

Scenario: J_R2

Emission Rate Calculations for Modeling

		before RC		after RC		before RC		After RC-CFM only								Total		
		B01	B24	B25	B11current	B11	B38current	B38	B08	B10	B32	B33	B34	B35	C79	C80	Total	
		Type	Furnace	Furnace	FH	FH	FH	FH	RE1	RE2	RE2	RE1	RE2	RE2	RE1	RE1		
		Current Base Case Emission Rate (g/s)	3.55E-05			1.51E-04	3.32E-05		2.05E-06	2.39E-06	2.39E-06		2.39E-06	2.39E-06	2.04E-06	2.04E-06	2.35E-04	
Uncertainty = 1.15		2016 Base RC Emission Rate (g/s) with Uncertainty Factor applied		2.04E-05	2.04E-05		8.66E-05		3.82E-05	1.37E-06	1.37E-06		2.36E-06	1.37E-06	1.37E-06	2.34E-06	1.78E-04	
Combination ID	Option Description	B01	B24	B25	B11	B11	B38current	B38	B08	B10	B32	B33	B34	B35	C79	C80		
J_R1	Facility reconfiguration (RC) + Scrubber system on forehearth stack (6,7,8, or 9) + substituting LSC refractory in the forehearth (11) + incorporating more accurate combustion control skirts and construction of front end superstructures (14)	Description of Reduction Component						Scrubber + LSC+ partial prototype										
		Individual Reduction Description						(6,7,8 or 9)+11+14			Result of 14	Result of 14		Result of 14	Result of 14			
		Reduction Efficiency 1						20%	0%	50%	50%	0%	50%	50%	0%	0%		
		Reduction Efficiency 2						10%										
		Reduction Efficiency 3						50%										
		Comments	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	Source ER (g/s)	TotalER (g/s)
	RC+6,7,8, or 9) +11+14		2.04E-05	2.04E-05			6.17E-05			6.87E-07	6.87E-07	2.36E-06	6.87E-07	6.87E-07	2.34E-06	2.34E-06	1.12E-04	
Explanation of calculation for B38 :		The 50% reduction efficiency for control option #11 and #14 only applies to the B11 reconfigured emission rate, not the B38 current emission rate since these technologies already exist on that portion of (CFM) forehearth.																

Annual Hexavalent Chromium Results
 Technical Benchmarking Option J - 5 year data set

Run (tab) Name:	Ann_Opt_J_R1_Metryr1	Ann_Opt_J_R1_Metryr2	Ann_Opt_J_R1_Metryr3	Ann_Opt_J_R1_Metryr4	Ann_Opt_J_R1_Metryr5	
Run Description:	Option J_R1, Reg 419 grid, Site Specific Met (2009)	Option J_R1, Reg 419 grid, Site Specific Met (2010)	Option J_R1, Reg 419 grid, Site Specific Met (2011)	Option J_R1, Reg 419 grid, Site Specific Met (2012)	Option J_R1, Reg 419 grid, Site Specific Met (2013)	MAX
Result Units:	ng/m3	ng/m3	ng/m3	ng/m3	ng/m3	ng/m3
ALL	2.34318	2.63624	2.33788	2.42194	2.51209	2.63624
B10	0.03908	0.04012	0.04024	0.04071	0.0402	0.04071
B32	0.07978	0.0847	0.07868	0.08102	0.08023	0.0847
B34	0.05933	0.06748	0.0576	0.06099	0.05966	0.06748
B35	0.05924	0.06836	0.05762	0.06181	0.05927	0.06836
C79	0.08277	0.10893	0.07708	0.08782	0.08021	0.10893
C80	0.07892	0.1091	0.07271	0.08492	0.07221	0.1091
B38	1.50489	1.65425	1.52402	1.63094	1.72766	1.72766
B24	0.23591	0.23253	0.24181	0.22825	0.25149	0.25149
B25	0.16159	0.17259	0.16251	0.15383	0.1691	0.17259
B33	0.08734	0.11193	0.07987	0.08701	0.08128	0.11193
FURNACE	0.3975	0.40512	0.40432	0.38208	0.42059	0.42059
FOREHEAR	1.50489	1.65425	1.52402	1.63094	1.72766	1.72766
GENEXHTS	0.47452	0.57687	0.4516	0.4914	0.46367	0.57687

Run Description:	Option J_R1, Reg 419 grid, Site Specific Met (2009)	Option J_R1, Reg 419 grid, Site Specific Met (2010)	Option J_R1, Reg 419 grid, Site Specific Met (2011)	Option J_R1, Reg 419 grid, Site Specific Met (2012)	Option J_R1, Reg 419 grid, Site Specific Met (2013)	MAX
Result Units:	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3	ug/m3
ALL	0.00234318	0.00263624	0.00233788	0.00242194	0.00251209	0.002636
B10	0.00003908	0.00004012	0.00004024	0.00004071	0.0000402	4.07E-05
B32	0.00007978	0.0000847	0.00007868	0.00008102	0.00008023	8.47E-05
B34	0.00005933	0.00006748	0.0000576	0.00006099	0.00005966	6.75E-05
B35	0.00005924	0.00006836	0.00005762	0.00006181	0.00005927	6.84E-05
C79	0.00008277	0.00010893	0.00007708	0.00008782	0.00008021	0.000109
C80	0.00007892	0.0001091	0.00007271	0.00008492	0.00007221	0.000109
B38	0.00150489	0.00165425	0.00152402	0.00163094	0.00172766	0.001728
B24	0.00023591	0.00023253	0.00024181	0.00022825	0.00025149	0.000251
B25	0.00016159	0.00017259	0.00016251	0.00015383	0.0001691	0.000173
B33	0.00008734	0.00011193	0.00007987	0.00008701	0.00008128	0.000112
FURNACE	0.0003975	0.00040512	0.00040432	0.00038208	0.00042059	0.000421
FOREHEAR	0.00150489	0.00165425	0.00152402	0.00163094	0.00172766	0.001728
GENEXHTS	0.00047452	0.00057687	0.0004516	0.0004914	0.00046367	0.000577

Source Pathway - Source Inputs

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Point Sources

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Gas Exit Temp. [K]	Gas Exit Velocity [m/s]	Stack Inside Diameter [m]
POINT	B10	562030.25	4821525.28	312.00	14.45	6.87E-7	321.90	12.10	1.24
		General Exhaust Above T107B F/H							
POINT	B32	562047.16	4821528.02	312.00	14.48	6.87E-7	321.90	19.19	1.24
		General Exhaust Above T106							
POINT	B34	562039.70	4821535.65	312.00	14.48	6.87E-7	321.90	19.19	1.24
		General Exhaust Above T107A F/H							
POINT	B35	562047.03	4821543.82	312.00	14.48	6.87E-7	321.90	19.19	1.24
		General Exhaust Above CFM Main Channel							
POINT	C79	562023.15	4821559.58	312.00	11.64	2.34E-6	310.80	9.59	1.41
		General Exhaust West CFM F/H							
POINT	C80	562028.25	4821564.97	312.00	11.64	2.34E-6	310.80	9.59	1.41
		General Exhaust East CFM F/H							
POINT	B38	562043.48	4821544.79	312.00	16.46	0.00006	379.00	5.43	0.75
		105 Forehearth Stack							
POINT	B33	562055.21	4821536.35	312.00	14.48	2.36E-6	321.90	12.59	1.22
		Gen Exhaust Above T105							
POINT	B24	562052.59	4821531.65	312.00	27.77	0.00002	597.00	5.89	0.53
		105 Furnace Stack							
POINT	B25	562057.67	4821536.90	312.00	27.77	0.00002	597.00	5.89	0.53
		105 Furnace Stack							

Volume Sources

No Volume Sources Specified

Area Sources

No Area Sources Specified

Source Pathway - Source Inputs

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Open Pit Sources

No Open Pit Sources Specified

Circular Area Sources

No Circular Area Sources Specified

Polygon Area Sources

No Polygon Area Sources Specified

Flare Sources

No Flare Sources Specified

Line Sources

No Line Sources Specified

Line Volume Sources

No Line Volume Sources Specified

Line Area Sources

No Line Area Sources Specified

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**MODELOPTS: NonDEFAULT CONC ELEV FLGPOL BETA

*** MODEL SETUP OPTIONS SUMMARY ***

**Model Is Setup For Calculation of Average CONCentration Values.

-- DEPOSITION LOGIC --
**NO GAS DEPOSITION Data Provided.
**NO PARTICLE DEPOSITION Data Provided.
**Model Uses NO DRY DEPLETION. DRYDPLT = F
**Model Uses NO WET DEPLETION. WETDPLT = F

**Model Uses RURAL Dispersion Only.

**Model Allows User-Specified Options:

1. Stack-tip Downwash.
2. Model Accounts for ELEVated Terrain Effects.
3. Use Calms Processing Routine.
4. Use Missing Data Processing Routine.
5. No Exponential Decay.
6. BETA Option for Capped & Horiz Stacks Selected With:

5 Capped Stack(s); and 0 Horiz Stack(s)

**Other Options Specified:
CCVR_Sub - Meteorological data includes CCVR substitutions
TEMP_Sub - Meteorological data includes TEMP substitutions

**Model Accepts FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: HCR

**Model Calculates ANNUAL Averages Only

**This Run Includes: 10 Source(s); 14 Source Group(s); and 2062 Receptor(s)

**Model Set To Continue RUNNING After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 14134

**Output Options Selected:
Model Outputs Tables of ANNUAL Averages by Receptor
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) = 325.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/S ; Emission Rate Unit Factor = 0.10000E+10
Output Units = NANOGRAMS/M3

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09 01 01	1 06	-3.2	0.067	-9.000	-9.000	-999.	41.	8.1	0.50	0.55	1.00	1.00	222.	10.0	254.8	2.0
09 01 01	1 07	-9.5	0.113	-9.000	-9.000	-999.	91.	13.2	0.70	0.55	1.00	1.50	145.	10.0	255.9	2.0
09 01 01	1 08	-8.5	0.109	-9.000	-9.000	-999.	86.	13.0	0.63	0.50	1.00	1.50	243.	10.0	257.5	2.0
09 01 01	1 09	-6.0	0.107	-9.000	-9.000	-999.	84.	17.8	0.61	0.95	0.76	1.50	127.	10.0	258.1	2.0
09 01 01	1 10	-1.6	0.057	-9.000	-9.000	-999.	33.	9.9	0.30	0.95	0.66	1.00	121.	10.0	263.8	2.0
09 01 01	1 11	13.2	0.424	0.253	0.009	42.	662.	-499.8	0.50	0.55	0.54	3.10	224.	10.0	264.2	2.0
09 01 01	1 12	19.8	0.428	0.402	0.008	114.	671.	-342.9	0.50	0.55	0.51	3.10	196.	10.0	265.4	2.0
09 01 01	1 13	22.9	0.367	0.559	0.011	265.	536.	-187.8	0.50	0.55	0.51	2.60	203.	10.0	265.4	2.0
09 01 01	1 14	2.1	0.468	0.256	0.007	275.	768.	-4237.3	0.70	0.55	0.48	3.10	179.	10.0	265.9	2.0
09 01 01	1 15	-4.6	0.538	-9.000	-9.000	-999.	946.	2954.8	0.70	0.55	0.51	3.60	162.	10.0	265.4	2.0
09 01 01	1 16	-20.2	0.526	-9.000	-9.000	-999.	915.	625.4	0.70	0.55	0.59	3.60	164.	10.0	265.9	2.0
09 01 01	1 17	-33.2	0.401	-9.000	-9.000	-999.	622.	168.7	0.61	0.95	0.82	3.10	141.	10.0	265.9	2.0
09 01 01	1 18	-28.3	0.491	-9.000	-9.000	-999.	824.	362.7	0.61	0.95	1.00	3.60	137.	10.0	265.9	2.0
09 01 01	1 19	-53.3	0.464	-9.000	-9.000	-999.	760.	163.0	0.61	0.95	1.00	3.60	134.	10.0	265.9	2.0
09 01 01	1 20	-60.2	0.545	-9.000	-9.000	-999.	964.	233.5	0.61	0.95	1.00	4.10	127.	10.0	265.4	2.0
09 01 01	1 21	-44.8	0.474	-9.000	-9.000	-999.	788.	206.2	0.61	0.95	1.00	3.60	130.	10.0	265.9	2.0
09 01 01	1 22	-61.4	0.544	-9.000	-9.000	-999.	961.	227.6	0.61	0.95	1.00	4.10	132.	10.0	266.4	2.0
09 01 01	1 23	-53.4	0.464	-9.000	-9.000	-999.	764.	162.3	0.61	0.95	1.00	3.60	140.	10.0	266.4	2.0
09 01 01	1 24	-21.2	0.225	-9.000	-9.000	-999.	318.	46.9	0.70	0.55	1.00	2.10	160.	10.0	267.0	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 1 291. 1.50 258.2 99.0 -99.00 -99.00

F indicates top of profile (=1) or below (=0)
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**MODELOPTS: NonDEFAULT CONC ELEV FLGPOL BETA
 *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 1 YEARS ***
 ** CONC OF HCR IN NANOGRAMS/M3 **

GROUP ID	AVERAGE CONC			RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)					OF TYPE	NETWORK GRID-ID
FURNACE	1ST HIGHEST VALUE IS	2.04661	AT (	562063.97,	4821525.92,	311.00,	311.00,	0.00)	DC
	2ND HIGHEST VALUE IS	2.04661	AT (	562063.97,	4821525.92,	311.00,	311.00,	0.00)	DC
	3RD HIGHEST VALUE IS	1.72434	AT (	562070.91,	4821533.11,	311.00,	311.00,	0.00)	DC
	4TH HIGHEST VALUE IS	1.72434	AT (	562070.91,	4821533.11,	311.00,	311.00,	0.00)	DC
	5TH HIGHEST VALUE IS	1.65046	AT (	562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC
	6TH HIGHEST VALUE IS	1.65046	AT (	562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC
	7TH HIGHEST VALUE IS	1.43889	AT (	562065.76,	4821512.01,	311.00,	311.00,	0.00)	DC
	8TH HIGHEST VALUE IS	1.32402	AT (	562085.76,	4821512.01,	311.00,	311.00,	0.00)	DC
	9TH HIGHEST VALUE IS	1.27844	AT (	562085.76,	4821532.01,	311.00,	311.00,	0.00)	DC
	10TH HIGHEST VALUE IS	0.97929	AT (	562050.10,	4821511.55,	311.00,	311.00,	0.00)	DC
GENEXHTS	1ST HIGHEST VALUE IS	0.76057	AT (	562063.97,	4821525.92,	311.00,	311.00,	0.00)	DC
	2ND HIGHEST VALUE IS	0.76057	AT (	562063.97,	4821525.92,	311.00,	311.00,	0.00)	DC
	3RD HIGHEST VALUE IS	0.65066	AT (	562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC
	4TH HIGHEST VALUE IS	0.65066	AT (562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC	
	5TH HIGHEST VALUE IS	0.60741	AT (562070.91,	4821533.11,	311.00,	311.00,	0.00)	DC	

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6TH HIGHEST VALUE IS	0.60741 AT (562070.91,	4821533.11,	311.00,	311.00,	0.00)	DC
7TH HIGHEST VALUE IS	0.54638 AT (562065.76,	4821512.01,	311.00,	311.00,	0.00)	DC
8TH HIGHEST VALUE IS	0.51083 AT (	562085.76,	4821512.01,	311.00,	311.00,	0.00)	DC
9TH HIGHEST VALUE IS	0.44607 AT (	562050.10,	4821511.55,	311.00,	311.00,	0.00)	DC
10TH HIGHEST VALUE IS	0.44607 AT (	562050.10,	4821511.55,	311.00,	311.00,	0.00)	DC

FOREHEAR 1ST HIGHEST VALUE IS	7.51457 AT (	562063.97,	4821525.92,	311.00,	311.00,	0.00)	DC
2ND HIGHEST VALUE IS	7.51457 AT (	562063.97,	4821525.92,	311.00,	311.00,	0.00)	DC
3RD HIGHEST VALUE IS	6.45549 AT (	562070.91,	4821533.11,	311.00,	311.00,	0.00)	DC
4TH HIGHEST VALUE IS	6.45549 AT (	562070.91,	4821533.11,	311.00,	311.00,	0.00)	DC
5TH HIGHEST VALUE IS	5.66890 AT (	562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC
6TH HIGHEST VALUE IS	5.66890 AT (	562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC
7TH HIGHEST VALUE IS	5.17497 AT (	562085.76,	4821512.01,	311.00,	311.00,	0.00)	DC
8TH HIGHEST VALUE IS	5.05694 AT (	562065.76,	4821512.01,	311.00,	311.00,	0.00)	DC
9TH HIGHEST VALUE IS	4.55130 AT (	562085.76,	4821532.01,	311.00,	311.00,	0.00)	DC
10TH HIGHEST VALUE IS	3.74338 AT (	562077.84,	4821540.29,	311.01,	311.01,	0.00)	DC

B10 1ST HIGHEST VALUE IS	0.04012 AT (	562050.10,	4821511.55,	311.00,	311.00,	0.00)	DC
2ND HIGHEST VALUE IS	0.04012 AT (	562050.10,	4821511.55,	311.00,	311.00,	0.00)	DC
3RD HIGHEST VALUE IS	0.02875 AT (	562076.93,	4821485.66,	310.19,	310.19,	0.00)	DC
4TH HIGHEST VALUE IS	0.02875 AT (	562076.93,	4821485.66,	310.19,	310.19,	0.00)	DC
5TH HIGHEST VALUE IS	0.02713 AT (	562070.22,	4821492.13,	310.40,	310.40,	0.00)	DC
6TH HIGHEST VALUE IS	0.02713 AT (	562070.22,	4821492.13,	310.40,	310.40,	0.00)	DC
7TH HIGHEST VALUE IS	0.02679 AT (	562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC
8TH HIGHEST VALUE IS	0.02679 AT (	562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC
9TH HIGHEST VALUE IS	0.02637 AT (562063.97,	4821525.92,	311.00,	311.00,	0.00)	DC
10TH HIGHEST VALUE IS	0.02637 AT (562063.97,	4821525.92,	311.00,	311.00,	0.00)	DC

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**MODELOPTS: NonDEFAULT CONC ELEV FLGPOL BETA

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF HCR IN NANOGRAMS/M3 **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
B24	1.05854 AT (	562063.97, 4821525.92,	311.00, 311.00,	0.00) DC
	1.05854 AT (	562063.97, 4821525.92,	311.00, 311.00,	0.00) DC
	0.92257 AT (	562070.91, 4821533.11,	311.00, 311.00,	0.00) DC
	0.92257 AT (	562070.91, 4821533.11,	311.00, 311.00,	0.00) DC
	0.85389 AT (	562057.04, 4821518.74,	311.00, 311.00,	0.00) DC
	0.85389 AT (	562057.04, 4821518.74,	311.00, 311.00,	0.00) DC
	0.72997 AT (	562065.76, 4821512.01,	311.00, 311.00,	0.00) DC
	0.69230 AT (	562085.76, 4821532.01,	311.00, 311.00,	0.00) DC
	0.63497 AT (	562085.76, 4821512.01,	311.00, 311.00,	0.00) DC
	0.52969 AT (	562077.84, 4821540.29,	311.01, 311.01,	0.00) DC
B25	0.98808 AT (	562063.97, 4821525.92,	311.00, 311.00,	0.00) DC
	0.98808 AT (	562063.97, 4821525.92,	311.00, 311.00,	0.00) DC
	0.80177 AT (562070.91, 4821533.11,	311.00, 311.00,	0.00) DC
	0.80177 AT (562070.91, 4821533.11,	311.00, 311.00,	0.00) DC

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5TH HIGHEST VALUE IS 0.79658 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00) DC
 6TH HIGHEST VALUE IS 0.79658 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00) DC
 7TH HIGHEST VALUE IS 0.70892 AT (562065.76, 4821512.01, 311.00, 311.00, 0.00) DC
 8TH HIGHEST VALUE IS 0.68905 AT (562085.76, 4821512.01, 311.00, 311.00, 0.00) DC
 9TH HIGHEST VALUE IS 0.58614 AT (562085.76, 4821532.01, 311.00, 311.00, 0.00) DC
 10TH HIGHEST VALUE IS 0.50560 AT (562105.76, 4821512.01, 311.00, 311.00, 0.00) DC

B32 1ST HIGHEST VALUE IS 0.08470 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00) DC
 2ND HIGHEST VALUE IS 0.08470 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00) DC
 3RD HIGHEST VALUE IS 0.07642 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00) DC
 4TH HIGHEST VALUE IS 0.07642 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00) DC
 5TH HIGHEST VALUE IS 0.06892 AT (562070.91, 4821533.11, 311.00, 311.00, 0.00) DC
 6TH HIGHEST VALUE IS 0.06892 AT (562070.91, 4821533.11, 311.00, 311.00, 0.00) DC
 7TH HIGHEST VALUE IS 0.06327 AT (562050.10, 4821511.55, 311.00, 311.00, 0.00) DC
 8TH HIGHEST VALUE IS 0.06327 AT (562050.10, 4821511.55, 311.00, 311.00, 0.00) DC
 9TH HIGHEST VALUE IS 0.04438 AT (562085.76, 4821512.01, 311.00, 311.00, 0.00) DC
 10TH HIGHEST VALUE IS 0.04392 AT (562065.76, 4821512.01, 311.00, 311.00, 0.00) DC

B33 1ST HIGHEST VALUE IS 0.29562 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00) DC
 2ND HIGHEST VALUE IS 0.29562 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00) DC
 3RD HIGHEST VALUE IS 0.25393 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00) DC
 4TH HIGHEST VALUE IS 0.25393 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00) DC
 5TH HIGHEST VALUE IS 0.23387 AT (562070.91, 4821533.11, 311.00, 311.00, 0.00) DC
 6TH HIGHEST VALUE IS 0.23387 AT (562070.91, 4821533.11, 311.00, 311.00, 0.00) DC
 7TH HIGHEST VALUE IS 0.20783 AT (562065.76, 4821512.01, 311.00, 311.00, 0.00) DC
 8TH HIGHEST VALUE IS 0.18964 AT (562085.76, 4821512.01, 311.00, 311.00, 0.00) DC
 9TH HIGHEST VALUE IS 0.16851 AT (562050.10, 4821511.55, 311.00, 311.00, 0.00) DC
 10TH HIGHEST VALUE IS 0.16851 AT (562050.10, 4821511.55, 311.00, 311.00, 0.00) DC

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**MODELOPTS: NonDEFAULT CONC ELEV FLGPOL BETA

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF HCR IN NANOGRAMS/M3 **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
B34	1ST HIGHEST VALUE IS 0.06748 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC		
	2ND HIGHEST VALUE IS 0.06748 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC		
	3RD HIGHEST VALUE IS 0.05800 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00)	DC		
	4TH HIGHEST VALUE IS 0.05800 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00)	DC		
	5TH HIGHEST VALUE IS 0.05603 AT (562070.91, 4821533.11, 311.00, 311.00, 0.00)	DC		
	6TH HIGHEST VALUE IS 0.05603 AT (562070.91, 4821533.11, 311.00, 311.00, 0.00)	DC		
	7TH HIGHEST VALUE IS 0.04644 AT (562050.10, 4821511.55, 311.00, 311.00, 0.00)	DC		
	8TH HIGHEST VALUE IS 0.04644 AT (562050.10, 4821511.55, 311.00, 311.00, 0.00)	DC		
	9TH HIGHEST VALUE IS 0.04229 AT (562085.76, 4821512.01, 311.00, 311.00, 0.00)	DC		
	10TH HIGHEST VALUE IS 0.04150 AT (562065.76, 4821512.01, 311.00, 311.00, 0.00)	DC		
B35	1ST HIGHEST VALUE IS 0.06836 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC		
	2ND HIGHEST VALUE IS 0.06836 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC		
	3RD HIGHEST VALUE IS 0.05709 AT (562070.91, 4821533.11, 311.00, 311.00, 0.00)	DC		

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4TH HIGHEST VALUE IS 0.05709 AT (562070.91, 4821533.11, 311.00, 311.00, 0.00) DC
 5TH HIGHEST VALUE IS 0.05418 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00) DC
 6TH HIGHEST VALUE IS 0.05418 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00) DC
 7TH HIGHEST VALUE IS 0.04574 AT (562065.76, 4821512.01, 311.00, 311.00, 0.00) DC
 8TH HIGHEST VALUE IS 0.04462 AT (562085.76, 4821512.01, 311.00, 311.00, 0.00) DC
 9TH HIGHEST VALUE IS 0.04101 AT (562085.76, 4821532.01, 311.00, 311.00, 0.00) DC
 10TH HIGHEST VALUE IS 0.03141 AT (562077.84, 4821540.29, 311.01, 311.01, 0.00) DC

B38 1ST HIGHEST VALUE IS 7.51457 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00) DC
 2ND HIGHEST VALUE IS 7.51457 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00) DC
 3RD HIGHEST VALUE IS 6.45549 AT (562070.91, 4821533.11, 311.00, 311.00, 0.00) DC
 4TH HIGHEST VALUE IS 6.45549 AT (562070.91, 4821533.11, 311.00, 311.00, 0.00) DC
 5TH HIGHEST VALUE IS 5.66890 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00) DC
 6TH HIGHEST VALUE IS 5.66890 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00) DC
 7TH HIGHEST VALUE IS 5.17497 AT (562085.76, 4821512.01, 311.00, 311.00, 0.00) DC
 8TH HIGHEST VALUE IS 5.05694 AT (562065.76, 4821512.01, 311.00, 311.00, 0.00) DC
 9TH HIGHEST VALUE IS 4.55130 AT (562085.76, 4821532.01, 311.00, 311.00, 0.00) DC
 10TH HIGHEST VALUE IS 3.74338 AT (562077.84, 4821540.29, 311.01, 311.01, 0.00) DC

C79 1ST HIGHEST VALUE IS 0.10893 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00) DC
 2ND HIGHEST VALUE IS 0.10893 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00) DC
 3RD HIGHEST VALUE IS 0.09493 AT (562085.76, 4821512.01, 311.00, 311.00, 0.00) DC
 4TH HIGHEST VALUE IS 0.09149 AT (562070.91, 4821533.11, 311.00, 311.00, 0.00) DC
 5TH HIGHEST VALUE IS 0.09149 AT (562070.91, 4821533.11, 311.00, 311.00, 0.00) DC
 6TH HIGHEST VALUE IS 0.08665 AT (562065.76, 4821512.01, 311.00, 311.00, 0.00) DC
 7TH HIGHEST VALUE IS 0.08102 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00) DC
 8TH HIGHEST VALUE IS 0.08102 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00) DC
 9TH HIGHEST VALUE IS 0.06501 AT (562085.76, 4821532.01, 311.00, 311.00, 0.00) DC
 10TH HIGHEST VALUE IS 0.06296 AT (562105.76, 4821512.01, 311.00, 311.00, 0.00) DC

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**MODELOPTS: NonDEFAULT CONC ELEV FLGPOL BETA

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 1 YEARS ***

** CONC OF HCR I N NANOGRAMS/M3 **

GROUP ID	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
C80	1ST HIGHEST VALUE IS 0.10910 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC		
	2ND HIGHEST VALUE IS 0.10910 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC		
	3RD HIGHEST VALUE IS 0.10763 AT (562065.76, 4821512.01, 311.00, 311.00, 0.00)	DC		
	4TH HIGHEST VALUE IS 0.10032 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00)	DC		
	5TH HIGHEST VALUE IS 0.10032 AT (562057.04, 4821518.74, 311.00, 311.00, 0.00)	DC		
	6TH HIGHEST VALUE IS 0.08681 AT (562085.76, 4821512.01, 311.00, 311.00, 0.00)	DC		
	7TH HIGHEST VALUE IS 0.07391 AT (562070.91, 4821533.11, 311.00, 311.00, 0.00)	DC		
	8TH HIGHEST VALUE IS 0.07391 AT (562070.91, 4821533.11, 311.00, 311.00, 0.00)	DC		
	9TH HIGHEST VALUE IS 0.06977 AT (562085.76, 4821492.01, 310.52, 310.52, 0.00)	DC		
	10TH HIGHEST VALUE IS 0.06310 AT (562056.81, 4821505.08, 310.84, 310.84, 0.00)	DC		
ALL	1ST HIGHEST VALUE IS 10.32175 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC		
	2ND HIGHEST VALUE IS 10.32175 AT (562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC		

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3RD HIGHEST VALUE IS	8.78723	AT (562070.91,	4821533.11,	311.00,	311.00,	0.00)	DC
4TH HIGHEST VALUE IS	8.78723	AT (562070.91,	4821533.11,	311.00,	311.00,	0.00)	DC
5TH HIGHEST VALUE IS	7.97002	AT (	562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC
6TH HIGHEST VALUE IS	7.97002	AT (	562057.04,	4821518.74,	311.00,	311.00,	0.00)	DC
7TH HIGHEST VALUE IS	7.04221	AT (	562065.76,	4821512.01,	311.00,	311.00,	0.00)	DC
8TH HIGHEST VALUE IS	7.00982	AT (	562085.76,	4821512.01,	311.00,	311.00,	0.00)	DC
9TH HIGHEST VALUE IS	6.23777	AT (	562085.76,	4821532.01,	311.00,	311.00,	0.00)	DC
10TH HIGHEST VALUE IS	4.99912	AT (562077.84,	4821540.29,	311.01,	311.01,	0.00)	DC

*** RECEPTOR TYPES: GC = GRIDCART
 GP = GRIDPOLR
 DC = DISCCART
 DP = DISCPOLR

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**MODELOPTS: NonDEFAULT CONC ELEV FLGPOL BETA

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

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

A Total of 0 Fatal Error Message(s)
 A Total of 0 Warning Message(s)
 A Total of 3 Informational Message(s)
 A Total of 8760 Hours Were Processed
 A Total of 3 Calm Hours Identified
 A Total of 0 Missing Hours Identified (0.00 Percent)

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

***** WARNING MESSAGES *****
 *** NONE ***

