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September 15, 2023

Jeff O'Connor
HomeFed Otay Land II, LLC
1903 Wright Place, Ste. 220
Carlsbad, CA 92008

RE: Otay Village 8 East Development Health Risk Screening Letter - City of Chula Vista 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 State Route 125 (SR-125). Otay Ranch Village 8 East is south of the extension of Main Street, north of the Otay River Valley, east of Village 8 West and west of SR-125. This urban village was originally approved in 2014 and subsequently amended in 2020. Current entitlements accommodate a total of 3,276 residential units, including 943 detached homes, 1,893 attached homes and 440 multi-family units in a mixed-use setting.

The current Village 8 East Plan would include a Village Core area that would accommodate a mix of uses including multi-family residential and retail/commercial uses along with an elementary school site and a centrally located 7.3-acre neighborhood park. A future multi-modal bridge, planned to accommodate Neighborhood Electric Vehicles (NEV), bicycles and pedestrians is also planned in the Village Core linking Village 8 East and future Village 9.

The proposed project would include 20,000 square feet of commercial/retail uses and 1,348 multi-family homes distributed across eight Village Core parcels. Other residential land uses include 1,664 multi-family residential units in 10 parcels designated Medium-High Residential. The elementary school site has an underlying "High" residential land use designation that could accommodate 264 multi-family units if the site is not utilized as a school site. The project also includes an alternative elementary school site/neighborhood park site configuration which would increase the size of the elementary school site and correspondingly reduce the neighborhood park site. This alternative configuration would be implemented based on the needs of the Chula Vista Elementary School District.

The project also includes 253.6 acres of Preserve Open Space, 31.4 acres of manufactured slopes/basins and the 22.6-acre active recreation site (AR-11) located east of SR-125. The 43.3-acre (gross) Otay Ranch Community Park South is located south of Village 8 East.

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The original health risk analysis was completed in 2014 (SRA, 2014). The findings of that letter indicated that health risks would exceed 10 per million exposed for a 70 year exposure duration though since this duration would not be practical, the 9 or 30 year durations would be more appropriate. Based on that assessment, the project would have less than significant impacts for residential receptors near SR-125.

Similar to the original HR analysis, 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). Type A projects are projects which have the potential to emit toxic emissions and have the potential to impact nearby receptors. 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 San Diego County air basin are generally regulated by San Diego Air Pollution Control District (SDAPCD). For Type A projects, significance thresholds have been established under the SDAPCD's "Hot Spots" and permitting program (SDAPCD Rule 1200 and 1210). Under this program, excess cancer risk significance threshold is set at **10 in a million** and, for acute and chronic, non-carcinogenic health effects, a hazard index of **one** must not be exceeded.

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 San Diego and the County of San Diego 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 SDAPCDs Rule 1200 and 1210 for Type A projects above. For the purposes of this analysis, the significance thresholds will be assumed to be those of the "Hot Spot" program discussed above.

Cancer risk calculations are often presented on a 9, 30 or 70 year lifetime exposure duration. 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 but a 70 year duration is also presented and captures exposure from the 3rd trimester of life through adulthood. The duration is generally accepted for the time residential units are occupied for a specific resident and would not be expected for longer than 30 years. 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

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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.

SR-125 is adjacent to the overall project site which is located between the Otay River Bridge and the on/off ramp of Olympic Parkway. According to Caltrans, the annual average daily trips are 15,500 AADT (CALTRANS, 2022) along this section of SR-125 today. San Diego Association of Governments (SANDAG's) activity base model ABM2+/2021 RP forecast for 2035 indicates that this section of roadway would have 37,800 AADT (SANDAG, 2022). An analysis completed for Otay Village 8 however estimated that trips could be as high as 94,000 which would be beyond 2030. For consistency, this analysis also utilizes the 94,000 AADT in 2030. Emission rates were obtained from the California Air Resource Boards EMFAC 2021 web database model for the 2030 calendar scenario.

AERMOD was used to calculate roadway emission concentrations in micrograms per meter cubed ($\mu g/m^3$) at nearby sensitive receptors. A graphical representation of the roadway, discreet receptors and grided receptors modeling are shown on the site map/aerial image below in Figure 1.

The emission rates assumptions incorporate projected mixed vehicle categories, aggregated vehicle model years, a 65 mile per hour (MPH) speed and the running emissions from all diesel sources which best matches SR-125. 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 SR-125 in ***Attachments B*** to this letter.

Based on discussions with the project applicant, all residential homes constructed as part of this project will have mechanical ventilation filtration systems consistent with the latest building codes such as California's Title 24. Typical indoor air filtration systems used within todays heating and ventilation systems within California and consistent with Title 24 have a Minimum Efficiency Reporting Value (MERV) rating of 13 (California Energy Commission, 2019).

The US Environmental Protection Agency indicates that MERV 13 filtration systems reduce particulates between 1 and 3 microns by 85% and particles less than 10 microns (PM_{10}) by 90% relative to outdoor ambient air (EPA, 2021).

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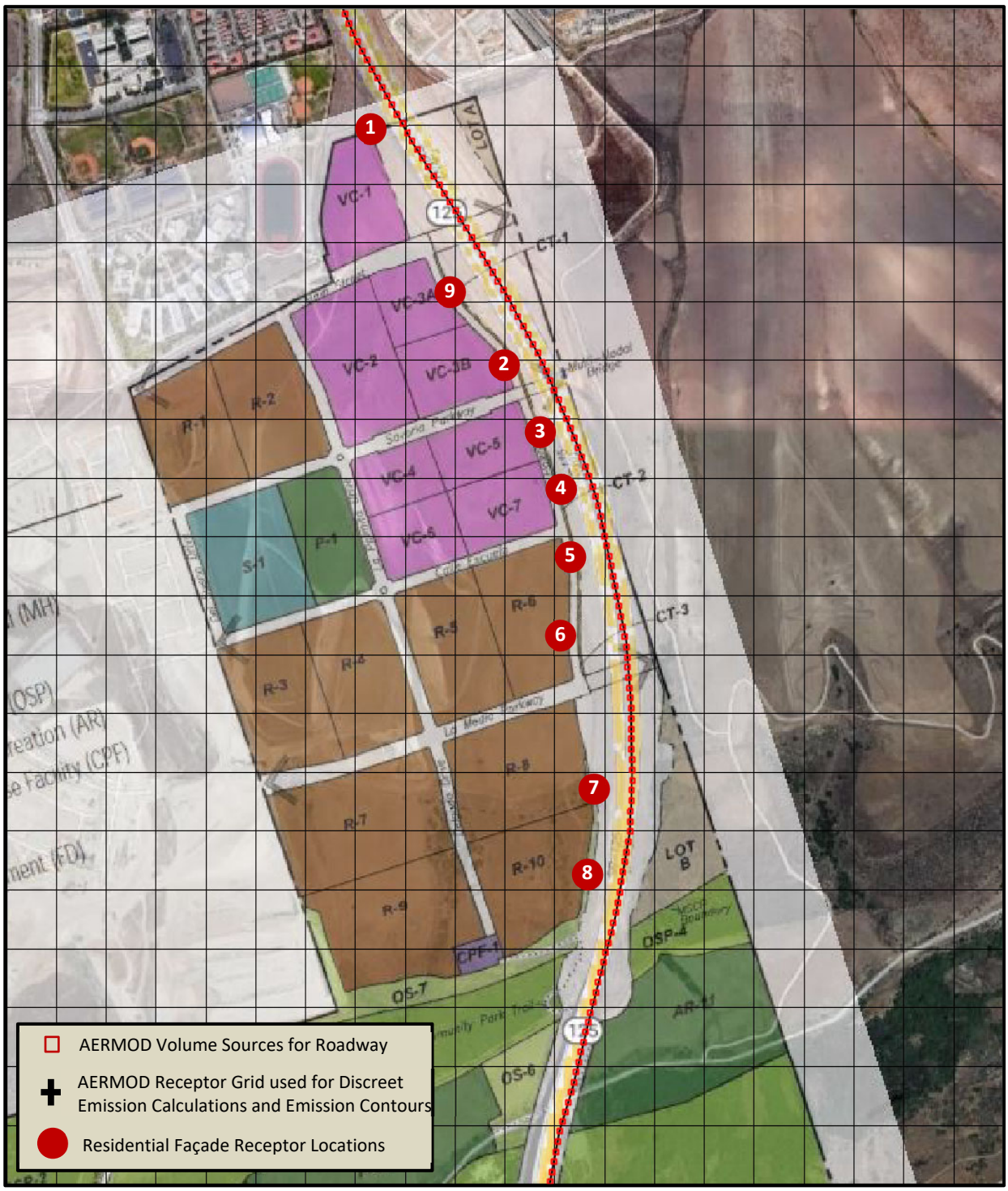
Figure 1: Modeling Graphical Layout



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The annual diesel particulate concentrations in micrograms per meter cubed (µg/m3) at the modeled receptors are summarized below in Table 1 and include the expected reductions within the interior of all residential structures which would have a minimum air filtration system of MERV 13. The modeled output plot from AERMOD is shown in Figure 2 of this report.

Table 1: Annual DPM Concentrations at each Receptor

Discreet Receptor AERMOD Name	Concentration (µg/m^3)
R1	0.0130
R2	0.0147
R3	0.0138
R4	0.0132
R5	0.0128
R6	0.0098
R7	0.0141
R8	0.0144
R9	0.0105

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 below (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/m^3) Annual average DPM concentration in µg/m^3 – 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)

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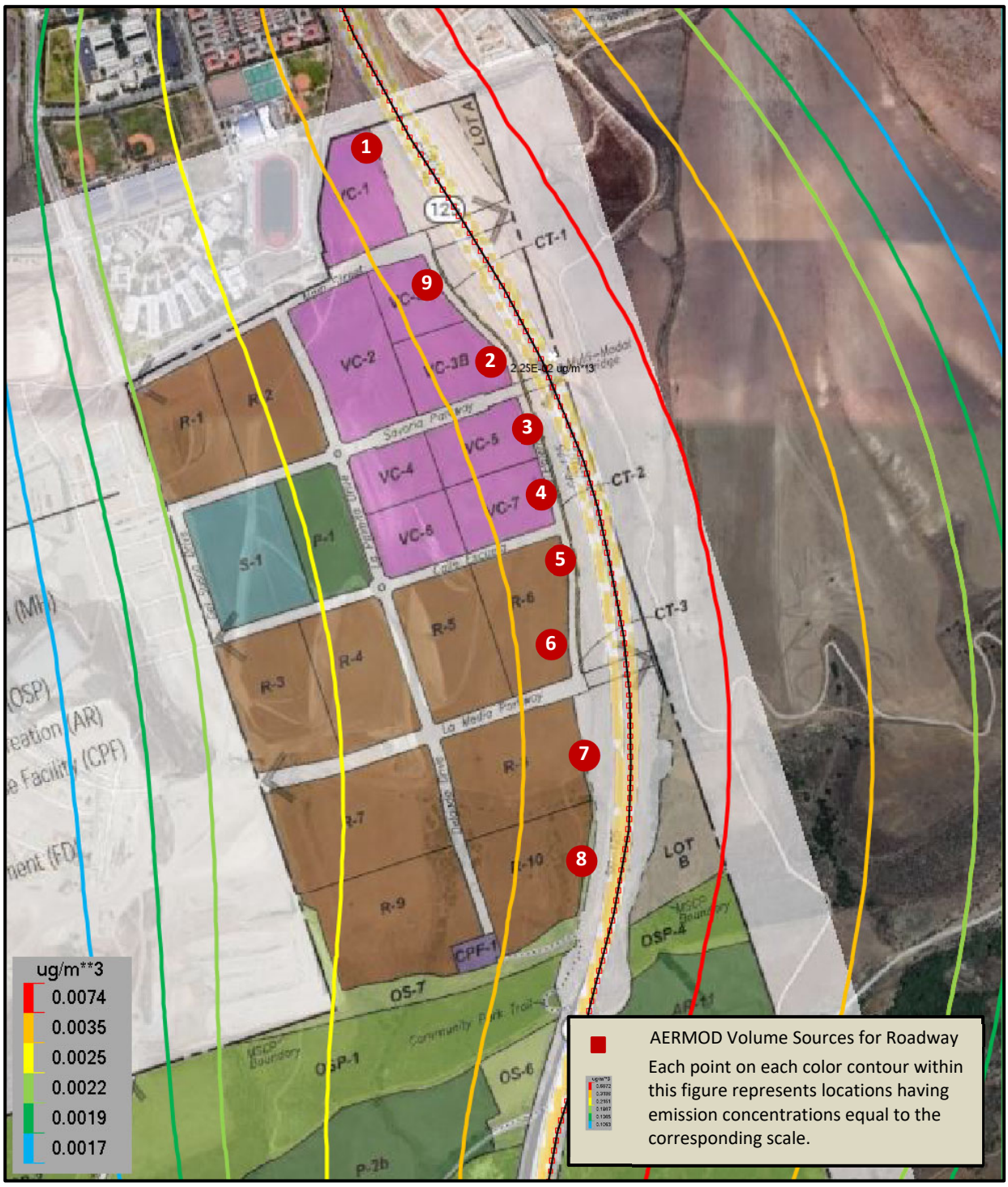
Figure 2: Modeling Graphical DPM Concentration Output



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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 $(mg/kg\text{-}day)^{-1}$ 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 5×10^{-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 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 below (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 are shown in Table 2 below. The detailed model input/output is also provided as ***Attachment C*** to this report. Based on these calculations, cancer risks from DPM generated from SR-125 would not exceed the 10 per one million exposed thresholds within any units constructed within the Otay Village 8 East specific plan. It should be noted that these risks incorporate the required MERV 13 filtration required by building codes under Title 24.

DPM has a chronic non-cancer risk Reference Exposure Level (REL) of 5 $\mu g/m^3$ (OEHHA, 2023). A chronic health risk would exist when the exposure for any sensitive receptor is greater than the REL. The largest annual exposure is 0.0069 $\mu g/m^3$ as noted in Table 2 and since this exposure is less than the REL a less than significant non-cancer risk is expected.

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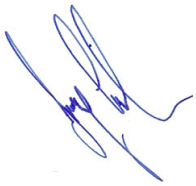
Table 2: Cancer Risk at Worst-Case Indoor Receptors (MERV 13 Design Feature)

Receptor	C_i	Unmitigated Cancer Risk 30 Years = Risk/million people Exposed	Unmitigated Cancer Risk 70 Years = Risk/million people Exposed	Potential Impact
R1	0.0130	5.37	6.91	No
R2	0.0147	6.09	7.92	No
R3	0.0138	5.70	7.42	No
R4	0.0132	5.48	7.13	No
R5	0.0128	5.29	6.87	No
R6	0.0098	4.06	5.28	No
R7	0.0141	5.83	7.58	No
R8	0.0144	5.99	7.79	No
R9	0.0105	4.35	5.66	No
C_i annual inputs from AERMOD within prospective building. Cancer Risk = DOSEair × CPF × ASF × ED/AT × FAH				

It is important to note that this assessment serves simply as a disclosure document to provide 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

Attachments:

A: AERMOD

B: EMFAC 2021 Emission Factors

C: Cancer Risk Calculations

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References:

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SO SRCPARAM  SGKOY03P  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY03Q  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY03R  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY03S  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY03T  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY03U  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY03V  2.345525E-06  3  9.302325  2.790698
```

```
SO SRCPARAM  SGKOY03W  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY03X  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY03Y  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY03Z  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY040  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY041  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY042  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY043  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY044  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY045  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY046  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY047  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY048  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY049  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY04A  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY04B  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY04C  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY04D  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY04E  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY04F  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY04G  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY04H  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY04I  2.345525E-06  3  9.302325  2.790698
SO SRCPARAM  SGKOY04J  2.345525E-06  3  9.302325  2.790698
SO SRCGROUP  ALL
SO FINISHED

RE STARTING
RE ELEVUNIT  METERS
RE GRIDCART O19UC003 STA
** GRDDESCR  Gridded Receptor
RE GRIDCART O19UC003 XYINC  502155.1  21  97.1  3608335  21  -114.5
RE GRIDCART O19UC003 ELEV  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 ELEV  2  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 ELEV  3  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 ELEV  4  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 ELEV  5  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 ELEV  6  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 ELEV  7  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 ELEV  8  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 ELEV  9  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 ELEV  10  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 ELEV  11  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 ELEV  12  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 ELEV  13  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 ELEV  14  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 ELEV  15  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 ELEV  16  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 ELEV  17  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 ELEV  18  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 ELEV  19  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 ELEV  20  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 ELEV  21  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 HILL  1  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 HILL  2  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 HILL  3  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 HILL  4  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 HILL  5  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 HILL  6  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 HILL  7  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 HILL  8  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 HILL  9  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 HILL  10  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 HILL  11  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 HILL  12  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 HILL  13  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 HILL  14  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 HILL  15  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 HILL  16  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
```

```
RE GRIDCART O19UC003 HILL  17  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 HILL  18  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 HILL  19  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 HILL  20  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 HILL  21  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0  0
RE GRIDCART O19UC003 END
RE DISCCART  502856  3608100  0  0
** SENSITIV
** RCPDESCR  R1
RE DISCCART  503128.7  3607654.7  0  0
** SENSITIV
** RCPDESCR  R2
RE DISCCART  503178.8  3607524  0  0
** SENSITIV
** RCPDESCR  R3
RE DISCCART  503218.2  3607407.6  0  0
** SENSITIV
** RCPDESCR  R4
RE DISCCART  503248.7  3607276.9  0  0
** SENSITIV
** RCPDESCR  R5
RE DISCCART  503232.6  3607103.2  0  0
** SENSITIV
** RCPDESCR  R6
RE DISCCART  503311.3  3606823.8  0  0
** SENSITIV
** RCPDESCR  R7
RE DISCCART  503297  3606648.3  0  0
** SENSITIV
** RCPDESCR  R8
RE DISCCART  503000.1  3607783.9  0  0
** SENSITIV
** RCPDESCR  R9
RE FINISHED

ME STARTING
ME SURFFILE  "C:\Users\ryan\OneDrive\LDNONE~1\CI2617~1\22-62O~1\AERMOD\KMA2012V15181.SFC"
** SURFFILE  "C:\Users\ryan\OneDrive\LDNONE~1\CI2617~1\22-62O~1\AERMOD\KMA2012V15181.SFC"
ME PROFFILE  "C:\Users\ryan\OneDrive\LDNONE~1\CI2617~1\22-62O~1\AERMOD\KMA2012V15181.PFL"
** PROFFILE  "C:\Users\ryan\OneDrive\LDNONE~1\CI2617~1\22-62O~1\AERMOD\KMA2012V15181.PFL"
ME SURFDATA  93107 2012 OVERLANDSURFACESTATION
ME UAIRDATA  3190 2012 OVERLANDUPPERSTATION
ME SITEDATA  00001016 2012
ME PROFBASE  116  METERS
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  SGKOY001
** TAG PRM  0  2  F  F  1  255,0,0,0
** TAG CRD
502730.5,3608599.6,0,502747.6,3608520.9,0,502768.1,3608455.9,0,502792.1,3608377.1,0,502836.6,3608271.0,0,502946.1,3
608072.5,0,503028.3,3607942.4,0,503127.5,3607778.1,0,503202.5,3607638.2,0,503248.5,3607525.8,0,503281.7,3607446.6,0
,503309.8,3607357.2,0,503332.8,3607247.4,0,503360.9,3607104.4,0,503371.1,3606986.9,0,503373.7,3606851.5,0,503369.4,
3606730.5,0,503340.9,3606567.2,0,503294.2,3606385.6,0,503257.9,3606232.7,0,503232.0,3606147.1,0,503200.9,3605976.0,
0,503190.5,3605874.8,0,503195.7,360

** TERRFILE  C:\USERS\RYAN_000\ONEDRIVE\LDNWOR~1\17-903~1\AERMOD\NEDU17~1\NEDU17991156.TIF  2  0  WGS84  11  0
486620.4  3617040.8  486627.8  3622511.1  491372.6  3622505.8  491367.9  3617035.5
** AMPTYPE  NED
** AMPDATUM  3
```

```
** AMPZONE  11
** AMPHEMISPHERE  N

** PROJECTIONWKT
PROJCS["UTM_6326_Zone11",GEOGCS["WGS_84",DATUM["World_Geodetic_System_1984",SPHEROID["WGS_1984",6378137,298.2572235
63],TOWGS84[0,0,0,0,0,0,0]],PRIMEM["Greenwich",0],UNIT["Degree",0.0174532925199433]],PROJECTION["Universal_Transver
se_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_11103.EXE



  *** Message Summary For AERMOD Model Setup ***

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

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of            0 Informational Message(s)


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


    ********   WARNING MESSAGES   ********
 MX W403     597       PFLCNV: Turbulence data is being used w/o ADJ_U* option       SigA Data

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

 *** AERMOD - VERSION  19191 ***   ***  PM10 Exhaust I 125                                          ***
     09/14/23
 *** AERMET - VERSION  15181 ***   ***                                                            ***
   17:07:05

   PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

                                          ***     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:    162 Source(s);       1 Source Group(s); and     450 Receptor(s)

               with:      0 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:    162 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:  15181

 **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) =   116.00 ;  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


 *** AERMOD - VERSION  19191 ***   ***  PM10 Exhaust I 125                                                  ***
     09/14/23
 *** AERMET - VERSION  15181 ***   ***                                                                     ***
   17:07:05

   PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data


                                              *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
    ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

- - - -

SGKOY002	0	0.23455E-05	502732.6	3608589.8	0.0	3.00	9.30	2.79	NO		
SGKOY003	0	0.23455E-05	502736.9	3608570.3	0.0	3.00	9.30	2.79	NO		
SGKOY004	0	0.23455E-05	502741.1	3608550.7	0.0	3.00	9.30	2.79	NO		
SGKOY005	0	0.23455E-05	502745.4	3608531.2	0.0	3.00	9.30	2.79	NO		
SGKOY006	0	0.23455E-05	502750.4	3608511.9	0.0	3.00	9.30	2.79	NO		
SGKOY007	0	0.23455E-05	502756.5	3608492.8	0.0	3.00	9.30	2.79	NO		
SGKOY008	0	0.23455E-05	502762.5	3608473.7	0.0	3.00	9.30	2.79	NO		
SGKOY009	0	0.23455E-05	502768.5	3608454.6	0.0	3.00	9.30	2.79	NO		
SGKOY00A	0	0.23455E-05	502774.3	3608435.5	0.0	3.00	9.30	2.79	NO		
SGKOY00B	0	0.23455E-05	502780.1	3608416.4	0.0	3.00	9.30	2.79	NO		
SGKOY00C	0	0.23455E-05	502786.0	3608397.3	0.0	3.00	9.30	2.79	NO		
SGKOY00D	0	0.23455E-05	502791.8	3608378.1	0.0	3.00	9.30	2.79	NO		
SGKOY00E	0	0.23455E-05	502799.4	3608359.6	0.0	3.00	9.30	2.79	NO		
SGKOY00F	0	0.23455E-05	502807.2	3608341.2	0.0	3.00	9.30	2.79	NO		
SGKOY00G	0	0.23455E-05	502814.9	3608322.8	0.0	3.00	9.30	2.79	NO		
SGKOY00H	0	0.23455E-05	502822.6	3608304.3	0.0	3.00	9.30	2.79	NO		
SGKOY00I	0	0.23455E-05	502830.4	3608285.9	0.0	3.00	9.30	2.79	NO		
SGKOY00J	0	0.23455E-05	502838.5	3608267.6	0.0	3.00	9.30	2.79	NO		
SGKOY00K	0	0.23455E-05	502848.1	3608250.1	0.0	3.00	9.30	2.79	NO		
SGKOY00L	0	0.23455E-05	502857.8	3608232.6	0.0	3.00	9.30	2.79	NO		
SGKOY00M	0	0.23455E-05	502867.5	3608215.1	0.0	3.00	9.30	2.79	NO		
SGKOY00N	0	0.23455E-05	502877.1	3608197.6	0.0	3.00	9.30	2.79	NO		
SGKOY00O	0	0.23455E-05	502886.8	3608180.0	0.0	3.00	9.30	2.79	NO		
SGKOY00P	0	0.23455E-05	502896.4	3608162.5	0.0	3.00	9.30	2.79	NO		
SGKOY00Q	0	0.23455E-05	502906.1	3608145.0	0.0	3.00	9.30	2.79	NO		
SGKOY00R	0	0.23455E-05	502915.8	3608127.5	0.0	3.00	9.30	2.79	NO		
SGKOY00S	0	0.23455E-05	502925.4	3608110.0	0.0	3.00	9.30	2.79	NO		
SGKOY00T	0	0.23455E-05	502935.1	3608092.5	0.0	3.00	9.30	2.79	NO		
SGKOY00U	0	0.23455E-05	502944.7	3608075.0	0.0	3.00	9.30	2.79	NO		
SGKOY00V	0	0.23455E-05	502955.3	3608058.0	0.0	3.00	9.30	2.79	NO		
SGKOY00W	0	0.23455E-05	502966.0	3608041.1	0.0	3.00	9.30	2.79	NO		
SGKOY00X	0	0.23455E-05	502976.6	3608024.2	0.0	3.00	9.30	2.79	NO		
SGKOY00Y	0	0.23455E-05	502987.3	3608007.3	0.0	3.00	9.30	2.79	NO		
SGKOY00Z	0	0.23455E-05	502998.0	3607990.3	0.0	3.00	9.30	2.79	NO		
SGKOY010	0	0.23455E-05	503008.7	3607973.4	0.0	3.00	9.30	2.79	NO		
SGKOY011	0	0.23455E-05	503019.4	3607956.5	0.0	3.00	9.30	2.79	NO		
SGKOY012	0	0.23455E-05	503030.0	3607939.6	0.0	3.00	9.30	2.79	NO		
SGKOY013	0	0.23455E-05	503040.3	3607922.5	0.0	3.00	9.30	2.79	NO		
SGKOY014	0	0.23455E-05	503050.7	3607905.3	0.0	3.00	9.30	2.79	NO		
SGKOY015	0	0.23455E-05	503061.0	3607888.2	0.0	3.00	9.30	2.79	NO		

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** 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
SGKOY016	0	0.23455E-05	503071.3	3607871.1	0.0	3.00	9.30	2.79	NO	
SGKOY017	0	0.23455E-05	503081.7	3607854.0	0.0	3.00	9.30	2.79	NO	
SGKOY018	0	0.23455E-05	503092.0	3607836.9	0.0	3.00	9.30	2.79	NO	
SGKOY019	0	0.23455E-05	503102.4	3607819.7	0.0	3.00	9.30	2.79	NO	
SGKOY01A	0	0.23455E-05	503112.7	3607802.6	0.0	3.00	9.30	2.79	NO	
SGKOY01B	0	0.23455E-05	503123.0	3607785.5	0.0	3.00	9.30	2.79	NO	
SGKOY01C	0	0.23455E-05	503132.9	3607768.1	0.0	3.00	9.30	2.79	NO	
SGKOY01D	0	0.23455E-05	503142.3	3607750.5	0.0	3.00	9.30	2.79	NO	
SGKOY01E	0	0.23455E-05	503151.8	3607732.8	0.0	3.00	9.30	2.79	NO	
SGKOY01F	0	0.23455E-05	503161.2	3607715.2	0.0	3.00	9.30	2.79	NO	

SGKOY01G	0	0.23455E-05	503170.7	3607697.6	0.0	3.00	9.30	2.79	NO
SGKOY01H	0	0.23455E-05	503180.1	3607680.0	0.0	3.00	9.30	2.79	NO
SGKOY01I	0	0.23455E-05	503189.6	3607662.3	0.0	3.00	9.30	2.79	NO
SGKOY01J	0	0.23455E-05	503199.0	3607644.7	0.0	3.00	9.30	2.79	NO
SGKOY01K	0	0.23455E-05	503207.3	3607626.5	0.0	3.00	9.30	2.79	NO
SGKOY01L	0	0.23455E-05	503214.9	3607608.0	0.0	3.00	9.30	2.79	NO
SGKOY01M	0	0.23455E-05	503222.4	3607589.5	0.0	3.00	9.30	2.79	NO
SGKOY01N	0	0.23455E-05	503230.0	3607571.0	0.0	3.00	9.30	2.79	NO
SGKOY01O	0	0.23455E-05	503237.6	3607552.5	0.0	3.00	9.30	2.79	NO
SGKOY01P	0	0.23455E-05	503245.2	3607534.0	0.0	3.00	9.30	2.79	NO
SGKOY01Q	0	0.23455E-05	503252.8	3607515.5	0.0	3.00	9.30	2.79	NO
SGKOY01R	0	0.23455E-05	503260.6	3607497.0	0.0	3.00	9.30	2.79	NO
SGKOY01S	0	0.23455E-05	503268.3	3607478.6	0.0	3.00	9.30	2.79	NO
SGKOY01T	0	0.23455E-05	503276.0	3607460.2	0.0	3.00	9.30	2.79	NO
SGKOY01U	0	0.23455E-05	503283.3	3607441.5	0.0	3.00	9.30	2.79	NO
SGKOY01V	0	0.23455E-05	503289.3	3607422.5	0.0	3.00	9.30	2.79	NO
SGKOY01W	0	0.23455E-05	503295.3	3607403.4	0.0	3.00	9.30	2.79	NO
SGKOY01X	0	0.23455E-05	503301.3	3607384.3	0.0	3.00	9.30	2.79	NO
SGKOY01Y	0	0.23455E-05	503307.3	3607365.2	0.0	3.00	9.30	2.79	NO
SGKOY01Z	0	0.23455E-05	503312.2	3607345.9	0.0	3.00	9.30	2.79	NO
SGKOY020	0	0.23455E-05	503316.3	3607326.3	0.0	3.00	9.30	2.79	NO
SGKOY021	0	0.23455E-05	503320.4	3607306.7	0.0	3.00	9.30	2.79	NO
SGKOY022	0	0.23455E-05	503324.5	3607287.1	0.0	3.00	9.30	2.79	NO
SGKOY023	0	0.23455E-05	503328.6	3607267.6	0.0	3.00	9.30	2.79	NO
SGKOY024	0	0.23455E-05	503332.7	3607248.0	0.0	3.00	9.30	2.79	NO
SGKOY025	0	0.23455E-05	503336.5	3607228.4	0.0	3.00	9.30	2.79	NO
SGKOY026	0	0.23455E-05	503340.4	3607208.7	0.0	3.00	9.30	2.79	NO
SGKOY027	0	0.23455E-05	503344.3	3607189.1	0.0	3.00	9.30	2.79	NO
SGKOY028	0	0.23455E-05	503348.1	3607169.5	0.0	3.00	9.30	2.79	NO
SGKOY029	0	0.23455E-05	503352.0	3607149.9	0.0	3.00	9.30	2.79	NO

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** 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
SGKOY02A	0	0.23455E-05	503355.8	3607130.2	0.0	3.00	9.30	2.79	NO	
SGKOY02B	0	0.23455E-05	503359.7	3607110.6	0.0	3.00	9.30	2.79	NO	
SGKOY02C	0	0.23455E-05	503362.1	3607090.8	0.0	3.00	9.30	2.79	NO	
SGKOY02D	0	0.23455E-05	503363.8	3607070.9	0.0	3.00	9.30	2.79	NO	
SGKOY02E	0	0.23455E-05	503365.5	3607050.9	0.0	3.00	9.30	2.79	NO	
SGKOY02F	0	0.23455E-05	503367.3	3607031.0	0.0	3.00	9.30	2.79	NO	
SGKOY02G	0	0.23455E-05	503369.0	3607011.1	0.0	3.00	9.30	2.79	NO	
SGKOY02H	0	0.23455E-05	503370.7	3606991.2	0.0	3.00	9.30	2.79	NO	
SGKOY02I	0	0.23455E-05	503371.4	3606971.2	0.0	3.00	9.30	2.79	NO	
SGKOY02J	0	0.23455E-05	503371.8	3606951.2	0.0	3.00	9.30	2.79	NO	
SGKOY02K	0	0.23455E-05	503372.2	3606931.2	0.0	3.00	9.30	2.79	NO	
SGKOY02L	0	0.23455E-05	503372.6	3606911.2	0.0	3.00	9.30	2.79	NO	
SGKOY02M	0	0.23455E-05	503372.9	3606891.2	0.0	3.00	9.30	2.79	NO	
SGKOY02N	0	0.23455E-05	503373.3	3606871.2	0.0	3.00	9.30	2.79	NO	
SGKOY02O	0	0.23455E-05	503373.7	3606851.2	0.0	3.00	9.30	2.79	NO	
SGKOY02P	0	0.23455E-05	503373.0	3606831.2	0.0	3.00	9.30	2.79	NO	
SGKOY02Q	0	0.23455E-05	503372.3	3606811.2	0.0	3.00	9.30	2.79	NO	
SGKOY02R	0	0.23455E-05	503371.6	3606791.2	0.0	3.00	9.30	2.79	NO	
SGKOY02S	0	0.23455E-05	503370.8	3606771.2	0.0	3.00	9.30	2.79	NO	
SGKOY02T	0	0.23455E-05	503370.1	3606751.3	0.0	3.00	9.30	2.79	NO	
SGKOY02U	0	0.23455E-05	503369.4	3606731.3	0.0	3.00	9.30	2.79	NO	
SGKOY02V	0	0.23455E-05	503366.1	3606711.6	0.0	3.00	9.30	2.79	NO	

SGKOY02W	0	0.23455E-05	503362.7	3606691.9	0.0	3.00	9.30	2.79	NO
SGKOY02X	0	0.23455E-05	503359.2	3606672.2	0.0	3.00	9.30	2.79	NO
SGKOY02Y	0	0.23455E-05	503355.8	3606652.5	0.0	3.00	9.30	2.79	NO
SGKOY02Z	0	0.23455E-05	503352.3	3606632.7	0.0	3.00	9.30	2.79	NO
SGKOY030	0	0.23455E-05	503348.9	3606613.0	0.0	3.00	9.30	2.79	NO
SGKOY031	0	0.23455E-05	503345.5	3606593.3	0.0	3.00	9.30	2.79	NO
SGKOY032	0	0.23455E-05	503342.0	3606573.6	0.0	3.00	9.30	2.79	NO
SGKOY033	0	0.23455E-05	503337.5	3606554.2	0.0	3.00	9.30	2.79	NO
SGKOY034	0	0.23455E-05	503332.6	3606534.8	0.0	3.00	9.30	2.79	NO
SGKOY035	0	0.23455E-05	503327.6	3606515.4	0.0	3.00	9.30	2.79	NO
SGKOY036	0	0.23455E-05	503322.6	3606496.1	0.0	3.00	9.30	2.79	NO
SGKOY037	0	0.23455E-05	503317.6	3606476.7	0.0	3.00	9.30	2.79	NO
SGKOY038	0	0.23455E-05	503312.6	3606457.3	0.0	3.00	9.30	2.79	NO
SGKOY039	0	0.23455E-05	503307.7	3606437.9	0.0	3.00	9.30	2.79	NO
SGKOY03A	0	0.23455E-05	503302.7	3606418.6	0.0	3.00	9.30	2.79	NO
SGKOY03B	0	0.23455E-05	503297.7	3606399.2	0.0	3.00	9.30	2.79	NO
SGKOY03C	0	0.23455E-05	503292.8	3606379.8	0.0	3.00	9.30	2.79	NO
SGKOY03D	0	0.23455E-05	503288.2	3606360.3	0.0	3.00	9.30	2.79	NO

*** 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
SGKOY03E	0	0.23455E-05	503283.6	3606340.9	0.0	3.00	9.30	2.79	NO	
SGKOY03F	0	0.23455E-05	503279.0	3606321.4	0.0	3.00	9.30	2.79	NO	
SGKOY03G	0	0.23455E-05	503274.3	3606302.0	0.0	3.00	9.30	2.79	NO	
SGKOY03H	0	0.23455E-05	503269.7	3606282.5	0.0	3.00	9.30	2.79	NO	
SGKOY03I	0	0.23455E-05	503265.1	3606263.1	0.0	3.00	9.30	2.79	NO	
SGKOY03J	0	0.23455E-05	503260.5	3606243.6	0.0	3.00	9.30	2.79	NO	
SGKOY03K	0	0.23455E-05	503255.4	3606224.3	0.0	3.00	9.30	2.79	NO	
SGKOY03L	0	0.23455E-05	503249.6	3606205.1	0.0	3.00	9.30	2.79	NO	
SGKOY03M	0	0.23455E-05	503243.8	3606186.0	0.0	3.00	9.30	2.79	NO	
SGKOY03N	0	0.23455E-05	503238.0	3606166.8	0.0	3.00	9.30	2.79	NO	
SGKOY03O	0	0.23455E-05	503232.2	3606147.7	0.0	3.00	9.30	2.79	NO	
SGKOY03P	0	0.23455E-05	503228.5	3606128.0	0.0	3.00	9.30	2.79	NO	
SGKOY03Q	0	0.23455E-05	503225.0	3606108.4	0.0	3.00	9.30	2.79	NO	
SGKOY03R	0	0.23455E-05	503221.4	3606088.7	0.0	3.00	9.30	2.79	NO	
SGKOY03S	0	0.23455E-05	503217.8	3606069.0	0.0	3.00	9.30	2.79	NO	
SGKOY03T	0	0.23455E-05	503214.2	3606049.3	0.0	3.00	9.30	2.79	NO	
SGKOY03U	0	0.23455E-05	503210.7	3606029.7	0.0	3.00	9.30	2.79	NO	
SGKOY03V	0	0.23455E-05	503207.1	3606010.0	0.0	3.00	9.30	2.79	NO	
SGKOY03W	0	0.23455E-05	503203.5	3605990.3	0.0	3.00	9.30	2.79	NO	
SGKOY03X	0	0.23455E-05	503200.3	3605970.6	0.0	3.00	9.30	2.79	NO	
SGKOY03Y	0	0.23455E-05	503198.3	3605950.7	0.0	3.00	9.30	2.79	NO	
SGKOY03Z	0	0.23455E-05	503196.3	3605930.8	0.0	3.00	9.30	2.79	NO	
SGKOY040	0	0.23455E-05	503194.2	3605910.9	0.0	3.00	9.30	2.79	NO	
SGKOY041	0	0.23455E-05	503192.2	3605891.0	0.0	3.00	9.30	2.79	NO	
SGKOY042	0	0.23455E-05	503190.6	3605871.1	0.0	3.00	9.30	2.79	NO	
SGKOY043	0	0.23455E-05	503191.2	3605851.1	0.0	3.00	9.30	2.79	NO	
SGKOY044	0	0.23455E-05	503191.8	3605831.1	0.0	3.00	9.30	2.79	NO	
SGKOY045	0	0.23455E-05	503192.3	3605811.1	0.0	3.00	9.30	2.79	NO	
SGKOY046	0	0.23455E-05	503192.9	3605791.1	0.0	3.00	9.30	2.79	NO	
SGKOY047	0	0.23455E-05	503193.5	3605771.1	0.0	3.00	9.30	2.79	NO	
SGKOY048	0	0.23455E-05	503194.0	3605751.1	0.0	3.00	9.30	2.79	NO	
SGKOY049	0	0.23455E-05	503194.6	3605731.1	0.0	3.00	9.30	2.79	NO	
SGKOY04A	0	0.23455E-05	503195.2	3605711.1	0.0	3.00	9.30	2.79	NO	
SGKOY04B	0	0.23455E-05	503195.9	3605691.1	0.0	3.00	9.30	2.79	NO	

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 SGKOY04C         0   0.23455E-05  503197.7 3605671.2     0.0     3.00     9.30     2.79     NO
 SGKOY04D         0   0.23455E-05  503199.4 3605651.3     0.0     3.00     9.30     2.79     NO
 SGKOY04E         0   0.23455E-05  503201.2 3605631.4     0.0     3.00     9.30     2.79     NO
 SGKOY04F         0   0.23455E-05  503202.7 3605611.4     0.0     3.00     9.30     2.79     NO
 SGKOY04G         0   0.23455E-05  503203.7 3605591.5     0.0     3.00     9.30     2.79     NO
 SGKOY04H         0   0.23455E-05  503204.8 3605571.5     0.0     3.00     9.30     2.79     NO
 *** AERMOD - VERSION  19191 ***   ***  PM10 Exhaust I 125                                          ***
     09/14/23
 *** AERMET - VERSION  15181 ***   ***                                                             ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data


                                              *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.   URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ     SOURCE  SCALAR VARY
     ID        CATS.              (METERS) (METERS) (METERS) (METERS) (METERS) (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - -

 SGKOY04I         0   0.23455E-05  503206.8 3605551.6     0.0     3.00     9.30     2.79     NO
 SGKOY04J         0   0.23455E-05  503209.2 3605531.8     0.0     3.00     9.30     2.79     NO
 *** AERMOD - VERSION  19191 ***   ***  PM10 Exhaust I 125                                          ***
     09/14/23
 *** AERMET - VERSION  15181 ***   ***                                                             ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data


                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                    SOURCE IDs
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  ALL        SGKOY002    , SGKOY003    , SGKOY004    , SGKOY005    , SGKOY006    , SGKOY007    , SGKOY008    ,
SGKOY009    ,

             SGKOY00A    , SGKOY00B    , SGKOY00C    , SGKOY00D    , SGKOY00E    , SGKOY00F    , SGKOY00G    ,
SGKOY00H    ,

             SGKOY00I    , SGKOY00J    , SGKOY00K    , SGKOY00L    , SGKOY00M    , SGKOY00N    , SGKOY00O    ,
SGKOY00P    ,

             SGKOY00Q    , SGKOY00R    , SGKOY00S    , SGKOY00T    , SGKOY00U    , SGKOY00V    , SGKOY00W    ,
SGKOY00X    ,

             SGKOY00Y    , SGKOY00Z    , SGKOY010    , SGKOY011    , SGKOY012    , SGKOY013    , SGKOY014    ,
SGKOY015    ,

             SGKOY016    , SGKOY017    , SGKOY018    , SGKOY019    , SGKOY01A    , SGKOY01B    , SGKOY01C    ,
SGKOY01D    ,

             SGKOY01E    , SGKOY01F    , SGKOY01G    , SGKOY01H    , SGKOY01I    , SGKOY01J    , SGKOY01K    ,
SGKOY01L    ,

             SGKOY01M    , SGKOY01N    , SGKOY01O    , SGKOY01P    , SGKOY01Q    , SGKOY01R    , SGKOY01S    ,
SGKOY01T    ,

             SGKOY01U    , SGKOY01V    , SGKOY01W    , SGKOY01X    , SGKOY01Y    , SGKOY01Z    , SGKOY020    ,
SGKOY021    ,

             SGKOY022    , SGKOY023    , SGKOY024    , SGKOY025    , SGKOY026    , SGKOY027    , SGKOY028    ,
SGKOY029    ,
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            SGKOY02A    , SGKOY02B    , SGKOY02C    , SGKOY02D    , SGKOY02E    , SGKOY02F    , SGKOY02G    ,
SGKOY02H    ,
            SGKOY02I    , SGKOY02J    , SGKOY02K    , SGKOY02L    , SGKOY02M    , SGKOY02N    , SGKOY02O    ,
SGKOY02P    ,
            SGKOY02Q    , SGKOY02R    , SGKOY02S    , SGKOY02T    , SGKOY02U    , SGKOY02V    , SGKOY02W    ,
SGKOY02X    ,
            SGKOY02Y    , SGKOY02Z    , SGKOY030    , SGKOY031    , SGKOY032    , SGKOY033    , SGKOY034    ,
SGKOY035    ,
            SGKOY036    , SGKOY037    , SGKOY038    , SGKOY039    , SGKOY03A    , SGKOY03B    , SGKOY03C    ,
SGKOY03D    ,
            SGKOY03E    , SGKOY03F    , SGKOY03G    , SGKOY03H    , SGKOY03I    , SGKOY03J    , SGKOY03K    ,
SGKOY03L    ,
            SGKOY03M    , SGKOY03N    , SGKOY03O    , SGKOY03P    , SGKOY03Q    , SGKOY03R    , SGKOY03S    ,
SGKOY03T    ,
            SGKOY03U    , SGKOY03V    , SGKOY03W    , SGKOY03X    , SGKOY03Y    , SGKOY03Z    , SGKOY040    ,
SGKOY041    ,
            SGKOY042    , SGKOY043    , SGKOY044    , SGKOY045    , SGKOY046    , SGKOY047    , SGKOY048    ,
SGKOY049    ,
            SGKOY04A    , SGKOY04B    , SGKOY04C    , SGKOY04D    , SGKOY04E    , SGKOY04F    , SGKOY04G    ,
SGKOY04H    ,
 *** AERMOD - VERSION  19191 ***   ***  PM10 Exhaust I 125                                                  ***
     09/14/23
 *** AERMET - VERSION  15181 ***   ***                                                                    ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data


                                      *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                      SOURCE IDs
 -----------                                      ----------


            SGKOY04I    , SGKOY04J    ,
 *** AERMOD - VERSION  19191 ***   ***  PM10 Exhaust I 125                                                   ***
     09/14/23
 *** AERMET - VERSION  15181 ***   ***                                                                    ***
   17:07:05

   PAGE   9
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

                                   *** GRIDDED RECEPTOR NETWORK SUMMARY ***

                                *** NETWORK ID: O19UC003 ;  NETWORK TYPE: GRIDCART ***

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

      502155.1,  502252.2,  502349.3,  502446.4,  502543.5,  502640.6,  502737.7,  502834.8,  502931.9,  503029.0,
      503126.1,  503223.2,  503320.3,  503417.4,  503514.5,  503611.6,  503708.7,  503805.8,  503902.9,  504000.0,
      504097.1,

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

     3608335.0, 3608220.5, 3608106.0, 3607991.5, 3607877.0, 3607762.5, 3607648.0, 3607533.5, 3607419.0, 3607304.5,
```

3607190.0, 3607075.5, 3606961.0, 3606846.5, 3606732.0, 3606617.5, 3606503.0, 3606388.5, 3606274.0, 3606159.5,
3606045.0,

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** NETWORK ID: O19UC003 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS)						
	502155.10	502252.20	502349.30	502446.40	502543.50	502640.60	502737.70
3606045.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3606159.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3606274.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3606388.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3606503.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3606617.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3606732.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3606846.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3606961.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3607075.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3607190.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3607304.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3607419.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3607533.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3607648.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3607762.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3607877.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3607991.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3608106.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3608220.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3608335.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*** MODELOPTs: RegDFAULT CONC ELEV NODRYDPLT NOWETDPLT RURAL SigA Data

*** NETWORK ID: O19UC003 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 503029.00	503126.10	503223.20	503320.30	503417.40	503514.50	503611.60	503708.70	503805.80
3606045.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3606159.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3606274.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3606388.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3606503.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3606617.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3606732.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3606846.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3606961.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3607075.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3607190.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3607304.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3607419.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3607533.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3607648.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3607762.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3607877.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3607991.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3608106.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3608220.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3608335.00	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 SigA Data

*** NETWORK ID: O19UC003 ; NETWORK TYPE: GRIDCART ***

* ELEVATION HEIGHTS IN METERS *

Y-COORD (METERS)	X-COORD (METERS) 503902.90	504000.00	504097.10

```
  3606045.00 |          0.00         0.00         0.00
  3606159.50 |          0.00         0.00         0.00
  3606274.00 |          0.00         0.00         0.00
  3606388.50 |          0.00         0.00         0.00
  3606503.00 |          0.00         0.00         0.00
  3606617.50 |          0.00         0.00         0.00
  3606732.00 |          0.00         0.00         0.00
  3606846.50 |          0.00         0.00         0.00
  3606961.00 |          0.00         0.00         0.00
  3607075.50 |          0.00         0.00         0.00
  3607190.00 |          0.00         0.00         0.00
  3607304.50 |          0.00         0.00         0.00
  3607419.00 |          0.00         0.00         0.00
  3607533.50 |          0.00         0.00         0.00
  3607648.00 |          0.00         0.00         0.00
  3607762.50 |          0.00         0.00         0.00
  3607877.00 |          0.00         0.00         0.00
  3607991.50 |          0.00         0.00         0.00
  3608106.00 |          0.00         0.00         0.00
  3608220.50 |          0.00         0.00         0.00
  3608335.00 |          0.00         0.00         0.00
*** AERMOD - VERSION  19191 ***   ***  PM10 Exhaust I 125                                    ***
    09/14/23
*** AERMET - VERSION  15181 ***   ***                                                       ***
  17:07:05

  PAGE  13
*** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

                              *** NETWORK ID: O19UC003 ;  NETWORK TYPE: GRIDCART ***

                                        * HILL HEIGHT SCALES IN METERS *

    Y-COORD  |                                          X-COORD (METERS)
    (METERS) |     502155.10    502252.20    502349.30    502446.40    502543.50    502640.60    502737.70
502834.80    502931.90
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -

  3606045.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3606159.50 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3606274.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3606388.50 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3606503.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3606617.50 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3606732.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3606846.50 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3606961.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3607075.50 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3607190.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3607304.50 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3607419.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3607533.50 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3607648.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
```

```
0.00         0.00
  3607762.50 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3607877.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3607991.50 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3608106.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3608220.50 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3608335.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
 *** AERMOD - VERSION  19191 ***   ***  PM10 Exhaust I 125                                                  ***
     09/14/23
 *** AERMET - VERSION  15181 ***   ***                                                                     ***
   17:07:05

   PAGE  14
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

                                *** NETWORK ID: O19UC003 ;  NETWORK TYPE: GRIDCART ***

                                          * HILL HEIGHT SCALES IN METERS *

    Y-COORD  |                                          X-COORD (METERS)
    (METERS) |     503029.00    503126.10    503223.20    503320.30    503417.40    503514.50    503611.60
503708.70    503805.80
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -

  3606045.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3606159.50 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3606274.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3606388.50 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3606503.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3606617.50 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3606732.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3606846.50 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3606961.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3607075.50 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3607190.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3607304.50 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3607419.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3607533.50 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3607648.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3607762.50 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3607877.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3607991.50 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3608106.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
```

```
  3608220.50 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
  3608335.00 |          0.00         0.00         0.00         0.00         0.00         0.00         0.00
0.00         0.00
1*** AERMOD - VERSION  19191 ***   ***  PM10 Exhaust I 125                                                  ***
     09/14/23
 *** AERMET - VERSION  15181 ***   ***                                                                     ***
   17:07:05

   PAGE  15
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

                                *** NETWORK ID: O19UC003 ;  NETWORK TYPE: GRIDCART ***

                                          * HILL HEIGHT SCALES IN METERS *

    Y-COORD  |                                          X-COORD (METERS)
    (METERS) |     503902.90    504000.00    504097.10
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -

  3606045.00 |          0.00         0.00         0.00
  3606159.50 |          0.00         0.00         0.00
  3606274.00 |          0.00         0.00         0.00
  3606388.50 |          0.00         0.00         0.00
  3606503.00 |          0.00         0.00         0.00
  3606617.50 |          0.00         0.00         0.00
  3606732.00 |          0.00         0.00         0.00
  3606846.50 |          0.00         0.00         0.00
  3606961.00 |          0.00         0.00         0.00
  3607075.50 |          0.00         0.00         0.00
  3607190.00 |          0.00         0.00         0.00
  3607304.50 |          0.00         0.00         0.00
  3607419.00 |          0.00         0.00         0.00
  3607533.50 |          0.00         0.00         0.00
  3607648.00 |          0.00         0.00         0.00
  3607762.50 |          0.00         0.00         0.00
  3607877.00 |          0.00         0.00         0.00
  3607991.50 |          0.00         0.00         0.00
  3608106.00 |          0.00         0.00         0.00
  3608220.50 |          0.00         0.00         0.00
  3608335.00 |          0.00         0.00         0.00
1*** AERMOD - VERSION  19191 ***   ***  PM10 Exhaust I 125                                                   ***
     09/14/23
 *** AERMET - VERSION  15181 ***   ***                                                                     ***
   17:07:05

   PAGE  16
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

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


                          SOURCE          - - RECEPTOR LOCATION - -         DISTANCE
                            ID           XR (METERS)   YR (METERS)         (METERS)
                        - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

                          SGKOY00S           502931.9     3608106.0           -12.37
                          SGKOY00T           502931.9     3608106.0            -6.13
                          SGKOY01C           503126.1     3607762.5           -11.19
                          SGKOY01D           503126.1     3607762.5             0.16
                          SGKOY021           503320.3     3607304.5           -17.80
                          SGKOY022           503320.3     3607304.5            -2.10
                          SGKOY035           503320.3     3606503.0            -5.61
                          SGKOY036           503320.3     3606503.0           -12.73
                          SGKOY03N           503223.2     3606159.5            -3.50
                          SGKOY03O           503223.2     3606159.5            -5.16
                          SGKOY03T           503223.2     3606045.0           -10.03
```

```
                             SGKOY03U            503223.2     3606045.0            -0.24
↑ *** AERMOD - VERSION  19191 ***   ***  PM10 Exhaust I 125                                                   ***
     09/14/23
 *** AERMET - VERSION  15181 ***   ***                                                                        ***
   17:07:05

   PAGE  17
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

                                                        *** 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

                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,
↑ *** AERMOD - VERSION  19191 ***   ***  PM10 Exhaust I 125                                                   ***
     09/14/23
 *** AERMET - VERSION  15181 ***   ***                                                                        ***
   17:07:05

   PAGE  18
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

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

   Surface file:   C:\Users\ryan\OneDrive\LDNONE~1\CI2617~1\22-62O~1\AERMOD\KMA2012V15181.SFC         Met Version:
15181
   Profile file:   C:\Users\ryan\OneDrive\LDNONE~1\CI2617~1\22-62O~1\AERMOD\KMA2012V15181.PFL
   Surface format: FREE

   Profile format: FREE

   Surface station no.:    93107                 Upper air station no.:     3190
                  Name: OVERLANDSURFACESTATION                     Name: OVERLANDUPPERSTATION
                  Year:   2012                                     Year:   2012

 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
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - -
 12 01 01   1 01   -0.5  0.025 -9.000 -9.000 -999.    9.      2.6  0.26   1.32   1.00    0.45  125.   10.0  283.8
10.0
 12 01 01   1 02   -2.3  0.053 -9.000 -9.000 -999.   29.      5.8  0.34   1.32   1.00    0.89  334.   10.0  283.8
10.0
 12 01 01   1 03   -0.6  0.027 -9.000 -9.000 -999.   11.      3.0  0.38   1.32   1.00    0.45    5.   10.0  285.9
10.0
```

```
 12 01 01   1 04   -0.5  0.025 -9.000 -9.000 -999.    9.      2.6  0.26   1.32   1.00    0.45   77.   10.0  284.9
10.0
 12 01 01   1 05   -0.6  0.027 -9.000 -9.000 -999.   10.      2.9  0.34   1.32   1.00    0.45  336.   10.0  285.4
10.0
 12 01 01   1 06   -0.5  0.025 -9.000 -9.000 -999.   10.      2.7  0.29   1.32   1.00    0.45  233.   10.0  284.2
10.0
 12 01 01   1 07   -0.5  0.025 -9.000 -9.000 -999.   10.      2.7  0.29   1.32   1.00    0.45  175.   10.0  283.1
10.0
 12 01 01   1 08   27.3 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.31   1.32   0.49    0.00    0.   10.0  283.1
10.0
 12 01 01   1 09   55.2  0.108  0.487  0.014   75.   85.     -2.0  0.37   1.32   0.29    0.45  329.   10.0  286.4
10.0
 12 01 01   1 10  123.3  0.120  0.896  0.007  208.  100.     -1.3  0.37   1.32   0.22    0.45  321.   10.0  291.4
10.0
 12 01 01   1 11  169.2  0.295  1.303  0.005  468.  384.    -13.6  0.37   1.32   0.20    1.79  320.   10.0  295.4
10.0
 12 01 01   1 12  191.0  0.299  1.625  0.005  805.  392.    -12.5  0.37   1.32   0.19    1.79  310.   10.0  297.0
10.0
 12 01 01   1 13  186.3  0.298  1.865  0.005 1245.  391.    -12.7  0.37   1.32   0.19    1.79  307.   10.0  298.8
10.0
 12 01 01   1 14  160.2  0.293  1.884  0.005 1493.  381.    -14.1  0.37   1.32   0.20    1.79  305.   10.0  299.9
10.0
 12 01 01   1 15  107.4  0.331  1.688  0.005 1601.  456.    -30.0  0.37   1.32   0.23    2.24  305.   10.0  299.2
10.0
 12 01 01   1 16   36.1  0.304  1.180  0.005 1627.  403.    -69.5  0.37   1.32   0.32    2.24  300.   10.0  296.4
10.0
 12 01 01   1 17   -4.7  0.079 -9.000 -9.000 -999.  139.      9.2  0.33   1.32   0.60    1.34  299.   10.0  294.2
10.0
 12 01 01   1 18   -2.2  0.052 -9.000 -9.000 -999.   36.      5.8  0.33   1.32   1.00    0.89  279.   10.0  292.0
10.0
 12 01 01   1 19   -0.5  0.025 -9.000 -9.000 -999.   10.      2.6  0.26   1.32   1.00    0.45   63.   10.0  289.9
10.0
 12 01 01   1 20   -0.6  0.027 -9.000 -9.000 -999.   11.      3.1  0.38   1.32   1.00    0.45   19.   10.0  288.1
10.0
 12 01 01   1 21   -2.2  0.052 -9.000 -9.000 -999.   29.      5.7  0.33   1.32   1.00    0.89  290.   10.0  287.0
10.0
 12 01 01   1 22   -2.4  0.054 -9.000 -9.000 -999.   30.      6.0  0.37   1.32   1.00    0.89  329.   10.0  285.4
10.0
 12 01 01   1 23   -2.3  0.053 -9.000 -9.000 -999.   29.      5.8  0.34   1.32   1.00    0.89  330.   10.0  284.9
10.0
 12 01 01   1 24   -0.6  0.026 -9.000 -9.000 -999.   10.      2.9  0.33   1.32   1.00    0.45  291.   10.0  284.9
10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 12 01 01 01   10.0 1  125.    0.45   283.8   48.0  -99.00    0.27

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION  19191 ***   ***  PM10 Exhaust I 125                                                  ***
     09/14/23
 *** AERMET - VERSION  15181 ***   ***                                                                     ***
   17:07:05

   PAGE  19
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL
 ***
                                       INCLUDING SOURCE(S):     SGKOY002    , SGKOY003    , SGKOY004    , SGKOY005    ,
SGKOY006    ,
                 SGKOY007    , SGKOY008    , SGKOY009    , SGKOY00A    , SGKOY00B    , SGKOY00C    , SGKOY00D    ,
SGKOY00E    ,
                 SGKOY00F    , SGKOY00G    , SGKOY00H    , SGKOY00I    , SGKOY00J    , SGKOY00K    , SGKOY00L    ,
SGKOY00M    ,
                 SGKOY00N    , SGKOY00O    , SGKOY00P    , SGKOY00Q    , SGKOY00R    , SGKOY00S    , SGKOY00T    ,
. . .      ,

                                    *** NETWORK ID: O19UC003 ;  NETWORK TYPE: GRIDCART ***
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                                    ** CONC OF PM10     IN MICROGRAMS/M**3                          **

    Y-COORD  |                                            X-COORD (METERS)
    (METERS) |     502155.10    502252.20    502349.30    502446.40    502543.50    502640.60    502737.70
502834.80    502931.90
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -

  3606045.00 |       0.00144      0.00159      0.00177      0.00200      0.00228      0.00265      0.00315
0.00386      0.00495
  3606159.50 |       0.00148      0.00163      0.00182      0.00204      0.00233      0.00269      0.00318
0.00385      0.00485
  3606274.00 |       0.00151      0.00166      0.00185      0.00207      0.00235      0.00271      0.00317
0.00380      0.00470
  3606388.50 |       0.00153      0.00169      0.00187      0.00210      0.00237      0.00271      0.00315
0.00373      0.00454
  3606503.00 |       0.00156      0.00171      0.00190      0.00212      0.00238      0.00271      0.00312
0.00366      0.00440
  3606617.50 |       0.00158      0.00174      0.00192      0.00214      0.00239      0.00271      0.00310
0.00361      0.00429
  3606732.00 |       0.00160      0.00176      0.00194      0.00216      0.00241      0.00272      0.00310
0.00358      0.00423
  3606846.50 |       0.00163      0.00178      0.00197      0.00218      0.00243      0.00274      0.00311
0.00359      0.00422
  3606961.00 |       0.00165      0.00181      0.00200      0.00221      0.00247      0.00277      0.00315
0.00363      0.00426
  3607075.50 |       0.00168      0.00184      0.00203      0.00225      0.00251      0.00283      0.00322
0.00371      0.00436
  3607190.00 |       0.00171      0.00188      0.00207      0.00230      0.00258      0.00291      0.00331
0.00383      0.00453
  3607304.50 |       0.00174      0.00192      0.00213      0.00237      0.00266      0.00301      0.00345
0.00401      0.00477
  3607419.00 |       0.00178      0.00197      0.00219      0.00245      0.00276      0.00314      0.00363
0.00426      0.00513
  3607533.50 |       0.00182      0.00202      0.00226      0.00254      0.00289      0.00332      0.00387
0.00461      0.00565
  3607648.00 |       0.00186      0.00208      0.00234      0.00265      0.00304      0.00354      0.00419
0.00509      0.00643
  3607762.50 |       0.00190      0.00214      0.00243      0.00278      0.00323      0.00382      0.00463
0.00578      0.00765
  3607877.00 |       0.00193      0.00219      0.00252      0.00293      0.00346      0.00418      0.00521
0.00682      0.00977
  3607991.50 |       0.00196      0.00224      0.00261      0.00308      0.00372      0.00463      0.00603
0.00848      0.01445
  3608106.00 |       0.00196      0.00227      0.00268      0.00323      0.00401      0.00519      0.00719
0.01148      0.01766
  3608220.50 |       0.00193      0.00226      0.00271      0.00334      0.00430      0.00587      0.00897
0.01956      0.01400
  3608335.00 |       0.00184      0.00219      0.00267      0.00337      0.00450      0.00659      0.01176
0.02144      0.00928
1 *** AERMOD - VERSION  19191 ***   ***  PM10 Exhaust I 125                                              ***
     09/14/23
 *** AERMET - VERSION  15181 ***   ***                                                                  ***
   17:07:05

   PAGE  20
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL
 ***
                                INCLUDING SOURCE(S):     SGKOY002    , SGKOY003    , SGKOY004    , SGKOY005    ,
SGKOY006    ,
                SGKOY007    , SGKOY008    , SGKOY009    , SGKOY00A    , SGKOY00B    , SGKOY00C    , SGKOY00D    ,
SGKOY00E    ,
                SGKOY00F    , SGKOY00G    , SGKOY00H    , SGKOY00I    , SGKOY00J    , SGKOY00K    , SGKOY00L    ,
SGKOY00M    ,
                SGKOY00N    , SGKOY00O    , SGKOY00P    , SGKOY00Q    , SGKOY00R    , SGKOY00S    , SGKOY00T    ,
. . .       ,
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                                *** NETWORK ID: O19UC003 ;  NETWORK TYPE: GRIDCART ***

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

    Y-COORD  |                                              X-COORD (METERS)
    (METERS) |     503029.00    503126.10    503223.20    503320.30    503417.40    503514.50    503611.60
503708.70    503805.80
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -

  3606045.00 |       0.00683      0.01103      0.01610      0.01038      0.00680      0.00508      0.00404
0.00334      0.00283
  3606159.50 |       0.00650      0.00986      0.01523      0.01224      0.00759      0.00554      0.00436
0.00357      0.00301
  3606274.00 |       0.00612      0.00873      0.01609      0.01554      0.00859      0.00607      0.00469
0.00380      0.00318
  3606388.50 |       0.00577      0.00789      0.01288      0.02150      0.00987      0.00667      0.00505
0.00404      0.00334
  3606503.00 |       0.00548      0.00724      0.01088      0.01603      0.01161      0.00735      0.00541
0.00426      0.00349
  3606617.50 |       0.00526      0.00678      0.00966      0.01925      0.01373      0.00803      0.00574
0.00445      0.00361
  3606732.00 |       0.00513      0.00651      0.00900      0.01580      0.01605      0.00858      0.00598
0.00458      0.00369
  3606846.50 |       0.00509      0.00642      0.00878      0.01506      0.01696      0.00882      0.00609
0.00464      0.00373
  3606961.00 |       0.00514      0.00647      0.00886      0.01532      0.01673      0.00878      0.00606
0.00462      0.00371
  3607075.50 |       0.00527      0.00668      0.00924      0.01664      0.01547      0.00845      0.00590
0.00453      0.00365
  3607190.00 |       0.00551      0.00706      0.01006      0.02113      0.01332      0.00787      0.00563
0.00437      0.00355
  3607304.50 |       0.00587      0.00767      0.01140      0.01788      0.01139      0.00721      0.00529
0.00416      0.00340
  3607419.00 |       0.00643      0.00868      0.01405      0.02082      0.00963      0.00649      0.00489
0.00390      0.00323
  3607533.50 |       0.00729      0.01046      0.02245      0.01354      0.00804      0.00576      0.00447
0.00362      0.00302
  3607648.00 |       0.00871      0.01407      0.02252      0.01006      0.00674      0.00507      0.00403
0.00332      0.00281
  3607762.50 |       0.01138      0.01790      0.01263      0.00782      0.00568      0.00444      0.00362
0.00303      0.00258
  3607877.00 |       0.01856      0.01590      0.00892      0.00628      0.00482      0.00389      0.00323
0.00274      0.00236
  3607991.50 |       0.02114      0.01006      0.00683      0.00516      0.00412      0.00340      0.00287
0.00247      0.00215
  3608106.00 |       0.01146      0.00739      0.00547      0.00431      0.00353      0.00297      0.00255
0.00221      0.00195
  3608220.50 |       0.00810      0.00578      0.00448      0.00363      0.00303      0.00259      0.00225
0.00198      0.00176
  3608335.00 |       0.00616      0.00462      0.00369      0.00305      0.00260      0.00225      0.00198
0.00176      0.00158
1 *** AERMOD - VERSION  19191 ***   ***  PM10 Exhaust I 125                                              ***
     09/14/23
 *** AERMET - VERSION  15181 ***   ***                                                                  ***
   17:07:05

   PAGE  21
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL
 ***
                                    INCLUDING SOURCE(S):     SGKOY002    , SGKOY003    , SGKOY004    , SGKOY005    ,
SGKOY006    ,
                SGKOY007    , SGKOY008    , SGKOY009    , SGKOY00A    , SGKOY00B    , SGKOY00C    , SGKOY00D    ,
SGKOY00E    ,
                SGKOY00F    , SGKOY00G    , SGKOY00H    , SGKOY00I    , SGKOY00J    , SGKOY00K    , SGKOY00L    ,
SGKOY00M    ,
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                SGKOY00N    , SGKOY00O    , SGKOY00P    , SGKOY00Q    , SGKOY00R    , SGKOY00S    , SGKOY00T    ,
. . .      ,

                                *** NETWORK ID: O19UC003 ;  NETWORK TYPE: GRIDCART ***

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

    Y-COORD  |                                          X-COORD (METERS)
    (METERS) |     503902.90    504000.00    504097.10
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - -

  3606045.00 |       0.00244      0.00214      0.00189
  3606159.50 |       0.00258      0.00225      0.00198
  3606274.00 |       0.00271      0.00235      0.00206
  3606388.50 |       0.00283      0.00244      0.00213
  3606503.00 |       0.00293      0.00252      0.00219
  3606617.50 |       0.00302      0.00258      0.00224
  3606732.00 |       0.00307      0.00262      0.00227
  3606846.50 |       0.00309      0.00263      0.00228
  3606961.00 |       0.00308      0.00262      0.00227
  3607075.50 |       0.00304      0.00259      0.00225
  3607190.00 |       0.00297      0.00254      0.00220
  3607304.50 |       0.00286      0.00245      0.00214
  3607419.00 |       0.00273      0.00235      0.00205
  3607533.50 |       0.00258      0.00223      0.00196
  3607648.00 |       0.00241      0.00210      0.00185
  3607762.50 |       0.00224      0.00196      0.00174
  3607877.00 |       0.00206      0.00182      0.00162
  3607991.50 |       0.00189      0.00168      0.00151
  3608106.00 |       0.00173      0.00155      0.00139
  3608220.50 |       0.00157      0.00142      0.00129
  3608335.00 |       0.00143      0.00130      0.00119
 *** AERMOD - VERSION  19191 ***   ***  PM10 Exhaust I 125                                              ***
     09/14/23
 *** AERMET - VERSION  15181 ***   ***                                                                 ***
   17:07:05

   PAGE  22
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  NODRYDPLT  NOWETDPLT  RURAL  SigA Data

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   1 YEARS FOR SOURCE GROUP: ALL
 ***
                                  INCLUDING SOURCE(S):     SGKOY002    , SGKOY003    , SGKOY004    , SGKOY005    ,
SGKOY006    ,
                SGKOY007    , SGKOY008    , SGKOY009    , SGKOY00A    , SGKOY00B    , SGKOY00C    , SGKOY00D    ,
SGKOY00E    ,
                SGKOY00F    , SGKOY00G    , SGKOY00H    , SGKOY00I    , SGKOY00J    , SGKOY00K    , SGKOY00L    ,
SGKOY00M    ,
                SGKOY00N    , SGKOY00O    , SGKOY00P    , SGKOY00Q    , SGKOY00R    , SGKOY00S    , SGKOY00T    ,
. . .      ,

                                     *** 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
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - -
        502856.00    3608100.00        0.01296                     503128.70    3607654.70        0.01469

        503178.80    3607524.00        0.01376                     503218.20    3607407.60        0.01322

        503248.70    3607276.90        0.01275                     503232.60    3607103.20        0.00979

        503311.30    3606823.80        0.01406                     503297.00    3606648.30        0.01444

        503000.10    3607783.90        0.01047
```

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

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

NETWORK GROUP ID		AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)					OF TYPE GRID-ID
ALL	1ST HIGHEST VALUE IS	0.02252 AT	503223.20,	3607648.00,	0.00,	0.00,	0.00)	GC O19UC003
	2ND HIGHEST VALUE IS	0.02245 AT	503223.20,	3607533.50,	0.00,	0.00,	0.00)	GC O19UC003
	3RD HIGHEST VALUE IS	0.02150 AT	503320.30,	3606388.50,	0.00,	0.00,	0.00)	GC O19UC003
	4TH HIGHEST VALUE IS	0.02144 AT	502834.80,	3608335.00,	0.00,	0.00,	0.00)	GC O19UC003
	5TH HIGHEST VALUE IS	0.02114 AT	503029.00,	3607991.50,	0.00,	0.00,	0.00)	GC O19UC003
	6TH HIGHEST VALUE IS	0.02113 AT	503320.30,	3607190.00,	0.00,	0.00,	0.00)	GC O19UC003
	7TH HIGHEST VALUE IS	0.02082 AT	503320.30,	3607419.00,	0.00,	0.00,	0.00)	GC O19UC003
	8TH HIGHEST VALUE IS	0.01956 AT	502834.80,	3608220.50,	0.00,	0.00,	0.00)	GC O19UC003
	9TH HIGHEST VALUE IS	0.01925 AT	503320.30,	3606617.50,	0.00,	0.00,	0.00)	GC O19UC003
	10TH HIGHEST VALUE IS	0.01856 AT	503029.00,	3607877.00,	0.00,	0.00,	0.00)	GC O19UC003

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

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

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

A Total of   0 Fatal Error Message(s)
A Total of   1 Warning Message(s)
A Total of   178 Informational Message(s)

A Total of   8784 Hours Were Processed

A Total of   101 Calm Hours Identified

A Total of   77 Missing Hours Identified (0.88 Percent)

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


   ********   WARNING MESSAGES   ********
MX W403     597       PFLCNV: Turbulence data is being used w/o ADJ_U* option       SigA Data

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

Attachment B

Source: EMFAC2021 (v1.0.2) Emission Rates
Region Type: Sub-Area

Region: San Diego (SD)
Calendar Year: 2030
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	94000	Trips/Day	
RoadwaySegmentAERMOD_VolumeSourceDistance	2	Miles/Trip	
SegmentVMT	188000	Miles/Day	

Region	CalYr	VehClass	MdlYr	Speed	Fuel	VMT	%ofTotalVMT	VMT on Roadway Segment	PM10_RUNEX	Total Grams	Grams from DSL Only		
San Diego (SD)	2030	HHDT	Aggregate	65	Gasoline	102.0680246	0.00099%	1.869603437	0.001056787	0.001975773	0	0	0
San Diego (SD)	2030	HHDT	Aggregate	65	Diesel	476977.1165	4.64729%	8736.899337	0.033846245	295.7112323	295.7112323	8736.899	0.046473
San Diego (SD)	2030	HHDT	Aggregate	65	Electricity	22097.10059	0.21530%	404.7576641	0	0	0	0	0
San Diego (SD)	2030	HHDT	Aggregate	65	Natural Gas	10896.65897	0.10617%	199.5966038	0.001482321	0.295866255	0	0	0
San Diego (SD)	2030	LDA	Aggregate	65	Gasoline	5017668.698	48.88819%	91909.7894	0.000900929	82.80421422	0	0	0
San Diego (SD)	2030	LDA	Aggregate	65	Diesel	8968.585376	0.08738%	164.2796372	0.006234403	1.024185463	1.024185463	164.2796	0.000874
San Diego (SD)	2030	LDA	Aggregate	65	Electricity	3816.252679	0.03718%	69.90317638	0	0	0	0	0
San Diego (SD)	2030	LDA	Aggregate	65	Plug-in Hybri	98369.0975	0.95843%	1801.84934	0.000890811	1.605106679	0	0	0
San Diego (SD)	2030	LDT1	Aggregate	65	Gasoline	407262.5409	3.96804%	7459.921452	0.001361701	10.15818327	0	0	0
San Diego (SD)	2030	LDT1	Aggregate	65	Diesel	6.603308945	0.00006%	0.120954326	0.144209248	0.017442732	0.017442732	0.120954	6.43E-07
San Diego (SD)	2030	LDT1	Aggregate	65	Electricity	29.17317531	0.00028%	0.534371749	0	0	0	0	0
San Diego (SD)	2030	LDT1	Aggregate	65	Plug-in Hybri	1328.402116	0.01294%	24.33264651	0.000586885	0.014280453	0	0	0
San Diego (SD)	2030	LDT2	Aggregate	65	Gasoline	2512628.305	24.48106%	46024.38946	0.000954869	43.94725535	0	0	0
San Diego (SD)	2030	LDT2	Aggregate	65	Diesel	9778.961743	0.09528%	179.1234871	0.003497765	0.626531864	0.626531864	179.1235	0.000953
San Diego (SD)	2030	LDT2	Aggregate	65	Electricity	259.1944394	0.00253%	4.747724046	0	0	0	0	0
San Diego (SD)	2030	LDT2	Aggregate	65	Plug-in Hybri	18585.65391	0.18108%	340.4376893	0.000714008	0.243075299	0		
San Diego (SD)	2030	MCY	Aggregate	65	Gasoline	44428.96277	0.43288%	813.8155102	0.001874979	1.525886885	0		
San Diego (SD)	2030	MDV	Aggregate	65	Gasoline	1448074.615	14.10889%	26524.71514	0.000922424	24.46704282	0		
San Diego (SD)	2030	MDV	Aggregate	65	Diesel	21030.87111	0.20491%	385.2272939	0.003712056	1.429985432	1.429985432		
San Diego (SD)	2030	MDV	Aggregate	65	Electricity	256.9376507	0.00250%	4.70638593	0	0	0		
San Diego (SD)	2030	MDV	Aggregate	65	Plug-in Hybri	11878.44654	0.11573%	217.5802321	0.000761543	0.165696787	0		
San Diego (SD)	2030	MH	Aggregate	65	Gasoline	13670.14107	0.13319%	250.399112	0.000976384	0.244485804	0		
San Diego (SD)	2030	MH	Aggregate	65	Diesel	7071.198369	0.06890%	129.5247638	0.107658219	13.94440542	13.94440542		
San Diego (SD)	2030	MHDT	Aggregate	65	Gasoline	36398.93029	0.35464%	666.7275618	0.000974139	0.64948534	0		
San Diego (SD)	2030	MHDT	Aggregate	65	Diesel	60143.23597	0.58599%	1101.65746	0.009932077	10.94174691	10.94174691		
San Diego (SD)	2030	MHDT	Aggregate	65	Electricity	10563.7863	0.10293%	193.4992986	0	0	0		
San Diego (SD)	2030	MHDT	Aggregate	65	Natural Gas	1086.373481	0.01058%	19.89935243	0.000801984	0.015958962	0		
San Diego (SD)	2030	OBUS	Aggregate	65	Gasoline	7090.016097	0.06908%	129.8694524	0.000919174	0.11937262	0		
San Diego (SD)	2030	OBUS	Aggregate	65	Diesel	6246.439275	0.06086%	114.4174621	0.033238952	3.803116502	3.803116502		
San Diego (SD)	2030	OBUS	Aggregate	65	Electricity	763.6387483	0.00744%	13.98774625	0	0	0		
San Diego (SD)	2030	OBUS	Aggregate	65	Natural Gas	0.002009905	0.00000%	3.68159E-05	0.000690239	2.54118E-08	0		
San Diego (SD)	2030	SBUS	Aggregate	65	Gasoline	760.8554656	0.00741%	13.93676422	0.000837329	0.011669653	0		
San Diego (SD)	2030	SBUS	Aggregate	65	Diesel	1840.24565	0.01793%	33.70820202	0.023734949	0.800062441	0.800062441		
San Diego (SD)	2030	SBUS	Aggregate	65	Electricity	211.9943789	0.00207%	3.883149703	0	0	0		
San Diego (SD)	2030	SBUS	Aggregate	65	Natural Gas	27.01749634	0.00026%	0.494885683	0.002120519	0.001049414	0		
San Diego (SD)	2030	UBUS	Aggregate	65	Gasoline	13.78906496	0.00013%	0.252577468	0.001023295	0.000258461	0		
San Diego (SD)	2030	UBUS	Aggregate	65	Electricity	929.907208	0.00906%	17.0333238	0	0	0	0	0
San Diego (SD)	2030	UBUS	Aggregate	65	Natural Gas	2299.023967	0.02240%	42.11174977	0.000155955	0.006567527	0	0	0
				Total VMT		10263560.84	100.00000%	188000		Total Grams from DSL Only PM10 per Day	328.2987091		
										Total Grams from DSL PM10 per Second (g/s)	0.003799754		
										MERV 13 %Passing from Roadway (g/s)	0.000379975		

Attachment C

Cancer Risk Calculations

REC: R1 (Indoor Area)						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.01296	0.01296	0.01296	0.01296	0.01296	0.01296
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	0.00000280	0.00000819	0.00000666	0.00000562	0.00000261	0.00000230
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	9.34786E-08	2.18698E-06	1.58153E-06	2.67234E-06	4.19605E-07	1.95315E-06
	0.093478629	2.186984448	1.581526426	2.672336241	0.419605402	1.953153463
Cancer Risk Per Million 30-years	5.37					
Cancer Risk Per Million 70-years	6.91					

REC: R2 (Indoor Area)						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.01469	0.01469	0.01469	0.01469	0.01469	0.01469
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	0.00000317	0.00000928	0.00000754	0.00000637	0.00000296	0.00000272
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	1.05957E-07	2.47892E-06	1.79264E-06	3.02906E-06	4.75618E-07	2.30612E-06
	0.105956871	2.478919872	1.792640678	3.029060137	0.475617542	2.306120143
Cancer Risk Per Million 30-years	6.09					
Cancer Risk Per Million 70-years	7.92					

REC: R3 (Indoor Area)						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.01376	0.01376	0.01376	0.01376	0.01376	0.01376
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	0.00000297	0.00000869	0.00000707	0.00000597	0.00000277	0.00000255
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	9.92489E-08	2.32198E-06	1.67915E-06	2.8373E-06	4.45507E-07	2.16012E-06
	0.099248914	2.321983488	1.679151514	2.837295268	0.44550697	2.160123429
Cancer Risk Per Million 30-years	5.70					
Cancer Risk Per Million 70-years	7.42					

REC: R4 (Indoor Area)						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.01322	0.01322	0.01322	0.01322	0.01322	0.01322
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	0.00000286	0.00000835	0.00000679	0.00000574	0.00000267	0.00000245
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	9.5354E-08	2.23086E-06	1.61325E-06	2.72595E-06	4.28023E-07	2.07535E-06
	0.095353971	2.230859136	1.613254579	2.725947924	0.428023411	2.075351143
Cancer Risk Per Million 30-years	5.48					
Cancer Risk Per Million 70-years	7.13					

Attachment C

Cancer Risk Calculations

REC: R5 (Indoor Area)						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.01275	0.01275	0.01275	0.01275	0.01275	0.01275
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	0.00000275	0.00000805	0.00000655	0.00000553	0.00000257	0.00000236
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	9.19639E-08	2.15155E-06	1.5559E-06	2.62903E-06	4.12806E-07	2.00157E-06
	0.091963929	2.1515472	1.55589984	2.629034496	0.41280624	2.001567857
Cancer Risk Per Million 30-years	5.29					
Cancer Risk Per Million 70-years	6.87					

REC: R6 (Indoor Area)						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.00979	0.00979	0.00979	0.00979	0.00979	0.00979
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	0.00000211	0.00000618	0.00000503	0.00000425	0.00000197	0.00000181
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	7.06139E-08	1.65205E-06	1.19469E-06	2.01869E-06	3.1697E-07	1.53689E-06
	0.070613871	1.652050752	1.194687014	2.018686095	0.316970438	1.536890143
Cancer Risk Per Million 30-years	4.06					
Cancer Risk Per Million 70-years	5.28					

REC: R7 (Indoor Area)						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.01406	0.01406	0.01406	0.01406	0.01406	0.01406
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	0.00000304	0.00000888	0.00000722	0.00000610	0.00000283	0.00000260
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	1.01413E-07	2.37261E-06	1.71576E-06	2.89915E-06	4.5522E-07	2.20722E-06
	0.101412771	2.372608128	1.715760922	2.899154903	0.455220058	2.207219143
Cancer Risk Per Million 30-years	5.83					
Cancer Risk Per Million 70-years	7.58					

REC: R8 (Outdoor Façade)						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.01444	0.01444	0.01444	0.01444	0.01444	0.01444
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	0.00000312	0.00000912	0.00000742	0.00000627	0.00000291	0.00000267
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	1.04154E-07	2.43673E-06	1.76213E-06	2.97751E-06	4.67523E-07	2.26687E-06
	0.104153657	2.436732672	1.762132838	2.977510441	0.467523302	2.266873714
Cancer Risk Per Million 30-years	5.99					
Cancer Risk Per Million 70-years	7.79					

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REC: R9 (Outdoor Façade)						
Age (Years)	3rd Trimester (0.25)	0-2	2-9	2-16	16-30	16-70
Cair (annual) - From AERMOD	0.0105	0.0105	0.0105	0.0105	0.0105	0.0105
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	0.00000227	0.00000663	0.00000539	0.00000456	0.00000212	0.00000194
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	7.5735E-08	1.77186E-06	1.28133E-06	2.16509E-06	3.39958E-07	1.64835E-06
	0.075735	1.7718624	1.28132928	2.165087232	0.33995808	1.64835
Cancer Risk Per Million 30-years	4.35					
Cancer Risk Per Million 70-years	5.66					