**MODELOPTs: RegDFAULT CONC ELEV RURAL

*** MODEL SETUP OPTIONS SUMMARY ***

- - - -

**Output Options Selected:
Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE Keyword)
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 256.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 6.0 MB of RAM.

**Detailed Error/Message File: 04900007.ERR
**File for Summary of Results: USG_Rerun1_NEWMET.sum

**MODELOPTs: RegDFAULT CONC ELEV RURAL

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
(1=YES; 0=NO)

1 1 1

**MODELOPTs: RegDFAULT CONC ELEV RURAL

*** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

Surface file: ..\MSPMPX5Y.SFC Met Version: 14134
Profile file: ..\MSPMPX5Y.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 14922 Upper air station no.: 94983
Name: MINNEAPOLIS-ST_PAUL/INT'L_ARP Name: UNKNOWN
Year: 2009 Year: 2009

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
09	01	01	1	01	-17.9	0.254	-9.000	-9.000	-999.	307.	80.5	0.01	0.44	1.00	4.57	142.	10.0	262.1	2.0
09	01	01	1	02	-19.5	0.279	-9.000	-9.000	-999.	353.	97.8	0.01	0.44	1.00	4.94	147.	10.0	264.1	2.0
09	01	01	1	03	-17.2	0.295	-9.000	-9.000	-999.	385.	130.8	0.01	0.44	1.00	5.31	160.	10.0	265.1	2.0
09	01	01	1	04	-17.0	0.292	-9.000	-9.000	-999.	379.	128.0	0.01	0.44	1.00	5.26	160.	10.0	265.1	2.0
09	01	01	1	05	-23.1	0.398	-9.000	-9.000	-999.	603.	238.9	0.01	0.44	1.00	6.99	168.	10.0	266.1	2.0
09	01	01	1	06	-17.0	0.293	-9.000	-9.000	-999.	388.	129.5	0.01	0.44	1.00	5.28	175.	10.0	265.9	2.0
09	01	01	1	07	-17.0	0.246	-9.000	-9.000	-999.	294.	76.6	0.01	0.44	1.00	4.60	164.	10.0	265.1	2.0
09	01	01	1	08	-15.5	0.225	-9.000	-9.000	-999.	256.	64.0	0.01	0.44	1.00	4.27	165.	10.0	266.1	2.0
09	01	01	1	09	-19.7	0.365	-9.000	-9.000	-999.	530.	216.3	0.02	0.44	0.71	6.04	192.	10.0	267.1	2.0
09	01	01	1	10	-8.8	0.279	-9.000	-9.000	-999.	357.	213.9	0.02	0.44	0.54	4.61	196.	10.0	267.1	2.0
09	01	01	1	11	-0.4	0.310	-9.000	-9.000	-999.	414.	5766.4	0.02	0.44	0.48	4.95	198.	10.0	268.1	2.0
09	01	01	1	12	2.1	0.384	0.197	0.019	127.	571.	-2363.1	0.02	0.44	0.45	6.11	219.	10.0	268.8	2.0
09	01	01	1	13	2.6	0.357	0.239	0.018	183.	514.	-1543.1	0.02	0.44	0.45	5.68	224.	10.0	269.1	2.0
09	01	01	1	14	21.2	0.294	0.627	0.015	404.	384.	-103.6	0.02	0.44	0.46	4.48	234.	10.0	271.1	2.0
09	01	01	1	15	10.2	0.347	0.500	0.017	423.	491.	-354.8	0.02	0.44	0.50	5.45	244.	10.0	272.1	2.0
09	01	01	1	16	-16.6	0.459	-9.000	-9.000	-999.	745.	505.4	0.02	0.44	0.60	7.43	263.	10.0	272.1	2.0
09	01	01	1	17	-55.5	0.558	-9.000	-9.000	-999.	998.	272.1	0.02	0.44	0.86	9.15	274.	10.0	269.1	2.0
09	01	01	1	18	-33.1	0.331	-9.000	-9.000	-999.	507.	95.3	0.02	0.44	1.00	5.72	291.	10.0		

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268.1    2.0
 09 01 01   1 19   -7.7  0.134 -9.000 -9.000 -999.  176.    27.3  0.02   0.44   1.00    2.76  248.   10.0  267.1
2.0
 09 01 01   1 20   -9.3  0.162 -9.000 -9.000 -999.  157.    39.9  0.02   0.44   1.00    3.10  227.   10.0  267.1
2.0
 09 01 01   1 21  -19.3  0.334 -9.000 -9.000 -999.  463.   168.2  0.01   0.44   1.00    5.68  314.   10.0
266.1    2.0
 09 01 01   1 22  -29.3  0.506 -9.000 -9.000 -999.  863.   384.2  0.02   0.44   1.00    8.23  297.   10.0
265.1    2.0
 09 01 01   1 23  -58.5  0.518 -9.000 -9.000 -999.  894.   206.8  0.02   0.44   1.00    8.57  298.   10.0
260.1    2.0
 09 01 01   1 24  -34.3  0.424 -9.000 -9.000 -999.  671.   194.0  0.02   0.44   1.00    7.04  287.   10.0
258.8    2.0
```

First hour of profile data

```
YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
09 01 01 01   10.0 1  142.    4.57   262.2   99.0  -99.00  -99.00
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F indicates top of profile (=1) or below (=0)

**MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE SUMMARY OF MAXIMUM 1ST-HIGHEST MAX DAILY 1-HR RESULTS AVERAGED OVER 5 YEARS ***

** CONC OF SO2 IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	NETWORK OF TYPE GRID-ID
SV001	1ST HIGHEST VALUE IS	1.60784	AT (541044.10, 4933835.90, 224.99, 312.93, 0.00)	DC
	2ND HIGHEST VALUE IS	1.59129	AT (541006.10, 4933851.80, 225.33, 312.93, 0.00)	DC
	3RD HIGHEST VALUE IS	1.57484	AT (541046.90, 4933834.70, 224.94, 312.93, 0.00)	DC
	4TH HIGHEST VALUE IS	1.50826	AT (541047.60, 4933839.40, 225.43, 312.93, 0.00)	DC
	5TH HIGHEST VALUE IS	1.44868	AT (541053.90, 4933835.50, 225.25, 312.93, 0.00)	DC
	6TH HIGHEST VALUE IS	1.35732	AT (541007.70, 4933857.00, 225.57, 312.93, 0.00)	DC
	7TH HIGHEST VALUE IS	1.35423	AT (540993.90, 4933895.50, 228.00, 312.93, 0.00)	DC
	8TH HIGHEST VALUE IS	1.21388	AT (541053.90, 4933855.50, 227.65, 312.93, 0.00)	DC
	9TH HIGHEST VALUE IS	1.15679	AT (540993.90, 4933915.50, 230.86, 312.93, 0.00)	DC
	10TH HIGHEST VALUE IS	1.14799	AT (541053.90, 4933815.50, 223.60, 312.93, 0.00)	DC
SV009	1ST HIGHEST VALUE IS	1116.27050	AT (540933.90, 4932975.50, 311.10, 311.10, 0.00)	DC
	2ND HIGHEST VALUE IS	1076.05091	AT (541733.90, 4934475.50, 311.26, 313.04, 0.00)	DC
	3RD HIGHEST VALUE IS	969.32457	AT (541633.90, 4934475.50, 308.45, 308.45, 0.00)	DC
	4TH HIGHEST VALUE IS	965.21140	AT (541333.90, 4932575.50, 318.67, 318.67, 0.00)	DC
	5TH HIGHEST VALUE IS	956.60668	AT (541633.90, 4932775.50, 317.79, 317.79, 0.00)	DC
	6TH HIGHEST VALUE IS	954.99507	AT (541033.90, 4933075.50, 305.73, 305.73, 0.00)	DC
	7TH HIGHEST VALUE IS	943.66912	AT (540833.90, 4932975.50, 307.16, 312.28, 0.00)	DC
	8TH HIGHEST VALUE IS	941.35754	AT (540833.90, 4933075.50, 307.02, 307.02, 0.00)	DC
	9TH HIGHEST VALUE IS	918.23907	AT (541733.90, 4934375.50, 307.42, 314.93, 0.00)	

DC
10TH HIGHEST VALUE IS 885.60853 AT (541833.90, 4934375.50, 308.78, 309.22, 0.00)
DC

SV010 1ST HIGHEST VALUE IS 134.87776 AT (540983.90, 4934075.50, 293.80, 299.73,
0.00) DC
2ND HIGHEST VALUE IS 134.17200 AT (540983.90, 4934125.50, 296.10, 299.73, 0.00)
DC
3RD HIGHEST VALUE IS 127.30199 AT (541033.90, 4934035.50, 292.88, 292.88, 0.00)
DC
4TH HIGHEST VALUE IS 125.85090 AT (540933.90, 4934125.50, 295.11, 297.91, 0.00)
DC
5TH HIGHEST VALUE IS 121.30060 AT (541053.90, 4934035.50, 291.94, 291.94, 0.00)
DC
6TH HIGHEST VALUE IS 118.45294 AT (541033.90, 4934075.50, 292.22, 299.73, 0.00)
DC
7TH HIGHEST VALUE IS 117.63950 AT (541073.90, 4934015.50, 291.00, 292.57, 0.00)
DC
8TH HIGHEST VALUE IS 108.18528 AT (541053.90, 4934015.50, 289.60, 292.65, 0.00)
DC
9TH HIGHEST VALUE IS 103.67684 AT (540933.90, 4934175.50, 292.78, 295.27, 0.00)
DC
10TH HIGHEST VALUE IS 96.18711 AT (540983.90, 4934175.50, 291.76, 297.91, 0.00)
DC

ALL 1ST HIGHEST VALUE IS 1148.65917 AT (540933.90, 4932975.50, 311.10, 311.10,
0.00) DC
2ND HIGHEST VALUE IS 1106.55249 AT (541733.90, 4934475.50, 311.26, 313.04, 0.00)
DC
3RD HIGHEST VALUE IS 1002.43318 AT (541633.90, 4934475.50, 308.45, 308.45, 0.00)
DC
4TH HIGHEST VALUE IS 993.01864 AT (541033.90, 4933075.50, 305.73, 305.73, 0.00)
DC
5TH HIGHEST VALUE IS 992.12514 AT (541333.90, 4932575.50, 318.67, 318.67, 0.00)
DC
6TH HIGHEST VALUE IS 988.16058 AT (540833.90, 4932975.50, 307.16, 312.28, 0.00)
DC
7TH HIGHEST VALUE IS 984.52776 AT (541633.90, 4932775.50, 317.79, 317.79, 0.00)
DC
8TH HIGHEST VALUE IS 974.48192 AT (540833.90, 4933075.50, 307.02, 307.02, 0.00)
DC
9TH HIGHEST VALUE IS 951.04559 AT (541733.90, 4934375.50, 307.42, 314.93, 0.00)
DC
10TH HIGHEST VALUE IS 916.02414 AT (541833.90, 4934375.50, 308.78, 309.22, 0.00)
DC

**MODELOPTs: RegDFAULT CONC ELEV RURAL

*** THE SUMMARY OF MAXIMUM 4TH-HIGHEST MAX DAILY 1-HR RESULTS AVERAGED OVER 5 YEARS ***

** CONC OF SO2 IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	NETWORK OF TYPE GRID-ID
SV001	1ST HIGHEST VALUE IS	1.14636	AT (541044.10, 4933835.90, 224.99, 312.93, 0.00)	DC
	2ND HIGHEST VALUE IS	1.10376	AT (541046.90, 4933834.70, 224.94, 312.93, 0.00)	DC
	3RD HIGHEST VALUE IS	1.06661	AT (541047.60, 4933839.40, 225.43, 312.93, 0.00)	DC
	4TH HIGHEST VALUE IS	1.01961	AT (541053.90, 4933855.50, 227.65, 312.93, 0.00)	DC
	5TH HIGHEST VALUE IS	0.99848	AT (541006.10, 4933851.80, 225.33, 312.93, 0.00)	DC
	6TH HIGHEST VALUE IS	0.97111	AT (541053.90, 4933835.50, 225.25, 312.93, 0.00)	DC
	7TH HIGHEST VALUE IS	0.88564	AT (540983.20, 4933861.80, 224.07, 312.93, 0.00)	DC
	8TH HIGHEST VALUE IS	0.87833	AT (541053.90, 4933815.50, 223.60, 312.93, 0.00)	DC
	9TH HIGHEST VALUE IS	0.82475	AT (541007.70, 4933857.00, 225.57, 312.93, 0.00)	DC
	10TH HIGHEST VALUE IS	0.74119	AT (541013.90, 4933755.50, 221.64, 316.33, 0.00)	DC
SV009	1ST HIGHEST VALUE IS	876.74843	AT (541733.90, 4934475.50, 311.26, 313.04, 0.00)	DC
	2ND HIGHEST VALUE IS	850.46182	AT (541633.90, 4934475.50, 308.45, 308.45, 0.00)	DC
	3RD HIGHEST VALUE IS	826.29428	AT (540933.90, 4932975.50, 311.10, 311.10, 0.00)	DC
	4TH HIGHEST VALUE IS	823.72497	AT (541633.90, 4932775.50, 317.79, 317.79, 0.00)	DC
	5TH HIGHEST VALUE IS	809.28078	AT (541333.90, 4932575.50, 318.67, 318.67, 0.00)	DC
	6TH HIGHEST VALUE IS	791.92701	AT (541733.90, 4934375.50, 307.42, 314.93, 0.00)	DC
	7TH HIGHEST VALUE IS	775.31298	AT (542133.90, 4933775.50, 312.19, 313.63, 0.00)	DC
	8TH HIGHEST VALUE IS	743.27052	AT (540833.90, 4933075.50, 307.02, 307.02, 0.00)	DC
	9TH HIGHEST VALUE IS	740.44376	AT (541833.90, 4934375.50, 308.78, 309.22, 0.00)	

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DC
      10TH HIGHEST VALUE IS    736.59128 AT (  541833.90,  4934475.50,   308.17,   315.56,    0.00)
DC

SV010     1ST HIGHEST VALUE IS    112.66886 AT (  540983.90,  4934075.50,   293.80,   299.73,
0.00)  DC
      2ND HIGHEST VALUE IS    112.28446 AT (  540983.90,  4934125.50,   296.10,   299.73,    0.00)
DC
      3RD HIGHEST VALUE IS    109.60406 AT (  541033.90,  4934035.50,   292.88,   292.88,    0.00)
DC
      4TH HIGHEST VALUE IS    101.37662 AT (  541053.90,  4934035.50,   291.94,   291.94,    0.00)
DC
      5TH HIGHEST VALUE IS     99.19279 AT (  541073.90,  4934015.50,   291.00,   292.57,    0.00)
DC
      6TH HIGHEST VALUE IS     92.83327 AT (  541033.90,  4934075.50,   292.22,   299.73,    0.00)
DC
      7TH HIGHEST VALUE IS     92.30711 AT (  540933.90,  4934125.50,   295.11,   297.91,    0.00)
DC
      8TH HIGHEST VALUE IS     87.90336 AT (  541053.90,  4934015.50,   289.60,   292.65,    0.00)
DC
      9TH HIGHEST VALUE IS     79.81769 AT (  541073.90,  4934035.50,   289.02,   292.65,    0.00)
DC
     10TH HIGHEST VALUE IS     77.40673 AT (  541033.90,  4934275.50,   295.72,   297.74,    0.00)
DC

ALL       1ST HIGHEST VALUE IS    903.41637 AT (  541733.90,  4934475.50,   311.26,   313.04,    0.00)
DC
      2ND HIGHEST VALUE IS    882.82777 AT (  541633.90,  4934475.50,   308.45,   308.45,    0.00)
DC
      3RD HIGHEST VALUE IS    865.43916 AT (  540933.90,  4932975.50,   311.10,   311.10,    0.00)
DC
      4TH HIGHEST VALUE IS    861.27390 AT (  541633.90,  4932775.50,   317.79,   317.79,    0.00)
DC
      5TH HIGHEST VALUE IS    844.97925 AT (  541333.90,  4932575.50,   318.67,   318.67,    0.00)
DC
      6TH HIGHEST VALUE IS    825.35978 AT (  541733.90,  4934375.50,   307.42,   314.93,    0.00)
DC
      7TH HIGHEST VALUE IS    805.35998 AT (  542133.90,  4933775.50,   312.19,   313.63,    0.00)
DC
      8TH HIGHEST VALUE IS    793.54603 AT (  540833.90,  4933075.50,   307.02,   307.02,    0.00)
DC
      9TH HIGHEST VALUE IS    774.91418 AT (  541833.90,  4934475.50,   308.17,   315.56,    0.00)
DC
     10TH HIGHEST VALUE IS    767.49561 AT (  541833.90,  4934375.50,   308.78,   309.22,    0.00)
DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
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**MODELOPTs: RegDFAULT CONC ELEV RURAL

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 27 Warning Message(s)
A Total of 515 Informational Message(s)

A Total of 43824 Hours Were Processed

A Total of 154 Calm Hours Identified

A Total of 361 Missing Hours Identified (0.82 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********

```
ME W186    5676    MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used        0.50
CN W305      1     WAKFLG: Stack height > or = EPA formula height for SRCID:      SV009
CN W305     10     WAKFLG: Stack height > or = EPA formula height for SRCID:      SV010
MX W441   16618    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    10112410
MX W441   16619    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    10112411
MX W441   16620    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    10112412
MX W441   16621    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    10112413
MX W441   16622    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    10112414
MX W441   16623    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    10112415
MX W441   16906    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    10120610
MX W441   16907    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    10120611
MX W441   16908    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    10120612
MX W441   16909    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    10120613
MX W441   16910    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    10120614
MX W441   22951    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    11081507
MX W441   22952    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    11081508
MX W441   22953    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    11081509
MX W441   22954    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    11081510
MX W441   22955    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    11081511
MX W441   22956    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    11081512
MX W441   22957    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    11081513
MX W441   22958    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    11081514
MX W441   22959    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    11081515
MX W441   22960    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    11081516
MX W441   22961    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    11081517
MX W441   22962    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    11081518
MX W441   22963    METQA: Vert Pot Temp Grad abv Zl set to min .005, KURDAT=    11081519
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