIFF:	0.2%
SUBTOTALS FOR: MHEX_N		BASE:	-1419.2	CHNG:	-1419.1	DIFF:	0.0%
						DIFF:	0.1 DF: 1.3%

60105	PR ISLD3 - 61950 BYRON 3	BASE:	-201.8	CHNG:	-201.3	DIFF:	-0.3%
60304	EAU CL 3 - 39244 ARP 345	BASE:	141.9	CHNG:	142.1	DIFF:	0.1%
SUBTOTALS FOR: MWSI		BASE:	-59.9	CHNG:	-59.2	DIFF:	-1.2%

					DIFF:	0.7	DF:	14.8%

64832	GENTLMN4	- 64909	N.PLATT4	BASE:	159.5	CHNG:	159.5	DIFF: 0.0%
64832	GENTLMN4	- 64909	N.PLATT4	BASE:	160.0	CHNG:	160.0	DIFF: 0.0%
64832	GENTLMN4	- 64909	N.PLATT4	BASE:	163.6	CHNG:	163.6	DIFF: 0.0%
64831	GENTLMN3	- 64984	SWEET W3	BASE:	299.7	CHNG:	299.8	DIFF: 0.0%
64831	GENTLMN3	- 64984	SWEET W3	BASE:	361.4	CHNG:	361.5	DIFF: 0.0%
64831	GENTLMN3	- 64943	REDWILO3	BASE:	223.2	CHNG:	223.3	DIFF: 0.0%
SUBTOTALS FOR: GGS				BASE:	1367.5	CHNG:	1367.7	DIFF: 0.0%
					DIFF:	0.2	DF:	3.3%

64831	GENTLMN3	- 64943	REDWILO3	BASE:	223.2	CHNG:	223.3	DIFF: 0.0%
SUBTOTALS FOR: WNE_WKS				BASE:	223.2	CHNG:	223.3	DIFF: 0.0%
					DIFF:	0.0	DF:	0.8%

64933	PAULINE3	- 64902	MOORE 3	BASE:	73.2	CHNG:	73.3	DIFF: 0.2%
64839	GR ISLD4	- 64780	COLMB.W4	BASE:	156.6	CHNG:	156.6	DIFF: 0.0%
66571	GR ISLD3	- 64896	MCCOOL 3	BASE:	131.7	CHNG:	132.0	DIFF: 0.2%
SUBTOTALS FOR: GRIS_LNC				BASE:	361.5	CHNG:	362.0	DIFF: 0.1%
					DIFF:	0.5	DF:	9.8%

64786	COOPER 3	- 59393	ST JOE 3	BASE:	-129.8	CHNG:	-129.9	DIFF: 0.0%
64786	COOPER 3	- 96039	7FAIRPT	BASE:	-45.3	CHNG:	-45.2	DIFF: -0.1%
SUBTOTALS FOR: COOPER_S				BASE:	-175.1	CHNG:	-175.1	DIFF: 0.0%
					DIFF:	0.0	DF:	0.4%

60105	PR ISLD3	- 61950	BYRON 3	BASE:	-201.8	CHNG:	-201.3	DIFF: -0.3%
SUBTOTALS FOR: PR_ISL_BYRON				BASE:	-201.8	CHNG:	-201.3	DIFF: -0.3%
					DIFF:	0.5	DF:	11.6%

65351	S3451 3	- 65354	S3454 3	BASE:	1.6	CHNG:	1.7	DIFF: 2.7%
65351	S3451 3	- 65359	S3459 3	BASE:	35.1	CHNG:	35.3	DIFF: 0.5%
65451	S1251 5	- 65497	S1297 5	BASE:	50.6	CHNG:	50.6	DIFF: 0.1%
SUBTOTALS FOR: FTCAL_S				BASE:	87.3	CHNG:	87.6	DIFF: 0.3%
					DIFF:	0.3	DF:	5.7%

67564	DORSEY 2	- 60173	ROSEAUN2	BASE:	1438.1	CHNG:	1438.7	DIFF: 0.0%
SUBTOTALS FOR: D602F				BASE:	1438.1	CHNG:	1438.7	DIFF: 0.0%
					DIFF:	0.6	DF:	12.0%

36382	QUAD ;	- 64405	SUB 91 3	BASE:	512.9	CHNG:	513.1	DIFF: 0.0%
64400	MECCORD3	- 64403	E MOLIN3	BASE:	330.7	CHNG:	330.9	DIFF: 0.0%
SUBTOTALS FOR: QUADCITY_W				BASE:	843.6	CHNG:	843.9	DIFF: 0.0%
					DIFF:	0.3	DF:	6.2%

64095	MNTZUMA3	- 64064	BONDRNT3	BASE:	127.0	CHNG:	127.5	DIFF: 0.4%
SUBTOTALS FOR: MNTZUMA_W				BASE:	127.0	CHNG:	127.5	DIFF: 0.4%
					DIFF:	0.5	DF:	10.6%

59394	ST JOE 5	- 59392	MIDWAY 5	BASE:	137.0	CHNG:	137.3	DIFF: 0.2%
SUBTOTALS FOR: SJOMDY__PTDF				BASE:	137.0	CHNG:	137.3	DIFF: 0.2%
					DIFF:	0.3	DF:	6.3%

57982 IATAN 7 - 59393 ST JOE 3	BASE:	555.3	CHNG:	555.5	DIFF:	0.0%
SUBTOTALS FOR: IATSJO__PTDF	BASE:	555.3	CHNG:	555.5	DIFF:	0.0%
			DIFF:	0.2	DF:	4.2%

64352 TIFFIN 3 - 34093 ARNOLD 3	BASE:	447.9	CHNG:	447.6	DIFF:	-0.1%
SUBTOTALS FOR: TIFARN__PTDF	BASE:	447.9	CHNG:	447.6	DIFF:	-0.1%
			DIFF:	-0.3	DF:	-6.5%

60101 FORBES 2 - 60198 CHIS-N 2	BASE:	1313.8	CHNG:	1314.5	DIFF:	0.1%
SUBTOTALS FOR: FORCHS__PTDF	BASE:	1313.8	CHNG:	1314.5	DIFF:	0.1%
			DIFF:	0.7	DF:	14.2%

## OTDF INTERFACES ##						
36382 QUAD ; - 36368 H471 ;	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

36284 CORDO; B - 36362 NELSO; B	BASE:	677.2	CHNG:	677.0	DIFF:	0.0%
SUBTOTALS FOR: CDVNELQUA471	BASE:	677.2	CHNG:	677.0	DIFF:	0.0%
			DIFF:	-0.2	DF:	-4.8%

38849 PLS PR2 - 36421 ZION ; R	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39247 ARCADN3 - 36420 ZION ; B	BASE:	-313.6	CHNG:	-313.5	DIFF:	0.0%
SUBTOTALS FOR: ADNZIOPLPZIO	BASE:	-313.6	CHNG:	-313.5	DIFF:	0.0%
			DIFF:	0.1	DF:	2.8%

38849 PLS PR2 - 36421 ZION ; R	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39362 LAKEVIEW - 37384 ZION ;	BASE:	-89.2	CHNG:	-89.2	DIFF:	0.0%
SUBTOTALS FOR: LKVZIOZIOPLP	BASE:	-89.2	CHNG:	-89.2	DIFF:	0.0%
			DIFF:	0.0	DF:	0.8%

36406 WEMPL; B - 39119 ROE 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

60304 EAU CL 3 - 39244 ARP 345	BASE:	184.6	CHNG:	184.8	DIFF:	0.1%
SUBTOTALS FOR: EAUARPWMPPAD	BASE:	184.6	CHNG:	184.8	DIFF:	0.1%
			DIFF:	0.1	DF:	3.2%

36406 WEMPL; B - 39119 ROE 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39058 PAD 345 - 39059 PAD 138	BASE:	567.5	CHNG:	567.4	DIFF:	0.0%
SUBTOTALS FOR: PADXFMWEMROE	BASE:	567.5	CHNG:	567.4	DIFF:	0.0%
			DIFF:	-0.1	DF:	-1.7%

60105 PR ISLD3 - 61950 BYRON 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

60304 EAU CL 3 - 39244 ARP 345	BASE:	119.2	CHNG:	119.4	DIFF:	0.2%
SUBTOTALS FOR: EAUARPPRIBYR	BASE:	119.2	CHNG:	119.4	DIFF:	0.2%
			DIFF:	0.2	DF:	4.6%

39059 PAD 138 - 39141 TOWNLINE	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39059 PAD 138 - 38057 NWT 138	BASE:	195.5	CHNG:	195.5	DIFF:	0.0%
38057 NWT 138 - 39048 BLK 138	BASE:	183.6	CHNG:	183.6	DIFF:	0.0%

SUBTOTALS FOR: PADBLKPADTLR	BASE:	379.1	CHNG:	379.0	DIFF:	0.0%
				DIFF:	-0.1	DF: -1.3%

39059 PAD 138 - 39141 TOWNLINE	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	
39048 BLK 138 - 39060 COR 138		BASE:	201.7	CHNG:	201.6	DIFF: 0.0%
SUBTOTALS FOR: BLKCORPADTLR	BASE:	201.7	CHNG:	201.6	DIFF:	0.0%
				DIFF:	0.0	DF: -0.6%

36406 WEMPL; B - 39119 ROE 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	
39090 RSS 138 - 39120 ROE 138		BASE:	310.7	CHNG:	310.6	DIFF: 0.0%
SUBTOTALS FOR: RSSROEWEMROE	BASE:	310.7	CHNG:	310.6	DIFF:	0.0%
				DIFF:	0.0	DF: -1.0%

39676 GARDR PK - 39785 ROCKY RN	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	
39786 ROCKY RN - 39788 NORTHPT		BASE:	-106.5	CHNG:	-106.6	DIFF: 0.0%
SUBTOTALS FOR: RRNNPTRRNGPK	BASE:	-106.5	CHNG:	-106.6	DIFF:	0.0%
				DIFF:	-0.1	DF: -1.1%

36406 WEMPL; B - 39119 ROE 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	
39048 BLK 138 - 39060 COR 138		BASE:	232.4	CHNG:	232.3	DIFF: 0.0%
SUBTOTALS FOR: BLKCRDWEMROE	BASE:	232.4	CHNG:	232.3	DIFF:	0.0%
				DIFF:	0.0	DF: -0.6%

39059 PAD 138 - 38057 NWT 138	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	
39059 PAD 138 - 39141 TOWNLINE		BASE:	188.8	CHNG:	188.7	DIFF: 0.0%
SUBTOTALS FOR: PADTLRPADBLK	BASE:	188.8	CHNG:	188.7	DIFF:	0.0%
				DIFF:	0.0	DF: -0.7%

39119 ROE 345 - 39120 ROE 138	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	
39119 ROE 345 - 39120 ROE 138		BASE:	243.7	CHNG:	243.7	DIFF: 0.0%
SUBTOTALS FOR: ROE_T2ROE_T3	BASE:	243.7	CHNG:	243.7	DIFF:	0.0%
				DIFF:	0.0	DF: -0.3%

39244 ARP 345 - 39785 ROCKY RN	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	
60315 T-CRNR7 - 39706 WIEN		BASE:	-54.3	CHNG:	-54.3	DIFF: 0.0%
SUBTOTALS FOR: TCRWIEARPRRN	BASE:	-54.3	CHNG:	-54.3	DIFF:	0.0%
				DIFF:	0.0	DF: 0.5%

60304 EAU CL 3 - 39244 ARP 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	
60315 T-CRNR7 - 39706 WIEN		BASE:	-27.1	CHNG:	-27.1	DIFF: -0.1%
SUBTOTALS FOR: TCRWIEARP_G	BASE:	-27.1	CHNG:	-27.1	DIFF:	-0.1%
				DIFF:	0.0	DF: 0.8%

36406 WEMPL; B - 39119 ROE 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	
39059 PAD 138 - 39141 TOWNLINE		BASE:	232.5	CHNG:	232.5	DIFF: 0.0%
SUBTOTALS FOR: PADTLRWEMROE	BASE:	232.5	CHNG:	232.5	DIFF:	0.0%

```

                                DIFF:    0.0   DF:   -1.0%
*****
38894 N APP 3 - 38928 WERNER W *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
39237 KIL 138 - 38302 KIL 69   BASE:    55.9 CHNG:    55.9 DIFF:    0.0%
SUBTOTALS FOR: KILXFMAPPWER   BASE:    55.9 CHNG:    55.9 DIFF:    0.0%
                                DIFF:    0.0   DF:   -0.3%
*****
38928 WERNER W - 39785 ROCKY RN *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
39235 WAU 138 - 39939 SAL 138  BASE:    44.1 CHNG:    44.1 DIFF:   -0.1%
SUBTOTALS FOR: WAUEDWERROR    BASE:    44.1 CHNG:    44.1 DIFF:   -0.1%
                                DIFF:   -0.1   DF:   -1.1%
*****
30395 COFFEEN - 31445 PANA      *CONTINGENCY* BASE:    0.0 CHNG:    0.0
31445 PANA    - 36343 KINCA; R *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
31230 MONTGMRY - 31992 SPENCER  BASE:    726.7 CHNG:    726.7 DIFF:    0.0%
SUBTOTALS FOR: MTGSPCCOFPAN   BASE:    726.7 CHNG:    726.7 DIFF:    0.0%
                                DIFF:    0.0   DF:    0.1%
*****
30154 BLAND - 96041 7FRANKS    *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
31088 MCCREDIE - 31408 OVERTON  BASE:    322.6 CHNG:    322.7 DIFF:    0.0%
SUBTOTALS FOR: MCROVEBLAF_G   BASE:    322.6 CHNG:    322.7 DIFF:    0.0%
                                DIFF:    0.1   DF:    2.8%
*****
31088 MCCREDIE - 31408 OVERTON  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
30154 BLAND - 96041 7FRANKS    BASE:    236.9 CHNG:    236.9 DIFF:    0.0%
SUBTOTALS FOR: BLAFRAMCROVE   BASE:    236.9 CHNG:    236.9 DIFF:    0.0%
                                DIFF:    0.0   DF:    0.6%
*****
36281 BYRON; R - 36289 CHERR; R *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
36280 BYRON; B - 36288 CHERR; B  BASE:   1230.9 CHNG:   1230.8 DIFF:    0.0%
SUBTOTALS FOR: BYNCHEBYNCHE   BASE:   1230.9 CHNG:   1230.8 DIFF:    0.0%
                                DIFF:   -0.1   DF:   -1.2%
*****
36281 BYRON; R - 36407 WEMPL; R *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
36280 BYRON; B - 36288 CHERR; B  BASE:   1121.5 CHNG:   1121.4 DIFF:    0.0%
SUBTOTALS FOR: BYCH_BBYNWEM   BASE:   1121.5 CHNG:   1121.4 DIFF:    0.0%
                                DIFF:   -0.1   DF:   -1.4%
*****
36280 BYRON; B - 36288 CHERR; B *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
36281 BYRON; R - 36289 CHERR; R  BASE:   1286.9 CHNG:   1286.8 DIFF:    0.0%
SUBTOTALS FOR: BYRCHEBYRCHE   BASE:   1286.9 CHNG:   1286.8 DIFF:    0.0%
                                DIFF:   -0.1   DF:   -1.2%
*****
36281 BYRON; R - 36407 WEMPL; R *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
36281 BYRON; R - 36289 CHERR; R  BASE:   1245.7 CHNG:   1245.7 DIFF:    0.0%
SUBTOTALS FOR: BYCH_RBYNWEM   BASE:   1245.7 CHNG:   1245.7 DIFF:    0.0%
                                DIFF:   -0.1   DF:   -1.5%

```

```

*****
36284 CORDO; B - 36362 NELSO; B *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36382 QUAD ; - 36368 H471 ; BASE: 680.5 CHNG: 680.3 DIFF: 0.0%
SUBTOTALS FOR: QUA471CDVNEL BASE: 680.5 CHNG: 680.3 DIFF: 0.0%
DIFF: -0.2 DF: -4.8%
*****
36382 QUAD ; - 36368 H471 ; *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36382 QUAD ; - 36284 CORDO; B BASE: 265.1 CHNG: 265.1 DIFF: 0.0%
36284 CORDO; B - 36362 NELSO; B BASE: 677.2 CHNG: 677.0 DIFF: 0.0%
SUBTOTALS FOR: QUACDVQUA471 BASE: 942.3 CHNG: 942.1 DIFF: 0.0%
DIFF: -0.3 DF: -6.1%
*****
36420 ZION ; B - 39247 ARCADN3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36407 WEMPL; R - 39058 PAD 345 BASE: 331.8 CHNG: 331.8 DIFF: 0.0%
SUBTOTALS FOR: WEMPADZIOARC BASE: 331.8 CHNG: 331.8 DIFF: 0.0%
DIFF: 0.0 DF: -0.9%
*****
36421 ZION ; R - 38849 PLS PR2 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36407 WEMPL; R - 39058 PAD 345 BASE: 334.2 CHNG: 334.1 DIFF: 0.0%
SUBTOTALS FOR: WEMPADZIOPLP BASE: 334.2 CHNG: 334.1 DIFF: 0.0%
DIFF: -0.1 DF: -1.1%
*****
36289 CHERR; R - 36389 SILVE; R *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36407 WEMPL; R - 39058 PAD 345 BASE: 390.7 CHNG: 390.6 DIFF: 0.0%
SUBTOTALS FOR: WEMPADCHVSLA BASE: 390.7 CHNG: 390.6 DIFF: 0.0%
DIFF: 0.0 DF: -0.9%
*****
36420 ZION ; B - 39247 ARCADN3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36421 ZION ; R - 38849 PLS PR2 BASE: 331.0 CHNG: 330.8 DIFF: -0.1%
SUBTOTALS FOR: ZIOPLPZIOARC BASE: 331.0 CHNG: 330.8 DIFF: -0.1%
DIFF: -0.2 DF: -3.9%
*****
36407 WEMPL; R - 39058 PAD 345 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36421 ZION ; R - 38849 PLS PR2 BASE: 227.4 CHNG: 227.3 DIFF: -0.1%
SUBTOTALS FOR: ZIOPLPWEMPAD BASE: 227.4 CHNG: 227.3 DIFF: -0.1%
DIFF: -0.1 DF: -2.9%
*****
36421 ZION ; R - 38849 PLS PR2 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36420 ZION ; B - 39247 ARCADN3 BASE: 316.1 CHNG: 316.0 DIFF: 0.0%
SUBTOTALS FOR: ZIOARCZIOPLP BASE: 316.1 CHNG: 316.0 DIFF: 0.0%
DIFF: -0.1 DF: -2.9%
*****
36362 NELSO; B - 36310 ELECT; B *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36289 CHERR; R - 36389 SILVE; R BASE: 840.0 CHNG: 840.0 DIFF: 0.0%
SUBTOTALS FOR: CHESILNELELC BASE: 840.0 CHNG: 840.0 DIFF: 0.0%
DIFF: -0.1 DF: -1.1%
*****

```

36289	CHERR; R	-	36389	SILVE; R	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

36362	NELSO; B	-	36310	ELECT; B		BASE:	642.9	CHNG:	642.8
						DIFF:			0.0%
SUBTOTALS FOR: NELELCCHESIL									
						BASE:	642.9	CHNG:	642.8
						DIFF:	-0.1	DF:	-1.9%

36407	WEMPL; R	-	39058	PAD 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

37632	LEECO;BP	-	36362	NELSO; B		BASE:	223.4	CHNG:	223.6
						DIFF:			0.1%
SUBTOTALS FOR: LCONELWEMPAD									
						BASE:	223.4	CHNG:	223.6
						DIFF:	0.1	DF:	3.0%

39253	ARCADN1	-	39329	GRANVL1	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39268	BUTLER	-	39327	GRANVL 5		BASE:	-175.1	CHNG:	-175.1
						DIFF:			0.0%
SUBTOTALS FOR: BTRGVLARCGVL									
						BASE:	-175.1	CHNG:	-175.1
						DIFF:	0.0	DF:	-1.0%

38894	N APP 3	-	38928	WERNER W	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0
38928	WERNER W	-	39785	ROCKY RN	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

38892	ELLNGTN3	-	39534	HINTZ		BASE:	164.7	CHNG:	164.6
						DIFF:			0.0%
SUBTOTALS FOR: ELNHNZNAPRRN									
						BASE:	164.7	CHNG:	164.6
						DIFF:	-0.1	DF:	-1.3%

38849	PLS PR2	-	36421	ZION ; R	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39345	KENOSH45	-	39362	LAKEVIEW		BASE:	-47.9	CHNG:	-47.9
						DIFF:			-0.1%
SUBTOTALS FOR: KSHLKVPLPZIO									
						BASE:	-47.9	CHNG:	-47.9
						DIFF:	0.0	DF:	0.8%

38850	PLS PR3	-	39471	RACINE1	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39432	PLS PR1	-	39253	ARCADN1		BASE:	532.4	CHNG:	532.3
						DIFF:			0.0%
SUBTOTALS FOR: PLPARCPLRRAC									
						BASE:	532.4	CHNG:	532.3
						DIFF:	-0.1	DF:	-1.9%

36420	ZION ; B	-	39247	ARCADN3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39432	PLS PR1	-	39253	ARCADN1		BASE:	342.5	CHNG:	342.4
						DIFF:			0.0%
SUBTOTALS FOR: PLPARCZIOARC									
						BASE:	342.5	CHNG:	342.4
						DIFF:	-0.1	DF:	-1.8%

36289	CHERR; R	-	36389	SILVE; R	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

38849	PLS PR2	-	36421	ZION ; R		BASE:	-52.7	CHNG:	-52.6
						DIFF:			-0.2%
SUBTOTALS FOR: PLPZIOCHESIL									
						BASE:	-52.7	CHNG:	-52.6
						DIFF:	0.1	DF:	2.6%

36420	ZION ; B	-	39247	ARCADN3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

38849	PLS PR2	-	36421	ZION ; R		BASE:	-330.5	CHNG:	-330.3
						DIFF:			-0.1%
SUBTOTALS FOR: PLPZIOZIOARC									
						BASE:	-330.5	CHNG:	-330.3
						DIFF:	0.2	DF:	3.9%

39432 PLS PR1	-	39253 ARCADN1	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

38850 PLS PR3	-	39471 RACINE1		BASE:	777.9	CHNG:	777.8 DIFF: 0.0%

SUBTOTALS FOR: PLPRACPLPADN				BASE:	777.9	CHNG:	777.8 DIFF: 0.0%
						DIFF:	-0.1 DF: -2.2%

38898 PT BCH2	-	39304 FORST JT	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39556 FOXRIVER	-	39304 FORST JT		BASE:	488.3	CHNG:	488.3 DIFF: 0.0%

SUBTOTALS FOR: FXRFSTPTBFST				BASE:	488.3	CHNG:	488.3 DIFF: 0.0%
						DIFF:	0.1 DF: 1.5%

38928 WERNER W	-	39785 ROCKY RN	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

38929 WERNER W	-	39535 WHITE LK		BASE:	162.5	CHNG:	162.4 DIFF: 0.0%

SUBTOTALS FOR: WERWHLWERROR				BASE:	162.5	CHNG:	162.4 DIFF: 0.0%
						DIFF:	-0.1 DF: -1.6%

39785 ROCKY RN	-	39676 GARDR PK	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39210 CW8 115	-	39686 WESTON		BASE:	-147.9	CHNG:	-148.0 DIFF: 0.0%

SUBTOTALS FOR: RRNWESRRNGPK				BASE:	-147.9	CHNG:	-148.0 DIFF: 0.0%
						DIFF:	-0.1 DF: -1.2%

36407 WEMPL; R	-	39058 PAD 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

34093 ARNOLD 3	-	34018 HAZLTON3		BASE:	434.8	CHNG:	434.4 DIFF: -0.1%

SUBTOTALS FOR: ARNHAZWEMPAD				BASE:	434.8	CHNG:	434.4 DIFF: -0.1%
						DIFF:	-0.4 DF: -8.6%

36407 WEMPL; R	-	39058 PAD 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

34028 LORE 5	-	34033 TRK RIV5		BASE:	214.2	CHNG:	214.1 DIFF: 0.0%

SUBTOTALS FOR: LORTRKWEMPAD				BASE:	214.2	CHNG:	214.1 DIFF: 0.0%
						DIFF:	-0.1 DF: -1.1%

34093 ARNOLD 3	-	34018 HAZLTON3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

34007 LAKEFLD5	-	34008 FOX LK 5		BASE:	37.8	CHNG:	37.8 DIFF: 0.0%

SUBTOTALS FOR: LKJFOXARNHAZ				BASE:	37.8	CHNG:	37.8 DIFF: 0.0%
						DIFF:	0.0 DF: -0.3%

36382 QUAD ;	-	64405 SUB 91 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

34036 ROCK CK3	-	34037 ROCK CK5		BASE:	321.3	CHNG:	321.3 DIFF: 0.0%

SUBTOTALS FOR: RCKXFMQUADAV				BASE:	321.3	CHNG:	321.3 DIFF: 0.0%
						DIFF:	0.0 DF: 0.4%

36382 QUAD ;	-	64405 SUB 91 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

34035 ROCKCKW5	-	34124 DEWITT 5		BASE:	109.8	CHNG:	109.8 DIFF: 0.0%

SUBTOTALS FOR: RCKDWTQUAS91				BASE:	109.8	CHNG:	109.8 DIFF: 0.0%
						DIFF:	0.0 DF: 0.6%

36382 QUAD ;	-	64405 SUB 91 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

34029 SALEM 3 - 34030 SALEM N5	BASE:	367.4	CHNG:	367.4	DIFF:	0.0%
SUBTOTALS FOR: SALXFMQUAS91						
	BASE:	367.4	CHNG:	367.4	DIFF:	0.0%
			DIFF:	0.0	DF:	-0.3%

64400 MECCORD3 - 64403 E MOLIN3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34029 SALEM 3 - 34030 SALEM N5	BASE:	350.3	CHNG:	350.3	DIFF:	0.0%
SUBTOTALS FOR: SALXFMCORMOL						
	BASE:	350.3	CHNG:	350.3	DIFF:	0.0%
			DIFF:	0.0	DF:	-0.4%

36382 QUAD ; - 64405 SUB 91 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34029 SALEM 3 - 34030 SALEM N5	BASE:	367.4	CHNG:	367.4	DIFF:	0.0%
SUBTOTALS FOR: SALXFMQUADAV						
	BASE:	367.4	CHNG:	367.4	DIFF:	0.0%
			DIFF:	0.0	DF:	-0.3%

64350 HILLS 3 - 64095 MNTZUMA3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

64352 TIFFIN 3 - 34093 ARNOLD 3	BASE:	446.5	CHNG:	446.3	DIFF:	0.0%
SUBTOTALS FOR: TIFARNHILMON						
	BASE:	446.5	CHNG:	446.3	DIFF:	0.0%
			DIFF:	-0.2	DF:	-3.2%

34093 ARNOLD 3 - 34018 HAZLTON3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34091 ARNOLD 5 - 34089 VINTON 5	BASE:	181.8	CHNG:	181.8	DIFF:	0.0%
SUBTOTALS FOR: ARNVINARNHAZ						
	BASE:	181.8	CHNG:	181.8	DIFF:	0.0%
			DIFF:	0.0	DF:	-0.4%

36382 QUAD ; - 34036 ROCK CK3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

64425 DAVNPR5 - 34122 E CALMS5	BASE:	0.0	CHNG:	0.0	DIFF:	999.0%
SUBTOTALS FOR: DAVCALQUARCK						
	BASE:	0.0	CHNG:	0.0	DIFF:	999.0%
			DIFF:	0.0	DF:	0.0%

64095 MNTZUMA3 - 64064 BONDRNT3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34052 AMES 7 - 34076 BNE JCT7	BASE:	-5.7	CHNG:	-5.6	DIFF:	-1.8%
SUBTOTALS FOR: AMEBJCMTZBON						
	BASE:	-5.7	CHNG:	-5.6	DIFF:	-1.8%
			DIFF:	0.1	DF:	2.1%

34006 LAKEFLD3 - 60331 LKFLDXL3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34007 LAKEFLD5 - 34008 FOX LK 5	BASE:	90.0	CHNG:	89.9	DIFF:	-0.1%
SUBTOTALS FOR: LAKFOXLAFLK						
	BASE:	90.0	CHNG:	89.9	DIFF:	-0.1%
			DIFF:	-0.1	DF:	-1.4%

34093 ARNOLD 3 - 34018 HAZLTON3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34087 DYSART 5 - 64269 WASHBRN5	BASE:	224.2	CHNG:	224.1	DIFF:	-0.1%
SUBTOTALS FOR: DYSWASARNHAZ						
	BASE:	224.2	CHNG:	224.1	DIFF:	-0.1%
			DIFF:	-0.2	DF:	-3.3%

64080 SYCAMOR3 - 64198 GRIMES 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

64067 BONDRNT5 - 34529 HUXLEYT5	BASE:	54.2	CHNG:	54.3	DIFF:	0.1%

```

SUBTOTALS FOR: BONBJCSYCLEH      BASE:    54.2 CHNG:    54.3 DIFF:    0.1%
                                  DIFF:    0.1   DF:    1.3%
*****
64202 LEHIGH 3 - 64200 WEBSTER3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
64067 BONDRNT5 - 34529 HUXLEYT5  BASE:   105.4 CHNG:   105.5 DIFF:    0.0%
-----
SUBTOTALS FOR: BONBJCLEHWBS      BASE:   105.4 CHNG:   105.5 DIFF:    0.0%
                                  DIFF:    0.0   DF:    1.1%
*****
***** ERROR: OTDF # 64 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 34007 TO 34137 CKT 1 IERR= 2
***** ERROR: OTDF # 64 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 34007 TO 34137 CKT 1 IERR= 2
34007 LAKEFLD5 - 34137 TRIBOJ15  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34007 LAKEFLD5 - 34008 FOX LK 5  BASE:    32.6 CHNG:    32.6 DIFF:    0.0%
-----
SUBTOTALS FOR: LKJFOXLKJTRI      BASE:    32.6 CHNG:    32.6 DIFF:    0.0%
                                  DIFF:    0.0   DF:   -0.2%
*****
***** ERROR: OTDF # 65 BASE CASE LAST SOLUTION DID NOT REACH TOLERANCE, FIX AND RERUN PROGRAM
***** ERROR: OTDF # 65 BASE CASE NOT SOLVED WELL, MISMATCH= 20187.41 FIX AND RERUN PROGRAM
***** ERROR: OTDF # 65 CHNG CASE LAST SOLUTION DID NOT REACH TOLERANCE, FIX AND RERUN PROGRAM
***** ERROR: OTDF # 65 CHNG CASE NOT SOLVED WELL, MISMATCH= 25238.56 FIX AND RERUN PROGRAM
-----
60173 ROSEAUN2 - 67564 DORSEY 2  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34093 ARNOLD 3 - 34018 HAZLTON3  BASE:   584.9 CHNG:   630.9 DIFF:    7.9%
-----
SUBTOTALS FOR: ARNHAZDORFOR      BASE:   584.9 CHNG:   630.9 DIFF:    7.9%
                                  DIFF:   46.0   DF:  978.6%
*****
60304 EAU CL 3 - 39244 ARP 345   *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34020 HAZL S 5 - 34135 DUNDEE 5  BASE:    70.2 CHNG:    70.3 DIFF:    0.0%
-----
SUBTOTALS FOR: HAZDUNEAUARP      BASE:    70.2 CHNG:    70.3 DIFF:    0.0%
                                  DIFF:    0.0   DF:    0.5%
*****
63875 RAUN 3 - 34006 LAKEFLD3   *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
66563 SPENCER5 - 34137 TRIBOJ15  BASE:    -2.9 CHNG:   -3.2 DIFF:    8.1%
-----
SUBTOTALS FOR: SPETRILAKRAU      BASE:    -2.9 CHNG:   -3.2 DIFF:    8.1%
                                  DIFF:   -0.2   DF:   -5.0%
*****
36407 WEMPL; R - 39058 PAD 345   *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34029 SALEM 3 - 34030 SALEM N5   BASE:   343.2 CHNG:   343.2 DIFF:    0.0%
-----
SUBTOTALS FOR: SALXFMWEMPAD      BASE:   343.2 CHNG:   343.2 DIFF:    0.0%
                                  DIFF:    0.0   DF:   -0.6%
*****
64352 TIFFIN 3 - 34093 ARNOLD 3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
64350 HILLS 3 - 34110 HILLSIE5   BASE:   179.6 CHNG:   179.5 DIFF:    0.0%
-----
SUBTOTALS FOR: HILXFMTIFARN      BASE:   179.6 CHNG:   179.5 DIFF:    0.0%
                                  DIFF:   -0.1   DF:   -1.7%
*****
36407 WEMPL; R - 39058 PAD 345   *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34032 8TH ST.5 - 34028 LORE 5   BASE:    0.0 CHNG:    0.0 DIFF:   999.0%

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```

SUBTOTALS FOR: 8STKERWEMPAD      BASE:      0.0 CHNG:      0.0 DIFF:    999.0%
                                  DIFF:      0.0  DF:      0.0%
*****
34093 ARNOLD 3 - 34018 HAZLTON3  *CONTINGENCY* BASE:      0.0 CHNG:      0.0
-----
34032 8TH ST.5 - 34028 LORE 5    BASE:      0.0 CHNG:      0.0 DIFF:    999.0%
SUBTOTALS FOR: 8STKERARNHAZ      BASE:      0.0 CHNG:      0.0 DIFF:    999.0%
                                  DIFF:      0.0  DF:      0.0%
*****
64095 MNTZUMA3 - 64064 BONDRNT3  *CONTINGENCY* BASE:      0.0 CHNG:      0.0
-----
34066 M-TOWN 7 - 34071 FERNALD7  BASE:      0.0 CHNG:      0.0 DIFF:    999.0%
SUBTOTALS FOR: MRTFERMTZBON      BASE:      0.0 CHNG:      0.0 DIFF:    999.0%
                                  DIFF:      0.0  DF:      0.0%
*****
64202 LEHIGH 3 - 64200 WEBSTER3  *CONTINGENCY* BASE:      0.0 CHNG:      0.0
-----
34015 LIME CK5 - 34016 EMERY 5    BASE:     -66.0 CHNG:    -65.9 DIFF:    -0.1%
SUBTOTALS FOR: LIMEMELEHWEB      BASE:     -66.0 CHNG:    -65.9 DIFF:    -0.1%
                                  DIFF:      0.1  DF:      1.7%
*****
36407 WEMPL; R - 39058 PAD 345    *CONTINGENCY* BASE:      0.0 CHNG:      0.0
-----
34028 LORE 5 - 34033 TRK RIV5    BASE:     214.2 CHNG:    214.1 DIFF:      0.0%
SUBTOTALS FOR: LORTRKWPAD_G      BASE:     214.2 CHNG:    214.1 DIFF:      0.0%
                                  DIFF:     -0.1  DF:     -1.1%
*****
34093 ARNOLD 3 - 34018 HAZLTON3  *CONTINGENCY* BASE:      0.0 CHNG:      0.0
-----
34089 VINTON 5 - 34087 DYSART 5   BASE:     176.1 CHNG:    176.1 DIFF:      0.0%
SUBTOTALS FOR: VINDYSARNHAZ      BASE:     176.1 CHNG:    176.1 DIFF:      0.0%
                                  DIFF:      0.0  DF:     -0.4%
*****
***** ERROR: OTDF # 76 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 60102 TO 34018 CKT 1 IERR= 2
***** ERROR: OTDF # 76 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 60102 TO 34018 CKT 1 IERR= 2
60102 ADAMS 3 - 34018 HAZLTON3  *CONTINGENCY* BASE:      0.0 CHNG:      0.0
-----
34015 LIME CK5 - 34016 EMERY 5    BASE:     -95.1 CHNG:    -95.0 DIFF:    -0.1%
SUBTOTALS FOR: LIMEMEADAHAZ      BASE:     -95.1 CHNG:    -95.0 DIFF:    -0.1%
                                  DIFF:      0.1  DF:      1.9%
*****
36407 WEMPL; R - 39058 PAD 345    *CONTINGENCY* BASE:      0.0 CHNG:      0.0
-----
34030 SALEM N5 - 34508 JULIAN 5    BASE:     215.3 CHNG:    215.3 DIFF:      0.0%
SUBTOTALS FOR: SALJCRWEMPAD      BASE:     215.3 CHNG:    215.3 DIFF:      0.0%
                                  DIFF:      0.0  DF:     -0.7%
*****
60331 LKFLDXL3 - 60364 FIELD_N3  *CONTINGENCY* BASE:      0.0 CHNG:      0.0
-----
34007 LAKEFLD5 - 34008 FOX LK 5   BASE:     118.4 CHNG:    118.3 DIFF:    -0.1%
SUBTOTALS FOR: LKFFOXLKFWLM      BASE:     118.4 CHNG:    118.3 DIFF:    -0.1%
                                  DIFF:     -0.1  DF:     -1.3%
*****
64095 MNTZUMA3 - 64064 BONDRNT3  *CONTINGENCY* BASE:      0.0 CHNG:      0.0
-----
34093 ARNOLD 3 - 34018 HAZLTON3  BASE:     446.1 CHNG:    445.8 DIFF:    -0.1%

```

SUBTOTALS FOR: ARNHAZMTZBON		BASE:	446.1	CHNG:	445.8	DIFF:	-0.1%
						DIFF:	-0.3 DF: -6.6%

64352	TIFFIN 3 - 34093 ARNOLD 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34029	SALEM 3 - 34030 SALEM N5		BASE:	372.8	CHNG:	372.7	DIFF: 0.0%
SUBTOTALS FOR: SALXFMTIFARN		BASE:	372.8	CHNG:	372.7	DIFF:	0.0%
						DIFF:	-0.1 DF: -1.1%

64350	HILLS 3 - 64352 TIFFIN 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34029	SALEM 3 - 34030 SALEM N5		BASE:	360.7	CHNG:	360.7	DIFF: 0.0%
SUBTOTALS FOR: SALXFHML3TIF		BASE:	360.7	CHNG:	360.7	DIFF:	0.0%
						DIFF:	0.0 DF: -0.8%

64095	MNTZUMA3 - 64064 BONDRNT3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

64352	TIFFIN 3 - 34093 ARNOLD 3		BASE:	482.5	CHNG:	482.3	DIFF: 0.0%
SUBTOTALS FOR: TIFARNMTZBON		BASE:	482.5	CHNG:	482.3	DIFF:	0.0%
						DIFF:	-0.2 DF: -3.8%

34091	ARNOLD 5 - 34090 ARNOLD1G	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

64350	HILLS 3 - 34110 HILLSIE5		BASE:	137.3	CHNG:	137.2	DIFF: 0.0%
SUBTOTALS FOR: HILXFARNXFM		BASE:	137.3	CHNG:	137.2	DIFF:	0.0%
						DIFF:	0.0 DF: -0.5%

34016	EMERY 5 - 64252 FLOYD 5	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34016	EMERY 5 - 34015 LIME CK5		BASE:	129.9	CHNG:	129.8	DIFF: -0.1%
SUBTOTALS FOR: EMELIMEMEFYD		BASE:	129.9	CHNG:	129.8	DIFF:	-0.1%
						DIFF:	-0.1 DF: -1.9%

34020	HAZL S 5 - 34018 HAZLTON3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34018	HAZLTON3 - 34019 HAZLTON5		BASE:	199.5	CHNG:	199.6	DIFF: 0.1%
SUBTOTALS FOR: HAZXF1HAZXF2		BASE:	199.5	CHNG:	199.6	DIFF:	0.1%
						DIFF:	0.1 DF: 2.2%

64095	MNTZUMA3 - 64350 HILLS 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34180	DENMARK5 - 34178 HENRYCO5		BASE:	76.8	CHNG:	76.9	DIFF: 0.1%
SUBTOTALS FOR: DENHENHILMNT		BASE:	76.8	CHNG:	76.9	DIFF:	0.1%
						DIFF:	0.1 DF: 2.3%

60331	LKFLDXL3 - 60364 FIELD_N3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34008	FOX LK 5 - 61931 *****		BASE:	0.0	CHNG:	0.0	DIFF: 999.0%
SUBTOTALS FOR: FXLRUTLKFWil		BASE:	0.0	CHNG:	0.0	DIFF:	999.0%
						DIFF:	0.0 DF: 0.0%

60331	LKFLDXL3 - 60364 FIELD_N3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

61932	RUTLAND5 - 34009 WINBAGO5		BASE:	237.3	CHNG:	237.2	DIFF: 0.0%
SUBTOTALS FOR: RUTWINLKFWil		BASE:	237.3	CHNG:	237.2	DIFF:	0.0%
						DIFF:	-0.1 DF: -2.0%

```

*****
38850 PLS PR3 - 39471 RACINE1 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
39410 PARIS WE - 39249 ALBRS-12 BASE: -174.0 CHNG: -174.0 DIFF: 0.0%
SUBTOTALS FOR: PARALBPLPRAC BASE: -174.0 CHNG: -174.0 DIFF: 0.0%
DIFF: 0.0 DF: 0.3%
*****
39247 ARCADN3 - 36420 ZION ; B *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
38850 PLS PR3 - 39471 RACINE1 BASE: 740.7 CHNG: 740.6 DIFF: 0.0%
SUBTOTALS FOR: PLPRACARCZIO BASE: 740.7 CHNG: 740.6 DIFF: 0.0%
DIFF: -0.1 DF: -2.2%
*****
56769 LANG 7 - 56796 WICHITA7 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
57981 LACYGNE7 - 56793 NEOSHO 7 BASE: 85.8 CHNG: 85.7 DIFF: -0.1%
SUBTOTALS FOR: LACNEOLANWIC BASE: 85.8 CHNG: 85.7 DIFF: -0.1%
DIFF: -0.1 DF: -2.6%
*****
59396 LAKE RD5 - 58028 NASHUA-5 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
57982 IATAN 7 - 56772 STRANGR7 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
59393 ST JOE 3 - 57972 HAWTH 7 BASE: 39.0 CHNG: 38.6 DIFF: -0.9%
SUBTOTALS FOR: SJOHTHIATSTC BASE: 39.0 CHNG: 38.6 DIFF: -0.9%
DIFF: -0.3 DF: -7.2%
*****
59396 LAKE RD5 - 58028 NASHUA-5 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
59393 ST JOE 3 - 57972 HAWTH 7 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
57982 IATAN 7 - 56772 STRANGR7 BASE: 100.6 CHNG: 100.3 DIFF: -0.3%
SUBTOTALS FOR: IATSTRLRDNUA BASE: 100.6 CHNG: 100.3 DIFF: -0.3%
DIFF: -0.3 DF: -7.3%
*****
61950 BYRON 3 - 63032 PL VLLY3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
61948 BYRON 5 - 61906 MAPLE LF BASE: 20.4 CHNG: 20.6 DIFF: 1.0%
SUBTOTALS FOR: BYRMPLBYRPLV BASE: 20.4 CHNG: 20.6 DIFF: 1.0%
DIFF: 0.2 DF: 4.3%
*****
60102 ADAMS 3 - 63032 PL VLLY3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
61948 BYRON 5 - 61906 MAPLE LF BASE: 131.0 CHNG: 131.2 DIFF: 0.1%
SUBTOTALS FOR: BYRMPLPLVADM BASE: 131.0 CHNG: 131.2 DIFF: 0.1%
DIFF: 0.1 DF: 2.9%
*****
60186 AS KING3 - 60304 EAU CL 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
60304 EAU CL 3 - 39244 ARP 345 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
60304 EAU CL 3 - 60305 EAU CLA5 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
69543 ALMA 5 - 69551 ELK MND5 BASE: 140.1 CHNG: 140.1 DIFF: 0.0%
SUBTOTALS FOR: ALMELKKNGECL BASE: 140.1 CHNG: 140.1 DIFF: 0.0%
DIFF: 0.0 DF: -0.5%
*****
65351 S3451 3 - 63875 RAUN 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
65426 S1226 5 - 64987 TEKAMAH5 BASE: 117.0 CHNG: 117.0 DIFF: -0.1%

```

```

SUBTOTALS FOR: S12TEKS34RAU      BASE:  117.0 CHNG:  117.0 DIFF:  -0.1%
                                DIFF:  -0.1  DF:  -2.0%
*****
65351 S3451  3 - 63875 RAUN  3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
64987 TEKAMAH5 - 63876 RAUN  5  BASE:    17.7 CHNG:    17.6 DIFF:  -0.2%
SUBTOTALS FOR: TEKRAUS34RAU      BASE:    17.7 CHNG:    17.6 DIFF:  -0.2%
                                DIFF:    0.0  DF:  -0.9%
*****
***** ERROR: OTDF # 99 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 34018 TO 60102 CKT 1 IERR= 2
***** ERROR: OTDF # 99 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 34018 TO 60102 CKT 9 IERR= 2
34018 HAZLTON3 - 60102 ADAMS  3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
60102 ADAMS  3 - 34014 ADAMS  5  BASE:     0.0 CHNG:     0.0 DIFF:  999.0%
SUBTOTALS FOR: ADMXFMHAZADM      BASE:     0.0 CHNG:     0.0 DIFF:  999.0%
                                DIFF:     0.0  DF:   0.0%
*****
96039 7FAIRPT - 64786 COOPER 3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
96039 7FAIRPT - 59393 ST JOE 3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
59394 ST JOE 5 - 59392 MIDWAY 5  BASE:   172.1 CHNG:   172.5 DIFF:   0.2%
SUBTOTALS FOR: STJ MIDSTJFRC     BASE:   172.1 CHNG:   172.5 DIFF:   0.2%
                                DIFF:    0.3  DF:   7.1%
*****
64350 HILLS  3 - 64095 MNTZUMA3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34110 HILLSIE5 - 34109 BERTRAM5  BASE:   101.9 CHNG:   101.9 DIFF:   0.0%
SUBTOTALS FOR: HL5PRLHL3MTZ     BASE:   101.9 CHNG:   101.9 DIFF:   0.0%
                                DIFF:    0.0  DF:   0.1%
*****
63041 COAL CR4 - 63042 COAL TP4  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
63049 STANTON4 - 63041 COAL CR4  BASE:    83.5 CHNG:    83.5 DIFF:  -0.1%
SUBTOTALS FOR: SONCOCCOCCCT     BASE:    83.5 CHNG:    83.5 DIFF:  -0.1%
                                DIFF:   -0.1  DF:  -1.1%
*****
63041 COAL CR4 - 63049 STANTON4  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
63041 COAL CR4 - 63042 COAL TP4  BASE:   -75.2 CHNG:   -75.2 DIFF:  -0.1%
SUBTOTALS FOR: SONCCTCOCSN      BASE:   -75.2 CHNG:   -75.2 DIFF:  -0.1%
                                DIFF:    0.1  DF:   1.1%
*****
64095 MNTZUMA3 - 64064 BONDRNT3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34191 REASNOR5 - 64062 DMOINES5  BASE:     1.8 CHNG:     1.9 DIFF:   9.0%
SUBTOTALS FOR: READEMMTZBON     BASE:     1.8 CHNG:     1.9 DIFF:   9.0%
                                DIFF:    0.2  DF:   3.4%
*****
60160 SHERCO 3 - 60002 SHERC33G  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34093 ARNOLD 3 - 34018 HAZLTON3  BASE:   603.0 CHNG:   602.6 DIFF:  -0.1%
SUBTOTALS FOR: ARNHAZSHRXFM     BASE:   603.0 CHNG:   602.6 DIFF:  -0.1%
                                DIFF:   -0.4  DF:  -8.7%
*****
***** ERROR: OTDF # 106 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 64418 TO 64680 CKT 1 IERR= 1
***** ERROR: OTDF # 106 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 64418 TO 64680 CKT 1 IERR= 1
64400 MECCORD3 - 64403 E MOLIN3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0

```

64418 E MOLINE - 64680 ***** *CONTINGENCY* BASE: 0.0 CHNG: 0.0

 36382 QUAD ; - 64405 SUB 91 3 BASE: 716.0 CHNG: 716.3 DIFF: 0.0%
 SUBTOTALS FOR: QDCS91CORS39 BASE: 716.0 CHNG: 716.3 DIFF: 0.0%
 DIFF: 0.2 DF: 5.1%

36382 QUAD ; - 64405 SUB 91 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
 64438 SB 91 5 - 64405 SUB 91 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0

 64400 MECCORD3 - 64403 E MOLIN3 BASE: 640.1 CHNG: 640.3 DIFF: 0.0%
 SUBTOTALS FOR: CORS39QDCS91 BASE: 640.1 CHNG: 640.3 DIFF: 0.0%
 DIFF: 0.2 DF: 4.8%

***** ERROR: OTDF # 108 BASE CASE LAST SOLUTION DID NOT REACH TOLERANCE, FIX AND RERUN PROGRAM
 ***** ERROR: OTDF # 108 CHNG CASE LAST SOLUTION DID NOT REACH TOLERANCE, FIX AND RERUN PROGRAM

64402 LOUISA 3 - 64408 SUB T 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
 64350 HILLS 3 - 64408 SUB T 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0

 64406 SUB 92 3 - 64350 HILLS 3 BASE: 594.5 CHNG: 594.8 DIFF: 0.0%
 SUBTOTALS FOR: S92HLLLOUHLL BASE: 594.5 CHNG: 594.8 DIFF: 0.0%
 DIFF: 0.3 DF: 5.7%

***** ERROR: OTDF # 109 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 60102 TO 34014 CKT 1 IERR= 2
 ***** ERROR: OTDF # 109 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 60102 TO 34014 CKT 1 IERR= 2
 60102 ADAMS 3 - 34014 ADAMS 5 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
 60102 ADAMS 3 - 63032 PL VLLY3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
 61950 BYRON 3 - 63032 PL VLLY3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0

34570 ADAMS_N5 - 69547 ROCHSTR5 BASE: 222.7 CHNG: 222.5 DIFF: -0.1%
 SUBTOTALS FOR: ADMROCBYRADM BASE: 222.7 CHNG: 222.5 DIFF: -0.1%
 DIFF: -0.2 DF: -5.0%

61948 BYRON 5 - 61950 BYRON 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0

 34570 ADAMS_N5 - 69547 ROCHSTR5 BASE: 195.6 CHNG: 195.6 DIFF: 0.0%
 SUBTOTALS FOR: ADMROCBYRXFM BASE: 195.6 CHNG: 195.6 DIFF: 0.0%
 DIFF: -0.1 DF: -1.7%

Appendix B.4: 2015 SUPK – Generation – Load dispatch

***** BASE TRANSACTION AMOUNT FOR DF CALCULATION: 4.700

PTFD INTERFACES

39247	ARCADN3 - 36420 ZION ; B	BASE: -239.3	CHNG: -239.3	DIFF: 0.0%
SUBTOTALS FOR: ADNZIO__PTDF		BASE: -239.3	CHNG: -239.3	DIFF: 0.0%
			DIFF: 0.0	DF: 0.4%

36407	WEMPL; R - 39058 PAD 345	BASE: 319.5	CHNG: 319.5	DIFF: 0.0%
SUBTOTALS FOR: WEMPAD__PTDF		BASE: 319.5	CHNG: 319.5	DIFF: 0.0%
			DIFF: 0.0	DF: -0.3%

60304	EAU CL 3 - 39244 ARP 345	BASE: 141.9	CHNG: 142.0	DIFF: 0.0%
SUBTOTALS FOR: EAUARP__PTDF		BASE: 141.9	CHNG: 142.0	DIFF: 0.0%
			DIFF: 0.0	DF: 0.7%

69503	CASVILL5 - 39010 NED 161	BASE: 175.5	CHNG: 175.4	DIFF: 0.0%
SUBTOTALS FOR: CSVNED__PTDF		BASE: 175.5	CHNG: 175.4	DIFF: 0.0%
			DIFF: 0.0	DF: -0.4%

36406	WEMPL; B - 39119 ROE 345	BASE: 624.4	CHNG: 624.4	DIFF: 0.0%
SUBTOTALS FOR: WEMROE__PTDF		BASE: 624.4	CHNG: 624.4	DIFF: 0.0%
			DIFF: 0.0	DF: -0.7%

31230	MONTGMRY - 31992 SPENCER	BASE: 681.3	CHNG: 681.3	DIFF: 0.0%
SUBTOTALS FOR: MTGSPC__PTDF		BASE: 681.3	CHNG: 681.3	DIFF: 0.0%
			DIFF: 0.0	DF: 0.4%

31408	OVERTON - 59201 SIBLEY 7	BASE: 110.0	CHNG: 110.0	DIFF: 0.1%
SUBTOTALS FOR: OVESIB__PTDF		BASE: 110.0	CHNG: 110.0	DIFF: 0.1%
			DIFF: 0.1	DF: 1.5%

38894	N APP 3 - 38928 WERNER W	BASE: 346.6	CHNG: 346.5	DIFF: 0.0%
SUBTOTALS FOR: NAPRRN__PTDF		BASE: 346.6	CHNG: 346.5	DIFF: 0.0%
			DIFF: -0.1	DF: -1.5%

36420	ZION ; B - 39247 ARCADN3	BASE: 240.8	CHNG: 240.8	DIFF: 0.0%
SUBTOTALS FOR: ZIOARC__PTDF		BASE: 240.8	CHNG: 240.8	DIFF: 0.0%
			DIFF: 0.0	DF: -0.4%

36421	ZION ; R - 38849 PLS PR2	BASE: 151.4	CHNG: 151.4	DIFF: 0.0%
SUBTOTALS FOR: ZIOPLP__PTDF		BASE: 151.4	CHNG: 151.4	DIFF: 0.0%
			DIFF: 0.0	DF: -0.7%

36407	WEMPL; R - 39058 PAD 345	BASE: 319.5	CHNG: 319.5	DIFF: 0.0%
36406	WEMPL; B - 39119 ROE 345	BASE: 624.4	CHNG: 624.4	DIFF: 0.0%
SUBTOTALS FOR: SWWISC__PTDF		BASE: 944.0	CHNG: 943.9	DIFF: 0.0%

			DIFF:	0.0	DF:	-0.9%

34093	ARNOLD 3 - 34018 HAZLTON3	BASE:	422.5	CHNG:	422.4	DIFF: 0.0%
SUBTOTALS FOR: ARNHAZ__PTDF		BASE:	422.5	CHNG:	422.4	DIFF: 0.0%
			DIFF:	-0.1	DF:	-2.1%

36382	QUAD ; - 34036 ROCK CK3	BASE:	596.2	CHNG:	596.2	DIFF: 0.0%
64400	MECCORD3 - 64403 E MOLIN3	BASE:	330.7	CHNG:	330.8	DIFF: 0.0%
SUBTOTALS FOR: QUARCKCORMOL		BASE:	927.0	CHNG:	927.0	DIFF: 0.0%
			DIFF:	0.1	DF:	1.2%

34036	ROCK CK3 - 34037 ROCK CK5	BASE:	258.7	CHNG:	258.7	DIFF: 0.0%
SUBTOTALS FOR: RCKXFM__PTDF		BASE:	258.7	CHNG:	258.7	DIFF: 0.0%
			DIFF:	0.0	DF:	0.1%

36382	QUAD ; - 34036 ROCK CK3	BASE:	596.2	CHNG:	596.2	DIFF: 0.0%
SUBTOTALS FOR: QUARCK__PTDF		BASE:	596.2	CHNG:	596.2	DIFF: 0.0%
			DIFF:	0.0	DF:	0.0%

67105	LELANDO3 - 66506 FTTHOMP3	BASE:	219.9	CHNG:	220.2	DIFF: 0.1%
67105	LELANDO3 - 67160 GROTON 3	BASE:	312.8	CHNG:	313.0	DIFF: 0.1%
67101	ANTELOP3 - 67120 BRDLAND3	BASE:	256.6	CHNG:	256.8	DIFF: 0.1%
63314	BIGSTON4 - 66503 BLAIR 4	BASE:	264.5	CHNG:	265.0	DIFF: 0.2%
66554	MORRIS 4 - 66550 GRANITF4	BASE:	164.0	CHNG:	164.5	DIFF: 0.3%
63336	AUDUBON4 - 63053 HUBBARD4	BASE:	321.4	CHNG:	321.8	DIFF: 0.1%
66521	SULLYBT4 - 66519 OAHE 4	BASE:	6.2	CHNG:	6.4	DIFF: 4.6%
63052	INMAN 4 - 61611 WINGRIV4	BASE:	192.3	CHNG:	192.4	DIFF: 0.1%
66470	BISON 4 - 66497 MAURINE4	BASE:	-4.9	CHNG:	-4.8	DIFF: -3.1%
66716	LAPORTE7 - 61638 AKELEY7	BASE:	37.5	CHNG:	37.6	DIFF: 0.2%
63222	ALEXAND7 - 60144 DGLASCO7	BASE:	69.3	CHNG:	69.3	DIFF: 0.1%
67327	ELLENDL7 - 67401 ABDNJCT7	BASE:	72.1	CHNG:	72.2	DIFF: 0.1%
66432	EDGELEY7 - 66534 ORDWAY 7	BASE:	34.0	CHNG:	34.1	DIFF: 0.3%
66438	FORMAN 7 - 66522 SUMMIT-7	BASE:	22.8	CHNG:	23.0	DIFF: 0.6%
63211	CANBY 7 - 66551 GRANITF7	BASE:	36.2	CHNG:	36.2	DIFF: 0.1%
62006	KERKHO 7 - 62005 KERKHOT7	BASE:	37.4	CHNG:	37.4	DIFF: 0.2%
66752	DRAYTON4 - 67557 LETELER4	BASE:	-33.7	CHNG:	-33.4	DIFF: -0.9%
63379	RUGBY 4 - 67523 GLENBOR4	BASE:	123.8	CHNG:	123.9	DIFF: 0.1%
SUBTOTALS FOR: NDEX		BASE:	2132.1	CHNG:	2135.8	DIFF: 0.2%
			DIFF:	3.6	DF:	77.4%

67557	LETELER4 - 66752 DRAYTON4	BASE:	33.7	CHNG:	33.4	DIFF: -0.9%
67564	DORSEY 2 - 60173 ROSEAUN2	BASE:	1438.1	CHNG:	1438.5	DIFF: 0.0%
67576	RICHER 4 - 60175 ROSEAU 4	BASE:	102.2	CHNG:	102.2	DIFF: 0.0%
67523	GLENBOR4 - 63379 RUGBY 4	BASE:	-123.8	CHNG:	-123.9	DIFF: 0.1%
SUBTOTALS FOR: MHEx_S		BASE:	1450.2	CHNG:	1450.1	DIFF: 0.0%
			DIFF:	0.0	DF:	-0.6%

60173	ROSEAUN2 - 67564 DORSEY 2	BASE:	-1411.9	CHNG:	-1412.2	DIFF: 0.0%
60175	ROSEAU 4 - 67576 RICHER 4	BASE:	-100.9	CHNG:	-101.0	DIFF: 0.0%
66752	DRAYTON4 - 67557 LETELER4	BASE:	-33.5	CHNG:	-33.2	DIFF: -0.9%
63379	RUGBY 4 - 67523 GLENBOR4	BASE:	127.2	CHNG:	127.3	DIFF: 0.1%
SUBTOTALS FOR: MHEx_N		BASE:	-1419.2	CHNG:	-1419.1	DIFF: 0.0%
			DIFF:	0.0	DF:	1.0%

60105	PR ISLD3 - 61950 BYRON 3	BASE:	-201.8	CHNG:	-201.6	DIFF: -0.1%
60304	EAU CL 3 - 39244 ARP 345	BASE:	141.9	CHNG:	142.0	DIFF: 0.0%
SUBTOTALS FOR: MWSI		BASE:	-59.9	CHNG:	-59.6	DIFF: -0.4%
			DIFF:	0.2	DF:	5.1%

```

*****
64832 GENTLMN4 - 64909 N.PLATT4 BASE: 159.5 CHNG: 159.5 DIFF: 0.0%
64832 GENTLMN4 - 64909 N.PLATT4 BASE: 160.0 CHNG: 160.0 DIFF: 0.0%
64832 GENTLMN4 - 64909 N.PLATT4 BASE: 163.6 CHNG: 163.6 DIFF: 0.0%
64831 GENTLMN3 - 64984 SWEET W3 BASE: 299.7 CHNG: 299.7 DIFF: 0.0%
64831 GENTLMN3 - 64984 SWEET W3 BASE: 361.4 CHNG: 361.4 DIFF: 0.0%
64831 GENTLMN3 - 64943 REDWILO3 BASE: 223.2 CHNG: 223.2 DIFF: 0.0%

SUBTOTALS FOR: GGS BASE: 1367.5 CHNG: 1367.5 DIFF: 0.0%
DIFF: 0.0 DF: 0.3%
*****

64831 GENTLMN3 - 64943 REDWILO3 BASE: 223.2 CHNG: 223.2 DIFF: 0.0%

SUBTOTALS FOR: WNE_WKS BASE: 223.2 CHNG: 223.2 DIFF: 0.0%
DIFF: 0.0 DF: -0.7%
*****

64933 PAULINE3 - 64902 MOORE 3 BASE: 73.2 CHNG: 73.2 DIFF: 0.0%
64839 GR ISLD4 - 64780 COLMB.W4 BASE: 156.6 CHNG: 156.7 DIFF: 0.0%
66571 GR ISLD3 - 64896 MCCOOL 3 BASE: 131.7 CHNG: 131.7 DIFF: 0.0%

SUBTOTALS FOR: GRIS_LNC BASE: 361.5 CHNG: 361.6 DIFF: 0.0%
DIFF: 0.1 DF: 1.3%
*****

64786 COOPER 3 - 59393 ST JOE 3 BASE: -129.8 CHNG: -129.9 DIFF: 0.1%
64786 COOPER 3 - 96039 7FAIRPT BASE: -45.3 CHNG: -45.4 DIFF: 0.2%

SUBTOTALS FOR: COOPER_S BASE: -175.1 CHNG: -175.3 DIFF: 0.1%
DIFF: -0.2 DF: -3.9%
*****

60105 PR ISLD3 - 61950 BYRON 3 BASE: -201.8 CHNG: -201.6 DIFF: -0.1%

SUBTOTALS FOR: PR_ISL_BYRON BASE: -201.8 CHNG: -201.6 DIFF: -0.1%
DIFF: 0.2 DF: 4.4%
*****

65351 S3451 3 - 65354 S3454 3 BASE: 1.6 CHNG: 1.5 DIFF: -4.6%
65351 S3451 3 - 65359 S3459 3 BASE: 35.1 CHNG: 35.1 DIFF: -0.3%
65451 S1251 5 - 65497 S1297 5 BASE: 50.6 CHNG: 50.6 DIFF: 0.0%

SUBTOTALS FOR: FTCAL_S BASE: 87.3 CHNG: 87.2 DIFF: -0.2%
DIFF: -0.2 DF: -3.8%
*****

67564 DORSEY 2 - 60173 ROSEAUN2 BASE: 1438.1 CHNG: 1438.5 DIFF: 0.0%

SUBTOTALS FOR: D602F BASE: 1438.1 CHNG: 1438.5 DIFF: 0.0%
DIFF: 0.3 DF: 7.4%
*****

36382 QUAD ; - 64405 SUB 91 3 BASE: 512.9 CHNG: 513.0 DIFF: 0.0%
64400 MECCORD3 - 64403 E MOLIN3 BASE: 330.7 CHNG: 330.8 DIFF: 0.0%

SUBTOTALS FOR: QUADCITY_W BASE: 843.6 CHNG: 843.8 DIFF: 0.0%
DIFF: 0.1 DF: 2.8%
*****

64095 MNTZUMA3 - 64064 BONDRNT3 BASE: 127.0 CHNG: 127.2 DIFF: 0.2%

SUBTOTALS FOR: MNTZUMA_W BASE: 127.0 CHNG: 127.2 DIFF: 0.2%
DIFF: 0.2 DF: 4.3%
*****

59394 ST JOE 5 - 59392 MIDWAY 5 BASE: 137.0 CHNG: 137.1 DIFF: 0.0%

SUBTOTALS FOR: SJOMDY__PTDF BASE: 137.0 CHNG: 137.1 DIFF: 0.0%
DIFF: 0.0 DF: 0.5%
*****

57982 IATAN 7 - 59393 ST JOE 3 BASE: 555.3 CHNG: 555.4 DIFF: 0.0%

```


SUBTOTALS FOR: PADBLKPADTLR	BASE:	379.1	CHNG:	379.1	DIFF:	0.0%
				DIFF:	0.0	DF: -0.4%

39059 PAD 138 - 39141 TOWNLINE	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39048 BLK 138 - 39060 COR 138	BASE:	201.7	CHNG:	201.6	DIFF:	0.0%
SUBTOTALS FOR: BLKCORPADTLR	BASE:	201.7	CHNG:	201.6	DIFF:	0.0%
				DIFF:	0.0	DF: -0.2%

36406 WEMPL; B - 39119 ROE 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39090 RSS 138 - 39120 ROE 138	BASE:	310.7	CHNG:	310.7	DIFF:	0.0%
SUBTOTALS FOR: RSSROEWEMROE	BASE:	310.7	CHNG:	310.7	DIFF:	0.0%
				DIFF:	0.0	DF: -0.3%

39676 GARDR PK - 39785 ROCKY RN	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39786 ROCKY RN - 39788 NORTHPT	BASE:	-106.5	CHNG:	-106.6	DIFF:	0.0%
SUBTOTALS FOR: RRNNPTRRNGPK	BASE:	-106.5	CHNG:	-106.6	DIFF:	0.0%
				DIFF:	0.0	DF: -0.5%

36406 WEMPL; B - 39119 ROE 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39048 BLK 138 - 39060 COR 138	BASE:	232.4	CHNG:	232.4	DIFF:	0.0%
SUBTOTALS FOR: BLKCRDWEMROE	BASE:	232.4	CHNG:	232.4	DIFF:	0.0%
				DIFF:	0.0	DF: -0.2%

39059 PAD 138 - 38057 NWT 138	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39059 PAD 138 - 39141 TOWNLINE	BASE:	188.8	CHNG:	188.7	DIFF:	0.0%
SUBTOTALS FOR: PADTLRPADBLK	BASE:	188.8	CHNG:	188.7	DIFF:	0.0%
				DIFF:	0.0	DF: -0.2%

39119 ROE 345 - 39120 ROE 138	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39119 ROE 345 - 39120 ROE 138	BASE:	243.7	CHNG:	243.7	DIFF:	0.0%
SUBTOTALS FOR: ROE_T2ROE_T3	BASE:	243.7	CHNG:	243.7	DIFF:	0.0%
				DIFF:	0.0	DF: -0.1%

39244 ARP 345 - 39785 ROCKY RN	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

60315 T-CRNR57 - 39706 WIEN	BASE:	-54.3	CHNG:	-54.3	DIFF:	0.0%
SUBTOTALS FOR: TCRWIEARPRRN	BASE:	-54.3	CHNG:	-54.3	DIFF:	0.0%
				DIFF:	0.0	DF: 0.1%

60304 EAU CL 3 - 39244 ARP 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

60315 T-CRNR57 - 39706 WIEN	BASE:	-27.1	CHNG:	-27.1	DIFF:	0.0%
SUBTOTALS FOR: TCRWIEEARP_G	BASE:	-27.1	CHNG:	-27.1	DIFF:	0.0%
				DIFF:	0.0	DF: 0.2%

36406 WEMPL; B - 39119 ROE 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

39059 PAD 138 - 39141 TOWNLINE	BASE:	232.5	CHNG:	232.5	DIFF:	0.0%
SUBTOTALS FOR: PADTLRWEMROE	BASE:	232.5	CHNG:	232.5	DIFF:	0.0%
				DIFF:	0.0	DF: -0.3%

```

*****
38894 N APP 3 - 38928 WERNER W *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
39237 KIL 138 - 38302 KIL 69 BASE: 55.9 CHNG: 55.9 DIFF: 0.0%
-----
SUBTOTALS FOR: KILXFMAPPWER BASE: 55.9 CHNG: 55.9 DIFF: 0.0%
DIFF: 0.0 DF: -0.1%
*****
38928 WERNER W - 39785 ROCKY RN *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
39235 WAU 138 - 39939 SAL 138 BASE: 44.1 CHNG: 44.1 DIFF: 0.0%
-----
SUBTOTALS FOR: WAUEDWERROR BASE: 44.1 CHNG: 44.1 DIFF: 0.0%
DIFF: 0.0 DF: -0.3%
*****
30395 COFFEEN - 31445 PANA *CONTINGENCY* BASE: 0.0 CHNG: 0.0
31445 PANA - 36343 KINCA; R *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
31230 MONTGMRY - 31992 SPENCER BASE: 726.7 CHNG: 726.7 DIFF: 0.0%
-----
SUBTOTALS FOR: MTGSPCCOFPAN BASE: 726.7 CHNG: 726.7 DIFF: 0.0%
DIFF: 0.0 DF: 0.3%
*****
30154 BLAND - 96041 7FRANKS *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
31088 MCCREDIE - 31408 OVERTON BASE: 322.6 CHNG: 322.7 DIFF: 0.0%
-----
SUBTOTALS FOR: MCROVEBLAF_G BASE: 322.6 CHNG: 322.7 DIFF: 0.0%
DIFF: 0.1 DF: 1.3%
*****
31088 MCCREDIE - 31408 OVERTON *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
30154 BLAND - 96041 7FRANKS BASE: 236.9 CHNG: 236.9 DIFF: 0.0%
-----
SUBTOTALS FOR: BLAFRAMCROVE BASE: 236.9 CHNG: 236.9 DIFF: 0.0%
DIFF: 0.0 DF: 0.2%
*****
36281 BYRON; R - 36289 CHERR; R *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36280 BYRON; B - 36288 CHERR; B BASE: 1230.9 CHNG: 1230.9 DIFF: 0.0%
-----
SUBTOTALS FOR: BYNCHEBYNCHE BASE: 1230.9 CHNG: 1230.9 DIFF: 0.0%
DIFF: 0.0 DF: -0.6%
*****
36281 BYRON; R - 36407 WEMPL; R *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36280 BYRON; B - 36288 CHERR; B BASE: 1121.5 CHNG: 1121.4 DIFF: 0.0%
-----
SUBTOTALS FOR: BYCH_BBYNWEM BASE: 1121.5 CHNG: 1121.4 DIFF: 0.0%
DIFF: 0.0 DF: -0.6%
*****
36280 BYRON; B - 36288 CHERR; B *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36281 BYRON; R - 36289 CHERR; R BASE: 1286.9 CHNG: 1286.9 DIFF: 0.0%
-----
SUBTOTALS FOR: BYRCHEBYRCHE BASE: 1286.9 CHNG: 1286.9 DIFF: 0.0%
DIFF: 0.0 DF: -0.6%
*****
36281 BYRON; R - 36407 WEMPL; R *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
36281 BYRON; R - 36289 CHERR; R BASE: 1245.7 CHNG: 1245.7 DIFF: 0.0%
-----
SUBTOTALS FOR: BYCH_RBYNWEM BASE: 1245.7 CHNG: 1245.7 DIFF: 0.0%
DIFF: 0.0 DF: -0.7%
*****

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36284 CORDO; B	-	36362 NELSO; B	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

36382 QUAD ;	-	36368 H471 ;		BASE:	680.5	CHNG:	680.4 DIFF: 0.0%

SUBTOTALS FOR: QUA471CDVNEL				BASE:	680.5	CHNG:	680.4 DIFF: 0.0%
						DIFF:	-0.1 DF: -2.4%

36382 QUAD ;	-	36368 H471 ;	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

36382 QUAD ;	-	36284 CORDO; B		BASE:	265.1	CHNG:	265.1 DIFF: 0.0%
36284 CORDO; B	-	36362 NELSO; B		BASE:	677.2	CHNG:	677.1 DIFF: 0.0%

SUBTOTALS FOR: QUACDVQUA471				BASE:	942.3	CHNG:	942.2 DIFF: 0.0%
						DIFF:	-0.1 DF: -3.2%

36420 ZION ; B	-	39247 ARCADN3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

36407 WEMPL; R	-	39058 PAD 345		BASE:	331.8	CHNG:	331.8 DIFF: 0.0%

SUBTOTALS FOR: WEMPADZIOARC				BASE:	331.8	CHNG:	331.8 DIFF: 0.0%
						DIFF:	0.0 DF: -0.3%

36421 ZION ; R	-	38849 PLS PR2	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

36407 WEMPL; R	-	39058 PAD 345		BASE:	334.2	CHNG:	334.2 DIFF: 0.0%

SUBTOTALS FOR: WEMPADZIOPLP				BASE:	334.2	CHNG:	334.2 DIFF: 0.0%
						DIFF:	0.0 DF: -0.4%

36289 CHERR; R	-	36389 SILVE; R	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

36407 WEMPL; R	-	39058 PAD 345		BASE:	390.7	CHNG:	390.7 DIFF: 0.0%

SUBTOTALS FOR: WEMPADCHVSLA				BASE:	390.7	CHNG:	390.7 DIFF: 0.0%
						DIFF:	0.0 DF: -0.3%

36420 ZION ; B	-	39247 ARCADN3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

36421 ZION ; R	-	38849 PLS PR2		BASE:	331.0	CHNG:	330.9 DIFF: 0.0%

SUBTOTALS FOR: ZIOPLPZIOARC				BASE:	331.0	CHNG:	330.9 DIFF: 0.0%
						DIFF:	0.0 DF: -1.0%

36407 WEMPL; R	-	39058 PAD 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

36421 ZION ; R	-	38849 PLS PR2		BASE:	227.4	CHNG:	227.4 DIFF: 0.0%

SUBTOTALS FOR: ZIOPLPWEMPAD				BASE:	227.4	CHNG:	227.4 DIFF: 0.0%
						DIFF:	0.0 DF: -0.8%

36421 ZION ; R	-	38849 PLS PR2	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

36420 ZION ; B	-	39247 ARCADN3		BASE:	316.1	CHNG:	316.1 DIFF: 0.0%

SUBTOTALS FOR: ZIOARCZIOPLP				BASE:	316.1	CHNG:	316.1 DIFF: 0.0%
						DIFF:	0.0 DF: -0.8%

36362 NELSO; B	-	36310 ELECT; B	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

36289 CHERR; R	-	36389 SILVE; R		BASE:	840.0	CHNG:	840.0 DIFF: 0.0%

SUBTOTALS FOR: CHESILNELELC				BASE:	840.0	CHNG:	840.0 DIFF: 0.0%
						DIFF:	0.0 DF: -0.8%

36289	CHERR; R	-	36389	SILVE; R	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

36362	NELSO; B	-	36310	ELECT; B		BASE:	642.9	CHNG:	642.8
						DIFF:			0.0%

SUBTOTALS FOR: NELELCCHESIL						BASE:	642.9	CHNG:	642.8
						DIFF:	-0.1	DF:	-1.2%

36407	WEMPL; R	-	39058	PAD 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

37632	LEECO;BP	-	36362	NELSO; B		BASE:	223.4	CHNG:	223.5
						DIFF:			0.0%

SUBTOTALS FOR: LCONELWEMPAD						BASE:	223.4	CHNG:	223.5
						DIFF:	0.1	DF:	1.4%

39253	ARCADN1	-	39329	GRANVL1	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39268	BUTLER	-	39327	GRANVL 5		BASE:	-175.1	CHNG:	-175.1
						DIFF:			0.0%

SUBTOTALS FOR: BTRGVLARCGVL						BASE:	-175.1	CHNG:	-175.1
						DIFF:	0.0	DF:	-0.3%

38894	N APP 3	-	38928	WERNER W	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0
38928	WERNER W	-	39785	ROCKY RN	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

38892	ELLNGTN3	-	39534	HINTZ		BASE:	164.7	CHNG:	164.7
						DIFF:			0.0%

SUBTOTALS FOR: ELNHNZNAPRRN						BASE:	164.7	CHNG:	164.7
						DIFF:	0.0	DF:	-0.4%

38849	PLS PR2	-	36421	ZION ; R	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39345	KENOSH45	-	39362	LAKEVIEW		BASE:	-47.9	CHNG:	-47.9
						DIFF:			0.0%

SUBTOTALS FOR: KSHLKVPLPZIO						BASE:	-47.9	CHNG:	-47.9
						DIFF:	0.0	DF:	0.2%

38850	PLS PR3	-	39471	RACINE1	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39432	PLS PR1	-	39253	ARCADN1		BASE:	532.4	CHNG:	532.4
						DIFF:			0.0%

SUBTOTALS FOR: PLPARCPLRRAC						BASE:	532.4	CHNG:	532.4
						DIFF:	0.0	DF:	-0.5%

36420	ZION ; B	-	39247	ARCADN3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39432	PLS PR1	-	39253	ARCADN1		BASE:	342.5	CHNG:	342.5
						DIFF:			0.0%

SUBTOTALS FOR: PLPARCZIOARC						BASE:	342.5	CHNG:	342.5
						DIFF:	0.0	DF:	-0.5%

36289	CHERR; R	-	36389	SILVE; R	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

38849	PLS PR2	-	36421	ZION ; R		BASE:	-52.7	CHNG:	-52.7
						DIFF:			-0.1%

SUBTOTALS FOR: PLPZIOCHESIL						BASE:	-52.7	CHNG:	-52.7
						DIFF:	0.0	DF:	0.7%

36420	ZION ; B	-	39247	ARCADN3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

38849	PLS PR2	-	36421	ZION ; R		BASE:	-330.5	CHNG:	-330.5
						DIFF:			0.0%

SUBTOTALS FOR: PLPZIOZIOARC						BASE:	-330.5	CHNG:	-330.5
						DIFF:	0.0	DF:	1.0%

39432	PLS PR1	-	39253	ARCADN1	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

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-----
38850 PLS PR3 - 39471 RACINE1 BASE: 777.9 CHNG: 777.9 DIFF: 0.0%
SUBTOTALS FOR: PLPRACPLPADN BASE: 777.9 CHNG: 777.9 DIFF: 0.0%
DIFF: 0.0 DF: -0.6%
*****
38898 PT BCH2 - 39304 FORST JT *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
39556 FOXRIVER - 39304 FORST JT BASE: 488.3 CHNG: 488.3 DIFF: 0.0%
SUBTOTALS FOR: FXRFSTPTBFST BASE: 488.3 CHNG: 488.3 DIFF: 0.0%
DIFF: 0.0 DF: 0.4%
*****
38928 WERNER W - 39785 ROCKY RN *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
38929 WERNER W - 39535 WHITE LK BASE: 162.5 CHNG: 162.4 DIFF: 0.0%
SUBTOTALS FOR: WERWHLWERROR BASE: 162.5 CHNG: 162.4 DIFF: 0.0%
DIFF: 0.0 DF: -0.5%
*****
39785 ROCKY RN - 39676 GARDR PK *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
39210 CW8 115 - 39686 WESTON BASE: -147.9 CHNG: -147.9 DIFF: 0.0%
SUBTOTALS FOR: RRNWESRRNGPK BASE: -147.9 CHNG: -147.9 DIFF: 0.0%
DIFF: 0.0 DF: -0.5%
*****
36407 WEMPL; R - 39058 PAD 345 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
34093 ARNOLD 3 - 34018 HAZLTON3 BASE: 434.8 CHNG: 434.7 DIFF: 0.0%
SUBTOTALS FOR: ARNHAZWEMPAD BASE: 434.8 CHNG: 434.7 DIFF: 0.0%
DIFF: -0.1 DF: -2.2%
*****
36407 WEMPL; R - 39058 PAD 345 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
34028 LORE 5 - 34033 TRK RIV5 BASE: 214.2 CHNG: 214.2 DIFF: 0.0%
SUBTOTALS FOR: LORTRKWEMPAD BASE: 214.2 CHNG: 214.2 DIFF: 0.0%
DIFF: 0.0 DF: -0.4%
*****
34093 ARNOLD 3 - 34018 HAZLTON3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
34007 LAKEFLD5 - 34008 FOX LK 5 BASE: 37.8 CHNG: 37.8 DIFF: -0.1%
SUBTOTALS FOR: LKJFOXARNHAZ BASE: 37.8 CHNG: 37.8 DIFF: -0.1%
DIFF: 0.0 DF: -0.6%
*****
36382 QUAD ; - 64405 SUB 91 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
34036 ROCK CK3 - 34037 ROCK CK5 BASE: 321.3 CHNG: 321.3 DIFF: 0.0%
SUBTOTALS FOR: RCKXFMQUADAV BASE: 321.3 CHNG: 321.3 DIFF: 0.0%
DIFF: 0.0 DF: 0.3%
*****
36382 QUAD ; - 64405 SUB 91 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
34035 ROCKCKW5 - 34124 DEWITT 5 BASE: 109.8 CHNG: 109.8 DIFF: 0.0%
SUBTOTALS FOR: RCKDWTQUAS91 BASE: 109.8 CHNG: 109.8 DIFF: 0.0%
DIFF: 0.0 DF: 0.3%
*****
36382 QUAD ; - 64405 SUB 91 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----
34029 SALEM 3 - 34030 SALEM N5 BASE: 367.4 CHNG: 367.4 DIFF: 0.0%

```

SUBTOTALS FOR: SALXFMQUAS91	BASE:	367.4	CHNG:	367.4	DIFF:	0.0%
				DIFF:	0.0	DF: 0.1%

64400 MECCORD3 - 64403 E MOLIN3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34029 SALEM 3 - 34030 SALEM N5	BASE:	350.3	CHNG:	350.3	DIFF:	0.0%
SUBTOTALS FOR: SALXFMCMOL	BASE:	350.3	CHNG:	350.3	DIFF:	0.0%
				DIFF:	0.0	DF: 0.0%

36382 QUAD ; - 64405 SUB 91 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34029 SALEM 3 - 34030 SALEM N5	BASE:	367.4	CHNG:	367.4	DIFF:	0.0%
SUBTOTALS FOR: SALXFMQUADAV	BASE:	367.4	CHNG:	367.4	DIFF:	0.0%
				DIFF:	0.0	DF: 0.1%

64350 HILLS 3 - 64095 MNTZUMA3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

64352 TIFFIN 3 - 34093 ARNOLD 3	BASE:	446.5	CHNG:	446.5	DIFF:	0.0%
SUBTOTALS FOR: TIFARNHILMON	BASE:	446.5	CHNG:	446.5	DIFF:	0.0%
				DIFF:	0.0	DF: -0.1%

34093 ARNOLD 3 - 34018 HAZLTON3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34091 ARNOLD 5 - 34089 VINTON 5	BASE:	181.8	CHNG:	181.8	DIFF:	0.0%
SUBTOTALS FOR: ARNVINARNHAZ	BASE:	181.8	CHNG:	181.8	DIFF:	0.0%
				DIFF:	0.0	DF: 0.2%

36382 QUAD ; - 34036 ROCK CK3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

64425 DAVNPRT5 - 34122 E CALMS5	BASE:	0.0	CHNG:	0.0	DIFF:	999.0%
SUBTOTALS FOR: DAVCALQUARCK	BASE:	0.0	CHNG:	0.0	DIFF:	999.0%
				DIFF:	0.0	DF: 0.0%

64095 MNTZUMA3 - 64064 BONDRNT3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34052 AMES 7 - 34076 BNE JCT7	BASE:	-5.7	CHNG:	-5.7	DIFF:	-0.3%
SUBTOTALS FOR: AMEBJCMTZBON	BASE:	-5.7	CHNG:	-5.7	DIFF:	-0.3%
				DIFF:	0.0	DF: 0.4%

34006 LAKEFLD3 - 60331 LKFLDXL3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34007 LAKEFLD5 - 34008 FOX LK 5	BASE:	90.0	CHNG:	89.9	DIFF:	-0.1%
SUBTOTALS FOR: LAKFOXLAFLKF	BASE:	90.0	CHNG:	89.9	DIFF:	-0.1%
				DIFF:	-0.1	DF: -1.7%

34093 ARNOLD 3 - 34018 HAZLTON3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

34087 DYSART 5 - 64269 WASHBRN5	BASE:	224.2	CHNG:	224.2	DIFF:	0.0%
SUBTOTALS FOR: DYSWASARNHAZ	BASE:	224.2	CHNG:	224.2	DIFF:	0.0%
				DIFF:	0.0	DF: -0.7%

64080 SYCAMOR3 - 64198 GRIMES 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0	

64067 BONDRNT5 - 34529 HUXLEYT5	BASE:	54.2	CHNG:	54.2	DIFF:	0.0%
SUBTOTALS FOR: BONBJCSYCLEH	BASE:	54.2	CHNG:	54.2	DIFF:	0.0%

```

                                DIFF:    0.0   DF:    0.3%
*****
64202 LEHIGH 3 - 64200 WEBSTER3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
64067 BONDRNT5 - 34529 HUXLEYT5  BASE:   105.4 CHNG:   105.4 DIFF:    0.0%
SUBTOTALS FOR: BONBJCLEHWBS      BASE:   105.4 CHNG:   105.4 DIFF:    0.0%
                                DIFF:    0.0   DF:    0.2%
*****

**** ERROR: OTDF # 64 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 34007 TO 34137 CKT 1 IERR= 2
**** ERROR: OTDF # 64 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 34007 TO 34137 CKT 1 IERR= 2
34007 LAKEFLD5 - 34137 TRIBOJI5 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34007 LAKEFLD5 - 34008 FOX LK 5  BASE:    32.6 CHNG:    32.6 DIFF:   -0.1%
SUBTOTALS FOR: LKJFOXLKJTRI      BASE:    32.6 CHNG:    32.6 DIFF:   -0.1%
                                DIFF:    0.0   DF:   -0.6%
*****

**** ERROR: OTDF # 65 BASE CASE LAST SOLUTION DID NOT REACH TOLERANCE, FIX AND RERUN PROGRAM
**** ERROR: OTDF # 65 BASE CASE NOT SOLVED WELL, MISMATCH= 20187.41 FIX AND RERUN PROGRAM
**** ERROR: OTDF # 65 CHNG CASE LAST SOLUTION DID NOT REACH TOLERANCE, FIX AND RERUN PROGRAM
**** ERROR: OTDF # 65 CHNG CASE NOT SOLVED WELL, MISMATCH= 25204.18 FIX AND RERUN PROGRAM

60173 ROSEAUN2 - 67564 DORSEY 2 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34093 ARNOLD 3 - 34018 HAZLTON3  BASE:   584.9 CHNG:   657.1 DIFF:   12.3%
SUBTOTALS FOR: ARNHAZDORFOR      BASE:   584.9 CHNG:   657.1 DIFF:   12.3%
                                DIFF:    72.2   DF:  999.0%
*****

60304 EAU CL 3 - 39244 ARP 345  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34020 HAZL S 5 - 34135 DUNDEE 5  BASE:    70.2 CHNG:    70.2 DIFF:    0.0%
SUBTOTALS FOR: HAZDUNEAUARP      BASE:    70.2 CHNG:    70.2 DIFF:    0.0%
                                DIFF:    0.0   DF:   -0.1%
*****

63875 RAUN 3 - 34006 LAKEFLD3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
66563 SPENCER5 - 34137 TRIBOJI5  BASE:    -2.9 CHNG:   -3.1 DIFF:    4.4%
SUBTOTALS FOR: SPETRILAKRAU      BASE:    -2.9 CHNG:   -3.1 DIFF:    4.4%
                                DIFF:   -0.1   DF:   -2.7%
*****

36407 WEMPL; R - 39058 PAD 345  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34029 SALEM 3 - 34030 SALEM N5   BASE:   343.2 CHNG:   343.2 DIFF:    0.0%
SUBTOTALS FOR: SALXFMWEMPAD      BASE:   343.2 CHNG:   343.2 DIFF:    0.0%
                                DIFF:    0.0   DF:    0.0%
*****

64352 TIFFIN 3 - 34093 ARNOLD 3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
64350 HILLS 3 - 34110 HILLSIE5   BASE:   179.6 CHNG:   179.6 DIFF:    0.0%
SUBTOTALS FOR: HILXFMTIFARN      BASE:   179.6 CHNG:   179.6 DIFF:    0.0%
                                DIFF:    0.0   DF:   -0.2%
*****

36407 WEMPL; R - 39058 PAD 345  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34032 8TH ST.5 - 34028 LORE 5    BASE:    0.0 CHNG:    0.0 DIFF:  999.0%
SUBTOTALS FOR: 8STKERWEMPAD      BASE:    0.0 CHNG:    0.0 DIFF:  999.0%

```

```

                                DIFF:    0.0   DF:    0.0%
*****
34093 ARNOLD 3 - 34018 HAZLTON3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34032 8TH ST.5 - 34028 LORE 5  BASE:    0.0 CHNG:    0.0 DIFF:   999.0%
SUBTOTALS FOR: 8STKERARNHAZ      BASE:    0.0 CHNG:    0.0 DIFF:   999.0%
                                DIFF:    0.0   DF:    0.0%
*****
64095 MNTZUMA3 - 64064 BONDRNT3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34066 M-TOWN 7 - 34071 FERNALD7  BASE:    0.0 CHNG:    0.0 DIFF:   999.0%
SUBTOTALS FOR: MRTFERMTZBON      BASE:    0.0 CHNG:    0.0 DIFF:   999.0%
                                DIFF:    0.0   DF:    0.0%
*****
64202 LEHIGH 3 - 64200 WEBSTER3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34015 LIME CK5 - 34016 EMERY 5  BASE:   -66.0 CHNG:  -65.9 DIFF:   -0.1%
SUBTOTALS FOR: LIMEMELEHWEB      BASE:   -66.0 CHNG:  -65.9 DIFF:   -0.1%
                                DIFF:    0.0   DF:    1.0%
*****
36407 WEMPL; R - 39058 PAD 345  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34028 LORE 5 - 34033 TRK RIV5  BASE:   214.2 CHNG:  214.2 DIFF:    0.0%
SUBTOTALS FOR: LORTRKWPAD_G      BASE:   214.2 CHNG:  214.2 DIFF:    0.0%
                                DIFF:    0.0   DF:   -0.4%
*****
34093 ARNOLD 3 - 34018 HAZLTON3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34089 VINTON 5 - 34087 DYSART 5  BASE:   176.1 CHNG:  176.1 DIFF:    0.0%
SUBTOTALS FOR: VINDYSARNHAZ      BASE:   176.1 CHNG:  176.1 DIFF:    0.0%
                                DIFF:    0.0   DF:    0.2%
*****
***** ERROR: OTDF # 76 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 60102 TO 34018 CKT 1 IERR= 2
***** ERROR: OTDF # 76 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 60102 TO 34018 CKT 1 IERR= 2
60102 ADAMS 3 - 34018 HAZLTON3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34015 LIME CK5 - 34016 EMERY 5  BASE:   -95.1 CHNG:  -95.0 DIFF:   -0.1%
SUBTOTALS FOR: LIMEMEADAHAZ      BASE:   -95.1 CHNG:  -95.0 DIFF:   -0.1%
                                DIFF:    0.0   DF:    1.0%
*****
36407 WEMPL; R - 39058 PAD 345  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34030 SALEM N5 - 34508 JULIAN 5  BASE:   215.3 CHNG:  215.3 DIFF:    0.0%
SUBTOTALS FOR: SALJCRWEMPAD      BASE:   215.3 CHNG:  215.3 DIFF:    0.0%
                                DIFF:    0.0   DF:   -0.1%
*****
60331 LKFLDXL3 - 60364 FIELD_N3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34007 LAKEFLD5 - 34008 FOX LK 5  BASE:   118.4 CHNG:  118.3 DIFF:   -0.1%
SUBTOTALS FOR: LKFFOXLKFWLM      BASE:   118.4 CHNG:  118.3 DIFF:   -0.1%
                                DIFF:   -0.1   DF:   -1.7%
*****
64095 MNTZUMA3 - 64064 BONDRNT3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34093 ARNOLD 3 - 34018 HAZLTON3  BASE:   446.1 CHNG:  446.0 DIFF:    0.0%
SUBTOTALS FOR: ARNHAZMTZBON      BASE:   446.1 CHNG:  446.0 DIFF:    0.0%

```

```

                                DIFF:   -0.1   DF:   -1.3%
*****
64352 TIFFIN 3 - 34093 ARNOLD 3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34029 SALEM 3 - 34030 SALEM N5  BASE:   372.8 CHNG:   372.8 DIFF:    0.0%
SUBTOTALS FOR: SALXFMTIFARN      BASE:   372.8 CHNG:   372.8 DIFF:    0.0%
                                DIFF:    0.0   DF:   -0.1%
*****
64350 HILLS 3 - 64352 TIFFIN 3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34029 SALEM 3 - 34030 SALEM N5  BASE:   360.7 CHNG:   360.7 DIFF:    0.0%
SUBTOTALS FOR: SALXFMHL3TIF      BASE:   360.7 CHNG:   360.7 DIFF:    0.0%
                                DIFF:    0.0   DF:   -0.1%
*****
64095 MNTZUMA3 - 64064 BONDRNT3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
64352 TIFFIN 3 - 34093 ARNOLD 3  BASE:   482.5 CHNG:   482.5 DIFF:    0.0%
SUBTOTALS FOR: TIFARNMTZBON      BASE:   482.5 CHNG:   482.5 DIFF:    0.0%
                                DIFF:    0.0   DF:   -0.1%
*****
34091 ARNOLD 5 - 34090 ARNOLD1G *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
64350 HILLS 3 - 34110 HILLSIE5  BASE:   137.3 CHNG:   137.3 DIFF:    0.0%
SUBTOTALS FOR: HILXFMARNXFM      BASE:   137.3 CHNG:   137.3 DIFF:    0.0%
                                DIFF:    0.0   DF:    0.0%
*****
34016 EMERY 5 - 64252 FLOYD 5  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34016 EMERY 5 - 34015 LIME CK5  BASE:   129.9 CHNG:   129.8 DIFF:    0.0%
SUBTOTALS FOR: EMELIMEMEFYD      BASE:   129.9 CHNG:   129.8 DIFF:    0.0%
                                DIFF:   -0.1   DF:   -1.1%
*****
34020 HAZL S 5 - 34018 HAZLTON3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34018 HAZLTON3 - 34019 HAZLTON5  BASE:   199.5 CHNG:   199.5 DIFF:    0.0%
SUBTOTALS FOR: HAZXF1HAZXF2      BASE:   199.5 CHNG:   199.5 DIFF:    0.0%
                                DIFF:    0.0   DF:    0.9%
*****
64095 MNTZUMA3 - 64350 HILLS 3  *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34180 DENMARK5 - 34178 HENRYCO5  BASE:    76.8 CHNG:    76.9 DIFF:    0.0%
SUBTOTALS FOR: DENHENHILMNT      BASE:    76.8 CHNG:    76.9 DIFF:    0.0%
                                DIFF:    0.0   DF:    0.8%
*****
60331 LKFLDXL3 - 60364 FIELD_N3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34008 FOX LK 5 - 61931 *****  BASE:    0.0 CHNG:    0.0 DIFF:   999.0%
SUBTOTALS FOR: FXLRUTLKFWIL      BASE:    0.0 CHNG:    0.0 DIFF:   999.0%
                                DIFF:    0.0   DF:    0.0%
*****
60331 LKFLDXL3 - 60364 FIELD_N3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
61932 RUTLAND5 - 34009 WINBAGO5  BASE:   237.3 CHNG:   237.2 DIFF:   -0.1%
SUBTOTALS FOR: RUTWINLKFWIL      BASE:   237.3 CHNG:   237.2 DIFF:   -0.1%
                                DIFF:   -0.1   DF:   -2.7%
*****

```

38850 PLS PR3	-	39471 RACINE1	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

39410 PARIS WE	-	39249 ALBRS-12		BASE:	-174.0	CHNG:	-174.0 DIFF: 0.0%

SUBTOTALS FOR: PARALBPLPRAC				BASE:	-174.0	CHNG:	-174.0 DIFF: 0.0%
						DIFF:	0.0 DF: 0.1%

39247 ARCADN3	-	36420 ZION ; B	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

38850 PLS PR3	-	39471 RACINE1		BASE:	740.7	CHNG:	740.7 DIFF: 0.0%

SUBTOTALS FOR: PLPRACARCZIO				BASE:	740.7	CHNG:	740.7 DIFF: 0.0%
						DIFF:	0.0 DF: -0.6%

56769 LANG 7	-	56796 WICHITA7	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

57981 LACYGNE7	-	56793 NEOSHO 7		BASE:	85.8	CHNG:	85.7 DIFF: -0.1%

SUBTOTALS FOR: LACNEOLANWIC				BASE:	85.8	CHNG:	85.7 DIFF: -0.1%
						DIFF:	-0.1 DF: -1.3%

59396 LAKE RD5	-	58028 NASHUA-5	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0
57982 IATAN 7	-	56772 STRANGR7	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

59393 ST JOE 3	-	57972 HAWTH 7		BASE:	39.0	CHNG:	38.8 DIFF: -0.4%

SUBTOTALS FOR: SJOHTHIATSTC				BASE:	39.0	CHNG:	38.8 DIFF: -0.4%
						DIFF:	-0.1 DF: -3.1%

59396 LAKE RD5	-	58028 NASHUA-5	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0
59393 ST JOE 3	-	57972 HAWTH 7	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

57982 IATAN 7	-	56772 STRANGR7		BASE:	100.6	CHNG:	100.5 DIFF: -0.1%

SUBTOTALS FOR: IATSTRLRDNUA				BASE:	100.6	CHNG:	100.5 DIFF: -0.1%
						DIFF:	-0.1 DF: -3.1%

61950 BYRON 3	-	63032 PL VLLY3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

61948 BYRON 5	-	61906 MAPLE LF		BASE:	20.4	CHNG:	20.5 DIFF: 0.3%

SUBTOTALS FOR: BYRMPLBYRPLV				BASE:	20.4	CHNG:	20.5 DIFF: 0.3%
						DIFF:	0.1 DF: 1.4%

60102 ADAMS 3	-	63032 PL VLLY3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

61948 BYRON 5	-	61906 MAPLE LF		BASE:	131.0	CHNG:	131.1 DIFF: 0.0%

SUBTOTALS FOR: BYRMPLPLVADM				BASE:	131.0	CHNG:	131.1 DIFF: 0.0%
						DIFF:	0.0 DF: 0.9%

60186 AS KING3	-	60304 EAU CL 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0
60304 EAU CL 3	-	39244 ARP 345	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0
60304 EAU CL 3	-	60305 EAU CLA5	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

69543 ALMA 5	-	69551 ELK MND5		BASE:	140.1	CHNG:	140.1 DIFF: 0.0%

SUBTOTALS FOR: ALMELKKNGECL				BASE:	140.1	CHNG:	140.1 DIFF: 0.0%
						DIFF:	0.0 DF: -0.3%

65351 S3451 3	-	63875 RAUN 3	*CONTINGENCY*	BASE:	0.0	CHNG:	0.0

65426 S1226 5	-	64987 TEKAMAH5		BASE:	117.0	CHNG:	117.1 DIFF: 0.1%

SUBTOTALS FOR: S12TEKS34RAU				BASE:	117.0	CHNG:	117.1 DIFF: 0.1%

```

                                DIFF:    0.1   DF:    1.8%
*****
65351 S3451  3 - 63875 RAUN   3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
64987 TEKAMAH5 - 63876 RAUN   5  BASE:    17.7 CHNG:    17.7 DIFF:    0.4%
SUBTOTALS FOR: TEKRAUS34RAU      BASE:    17.7 CHNG:    17.7 DIFF:    0.4%
                                DIFF:    0.1   DF:    1.3%
*****

**** ERROR: OTDF # 99 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 34018 TO 60102 CKT 1 IERR= 2
**** ERROR: OTDF # 99 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 34018 TO 60102 CKT 9 IERR= 2
34018 HAZLTON3 - 60102 ADAMS  3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
60102 ADAMS  3 - 34014 ADAMS  5  BASE:     0.0 CHNG:     0.0 DIFF:   999.0%
SUBTOTALS FOR: ADMXFMHAZADM      BASE:     0.0 CHNG:     0.0 DIFF:   999.0%
                                DIFF:     0.0   DF:     0.0%
*****

96039 7FAIRPT - 64786 COOPER 3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
96039 7FAIRPT - 59393 ST JOE 3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
59394 ST JOE 5 - 59392 MIDWAY 5  BASE:   172.1 CHNG:   172.2 DIFF:    0.0%
SUBTOTALS FOR: STJMDSTJFRC      BASE:   172.1 CHNG:   172.2 DIFF:    0.0%
                                DIFF:     0.0   DF:    0.5%
*****

64350 HILLS  3 - 64095 MNTZUMA3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34110 HILLSIE5 - 34109 BERTRAM5  BASE:   101.9 CHNG:   101.9 DIFF:    0.0%
SUBTOTALS FOR: HL5PRLHL3MTZ     BASE:   101.9 CHNG:   101.9 DIFF:    0.0%
                                DIFF:     0.0   DF:    0.2%
*****

63041 COAL CR4 - 63042 COAL TP4 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
63049 STANTON4 - 63041 COAL CR4  BASE:    83.5 CHNG:    83.5 DIFF:   -0.1%
SUBTOTALS FOR: SONCOCCOCCT      BASE:    83.5 CHNG:    83.5 DIFF:   -0.1%
                                DIFF:   -0.1   DF:   -1.2%
*****

63041 COAL CR4 - 63049 STANTON4 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
63041 COAL CR4 - 63042 COAL TP4  BASE:   -75.2 CHNG:   -75.2 DIFF:   -0.1%
SUBTOTALS FOR: SONCCTCOCSON     BASE:   -75.2 CHNG:   -75.2 DIFF:   -0.1%
                                DIFF:     0.1   DF:    1.2%
*****

64095 MNTZUMA3 - 64064 BONDRNT3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34191 REASNOR5 - 64062 DMOINES5  BASE:     1.8 CHNG:     1.9 DIFF:    3.6%
SUBTOTALS FOR: READEMMTZBON     BASE:     1.8 CHNG:     1.9 DIFF:    3.6%
                                DIFF:     0.1   DF:    1.4%
*****

60160 SHERCO 3 - 60002 SHERC33G *CONTINGENCY* BASE:    0.0 CHNG:    0.0
-----
34093 ARNOLD 3 - 34018 HAZLTON3  BASE:   603.0 CHNG:   602.9 DIFF:    0.0%
SUBTOTALS FOR: ARNHAZSHRXFM     BASE:   603.0 CHNG:   602.9 DIFF:    0.0%
                                DIFF:   -0.1   DF:   -2.2%
*****

**** ERROR: OTDF # 106 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 64418 TO 64680 CKT 1 IERR= 1
**** ERROR: OTDF # 106 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 64418 TO 64680 CKT 1 IERR= 1
64400 MECCORD3 - 64403 E MOLIN3 *CONTINGENCY* BASE:    0.0 CHNG:    0.0
64418 E MOLINE - 64680 ***** *CONTINGENCY* BASE:    0.0 CHNG:    0.0

```

```

-----
36382 QUAD ; - 64405 SUB 91 3 BASE: 716.0 CHNG: 716.2 DIFF: 0.0%
SUBTOTALS FOR: QDCS91CORS39 BASE: 716.0 CHNG: 716.2 DIFF: 0.0%
DIFF: 0.1 DF: 2.3%
*****

```

```

36382 QUAD ; - 64405 SUB 91 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
64438 SB 91 5 - 64405 SUB 91 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----

```

```

64400 MECCORD3 - 64403 E MOLIN3 BASE: 640.1 CHNG: 640.2 DIFF: 0.0%
SUBTOTALS FOR: CORS39QDCS91 BASE: 640.1 CHNG: 640.2 DIFF: 0.0%
DIFF: 0.1 DF: 2.1%
*****

```

***** ERROR: OTDF # 108 BASE CASE LAST SOLUTION DID NOT REACH TOLERANCE, FIX AND RERUN PROGRAM

***** ERROR: OTDF # 108 CHNG CASE LAST SOLUTION DID NOT REACH TOLERANCE, FIX AND RERUN PROGRAM

```

64402 LOUISA 3 - 64408 SUB T 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
64350 HILLS 3 - 64408 SUB T 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----

```

```

64406 SUB 92 3 - 64350 HILLS 3 BASE: 594.5 CHNG: 594.7 DIFF: 0.0%
SUBTOTALS FOR: S92HLLLOUHLL BASE: 594.5 CHNG: 594.7 DIFF: 0.0%
DIFF: 0.1 DF: 2.8%
*****

```

***** ERROR: OTDF # 109 BASE CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 60102 TO 34014 CKT 1 IERR= 2
***** ERROR: OTDF # 109 CHNG CONTINGENT LINE NOT FOUND OR ALREADY STATUS=0 60102 TO 34014 CKT 1 IERR= 2

```

60102 ADAMS 3 - 34014 ADAMS 5 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
60102 ADAMS 3 - 63032 PL VLLY3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
61950 BYRON 3 - 63032 PL VLLY3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----

```

```

34570 ADAMS_N5 - 69547 ROCHSTR5 BASE: 222.7 CHNG: 222.7 DIFF: 0.0%
SUBTOTALS FOR: ADMROCBYRADM BASE: 222.7 CHNG: 222.7 DIFF: 0.0%
DIFF: -0.1 DF: -2.0%
*****

```

```

61948 BYRON 5 - 61950 BYRON 3 *CONTINGENCY* BASE: 0.0 CHNG: 0.0
-----

```

```

34570 ADAMS_N5 - 69547 ROCHSTR5 BASE: 195.6 CHNG: 195.6 DIFF: 0.0%
SUBTOTALS FOR: ADMROCBYRXFM BASE: 195.6 CHNG: 195.6 DIFF: 0.0%
DIFF: 0.0 DF: -0.7%
*****

```

Appendix C: One-line diagrams

Appendix C.1:	2009 Summer Peak one-line diagram system intact, pre-project
Appendix C.2:	2009 Summer Peak one-line diagram system intact, post-project
Appendix C.3:	2009 Summer Peak one-line diagram post contingent of Maple River – Sheyenne 230 kV and Maple River – Frontier 230 kV common-tower contingency, pre-project
Appendix C.4:	2009 Summer Peak one-line diagram post contingent of Maple River – Sheyenne 230 kV and Maple River – Frontier 230 kV common-tower contingency, post-project
Appendix C.5:	2015 Summer Peak one-line diagram system intact, pre-project
Appendix C.6:	2015 Summer Peak one-line diagram system intact, post-project
Appendix C.7:	2015 Summer Peak one-line diagram post contingent of Maple River – Sheyenne 230 kV and Maple River – Frontier 230 kV common-tower contingency, pre-project
Appendix C.8:	2015 Summer Peak one-line diagram post contingent of Maple River – Sheyenne 230 kV and Maple River – Frontier 230 kV common-tower contingency, post-project

(Diagrams removed due to Critical Energy Infrastructure Information (CEII) limitations.)

