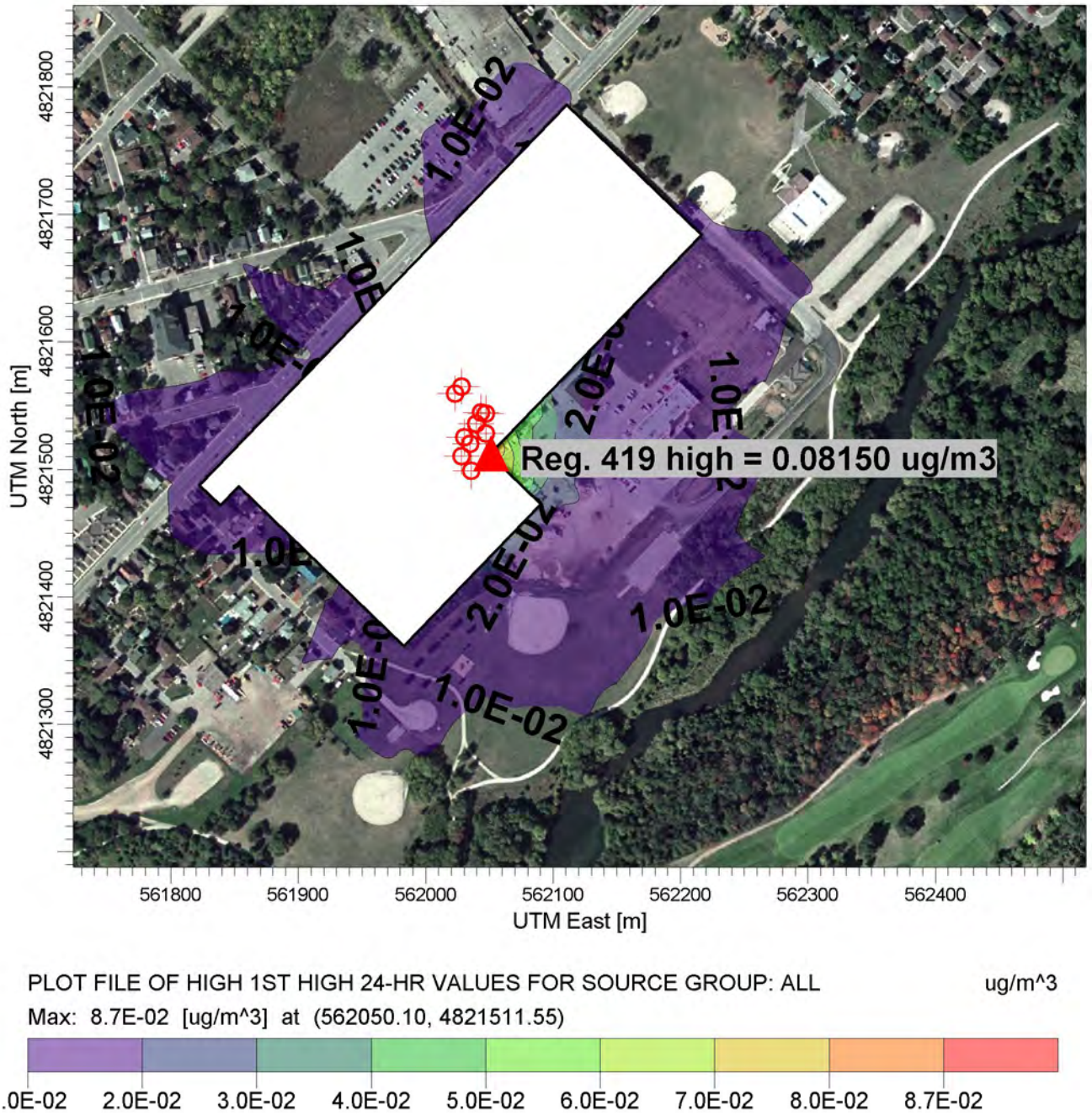
Appendix J Current 24 hour Modeling (hexavalent chromium)

PROJECT TITLE:

OC Guelph Glass Plant
24 HR Hexavalent Chromium Concentration



PLOT FILE OF HIGH 1ST HIGH 24-HR VALUES FOR SOURCE GROUP: ALL ug/m^3

Max: 8.7E-02 [ug/m^3] at (562050.10, 4821511.55)

1.0E-02 2.0E-02 3.0E-02 4.0E-02 5.0E-02 6.0E-02 7.0E-02 8.0E-02 8.7E-02

COMMENTS: Reg. 419 High = 0.08150 ug/m3 Reg 419 Grid	SOURCES: **10**	COMPANY NAME: **Owens Corning Guelph Glass Plant**	
	RECEPTORS: **2064**	MODELER: **C. Mackay, LEHDER**	LEHDER Excellence in Industrial Air Quality Services
	OUTPUT TYPE: **Concentration**	SCALE: 1:5,000 0 0.1 km	
	MAX: **8.7E-02 ug/m^3**	DATE: **3/23/2015**	PROJECT NO.: **144539**

Source Pathway - Source Inputs

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	B01	562035.79	4821498.75	312.00	32.03	0.00004	597.00	19.85	0.58
		107 Furnace Stack (West)							
POINT	B11	562034.66	4821520.18	312.00	15.09	0.00015	401.00	6.31	0.68
		107B Forehearth Stack							
POINT	B38	562043.48	4821544.79	312.00	16.46	0.00003	379.00	5.43	0.75
		105 Forehearth Stack							
POINT	B08	562028.15	4821510.37	312.00	14.45	2.05E-6	321.90	12.59	1.22
		General Exhaust Above Furnace							
POINT	B10	562030.25	4821525.28	312.00	14.45	2.39E-6	321.90	12.10	1.24
		General Exhaust Above T107B F/H							
POINT	B32	562047.16	4821528.02	312.00	14.48	2.39E-6	321.90	19.19	1.24
		General Exhaust Above T106							
POINT	B34	562039.70	4821535.65	312.00	14.48	2.39E-6	321.90	19.19	1.24
		General Exhaust Above T107A F/H							
POINT	B35	562047.03	4821543.82	312.00	14.48	2.39E-6	321.90	19.19	1.24
		General Exhaust Above CFM Main Channel							
POINT	C79	562023.15	4821559.58	312.00	11.64	2.04E-6	310.80	9.59	1.41
		General Exhaust West CFM F/H							
POINT	C80	562028.25	4821564.97	312.00	11.64	2.04E-6	310.80	9.59	1.41
		General Exhaust East CFM F/H							

Volume Sources

No Volume Sources Specified

Area Sources

No Area Sources Specified

♀ *** AERMOD - VERSION 14134 ***   *** OC Guelph Project 144539 - Site Specific Standard   ***   03/02/15
*** AERMET - VERSION 14134 ***   *** 24_URT_R0 (using MSP_Stage2_144539_24hr_Ann_Current_R1)   ***   09:09:23
                                                                                                                      PAGE   1

**MODELOPTs: NonDFAULT 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 1 Short Term Average(s) of: 24-HR

**This Run Includes: 10 Source(s);   15 Source Group(s); and   2064 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 Highest Short Term Values by Receptor (RECTABLE Keyword)
         Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)
         Model Outputs External File(s) of Threshold Violations (MAXIFILE 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) =   325.00 ; 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 =   5.5 MB of RAM.

**File for Saving Result Arrays: 24_URT_R0.sv1
**File for Summary of Results: 24_URT_R0.sum
♀ *** AERMOD - VERSION 14134 ***   *** OC Guelph Project 144539 - Site Specific Standard   ***   03/02/15
*** AERMET - VERSION 14134 ***   *** 24_URT_R0 (using MSP_Stage2_144539_24hr_Ann_Current_R1)   ***   09:09:23
                                                                                                                      PAGE   2
**MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA

                                        *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***

(1=YES; 0=NO)

```
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1 1 1 1 1
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1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
```

NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

**MODELOPTs: NonDFAULT CONC ELEV FLGPOL BETA

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

Surface file: E:_Site Specific Met\OCGuelph_ONLY\V14134\OwensCorning-Guelph-v14134.SFC Met Version: 14134
Profile file: E:_Site Specific Met\OCGuelph_ONLY\V14134\OwensCorning-Guelph-v14134.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 61430 Upper air station no.: 14733
Name: UNKNOWN Name: BUFFALO/GREATER_BUFFALO_INT'L
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	-8.4	0.105	-9.000	-9.000	-999.	81.	11.8	0.57	0.55	1.00	1.50	291.	10.0	258.1	2.0
09	01	01	1	02	-16.5	0.147	-9.000	-9.000	-999.	135.	16.6	0.57	0.55	1.00	2.10	308.	10.0	258.1	2.0
09	01	01	1	03	-8.4	0.105	-9.000	-9.000	-999.	82.	11.8	0.57	0.55	1.00	1.50	294.	10.0	257.5	2.0
09	01	01	1	04	-7.9	0.100	-9.000	-9.000	-999.	76.	11.0	0.50	0.55	1.00	1.50	233.	10.0	255.9	2.0
09	01	01	1	05	-3.5	0.067	-9.000	-9.000	-999.	41.	7.3	0.50	0.55	1.00	1.00	223.	10.0	255.3	2.0
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)

 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA

*** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

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

GROUP ID		AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
B01	HIGH 1ST HIGH VALUE IS	0.00322	ON 10041724:	AT (562076.93, 4821485.66, 310.19, 310.19, 0.00)	DC	
B08	HIGH 1ST HIGH VALUE IS	0.00098	ON 10092124:	AT (562050.10, 4821511.55, 311.00, 311.00, 0.00)	DC	
B10	HIGH 1ST HIGH VALUE IS	0.00074	ON 13092024:	AT (562050.10, 4821511.55, 311.00, 311.00, 0.00)	DC	
B11	HIGH 1ST HIGH VALUE IS	0.08444	ON 10092124:	AT (562050.10, 4821511.55, 311.00, 311.00, 0.00)	DC	
B32	HIGH 1ST HIGH VALUE IS	0.00141	ON 11110224:	AT (562050.10, 4821511.55, 311.00, 311.00, 0.00)	DC	
B34	HIGH 1ST HIGH VALUE IS	0.00113c	ON 10123024:	AT (562050.10, 4821511.55, 311.00, 311.00, 0.00)	DC	
B35	HIGH 1ST HIGH VALUE IS	0.00066	ON 10090424:	AT (562085.76, 4821532.01, 311.00, 311.00, 0.00)	DC	
B38	HIGH 1ST HIGH VALUE IS	0.01110	ON 12112624:	AT (562085.76, 4821532.01, 311.00, 311.00, 0.00)	DC	
C79	HIGH 1ST HIGH VALUE IS	0.00038	ON 10120624:	AT (562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC	
C80	HIGH 1ST HIGH VALUE IS	0.00037	ON 10122324:	AT (562063.97, 4821525.92, 311.00, 311.00, 0.00)	DC	
GENEXHTS	HIGH 1ST HIGH VALUE IS	0.00326c	ON 10123024:	AT (562050.10, 4821511.55, 311.00, 311.00, 0.00)	DC	
HOTSRCS	HIGH 1ST HIGH VALUE IS	0.08456	ON 10092124:	AT (562050.10, 4821511.55, 311.00, 311.00, 0.00)	DC	
FURNACE	HIGH 1ST HIGH VALUE IS	0.00322	ON 10041724:	AT (562076.93, 4821485.66, 310.19, 310.19, 0.00)	DC	
FOREHEAR	HIGH 1ST HIGH VALUE IS	0.08451	ON 10092124:	AT (562050.10, 4821511.55, 311.00, 311.00, 0.00)	DC	
ALL	HIGH 1ST HIGH VALUE IS	0.08740	ON 10092124:	AT (562050.10, 4821511.55, 311.00, 311.00, 0.00)	DC	

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

 **MODELOPTs: NonDFAULT 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   45 Informational Message(s)

 A Total of   43824 Hours Were Processed

 A Total of   14 Calm Hours Identified

 A Total of   31 Missing Hours Identified (0.07 Percent)

    ******** FATAL ERROR MESSAGES ********

*** THE MAXIMUM 2000 24-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***								
RANK BY YEAR	YEAR	RANK	CONC	YYYYMMDDHH	XR	YR	TYPE	MOE Reg. 419/05
1	2009	24	0.07217	2009080424	562050.1	4821512	DC	Discarded
1	2010	2	0.0874	2010092124	562050.1	4821512	DC	Discarded
1	2011	10	0.08009	2011111924	562050.1	4821512	DC	Discarded
1	2012	3	0.08332	2012120424	562050.1	4821512	DC	Discarded
1	2013	22	0.07284	2013013024	562050.1	4821512	DC	Discarded
2	2009	23	0.07217	2009080424	562050.1	4821512	DC	Discarded
2	2010	1	0.0874	2010092124	562050.1	4821512	DC	Discarded
2	2011	9	0.08009	2011111924	562050.1	4821512	DC	Discarded
2	2012	4	0.08332	2012120424	562050.1	4821512	DC	Discarded
2	2013	21	0.07284	2013013024	562050.1	4821512	DC	Discarded
3	2009	26	0.0717	2009082524	562050.1	4821512	DC	
3	2010	6	0.0815	2010112224	562050.1	4821512	DC	Highest
3	2011	14	0.07518	2011120424	562050.1	4821512	DC	
3	2012	12	0.07746	2012030724	562050.1	4821512	DC	
3	2013	28	0.07033	2013122924	562050.1	4821512	DC	
4	2009	25	0.0717	2009082524	562050.1	4821512	DC	
4	2010	5	0.0815	2010112224	562050.1	4821512	DC	
4	2011	13	0.07518	2011120424	562050.1	4821512	DC	
4	2012	11	0.07746	2012030724	562050.1	4821512	DC	
4	2013	27	0.07033	2013122924	562050.1	4821512	DC	
5	2009	31	0.06959	2009082524	562057	4821519	DC	
5	2010	8	0.08071	2010092124	562057	4821519	DC	
5	2011	19	0.07299	2011111924	562057	4821519	DC	
5	2012	15	0.07474	2012030724	562057	4821519	DC	
5	2013	34	0.0689	2013102424	562056.8	4821505	DC	
6	2009	32	0.06959	2009082524	562057	4821519	DC	
6	2010	7	0.08071	2010092124	562057	4821519	DC	
6	2011	20	0.07299	2011111924	562057	4821519	DC	
6	2012	16	0.07474	2012030724	562057	4821519	DC	
6	2013	33	0.0689	2013102424	562056.8	4821505	DC	
7	2009	44	0.0667	2009080424	562057	4821519	DC	
7	2010	17	0.07453	2010112224	562057	4821519	DC	
7	2011	55	0.0649	2011010224	562065.8	4821512	DC	
7	2012	30	0.07015	2012092524	562050.1	4821512	DC	
7	2013	50	0.06629	2013022424	562056.8	4821505	DC	
8	2009	43	0.0667	2009080424	562057	4821519	DC	
8	2010	18	0.07453	2010112224	562057	4821519	DC	
8	2011	58	0.06406	2011120424	562057	4821519	DC	
8	2012	29	0.07015	2012092524	562050.1	4821512	DC	
8	2013	49	0.06629	2013022424	562056.8	4821505	DC	
9	2009	45	0.06669	2009072824	562050.1	4821512	DC	
9	2010	73	0.06304	2010100824	562056.8	4821505	DC	
9	2011	59	0.06406	2011120424	562057	4821519	DC	
9	2012	36	0.06819	2012092324	562056.8	4821505	DC	
9	2013	51	0.0657	2013102424	562063.5	4821499	DC	
10	2009	46	0.06669	2009072824	562050.1	4821512	DC	
10	2010	72	0.06304	2010100824	562056.8	4821505	DC	
10	2011	63	0.06344	2011010224	562056.8	4821505	DC	
10	2012	35	0.06819	2012092324	562056.8	4821505	DC	

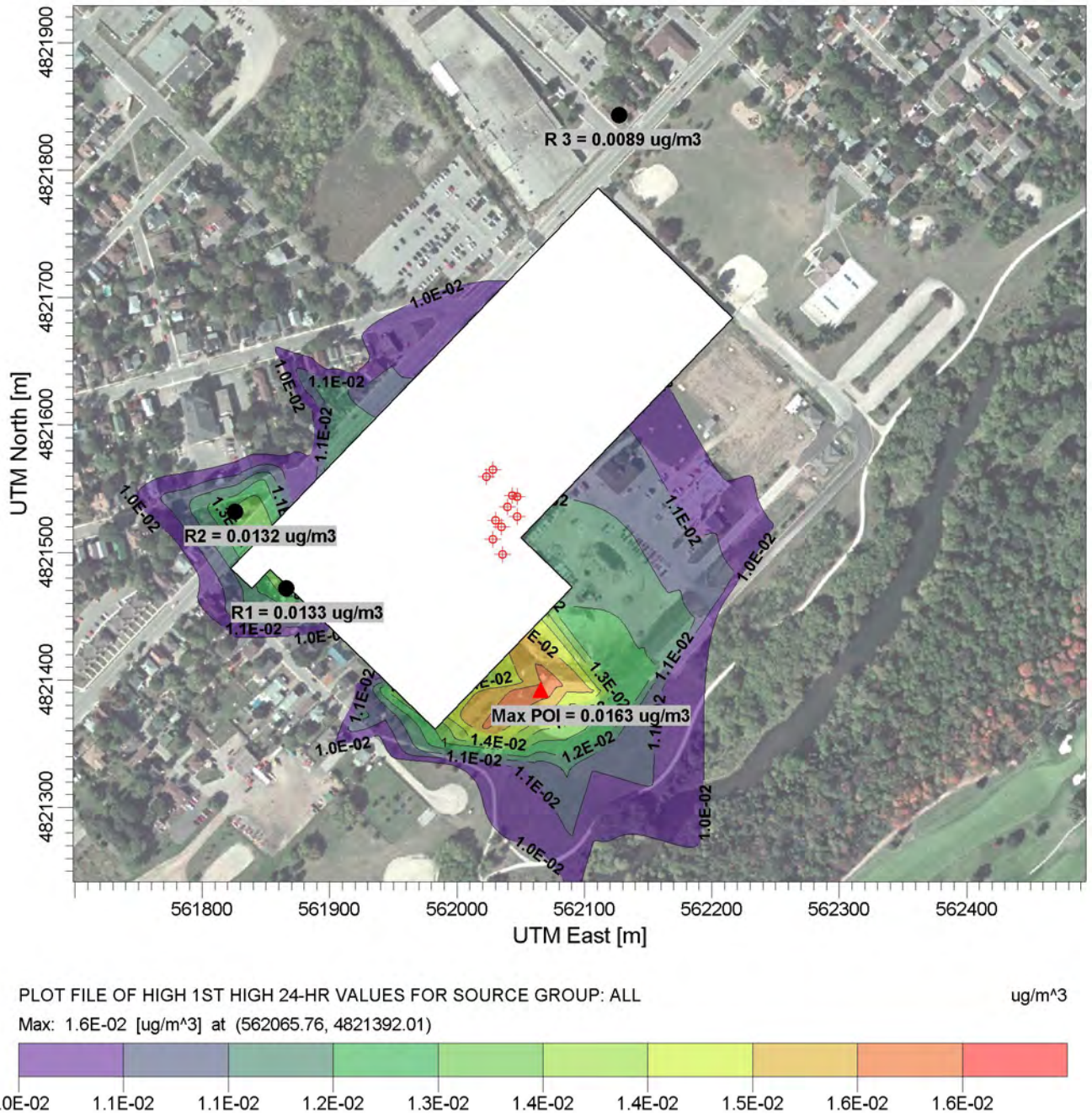
24 hour Concentration
Data Summary

Run (tab) Name:	24_URT_R0			
Run Description:	Current R1, Reg 419 grid, Site Specific Met			
	1st High	**2nd High**	**Location: Max**	**Location: Max**
Result Units:	**ug/m3**	**ug/m3**	**x**	**y**
ALL	0.0874	0.0815	562050.1	4821512
B01	0.00322	0.00313	562076.9	4821486
B11	0.08444	0.0779	562050.1	4821512
B38	0.0111	0.01056	562085.8	4821532
B08	0.00098	0.00087	562050.1	4821512
B10	0.00074	0.00063	562050.1	4821512
B32	0.00141	0.0013	562050.1	4821512
B34	0.00113	0.00094	562050.1	4821512
B35	0.00066	0.00065	562085.8	4821532
C79	0.00038	0.00037	562064	4821526
C80	0.00037	0.00036	562064	4821526
FURNACE	0.00322	0.00313	562076.9	4821486
FOREHEAR	0.08451	0.07832	562050.1	4821512
GENEXHTS	0.00326	0.00314	562050.1	4821512
HOTSRCS	0.08456	0.07854	562050.1	4821512

PROJECT TITLE:

OC Guelph Glass Plant

24 HR Hexavalent Chromium Concentration - Current Operations (Sensitive Receptor Assessment)



PLOT FILE OF HIGH 1ST HIGH 24-HR VALUES FOR SOURCE GROUP: ALL ug/m^3

Max: 1.6E-02 [ug/m^3] at (562065.76, 4821392.01)

1.0E-02 1.1E-02 1.1E-02 1.2E-02 1.3E-02 1.4E-02 1.4E-02 1.5E-02 1.6E-02 1.6E-02

COMMENTS: 1st high at a sensitive receptor is 0.0133 1st high at the baseball diamond is 0.0163 ug/m3 Sensitive Receptor Grid Red Triangle = Max POI concentration Black Circle = Concentration at the location	SOURCES: **10**	COMPANY NAME: **Owens Corning Guelph Glass Plant**	
	RECEPTORS: **823**	MODELER: **C. Mackay, LEHDER**	LEHDER Excellence in Industrial Air Quality Services
	OUTPUT TYPE: **Concentration**	SCALE: 1:5,000 0 0.1 km	
	MAX: **1.6E-02 ug/m^3**	DATE: **3/23/2015**	PROJECT NO.: **144539**

Source Pathway - Source Inputs

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	B01	562035.79	4821498.75	312.00	32.03	0.00004	597.00	19.85	0.58
		107 Furnace Stack (West)							
POINT	B11	562034.66	4821520.18	312.00	15.09	0.00015	401.00	6.31	0.68
		107B Forehearth Stack							
POINT	B38	562043.48	4821544.79	312.00	16.46	0.00003	379.00	5.43	0.75
		105 Forehearth Stack							
POINT	B08	562028.15	4821510.37	312.00	14.45	2.05E-6	321.90	12.59	1.22
		General Exhaust Above Furnace							
POINT	B10	562030.25	4821525.28	312.00	14.45	2.39E-6	321.90	12.10	1.24
		General Exhaust Above T107B F/H							
POINT	B32	562047.16	4821528.02	312.00	14.48	2.39E-6	321.90	19.19	1.24
		General Exhaust Above T106							
POINT	B34	562039.70	4821535.65	312.00	14.48	2.39E-6	321.90	19.19	1.24
		General Exhaust Above T107A F/H							
POINT	B35	562047.03	4821543.82	312.00	14.48	2.39E-6	321.90	19.19	1.24
		General Exhaust Above CFM Main Channel							
POINT	C79	562023.15	4821559.58	312.00	11.64	2.04E-6	310.80	9.59	1.41
		General Exhaust West CFM F/H							
POINT	C80	562028.25	4821564.97	312.00	11.64	2.04E-6	310.80	9.59	1.41
		General Exhaust East CFM F/H							

Volume Sources

No Volume Sources Specified

Area Sources

No Area Sources Specified

**MODELOPTs: NonDFAULT 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 1 Short Term Average(s) of: 24-HR

**This Run Includes: 10 Source(s);   15 Source Group(s); and   823 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 Highest Short Term Values by Receptor (RECTABLE Keyword)
         Model Outputs Tables of Overall Maximum Short Term Values (MAXTABLE Keyword)
         Model Outputs External File(s) of Threshold Violations (MAXIFILE 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) =   325.00 ; 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 =   4.6 MB of RAM.

**File for Saving Result Arrays: 24_URT_SR_R0.sv1
**File for Summary of Results: 24_URT_SR_R0.sum

♀ *** AERMOD - VERSION 14134 ***   *** OC Guelph Project 144539 - Site Specific Standard   ***   03/02/15
*** AERMET - VERSION 14134 ***   *** 24_URT_SR_R0 (MSP_Stage2_144539_24hr_Ann_Current_R1)   ***   09:29:51

**MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA

*** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***

(1=YES; 0=NO)

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
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NOTE: METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS INCLUDED IN THE DATA FILE.

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***
(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

**MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA

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

Surface file: E:_Site Specific Met\OCGuelph_ONLY\V14134\OwensCorning-Guelph-v14134.SFC   Met Version: 14134
Profile file: E:_Site Specific Met\OCGuelph_ONLY\V14134\OwensCorning-Guelph-v14134.PFL
Surface format: FREE
Profile format: FREE
Surface station no.: 61430   Upper air station no.: 14733
Name: UNKNOWN   Name: BUFFALO/GREATER_BUFFALO_INT'L
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	-8.4	0.105	-9.000	-9.000	-999.	81.	11.8	0.57	0.55	1.00	1.50	291.	10.0	258.1	2.0
09	01	01	1	02	-16.5	0.147	-9.000	-9.000	-999.	135.	16.6	0.57	0.55	1.00	2.10	308.	10.0	258.1	2.0
09	01	01	1	03	-8.4	0.105	-9.000	-9.000	-999.	82.	11.8	0.57	0.55	1.00	1.50	294.	10.0	257.5	2.0
09	01	01	1	04	-7.9	0.100	-9.000	-9.000	-999.	76.	11.0	0.50	0.55	1.00	1.50	233.	10.0	255.9	2.0
09	01	01	1	05	-3.5	0.067	-9.000	-9.000	-999.	41.	7.3	0.50	0.55	1.00	1.00	223.	10.0	255.3	2.0
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)

 **MODELOPTs: NonDFAULT CONC   ELEV   FLGPOL   BETA

                                  *** THE SUMMARY OF HIGHEST 24-HR RESULTS ***

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

GROUP ID		AVERAGE CONC	DATE (YYMMDDHH)	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
B01	HIGH	1ST HIGH VALUE IS	0.00093	ON 10031224: AT (561865.76, 4821472.01, 313.00, 313.00, 0.00)	DC	
B08	HIGH	1ST HIGH VALUE IS	0.00014	ON 13030124: AT (562065.76, 4821392.01, 310.00, 310.00, 0.00)	DC	
B10	HIGH	1ST HIGH VALUE IS	0.00019	ON 13042924: AT (561905.76, 4821612.01, 312.08, 312.08, 4.90)	DC	
B11	HIGH	1ST HIGH VALUE IS	0.01354	ON 12110424: AT (562074.09, 4821396.45, 310.00, 310.00, 0.00)	DC	
B32	HIGH	1ST HIGH VALUE IS	0.00013	ON 13091324: AT (562065.76, 4821392.01, 310.00, 310.00, 0.00)	DC	
B34	HIGH	1ST HIGH VALUE IS	0.00013	ON 11051824: AT (561845.76, 4821552.01, 313.00, 313.00, 0.00)	DC	
B35	HIGH	1ST HIGH VALUE IS	0.00011	ON 12102924: AT (562021.92, 4821362.23, 310.00, 310.00, 1.50)	DC	
B38	HIGH	1ST HIGH VALUE IS	0.00252	ON 13120424: AT (561865.76, 4821572.01, 313.00, 313.00, 0.00)	DC	
C79	HIGH	1ST HIGH VALUE IS	0.00012	ON 10032124: AT (561905.76, 4821432.01, 311.88, 311.88, 0.00)	DC	
C80	HIGH	1ST HIGH VALUE IS	0.00011	ON 10032124: AT (561905.76, 4821412.01, 311.81, 311.81, 4.90)	DC	
GENEXHTS	HIGH	1ST HIGH VALUE IS	0.00085	ON 13091324: AT (562065.76, 4821392.01, 310.00, 310.00, 0.00)	DC	
HOTSRCS	HIGH	1ST HIGH VALUE IS	0.01556	ON 12032924: AT (562065.76, 4821392.01, 310.00, 310.00, 0.00)	DC	
FURNACE	HIGH	1ST HIGH VALUE IS	0.00093	ON 10031224: AT (561865.76, 4821472.01, 313.00, 313.00, 0.00)	DC	
FOREHEAR	HIGH	1ST HIGH VALUE IS	0.01503	ON 12032924: AT (562065.76, 4821392.01, 310.00, 310.00, 0.00)	DC	
ALL	HIGH	1ST HIGH VALUE IS	0.01632	ON 12032924: AT (562065.76, 4821392.01, 310.00, 310.00, 0.00)	DC	

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

 **MODELOPTs: NonDFAULT 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   45 Informational Message(s)

 A Total of   43824 Hours Were Processed

 A Total of   14 Calm Hours Identified

 A Total of   31 Missing Hours Identified (0.07 Percent)

    ******** FATAL ERROR MESSAGES ********