Ldn Consulting, Inc.

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January 11, 2022

Ryan Birdseye, Principal
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P.O. Box 1956
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RE: The Terraces– Health Risk Screening Letter City of Murrieta CA

The purpose of this Air Quality Heath Risk screening letter is to identify potential health risks at the proposed project site from Diesel Particulate Matter (DPM) originating from Interstate 15 (I-15) and Murrieta Hot Springs Road. The Project proposes to construct 900 multi-family residential units on a 38.7-acre site which encompasses multiple separate lots within the City of Murrieta, CA. The residential units would be as close as 300 feet to the east of I-15.

This health risk analysis uses the California Office of Environmental Health Hazard Assessment (OEHHA) methodologies (Office of Environmental Health Hazard Assessment, 2015) as outlined by the California Air Pollution Control Officers Association (CAPCOA, July 2009). Health risk impacts are generally broken up into two various types. Type A project: are projects which have the potential to emit toxic emissions and have the potential to impact nearby receptor. Type B projects: place receptors in the vicinity of existing toxic sources like freeways, high traffic roads or rail yards. Based on this information the proposed project is classified as Type B.

Projects within the City of Murrieta are generally regulated by South Coast Air Quality Management District (SCAQMD). For Type A projects, significance thresholds for TACs have been established under SCAQMDs "Hot Spots" and permitting program (Rule 1402). Under this program, excess cancer risk significance threshold is set at 10 in a million and acute and chronic, non-carcinogenic health effect, a hazard index of one must not be exceeded (SCAQMD, 2019). If a risk is less than 10 in a million, no further health risk reporting requirements are necessary.

For Type B projects, there are no clear significance thresholds. California Environmental Quality Act (CEQA) statutes encourage an air district or any lead agency to establish Type B significance thresholds under CEQA for any pollutant. While there are considerations that support the establishment of thresholds, there is no obligation to do so. Significance thresholds for Type B projects within the City of Murrieta have also not been defined. According to CAPCOA Air districts have historically recommended CEQA thresholds for air pollutants in the context of the air district's clean air attainment plan, or (in the case of toxic air pollutants) within the framework of a rule or policy that manages risks and exposures due to toxic pollutants such as SCAQMD

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Rules 1401 and 1402 for Type A projects. For purposes of this analysis significance thresholds will be assumed to be those of the Type A projects discussed above.

Cancer risk calculations are based on a 70 year lifetime exposure. In some limited cases, it may be appropriate to also use between 9 to 40 years exposure in the calculation. The 9 year exposure scenario is based on exposure to children during the first 9 years of life. Some districts use the 9 year exposure scenario to model short term projects. (CAPCOA, July 2009). For purposes of this analysis, it is reasonable to assume a 30 year duration.

For purposes of modeling, AERMOD was used for air quality dispersion modeling and is the preferred/recommended U.S. Environmental Protection Agency (EPA) model for roadway modeling. The software has the ability to incorporate meteorological inputs as well as multiple source and receptor locations and is now used throughout the world. The model input/output is shown in ***Attachment A*** to this letter.

The project is adjacent to I-15 between the off ramp of Murrieta Hot Springs Road and California Oaks Road. According to Caltrans, the annual average daily trips are 112,000 AADT (CALTRANS, 2020). Using the California Air Resource Boards EMFAC 2021 web database model, Emission rates for a 2025 calendar Year having mixed vehicle categories, aggregated vehicle model years and speeds matching I-15 were downloaded. Murrieta Hot Springs adjacent to the project has an existing ADT at 39,000 per the City's latest circulation element study (City of Murrieta, 2019) though was modeled at 70,000 ADT to represent a future buildout scenario. A similar EMFAC model was prepared for Murrieta Hot Springs Road. The emission rates for each vehicle type were then categorized in terms of categorized Vehicle Miles Traveled (VMT) divided by Total fleet VMT. The data is further broken down into only Diesel particulates which are then used as inputs to AERMOD. The EMFAC Model and Normalization calculations are shown for both I-15 and Murrieta Hot Springs in ***Attachments B and -C*** respectively to this letter.

Modeling at the site included coordinates for I-15 and Murrieta Hot Springs Road which are represented by multiple volume sources within AERMOD to calculate roadway emissions and are identified as red squares, the black grid represents a receptor matrix made up of computer generated receptors used by AERMOD to calculate emission values for contour and discreet outputs.

A graphical representation of the modeling locations is shown on a site aerial below in Figure 1 and Figure 2 shows the descriptive discreet receptors locations around the facility. The modeled output plot from AERMOD is shown in Figure 3.

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Figure 1: Modeling Graphical Layout

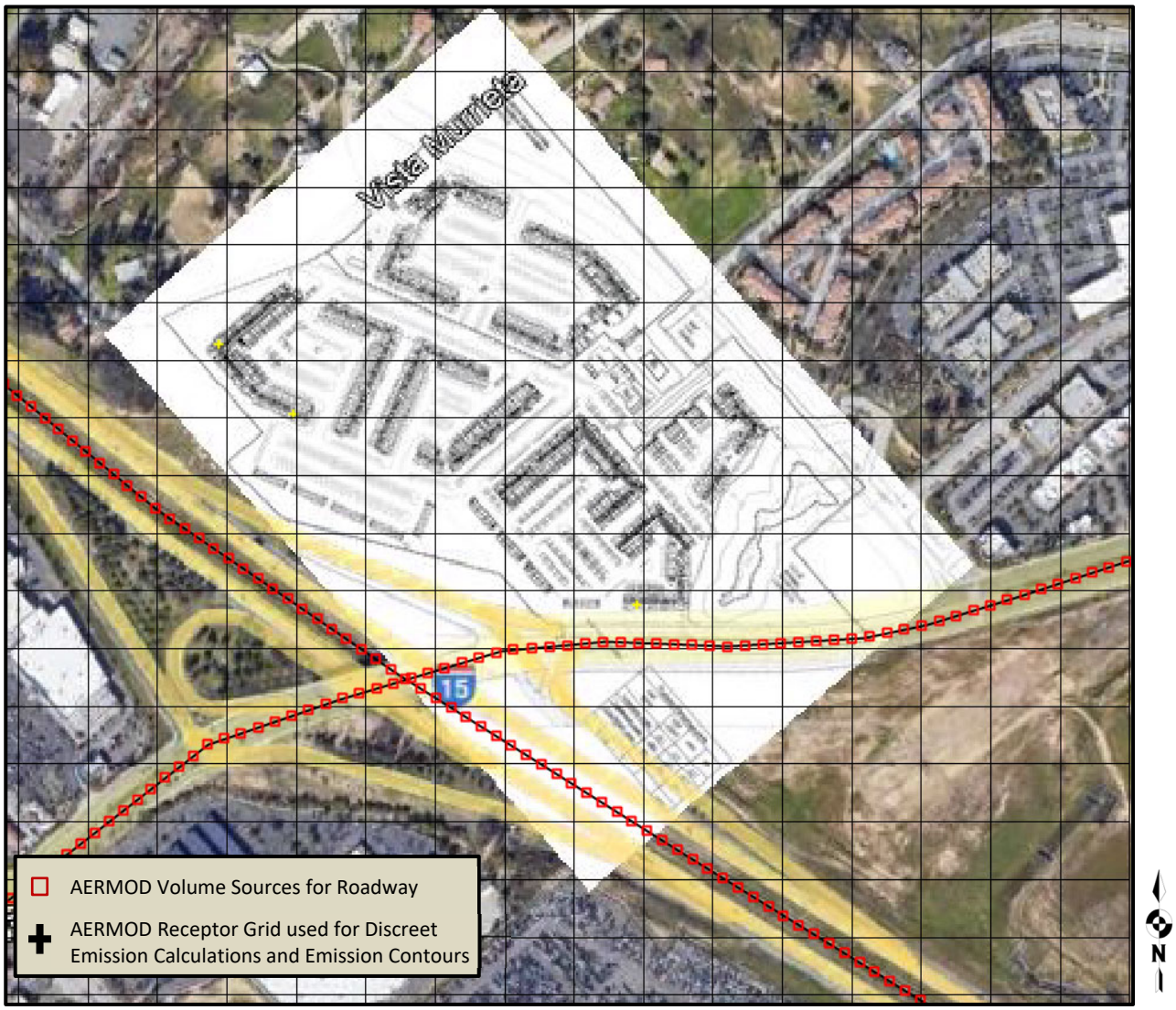

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Figure 2: Discreet Receptor Locations

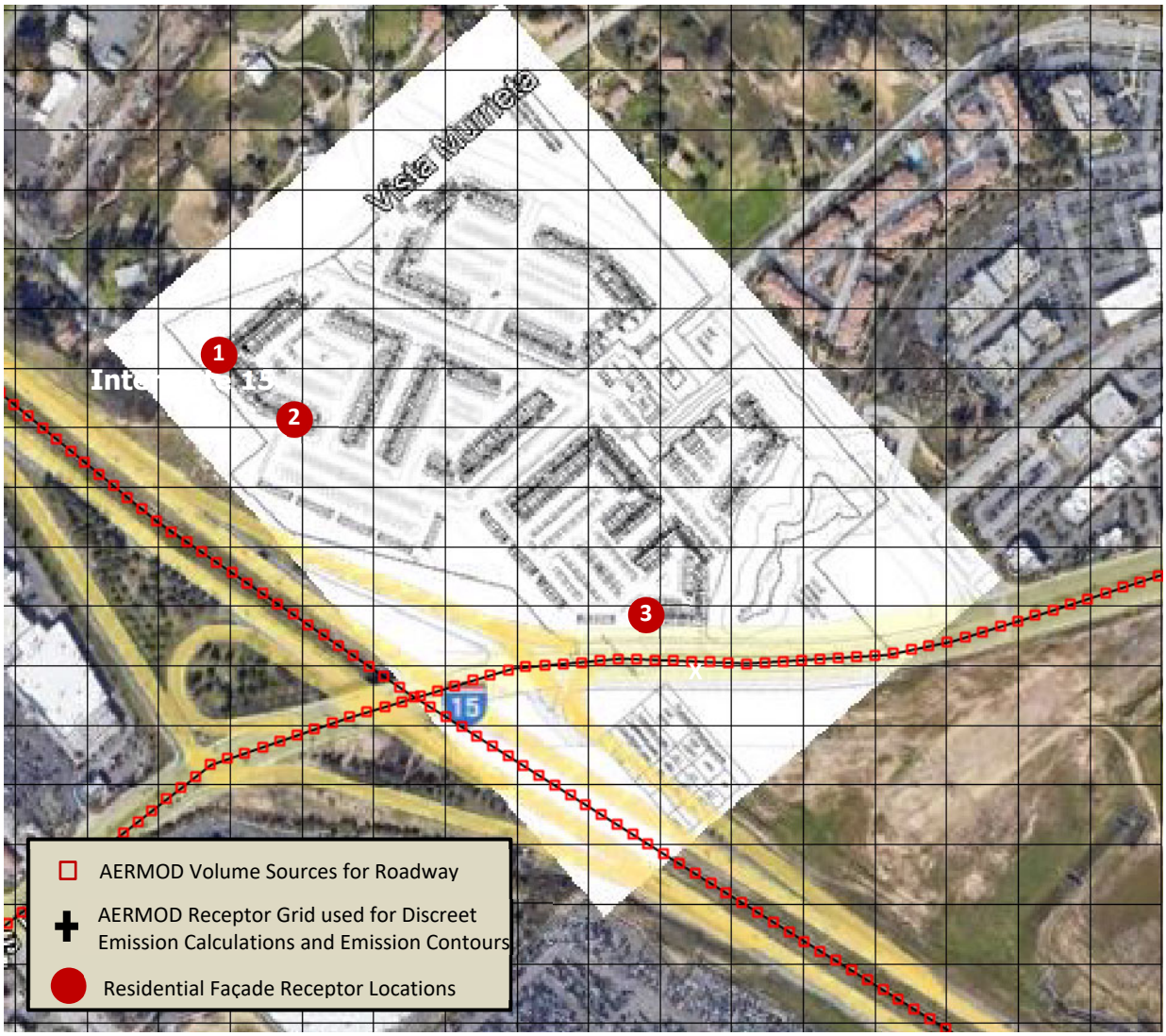

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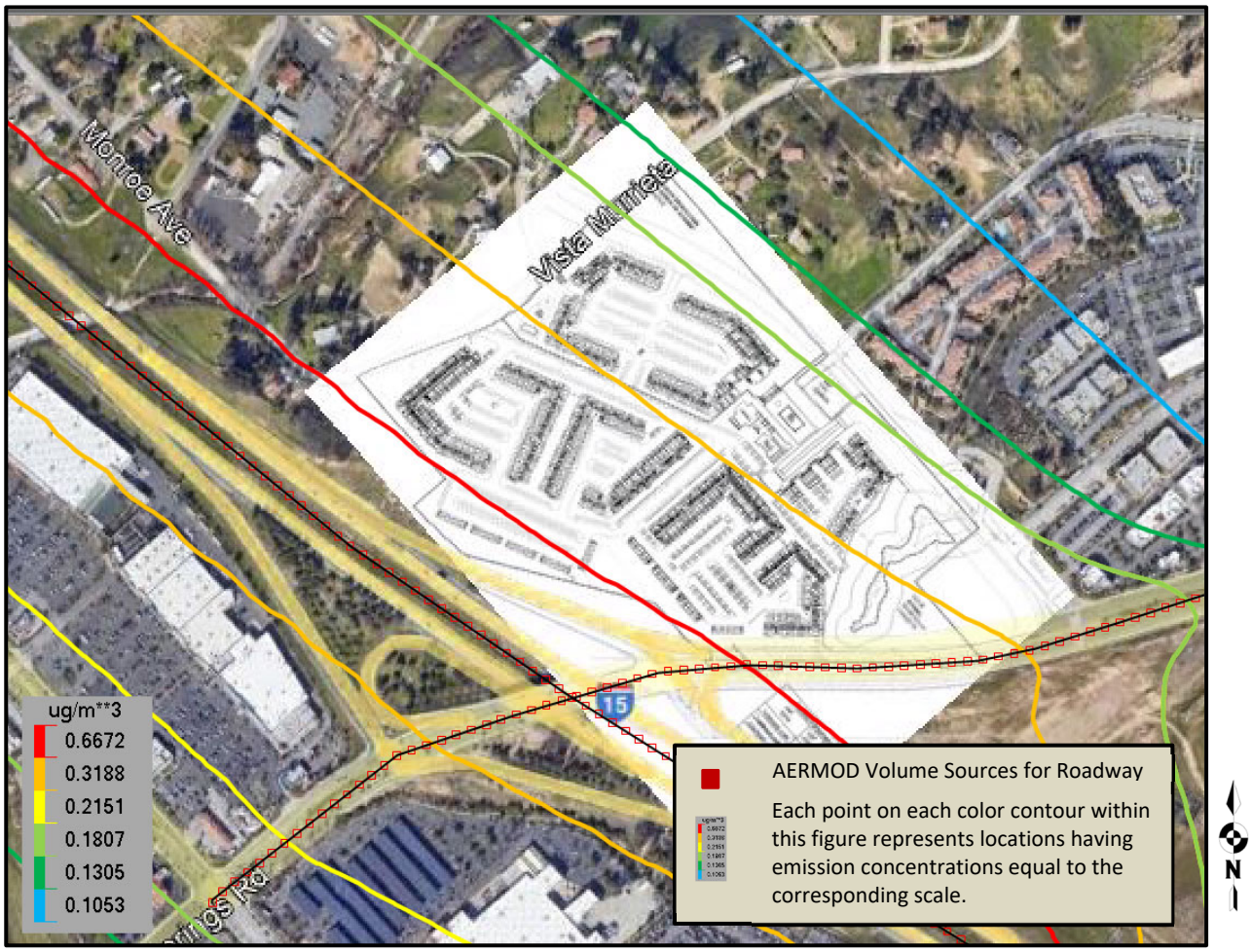
Figure 3: Modeling Graphical DPM Concentration Output



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Also, three (3) discreet receptors were selected along the western building facades and have been reported separately within the AERMOD outputs. The results are summarized below in Table 1.

Table 1: Unmitigated DPM Concentrations at each Receptor

Receptor #	Discreet Receptor AERMOD Name	Concentration (µg/m^3)
1	R1	0.511
2	R2	0.535
4	R3	0.448

Once the dispersed concentrations of diesel particulates are estimated in the surrounding air, they are used to evaluate estimated exposure to people. Cancer Risk Exposure is evaluated by calculating the dose in milligrams per kilogram body weight per day (mg/kg/d). For residential exposure, the breathing rates are determined for specific age groups, so inhalation dose (Dose-air) is calculated for each of these age groups, 3rd trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years. The following algorithms calculate this dose for exposure through the inhalation pathways. The worst case cancer risk dose calculation is defined in Equation 1 (OEHHA, 2015):

Equation 1 $$Dose_{air}=C_{air}*(BR/BW)*A*EF*(1x10^{-6})$$

$Dose_{air}$	=	Dose through inhalation (mg/kg/d)
C_{air}	=	Concentration in air (µg/m3) Annual average DPM concentration in µg/m3 – AERMOD
BR/BW	=	Daily average breathing rates normalized to body weight (L/kg BW-day).
A	=	Inhalation absorption factor (assumed to be 1)
EF	=	Exposure frequency (unitless, days/365 days)
1x10-6	=	Milligrams to micrograms conversion (10^{-3} mg/ µg), cubic meters to liters conversion (10^{-3} m^3/l)

Once the dose is determined then you must calculate the cancer risk. The average daily inhalation dose (mg/kg-day) multiplied by the cancer potency factor (mg/kg-day)-1 will give the inhalation cancer risk (unitless), which is an expression of the chemical's cancer risk during a 70-year lifespan of exposure. For example, an inhalation cancer risk of 5 x 10-6 is the same as stating that an individual has an estimated probability of developing cancer from their exposure of 5 chances per million people exposed.

Cancer risk is calculated by multiplying the daily inhalation or oral dose, by a cancer potency factor, the age sensitivity factor, the frequency of time spent at home and the exposure duration divided by averaging time, to yield the excess cancer risk. As described below, the excess cancer

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risk is calculated separately for each age grouping and then summed to yield cancer risk for any given location. The worst-case cancer risk calculation is defined in Equation 2 (OEHHA, 2015).

Equation 2

$$RISK_{inh\text{-}res} = DOSE_{air} \times CPF \times ASF \times ED/AT \times FAH$$

$RISK_{inh\text{-}res}$	=	Residential inhalation cancer risk
$DOSE_{air}$	=	Daily inhalation dose (mg/kg-day)
CPF	=	Inhalation cancer potency factor ($mg/kg\text{-}day^{-1}$)
ASF	=	Age sensitivity factor for a specified age group (unitless)
ED	=	Exposure duration (in years) for a specified age group
AT	=	Averaging time for lifetime cancer risk (years)
FAH	=	Fraction of time spent at home (unitless)

The results of the cancer risk calculations which do not account for heating and ventilation air filtration are shown in Table 2 and are shown in detail in ***Attachment D*** to this report. These locations would be better described as outside of the building at the facility façade. Based on these calculations, cancer risks would exceed 10 per one million exposed and could be considered a significant impact without mitigation.

These risks would likely be lower within the interior of the residential units where residents will likely be spending their time since new homes have tighter building envelopes and better heating and ventilation systems compatible with energy efficient designs. Typical indoor air filtration systems used within todays heating and ventilation systems have a Minimum Efficiency Reporting Value (MERV) rating which is used to describe how well a particular filtration media removes particles from the air.

Table 2: Cancer Risk at Worst-Case Outdoor Receptors (Unmitigated)

Receptor	C_i	Unmitigated Cancer Risk (30 Years)	Unmitigated Cancer Risk (70 Years)	Potential Impact
R1	0.547	226.75	291.48	Yes
R2	0.575	238.36	310.01	Yes
R3	0.529	219.29	285.21	Yes
C_i annual inputs from AERMOD at building facade. Cancer Risk = $DOSE_{air} \times CPF \times ASF \times ED/AT \times FAH$				

In a study funded by CARB, the Lawrence Berkeley National Laboratory found that MERV 16 filtration on a supply ventilation system reduced PM2.5 by 96-97% and ultrafine particles (UFP)

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by 97-99% relative to outdoors (CARB, 2017) and is recommended for homes with exposure to higher levels of DPM. It was found that installing MERV 16 filters would reduce exposure within the home to less than significant levels. Table 3 below shows what the cancer risks would be reduced to less than ten in one million exposed using the typical MERV 16 filtrations systems. The mitigated cancer risk calculations are provided as ***Attachment E*** to this report.

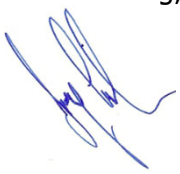
Table 3: Mitigated Cancer Risk at Worst-Case Indoor Receptors (MERV 16)

Receptor	C_i	Cancer Risk (30 Years)	Cancer Risk (70 Years)	Impact
R1	0.0164	6.80	8.85	No
R2	0.0173	7.15	9.30	No
R3	0.0159	6.58	8.56	No

C_i annual inputs from AERMOD at building facade.
Cancer Risk = DOSEair × CPF × ASF × ED/AT × FAH

It is important to note that this assessment serves simply as a disclosure document to providing a characterization of the background emissions that occupants of the proposed project may be exposed to. If you should have any questions regarding this assessment, please do not hesitate to contact me at (760) 473-1253.

Sincerely,
Ldn Consulting, Inc.



Jeremy Louden

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Attachments:

A: AERMOD

B: EMFAC 2021 Emission Factors – 65 MPH (2025)

C: EMFAC 2021 Emission Factors – 45 MPH (2025)

D: Cancer Risk Calculations – Outdoor

E: Cancer Risk Calculations – Indoor

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SO SRCPARAM  KMCCZ05D  1.22209E-06  2  6.976744  1.860465
SO SRCPARAM  KMCCZ05E  1.22209E-06  2  6.976744  1.860465
SO SRCPARAM  KMCCZ05F  1.22209E-06  2  6.976744  1.860465
SO SRCPARAM  KMCCZ05G  1.22209E-06  2  6.976744  1.860465
SO SRCPARAM  KMCCZ05H  1.22209E-06  2  6.976744  1.860465
SO SRCGROUP  ALL
SO FINISHED

RE STARTING
RE ELEVUNIT  METERS
RE GRIDCART KMCCZ05S STA
RE GRIDCART KMCCZ05S XYINC  482771  21  -58.4  3713456.8  21  -48.5
RE GRIDCART KMCCZ05S ELEV  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S ELEV  2  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S ELEV  3  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S ELEV  4  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S ELEV  5  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S ELEV  6  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S ELEV  7  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S ELEV  8  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S ELEV  9  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S ELEV  10  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S ELEV  11  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S ELEV  12  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S ELEV  13  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S ELEV  14  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S ELEV  15  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S ELEV  16  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S ELEV  17  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
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RE GRIDCART KMCCZ05S ELEV  19  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S ELEV  20  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S ELEV  21  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S HILL  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S HILL  2  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S HILL  3  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S HILL  4  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S HILL  5  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S HILL  6  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S HILL  7  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S HILL  8  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S HILL  9  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S HILL  10  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S HILL  11  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S HILL  12  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S HILL  13  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
```

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RE GRIDCART KMCCZ05S HILL  14  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S HILL  15  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S HILL  16  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S HILL  17  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S HILL  18  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S HILL  19  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S HILL  20  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S HILL  21  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART KMCCZ05S END
RE DISCCART  482005  3713081.7  0  0
** SENSITIV
** RCPDESCR  R1
RE DISCCART  482068.1  3713023.5  0  0
** SENSITIV
** RCPDESCR  R2
RE DISCCART  482356.9  3712862.9  0  0
** SENSITIV
** RCPDESCR  R3
RE FINISHED

ME STARTING
ME SURFFILE  "C:\Users\RYAN~1.DES\OneDrive\LDNONE~1\COUNTY~2\CIA5C8~1\20-49A~1\Aermod\LAKEEL~1\ELSI8.SFC"
** SURFFILE  "C:\Users\RYAN~1.DES\OneDrive\LDNONE~1\COUNTY~2\CIA5C8~1\20-49A~1\Aermod\LAKEEL~1\ELSI8.SFC"
ME PROFFILE  "C:\Users\RYAN~1.DES\OneDrive\LDNONE~1\COUNTY~2\CIA5C8~1\20-49A~1\Aermod\LAKEEL~1\ELSI8.PFL"
** PROFFILE  "C:\Users\RYAN~1.DES\OneDrive\LDNONE~1\COUNTY~2\CIA5C8~1\20-49A~1\Aermod\LAKEEL~1\ELSI8.PFL"
ME SURFDATA  0 2008
ME UAIRDATA  3190 2008
ME SITEDATA  00099999 2008
ME PROFBASE  0  METERS
ME STARTEND  2012  1  1  1  2012  12  31  24
ME FINISHED

OU STARTING
OU FILEFORM  FIX
OU PLOTFILE  ANNUAL  ALL  ALL`ANNUAL.plt  10000
OU FINISHED

** **************************************************************************
** It is recommended that the user not edit any data below this line
** **************************************************************************


** TAG NAM  KMCCZ001
** TAG PRM  0  2  F  F  1  255,0,0,0
** TAG CRD
482626.8,3712511.6,0,482389.0,3712658.1,0,482156.0,3712804.6,0,481951.9,3712943.9,0,481567.6,3713258.5,0,481166.5,3713630.8,0,481166.5,3713630.8,0
** TAG NAM  KMCCZ03I
** TAG PRM  0  2  F  F  1  255,0,0,0
** TAG CRD
482803.6,3712911.2,0,482678.3,3712870.6,0,482600.9,3712846.7,0,482547.4,3712835.6,0,482433.2,3712828.3,0,482330.0,3712831.9,0,482243.3,3712824.6,0,48210
6.1,3712783.8,0,481995.4,3712745.9,0,481820.3,3712608.9,0,481820.3,3712605.2,0

** AMPTYPE
** AMPDATUM  -1
** AMPZONE  -1
** AMPHEMISPHERE

** PROJECTIONWKT
PROJCS["UTM_6326_Zone11",GEOGCS["WGS_84",DATUM["World_Geodetic_System_1984",SPHEROID["WGS_1984",6378137,298.257223563],TOWGS84[0,0,0,0,0,0,0]],PRIMEM["G
reenwich",0],UNIT["Degree",0.0174532925199433]],PROJECTION["Universal_Transverse_Mercator"],PARAMETER["Zone",11],UNIT["Meter",1,AUTHORITY["EPSG","9001"]
]]
** PROJECTION  UTM
** DATUM  WGE
** UNITS  METER
** ZONE  11
** HEMISPHERE  N
** ORIGINLON  0
** ORIGINLAT  0
** PARALLEL1  0
** PARALLEL2  0
** AZIMUTH  0
** SCALEFACT  0
** FALSEEAST  0
** FALSENORTH  0

** POSTFMT  UNFORM
** TEMPLATE USERDEFINED
** AERMODEXE  AERMOD_BREEZE_19191_64.EXE
** AERMAPEXE  AERMAP_EPA_18081_64.EXE


 ***********************************
 *** SETUP Finishes Successfully ***
 ***********************************

♠ *** AERMOD - VERSION  19191 ***   ***  I-15  DPM                                                          ***        01/08/22
 *** AERMET - VERSION  14134 ***   ***                                                                    ***       10:34:43
                                                                                                                   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL

                                      ***     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 Uses Regulatory DEFAULT 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.

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

**Model Assumes No FLAGPOLE Receptor Heights.

**The User Specified a Pollutant Type of: PM10

**Model Calculates ANNUAL Averages Only

**This Run Includes: 194 Source(s);   1 Source Group(s); and   444 Receptor(s)

               with: 0 POINT(s), including
                          0 POINTCAP(s) and   0 POINTHOR(s)
                and: 194 VOLUME source(s)
                and: 0 AREA type source(s)
                and: 0 LINE source(s)
                and: 0 RLINE/RLINEXT source(s)
                and: 0 OPENPIT source(s)
                and: 0 BUOYANT LINE source(s) with   0 line(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)

**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) =   0.00 ; 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 =   3.6 MB of RAM.

**Input Runstream File: aermod.inp
**Output Print File: aermod.out

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
KMCCZ002	0	0.64634E-04	482620.4	3712515.5	0.0	2.00	6.98	1.86	NO	
KMCCZ003	0	0.64634E-04	482607.6	3712523.4	0.0	2.00	6.98	1.86	NO	
KMCCZ004	0	0.64634E-04	482594.9	3712531.3	0.0	2.00	6.98	1.86	NO	
KMCCZ005	0	0.64634E-04	482582.1	3712539.1	0.0	2.00	6.98	1.86	NO	
KMCCZ006	0	0.64634E-04	482569.3	3712547.0	0.0	2.00	6.98	1.86	NO	
KMCCZ007	0	0.64634E-04	482556.6	3712554.9	0.0	2.00	6.98	1.86	NO	
KMCCZ008	0	0.64634E-04	482543.8	3712562.7	0.0	2.00	6.98	1.86	NO	
KMCCZ009	0	0.64634E-04	482531.0	3712570.6	0.0	2.00	6.98	1.86	NO	
KMCCZ00A	0	0.64634E-04	482518.2	3712578.5	0.0	2.00	6.98	1.86	NO	
KMCCZ00B	0	0.64634E-04	482505.5	3712586.3	0.0	2.00	6.98	1.86	NO	
KMCCZ00C	0	0.64634E-04	482492.7	3712594.2	0.0	2.00	6.98	1.86	NO	
KMCCZ00D	0	0.64634E-04	482479.9	3712602.1	0.0	2.00	6.98	1.86	NO	
KMCCZ00E	0	0.64634E-04	482467.2	3712609.9	0.0	2.00	6.98	1.86	NO	
KMCCZ00F	0	0.64634E-04	482454.4	3712617.8	0.0	2.00	6.98	1.86	NO	
KMCCZ00G	0	0.64634E-04	482441.6	3712625.7	0.0	2.00	6.98	1.86	NO	
KMCCZ00H	0	0.64634E-04	482428.8	3712633.6	0.0	2.00	6.98	1.86	NO	
KMCCZ00I	0	0.64634E-04	482416.1	3712641.4	0.0	2.00	6.98	1.86	NO	
KMCCZ00J	0	0.64634E-04	482403.3	3712649.3	0.0	2.00	6.98	1.86	NO	
KMCCZ00K	0	0.64634E-04	482390.5	3712657.2	0.0	2.00	6.98	1.86	NO	

KMCCZ00L	0	0.64634E-04	482377.8	3712665.1	0.0	2.00	6.98	1.86	NO
KMCCZ00M	0	0.64634E-04	482365.1	3712673.1	0.0	2.00	6.98	1.86	NO
KMCCZ00N	0	0.64634E-04	482352.4	3712681.1	0.0	2.00	6.98	1.86	NO
KMCCZ00O	0	0.64634E-04	482339.7	3712689.1	0.0	2.00	6.98	1.86	NO
KMCCZ00P	0	0.64634E-04	482327.0	3712697.1	0.0	2.00	6.98	1.86	NO
KMCCZ00Q	0	0.64634E-04	482314.3	3712705.0	0.0	2.00	6.98	1.86	NO
KMCCZ00R	0	0.64634E-04	482301.6	3712713.0	0.0	2.00	6.98	1.86	NO
KMCCZ00S	0	0.64634E-04	482288.9	3712721.0	0.0	2.00	6.98	1.86	NO
KMCCZ00T	0	0.64634E-04	482276.2	3712729.0	0.0	2.00	6.98	1.86	NO
KMCCZ00U	0	0.64634E-04	482263.5	3712737.0	0.0	2.00	6.98	1.86	NO
KMCCZ00V	0	0.64634E-04	482250.8	3712745.0	0.0	2.00	6.98	1.86	NO
KMCCZ00W	0	0.64634E-04	482238.1	3712753.0	0.0	2.00	6.98	1.86	NO
KMCCZ00X	0	0.64634E-04	482225.4	3712760.9	0.0	2.00	6.98	1.86	NO
KMCCZ00Y	0	0.64634E-04	482212.7	3712768.9	0.0	2.00	6.98	1.86	NO
KMCCZ00Z	0	0.64634E-04	482200.1	3712776.9	0.0	2.00	6.98	1.86	NO
KMCCZ010	0	0.64634E-04	482187.4	3712784.9	0.0	2.00	6.98	1.86	NO
KMCCZ011	0	0.64634E-04	482174.7	3712792.9	0.0	2.00	6.98	1.86	NO
KMCCZ012	0	0.64634E-04	482162.0	3712800.9	0.0	2.00	6.98	1.86	NO
KMCCZ013	0	0.64634E-04	482149.4	3712809.1	0.0	2.00	6.98	1.86	NO
KMCCZ014	0	0.64634E-04	482137.0	3712817.5	0.0	2.00	6.98	1.86	NO
KMCCZ015	0	0.64634E-04	482124.6	3712826.0	0.0	2.00	6.98	1.86	NO

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
KMCCZ016	0	0.64634E-04	482112.3	3712834.5	0.0	2.00	6.98	1.86	NO	
KMCCZ017	0	0.64634E-04	482099.9	3712842.9	0.0	2.00	6.98	1.86	NO	
KMCCZ018	0	0.64634E-04	482087.5	3712851.4	0.0	2.00	6.98	1.86	NO	
KMCCZ019	0	0.64634E-04	482075.1	3712859.8	0.0	2.00	6.98	1.86	NO	
KMCCZ01A	0	0.64634E-04	482062.7	3712868.3	0.0	2.00	6.98	1.86	NO	
KMCCZ01B	0	0.64634E-04	482050.3	3712876.7	0.0	2.00	6.98	1.86	NO	
KMCCZ01C	0	0.64634E-04	482037.9	3712885.2	0.0	2.00	6.98	1.86	NO	
KMCCZ01D	0	0.64634E-04	482025.5	3712893.6	0.0	2.00	6.98	1.86	NO	
KMCCZ01E	0	0.64634E-04	482013.1	3712902.1	0.0	2.00	6.98	1.86	NO	
KMCCZ01F	0	0.64634E-04	482000.7	3712910.6	0.0	2.00	6.98	1.86	NO	
KMCCZ01G	0	0.64634E-04	481988.4	3712919.0	0.0	2.00	6.98	1.86	NO	
KMCCZ01H	0	0.64634E-04	481976.0	3712927.5	0.0	2.00	6.98	1.86	NO	
KMCCZ01I	0	0.64634E-04	481963.6	3712935.9	0.0	2.00	6.98	1.86	NO	
KMCCZ01J	0	0.64634E-04	481951.2	3712944.4	0.0	2.00	6.98	1.86	NO	
KMCCZ01K	0	0.64634E-04	481939.6	3712953.9	0.0	2.00	6.98	1.86	NO	
KMCCZ01L	0	0.64634E-04	481928.0	3712963.4	0.0	2.00	6.98	1.86	NO	
KMCCZ01M	0	0.64634E-04	481916.4	3712972.9	0.0	2.00	6.98	1.86	NO	
KMCCZ01N	0	0.64634E-04	481904.8	3712982.5	0.0	2.00	6.98	1.86	NO	
KMCCZ01O	0	0.64634E-04	481893.2	3712992.0	0.0	2.00	6.98	1.86	NO	
KMCCZ01P	0	0.64634E-04	481881.6	3713001.5	0.0	2.00	6.98	1.86	NO	
KMCCZ01Q	0	0.64634E-04	481870.0	3713011.0	0.0	2.00	6.98	1.86	NO	
KMCCZ01R	0	0.64634E-04	481858.4	3713020.5	0.0	2.00	6.98	1.86	NO	
KMCCZ01S	0	0.64634E-04	481846.8	3713030.0	0.0	2.00	6.98	1.86	NO	
KMCCZ01T	0	0.64634E-04	481835.2	3713039.5	0.0	2.00	6.98	1.86	NO	
KMCCZ01U	0	0.64634E-04	481823.6	3713049.0	0.0	2.00	6.98	1.86	NO	
KMCCZ01V	0	0.64634E-04	481812.0	3713058.5	0.0	2.00	6.98	1.86	NO	
KMCCZ01W	0	0.64634E-04	481800.3	3713068.0	0.0	2.00	6.98	1.86	NO	
KMCCZ01X	0	0.64634E-04	481788.7	3713077.5	0.0	2.00	6.98	1.86	NO	
KMCCZ01Y	0	0.64634E-04	481777.1	3713087.0	0.0	2.00	6.98	1.86	NO	
KMCCZ01Z	0	0.64634E-04	481765.5	3713096.5	0.0	2.00	6.98	1.86	NO	
KMCCZ020	0	0.64634E-04	481753.9	3713106.0	0.0	2.00	6.98	1.86	NO	
KMCCZ021	0	0.64634E-04	481742.3	3713115.5	0.0	2.00	6.98	1.86	NO	
KMCCZ022	0	0.64634E-04	481730.7	3713125.0	0.0	2.00	6.98	1.86	NO	
KMCCZ023	0	0.64634E-04	481719.1	3713134.5	0.0	2.00	6.98	1.86	NO	
KMCCZ024	0	0.64634E-04	481707.5	3713144.0	0.0	2.00	6.98	1.86	NO	
KMCCZ025	0	0.64634E-04	481695.9	3713153.5	0.0	2.00	6.98	1.86	NO	
KMCCZ026	0	0.64634E-04	481684.3	3713163.0	0.0	2.00	6.98	1.86	NO	
KMCCZ027	0	0.64634E-04	481672.7	3713172.5	0.0	2.00	6.98	1.86	NO	
KMCCZ028	0	0.64634E-04	481661.1	3713182.0	0.0	2.00	6.98	1.86	NO	
KMCCZ029	0	0.64634E-04	481649.5	3713191.5	0.0	2.00	6.98	1.86	NO	

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
KMCCZ02A	0	0.64634E-04	481637.9	3713201.0	0.0	2.00	6.98	1.86	NO	
KMCCZ02B	0	0.64634E-04	481626.2	3713210.5	0.0	2.00	6.98	1.86	NO	
KMCCZ02C	0	0.64634E-04	481614.6	3713220.0	0.0	2.00	6.98	1.86	NO	
KMCCZ02D	0	0.64634E-04	481603.0	3713229.5	0.0	2.00	6.98	1.86	NO	
KMCCZ02E	0	0.64634E-04	481591.4	3713239.0	0.0	2.00	6.98	1.86	NO	

KMCCZ02F	0	0.64634E-04	481579.8	3713248.5	0.0	2.00	6.98	1.86	NO
KMCCZ02G	0	0.64634E-04	481568.2	3713258.0	0.0	2.00	6.98	1.86	NO
KMCCZ02H	0	0.64634E-04	481557.2	3713268.2	0.0	2.00	6.98	1.86	NO
KMCCZ02I	0	0.64634E-04	481546.2	3713278.4	0.0	2.00	6.98	1.86	NO
KMCCZ02J	0	0.64634E-04	481535.2	3713288.6	0.0	2.00	6.98	1.86	NO
KMCCZ02K	0	0.64634E-04	481524.2	3713298.8	0.0	2.00	6.98	1.86	NO
KMCCZ02L	0	0.64634E-04	481513.2	3713309.0	0.0	2.00	6.98	1.86	NO
KMCCZ02M	0	0.64634E-04	481502.2	3713319.2	0.0	2.00	6.98	1.86	NO
KMCCZ02N	0	0.64634E-04	481491.2	3713329.4	0.0	2.00	6.98	1.86	NO
KMCCZ02O	0	0.64634E-04	481480.2	3713339.6	0.0	2.00	6.98	1.86	NO
KMCCZ02P	0	0.64634E-04	481469.2	3713349.8	0.0	2.00	6.98	1.86	NO
KMCCZ02Q	0	0.64634E-04	481458.2	3713360.0	0.0	2.00	6.98	1.86	NO
KMCCZ02R	0	0.64634E-04	481447.2	3713370.2	0.0	2.00	6.98	1.86	NO
KMCCZ02S	0	0.64634E-04	481436.3	3713380.4	0.0	2.00	6.98	1.86	NO
KMCCZ02T	0	0.64634E-04	481425.3	3713390.6	0.0	2.00	6.98	1.86	NO
KMCCZ02U	0	0.64634E-04	481414.3	3713400.8	0.0	2.00	6.98	1.86	NO
KMCCZ02V	0	0.64634E-04	481403.3	3713411.0	0.0	2.00	6.98	1.86	NO
KMCCZ02W	0	0.64634E-04	481392.3	3713421.2	0.0	2.00	6.98	1.86	NO
KMCCZ02X	0	0.64634E-04	481381.3	3713431.4	0.0	2.00	6.98	1.86	NO
KMCCZ02Y	0	0.64634E-04	481370.3	3713441.6	0.0	2.00	6.98	1.86	NO
KMCCZ02Z	0	0.64634E-04	481359.3	3713451.9	0.0	2.00	6.98	1.86	NO
KMCCZ030	0	0.64634E-04	481348.3	3713462.1	0.0	2.00	6.98	1.86	NO
KMCCZ031	0	0.64634E-04	481337.3	3713472.3	0.0	2.00	6.98	1.86	NO
KMCCZ032	0	0.64634E-04	481326.3	3713482.5	0.0	2.00	6.98	1.86	NO
KMCCZ033	0	0.64634E-04	481315.3	3713492.7	0.0	2.00	6.98	1.86	NO
KMCCZ034	0	0.64634E-04	481304.3	3713502.9	0.0	2.00	6.98	1.86	NO
KMCCZ035	0	0.64634E-04	481293.3	3713513.1	0.0	2.00	6.98	1.86	NO
KMCCZ036	0	0.64634E-04	481282.3	3713523.3	0.0	2.00	6.98	1.86	NO
KMCCZ037	0	0.64634E-04	481271.3	3713533.5	0.0	2.00	6.98	1.86	NO
KMCCZ038	0	0.64634E-04	481260.3	3713543.7	0.0	2.00	6.98	1.86	NO
KMCCZ039	0	0.64634E-04	481249.4	3713553.9	0.0	2.00	6.98	1.86	NO
KMCCZ03A	0	0.64634E-04	481238.4	3713564.1	0.0	2.00	6.98	1.86	NO
KMCCZ03B	0	0.64634E-04	481227.4	3713574.3	0.0	2.00	6.98	1.86	NO
KMCCZ03C	0	0.64634E-04	481216.4	3713584.5	0.0	2.00	6.98	1.86	NO
KMCCZ03D	0	0.64634E-04	481205.4	3713594.7	0.0	2.00	6.98	1.86	NO

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
KMCCZ03E	0	0.64634E-04	481194.4	3713604.9	0.0	2.00	6.98	1.86	NO	
KMCCZ03F	0	0.64634E-04	481183.4	3713615.1	0.0	2.00	6.98	1.86	NO	
KMCCZ03G	0	0.64634E-04	481172.4	3713625.3	0.0	2.00	6.98	1.86	NO	
KMCCZ03J	0	0.47776E-05	482796.5	3712908.9	0.0	2.00	6.98	1.86	NO	
KMCCZ03K	0	0.47776E-05	482782.2	3712904.3	0.0	2.00	6.98	1.86	NO	
KMCCZ03L	0	0.47776E-05	482767.9	3712899.6	0.0	2.00	6.98	1.86	NO	
KMCCZ03M	0	0.47776E-05	482753.7	3712895.0	0.0	2.00	6.98	1.86	NO	
KMCCZ03N	0	0.47776E-05	482739.4	3712890.4	0.0	2.00	6.98	1.86	NO	
KMCCZ03O	0	0.47776E-05	482725.1	3712885.8	0.0	2.00	6.98	1.86	NO	
KMCCZ03P	0	0.47776E-05	482710.8	3712881.1	0.0	2.00	6.98	1.86	NO	
KMCCZ03Q	0	0.47776E-05	482696.6	3712876.5	0.0	2.00	6.98	1.86	NO	
KMCCZ03R	0	0.47776E-05	482682.3	3712871.9	0.0	2.00	6.98	1.86	NO	
KMCCZ03S	0	0.47776E-05	482668.0	3712867.4	0.0	2.00	6.98	1.86	NO	
KMCCZ03T	0	0.47776E-05	482653.7	3712863.0	0.0	2.00	6.98	1.86	NO	
KMCCZ03U	0	0.47776E-05	482639.3	3712858.6	0.0	2.00	6.98	1.86	NO	
KMCCZ03V	0	0.47776E-05	482625.0	3712854.1	0.0	2.00	6.98	1.86	NO	
KMCCZ03W	0	0.47776E-05	482610.7	3712849.7	0.0	2.00	6.98	1.86	NO	
KMCCZ03X	0	0.47776E-05	482596.2	3712845.7	0.0	2.00	6.98	1.86	NO	
KMCCZ03Y	0	0.47776E-05	482581.5	3712842.7	0.0	2.00	6.98	1.86	NO	
KMCCZ03Z	0	0.47776E-05	482566.8	3712839.6	0.0	2.00	6.98	1.86	NO	
KMCCZ040	0	0.47776E-05	482552.2	3712836.6	0.0	2.00	6.98	1.86	NO	
KMCCZ041	0	0.47776E-05	482537.3	3712835.0	0.0	2.00	6.98	1.86	NO	
KMCCZ042	0	0.47776E-05	482522.3	3712834.0	0.0	2.00	6.98	1.86	NO	
KMCCZ043	0	0.47776E-05	482507.3	3712833.0	0.0	2.00	6.98	1.86	NO	
KMCCZ044	0	0.47776E-05	482492.4	3712832.1	0.0	2.00	6.98	1.86	NO	
KMCCZ045	0	0.47776E-05	482477.4	3712831.1	0.0	2.00	6.98	1.86	NO	
KMCCZ046	0	0.47776E-05	482462.4	3712830.2	0.0	2.00	6.98	1.86	NO	
KMCCZ047	0	0.47776E-05	482447.5	3712829.2	0.0	2.00	6.98	1.86	NO	
KMCCZ048	0	0.47776E-05	482432.5	3712828.3	0.0	2.00	6.98	1.86	NO	
KMCCZ049	0	0.47776E-05	482417.5	3712828.8	0.0	2.00	6.98	1.86	NO	
KMCCZ04A	0	0.47776E-05	482402.5	3712829.4	0.0	2.00	6.98	1.86	NO	
KMCCZ04B	0	0.47776E-05	482387.5	3712829.9	0.0	2.00	6.98	1.86	NO	
KMCCZ04C	0	0.47776E-05	482372.5	3712830.4	0.0	2.00	6.98	1.86	NO	
KMCCZ04D	0	0.47776E-05	482357.5	3712830.9	0.0	2.00	6.98	1.86	NO	
KMCCZ04E	0	0.47776E-05	482342.5	3712831.5	0.0	2.00	6.98	1.86	NO	
KMCCZ04F	0	0.47776E-05	482327.6	3712831.7	0.0	2.00	6.98	1.86	NO	
KMCCZ04G	0	0.47776E-05	482312.6	3712830.4	0.0	2.00	6.98	1.86	NO	
KMCCZ04H	0	0.47776E-05	482297.7	3712829.2	0.0	2.00	6.98	1.86	NO	
KMCCZ04I	0	0.47776E-05	482282.7	3712827.9	0.0	2.00	6.98	1.86	NO	
KMCCZ04J	0	0.47776E-05	482267.8	3712826.7	0.0	2.00	6.98	1.86	NO	

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
KMCCZ04K	0	0.47776E-05	482252.8	3712825.4	0.0	2.00	6.98	1.86	NO	
KMCCZ04L	0	0.47776E-05	482238.1	3712823.0	0.0	2.00	6.98	1.86	NO	
KMCCZ04M	0	0.47776E-05	482223.7	3712818.8	0.0	2.00	6.98	1.86	NO	
KMCCZ04N	0	0.47776E-05	482209.3	3712814.5	0.0	2.00	6.98	1.86	NO	
KMCCZ04O	0	0.47776E-05	482195.0	3712810.2	0.0	2.00	6.98	1.86	NO	
KMCCZ04P	0	0.47776E-05	482180.6	3712805.9	0.0	2.00	6.98	1.86	NO	
KMCCZ04Q	0	0.47776E-05	482166.2	3712801.7	0.0	2.00	6.98	1.86	NO	
KMCCZ04R	0	0.47776E-05	482151.8	3712797.4	0.0	2.00	6.98	1.86	NO	
KMCCZ04S	0	0.47776E-05	482137.4	3712793.1	0.0	2.00	6.98	1.86	NO	
KMCCZ04T	0	0.47776E-05	482123.1	3712788.8	0.0	2.00	6.98	1.86	NO	
KMCCZ04U	0	0.47776E-05	482108.7	3712784.6	0.0	2.00	6.98	1.86	NO	
KMCCZ04V	0	0.47776E-05	482094.5	3712779.8	0.0	2.00	6.98	1.86	NO	
KMCCZ04W	0	0.47776E-05	482080.3	3712775.0	0.0	2.00	6.98	1.86	NO	
KMCCZ04X	0	0.47776E-05	482066.1	3712770.1	0.0	2.00	6.98	1.86	NO	
KMCCZ04Y	0	0.47776E-05	482051.9	3712765.2	0.0	2.00	6.98	1.86	NO	
KMCCZ04Z	0	0.47776E-05	482037.7	3712760.4	0.0	2.00	6.98	1.86	NO	
KMCCZ050	0	0.47776E-05	482023.5	3712755.5	0.0	2.00	6.98	1.86	NO	
KMCCZ051	0	0.47776E-05	482009.3	3712750.7	0.0	2.00	6.98	1.86	NO	
KMCCZ052	0	0.47776E-05	481995.2	3712745.7	0.0	2.00	6.98	1.86	NO	
KMCCZ053	0	0.47776E-05	481983.4	3712736.5	0.0	2.00	6.98	1.86	NO	
KMCCZ054	0	0.47776E-05	481971.5	3712727.2	0.0	2.00	6.98	1.86	NO	
KMCCZ055	0	0.47776E-05	481959.7	3712718.0	0.0	2.00	6.98	1.86	NO	
KMCCZ056	0	0.47776E-05	481947.9	3712708.7	0.0	2.00	6.98	1.86	NO	
KMCCZ057	0	0.12221E-05	481936.1	3712699.5	0.0	2.00	6.98	1.86	NO	
KMCCZ058	0	0.12221E-05	481924.3	3712690.3	0.0	2.00	6.98	1.86	NO	
KMCCZ059	0	0.12221E-05	481912.5	3712681.0	0.0	2.00	6.98	1.86	NO	
KMCCZ05A	0	0.12221E-05	481900.7	3712671.8	0.0	2.00	6.98	1.86	NO	
KMCCZ05B	0	0.12221E-05	481888.8	3712662.5	0.0	2.00	6.98	1.86	NO	
KMCCZ05C	0	0.12221E-05	481877.0	3712653.3	0.0	2.00	6.98	1.86	NO	
KMCCZ05D	0	0.12221E-05	481865.2	3712644.0	0.0	2.00	6.98	1.86	NO	
KMCCZ05E	0	0.12221E-05	481853.4	3712634.8	0.0	2.00	6.98	1.86	NO	
KMCCZ05F	0	0.12221E-05	481841.6	3712625.6	0.0	2.00	6.98	1.86	NO	
KMCCZ05G	0	0.12221E-05	481829.8	3712616.3	0.0	2.00	6.98	1.86	NO	
KMCCZ05H	0	0.12221E-05	481820.3	3712605.9	0.0	2.00	6.98	1.86	NO	

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	KMCCZ002 , KMCCZ003 , KMCCZ004 , KMCCZ005 , KMCCZ006 , KMCCZ007 , KMCCZ008 , KMCCZ009 ,
	KMCCZ00A , KMCCZ00B , KMCCZ00C , KMCCZ00D , KMCCZ00E , KMCCZ00F , KMCCZ00G , KMCCZ00H ,
	KMCCZ00I , KMCCZ00J , KMCCZ00K , KMCCZ00L , KMCCZ00M , KMCCZ00N , KMCCZ00O , KMCCZ00P ,
	KMCCZ00Q , KMCCZ00R , KMCCZ00S , KMCCZ00T , KMCCZ00U , KMCCZ00V , KMCCZ00W , KMCCZ00X ,
	KMCCZ00Y , KMCCZ00Z , KMCCZ010 , KMCCZ011 , KMCCZ012 , KMCCZ013 , KMCCZ014 , KMCCZ015 ,
	KMCCZ016 , KMCCZ017 , KMCCZ018 , KMCCZ019 , KMCCZ01A , KMCCZ01B , KMCCZ01C , KMCCZ01D ,
	KMCCZ01E , KMCCZ01F , KMCCZ01G , KMCCZ01H , KMCCZ01I , KMCCZ01J , KMCCZ01K , KMCCZ01L ,
	KMCCZ01M , KMCCZ01N , KMCCZ01O , KMCCZ01P , KMCCZ01Q , KMCCZ01R , KMCCZ01S , KMCCZ01T ,
	KMCCZ01U , KMCCZ01V , KMCCZ01W , KMCCZ01X , KMCCZ01Y , KMCCZ01Z , KMCCZ020 , KMCCZ021 ,
	KMCCZ022 , KMCCZ023 , KMCCZ024 , KMCCZ025 , KMCCZ026 , KMCCZ027 , KMCCZ028 , KMCCZ029 ,
	KMCCZ02A , KMCCZ02B , KMCCZ02C , KMCCZ02D , KMCCZ02E , KMCCZ02F , KMCCZ02G , KMCCZ02H ,
	KMCCZ02I , KMCCZ02J , KMCCZ02K , KMCCZ02L , KMCCZ02M , KMCCZ02N , KMCCZ02O , KMCCZ02P ,
	KMCCZ02Q , KMCCZ02R , KMCCZ02S , KMCCZ02T , KMCCZ02U , KMCCZ02V , KMCCZ02W , KMCCZ02X ,
	KMCCZ02Y , KMCCZ02Z , KMCCZ030 , KMCCZ031 , KMCCZ032 , KMCCZ033 , KMCCZ034 , KMCCZ035 ,
	KMCCZ036 , KMCCZ037 , KMCCZ038 , KMCCZ039 , KMCCZ03A , KMCCZ03B , KMCCZ03C , KMCCZ03D ,
	KMCCZ03E , KMCCZ03F , KMCCZ03G , KMCCZ03J , KMCCZ03K , KMCCZ03L , KMCCZ03M , KMCCZ03N ,
	KMCCZ03O , KMCCZ03P , KMCCZ03Q , KMCCZ03R , KMCCZ03S , KMCCZ03T , KMCCZ03U , KMCCZ03V ,
	KMCCZ03W , KMCCZ03X , KMCCZ03Y , KMCCZ03Z , KMCCZ040 , KMCCZ041 , KMCCZ042 , KMCCZ043 ,
	KMCCZ044 , KMCCZ045 , KMCCZ046 , KMCCZ047 , KMCCZ048 , KMCCZ049 , KMCCZ04A , KMCCZ04B ,

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs

KMCCZ04K , KMCCZ04L , KMCCZ04M , KMCCZ04N , KMCCZ04O , KMCCZ04P , KMCCZ04Q , KMCCZ04R ,

KMCCZ04S , KMCCZ04T , KMCCZ04U , KMCCZ04V , KMCCZ04W , KMCCZ04X , KMCCZ04Y , KMCCZ04Z ,

KMCCZ050 , KMCCZ051 , KMCCZ052 , KMCCZ053 , KMCCZ054 , KMCCZ055 , KMCCZ056 , KMCCZ057 ,

KMCCZ058 , KMCCZ059 , KMCCZ05A , KMCCZ05B , KMCCZ05C , KMCCZ05D , KMCCZ05E , KMCCZ05F ,

KMCCZ05G , KMCCZ05H ,

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** GRIDDED RECEPTOR NETWORK SUMMARY ***

*** NETWORK ID: KMCCZ05S ; NETWORK TYPE: GRIDCART ***

*** X-COORDINATES OF GRID ***
(METERS)

482771.0, 482712.6, 482654.2, 482595.8, 482537.4, 482479.0, 482420.6, 482362.2, 482303.8, 482245.4,
482187.0, 482128.6, 482070.2, 482011.8, 481953.4, 481895.0, 481836.6, 481778.2, 481719.8, 481661.4,
481603.0,

*** Y-COORDINATES OF GRID ***
(METERS)

3713456.8, 3713408.3, 3713359.8, 3713311.3, 3713262.8, 3713214.3, 3713165.8, 3713117.3, 3713068.8, 3713020.3,
3712971.8, 3712923.3, 3712874.8, 3712826.3, 3712777.8, 3712729.3, 3712680.8, 3712632.3, 3712583.8, 3712535.3,
3712486.8,

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** NETWORK ID: KMCCZ05S ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 482771.00	482712.60	482654.20	482595.80	482537.40	482479.00	482420.60	482362.20	482303.80
3712486.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712535.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712583.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712632.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712680.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712729.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712777.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712826.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712874.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712923.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712971.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713020.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713068.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713117.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713165.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713214.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713262.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713311.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713359.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713408.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713456.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** NETWORK ID: KMCCZ05S ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 482245.40	482187.00	482128.60	482070.20	482011.80	481953.40	481895.00	481836.60	481778.20

3712486.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712535.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712583.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712632.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712680.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712729.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712777.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712826.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712874.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712923.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712971.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713020.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713068.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713117.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713165.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713214.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713262.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713311.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713359.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713408.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713456.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** NETWORK ID: KMCCZ05S ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 481719.80	481661.40	481603.00
3712486.80	0.00	0.00	0.00
3712535.30	0.00	0.00	0.00
3712583.80	0.00	0.00	0.00
3712632.30	0.00	0.00	0.00
3712680.80	0.00	0.00	0.00
3712729.30	0.00	0.00	0.00
3712777.80	0.00	0.00	0.00
3712826.30	0.00	0.00	0.00
3712874.80	0.00	0.00	0.00
3712923.30	0.00	0.00	0.00
3712971.80	0.00	0.00	0.00
3713020.30	0.00	0.00	0.00
3713068.80	0.00	0.00	0.00
3713117.30	0.00	0.00	0.00
3713165.80	0.00	0.00	0.00
3713214.30	0.00	0.00	0.00
3713262.80	0.00	0.00	0.00
3713311.30	0.00	0.00	0.00
3713359.80	0.00	0.00	0.00
3713408.30	0.00	0.00	0.00
3713456.80	0.00	0.00	0.00

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** NETWORK ID: KMCCZ05S ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 482771.00	482712.60	482654.20	482595.80	482537.40	482479.00	482420.60	482362.20	482303.80
3712486.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712535.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712583.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712632.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712680.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712729.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712777.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712826.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712874.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712923.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712971.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713020.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713068.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713117.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713165.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713214.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713262.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713311.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713359.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713408.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713456.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*** NETWORK ID: KMCCZ05S ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 482245.40	482187.00	482128.60	482070.20	482011.80	481953.40	481895.00	481836.60	481778.20
3712486.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712535.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712583.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712632.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712680.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712729.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712777.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712826.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712874.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712923.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3712971.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713020.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713068.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713117.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713165.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713214.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713262.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713311.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713359.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713408.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3713456.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*** NETWORK ID: KMCCZ05S ; NETWORK TYPE: GRIDCART ***

* HILL HEIGHT SCALES IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 481719.80	481661.40	481603.00
3712486.80	0.00	0.00	0.00
3712535.30	0.00	0.00	0.00
3712583.80	0.00	0.00	0.00
3712632.30	0.00	0.00	0.00
3712680.80	0.00	0.00	0.00
3712729.30	0.00	0.00	0.00
3712777.80	0.00	0.00	0.00
3712826.30	0.00	0.00	0.00
3712874.80	0.00	0.00	0.00
3712923.30	0.00	0.00	0.00
3712971.80	0.00	0.00	0.00
3713020.30	0.00	0.00	0.00
3713068.80	0.00	0.00	0.00
3713117.30	0.00	0.00	0.00
3713165.80	0.00	0.00	0.00
3713214.30	0.00	0.00	0.00
3713262.80	0.00	0.00	0.00
3713311.30	0.00	0.00	0.00
3713359.80	0.00	0.00	0.00
3713408.30	0.00	0.00	0.00
3713456.80	0.00	0.00	0.00

* SOURCE-RECEPTOR COMBINATIONS FOR WHICH CALCULATIONS MAY NOT BE PERFORMED *
LESS THAN 1.0 METER; WITHIN OPENPIT; OR BEYOND 80KM FOR FASTAREA/FASTALL

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
KMCCZ004	482595.8	3712535.3	-10.90
KMCCZ005	482595.8	3712535.3	-0.78
KMCCZ009	482537.4	3712583.8	-0.33
KMCCZ00H	482420.6	3712632.3	-6.70
KMCCZ00I	482420.6	3712632.3	-4.85
KMCCZ00M	482362.2	3712680.8	-6.77
KMCCZ00N	482362.2	3712680.8	-5.20
KMCCZ00Z	482187.0	3712777.8	-1.87
KMCCZ010	482187.0	3712777.8	-7.89
KMCCZ014	482128.6	3712826.3	-2.83
KMCCZ015	482128.6	3712826.3	-10.99
KMCCZ019	482070.2	3712874.8	0.78
KMCCZ01A	482070.2	3712874.8	-5.08
KMCCZ01N	481895.0	3712971.8	-0.49

KMCCZ01S	481836.6	3713020.3	-0.92
KMCCZ01X	481778.2	3713068.8	-1.36
KMCCZ022	481719.8	3713117.3	-1.65
KMCCZ027	481661.4	3713165.8	-1.86
KMCCZ02C	481603.0	3713214.3	-2.08
KMCCZ02D	481603.0	3713214.3	0.20
KMCCZ03P	482712.6	3712874.8	-8.45
KMCCZ03S	482654.2	3712874.8	0.66
KMCCZ03T	482654.2	3712874.8	-3.19
KMCCZ041	482537.4	3712826.3	-6.30
KMCCZ044	482479.0	3712826.3	-0.40
KMCCZ045	482479.0	3712826.3	-9.94
KMCCZ048	482420.6	3712826.3	-2.93
KMCCZ049	482420.6	3712826.3	-11.02
KMCCZ04C	482362.2	3712826.3	-3.91
KMCCZ04D	482362.2	3712826.3	-8.42
KMCCZ04G	482303.8	3712826.3	-5.29
KMCCZ04H	482303.8	3712826.3	-8.25
KMCCZ04K	482245.4	3712826.3	-7.55
KMCCZ04L	482245.4	3712826.3	-6.99
KMCCZ04T	482128.6	3712777.8	-2.70
KMCCZ04W	482070.2	3712777.8	-4.52
KMCCZ04X	482070.2	3712777.8	-6.28
KMCCZ055	481953.4	3712729.3	-2.06
KMCCZ05A	481895.0	3712680.8	-4.35
KMCCZ05F	481836.6	3712632.3	-6.64

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** 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
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
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
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
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
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
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
1 1 1 1 1 1 1 1 1 1  1 1 1 1 1 1
```

METEOROLOGICAL DATA PROCESSED BETWEEN START DATE: 2012 1 1 1
AND END DATE: 2012 12 31 24

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: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

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

Surface file: C:\Users\RYAN~1.DES\OneDrive\LDNONE~1\COUNTY~2\CIA5C8~1\20-49A~1\Aermod\LAKEEL~1 Met Version: 14134
Profile file: C:\Users\RYAN~1.DES\OneDrive\LDNONE~1\COUNTY~2\CIA5C8~1\20-49A~1\Aermod\LAKEEL~1
Surface format: FREE
Profile format: FREE
Surface station no.: 0 Upper air station no.: 3190
Name: UNKNOWN Name: UNKNOWN
Year: 2008 Year: 2008

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
08	01	01	1	01	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.23	1.00	1.00	999.00	999.	-9.0	284.2	5.5
08	01	01	1	02	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.23	1.00	1.00	999.00	999.	-9.0	283.1	5.5
08	01	01	1	03	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.23	1.00	1.00	999.00	999.	-9.0	283.1	5.5
08	01	01	1	04	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.23	1.00	1.00	999.00	999.	-9.0	283.8	5.5
08	01	01	1	05	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.23	1.00	1.00	999.00	999.	-9.0	283.8	5.5
08	01	01	1	06	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.23	1.00	1.00	999.00	999.	-9.0	283.8	5.5
08	01	01	1	07	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.23	1.00	1.00	999.00	999.	-9.0	283.1	5.5
08	01	01	1	08	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.23	1.00	0.54	999.00	999.	-9.0	283.8	5.5
08	01	01	1	09	27.2	-9.000	-9.000	-9.000	60.	-999.	-99999.0	0.23	1.00	0.33	999.00	999.	-9.0	285.9	5.5
08	01	01	1	10	74.6	-9.000	-9.000	-9.000	157.	-999.	-99999.0	0.23	1.00	0.25	999.00	999.	-9.0	288.1	5.5
08	01	01	1	11	107.4	-9.000	-9.000	-9.000	375.	-999.	-99999.0	0.23	1.00	0.23	999.00	999.	-9.0	289.9	5.5
08	01	01	1	12	122.7	-9.000	-9.000	-9.000	578.	-999.	-99999.0	0.23	1.00	0.22	999.00	999.	-9.0	289.9	5.5
08	01	01	1	13	121.3	-9.000	-9.000	-9.000	714.	-999.	-99999.0	0.23	1.00	0.22	999.00	999.	-9.0	291.4	5.5
08	01	01	1	14	102.1	-9.000	-9.000	-9.000	763.	-999.	-99999.0	0.23	1.00	0.23	999.00	999.	-9.0	292.0	5.5
08	01	01	1	15	65.8	-9.000	-9.000	-9.000	792.	-999.	-99999.0	0.23	1.00	0.27	999.00	999.	-9.0	291.4	5.5
08	01	01	1	16	16.0	-9.000	-9.000	-9.000	798.	-999.	-99999.0	0.23	1.00	0.36	999.00	999.	-9.0	290.4	5.5
08	01	01	1	17	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.23	1.00	0.63	999.00	999.	-9.0	288.8	5.5
08	01	01	1	18	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.23	1.00	1.00	999.00	999.	-9.0	287.5	5.5
08	01	01	1	19	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.23	1.00	1.00	999.00	999.	-9.0	286.4	5.5
08	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.23	1.00	1.00	999.00	999.	-9.0	285.4	5.5

```
08 01 01   1 21 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.23   1.00   1.00  999.00  999.   -9.0  284.2    5.5
08 01 01   1 22 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.23   1.00   1.00  999.00  999.   -9.0  283.1    5.5
08 01 01   1 23 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.23   1.00   1.00  999.00  999.   -9.0  283.1    5.5
08 01 01   1 24 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.23   1.00   1.00  999.00  999.   -9.0  282.5    5.5


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 08 01 01 01    5.5 0 -999.  -99.00   284.3   99.0  -99.00  -99.00
 08 01 01 01    9.1 1 -999.  -99.00  -999.0   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION  19191 ***   ***  I-15  DPM                                                                ***        01/08/22
 *** AERMET - VERSION  14134 ***   ***                                                                           ***        10:34:43
                                                                                                                            PAGE  19

 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL      ***
                                INCLUDING SOURCE(S):     KMCCZ002    , KMCCZ003    , KMCCZ004    , KMCCZ005    , KMCCZ006    ,
                  KMCCZ007    , KMCCZ008    , KMCCZ009    , KMCCZ00A    , KMCCZ00B    , KMCCZ00C    , KMCCZ00D    , KMCCZ00E    ,
                  KMCCZ00F    , KMCCZ00G    , KMCCZ00H    , KMCCZ00I    , KMCCZ00J    , KMCCZ00K    , KMCCZ00L    , KMCCZ00M    ,
                  KMCCZ00N    , KMCCZ00O    , KMCCZ00P    , KMCCZ00Q    , KMCCZ00R    , KMCCZ00S    , KMCCZ00T    ,  . . .      ,

                              *** NETWORK ID: KMCCZ05S ;  NETWORK TYPE: GRIDCART ***

                                   ** CONC OF PM10     IN MICROGRAMS/M**3                      **

    Y-COORD  |                                          X-COORD (METERS)
    (METERS) |     482771.00    482712.60    482654.20    482595.80    482537.40    482479.00    482420.60    482362.20    482303.80
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  3712486.80 |       0.20243      0.28436      0.51139      0.73520      0.62061      0.52766      0.45926      0.40689      0.36489
  3712535.30 |       0.20612      0.29044      0.52552      1.00023      1.10982      0.77651      0.61806      0.51955      0.45028
  3712583.80 |       0.20785      0.28485      0.43203      0.76272      1.30153      1.49180      0.92104      0.70242      0.57639
  3712632.30 |       0.20425      0.26589      0.36057      0.52067      0.80127      1.30131      1.23465      1.08234      0.78896
  3712680.80 |       0.19722      0.24588      0.31313      0.41203      0.56375      0.78369      1.14244      1.29993      1.28658
  3712729.30 |       0.18981      0.23013      0.28208      0.35193      0.44899      0.58089      0.75920      1.03925      1.72613
  3712777.80 |       0.18476      0.22094      0.26509      0.32082      0.39161      0.48179      0.59525      0.74454      0.97419
  3712826.30 |       0.18563      0.22341      0.26907      0.33015      0.37512      0.42421      0.50127      0.59777      0.72627
  3712874.80 |       0.20745      0.24270      0.24842      0.29190      0.31885      0.36210      0.41820      0.48887      0.57404
  3712923.30 |       0.19908      0.20625      0.21839      0.23741      0.26390      0.29876      0.34218      0.39457      0.45701
  3712971.80 |       0.15209      0.17080      0.18695      0.20576      0.22869      0.25698      0.29136      0.33217      0.38022
  3713020.30 |       0.13352      0.15001      0.16584      0.18291      0.20263      0.22602      0.25391      0.28665      0.32484
  3713068.80 |       0.12176      0.13539      0.14974      0.16504      0.18211      0.20180      0.22487      0.25173      0.28281
  3713117.30 |       0.11274      0.12422      0.13681      0.15041      0.16534      0.18218      0.20161      0.22404      0.24982
  3713165.80 |       0.10525      0.11512      0.12612      0.13815      0.15128      0.16588      0.18249      0.20152      0.22324
  3713214.30 |       0.09878      0.10741      0.11705      0.12767      0.13927      0.15205      0.16644      0.18280      0.20134
  3713262.80 |       0.09305      0.10068      0.10919      0.11859      0.12888      0.14016      0.15274      0.16694      0.18296
  3713311.30 |       0.08790      0.09471      0.10227      0.11063      0.11978      0.12979      0.14088      0.15330      0.16726
  3713359.80 |       0.08323      0.08934      0.09610      0.10356      0.11173      0.12065      0.13048      0.14142      0.15365
  3713408.30 |       0.07896      0.08447      0.09055      0.09724      0.10456      0.11253      0.12128      0.13096      0.14174
  3713456.80 |       0.07503      0.08003      0.08552      0.09155      0.09812      0.10527      0.11308      0.12168      0.13122
 *** AERMOD - VERSION  19191 ***   ***  I-15  DPM                                                                ***        01/08/22
 *** AERMET - VERSION  14134 ***   ***                                                                           ***        10:34:43
                                                                                                                            PAGE  20

 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL      ***
                                INCLUDING SOURCE(S):     KMCCZ002    , KMCCZ003    , KMCCZ004    , KMCCZ005    , KMCCZ006    ,
                  KMCCZ007    , KMCCZ008    , KMCCZ009    , KMCCZ00A    , KMCCZ00B    , KMCCZ00C    , KMCCZ00D    , KMCCZ00E    ,
                  KMCCZ00F    , KMCCZ00G    , KMCCZ00H    , KMCCZ00I    , KMCCZ00J    , KMCCZ00K    , KMCCZ00L    , KMCCZ00M    ,
                  KMCCZ00N    , KMCCZ00O    , KMCCZ00P    , KMCCZ00Q    , KMCCZ00R    , KMCCZ00S    , KMCCZ00T    ,  . . .      ,

                              *** NETWORK ID: KMCCZ05S ;  NETWORK TYPE: GRIDCART ***

                                   ** CONC OF PM10     IN MICROGRAMS/M**3                      **

    Y-COORD  |                                          X-COORD (METERS)
    (METERS) |     482245.40    482187.00    482128.60    482070.20    482011.80    481953.40    481895.00    481836.60    481778.20
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

  3712486.80 |       0.32995      0.30006      0.27391      0.25070      0.22997      0.21126      0.19408      0.17822      0.16376
  3712535.30 |       0.39757      0.35530      0.32004      0.28978      0.26332      0.23999      0.21909      0.19956      0.18126
  3712583.80 |       0.49158      0.42901      0.37989      0.33962      0.30539      0.27584      0.25045      0.22898      0.20205
  3712632.30 |       0.63392      0.53346      0.46119      0.40560      0.36100      0.32286      0.29266      0.26119      0.22587
  3712680.80 |       0.88561      0.69642      0.57937      0.49802      0.43912      0.39485      0.33664      0.28967      0.25247
  3712729.30 |       1.60385      1.00450      0.77189      0.64100      0.56507      0.47032      0.38333      0.32661      0.28400
  3712777.80 |       1.44279      1.38508      1.16053      0.84009      0.68313      0.54391      0.44559      0.37567      0.32318
  3712826.30 |       0.91751      1.29329      1.43063      1.25751      0.86809      0.66623      0.53471      0.44183      0.37355
  3712874.80 |       0.68278      0.84165      1.12976      1.35813      1.39424      0.90257      0.67402      0.53516      0.44067
  3712923.30 |       0.53328      0.63366      0.78081      1.03634      1.69103      1.61164      0.92852      0.67809      0.53480
  3712971.80 |       0.43737      0.50821      0.60220      0.73941      0.96867      1.50441      1.44914      0.93567      0.67883
  3713020.30 |       0.36953      0.42304      0.49006      0.57963      0.71056      0.93234      1.48562      1.47072      0.93975
  3713068.80 |       0.31882      0.36107      0.41214      0.47688      0.56458      0.69453      0.92019      1.47196      1.49124
  3713117.30 |       0.27947      0.31381      0.35439      0.40403      0.46783      0.55510      0.68607      0.91380      1.45577
  3713165.80 |       0.24805      0.27654      0.30967      0.34917      0.39804      0.46137      0.54884      0.68082      0.90760
  3713214.30 |       0.22239      0.24638      0.27395      0.30619      0.34495      0.39327      0.45643      0.54418      0.67614
  3713262.80 |       0.20101      0.22144      0.24472      0.27155      0.30310      0.34128      0.38922      0.45226      0.53996
  3713311.30 |       0.18289      0.20046      0.22033      0.24297      0.26916      0.30013      0.33783      0.38545      0.44829
  3713359.80 |       0.16729      0.18251      0.19961      0.21894      0.24101      0.26663      0.29709      0.33437      0.38171
  3713408.30 |       0.15370      0.16698      0.18180      0.19843      0.21723      0.23876      0.26387      0.29387      0.33083
  3713456.80 |       0.14176      0.15340      0.16631      0.18070      0.19685      0.21514      0.23615      0.26077      0.29038
```

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 1 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): KMCCZ002 , KMCCZ003 , KMCCZ004 , KMCCZ005 , KMCCZ006 ,
KMCCZ007 , KMCCZ008 , KMCCZ009 , KMCCZ00A , KMCCZ00B , KMCCZ00C , KMCCZ00D , KMCCZ00E ,
KMCCZ00F , KMCCZ00G , KMCCZ00H , KMCCZ00I , KMCCZ00J , KMCCZ00K , KMCCZ00L , KMCCZ00M ,
KMCCZ00N , KMCCZ00O , KMCCZ00P , KMCCZ00Q , KMCCZ00R , KMCCZ00S , KMCCZ00T , . . . ,

*** NETWORK ID: KMCCZ05S ; NETWORK TYPE: GRIDCART ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

Y-COORD (METERS)	X-COORD (METERS) 481719.80	481661.40	481603.00
3712486.80	0.15084	0.13946	0.12933
3712535.30	0.16541	0.15187	0.14004
3712583.80	0.18213	0.16594	0.15208
3712632.30	0.20129	0.18199	0.16570
3712680.80	0.22353	0.20049	0.18125
3712729.30	0.24982	0.22213	0.19922
3712777.80	0.28157	0.24793	0.22034
3712826.30	0.32099	0.27931	0.24561
3712874.80	0.37146	0.31836	0.27640
3712923.30	0.43857	0.36839	0.31477
3712971.80	0.53295	0.43511	0.36406
3713020.30	0.67815	0.52948	0.43009
3713068.80	0.94281	0.67565	0.52392
3713117.30	1.51194	0.94399	0.67027
3713165.80	1.44009	1.53309	0.94152
3713214.30	0.90104	1.42382	1.28266
3713262.80	0.67134	0.89475	1.41273
3713311.30	0.53576	0.66723	0.89443
3713359.80	0.44442	0.53239	0.66707
3713408.30	0.37800	0.44100	0.53053
3713456.80	0.32707	0.37417	0.43758

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 1 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): KMCCZ002 , KMCCZ003 , KMCCZ004 , KMCCZ005 , KMCCZ006 ,
KMCCZ007 , KMCCZ008 , KMCCZ009 , KMCCZ00A , KMCCZ00B , KMCCZ00C , KMCCZ00D , KMCCZ00E ,
KMCCZ00F , KMCCZ00G , KMCCZ00H , KMCCZ00I , KMCCZ00J , KMCCZ00K , KMCCZ00L , KMCCZ00M ,
KMCCZ00N , KMCCZ00O , KMCCZ00P , KMCCZ00Q , KMCCZ00R , KMCCZ00S , KMCCZ00T , . . . ,

*** SENSITIVE DISCRETE RECEPTOR POINTS ***

** CONC OF PM10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
482005.00	3713081.70	0.54651	482068.10	3713023.50	0.57526
482356.90	3712862.90	0.52933			

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL

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

** CONC OF PM10 IN MICROGRAMS/M**3 **

GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	NETWORK GRID-ID
ALL	1ST HIGHEST VALUE IS	1.72613	AT (482303.80, 3712729.30, 0.00, 0.00, 0.00)	GC	KMCCZ05S
	2ND HIGHEST VALUE IS	1.69103	AT (482011.80, 3712923.30, 0.00, 0.00, 0.00)	GC	KMCCZ05S
	3RD HIGHEST VALUE IS	1.61164	AT (481953.40, 3712923.30, 0.00, 0.00, 0.00)	GC	KMCCZ05S
	4TH HIGHEST VALUE IS	1.60385	AT (482245.40, 3712729.30, 0.00, 0.00, 0.00)	GC	KMCCZ05S
	5TH HIGHEST VALUE IS	1.53309	AT (481661.40, 3713165.80, 0.00, 0.00, 0.00)	GC	KMCCZ05S
	6TH HIGHEST VALUE IS	1.51194	AT (481719.80, 3713117.30, 0.00, 0.00, 0.00)	GC	KMCCZ05S
	7TH HIGHEST VALUE IS	1.50441	AT (481953.40, 3712971.80, 0.00, 0.00, 0.00)	GC	KMCCZ05S
	8TH HIGHEST VALUE IS	1.49180	AT (482479.00, 3712583.80, 0.00, 0.00, 0.00)	GC	KMCCZ05S
	9TH HIGHEST VALUE IS	1.49124	AT (481778.20, 3713068.80, 0.00, 0.00, 0.00)	GC	KMCCZ05S
	10TH HIGHEST VALUE IS	1.48562	AT (481895.00, 3713020.30, 0.00, 0.00, 0.00)	GC	KMCCZ05S

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

```
*** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL

*** 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         1916 Informational Message(s)

A Total of         8784 Hours Were Processed

A Total of            3 Calm Hours Identified

A Total of          468 Missing Hours Identified (  5.33 Percent)


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


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


   ***********************************
   *** AERMOD Finishes Successfully ***
   ***********************************
```

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County

Region: Riverside
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, g/mile for RUNEX, PMBW and PMTW, mph for Speed, kWh/mile for Energy Consumption, gallon/mile for Fuel Consumption. PHEV calculated based on total VMT.

RoadwayADT	112000	Trips/Day	
RoadwaySegmentAERMOD_VolumeSourceDistance	1.15	Miles/Trip	
SegmentVMT	128800	Miles/Day	

Region	CalYr	VehClass	MdlYr	Speed	Fuel	VMT	%ofTotalVMT	VMT on Roadway Segment	PM10_RUNEX	Total Grams	Grams from DSL Only
Riverside	2025	HHDT	Aggregate	65	Gasoline	73.88191153	0.00195%	2.51635307	0.001167745	0.002938458	0
Riverside	2025	HHDT	Aggregate	65	Diesel	458558.8182	12.12586%	15618.11093	0.034808191	543.6381939	543.6381939
Riverside	2025	HHDT	Aggregate	65	Electrici	2542.548681	0.06723%	86.59697679	0	0	0
Riverside	2025	HHDT	Aggregate	65	Natural	8966.683967	0.23711%	305.397387	0.001992722	0.608572058	0
Riverside	2025	LDA	Aggregate	65	Gasoline	1553991.088	41.09284%	52927.57271	0.001179203	62.41233579	0
Riverside	2025	LDA	Aggregate	65	Diesel	3722.500516	0.09844%	126.7851008	0.014348572	1.8191852	1.8191852
Riverside	2025	LDA	Aggregate	65	Electrici	1173.419584	0.03103%	39.96564126	0	0	0
Riverside	2025	LDA	Aggregate	65	Plug-in H	26383.16601	0.69766%	898.587481	0.001192237	1.071329044	0
Riverside	2025	LDT1	Aggregate	65	Gasoline	121663.5334	3.21720%	4143.753179	0.001955154	8.101676432	0
Riverside	2025	LDT1	Aggregate	65	Diesel	26.2691757	0.00069%	0.894705071	0.252990699	0.226352062	0.226352062
Riverside	2025	LDT1	Aggregate	65	Electrici	4.255737856	0.00011%	0.144946697	0	0	0
Riverside	2025	LDT1	Aggregate	65	Plug-in H	149.4081064	0.00395%	5.088708989	0.000836297	0.004255672	0
Riverside	2025	LDT2	Aggregate	65	Gasoline	727639.593	19.24128%	24782.76598	0.001199986	29.73896747	0
Riverside	2025	LDT2	Aggregate	65	Diesel	2528.993201	0.06688%	86.13528904	0.004389636	0.378102569	0.378102569
Riverside	2025	LDT2	Aggregate	65	Electrici	61.69845981	0.00163%	2.101395396	0	0	0
Riverside	2025	LDT2	Aggregate	65	Plug-in H	3869.547273	0.10232%	131.7933843	0.000967794	0.127548863	0
Riverside	2025	LHDT1	Aggregate	65	Gasoline	94933.95827	2.51038%	3233.367307	0.001169773	3.782304665	0
Riverside	2025	LHDT1	Aggregate	65	Diesel	67697.36067	1.79015%	2305.712695	0.023702219	54.65050715	54.65050715
Riverside	2025	LHDT1	Aggregate	65	Electrici	1454.262588	0.03846%	49.53090752	0	0	0
Riverside	2025	LHDT2	Aggregate	65	Gasoline	13459.18793	0.35591%	458.4081294	0.001020501	0.467805776	0
Riverside	2025	LHDT2	Aggregate	65	Diesel	30658.7642	0.81072%	1044.210603	0.021792616	22.7560811	22.7560811
Riverside	2025	LHDT2	Aggregate	65	Electrici	338.6512479	0.00896%	11.53416431	0	0	0
Riverside	2025	MCY	Aggregate	65	Gasoline	10834.39984	0.28650%	369.0101504	0.001805548	0.666265645	0
Riverside	2025	MDV	Aggregate	65	Gasoline	518336.9795	13.70660%	17654.10264	0.001239528	21.88275394	0
Riverside	2025	MDV	Aggregate	65	Diesel	7598.246451	0.20092%	258.7896061	0.007641099	1.977436911	1.977436911
Riverside	2025	MDV	Aggregate	65	Electrici	67.66239383	0.00179%	2.304521755	0	0	0
Riverside	2025	MDV	Aggregate	65	Plug-in H	2512.887776	0.06645%	85.58675239	0.001174725	0.100540895	0
Riverside	2025	MH	Aggregate	65	Gasoline	6044.78866	0.15984%	205.880197	0.001061605	0.218563411	0
Riverside	2025	MH	Aggregate	65	Diesel	2851.873292	0.07541%	97.13230159	0.152385357	14.80154045	14.80154045
Riverside	2025	MHDT	Aggregate	65	Gasoline	11358.95461	0.30037%	386.8760256	0.000943355	0.36496157	0
Riverside	2025	MHDT	Aggregate	65	Diesel	85725.11825	2.26687%	2919.722297	0.01352955	39.50252931	39.50252931
Riverside	2025	MHDT	Aggregate	65	Electrici	959.2024186	0.02536%	32.66959261	0	0	0
Riverside	2025	MHDT	Aggregate	65	Natural	1194.805827	0.03159%	40.69403794	0.00065624	0.026705076	0
Riverside	2025	OBUS	Aggregate	65	Gasoline	4130.13119	0.10921%	140.6686438	0.000714996	0.100577572	0
Riverside	2025	OBUS	Aggregate	65	Diesel	4184.638515	0.11066%	142.5251155	0.046762098	6.664773439	6.664773439
Riverside	2025	OBUS	Aggregate	65	Electrici	44.45728562	0.00118%	1.514176134	0	0	0
Riverside	2025	OBUS	Aggregate	65	Natural	466.5779742	0.01234%	15.89123635	0.000550635	0.00875027	0
Riverside	2025	SBUS	Aggregate	65	Gasoline	588.802066	0.01557%	20.05408165	0.000581964	0.011670747	0
Riverside	2025	SBUS	Aggregate	65	Diesel	323.1546376	0.00855%	11.00636336	0.041584142	0.457690172	0.457690172
Riverside	2025	SBUS	Aggregate	65	Electrici	5.059254427	0.00013%	0.172313766	0	0	0
Riverside	2025	SBUS	Aggregate	65	Natural	363.4697668	0.00961%	12.37946129	0.002120519	0.026250882	0
Riverside	2025	UBUS	Aggregate	65	Gasoline	1561.676556	0.04130%	53.18933301	0.000960395	0.051082754	0
Riverside	2025	UBUS	Aggregate	65	Diesel	1.704773148	0.00005%	0.058063077	0.005302537	0.000307882	0.000307882
Riverside	2025	UBUS	Aggregate	65	Electrici	42.83916181	0.00113%	1.459064257	0	0	0
Riverside	2025	UBUS	Aggregate	65	Natural	2564.365958	0.06781%	87.3400541	0.000211156	0.018442348	0
				Total VMT		3781659.386	100.00000%	128800		Total Grams from DSL Only PM10 per Day	686.8727001
										Total Grams from DSL PM10 per Second (g/s)	0.007949916

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County

Region: Riverside
Calendar Year: 2025
Season: Annual
Vehicle Classification: EMFAC2007 Categories

RoadwayADT	70000	Trips/Day	
RoadwaySegmentAERMOD_VolumeSourceDistance	0.66	Miles/Trip	
SegmentVMT	46200	Miles/Day	

Units: miles/day for CVMT and EVMT, g/mile for RUNEX, PMBW and PMTW, mph for Speed, kWh/mile for Energy Consumption, gallon/mile for Fuel Consumption. PHEV calculated based on total VMT.
https://www.murrietaca.gov/DocumentCenter/View/3459/Appendix-E---Traffic-Impact-Analysis

Region	CalYr	VehClass	MdlYr	Speed	Fuel	VMT	%ofTotalVMT	VMT on Roadway Segment	PM10_RUNEX	Total Grams	Grams from DSL Only
Riverside	2025	HHDT	Aggregate	45	Gasoline	22.43817806	0.00045%	0.205856903	0.000920476	0.000189486	0
Riverside	2025	HHDT	Aggregate	45	Diesel	95535.54162	1.89715%	876.4816242	0.012961625	11.36062602	11.36062602
Riverside	2025	HHDT	Aggregate	45	Electrici	547.4457428	0.01087%	5.022488235	0	0	0
Riverside	2025	HHDT	Aggregate	45	Natural	2384.215957	0.04735%	21.87375964	0.001849568	0.040457006	0
Riverside	2025	LDA	Aggregate	45	Gasoline	2365834.534	46.98078%	21705.12105	0.000987885	21.44215713	0
Riverside	2025	LDA	Aggregate	45	Diesel	5630.104522	0.11180%	51.65285162	0.012303711	0.635521733	0.635521733
Riverside	2025	LDA	Aggregate	45	Electrici	138937.6764	2.75903%	1274.670329	0	0	0
Riverside	2025	LDA	Aggregate	45	Plug-in H	61239.74007	1.21610%	561.8380964	0.000654309	0.367615479	0
Riverside	2025	LDT1	Aggregate	45	Gasoline	188329.5092	3.73985%	1727.810942	0.001699971	2.937228669	0
Riverside	2025	LDT1	Aggregate	45	Diesel	41.63865574	0.00083%	0.382009836	0.191896634	0.073306402	0.073306402
Riverside	2025	LDT1	Aggregate	45	Electrici	503.8967623	0.01001%	4.622952308	0	0	0
Riverside	2025	LDT1	Aggregate	45	Plug-in H	375.2990866	0.00745%	3.44314532	0.0004292	0.001477796	0
Riverside	2025	LDT2	Aggregate	45	Gasoline	1125942.19	22.35898%	10329.84817	0.001009352	10.42645456	0
Riverside	2025	LDT2	Aggregate	45	Diesel	3935.419744	0.07815%	36.10512936	0.004556607	0.164516873	0.164516873
Riverside	2025	LDT2	Aggregate	45	Electrici	7305.349903	0.14507%	67.02222901	0	0	0
Riverside	2025	LDT2	Aggregate	45	Plug-in H	9425.349138	0.18717%	86.47195777	0.000513395	0.044394271	0
Riverside	2025	LHDT1	Aggregate	45	Gasoline	54837.71712	1.08897%	503.1033535	0.000852124	0.428706345	0
Riverside	2025	LHDT1	Aggregate	45	Diesel	38078.19298	0.75616%	349.3447137	0.02296214	8.021702088	8.021702088
Riverside	2025	LHDT1	Aggregate	45	Electrici	848.358411	0.01685%	7.783182525	0	0	0
Riverside	2025	LHDT2	Aggregate	45	Gasoline	7956.61229	0.15800%	72.99717304	0.000742037	0.054166629	0
Riverside	2025	LHDT2	Aggregate	45	Diesel	17311.60742	0.34377%	158.8236747	0.022089396	3.508319024	3.508319024
Riverside	2025	LHDT2	Aggregate	45	Electrici	196.8840512	0.00391%	1.806293763	0	0	0
Riverside	2025	MCY	Aggregate	45	Gasoline	16612.21503	0.32989%	152.4071666	0.001485875	0.226458055	0
Riverside	2025	MDV	Aggregate	45	Gasoline	800245.6139	15.89129%	7341.776301	0.00104111	7.643593632	0
Riverside	2025	MDV	Aggregate	45	Diesel	11576.18677	0.22988%	106.2046105	0.006812484	0.723517219	0.723517219
Riverside	2025	MDV	Aggregate	45	Electrici	8011.504076	0.15909%	73.50077244	0	0	0
Riverside	2025	MDV	Aggregate	45	Plug-in H	6023.259308	0.11961%	55.25981233	0.000632667	0.034961059	0
Riverside	2025	MH	Aggregate	45	Gasoline	3126.369763	0.06208%	28.68257824	0.000871337	0.024992195	0
Riverside	2025	MH	Aggregate	45	Diesel	1311.482876	0.02604%	12.03207332	0.091309007	1.098636673	1.098636673
Riverside	2025	MHDT	Aggregate	45	Gasoline	6341.068038	0.12592%	58.17551791	0.00078928	0.045916765	0
Riverside	2025	MHDT	Aggregate	45	Diesel	47803.00984	0.94927%	438.5641092	0.007198489	3.156998945	3.156998945
Riverside	2025	MHDT	Aggregate	45	Electrici	529.2806346	0.01051%	4.8558342	0	0	0
Riverside	2025	MHDT	Aggregate	45	Natural	622.8631	0.01237%	5.714397514	0.000682067	0.003897604	0
Riverside	2025	OBUS	Aggregate	45	Gasoline	1460.262938	0.02900%	13.39704167	0.000604612	0.008100009	0
Riverside	2025	OBUS	Aggregate	45	Diesel	1231.841651	0.02446%	11.30141257	0.030341751	0.342904644	0.342904644
Riverside	2025	OBUS	Aggregate	45	Electrici	15.99324207	0.00032%	0.146728459	0	0	0
Riverside	2025	OBUS	Aggregate	45	Natural	162.9585013	0.00324%	1.495047074	0.000577224	0.000862977	0
Riverside	2025	SBUS	Aggregate	45	Gasoline	1450.93138	0.02881%	13.31143019	0.000486213	0.006472195	0
Riverside	2025	SBUS	Aggregate	45	Diesel	796.3205829	0.01581%	7.305766482	0.030315512	0.221478054	0.221478054
Riverside	2025	SBUS	Aggregate	45	Electrici	12.46706055	0.00025%	0.114377846	0	0	0
Riverside	2025	SBUS	Aggregate	45	Natural	895.6654892	0.01779%	8.217196757	0.002236368	0.018376678	0
Riverside	2025	UBUS	Aggregate	45	Gasoline	854.8372175	0.01698%	7.84262171	0.00071524	0.005609355	0
Riverside	2025	UBUS	Aggregate	45	Diesel	0.932717996	0.00002%	0.008557131	0.002409062	2.06147E-05	2.06147E-05
Riverside	2025	UBUS	Aggregate	45	Electrici	23.43191221	0.00047%	0.214973821	0	0	0
Riverside	2025	UBUS	Aggregate	45	Natural	1421.421607	0.02823%	13.04069562	0.000299476	0.003905377	0
				Total VMT		5035749.639	100.00000%	46200		Total Grams from DSL Only PM10 per Day	29.30754829
										Total Grams from DSL PM10 per Second (g/s)	0.000339208

Building Façade Cancer Risk Calculations

REC: R1 (Outdoor Façade)						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.547	0.547	0.547	0.547	0.547	0.547
Average Breathing Rate per agegroup BR/BW	225	658	535	452	210	185
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	0.96
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00011815	0.00034553	0.00028094	0.00023735	0.00011028	0.00009715
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0.25	2	7	14	14	54
AT	70	70	70	70	70	70
FAH	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	3.94543E-06	9.23056E-05	6.67512E-05	0.000112791	1.77102E-05	8.24363E-05
	3.945432857	92.3055936	66.75115392	112.7907348	17.71019712	82.43633829
Cancer Risk Per Million 30-years	226.75					
Cancer Risk Per Million 70-years	291.48					

REC: R2 (Outdoor Façade)						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.575	0.575	0.575	0.575	0.575	0.575
Average Breathing Rate per agegroup BR/BW	225	658	535	452	210	185
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00012420	0.00036322	0.00029532	0.00024950	0.00011592	0.00010638
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0.25	2	7	14	14	54
AT	70	70	70	70	70	70
FAH	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	4.14739E-06	9.70306E-05	7.0168E-05	0.000118564	1.86168E-05	9.02668E-05
	4.147392857	97.03056	70.168032	118.5643008	18.616752	90.26678571
Cancer Risk Per Million 30-years	238.36					
Cancer Risk Per Million 70-years	310.01					

REC: R3 (Outdoor Façade)						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.529	0.529	0.529	0.529	0.529	0.529
Average Breathing Rate per agegroup BR/BW	225	658	535	452	210	185
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00011426	0.00033416	0.00027169	0.00022954	0.00010665	0.00009787
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0.25	2	7	14	14	54
AT	70	70	70	70	70	70
FAH	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	3.8156E-06	8.92681E-05	6.45546E-05	0.000109079	1.71274E-05	8.30454E-05
	3.815601429	89.2681152	64.55458944	109.0791567	17.12741184	83.04544286
Cancer Risk Per Million 30-years	219.29					
Cancer Risk Per Million 70-years	285.21					

MERV 16 Based Indoor Emissions

REC: R1 (Indoor MERV 16 Typical HVAC Filtration						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.01641	0.01641	0.01641	0.01641	0.01641	0.01641
Average Breathing Rate per agegroup BR/BW	225	658	535	452	210	185
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000354	0.00001037	0.00000843	0.00000712	0.00000331	0.00000304
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0.25	2	7	14	14	54
AT	70	70	70	70	70	70
FAH	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	1.18363E-07	2.76917E-06	2.00253E-06	3.38372E-06	5.31306E-07	2.57614E-06
	0.118362986	2.769167808	2.002534618	3.383722045	0.531305914	2.576135571
Cancer Risk Per Million 30-years	6.80					
Cancer Risk Per Million 70-years	8.85					

REC: R2 (Indoor MERV 16 Typical HVAC Filtration						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.01725	0.01725	0.01725	0.01725	0.01725	0.01725
Average Breathing Rate per agegroup BR/BW	225	658	535	452	210	185
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000373	0.00001090	0.00000886	0.00000749	0.00000348	0.00000319
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0.25	2	7	14	14	54
AT	70	70	70	70	70	70
FAH	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	1.24422E-07	2.91092E-06	2.10504E-06	3.55693E-06	5.58503E-07	2.708E-06
	0.124421786	2.9109168	2.10504096	3.556929024	0.55850256	2.708003571
Cancer Risk Per Million 30-years	7.15					
Cancer Risk Per Million 70-years	9.30					

REC: R3 (Indoor MERV 16 Typical HVAC Filtration						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.01587	0.01587	0.01587	0.01587	0.01587	0.01587
Average Breathing Rate per agegroup BR/BW	225	658	535	452	210	185
A (Default is 1)	1	1	1	1	1	1
Exposure Frequency = EF (days/365days)	0.96	0.96	0.96	0.96	0.96	1
10^-6 Microgram to Milligram / liters to m3	0.000001	0.000001	0.000001	0.000001	0.000001	0.000001
Dose-inh	0.00000343	0.00001002	0.00000815	0.00000689	0.00000320	0.00000294
Potency factor for Diesel	1.1	1.1	1.1	1.1	1.1	1.1
Age Sensitivity Factor	10	10	3	3	1	1
ED (Residents live onsite for 30 years)	0.25	2	7	14	14	54
AT	70	70	70	70	70	70
FAH	0.85	0.85	0.72	0.72	0.73	1
Risk for Each Age Group	1.14468E-07	2.67804E-06	1.93664E-06	3.27237E-06	5.13822E-07	2.49136E-06
	0.114468043	2.678043456	1.936637683	3.272374702	0.513822355	2.491363286
Cancer Risk Per Million 30-years	6.58					
Cancer Risk Per Million 70-years	8.56					