Air Quality Analysis Technical Report for the Nakano Project Chula Vista, California

Prepared for
Tri Pointe Homes
13520 Evening Creek Drive North, Suite 300
San Diego, CA 92128

Prepared by
RECON Environmental, Inc.
3111 Camino del Rio North, Suite 600
San Diego, CA 92108
P 619.308.9333

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Jessica Fleming, Senior Air Quality and Noise Specialist

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Acronyms and Abbreviations

°F	degrees Fahrenheit
AB	Assembly Bill
ADD	Assistant Deputy Director
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
ATCM	Airborne Toxic Control Measure
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CALINE4	California LINE Source Dispersion Model
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CO	carbon monoxide
County	San Diego County
DPM	diesel particulate matter
EPA	U.S. Environmental Protection Agency
GHG	greenhouse gas
HAP	hazardous air pollutant
HARP2	Hotspots Analysis and Reporting Program Version 2
HRA	health risk assessment
HVAC	heating, ventilation, and air conditioning
I-805	Interstate 805
LOS	level of service
LAFCO	Local Agency Formation Commission
MERV 13	Minimum Efficiency Reporting Value 13
NAAQS	National Ambient Air Quality Standards
NHAPS	National Human Activity Pattern Survey
NO	nitric oxide
NO_2	nitrogen dioxide
NO_X	oxides of nitrogen
O_3	ozone
OEHHA	Office of Environmental Health Hazard Assessment
OVRP	Otay Valley Regional Park
PDF	project design feature
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to 10 microns
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
ppm	parts per million by volume
project	Nakano Project

RAQS	Regional Air Quality Strategy
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
SANDAG	San Diego Association of Government
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SIP	State Implementation Plan
SO_2	sulfur dioxide
SO_X	sulfur oxides
TAC	toxic air contaminant
VMT	vehicle miles traveled
VOC	volatile organic compound

Executive Summary

The purpose of this technical report is to assess the potential air quality impacts associated with implementation of the Nakano Project (project). For the No Annexation Scenario and Annexation Scenario 2b, this assessment uses the significance thresholds in Appendix G of the California Environmental Quality Act (CEQA) Guidelines. For the Annexation Scenario 2a, this assessment uses the City of San Diego's CEQA Significance Determination Thresholds (City of San Diego 2022).

Project Overview

The project proposes a residential development on a 23.8-acre site located north of the 450 block of Dennery Road, in the City of Chula Vista, California. The project consists of development of 215 residential dwellings units comprising 61 detached condominiums, 84 duplexes and 70 townhome dwelling units with approximately 5 acres of hardscaped/paved roadway area. However, to represent a conservative analysis of potential unit mix and to account for the maximum units allowed in the Specific Plan, the environmental analysis assumes a maximum of 221 residential units. Recreational amenities would include two "mini" parks, an overlook park associated with the Otay Valley Regional Park, and a trail connection to the Otay Valley Regional Park. Primary site access would be provided via an off-site connection to Dennery Road, and secondary emergency access would be provided via a connection to Golden Sky Way in the River Edge Terrace residential development. Off-site remedial grading and trail improvements would be required to the north of the site within the City of Chula Vista.

The project includes three scenarios. Under the No Annexation Scenario, the project would remain within the City of Chula Vista. Two Annexation Scenarios contemplate annexation into the City of San Diego. Each scenario is described below.

Scenario 1, the No Annexation Scenario, assumes the project would stay in Chula Vista and not be annexed into San Diego. Local Agency Formation Commission (LAFCO) approval of out of agency service agreements for services and utilities from San Diego would be required. Under this scenario, the City of Chula Vista would issue grading and development permits for the project site; however, the City of San Diego would require a site development permit and grading permit for the off-site improvements associated with primary site access and secondary emergency access.

Two potential annexation scenarios are described below. The key difference between the two annexation scenarios would be the agency responsibility for issuance of grading and development permits for the project site.

In Annexation Scenario 2a, grading and development of the project site would not proceed until the LAFCO reorganization process is complete. In this scenario, the City of San Diego would issue grading and development permits for the project site and all off-site improvement areas after approval of the LAFCO reorganization.

In Annexation Scenario 2b, grading and site development would proceed prior to LAFCO reorganization. In this scenario, the City of Chula Vista would issue grading and development permits for the project site and the City of San Diego would issue a grading permit for the off-site portions. Grading permits, recordation of a final map, and Chula Vista issuance of all final certificates of occupancy would be completed prior to approval of the LAFCO reorganization. Annexation of the project site to San Diego would not occur until after site development in Chula Vista is complete.

Analysis Results

The air quality impact analysis evaluates the potential for adverse impacts to air quality due to construction and operational emissions resulting from the project. Impacts were evaluated for their significance based on the City of Chula Vista's and City of San Diego's mass daily criteria air pollutant thresholds of significance. Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. Criteria air pollutants include ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$), and lead. Pollutants that are evaluated include volatile organic compounds (VOCs) (also referred to as reactive organic gases), oxides of nitrogen (NO_X), CO, sulfur oxides (SO_X), PM_{10}, and $PM_{2.5}$. VOCs and NO_X are important because they are precursors to O_3.

Air Quality Plan Consistency

If a project proposes development that is greater than that anticipated in the local plan and the San Diego Association of Governments (SANDAG) growth projections, the project might be in conflict with the State Implementation Plan and Regional Air Quality Strategy (RAQS) and may contribute to a potentially significant cumulative impact on air quality.

No Annexation Scenario and Annexation Scenario 2b (City of Chula Vista)

Under these scenarios the project would be developed in Chula Vista; therefore, the land use plans of Chula Vista are considered in relation to air quality plan consistency. The project site's existing Chula Vista General Plan land use designation is Open Space (OS) and the site is zoned A-8 Agriculture; however, the project proposes development of up to 221 residential units. SANDAG Series 13 (the SANDAG model used to develop the latest air quality plan for the region) anticipates population and housing growth in the City of Chula Vista, including an increase in housing from 89,176 in 2020 to 101,188 in 2035. This would equate to an additional 800 units per year from 2020 to 2035. Implementation of the proposed project would result in an increase in 221 residential units in a location assumed to be open space in SANDAG's growth projections. The project's development of multi-family residential units would provide balanced and diverse housing to the City of Chula Vista and provide housing to accommodate the County of San Diego's future growth projections. Therefore, the proposed project would not stimulate population growth or a population concentration or housing above what is assumed in local and regional land use plans, or projections made by regional planning authorities. Additionally, the project would not exceed Chula Vista's emission-based thresholds discussed in detail in Section 6.2. Therefore, the proposed project would not conflict with the RAQs. Based on these considerations, impacts related to the project's potential to conflict with or obstruct implementation of the applicable air quality plan would be **less than significant**.

Annexation Scenario 2a (City of San Diego)

Under this scenario, the proposed project would be annexed into and development permits would be issued the City of San Diego, therefore the analysis is based on City of San Diego land uses. SANDAG Series 13 (the SANDAG model used to develop the latest air quality plan for the region) estimates the population in the City of San Diego would grow from 1,453.267 in 2020 to 1,665,609 in 2035. This would equate to an additional 14,147 people per year from 2020 to 2035. Additionally, SANDAG Series 13 estimates that the City of San Diego would have 559,143 residential units in 2020 and 640,668 residential units in 2035 (SANDAG 2013). This would equate to an additional 5,435 units per year from 2020 to 2035. Implementation of the proposed project would result in an increase in 221 residential units in a location assumed to be open space in SANDAG's growth projections. The project is expected to add these units to market in 2026. While the project would include residential in an area previously planned for open space, the City of San Diego is in need of residential units to meet anticipated growth. Therefore, the proposed project would not result in unplanned growth that would conflict with SANDAG's regional growth forecast for the City.

While the San Diego Air Pollution Control District and City of San Diego do not provide guidance regarding the analysis of impacts associated with air quality plan conformance, the County's Guidelines for Determining Significance and Report and Format and Content Requirements – Air Quality does discuss conformance with the RAQS (County of San Diego 2007). The guidance indicates that if a project, in conjunction with other projects, contributes to growth projections that would not exceed SANDAG's growth projections for the San Diego Air Basin, the project would not be in conflict with the RAQS (County of San Diego 2007). As previously discussed, the project would not contribute to growth in the region that is not already accounted for. Additionally, the project would not exceed City of San Diego's emission-based thresholds discussed in detail in Section 6.2. Thus, impacts would be considered **less than significant**.

Construction Criteria Air Pollutant Emissions

Construction of the project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (e.g., off-road construction equipment, soil disturbance, and VOC off-gassing) and off-site sources (e.g., on-road haul trucks, vendor trucks, and worker vehicle trips). Maximum daily construction emissions would not exceed the either the City of San Diego or the City of Chula Vista's significance thresholds for VOCs, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$ during construction in all construction years (2024 through 2025). Thus, impacts would be considered **less than significant**.

Operational Criteria Air Pollutant Emissions

Operational year 2026 was assumed following completion of project construction. Operation of the project would generate operational criteria air pollutants from mobile sources (vehicles), area sources (consumer product use and architectural coatings), and energy (natural gas). As noted in PDF-AQ-2 and PDF-GHG-3, the project would not include fireplaces and would include all electric appliances and heating systems and would not be served by natural gas. Additionally, as noted in PDF-GHG-6, the project would include all electric landscaping equipment. Maximum operational emissions would not exceed either the City of San Diego or the City of Chula Vista's operational significance thresholds for VOCs, NO_X, CO, SO_x, PM_{10}, or $PM_{2.5}$.

The potential for the project to result in a cumulatively considerable impact is based on the project's potential to exceed the project-specific daily thresholds. As discussed previously, maximum construction and operational emissions would not exceed either City's significance thresholds for VOCs, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$. Therefore, the project would not result in a cumulatively considerable increase in criteria air pollutants. Thus, impacts would be considered **less than significant**.

Exposure of Sensitive Receptors

Construction activities would not generate emissions in excess of the site-specific mass daily thresholds; therefore, site-specific construction impacts during construction of the project would be less than significant. In addition, diesel equipment would also be subject to the California Air Resources Board's Airborne Toxic Control Measures for in-use off-road diesel fleets, which would minimize diesel particulate matter emissions.

As required by Policy E 6.10 in the City of Chula Vista's General Plan Environmental Element, the siting of new sensitive receivers within 500 feet of highways resulting from development or redevelopment projects shall require the preparation of a health risk assessment (HRA). Additionally, San Diego General Plan Policy LU-I.14 requires the evaluation of public health risks associated with toxic air emissions for community plan updates and amendments that involve land use or intensity changes. The project is located adjacent to Interstate 805 (I-805); therefore, the project is subject to this requirement.

An HRA was prepared to disclose the potential health risks to future residents on the project site associated with air contaminants generated by vehicle emissions from I-805 located just west of the project site. The HRA finds that the roadway-generated toxic air contaminant emissions would result in a potential excess cancer risk at the maximally exposed residential receptor of 25.60 in a million. This value exceeds the 10 in a million threshold, which is the level at which SDAPCD generally requires public notification for stationary sources of emissions. The Residential Chronic Hazard Index of 0.007 would be below the level of 1.0 at which adverse non-cancer health risks would be anticipated. The analysis factors in the typical amount of time spent indoors as well as the provision of Minimum Efficiency Reporting Value 13 (MERV 13) filters as required by Title 24. However, the project would not exacerbate toxic air contaminant emissions from vehicle emissions associated with I-805 freeway traffic due to the small volume of project trips that would be added to the roadway. As the focus of CEQA is on the project's impact on the environment and not the environment's impacts on a project, the HRA was prepared in accordance with Chula Vista General Plan Policy E 6.10 and San Diego General Plan Policy LU-I.14 to address land use compatibly and land use planning and does not have a corresponding CEQA significance determination.

The project would not negatively affect the level of service of intersections on or in proximity to the project site and therefore, would not significantly contribute to a CO hotspot. As such, potential project-generated impacts associated with CO hotspots would be **less than significant.**

Other Emissions

Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application, which would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Impacts associated with odors during construction would be less than significant. The project is a residential development that would not include land uses with sources that have the potential to generate substantial odors, and impacts associated with odors during operation would be **less than significant**.

1.0 Introduction

1.1 Report Purpose and Scope

The purpose of this technical report is to assess the potential air quality impacts associated with implementation of the proposed Nakano Project (project). This assessment uses the significance thresholds in Appendix G of the California Environmental Quality Act (CEQA) Guidelines (14 California Code of Regulations [CCR] 15000 et seq.) and is based on the emissions-based significance thresholds recommended by the City of Chula Vista, the City of San Diego and other applicable thresholds of significance.

This introductory chapter provides a description of the project and the project location. This report describes the air-quality-related environmental setting, regulatory setting, existing air quality conditions, and thresholds of significance and analysis methodology and presents an air quality impact analysis per Appendix G of the CEQA Guidelines for the No Annexation Scenario and Annexation Scenario 2b because the City of Chula Vista would be responsible for project implementation in these scenarios. The report is evaluated per the City of San Diego CEQA Significance Thresholds for Annexation Scenario 2a as the City of San Diego would be responsible for project implementation in this scenario. Chapter 7, References Cited, includes a list of the references cited in this technical report.

1.2 Project Description

The project consists of development of 215 residential dwellings units consisting of 61 detached condominiums, 84 duplexes and 70 townhome dwelling units on 23.8 acres with approximately 5 acres of hardscaped/paved roadway area. However, to represent a conservative analysis of potential unit mix, the environmental analysis assumes a maximum of 221 residential units consistent with the maximum units allowed under the Specific Plan. The project site is located on the 450 block of Dennery Road, in the City of Chula Vista, California. Figure 1 shows the project location and Figure 2 shows an aerial photograph of the project site and vicinity. Figure 3 shows the site plan.

The project is evaluated under three scenarios, detailed below.

Scenario 1, the No Annexation Scenario, assumes the project would stay in Chula Vista and not be annexed into San Diego. Local Agency Formation Commission (LAFCO) approval of out of agency service agreements for services and utilities from San Diego would be required. Under this scenario, the City of Chula Vista would issue grading and development permits for the project site; however, the City of San Diego would require a site development permit and grading permit for the off-site improvements associated with primary site access and secondary emergency access.

Two potential annexation scenarios are described below. The key difference between the two annexation scenarios would be the agency responsibility for issuance of grading and development permits for the project site.

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In Annexation Scenario 2b, grading and site development would proceed prior to LAFCO reorganization. In this scenario, the City of Chula Vista would issue grading and development permits for the project site and City of San Diego would issue a grading permit for the off-site portions. Grading permits and recordation of a final map in the City of Chula Vista would be completed prior to approval of the LAFCO reorganization. Annexation of the project site to the City of San Diego is anticipated to be complete prior to issuance of the first certificate of occupancy; however, the City of Chula Vista would finalize all building permits and issue certificates of occupancy for the site regardless of the timing of annexation.

While the physical improvements proposed would be the same under all project scenarios, the discretionary actions would differ. The No Annexation Scenario would include a City of Chula Vista General Plan Amendment, Tentative Map, Specific Plan, out of service agreements for services and utilities, and certification of the Environmental Impact Report. More specifically, the General Plan Amendment would change the land use designation to Specific Plan–Residential Medium and the Specific Plan would implement the R-3 zone in the City of Chula Vista.

The Annexation Scenarios would include the annexation of the site from the City of Chula Vista and Otay Water District to the City of San Diego, an annexation agreement, City of San Diego and City of Chula Vista Sphere of Influence revision, City of San Diego and City of Chula Vista General Plan Amendment, Otay Mesa Community Plan Amendment, prezone in the City of San Diego, City of San Diego Resolution of Initiation and City of Chula Vista Resolution Support, a Tentative Map, and certification of the Environmental Impact Report. Under the Annexation Scenarios, the site would be designated by the City of San Diego as Residential – Low Medium and zoned as RM-1-1 (Residential-Multiple Unit). The LAFCO would provide oversight of the annexation process.

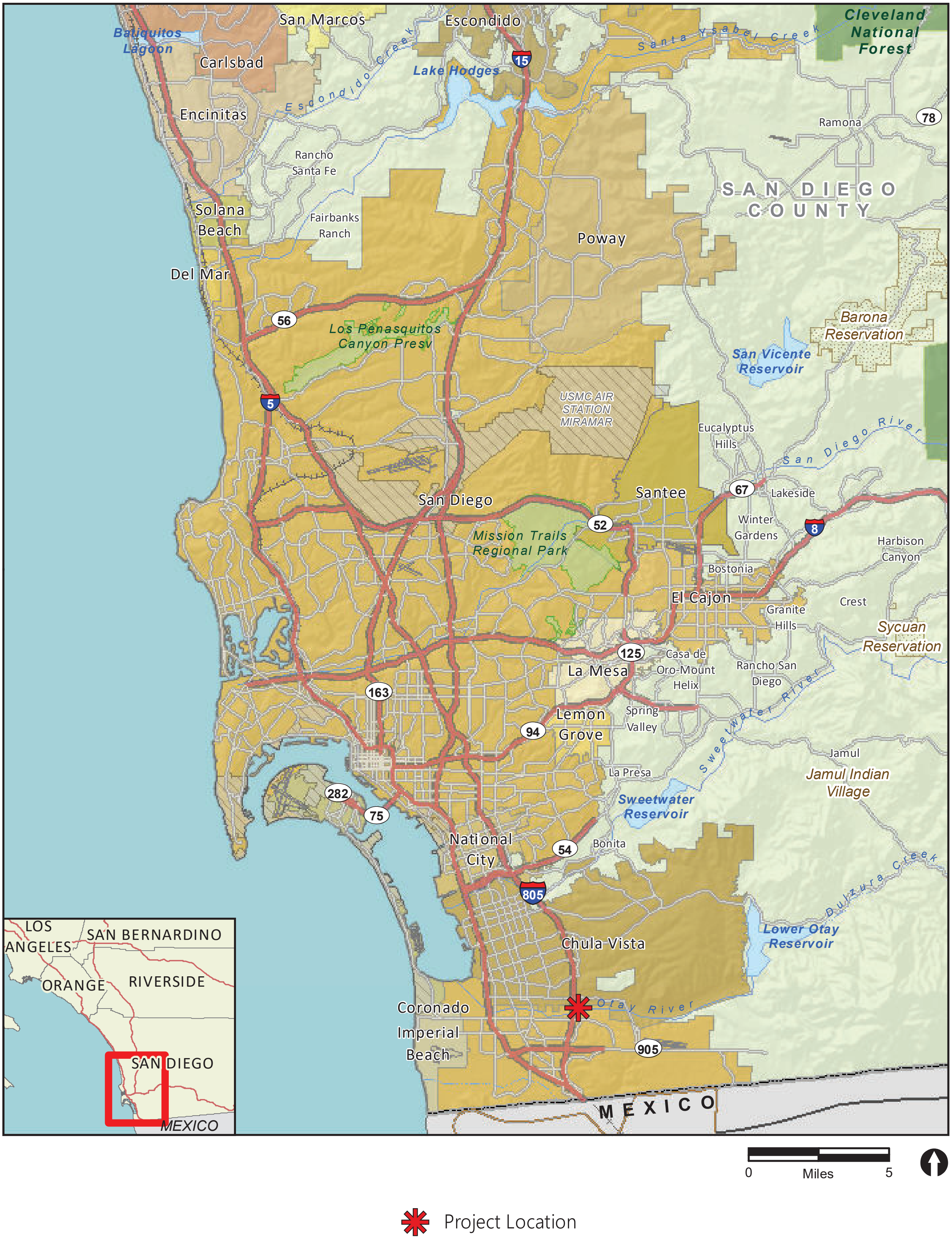

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FIGURE 1
Regional Location

Image Source: NearMap (flown January 2023)

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FIGURE 2
Project Location on Aerial Photograph

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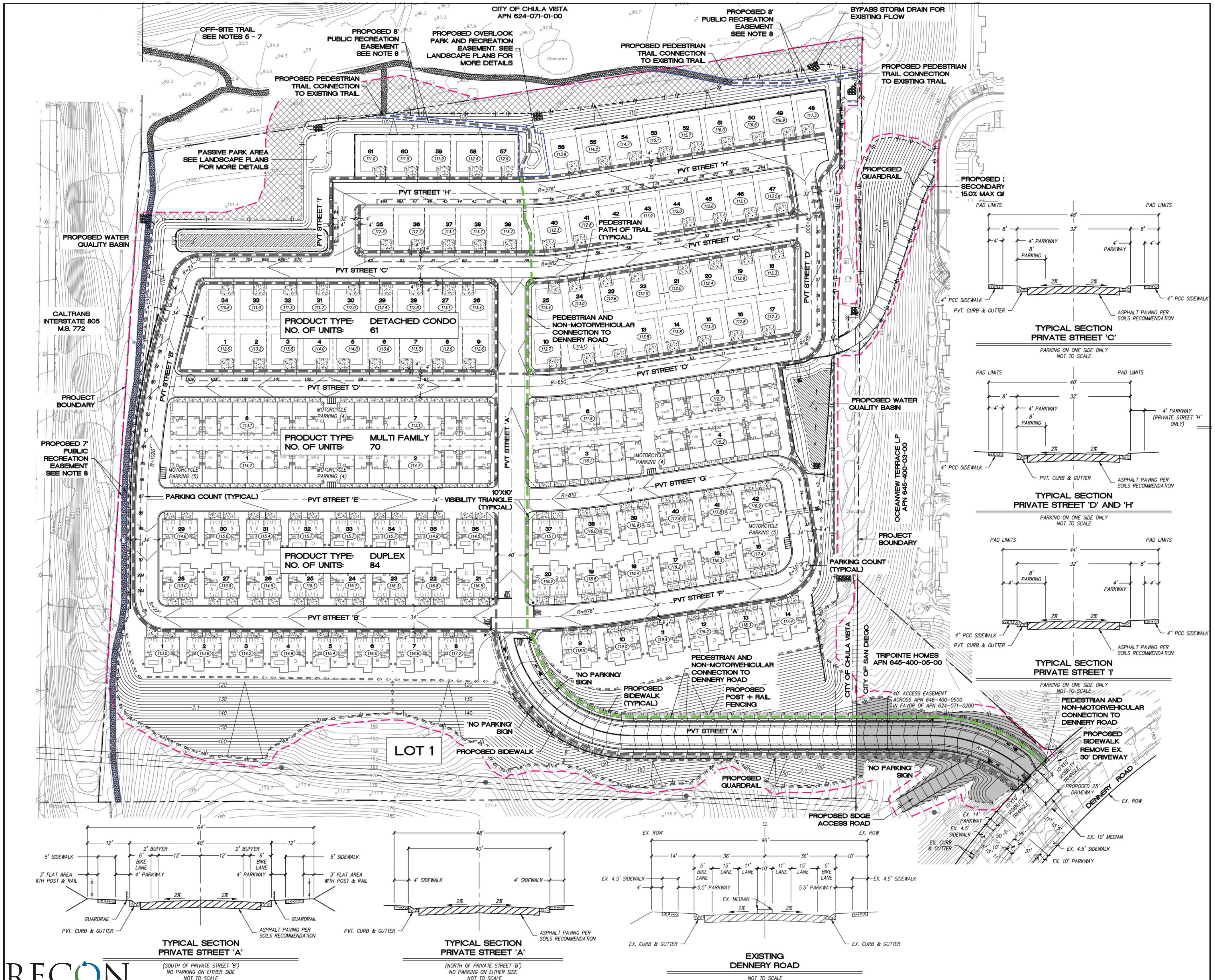
Map Source: Civil Sense, Inc.



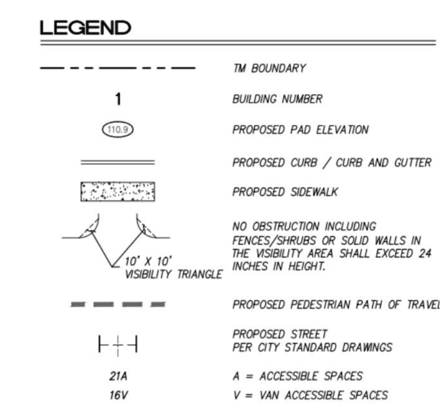


FIGURE 3
Site Plan

1.3 Project Design Features

To reduce construction and operational emissions to the extent feasible, the applicant (Tri Pointe Homes) would incorporate the following project design features (PDFs) into the residential development and would be included as conditions of approval and included on building design plans:

PDF-AQ-1 **Fugitive Dust Control**. Prior to the issuance of grading permits, the grading plan notes shall be verified by the City's Assistant Deputy Director (ADD) environmental designee to state that the Owner/Permitee shall implement the following measures to minimize fugitive dust (PM_{10} and $PM_{2.5}$):

- A non-toxic dust control agent shall be used on the grading areas or watering shall be applied at least three times daily.
- Grading areas shall be stabilized as quickly as possible.
- Chemical stabilizer shall be applied, a gravel pad shall be installed, or the last 100 feet of internal travel path within the construction site shall be paved prior to public road entry and for all haul roads.
- Visible track-out into traveled public streets shall be removed with the use of sweepers, water trucks, or similar method at the end of the workday.
- All soil disturbance and travel on unpaved surfaces shall be suspended if winds exceed 25 miles per hour.
- On-site stockpiles of excavated material shall be covered.
- A 15 mile per hour speed limit on unpaved surfaces shall be enforced.

PDF-AQ-2 **No Fireplaces.** Prior to issuance of building permits, the building plan shall be verified by the City's ADD environmental designee to not include any wood stoves or wood-burning or natural gas fireplaces within the residential units.

In addition to the above PDFs, the following PDFs were identified as part of the greenhouse gas analysis and would be required as a condition of approval on building design plans:

PDF-GHG-1 **Increased Density.** The project shall allow up to 221 residential units in an area with access to transit.

PDF-GHG-2 **Affordable Housing.** The project shall provide 22 units (10 percent), including 11 low-income units and 11 moderate-income units, that are affordable to low- and moderate-income households.

PDF-GHG-3 **Electric Appliances.** Prior to issuance of building permits, the City's ADD environmental designee shall verify the building plans include all electric appliances and heating systems. Woodburning and natural gas/propane shall be prohibited on-site.

PDF-GHG-4 **Pedestrian Network Improvements.** Prior to issuance of building permits, City's ADD environmental designee shall verify the following pedestrian and trail amenities are shown on the building plans:

- A 7- to 8-foot-wide decomposed granite public trail connection along the western edge of the project site. To ensure public accessibility to the Otay Valley Regional Park (OVRP) trail system, a public trail easement would be granted along this alignment.
- 8-foot-wide decomposed granite public trail improvement with split rail fencing from the proposed mini-park located at the north central portion of the project site, connecting north to off-site portions of the OVRP trail system.
- Off-site within the City of Chula Vista parcel to the north, the project includes improvements to the OVRP trail system including formalizing existing trail alignments with placement of decomposed granite within an 8-foot-wide alignment and installation of split-rail fencing on one side of the trail.
- Wayfinding signage to the OVRP trail system along Dennery Road within private property, as detailed on the project landscape plans).
- Sidewalks are proposed on both sides of Private Street A. All other internal streets would provide sidewalks on one side of the street. Sidewalks provide a connection to the OVRP trail connection on the north end of the site.

PDF-GHG-5 **Bicycle Network Improvements.** Prior to issuance of building permits, the City's ADD environmental designee shall verify the building plans include buffered Class II bike lanes. The bike lanes shall be provided along Private Street A, the main private street running through the site, connecting to the existing Class II bike lane along Dennery Road. The private streets leading east and west from the primary roadway would include bicycle sharrows.

PDF-GHG-6 **Outdoor Electrical Outlets to Allow for Electric Landscape Equipment.** Prior to issuance of building permits, the City's ADD environmental designee shall verify the landscaping plans identify the locations of the exterior electrical outlets necessary for sufficient powering of electric lawnmowers and other landscaping equipment.

PDF-GHG-7 **Prohibit Turf.** Prior to issuance of building permits, the City's ADD environmental designee shall verify the landscape plans do not include turf lawns in any residential portion of the project.

PDF-GHG-8 **Community Gardens**. Prior to issuance of construction permits, the City's ADD environmental designee shall verify the building plans include a minimum of 26,726 square feet of common open space that would allow for community gardens.

PDF-GHG-9 **Electric Vehicle Charging Capacity.** Prior to the issuance of building permits, the Owner/Permittee shall submit building plans illustrating all units comply with Title 24 Green Building Standards Code, Residential Mandatory Measures which requires each dwelling unit to install a listed raceway to accommodate a dedicated 208/240-volt branch circuit. The raceway shall originate at the main service or subpanel and shall terminate in the garage to allow for electric vehicle charging.

2.0 Environmental Setting

The project area is located within the San Diego Air Basin (SDAB) and is subject to the San Diego Air Pollution Control District (SDAPCD) guidelines and regulations. The SDAB is one of 15 air basins that geographically divide the State of California. The weather of the San Diego region, as in most of southern California, is influenced by the Pacific Ocean and its semi-permanent high-pressure systems that result in dry, warm summers and mild, occasionally wet winters.

The topography in the San Diego region varies greatly, from beaches on the west to mountains and desert on the east. Along with local meteorology, the topography influences the dispersal and movement of pollutants in the SDAB. The mountains to the east prohibit dispersal of pollutants in that direction and help trap them in inversion layers, as described in the next section.

The interaction of ocean, land, and the Pacific High Pressure Zone maintains clear skies for much of the year and influences the direction of prevailing winds (westerly to northwesterly). Local terrain is often the dominant factor inland, and winds in inland mountainous areas tend to blow through the valleys during the day and down the hills and valleys at night.

2.1 Meteorological and Topographical Conditions

The SDAB lies in the southwest corner of California, comprises the entire San Diego region, covers approximately 4,260 square miles, and is an area of high air pollution potential. The SDAB experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds.

The SDAB experiences frequent temperature inversions. Subsidence inversions occur during the warmer months as descending air associated with the Pacific High Pressure Zone meets cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. Another type of inversion, a radiation inversion, develops on winter nights when air near the ground cools by heat radiation and air aloft remains warm. The shallow inversion layer formed between these two air masses also can trap pollutants. As the pollutants become more concentrated in the atmosphere, photochemical reactions occur that produce ozone (O_3), commonly known as smog.

Light daytime winds, predominantly from the west, further aggravate the condition by driving air pollutants inland, toward the mountains. During the fall and winter, air quality problems are created due to carbon monoxide (CO) and oxides of nitrogen (NO_X) emissions. CO concentrations are generally higher in the morning and late evening. In the morning, CO levels are elevated due to cold temperatures and the large number of motor vehicles traveling. Higher CO levels during the late evenings are a result of stagnant atmospheric conditions trapping CO in the area. Since CO is produced almost entirely from automobiles, the highest CO concentrations in the basin are associated with heavy traffic. Nitrogen dioxide (NO_2) levels are also generally higher during fall and winter days when O_3 concentrations are lower.

Under certain conditions, atmospheric oscillation results in the offshore transport of air from the Los Angeles region to San Diego County (the County). This often produces high O_3 concentrations, as measured at air pollutant monitoring stations within the County. The transport of air pollutants from the Los Angeles region to San Diego County has also occurred within the stable layer of the elevated subsidence inversion, where high levels of O_3 are transported.

The local climate in the southern part of the County is characterized as semi-arid with consistently mild, warmer temperatures throughout the year. The average summertime high temperature in the region is approximately 81 degrees Fahrenheit (°F), with highs approaching 80°F in August on average, and record highs approaching 104°F in August. The average wintertime low temperature is approximately 43.8°F, although record lows have approached 32°F in January. Average precipitation in the local area is approximately 9.7 inches per year, with the bulk of precipitation falling between December and March (Western Regional Climate Center 2017).

2.2 Pollutants and Effects

2.2.1 Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include O_3, NO_2, CO, sulfur dioxide (SO_2), particulate matter with an aerodynamic diameter less than or equal to 10 microns (coarse particulate matter, or PM_{10}), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns (fine particulate matter, or $PM_{2.5}$), and lead. These pollutants, as well as toxic air contaminants (TACs), are discussed in the following paragraphs.[1] In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

Ozone. O_3 is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun's energy and O_3 precursors. These precursors are mainly NO_X and volatile organic compounds (VOCs). The maximum effects of precursor emissions on O_3 concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O_3 formation, and ideal conditions occur during summer and early autumn on days

[1] The descriptions of each of the criteria air pollutants and associated health effects are based on the EPA's Criteria Air Pollutants (2016a) and the CARB Glossary of Air Pollutant Terms (2016a).

with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O_3 exists in the upper atmosphere O_3 layer (stratospheric ozone) and at the Earth's surface in the troposphere (ozone).[1] The O_3 that the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) regulate as a criteria air pollutant is produced close to the ground level, where people live, exercise, and breathe. Ground-level O_3 is a harmful air pollutant that causes numerous adverse health effects and is thus considered "bad" O_3. Stratospheric, or "good," O_3 occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth's atmosphere. Without the protection of the beneficial stratospheric O_3 layer, plant and animal life would be seriously harmed.

O_3 in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (EPA 2013). These health problems are particularly acute in sensitive receptors such as sick people, elderly people, and young children.

Nitrogen Dioxide. NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO), which is a colorless, odorless gas. NO_X plays a major role, together with VOCs, in the atmospheric reactions that produce O_3. NO_X is formed from fuel combustion under high temperature or pressure. In addition, NO_X is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two major emissions sources are transportation and stationary fuel combustion sources, such as electric utility and industrial boilers.

NO_2 can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections (EPA 2016a).

Carbon Monoxide. CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon or fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, such as the project location, automobile exhaust accounts for the majority of CO emissions. CO is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions—primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent.

In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions.

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[1] The troposphere is the layer of the Earth's atmosphere nearest to the surface of the Earth. The troposphere extends outward about 5 miles at the poles and about 10 miles at the equator.

Sulfur Dioxide. SO_2 is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO_2 are coal and oil used in power plants and industries; as such, the highest levels of SO_2 are generally found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels.

SO_2 is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished ventilator function in children. When combined with particulate matter, SO_2 can injure lung tissue, as well as reducing visibility and the level of sunlight. SO_2 can also yellow plant leaves and erode iron and steel.

Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. PM_{10} consists of particulate matter that is 10 microns or less in diameter and is about 1/7 the thickness of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. $PM_{2.5}$ consists of particulate matter that is 2.5 microns or less in diameter and is roughly 1/28 the thickness of a human hair. $PM_{2.5}$ results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as SO_X, NO_X, and VOCs.

$PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly or be absorbed into the bloodstream, causing damage elsewhere in the body. Additionally, these substances can transport adsorbed gases such as chlorides or ammonium into the lungs, also causing injury. Whereas PM_{10} tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissue. Suspended particulates also damage and discolor surfaces on which they settle and produce haze and reduce regional visibility.

People with influenza, people with chronic respiratory and cardiovascular diseases, and elderly people may suffer worsening illness and premature death as a result of breathing particulate matter. People with bronchitis can expect aggravated symptoms from breathing in particulate matter. Children may experience a decline in lung function due to breathing in PM_{10} and $PM_{2.5}$ (EPA 2009).

Lead. Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phaseout of leaded gasoline reduced the overall inventory of airborne lead by nearly 95%. With the phaseout of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emissions sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth. Children are highly susceptible to the effects of lead.

Volatile Organic Compounds. Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of O_3 are referred to and regulated as VOCs (also referred to as reactive organic gases). Combustion engine exhaust, oil refineries, and fossil-fuel power plants are major sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry-cleaning solutions, and paint.

The primary health effects of VOCs result from the formation of O_3 and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for VOCs as a group.

Sulfates. Sulfates are the fully oxidized forms of sulfur, which typically occur in combination with metals or hydrogen ions. Sulfates are produced from reactions of SO_2 in the atmosphere. Sulfates can result in respiratory impairment and reduced visibility.

Vinyl Chloride. Vinyl chloride is a colorless gas with a mild, sweet odor, which has been detected near landfills, sewage plants, and hazardous waste sites, due to the microbial breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in the air can cause nervous system effects such as dizziness, drowsiness, and headaches. Long-term exposure through inhalation can cause liver damage, including liver cancer.

Hydrogen Sulfide. Hydrogen sulfide is a colorless and flammable gas that has a characteristic odor of rotten eggs. Sources of hydrogen sulfide include geothermal power plants, petroleum refineries, sewers, and sewage treatment plants. Exposure to hydrogen sulfide can result in nuisance odors, as well as headaches and breathing difficulties at higher concentrations.

Visibility-Reducing Particles. Visibility-reducing particles are any particles in the air that obstruct the range of visibility. Effects of reduced visibility can include obscuring the viewshed of natural scenery, reducing airport safety, and discouraging tourism. Sources of visibility-reducing particles are the same as for $PM_{2.5}$.

2.2.2 Non-Criteria Air Pollutants

Toxic Air Contaminants. A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic non-cancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In the State of California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over 5 years.

Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and non-carcinogenic effects. Non-carcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

Diesel Particulate Matter. Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. More than 90% of DPM is less than 1 micrometer in diameter (about 1/70th the diameter of a human hair) and, thus, is a subset of $PM_{2.5}$ (CARB 2016a). DPM is typically composed of carbon particles ("soot," also called black carbon) and numerous organic compounds, including more than 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene (CARB 2016a). The CARB classified "particulate emissions from diesel-fueled engines" (i.e., DPM; 17 CCR 93000) as a TAC in August 1998. DPM is emitted from a broad range of diesel engines, including on-road diesel engines (trucks, buses, and cars) and off-road diesel engines (locomotives, marine vessels, and heavy-duty construction equipment, among others). Approximately 70% of all airborne cancer risk in California is associated with DPM (CARB 2000). To reduce the cancer risk associated with DPM, CARB adopted a diesel risk reduction plan in 2000 (CARB 2000). Because it is part of $PM_{2.5}$, DPM also contributes to the same non-cancer health effects as $PM_{2.5}$ exposure. These effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies (CARB 2016b). Those most vulnerable to non-cancer health effects are children, whose lungs are still developing, and elderly people, who often have chronic health problems.

Odorous Compounds. Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and overall is subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., a coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. In a phenomenon known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

Valley Fever. Coccidioidomycosis, more commonly known as "valley fever," is an infection caused by inhalation of the spores of the *Coccidioides immitis* fungus, which grows in the soils of the southwestern United States. When fungal spores are present, any activity that disturbs the soil, such as digging, grading, or other earthmoving operations, can cause the spores to become airborne and thereby increase the risk of exposure. The ecologic factors that appear to be most conducive to survival and replication of the spores are high summer temperatures, mild winters, sparse rainfall, and alkaline sandy soils.

Valley fever is not considered highly endemic to San Diego. Per the County Health and Human Services Agency, the 10-year average (2009–2018) for coccidioidomycosis cases in the County of San Diego is 5.5 cases per 100,000 people per year. The project area is wholly contained within the 92154zip code. For the 92154-zip code, there were 113 cases of coccidioidomycosis between 2009 and 2018, which is equivalent to a rate of 13.5 cases per 100,000 people (Nelson 2019). Statewide incidences in 2018 were 18.8 per 100,000 people (California Department of Public Health 2019).

Even if *Coccidioides immitis* is present at a site, earthmoving activities may not result in increased incidence of valley fever. Propagation of *Coccidioides immitis* is dependent on climatic conditions, with the potential for growth and surface exposure highest following early seasonal rains and long dry spells. *Coccidioides immitis* spores can be released when filaments are disturbed by earthmoving activities, although receptors must be exposed to and inhale the spores to be at increased risk of developing valley fever. Moreover, exposure to *Coccidioides immitis* does not guarantee that an individual will become ill—approximately 60% of people exposed to the fungal spores are asymptomatic and show no signs of an infection (U.S. Geological Survey 2000).

2.3 Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, elderly people, athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and structures where these air pollution-sensitive people live or spend considerable amounts of time are known as "sensitive receptors." Land uses where air-pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (sensitive sites or sensitive land uses) (CARB 2005). SDAPCD identifies sensitive receptors as those who are especially susceptible to adverse health effects from exposure to TACs, such as children, elderly people, and ill people. Sensitive receptors include schools (grades Kindergarten through 12), daycare centers, nursing homes, retirement homes, health clinics, and hospitals within 2 kilometers (1.2 miles) of the facility (SDAPCD 2019). The closest sensitive receptors to the project are residences located approximately 115 feet east of the project site. The project would also introduce new on-site sensitive receptors (i.e., residences) to the area.

3.0 Regulatory Setting

3.1 Federal Regulations

3.1.1 Criteria Air Pollutants

The federal Clean Air Act (CAA), passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. EPA is responsible for implementing most aspects of the CAA, including the setting of the National Ambient Air Quality Standards (NAAQS) for major air pollutants, hazardous air pollutants (HAP) standards, approval of state attainment plans, motor vehicle emission standards, stationary source emission standards and permits, acid rain control measures, stratospheric O_3 protection, and enforcement provisions.

Under the CAA, NAAQS are established for the following criteria pollutants: O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead. The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The CAA requires EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a State Implementation Plan (SIP) that demonstrates how those areas will attain the standards within mandated time frames.

3.1.2 Hazardous Air Pollutants

The 1977, federal CAA amendments required EPA to identify national emission standards for HAPs to protect public health and welfare. HAPs include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 CAA amendments, which expanded the control program for HAPs, 189 substances and chemical families were identified as HAPs.

3.2 State Regulations

3.2.1 Criteria Air Pollutants

The federal CAA delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for ensuring implementation of the California CAA of 1988, responding to the CAA and regulating emissions from motor vehicles and consumer products.

CARB has established California Ambient Air Quality Standards (CAAQS), which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. Air quality is considered "in attainment" if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, PM_{10}, $PM_{2.5}$, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded.

The NAAQS and CAAQS are presented in Table 1.

Table 1
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]	National Standards[b]	
		Concentration[c]	Primary[c,d]	Secondary[c,e]
O_3	1 hour	0.09 ppm (180 µg/m³)	—	Same as Primary Standard[f]
	8 hours	0.070 ppm (137 µg/m³)	0.070 ppm (137 µg/m³)[f]	
NO_2[g]	1 hour	0.18 ppm (339 µg/m³)	0.100 ppm (188 µg/m³)	Same as Primary Standard
	Annual arithmetic mean	0.030 ppm (57 µg/m³)	0.053 ppm (100 µg/m³)	
CO	1 hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	None
	8 hours	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	
SO_2[h]	1 hour	0.25 ppm (655 µg/m³)	0.075 ppm (196 µg/m³)	—
	3 hours	—	—	0.5 ppm (1,300 µg/m³)
	24 hours	0.04 ppm (105 µg/m³)	0.14 ppm (for certain areas)[g]	—
	Annual	—	0.030 ppm (for certain areas)[g]	—
PM_{10}[i]	24 hours	50 µg/m³	150 µg/m³	Same as Primary Standard
	Annual arithmetic mean	20 µg/m³	—	
$PM_{2.5}$[i]	24 hours	—	35 µg/m³	Same as Primary Standard
	Annual arithmetic mean	12 µg/m³	12.0 µg/m³	15.0 µg/m³
Lead[j,k]	30-day average	1.5 µg/m³	—	—
	Calendar quarter	—	1.5 µg/m³ (for certain areas)[k]	Same as Primary Standard
	Rolling 3-month average	—	0.15 µg/m³	
Hydrogen sulfide	1 hour	0.03 ppm (42 µg/m³)	—	—
Vinyl chloride[j]	24 hours	0.01 ppm (26 µg/m³)	—	—
Sulfates	24 hours	25 µg/m³	—	—
Visibility reducing particles	8 hour (10:00 a.m. to 6:00 p.m. PST)	Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to the number of particles when the relative humidity is less than 70%	—	—

Table 1
Ambient Air Quality Standards

Source: CARB 2016b.

Notes: O_3 = ozone; ppm = parts per million by volume; μg/m^3 = micrograms per cubic meter; — = no data available; NO_2 = nitrogen dioxide; CO = carbon monoxide; mg/m^3= milligrams per cubic meter; SO_2 = sulfur dioxide; PM_{10} = particulate matter with an aerodynamic diameter less than or equal to 10 microns; $PM_{2.5}$ = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns; PST = Pacific Standard Time.

[a]California standards for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, suspended particulate matter (PM_{10}, $PM_{2.5}$), and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b]National standards (other than O_3, NO_2, SO_2, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The O_3 standard is attained when the fourth-highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 μg/m^3 is equal to or less than 1. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

[c]Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[d]National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.

[e]National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[f]On October 1, 2015, the national 8-hour O_3 primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[g]To attain the national 1-hour standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb. California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[h]On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the national 1-hour standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until 1 year after an area is designated for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

[i]On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 μg/m^3 to 12.0 μg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 μg/m^3, as was the annual secondary standard of 15 μg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 μg/m^3 were also retained. The form of the annual primary and secondary standards is the annual mean averaged over 3 years.

[j]California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[k]The national standard for lead was revised on October 15, 2008, to a rolling 3-month average. The 1978 lead standard (1.5 μg/m^3 as a quarterly average) remains in effect until 1 year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

3.2.2 Toxic Air Contaminants

A TAC is defined by California law as an air pollutant that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. Federal laws use the HAPs to refer to the same types of compounds that are referred to as TACs under state law. California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588).

AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. This includes research, public participation, and scientific peer review before CARB can designate a substance as a TAC. Pursuant to AB 2588, existing facilities that emit air pollutants above specified level were required to (1) prepare a TAC emission inventory plan and report, (2) prepare a risk assessment if TAC emissions were significant, (3) notify the public of significant risk levels, and (4) if health impacts were above specified levels, prepare and implement risk reduction measures.

The following regulatory measures pertain to the reduction of DPM and criteria pollutant emissions from off-road equipment and diesel-fueled vehicles:

3.2.2.1 Idling of Commercial Heavy-Duty Trucks (13 CCR 2485)

In July 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to control emissions from idling trucks. The ATCM prohibits idling for more than 5 minutes for all commercial trucks with a gross vehicle weight rating over 10,000 pounds. The ATCM contains an exception that allows trucks to idle while queuing or involved in operational activities.

3.2.2.2 In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.)

In July 2007, CARB adopted an ATCM for in-use off-road diesel vehicles. This regulation requires that specific fleet average requirements be met for NO_X emissions and for particulate matter emissions. Where average requirements cannot be met, Best Available Control Technology requirements apply. The regulation also includes several recordkeeping and reporting requirements.

In response to AB 8 2X, the regulations were revised in July 2009 (effective December 3, 2009) to allow a partial postponement of the compliance schedule in 2011 and 2012 for existing fleets. On December 17, 2010, CARB adopted additional revisions to further delay the deadlines, reflecting reductions in diesel emissions due to the poor economy and overestimates of diesel emissions in California. The revisions delayed the first compliance date until no earlier than January 1, 2014, for large fleets, with final compliance by January 1, 2023. The compliance dates for medium fleets were delayed until an initial date of January 1, 2017, and a final compliance date of January 1, 2023. The compliance dates for small fleets were delayed until an initial date of January 1, 2019, and a final compliance date of January 1, 2028. Correspondingly, the fleet average targets were made more stringent in future compliance years. The revisions also accelerated the phaseout of equipment with older equipment added to existing large and medium fleets over time, requiring the addition of Tier 2 or higher engines starting on March 1, 2011, with some exceptions: Tier 2 or higher engines on January 1, 2013, without exception; and Tier 3 or higher engines on January 1, 2018 (January 1, 2023, for small fleets).

On October 28, 2011 (effective December 14, 2011), the Executive Officer approved amendments to the regulation. The amendments included revisions to the applicability section and additions and revisions to the definitions. The initial date for requiring the addition of Tier 2 or higher engines for large and medium fleets, with some exceptions, was revised to January 1, 2012. New provisions also allow for the removal of emission control devices for safety or visibility purposes. The regulation also was amended to combine the particulate matter and NO_X fleet average targets under one, instead of two, sections. The amended fleet average targets are based on the fleet's NO_X average, and the previous section regarding particulate matter performance requirements was deleted completely. The Best Available Control Technology requirements, if a fleet cannot comply with the fleet average requirements, were restructured and clarified. Other amendments to the regulations included minor administrative changes to the regulatory text.

3.2.2.3 In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025)

On December 12, 2008, CARB adopted an ATCM to reduce NO_X and particulate matter emissions from most in-use on-road diesel trucks and buses with a gross vehicle weight rating greater than 14,000 pounds. The original ATCM regulation required fleets of on-road trucks to limit their NO_X and particulate matter emissions through a combination of exhaust retrofit equipment and new vehicles. The regulation limited particulate matter emissions for most fleets by 2011, and limited NO_X emissions for most fleets by 2013. The regulation did not require any vehicle to be replaced before 2012 and never required that all vehicles in a fleet be replaced.

In December 2009, the CARB Governing Board directed staff to evaluate amendments that would provide additional flexibility for fleets adversely affected by the poor California economy. On December 17, 2010, CARB revised this ATCM to delay its implementation along with limited relaxation of its requirements. Starting on January 1, 2015, lighter trucks with a gross vehicle weight rating of 14,001 to 26,000 pounds with 20-year-old or older engines need to be replaced with newer trucks (2010 model year emissions equivalent, as defined in the regulation). Trucks with a gross vehicle weight rating greater than 26,000 pounds with 1995 model year or older engines needed to be replaced as of January 1, 2015. Trucks with 1996–2006 model year engines must install a Level 3 (85% control) diesel particulate filter starting on January 1, 2012, to January 1, 2014, depending on the model year, and then must be replaced after 8 years. Trucks with 2007–2009 model year engines have no requirements until 2023, at which time they must be replaced with 2010 model year emissions equivalent engines, as defined in the regulation. Trucks with 2010 model year engines would meet the final compliance requirements. The ATCM provides a phase-in option under which a fleet operator would equip a percentage of trucks in the fleet with diesel particulate filters, starting at 30% as of January 1, 2012, with 100% by January 1, 2016. Under each option, delayed compliance is granted to fleet operators who have complied or will comply with requirements before the required deadlines.

On September 19, 2011 (effective December 14, 2011), the Executive Officer approved amendments to the regulations, including revisions to the compliance schedule for vehicles with a gross vehicle weight rating of 26,000 pounds or less to clarify that *all* vehicles must be equipped with 2010 model year emissions equivalent engines by 2023. The amendments included revised and additional credits for fleets that have downsized; implemented early particulate matter retrofits; incorporated hybrid vehicles, alternative-fueled vehicles, and vehicles with heavy-duty pilot ignition engines; and implemented early addition of newer vehicles. The amendments included provisions for additional flexibility, such as for low-usage construction trucks, and revisions to previous exemptions, delays, and extensions. Other amendments to the regulations included minor administrative changes to the regulatory text, including recordkeeping and reporting requirements related to other revisions.

3.2.2.4 California Health and Safety Code Section 41700

Section 41700 of the California Health and Safety Code states that a person shall not discharge from any source whatsoever quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health, or safety of any of those persons or the public, or that cause, or have a natural tendency to cause, injury or damage to business or property. This section also applies to sources of objectionable odors.

3.2.2.5 Building Energy Efficiency Standards (Title 24, Part 6; Title 24, Part 11)

As required by the 2022 Standards of Part 6 and Part 11 of the Title 24 of the CCR, multi-family residential units are required to install high-efficiency return air filters on all heating, ventilation, and air conditioning (HVAC) systems. The air filtration system shall reduce at least 90% of particulate matter emissions, such as can be achieved with a Minimum Efficiency Reporting Value 13 (MERV 13) air filtration system installed on return vents in residential units.

3.3 Local Regulations

3.3.1 San Diego Air Pollution Control District

While CARB is responsible for the regulation of mobile emission sources within the state, local air quality management districts and air pollution control districts are responsible for enforcing standards and regulating stationary sources. The project area is located within the SDAB and is subject to the guidelines and regulations of SDAPCD.

In the County, O_3 and particulate matter are the pollutants of main concern since exceedances of the CAAQS for those pollutants are experienced here in most years. For this reason, the SDAB has been designated as a nonattainment area for the state PM_{10}, $PM_{2.5}$, and O_3 standards. The SDAB is also a federal O_3 attainment (maintenance) area for the 1997 8-hour O_3 standard, an O_3 nonattainment area for the 2008 8-hour O_3 standard, and a CO maintenance area (western and central part of the SDAB only, including the project area).

3.3.1.1 Federal Attainment Plans

In December 2016, SDAPCD adopted an update to the Eight-Hour Ozone Attainment Plan for San Diego County (2008 O_3 NAAQS). The Final 2008 Eight-Hour Ozone Attainment Plan for San Diego County (2016 8-Hour O_3 Attainment Plan; SDAPCD 2016) indicates that local controls and state programs would allow the region to reach attainment of the federal 8-hour O_3 standard (1997 O_3 NAAQS) by 2018. In this plan, SDAPCD relies on the Regional Air Quality Strategy (RAQS) to demonstrate how the region will comply with the federal O_3 standard. The RAQS details how the region will manage and reduce O_3 precursors (NO_X and VOCs) by identifying measures and regulations intended to reduce these pollutants. The control measures identified in the RAQS generally focus on stationary sources; however, the emissions inventories and projections in the RAQS address all potential sources, including those under the authority of CARB and EPA. Incentive programs for reduction of emissions from heavy-duty diesel vehicles, off-road equipment, and school buses are also established in the RAQS.

Currently, the County is designated as moderate nonattainment for the 2008 NAAQS and maintenance for the 1997 NAAQS. As documented in the 2016 8-Hour O_3 Attainment Plan, the County has a likely chance of obtaining attainment due to the transition to low-emission cars, stricter new source review rules, and continuing the requirement of general conformity for military growth and the San Diego International Airport. The County will also continue emission control measures, including ongoing implementation of existing regulations in O_3 precursor reduction to stationary and area-wide sources, subsequent inspections of facilities and sources, and the adoption of laws requiring Best Available Retrofit Control Technology for control of emissions (SDAPCD 2016).

3.3.1.2 State Attainment Plans

SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plans for attainment and maintenance of the ambient air quality standards in the SDAB. The RAQS for the SDAB was initially adopted in 1992 and is updated on a triennial basis, most recently in 2022 (SDAPCD 2023). The RAQS outlines SDAPCD's plans and control measures designed to attain the CAAQS for O_3. The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County and the cities in the County, to forecast future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by the County and the cities in the County as part of the development of their general plans (SANDAG 2017a, 2017b).

In 2022, SDAPCD adopted the revised RAQS for the County. The 2022 RAQS contains strategies to continue directly reducing emissions of ozone precursors (VOC and NO_X) in the County and assists in reducing particulate matter and greenhouse gases as a co-benefit. Consistent with the SDAPCD's recent reorganization pursuant to AB 423 (Gloria, 2019), the 2022 RAQS also proposes to expand the SDAPCD's involvement as a regional agency within the SDAPCD regulatory authority by including commitments to support research and innovation opportunities, developing new partnerships with public and private entities, convening more opportunities for engagement and education with stakeholders, and integrating environmental justice and equity into all SDAPCD actions. The SDAPCD has adopted/amended seven existing measures, proposed and scheduled eight measures through 2025, and proposed 14 additional measures for further study through 2025. All proposed measures will further reduce air pollution beyond levels established in the 2022 RAQS. Together, the proposed control measures scheduled for consideration are estimated to reduce VOC emissions by approximately 0.04 ton per day and NO_X emissions by 0.59 ton per day (SDAPCD 2023). Consequently, the 2022 RAQS will provide additional emission reductions relative to the 2016 RAQS and, therefore, is more effective in improving air quality and meets all state requirements.

In regard to particulate matter emissions reduction efforts, in December 2005, SDAPCD prepared a report titled "Measures to Reduce Particulate Matter in San Diego County" to address implementation of Senate Bill (SB) 656 in San Diego County (SB 656 required additional controls to reduce ambient concentrations of PM_{10} and $PM_{2.5}$) (SDAPCD 2005). In the report, SDAPCD evaluated implementation of source-control measures that would reduce particulate matter emissions associated with residential wood combustion; various construction activities including earthmoving, demolition, and grading; bulk material storage and handling; carryout and trackout removal and cleanup methods; inactive disturbed land; disturbed open areas; unpaved parking lots/staging areas; unpaved roads; and windblown dust (SDAPCD 2005).

3.3.1.3 SDAPCD Rules and Regulations

As stated previously, SDAPCD is responsible for planning, implementing, and enforcing federal and state ambient standards in the SDAB. The following rules and regulations apply to all sources in the jurisdiction of SDAPCD and would apply to the project:

SDAPCD Regulation II: Permits; Rule 20.2: New Source Review Non-Major Stationary Sources. Requires new or modified stationary source units (that are not major stationary sources) with the potential to emit 10 pounds per day or more of VOC, NO_X, SO_X, or PM_{10} to be equipped with Best Available Control Technology. For those units with a potential to emit above Air Quality Impact Assessments Trigger Levels, the units must demonstrate that such emissions would not violate or interfere with the attainment of any national air quality standard (SDAPCD 2023).

SDAPCD Regulation IV: Prohibitions; Rule 50: Visible Emissions. Prohibits discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than 3 minutes in any period of 60 consecutive minutes, which is darker in shade than that designated as Number 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an observer's view to a degree greater than does smoke of a shade designated as Number 1 on the Ringelmann Chart (SDAPCD 1997).

SDAPCD Regulation IV: Prohibitions; Rule 51: Nuisance. Prohibits the discharge, from any source, of such quantities of air contaminants or other materials that cause or have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property (SDAPCD 1969).

SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust Control. Regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project area (SDAPCD 2009b).

SDAPCD Regulation IV: Prohibitions; Rule 67.0.1: Architectural Coatings. Requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SDAPCD 2015). Construction and operation of the project would include application of architectural coatings (e.g., paint and other finishes), which are subject to SDAPCD Rule 67.0.1.

SDAPCD Regulation XII: Toxic Air Contaminants; Rule 1200: Toxic Air Contaminants – New Source Review. Requires new or modified stationary source units with the potential to emit TACs above rule threshold levels to demonstrate that they will not increase the maximum incremental cancer risk above 1 in 1 million at every receptor location, or demonstrate that toxics Best Available Control Technology will be employed if maximum incremental cancer risk is equal to or less than 10 in 1 million, or demonstrate compliance with SDAPCD's protocol for those sources with an increase in maximum incremental cancer risk at any receptor location of greater than 10 in 1 million but less than 100 in 1 million (SDAPCD 2017a).

SDAPCD Regulation XII: Toxic Air Contaminants; Rule 1210: Toxic Air Contaminant Public Health Risks – Public Notification and Risk Reduction. Requires each stationary source required to prepare a public risk assessment to provide written public notice of risks at or above the following levels: maximum incremental cancer risks equal to or greater than 10 in 1 million, cancer burden equal to or greater than 1.0, total acute non-cancer health hazard index equal to or greater than 1.0, or total chronic non-cancer health hazard index equal to or greater than 1.0 (SDAPCD 2017b).

3.3.2 San Diego Association of Governments

SANDAG is the regional planning agency for the County and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. SANDAG serves as the federally designated metropolitan planning organization for the County. With respect to air quality planning and other regional issues, SANDAG's San Diego Forward: The 2021 Regional Plan (Regional Plan) was adopted by the SANDAG Board of Directors on December 10, 2021 (SANDAG 2021). The Regional Plan provides a long-term blueprint for the San Diego region that seeks to meet regulatory requirements, address traffic congestion, and create equal access to jobs, education, healthcare, and other community resources. The plan identifies five big moves including Complete Corridors, Transit Leap, Mobility Hubs, Flexible Fleets, and Next OS as key strategies for a more vibrant, connected region. SANDAG, as the region's Metropolitan Planning Organization, must make a transportation air quality conformity determination for regional transportation plans and regional transportation improvement programs. The purpose of transportation conformity is to ensure that federally funded or approved activities are consistent with the SIP. This ensures that no transportation activities will cause or contribute to new air quality violations, worsen existing violations, or delay the attainment of any relevant NAAQS. Appendix C of the Regional Plan documents conformity for the 2008 and 2015 ozone NAAQS for the 2021 Regional Plan and air quality analysis for the 2021 Regional Transportation Improvement Program Amendment No. 06. The 2021 Regional Plan serves as the region's Regional Transportation Plan.

3.3.3 Chula Vista General Plan

In the Environmental Element of the Chula Vista General Plan, the City outlines in Chapter 3.1.6, Promoting Clean Air, the background of air quality in the region and the following objectives and policies related to air quality (City of Chula Vista 2005):

E6: Improve local air quality and reduce greenhouse gas emissions by minimizing the release of air pollutants and toxic air contaminants and limiting the exposure of people to such pollutants.

E6A: Explore opportunities for improving indoor air quality.

E6B: Prioritize greening efforts to keep air, water, and land clean.

The following policies related to air quality are found in Section 3.1.6 of the Environmental Element in the Chula Vista General Plan:

E6.1: Encourage compact development featuring a mix of uses that locate residential areas within reasonable walking distance to jobs, services, and transit.

E6.2: Promote and facilitate transit system improvements in order to increase transit use and reduce dependency on the automobile.

E6.3: Facilitate the use of alternative fuel and low- and zero-emission vehicles and equipment in the community.

E6.4: Do not site new or re-powered fossil-fueled baseload or peaking-type Electric Generating Facilities and other major toxic emitters within 1,000 feet of sensitive receptors, or site sensitive receptors within 1,000 feet of such facilities.

E6.5: Ensure Electrical Generating Facilities incorporate cleaner fuel sources and least polluting technologies in order to help transition the City to a less fossil fuel dependent future, while meeting Chula Vista's energy demand.

E6.6: Explore incentives to promote voluntary air pollutant reductions, including incentives for developers who go above and beyond applicable requirements and for facilities and operations that are not otherwise regulated.

E6.7: Encourage innovative energy conservation practices and air quality improvements in new development and redevelopment projects consistent with the City's Air Quality Improvement Plan Guidelines or its equivalent, pursuant to the City's Growth Management Program.

E6.9: Discourage the use of landscaping equipment powered by two-stroke gasoline engines within the City and promote less-polluting alternatives to their use.

E6.10: The siting of new sensitive receivers within 500 feet of highways resulting from development or redevelopment projects shall require the preparation of a health risk assessment as part of the CEQA review of the project. Attendant health risks identified in the HRA shall be feasibly mitigated to the maximum extent practicable, in accordance with CEQA, in order to help ensure that applicable federal and state standards are not exceeded.

E6.11: Develop strategies to minimize CO hot spots that address all modes of transportation.

E6.12: Promote clean fuel sources that help reduce the exposure of sensitive uses to pollutants.

E6.13: Encourage programs and infrastructure to increase the availability and usage of energy-efficient vehicles, such as hybrid electric vehicles, electric vehicles, or those that run on alternative fuels.

E6.14: Transition the City fleet to 100% "clean" vehicles by integrating hybrid and alternative fuel vehicles as current municipal fleet vehicles are replaced.

E6.15: Site industries and other stationary emitters in a way that minimizes the potential impacts of poor air quality on homes, schools, hospitals, and other land uses where people congregate, and disadvantaged populations.

E6.16: Encourage the use of bicycles through support of bike share opportunities, community bike programs, and the provision of bicycle parking opportunities such as bike racks and bike lockers.

E6.A.1: Continue to limit exposure to secondhand smoke by encouraging the creation of smoke free spaces and facilities in public spaces, and at all workplaces and multi-unit housing.

3.3.4 City of San Diego

3.3.4.1 San Diego General Plan

The Conservation Element of the San Diego General Plan discusses air quality and the background of air quality in the region. The following are objectives and policies related to air quality (City of San Diego 2008):

CE-F.4. Preserve and plant trees, and vegetation that are consistent with habitat and water conservation policies and that absorb carbon dioxide and pollutants.

CE-F.5. Promote technological innovations to help reduce automobile, truck and other motorized equipment emissions

CE-F.6. Encourage and provide incentives for the use of alternatives to single-occupancy vehicle use, including using public transit, carpooling, carpooling, teleworking, bicycling, and walking. Continue to implement programs to provide City employees with incentives for the use of alternatives to single-occupancy vehicles.

The Land Use and Community Planning Element includes the following policy regarding toxic air emissions and associated health risks:

> **Policy LU-I.14:** As part of community plan updates or amendments that involve land use or intensity changes, evaluate public health risks associated with identified sources of hazardous substances and toxic air emissions (see also Conservation Element, Section F). Create adequate distance separation, based on documents such as those recommended by the California Air Resources Board and site specific analysis, between sensitive receptor land use designations and potential identified sources of hazardous substances such as freeways, industrial operations or areas such as warehouses, train depots, port facilities, etc.

3.3.4.2 Otay Mesa Community Plan

Under the Annexation Scenarios, the project would become part of the Otay Mesa Community Planning area. The following Otay Mesa Community Plan goals and policies are related to air quality (City of San Diego 2014):

8.2-7 Incorporate energy saving technology in truck parking areas to reduce idling. For example, incorporate electrical docking stations in parking lots.

8.5-1 Ensure the overall tree cover and other vegetation throughout Otay Mesa is no less than 20 percent in urban residential areas and 10 percent in the business areas so that the natural landscape is sufficient in mass to provide significant benefits to the city in terms of air and water management

8.7-1 Encourage enforcement of air quality regulations by the San Diego County Air Pollution Control District.

8.7-2 Implement a pattern of land uses that can be efficiently served by a multi-modal transportation system that directly and indirectly minimizes air pollutants.

8.7-3 Designate and enforce truck routes along Britannia Road, La Media Road, and the Border Road in order to limit impacts of truck emissions to the community.

8.7-4 Support the monitoring of particulate pollution at the Port of Entry, and pursue methods of reducing emission while accommodating the expansion of the Port activities.

8.7-5 Maintain an adequate buffer with transitional uses between land uses that allow sensitive receptors and the truck routes.

8.7-6 Maintain an adequate buffer with transitional uses between land uses that allow sensitive receptors and the Heavy Industrial and International Business and Trade designations.

8.7-7 Educate businesses and residents on the benefits of alternative modes of transportation including public transit, walking, bicycling, car and van pooling, and telecommuting.

8.7-8 Encourage street tree and private tree planting programs throughout the community to increase absorption of carbon dioxide and pollutants.

There are also numerous policies within the Land Use, Mobility, and Urban Design elements that encourage pedestrian connectivity, the use of public transit, the planting of street trees, and energy efficient and sustainable design that would also improve air quality in the Otay Mesa Community Planning area.

3.3.4.3 San Diego Municipal Code

The San Diego Municipal Code addresses air quality and odor impacts at Chapter 14, Article 2, Division 7 paragraph 142.0710, "Air Contaminant Regulations," which states that air contaminants including smoke, charred paper, dust, soot, grime, carbon, noxious acids, toxic fumes, gases, odors, and particulate matter, or any emissions that endanger human health, cause damage to vegetation or property, or cause soiling shall not be permitted to emanate beyond the boundaries of the premises upon which the use emitting the contaminants is located (City of San Diego 2010).

4.0 Regional and Local Air Quality Conditions

4.1 San Diego Air Basin Attainment Designation

Pursuant to the 1990 federal CAA amendments, EPA classifies air basins (or portions thereof) as "attainment" or "nonattainment" for each criteria air pollutant, based on whether the NAAQS have been achieved. Generally, if the recorded concentrations of a pollutant are lower than the standard, the area is classified as "attainment" for that pollutant. If an area exceeds the standard, the area is classified as "nonattainment" for that pollutant. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated as "unclassified" or "unclassifiable." The designation of "unclassifiable/attainment" means that the area meets the standard or is expected to be meet the standard despite a lack of monitoring data. Areas that achieve the standards after a nonattainment designation are re-designated as maintenance areas and must have approved maintenance plans to ensure continued attainment of the standards. The California CAA, like its federal counterpart, called for the designation of areas as "attainment" or "nonattainment," but based on the CAAQS rather than the NAAQS. Table 2 depicts the current attainment status of the project site with respect to the NAAQS and CAAQS. The attainment classifications for the criteria pollutants are outlined in Table 2.

Table 2
San Diego Air Basin Attainment Classification

Pollutant	Designation/Classification	
	National Standards	State Standards
Ozone (O_3) – 1 hour	Attainment[a]	**Nonattainment**
O_3 (8-hour – 1997) O_3 (8-hour – 2008)	Attainment (maintenance) **Nonattainment (moderate)**	**Nonattainment**
Nitrogen Dioxide (NO_2)	Unclassifiable/attainment	Attainment
Carbon Monoxide (CO)	Attainment (maintenance)	Attainment
Sulfur Dioxide (SO_2)[a]	Attainment[b]	Attainment
Coarse Particulate Matter (PM_{10})	Unclassifiable/attainment	**Nonattainment**
Fine Particulate Matter ($PM_{2.5}$)	Unclassifiable/attainment	**Nonattainment**

Table 2 San Diego Air Basin Attainment Classification		
Pollutant	Designation/Classification	
	National Standards	State Standards
Lead (Pb)	Unclassifiable/attainment	Attainment
Hydrogen Sulfide	No national standard	Attainment
Sulfates	No national standard	Unclassified
Visibility-Reducing Particles	No national standard	Unclassified
Vinyl Chloride	No national standard	No designation

Sources: EPA 2016b (federal); CARB 2016c (state).
Notes: Attainment = meets the standards; attainment/maintenance = achieve the standards after a nonattainment designation; nonattainment = does not meet the standards; unclassified or unclassifiable = insufficient data to classify; unclassifiable/attainment = meets the standard or is expected to be meet the standard despite a lack of monitoring data. If nonattainment for federal standards, a clarifying classification will be provided indicating the severity of the nonattainment status.
[a]The federal 1-hour standard of 0.12 parts per million was in effect from 1979 through June 15, 2005. The revoked standard is referenced here, because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.
[b]EPA retaining current federal standard for SO2 (84 FR 9866–9907).

In summary, the SDAB is designated as an attainment area for the 1997 8-hour O_3 NAAQS and as a nonattainment area for the 2008 8-hour O_3 NAAQS. The SDAB is designated as a nonattainment area for O_3, PM_{10}, and $PM_{2.5}$ CAAQS. The portion of the SDAB where the project site is located is designated as attainment or unclassifiable/unclassified for all other criteria pollutants under the NAAQS and CAAQS.

4.2 Local Ambient Air Quality

CARB, air districts, and other agencies monitor ambient air quality at approximately 250 air quality monitoring stations across the state. Local ambient air quality is monitored by SDAPCD. SDAPCD operates a network of ambient air monitoring stations throughout the County, which measure ambient concentrations of pollutants and determine whether the ambient air quality meets the CAAQS and the NAAQS. The nearest SDAPCD-operated monitoring station is the Chula Vista monitoring station, which is located approximately 3 miles northwest of the project site. This monitoring station was used to show the background ambient air quality for O_3, PM_{10}, $PM_{2.5}$, and NO_2. The closest monitoring site that measures CO and SO_2 is the First Street monitoring station in El Cajon, which is about 14 miles northeast of the project site. The most recent background ambient air quality data and numbers of days exceeding the ambient air quality standards from 2018 to 2020 are presented in Table 3.

Table 3
Local Ambient Air Quality Data

Averaging Time	Unit	Agency/ Method	Ambient Air Quality Standard	Measured Concentration by Year 2019	2020	2021	Exceedances by Year 2019	2020	2021
Ozone (O_3) – Chula Vista									
Maximum 1-hour concentration	ppm	State	0.09	0.090	0.106	0.084	0	1	0
Maximum 8-hour concentration	ppm	State	0.070	0.077	0.086	0.067	2	4	0
		Federal	0.070	0.076	0.086	0.066	2	4	0
Nitrogen Dioxide (NO_2) – Chula Vista									
Maximum 1-hour concentration	ppm	State	0.18	0.050	0.045	0.046	0	0	0
		Federal	0.100	0.050	0.045	0.046	0	0	0
Annual concentration	ppm	State	0.030	0.008	0.009	0.009	—	—	—
		Federal	0.053	0.008	0.009	0.008	—	—	—
Carbon Monoxide (CO) – El Cajon									
Maximum 1-hour concentration	ppm	State	20	1.3	1.5	1.2	0	0	0
		Federal	35	1.3	1.5	1.2	0	0	0
Maximum 8-hour concentration	ppm	State	9.0	1.0	1.4	1.1	0	0	0
		Federal	9	1.0	1.4	1.1	0	0	0
Sulfur Dioxide (SO_2) – El Cajon									
Maximum 1-hour concentration	ppm	Federal	0.075	0.0008	0.0010	0.0016	0	0	0
Maximum 24-hour concentration	ppm	Federal	0.14	0.0003	0.0004	0.0003	0	0	0
Annual concentration	ppm	Federal	0.030	0.0007	0.0001	0.00006	0	0	0
Coarse Particulate Matter (PM_{10})[a] – Chula Vista									
Maximum 24-hour concentration	μg/m³	State	50	69.4	—	—	— (1)	—	—
		Federal	150	68.2	—	—	0.0 (0)	—	—
Annual concentration	μg/m³	State	20	—	—	—	— (1)	—	—
Fine Particulate Matter ($PM_{2.5}$)[a] – Chula Vista									
Maximum 24-hour concentration	μg/m³	Federal	35	18.6	46.7	24.9	0.0(0)	6.1 (2)	0.0 (0)
Annual concentration	μg/m³	State	12	—	—	—	—	—	—
		Federal	12.0	8.1	10.7	9.5	0	0	0

Sources: CARB 2023; EPA 2023.
Notes: ppm = parts per million; — = no data available; μg/m³ = micrograms per cubic meter.
Data taken from CARB's iADAM (http://www.arb.ca.gov/adam) and EPA's AirData (http://www.epa.gov/airdata/) represent the highest concentrations experienced over a given year.
Daily exceedances for particulate matter are estimated days because PM_{10} and $PM_{2.5}$ are not monitored daily. All other criteria pollutants did not exceed federal or state standards during the years shown. There is no federal standard for 1-hour O_3, annual PM_{10}, or 24-hour SO_2, nor is there a state 24-hour standard for $PM_{2.5}$.
Chula Vista monitoring station is at 80 East J Street, Chula Vista, California.
El Cajon monitoring station is at Lexington Elementary School, at 533 First Street, El Cajon, California.
[a]Measurements of PM_{10} and $PM_{2.5}$ are usually collected every 6 days and every 1 to 3 days, respectively. Number of days exceeding the standards is a mathematical estimate of the number of days concentrations would have been greater than the level of the standard had each day been monitored. The numbers in parentheses are the measured number of samples that exceeded the standard.

5.0 Significance Criteria and Methodology

5.1 Thresholds of Significance

5.1.1 City of Chula Vista

The significance criteria used to evaluate the project impacts to air quality is based on the recommendations provided in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.). For the purposes of this air quality analysis, a significant impact would occur if the project would:

- Conflict with or obstruct implementation of the applicable air quality plan.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.
- Expose sensitive receptors to substantial pollutant concentrations.
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

Appendix G of the CEQA Guidelines indicates that, where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied on to determine whether a project would have a significant impact on air quality.

The City of Chula Vista evaluates project emissions based on the quantitative emission thresholds established by the South Coast Air Quality Management District (SCAQMD). The City of Chula Vista is located within the SDAPCD; however, the SDAPCD has only established thresholds for stationary sources and not for CEQA purposes. Therefore, the City chose to use thresholds from the adjacent district, SCAQMD (City of Chula Vista 2012). SCAQMD sets forth quantitative emission significance thresholds below which a project would not have a significant impact on ambient air quality. It should be noted that the use of these significance thresholds is conservative, as SCAQMD's significance thresholds were originally based on the South Coast Air Basin's extreme O_3 nonattainment status for the 1-hour NAAQS, whereas the SDAB was designated as an attainment area for the 1-hour NAAQS. Project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 4 are exceeded.

Table 4 City of Chula Vista Air Quality Significance Thresholds		
Criteria Pollutants Mass Daily Thresholds		
Pollutant	Construction (Pounds per Day)	Operation (Pounds per Day)
VOCs	75	55
NO_X	100	55
CO	550	550
SO_X	150	150
PM_{10}	150	150
$PM_{2.5}$	55	55
Lead[a]	3	3

Source: SCAQMD 2019.
Notes: VOC = volatile organic compound; NO_X = oxides of nitrogen; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter.
Greenhouse gas (GHG) emissions thresholds for industrial projects, as added in the March 2015 revision to the SCAQMD Air Quality Significance Thresholds, were not included in this table, as they are addressed within the GHG emissions analysis and not the air quality study.
[a]The phaseout of leaded gasoline started in 1976. Since gasoline no longer contains lead, the project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.

The thresholds listed in Table 4 represent screening-level thresholds that can be used to evaluate whether project-related emissions could cause a significant impact on air quality. Emissions below the screening-level thresholds would not cause a significant impact. For nonattainment pollutants, if emissions exceed the thresholds shown in Table 4, the project could have the potential to result in a cumulatively considerable net increase in these pollutants and thus could have a significant impact on the ambient air quality. With respect to odors, SDAPCD Rule 51 (Public Nuisance) prohibits emission of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of any person. A project that proposes a use that would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors.

5.1.2 City of San Diego

To determine the significance of the project's emissions on the environment, the City of San Diego's CEQA Significance Determination Thresholds (City of San Diego 2022) were used. Per San Diego's CEQA Significance Thresholds, a project would result in significant impacts to air quality if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including release emissions which exceed quantitative thresholds for ozone precursors);

- Expose sensitive receptors to substantial pollutant concentration including air toxics such as diesel particulates…As adopted by the SCAQMD in their CEQA Air Quality Handbook (Chapter 4), a sensitive receptor is a person in the population who is particularly susceptible to health effects due to exposure to an air contaminant than is the population at large. Sensitive receptors (and the facilities that house them) in proximity to localized CO sources, toxic air contaminants or odors are of particular concern. Examples include long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playground, childcare centers, and athletic facilities;

- Create objectionable odors affecting a substantial number of people; or

- Release substantial quantities of air contaminants beyond the boundaries of the premises upon which the stationary source emitting the contaminants is located.

In addition to the City's CEQA Significance Determination Thresholds (City of San Diego 2022) general threshold questions, the potential for the project to release substantial quantities of air contaminants that could result in health affects is addressed in the criteria air pollutant emissions, TACs, and odors analysis in accordance with the San Diego Municipal Code. San Diego Municipal Code, Chapter 14, Article 2, Division 7, Off-Site Development Impact Regulations paragraph 142.0710, Air Contaminant Regulations, states: "Air contaminants including smoke, charred paper, dust, soot, grime, carbon, noxious acids, toxic fumes, gases, odors, and particulate matter, or any emissions that endanger human health, cause damage to vegetation or property, or cause soiling shall not be permitted to emanate beyond the boundaries of the premises upon which the use emitting the contaminants is located." (Added 12-9-1997 by O-18451 N.S.; effective 1-1-2000.)

The SDAPCD Air Quality Significance Thresholds shown in Table 5 (below) were used to determine significance of project-generated construction and operational criteria air pollutants; specifically, the project's potential to violate any air quality standard or contribute substantially to an existing or projected air quality violation (as assessed under the threshold criterion 2). In regard to the analysis of potential impacts to sensitive receptors, the City specifically recommends consideration of sensitive receptors in locations such as day care centers, schools, retirement homes, and hospitals, or medical patients in residential homes close to major roadways or stationary sources, which could be impacted by air pollutants. The City of San Diego also states that the significance of potential odor impacts should be determined based on what is known about the quantity of the odor compound(s) that would result from the project's proposed use(s), the types of neighboring uses potentially affected, the distance(s) between the project's point source(s) and the neighboring uses such as sensitive receptors, and the resultant concentration(s) at the receptors.

The air quality section of San Diego's CEQA Significance Determination Thresholds recognizes attainment status designations for the SDAB and its nonattainment status for both ozone and particulate matter. As such, the document recognizes that all new projects should include measures, pursuant to CEQA, to reduce project-related emissions of ozone precursors and particulate matter to ensure new development does not contribute to San Diego's nonattainment status for these pollutants.

As part of its air quality permitting process, the SDAPCD has established thresholds in Rule 20.2 requiring the preparation of Air Quality Impact Assessments for permitted stationary sources. The

SDAPCD sets forth quantitative emissions thresholds below which a stationary source would not have a significant impact on ambient air quality. Consistent with the City of San Diego's CEQA Significance Determination Thresholds, project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable screening thresholds presented in Table 5 are exceeded.

Table 5
City of San Diego Air Quality Impact Screening Thresholds

Pollutant	Total Emissions		
	Pounds per Hour	Pounds per Day	Tons per Year
PM_{10}	—	100	15
$PM_{2.5}$[a]	—	55	10
NO_X	25	250	40
SO_X	25	250	40
CO	100	550	100
Lead and Lead Compounds	—	3.2	0.6
VOCs	—	137	15

— = not available.
Sources: SDAPCD, Rules 20.1, 20.2, 20.3; City of San Diego 2022.
[a]The City does not specify a threshold for $PM_{2.5}$. Threshold here is based on SDAPCD, Rules 20.1, 20.2, 20.3.

The thresholds listed in Table 5 represent screening-level thresholds that can be used to evaluate whether project-related emissions could cause a significant impact on air quality. Emissions below the screening-level thresholds would not cause a significant impact. For nonattainment pollutants, if emissions exceed the thresholds shown in Table 5, the project could have the potential to result in a cumulatively considerable net increase in these pollutants and, thus, could have a significant impact on the ambient air quality.

5.2 Approach and Methodology

5.2.1 Construction

Emissions from the construction phase of the project were estimated using the California Emissions Estimator Model (CalEEMod) Version 2022.1 (California Air Pollution Control Officers Association [CAPCOA] 2022).

For the purposes of modeling, it was assumed that construction of the project would commence in January 2024 and would last approximately 2 years, ending in December 2025. The analysis contained herein is based on the assumptions outlined in Table 6 (duration of phases is approximate). The project schedule was based on information provided by the project applicant where possible. Otherwise CalEEMod default values were utilized. The analysis contained herein is based on the following subset area schedule assumptions (duration of phases is approximate):

- Site Preparation – 1 month (January 2024)
- Grading – 3 months (February 2024 through April 2024)

- Building Construction – 17 months (May 2024 through September 2025)
- Paving – 2 months (September 2025 through October 2025)
- Architectural Coating – 2 months (November 2025 through December 2025)

The construction equipment mix used for estimating the construction emissions of the project was generated by CalEEMod default and is shown in Table 6. For this analysis, it was assumed that heavy construction equipment would operate 5 days a week during project construction.

Table 6
Construction Scenario Assumptions

Construction Phase	One-Way Vehicle Trips			Equipment		
	Average Daily Worker Trips	Average Daily Vendor Truck Trips	Average Daily Haul Truck Trips	Equipment Type	Quantity	Usage Hours
Site preparation	18	0	0	Tractors/loaders/ backhoes	4	8
				Rubber-tired dozers	3	8
Grading	20	0	44	Excavators	2	8
				Graders	1	8
				Rubber-tired dozers	1	8
				Scrapers	2	8
				Tractors/loaders/ backhoes	2	8
Building construction	135	24	0	Cranes	1	7
				Forklifts	3	8
				Tractors/loaders/ backhoes	3	7
				Generator sets	1	8
				Welders	1	8
Paving	15	0	0	Pavers	2	8
				Rollers	2	8
				Paving equipment	2	8
Architectural coating	27	0	0	Air compressors	1	6

Notes: See Attachment 1 for details.
Construction-worker and vendor estimates by construction phase were generated by CalEEMod.

Construction of project components would be subject to SDAPCD Rule 55, Fugitive Dust Control. This rule requires that construction of project components include steps to restrict visible emissions of fugitive dust beyond the property line (SDAPCD 2009b). Compliance with Rule 55 would limit fugitive dust (PM_{10} and $PM_{2.5}$) that may be generated during grading and construction activities. Grading is estimated to require 110,400 cubic yards of cut and 133,000 cubic yards of fill, requiring 22,600 cubic yards of imported fill.

The application of architectural coatings, such as exterior/interior paint and other finishes, would also produce VOC emissions; however, the contractor is required to procure architectural coatings from a supplier in compliance with the requirements of SDAPCD Rule 67.0.1, Architectural Coatings. This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the

VOC content of various coating categories. The VOC content limits specified in Rule 67.0.1 include 50 grams per liter for flat and non-flat coatings and 100 grams per liter for traffic marking coatings. These VOC content values were modeled for architectural coatings used during construction.

A detailed depiction of the construction schedule—including information regarding subphases and equipment used during each subphase—is included in Attachment 1, California Emissions Estimator Model Output Files, of this report. The information contained in Attachment 1 was used as CalEEMod model inputs.

5.2.2 Operation

Emissions from the operational phase of the project were estimated using CalEEMod. Operational year 2026 was assumed, following completion of construction. It is noted that this operational analysis is considered conservative as a higher 221-unit project was utilized herein. The project would include 61 detached condominiums, 84 duplexes and 70 townhome dwelling units for a total of 215 units. All detached units were modeled as single-family units in CalEEMod, and all attached duplexes and townhomes were modeled as low rise apartments. The low-rise apartments land use in CalEEMod was used instead of the condo/townhome land use because the low rise apartments land use allows for the proposed affordable housing (10 percent of the units) to be accounted for. The main difference between condos/townhome and low rise apartments land use in CalEEMod is the default trip rate, which was updated to be consistent with the project's transportation analysis, making the low rise apartments land use an appropriate modeling assumption. The additional 6 units that were modeled for a conservative analysis were modeled as single-family units. Calculations take into account the PDFs discussed in Section 1.3.

5.2.2.1 Area Sources

CalEEMod was used to estimate operational emissions from area sources, including emissions from consumer product use and architectural coatings. Fireplaces and landscaping equipment are also an area source of emissions; however, as noted in Section 1.3, the project would not include any wood stoves or wood-burning or natural gas fireplaces (PDF-AQ-2) and would include electric landscaping equipment (PDF-GHG-6).

Consumer products are chemically formulated products used by household and institutional consumers, including detergents; cleaning compounds; polishes; floor finishes; cosmetics; personal care products; home, lawn, and garden products; disinfectants; sanitizers; aerosol paints; and automotive specialty products. Other paint products, furniture coatings, and architectural coatings are not considered consumer products (CAPCOA 2022). Consumer product VOC emissions are estimated in CalEEMod based on the floor area of buildings and on the default factor of pounds of VOC per building square foot per day. The CalEEMod default values for consumer products were assumed.

VOC off-gassing emissions result from evaporation of solvents contained in surface coatings, such as in paints and primers used during building maintenance. CalEEMod calculates the VOC evaporative emissions from the application of surface coatings based on the VOC emission factor, the building square footage, the assumed fraction of surface area, and the reapplication rate. The

VOC emissions factor is based on the VOC content of the surface coatings, and SDAPCD's Rule 67.0.1 (Architectural Coatings) governs the VOC content for interior and exterior coatings. This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SDAPCD 2015). The model default reapplication rate of 10% of the surface area per year is assumed. Consistent with CalEEMod defaults, it is assumed that the surface area for painting equals 2.7 times the floor square footage, with 75% assumed for interior coating and 25% assumed for exterior surface coating (CAPCOA 2022). Although SDAPCD Rule 67.0.1 regulates the VOC content of coatings sold in the region, future residents may purchase coatings outside the region; therefore, CalEEMod defaults were assumed for the application of architectural coatings during operation, as that would not be controlled by the project applicant.

5.2.2.2 Energy Sources

As represented in CalEEMod, energy sources include emissions associated with building electricity and natural gas usage. Electricity use would contribute indirectly to criteria air pollutant emissions; however, the emissions from electricity use are only quantified for greenhouse gases in CalEEMod, since criteria pollutant emissions occur at the site of the power plant, which is typically off site. As noted in Section 1.3, the project would include all electric appliances and heating system as detailed in PDF-GHG-3 and would not be served by natural gas. Note that CalEEMod default calculations include other miscellaneous sources of natural gas from other equipment ranging from portable fans to wine coolers to aquariums based on the California Energy Commission's Residential Appliance Saturation Study (CAPCOA 2021), thus, the calculations still include some minimal emissions from natural gas even though the project would not be served by natural gas. It is therefore a conservative analysis for both the purposes of this air quality analysis and the greenhouse gas analysis.

5.2.2.3 Mobile Sources

Following the completion of construction activities, the project would generate criteria pollutant emissions from mobile sources (vehicular traffic) as a result of the residents and visitors from the project. The daily maximum weekday trip rates were taken from the Local Mobility Analysis Report for the project (LOS Engineering, Inc. 2023). The maximum weekday trip rate from the Local Mobility Analysis Report is 1,902 trips per day. CalEEMod was used to estimate emissions from proposed vehicular sources (refer to Attachment 1). It is noted that this traffic volume data is considered conservative, as the Local Mobility Analysis (LOS Engineering, Inc. 2023) utilized a 221-unit project scenario that has higher volumes than the proposed 215-unit project. The weekend trip generation rates were obtained by proportionally adjusting the CalEEMod default trips rates. CalEEMod default data, including temperature, trip distances, variable start information, and emissions factors, were conservatively used for the model inputs. Project-related traffic was assumed to include a mixture of vehicles in accordance with the associated use of light-duty vehicles for the residents. Emission factors representing the vehicle mix and emissions for 2025 were used to estimate emissions associated with vehicular sources.

5.2.3 Operational Roadway Health Risk Assessment

Chula Vista General Plan Policy E 6.10 requires the preparation of an HRA when sensitive receptors are sited within 500 feet of a freeway. Additionally, San Diego General Plan Policy LU-I.14 requires the evaluation of public health risks associated with toxic air emissions for community plan updates and amendments that involve land use or intensity changes. Therefore, an HRA was performed to evaluate potential health risks at future sensitive receptors of the project from DPM emissions from the proximate I-805 freeway. The following discussion summarizes the dispersion modeling and HRA methodology; supporting operational HRA documentation, including detailed assumptions, is presented in Attachment 2 (Dudek 2022).

In accordance with California Building Industry Association v. Bay Area Air Quality Management District (2015) 62 Cal.4th 369, Case No. S213478, which states:

In light of CEQA's text, statutory structure, and purpose, we conclude that agencies generally subject to CEQA are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users. In those specific instances, it is the project's impact on the environment – and not the environment's impact on the project – that compels an evaluation of how future residents or users could be affected by exacerbated conditions." Notwithstanding "special CEQA requirements [that] apply to certain airport, school and housing construction projects[,]" the Court held "that ordinary CEQA analysis is concerned with a project's impact on the environment, rather than with the environment's impact on a projects and its users or residents.

The project would not exacerbate environmental hazards caused by vehicles traveling on the I-805 freeway. Therefore, this HRA was prepared in accordance with Chula Vista General Plan Policy E 6.10 and San Diego General Plan Policy LU-I.14 only and does not contribute to a CEQA significance determination.

An operational year of 2026 was evaluated consistent with the anticipated first year of project operation (note that the soonest operational year would be 2026; however, modeling year 2024 is conservative since vehicle emission standards become more stringent over time). As with the construction HRA, for risk assessment purposes, PM_{10} in diesel exhaust is considered a proxy for DPM. Emissions of DPM from motor vehicles on the I-805 freeway have the highest potential for cancer risk due to the high volume of heavy-duty vehicle traffic and proximity to the project site. Diesel exhaust, a complex mixture that includes hundreds of individual constituents (CalEPA 1998), is identified by the State of California as a known carcinogen (CalEPA 2022). Under California regulatory guidelines, DPM is used as a surrogate measure of carcinogen exposure for the mixture of chemicals that make up diesel exhaust as a whole. CalEPA and other proponents of using the surrogate approach to quantifying cancer risks associated with the diesel mixture indicate that this method is preferable to use over a component-based approach. A component-based approach involves estimating risks for each of the individual components of a mixture. Furthermore, CalEPA has concluded that "potential cancer risk from inhalation exposure to whole diesel exhaust will outweigh the multi-pathway cancer risk from the speciated components (Office of Environmental Health Hazard Assessment 2015)."

Traffic data for the I-805 freeway was attained from California Department of Transportation (Caltrans) Traffic Census Program data for January 2019 through December 2019, which was the most recent dataset available, traffic volumes on California state highways (Caltrans 2021). The Caltrans data provides the annual daily traffic and truck percent of annual daily traffic. The freeway direction (e.g., northbound and southbound) for different freeway segments were compared and obtained from Caltrans Performance Measurement System (PeMS). Volumes for two segments along the I-805 freeway near the project site – one north of Palm Avenue and one south of Main Street – were used in the roadway HRA. To estimate the future volumes in 2024, Caltrans traffic data for 2017 and 2018 (January 2017 through December 2018) was used to estimate an annual growth rate between 2017 and 2019, which was applied to the 2019 vehicle volumes to estimate vehicle volumes in 2024.

Both heavy-duty diesel trucks and light-duty diesel-fueled vehicles (non-heavy-duty trucks) were included in the roadway HRA. Data from the EPA-approved version of CARB's mobile source emission inventory, EMission FACtor model (EMFAC 2021) was used to determine the emission factors and composition of diesel vehicles within the overall vehicle fleet for San Diego County. EMFAC2021 can generate emission factors (also referred to as emission rates) in grams per mile for the fleet in a class of motor vehicles within a county for a particular geographical study year. EMFAC2021 was run assuming an aggregate speed for each vehicle class. For heavy-duty trucks, the following EMFAC categories were assumed and a weighted emission factor was generated based on the percent of vehicles mile travelled (VMT) in each category: Light-Heavy Duty Trucks (LHDT1 and LHDT2), Medium-Heavy Duty Trucks (MHDT), and Heavy-Heavy Duty Trucks (HHDT). For the light-duty vehicles, a VMT-weighted emission factor was similarly generated for the remaining EMFAC categories with diesel-fueled vehicles: Light-Duty Automobiles (LDA), Light-Duty Trucks (LDT1 and LDT2), Medium-Duty Vehicles (MDV), Motorhomes (MH), Other Buses (OBUS), School Buses (SBUS), and Urban Buses (UBUS). VMT for each freeway segment was calculated by taking the average daily traffic from Caltrans and multiplying it by the distance of the roadway segment evaluated in the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD). The total exhaust PM_{10} emissions (in pounds per hour and pounds per year) were then calculated for each roadway segment by multiplying the appropriate emission factor by the VMT.

The vehicle emission factors for San Diego County and calendar year 2024 was assumed for the entire exposure period of 30 years, which represents a conservative analysis as vehicle DPM emission factors would decrease over time due to regulatory requirements and fleet turnover and the volume of diesel vehicles will also decrease over time as more zero and near-zero emissions vehicles enter the fleet.

Air dispersion modeling methodology was based on generally accepted modeling practices of SDAPCD (SDAPCD 2019). Air dispersion modeling was performed using the EPA's AERMOD Version 21112 modeling system (computer software) with the Lakes Environmental Software implementation/user interface, AERMOD View Version 10.0.1 The HRA followed Office of Environmental Health Hazard Assessment (OEHHA) 2015 guidelines (OEHHA 2015) and SDAPCD guidance to calculate the health risk impacts at all proximate receptors as further discussed below. The dispersion modeling included the use of standard regulatory default options. AERMOD parameters were selected consistent with the SDAPCD and EPA guidance and identified as representative of the project site and project activities. Principal parameters of this modeling are presented in Table 7.

Table 7
Operational Roadway Health Risk Assessment American Meteorological Society/Environmental Protection Agency Regulatory Principal Parameters

Parameter	Details
Meteorological Data	The latest three-year meteorological data (2010–2012) for the Chula Vista monitoring station (CVA) from SDAPCD were downloaded and then input to AERMOD.
Urban versus Rural Option	Urban areas typically have more surface roughness, as well as structures and low-albedo surfaces that absorb more sunlight—and thus more heat—relative to rural areas. However, based on the SDAPCD guidelines, the rural dispersion option was selected due to the SDAB's proximity to the ocean.
Terrain Characteristics and Elevation Data	The terrain in the vicinity of the modeled project site is varied. The elevation of the modeled site is about 100 to 175 feet above sea level. Digital elevation model files were imported into AERMOD so that complex terrain features were evaluated as appropriate, and elevations were assigned to the emission sources and receptors. Digital elevation data were obtained through AERMOD View in the U.S. Geological Survey's National Elevation Dataset format with an approximately 10-meter (1/3 arc-second) resolution.
Emission Sources and Release Parameters	Air dispersion modeling of DPM was conducted using emissions estimated using traffic data from PeMS and emission factors from EMFAC2021 (as discussed above). Vehicles traveling on I-805 were modeled as a line of adjacent volume sources for each direction of the freeway for each of the two freeway segments. The plume width was estimated for each segment based on the width of the traveling lanes plus 6 meters (or approximately 10 feet on each side) to account for vehicle wake. Because each line source represents heavy-duty trucks and light-duty vehicles, a weighted plume height was calculated for each source based on the percent of emissions of the heavy-duty truck and light-duty vehicles and the assumptions of 6.8 meters plume height for heavy-duty trucks and 2.6 meters plume height for light-duty vehicles. Similarly, a weighted release height was estimated for each source assuming 1/2 of the weighted plume height (EPA 2015, SBCAPCD 2020).
Receptors	A fine uniform Cartesian grid of receptors were placed over the project site spaced 10 meters apart, filling the inside of the project boundary (receptors outside of the project boundary were excluded).
Notes: AERMOD = American Meteorological Society/EPA Regulatory Model; SDAPCD = San Diego Air Pollution Control District; DPM = diesel particulate matter. See Attachment 2 for additional information.	

The health risk calculations were performed using the Hotspots Analysis and Reporting Program Version 2 (HARP2) Air Dispersion Modeling and Risk Tool. AERMOD was run with all sources emitting unit emissions (1 gram per second) to obtain the necessary input values for HARP2. The line of volume sources were modeled with 1 gram per second evenly partitioned across each volume source. The ground-level concentration plot files were then used to estimate the long-term cancer health risk to an individual and the noncancerous chronic health index.

MERV 13 filters are required for residential construction in accordance with the 2019 Title 24 building code and the reduction in PM_{10} and associated DPM emissions were included in the emission estimates for the freeway source. The American Society of Heating, Refrigerating, and Air-Conditioning Engineers reported that MERV 13 filters remove 90% of particles ranging from 1 to 3 microns, and less than 75% for particles ranging from 0.3 to 1 micron (American Society of Heating, Refrigerating, and Air-Conditioning Engineers 2007). EPA reported that the MERV 13 filters remove 90% of particles ranging from 1 to 10 microns (EPA 2019). It was conservatively assumed that the MERV 13 filters provide 80% reduction in DPM. In addition, the National Human Activity Pattern Survey (NHAPS) was conducted in support by the US EPA to study where people spend their time. The results of the NHAPS showed that on average people spend approximately 87% of their time in enclosed buildings, approximately 6% in enclosed vehicles, and approximately 7% outdoors (Kleipeis et. al. 2001). This assessment of risk includes the accounting for time spent indoors as identified in the NHAPS and the time spent away from home as recommended by OEHHA (OEHHA 2015). Accounting for the actual time spent indoors and exposure related to the residents within the project provides a more realistic exposure scenario from TAC emissions from the I-805 freeway. The reduction due to the use of MERV 13 filters and the amount of time spent indoors was factored into the analysis by adjusting the emission exposure rate. Calculation details can be found in Attachment 2.

Cancer risk is defined as the increase in probability (chance) of an individual developing cancer due to exposure to a carcinogenic compound, typically expressed as the increased chances in one million. Maximum Individual Cancer Risk is the estimated probability of a maximally exposed individual potentially contracting cancer as a result of exposure to TACs over a period of 30 years for residential receptor locations. For the roadway HRA, the TAC exposure period was assumed to start in the third trimester for 30 years for all receptor locations. The mandatory exposure pathways were selected.

The SDAPCD has also established noncarcinogenic risk parameters for use in HRAs since some TACs increase noncancerous health risk due to long-term (chronic) exposures and some TACs increase noncancerous health risk due to short-term (acute) exposures. Noncarcinogenic risks are quantified by calculating a hazard index, expressed as the ratio between the ambient pollutant concentration and its toxicity or reference exposure level, which is a concentration at, or below which health effects are not likely to occur. The chronic hazard index is the sum of the individual substance chronic hazard indices for all TACs affecting the same target organ system, similarly, calculated for acute hazard index. A hazard index less of than one (1.0) means that adverse health effects are not expected. No short-term, acute relative exposure level has been established for DPM; therefore, acute impacts of DPM are not addressed in this assessment.

6.0 Impact Analysis

6.1 Consistency with Air Quality Plans

As mentioned in Section 3.3, Local Regulations, SDAPCD and SANDAG are responsible for developing and implementing the clean air plans for attainment and maintenance of the ambient air quality standards in the basin—specifically, the SIP and the RAQS.[1] The federal O_3 maintenance plan, which is part of the SIP, was adopted in 2012. The most recent O_3 attainment plan was adopted in 2016. The SIP includes a demonstration that current strategies and tactics will maintain acceptable air quality in the SDAB based on the NAAQS. The RAQS was initially adopted in 1991 and is updated on a triennial basis (most recently in 2016). The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for O_3. The SIP and RAQS rely on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County as a whole and the cities in the County, to project future emissions and determine the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by the County and the cities in the County as part of the development of their general plans.

If a project proposes development that is greater than that anticipated in the local plan and SANDAG's growth projections, the project might be in conflict with the SIP and the RAQS and may contribute to a potentially significant cumulative impact on air quality.

6.1.1 No Annexation Scenario and Annexation Scenario 2b (City of Chula Vista)

Under these scenarios the project would be developed in the City of Chula Vista; therefore, the land use plans of the City of Chula Vista are considered in relation to air quality plan consistency. The City of Chula Vista's General Plan Land Use Element designates the project site Open Space (OS), which is intended for lands to be protected from urban development, including floodplains; canyon; mountain; and agricultural uses. These lands may include unique natural conditions; provide scenic vistas; or are areas to be set aside that have potential exposure to hazards such as earthquakes; landslides; fires; floods; erosion; or even high levels of roadway noise. Passive recreation uses such as trails; staging areas; scenic overlooks; and picnic areas, may occur within these areas (City of Chula Vista 2005). Additionally, the project site is currently zoned as A-8 Agricultural, which allows for agriculture activities as defined by the City of Chula Vista municipal code, or single-family homes with a minimum of 8-acre plots or public parks. The criteria air pollutant emissions associated with operation of an Open Space, agriculture or low density residential would be less than those for the project. Thus, development of the project would result in greater emissions than those accounted for in the RAQS. However, this does not imply that the project would conflict with implementation of the RAQS. Project emissions from construction and operation would be less than the applicable thresholds for all criteria pollutants (see Section 6.2); therefore, the project would not contribute to existing air quality violations, or result in regional emissions than would exceed the NAAQS or CAAQS, or result in a cumulatively considerable net increase in criteria pollutants, including ozone precursors (ROG and NO_X). Additionally, the project would be consistent with the surrounding land uses, which include single- and multi-family residential and commercial uses.

1 For the purpose of this discussion, the relevant federal air quality plan is the 2016 8-Hour O_3 Attainment Plan (SDAPCD 2016). The RAQS is the applicable plan for purposes of state air quality planning. Both plans reflect growth projections in the SDAB.

Further, the project would provide much needed regional housing near a major transit stop, a regional shopping center, medical uses, and parks. The project site is located 0.25 mile from a bus stop located at the corner of Palm Avenue and Dennery Road, which provides transit to the Palm Avenue trolley station located three miles to the west. The project would involve development of up to 221 single-family and multi-family residential units. Based on the SANDAG 13 forecast, the average persons per household in San Diego is 3.22. Thus, the project would accommodate up to 712 persons. SANDAG Series 13 estimates the population in the City of Chula Vista would grow from 287,173 in 2020 to 326,625 in 2035. This would equate to an additional 2,630 persons per year from 2020 to 2035. Furthermore, SANDAG Series 13 estimates that housing would increase from 89,176 units in 2020 to 101,188 units in 2035. This would equate to an additional 801 units per year from 2020 to 2035. Thus, the addition of up to 221 residential units would provide balanced and diverse housing to the City of Chula Vista and would provide housing to accommodate Chula Vista's future growth projections. Therefore, the project would not stimulate population growth or a population concentration or housing above what is assumed in local and regional land use plans, or projections made by regional planning authorities. Thus, impacts would be considered **less than significant**.

6.1.2 Annexation Scenario 2a (City of San Diego)

Under this scenario, the project site would be annexed into the City of San Diego and development permits would be issued by the City of San Diego; therefore, the land use plans of the City of San Diego are considered in relation to air quality plan consistency. SANDAG Series 13 estimates the population in the City of San Diego would grow from 1,453.267 in 2020 to 1,665,609 in 2035. This would equate to an additional 14,147 people per year from 2020 to 2035. Additionally, SANDAG Series 13 estimates that the City of San Diego would have 559,143 residential units in 2020 and 640,668 residential units in 2035 (SANDAG 2013). This would equate to an additional 5,435 units per year from 2020 to 2035. Implementation of the project would result in an increase of up to 221 residential units in a location assumed to be open space in SANDAG's growth projections. The project is expected to add these units to market in 2026. While the project would include residential in an area previously planned for open space, the proposed housing would accommodate growth anticipated in the City. Therefore, the proposed project would accommodate planned growth and would not conflict with SANDAG's regional growth forecast for the City, which accounts for residential growth.

In addition, the City of San Diego is currently in urgent need for housing and is experiencing a housing shortage, as discussed in the City of San Diego General Plan Housing Element 2021-2029. The City's portion of the County's RHNA target for the 2021-2029 Housing Element period is 108,036 homes (City of San Diego 2021). While the City is planning for additional housing to meet the need and targeted to permit more than 88,000 new housing units between 2010 – 2020, less than half of those units were constructed (42,275) as of December 2019 (City of San Diego 2021). Considering this, the proposed construction of up to 221 housing units is not anticipated to result in a population increase considering there is a shortage of housing to accommodate the existing and planned population. Although the project would increase the residential density of the site, the proposed housing would be growth accommodating. Thus, the project would not directly induce substantial unplanned population growth to the area.

While the SDAPCD and City of San Diego do not provide guidance regarding the analysis of impacts associated with air quality plan conformance, the County's Guidelines for Determining Significance and Report and Format and Content Requirements – Air Quality does discuss conformance with the RAQS (County of San Diego 2007). The guidance indicates that if a project, in conjunction with other projects, contributes to growth projections that would not exceed SANDAG's growth projections for the City, the project would not be in conflict with the RAQS (County of San Diego 2007). As previously discussed, the proposed project would not contribute to growth in the region that is not already accounted for. Additionally, the proposed project would not exceed the construction and operational screening thresholds established by the City of San Diego. Thus, impacts would be considered **less than significant**.

6.2 Conformance to State and Federal Air Quality Standards

6.2.1 Construction

Construction of the project would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and VOC off-gassing) and off-site sources (worker vehicle trips). Construction emissions can vary substantially day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions.

Criteria air pollutant emissions associated with construction activity were quantified using CalEEMod. Default values provided by the CalEEMod were used where detailed project information was not available. A detailed depiction of the construction schedule—including information regarding phasing, equipment used during each phase, haul trucks, vendor trucks, and worker vehicles—is included in Section 5.2.1, Construction. The information contained in Attachment 1 was used as CalEEMod inputs.

Implementation of the project would generate air pollutant emissions from entrained dust, off-road equipment, vehicle emissions, and asphalt pavement application. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM_{10} and $PM_{2.5}$ emissions. The project is subject to SDAPCD Rule 55, Fugitive Dust Control (SDAPCD 2009b). This rule requires that the project take steps to restrict visible emissions of fugitive dust beyond the property line. Compliance with SDAPCD Rule 55 would limit fugitive dust (PM_{10} and $PM_{2.5}$) generated during grading and construction activities. The project is proposing PDF-AQ-1 which would specifically require that the project be watered three times daily depending on weather conditions and reduce vehicle speed to 15 miles per hour over unpaved surfaces. To account for dust control measures in the calculations, it was assumed that the active sites would be watered at least two times daily, resulting in an approximately 61% reduction of particulate matter (SCAQMD 2007, CAPCOA 2022).

Exhaust from internal combustion engines used by construction equipment and worker vehicles would result in emissions of VOCs, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. The application of asphalt pavement and architectural coatings would also produce VOC emissions. Table 8 shows the estimated maximum daily construction emissions associated with construction of the project without mitigation. Complete details of the emissions calculations are provided in Attachment 1.

As shown in Table 8, daily construction emissions would not exceed either City's significance thresholds. Therefore, impacts during construction would be less than significant for both the Annexation and No Annexation scenarios.

Table 8
Estimated Maximum Daily Construction Criteria Air Pollutant Emissions

Year	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
	Pounds per Day					
2024	4	39	34	<1	9	5
2025	44	19	30	<1	2	1
Maximum Daily Emissions	**44**	**39**	**34**	**<1**	**9**	**5**
Chula Vista Threshold	*75*	*100*	*550*	*150*	*150*	*55*
San Diego Threshold	*137*	*250*	*550*	*250*	*100*	*55*
Thresholds Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

VOC = volatile organic compound; NO_X = oxides of nitrogen; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter.
See Attachment 1 for complete results.
The values shown are the maximum summer or winter daily emissions results from CalEEMod. Although not considered mitigation, these emissions reflect CalEEMod "mitigated" output, which accounts for the compliance with PDF-1 limiting fugitive dust.

6.2.2 Operation

Operation of the project would generate VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ emissions from mobile sources, including vehicle trips; area sources, including the use of consumer products and landscape maintenance equipment; and energy sources. As discussed in Section 5.2.2, Operation, pollutant emissions associated with long-term operations were quantified using CalEEMod. Project-generated mobile source emissions were estimated in CalEEMod based on project-specific trip rates. CalEEMod default values were used to estimate emissions from the project area and energy sources. Table 9 presents the maximum daily area, energy, and mobile source emissions associated with operation (year 2025) of the project. The values shown are the maximum summer or winter daily emissions results from CalEEMod. Details of the emission calculations are provided in Attachment 1.

Table 9 Estimated Maximum Daily Operational Criteria Air Pollutant Emissions						
Emission Source	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Area	7	0	0	0	0	0
Energy	<1	1	<1	<1	<1	<1
Mobile	8	6	55	<1	11	3
Total	**15**	**7**	**55**	**<1**	**11**	**3**
Chula Vista Threshold	*55*	*55*	*550*	*150*	*150*	*55*
San Diego Threshold	*137*	*250*	*550*	*250*	*100*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

VOC = volatile organic compound; NO_X = oxides of nitrogen; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter.
See Attachment 1 for complete results.
Columns may not total precisely due to rounding.
The values shown are the maximum summer or winter daily emissions results from CalEEMod. These emissions reflect CalEEMod "mitigated" output, which accounts for compliance with Rule 67.0.1 (Architectural Coatings).

As shown in Table 9, the combined daily area, energy, and mobile source emissions would not exceed either City's operational thresholds for VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. Therefore, impacts during operation would be less than significant for both the No Annexation and Annexation scenarios.

6.2.3 Cumulative Impacts

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SDAPCD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality.

The SDAB is a nonattainment area for O_3 under the NAAQS and CAAQS. The poor air quality in the SDAB is the result of cumulative emissions from motor vehicles, off-road equipment, commercial and industrial facilities, and other emission sources. Projects that emit these pollutants or their precursors (i.e., VOCs and NO_X for O_3) potentially contribute to poor air quality. In analyzing cumulative impacts from a project, the analysis must specifically evaluate the project's contribution to the cumulative increase in pollutants for which the SDAB is designated as nonattainment for the CAAQS and NAAQS. However, a project would only be considered to have a significant cumulative impact if the project's contribution accounts for a significant proportion of the cumulative total emissions (i.e., it represents a "cumulatively considerable contribution" to the cumulative air quality impact).

The SDAB is also a nonattainment area for PM_{10} and $PM_{2.5}$ under the CAAQS. However, compliance with SDAPCD Rule 55 would limit fugitive dust (PM_{10} and $PM_{2.5}$) generated during grading and construction activities. The project is proposing PDF-AQ-1, which would specifically require that the project be watered three times daily, depending on weather conditions, and reduce vehicle speed to 15 miles per hour over unpaved surfaces. All other cumulative projects would similarly be required to implement fugitive dust control in accordance with SDAPCD Rule 55. As the maximum daily emissions of PM_{10} and $PM_{2.5}$ would not exceed either City's significance thresholds, there would not be cumulatively considerable impacts.

Regarding long-term cumulative operational emissions in relation to consistency with local air quality plans, the SIP and RAQS serve as the primary air quality planning documents for the state and SDAB, respectively. The SIP and RAQS rely on SANDAG growth projections based on population, vehicle trends, and land use plans developed by the cities and the County as part of the development of their general plans. Therefore, projects that propose development that is consistent with the growth anticipated by local plans would be consistent with the SIP and RAQS and would not be considered to result in cumulatively considerable impacts from operational emissions. As stated previously, the 221 residential units would provide balanced and diverse housing to the either the City of Chula Vista or the City of San Diego and would provide housing to accommodate future growth projections. As a result, the project would not result in a cumulatively considerable contribution to regional O_3 concentrations or other criteria pollutant emissions. Impacts associated with project-generated operational criteria air pollutant emissions would be **less than significant** for both the Annexation and No Annexation scenarios.

6.3 Sensitive Receptors

Air quality varies as a direct function of the amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. Air quality problems arise when the rate of pollutant emissions exceeds the rate of dispersion. Reduced visibility, eye irritation, and adverse health impacts on those persons termed "sensitive receptors" are the most serious hazards of existing air quality conditions in the area. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution, as identified by CARB, include children, elderly people, athletes, and people with cardiovascular and chronic respiratory diseases. As such, sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes. The closest sensitive receptors to the project site are residences 115 feet from the eastern property boundaries. The project would also introduce new on-site sensitive receptors to the area. The analysis of impacts to sensitive receptors as well as the conclusions are the same for both the No Annexation and Annexation scenarios.

6.3.1 Health Impacts of Toxic Air Contaminants

"Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period would contract cancer based on the use of standard OEHHA risk-assessment methodology (OEHHA 2015). In addition, some TACs have non-carcinogenic effects. TACs that would potentially be emitted during construction activities would be DPM emitted from heavy-duty construction equipment and heavy-duty trucks. Heavy-duty construction equipment and diesel trucks are subject to CARB ATCMs to reduce DPM emissions. According to the OEHHA, HRAs should be based on a 30-year exposure duration based on typical residency period; however, such assessments should be limited to the period/duration of activities associated with the project (OEHHA 2015). Thus, the duration of proposed construction activities (approximately 2 years) would only constitute a small percentage of the total long-term exposure period and would not result in exposure of proximate sensitive receptors to substantial TACs.

Furthermore, the closest sensitive receptors to the proposed project site are residences located 115 feet east of the project site. The heavy-duty construction equipment is subject to a CARB ATCM for in-use diesel construction equipment to reduce diesel particulate emissions, and diesel trucks are subject to a CARB ATCM that limits idling of equipment and trucks during loading and unloading to 5 minutes and requires that electric auxiliary power units be used whenever possible. Also, construction equipment is subject to CARB In-Use Off-Road Diesel Regulation that requires specific fleet average requirements be met for particulate matter emissions and apply Best Available Control Technology requirements. The duration of construction of the project would be approximately two years and would therefore constitute only a small percentage of the total long-term exposure period and would not result in exposure of sensitive receptors in the vicinity of the project site to substantial pollutant concentrations resulting from on-site construction activities.

6.3.2 Operational Roadway Health Risk Assessment (Effect of the Environment on the Project)

As required by Policy E 6.10 in the City of Chula Vista's General Plan Environmental Element (City of Chula Vista 2005), the siting of new sensitive receivers within 500 feet of highways resulting from development or redevelopment projects shall require the preparation of an HRA as part of the CEQA review of the project. Additionally, San Diego General Plan Policy LU-I.14 requires the evaluation of public health risks associated with toxic air emissions for community plan updates and amendments that involve land use or intensity changes. The project residences would be located adjacent to Interstate 805 (I-805); therefore, the project is subject to these requirements.

As discussed in Section 5.2.3, an HRA was performed to estimate the Maximum Individual Cancer Risk and Chronic Hazard Index for residential receptors as a result of diesel emissions from the I-805 freeway on future sensitive receptors of the project. The project would not exacerbate environmental hazards caused by vehicle traveling on the I-805 freeway, as the traffic generated by the project represents only a small fraction of the total daily traffic volumes on I-805. Additionally, per the California Building Industry Association v. Bay Area Air Quality Management District court ruling, CEQA analyses are concerned with a project's impact on the environment, and not with the environment's impact on a project and its users or residents. Therefore, this HRA was prepared in accordance with Chula Vista General Plan Policy E 6.10 and San Diego General Plan Policy LU-I.14 only and does not contribute to the CEQA significance determination analysis. Results of the roadway HRA are presented in Table 10.

Table 10 Roadway Health Risk Assessment Results		
Impact Parameter	Units	Impact Level
Maximum Individual Cancer Risk – Residential	Per Million	25.60
Chronic Hazard Index – Residential	Index Value	0.007
Source: SDAPCD 2019. See Attachment 2.		

As shown in Table 10, the DPM emissions from the I-805 freeway would result in a Residential Maximum Individual Cancer Risk of 25.60 in 1 million which would exceed 10 in 1 million, which is the level at which SDAPCD generally requires public notification for stationary sources of emissions. The Residential Chronic Hazard Index of 0.007 would be below the level of 1.0 at which adverse non-cancer health risks would be anticipated. These results are conservative as the modeling assumed use of MERV-13 filters in homes would reduce DPM concentrations by 80 percent, while these filters are designed to achieve up to 90 percent reduction in DPM.

6.3.3 Health Impacts of Carbon Monoxide

Mobile-source impacts occur on two basic scales of motion. Regionally, project-related travel will add to regional trip generation and increase the vehicle miles traveled within the local airshed and the SDAB. Locally, project traffic will be added primarily to the City of San Diego's roadway system. If such traffic occurs during periods of poor atmospheric ventilation, consists of a large number of vehicles cold-started and operating at pollution-inefficient speeds, and operates on roadways already crowded with non-project traffic, there is a potential for the formation of microscale CO hotspots in the area immediately around points of congested traffic. Because of continued improvement in mobile emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SDAB is steadily decreasing.

Projects contributing to adverse traffic impacts may result in the formation of CO hotspots. To verify that the project would not cause or contribute to a violation of the CO standard, a screening evaluation of the potential for CO hotspots was conducted. A Traffic Impact Analysis evaluated the level of service (LOS) (i.e., increased congestion) impacts at intersections affected by the project (LOS Engineering 2023). The potential for CO hotspots was evaluated based on the results of the traffic report. As neither city has CO hotspot guidelines, the County of San Diego's Guidelines (County of San Diego 2007) CO hotspot screening guidance was followed to determine whether the project would require a site-specific hotspot analysis. The County recommends that a quantitative analysis of CO hotspots be performed for intersections that are operating at or below an LOS of E and that have peak-hour trips exceeding 3,000 trips.

The Local Mobility Analysis prepared for the project (LOS Engineering, Inc. 2023) analyzed Existing and Existing Plus Cumulative Projects Plus Project Near Term (2024) for five existing intersections near the project site. The results of the LOS assessment show that under Existing Plus Project conditions, two of the five study intersections are forecast to operate at unacceptable LOS (LOS E or worse) during the peak hours, with a volume more than 3,000 trips. As shown in Attachment 3, CO Hotspot Analysis, the two key study intersections according to the criteria above are (1) Palm Avenue and Dennery Road (LOS F in AM and PM peak hours) and (2) Palm Avenue and I-805 Northbound Ramps (LOS E in PM peak hours). The remaining key intersections are projected to operate at acceptable LOS conditions in the Existing Plus Project scenario.

The screening evaluation presents LOS and whether a quantitative CO hotspots analysis may be required. According to the Caltrans CO Protocol (2010), there is a cap on the number of intersections that need to be analyzed for any one project. For a single project with multiple intersections, only the three intersections representing the worst LOS ratings of the project, and, to the extent they are different intersections, the three intersections representing the highest traffic volumes, need be analyzed. For each intersection failing a screening test as described in the CO Protocol, an additional intersection should be analyzed (Caltrans 2010).

Based on the CO hotspot screening evaluation (see Attachment 3), both failing intersections are signal-controlled intersections. The potential impact of the project on local CO levels was assessed at these intersections with the Caltrans CL4 interface based on the California LINE Source Dispersion Model (CALINE4), which allows microscale CO concentrations to be estimated along each roadway corridor or near intersections (Caltrans 1998a).

The emissions factor represents the weighted average emissions rate of the local County vehicle fleet expressed in grams per mile per vehicle. Consistent with the traffic scenario, emissions factors for 2024, which is more conservative than the operational year 2026, were used. Emissions factors were predicted by EMFAC2021 based on a 5-mile-per-hour average speed for all of the intersections for approach and departure segments. The hourly traffic volume anticipated to travel on each link, in units of vehicles per hour, was based on information provided by the traffic consultant (LOS Engineering 2023) and modeling assumptions are outlined in Attachment 3.

Four receptor locations were modeled at each intersection to determine CO ambient concentrations. A receptor was assumed on the sidewalk at each corner of the modeled intersections, to represent the future possibility of extended outdoor exposure. CO concentrations were modeled at these locations to assess the maximum potential CO exposure that could occur in 2024. A receptor height of 5.9 feet (1.8 meters) was used in accordance with Caltrans recommendations for all receptor locations (Caltrans 1998b).

The highest 1-hour measurement in the last 3 years was used as the projected future 1-hour CO background concentration for the analysis. A CO concentration of 1.6 parts per million by volume (ppm) was recorded in 2017 for the El Cajon monitoring station in San Diego and was assumed in CALINE4 for 2024 (EPA 2022). To estimate an 8-hour average CO concentration, a persistence factor of 0.70 was applied to the output values of predicted concentrations in ppm at each of the receptor locations. Model input and output data are available in Attachment 3.

The maximum CO concentration predicted for the 1-hour averaging period at the studied intersections would be 1.7 ppm, which is below the 1-hour CO CAAQS of 20 ppm (CARB 2016b). The maximum predicted 8-hour CO concentration of 1.37 ppm at the studied intersections would be below the 8-hour CO CAAQS of 9.0 ppm (CARB 2016b). Neither the 1-hour nor the 8-hour CAAQS would be equaled or exceeded at any of the intersections studied. Accordingly, the project would not cause or contribute to violations of the CAAQS and would not result in exposure of sensitive receptors to localized high concentrations of CO. CO tends to be a localized impact associated with congested intersections. Therefore, the project's CO emissions would not contribute to significant health effects associated with this pollutant. As such, project operation would result in a **less-than-significant** impact to air quality with regard to potential CO hotspots for both the No Annexation and Annexation scenarios.

6.3.4 Health Effects of Other Criteria Air Pollutants

Construction and operation of the project would not result in emissions that exceed the either City of Chula Vista or San Diego emission thresholds for any criteria air pollutants.

Some VOCs are associated with motor vehicles and construction equipment, while others are associated with architectural coatings, the emissions of which would not result in the exceedances of the SDAPCD's thresholds. Generally, the VOCs in architectural coatings are of relatively low toxicity. Additionally, SDAPCD Rule 67.0.1 restricts the VOC content of coatings.

In addition, VOCs and NO_X are precursors to O_3, for which the SDAB is designated as nonattainment with respect to the NAAQS and CAAQS (the SDAB is designated by EPA as an attainment area for the 1-hour O_3 NAAQS and the 1997 8-hour NAAQS). The health effects associated with O_3, as discussed in Section 2.2, Pollutants and Effects, are generally associated with reduced lung function. The contribution of VOCs and NO_X to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the SDAB due to O_3 precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the VOC emissions would occur, because exceedances of the O_3 NAAQS and CAAQS tend to occur between April and October when solar radiation is highest.

The holistic effect of a single project's emissions of O_3 precursors is speculative due to the lack of quantitative methods to assess this impact. Nonetheless, the VOC and NO_X emissions associated with project construction and operations could minimally contribute to regional O_3 concentrations and the associated health impacts. Due to the minimal contribution during construction and operation, health impacts of the project would be considered less than significant.

Regarding NO_2, according to the construction emissions analysis, construction of the proposed project would not contribute to exceedances of the NAAQS and CAAQS for NO_2. As described in Section 2.2, NO_2 and NO_X health impacts are associated with respiratory irritation, which may be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. However, these construction activities would be relatively short term. Additionally, off-road construction equipment would operate at various portions of the site and would not be concentrated in one portion of the site at any one time. Construction of the proposed project would not require any stationary emission sources that would create substantial localized NO_X impacts. Therefore, health impacts would be considered less than significant.

The VOC and NO_X emissions, as described previously, would minimally contribute to regional O_3 concentrations and its associated health effects. In addition to O_3, NO_X emissions would not contribute to potential exceedances of the NAAQS and CAAQS for NO_2. As shown in Table 3, the existing NO_2 concentrations in the area are well below the NAAQS and CAAQS standards. Thus, it is not expected that the project's operational NO_X emissions would result in exceedances of the NO_2 standards or contribute to the associated health effects. CO tends to be a localized impact associated with congested intersections. The associated CO hotspots were discussed previously as a less-than-significant impact. Thus, the proposed project's CO emissions would not contribute to significant health effects associated with this pollutant. PM_{10} and $PM_{2.5}$ emissions from the proposed project would not contribute to potential exceedances of the NAAQS and CAAQS for particulate matter, would not obstruct the SDAB from coming into attainment for these pollutants, and would not contribute to significant health effects associated with particulates.

Based on the preceding considerations, health impacts associated with criteria air pollutants would be considered **less than significant** for both the No Annexation and Annexation scenarios.

6.3.5 Valley Fever Exposure

As discussed in Section 2.2.2, valley fever is not highly endemic to County of San Diego, the incidence rate in the project area is below the County average and the statewide average. Construction of the project would incorporate **PDF-AQ-1** and comply with SDAPCD Rule 55, which limits the amount of fugitive dust generated during construction. Strategies the project would implement to comply with SDAPCD Rule 55 and control dust include watering two times per day, using magnesium chloride for dust suppression on unpaved roads, and limiting speed on unpaved roads to 15 miles per hour.

Based on the low incidence rate of coccidioidomycosis in the County and the project's implementation of dust control strategies, it is not anticipated that earthmoving activities during project construction would result in exposure of nearby sensitive receptors to valley fever. Therefore, the project would have a **less-than-significant** impact with respect to valley fever exposure for sensitive receptors for both the No Annexation and Annexation scenarios.

6.4 Odors and Other Emissions

The State of California Health and Safety Code, Division 26, Part 4, Chapter 3, Section 41700 and SDAPCD Rule 51, commonly referred to as public nuisance law, prohibits emissions from any source whatsoever in such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to the public health or damage to property. Projects required to obtain permits from SDAPCD are evaluated by SDAPCD staff for potential odor nuisance, and conditions may be applied (or control equipment required) where necessary to prevent occurrence of public nuisance.

6.4.1 No Annexation Scenario and Annexation Scenario 2b (City of Chula Vista)

Section 19.66.090, Odors, of the Chula Vista Municipal Code requires that no emission shall be permitted of odorous gases or other odorous matter in such quantities as to be readily detectable at the points of measurement specified in Chula Vista Municipal Code 19.66.060(A). Any process that may involve the creation or emission of any odors shall be provided with an adequate secondary safeguard system of control, so that control will be maintained if the primary safeguard system should fail (City of Chula Vista Municipal Code Section 19.66.090). SDAPCD Rule 51 (Public Nuisance) also prohibits emission of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of any person. A project that proposes a use that would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors. Odor issues are very subjective by the nature of odors themselves and due to the fact that their measurements are difficult to quantify. As a result, this guideline is qualitative and will focus on the existing and potential surrounding uses and the location of sensitive receptors.

The occurrence and severity of potential odor impacts depends on numerous factors: the nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying, cause distress among the public, and generate citizen complaints.

Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the project. Potential odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. Such odors would disperse rapidly from the project site and generally would occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding facilities (SCAQMD 1993). The project does not include any of the land uses typically associated with odor complaints. Therefore, project operations would result in an odor impact that would be **less than significant**.

6.4.2 Annexation Scenario 2a (City of San Diego)

Division 7, Off-Site Development Impact Regulations, Section 142.0710, states the following: "Air contaminants including smoke, charred paper, dust, soot, grime, carbon, noxious acids, toxic fumes, gases, odors, and particulate matter, or any emissions that endanger human health, cause damage to vegetation or property, or cause soiling shall not be permitted to emanate beyond the boundaries of the premises upon which the use emitting the contaminants is located.

The proposed project would not result in the generation of smoke, charred paper, soot, grime, carbon, noxious acids, or toxic fumes. As demonstrated in Tables 8 and 9, criteria air pollutants, including particulate matter, during construction and operation of the project would be below City thresholds of significance and therefore would not represent a release substantial quantities of air contaminants beyond the project boundaries.

As discussed in the Health Impacts of Other Criteria Air Pollutants Section of this report, construction of the proposed project would not require any stationary emission sources that would create substantial, localized NO_X impacts. Additionally, the VOC and NO_X emissions, as described previously, would minimally contribute to regional O_3 concentrations and its associated health effects. In addition to O_3, NO_X emissions would not contribute to potential exceedances of the NAAQS and CAAQS for NO_2. As shown in Table 3, the existing NO_2 concentrations in the area are well below the NAAQS and CAAQS standards. Thus, it is not expected that the proposed project's operational NO_X emissions would result in exceedances of the NO_2 standards or contribute to the associated health effects. CO tends to be a localized impact associated with congested intersections. The associated CO "hotspots" were discussed previously as a less-than-significant impact. Thus, the proposed project's CO emissions would not contribute to significant health effects associated with this pollutant. Likewise, PM_{10} and $PM_{2.5}$ would not contribute to potential exceedances of the NAAQS and CAAQS for particulate matter, would not obstruct the SDAB from coming into attainment for these pollutants, and would not contribute to significant health effects associated with particulates.

As previously discussed, odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the proposed project. Potential odors produced during proposed construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. Such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts related to odors would be **less than significant**.

7.0 References Cited

California Department of Transportation (Caltrans)

1998a CALINE4 – A Dispersion Model for Predicting Air Pollutant Concentrations near Roadways. Version 1.32. Written by Sonoma Technology Inc., Petaluma, California. Sponsored by the University of California, Davis, Institute of Transportation Studies and Caltrans. http://www.dot.ca.gov/hq/InfoSvcs/EngApps/.

1998b User's Guide for CL4: A User-Friendly Interface for the CALINE4 Model for Transportation Project Impact Assessments. User's Guide STI-997480-1814-UG. June 1998. http://www.dot.ca.gov/hq/env/air/documents/CL4Guide.pdf.

2010 *Transportation Project-Level Carbon Monoxide Protocol – Revised December 1997*. UCD-ITS-RR-97-21. Revised, rendered searchable, and reissued by Caltrans October 13, 2010. Prepared by V.J. Garza, P. Graney, and D. Sperling; revised by D. Niemeier, D. Eisinger, T. Kear, D. Chang, and Yu Meng.

2021 Traffic Census Program. Accessed at https://dot.ca.gov/programs/traffic-operations/census.

California Air Pollution Control Officers Association (CAPCOA)

2008 *CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act*. January 2008.

2021 Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity. Final Draft December 2021.

2022 California Emissions Estimator Model, Version 2022.1.

California Air Resources Board (CARB)

2000 *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October 2000. Accessed August 2016. http://www.arb.ca.gov/diesel/documents/rrpfinal.pdf.

2005 *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005. Accessed August 2016. http://www.arb.ca.gov/ch/landuse.htm.

2014a "California Greenhouse Gas Inventory for 2000–2012—by Category as Defined in the 2008 Scoping Plan." Last updated March 24, 2014. Accessed October 2017. http://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_scopingplan_00-12_2014-03-24.pdf.

2016a "Glossary of Air Pollution Terms." CARB website. Accessed June 2016. http://www.arb.ca.gov/html/gloss.htm.

2016b "Ambient Air Quality Standards." May 4, 2016. Accessed August 2016. http://www.arb.ca.gov/research/aaqs/aaqs2.pdf.

2016c "Area Designation Maps/State and National." Last updated May 5, 2016. http://www.arb.ca.gov/desig/adm/adm.htm.

2023 iADAM Air Quality Data Statistics." Accessed January 2023. http://arb.ca.gov/adam.

California Department of Public Health (CDPH)

2019 *Epidemiologic Summary of Coccidioidomycosis in California, 2018*. https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/CocciEpiSummary2018.pdf.

California Environmental Protection Agency (CalEPA)

1998 Part B: Health Risk Assessment for Diesel Exhaust. For the "Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant". Office of Environmental Health Hazard Assessment. May.

2022 Consolidated Table of Approved Risk Assessment Health Values. http://www.arb.ca.gov/toxics/healthval/contable.pdf. Updated September 8, 2022.

Chula Vista, City of

2005 *City of Chula Vista General Plan*. Amended March 2015. Accessed October 2017. http://www.chulavistaca.gov/departments/development-services/planning/general-plan.

2012 A Final Supplemental Environmental Impact Report for Amendments to the City of Chula Vista General Plan (GPA-09-01) and Otay Ranch General Development Plan (PCM-09-11). December.

Dudek
2022 Health Risk Analysis Calculations. Appendix to the Draft Air Quality and Greenhouse Gas Emissions Analysis Technical Report for Nakano Project, Chula Vista, California. February.

Kleipeis, N. E., W. C. Nelson, W. R. Ott, J. P. Robinson, A. M. Tsang, P. Switzer, J. V. Behar, S. C. Hern, and W. H. Engelmann
2001 "The National Human Activity Pattern Survey (NHAPS): A Resource for Assessing Exposure to Environmental Pollutants." *Journal of Exposure Analysis and Environmental Epidemiology* 11(3): 231–252.

LOS Engineering, Inc.
2023 Local Mobility Analysis Report. June.

Nelson, J
2019 Coccidioidomycosis Data Requests. Email from J. Nelson (County of San Diego Health & Human Services Agency, Epidemiologist II) to A. Poll (Dudek). October 11, 2019.

Office of Environmental Health Hazard Assessment (OEHHA)
2015 *Guidance Manual for Preparation of Health Risk Assessments*. OEHHA, Air Toxics Hot Spots Program, Risk Assessment Guidelines. February 2015. Accessed October 2017. http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf.

San Diego Association of Governments (SANDAG)
2011 *2050 Regional Transportation Plan/Sustainable Communities Strategy*. October 2011.

2013 *Series 13: 2050 Regional Growth Forecast*. October 25, 2013. Accessed April 2020. https://www.sandag.org/index.asp?classid=12&subclassid=84&projectid=503&fuseaction=projects.detail.

2016 *2016 Regional Transportation Improvement Program*. Accessed November 2016. http://www.sandag.org/uploads/publicationid/publicationid_2071_21174.pdf.

2017a *Series 13: 2050 Regional Growth Forecast.* Accessed June 2017. http://www.sandag.org/index.asp?classid=12&subclassid=84&projectid=503&fuseaction=projects.detail.

2017b *2050 Regional Transportation Plan.* Accessed June 2017. http://www.sandag.org/index.asp?projectid=349&fuseaction=projects.detail.

2021 San Diego Forward website. Accessed June 8, 2022. San Diego Forward (sdforward.com).

San Diego, City of
2008 "Conservation Element." In *City of San Diego General Plan 2008*. March 10, 2008. Accessed December 2018. https://www.sandiego.gov/planning/genplan#genplan.

2010 San Diego Municipal Code, Chapter 14, Article 2, Division 7, Section 142.0710, Air Contaminant Regulations. January 1, 2010. Accessed December 2016. http://docs.sandiego.gov/municode/MuniCodeChapter14/Ch14Art02Division07.pdf.

2014 Otay Mesa Community Plan Update. March 11. https://www.sandiego.gov/sites/default/files/otay_mesa_cmmty_plan_update_final-central_village_cpa.pdf.

2021 City of San Diego General Plan Housing Element 2021 - 2029. Accessed 6/8/2022. https://www.sandiego.gov/sites/default/files/he_final_print_view_june2021.pdf.

2022 City of San Diego CEQA Significance Determination Thresholds. September.

San Diego, County of
2007 *Guidelines for Determining Significance and Report Format and Content Requirements – Air Quality*. Department of Planning and Land Use, Department of Public Works. March 19, 2007.

San Diego Air Pollution Control District (SDAPCD)
1969 Rules and Regulations. Regulation IV. Prohibitions. Rule 51. Nuisance. Effective January 1.

1997 Rules and Regulations. Regulation IV. Prohibitions. Rule 50. Visible Emissions. Effective August 13, 1997. Accessed June 2017. http://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Prohibitions/APCD_R50.pdf.

2005 *Measures to Reduce Particulate Matter in San Diego County*. December 2005. Accessed October 2017. http://www.sdapcd.org/planning/plan.html.

2009a *2009 Regional Air Quality Strategy Revision*. April 2009. Accessed October 2017. http://www.sdapcd.org/content/dam/sdc/apcd/PDF/Air%20Quality%20Planning/2009-RAQS.pdf.

2009b SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust Control. June 24, 2009. Accessed October 2017. http://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Prohibitions/APCD_R55.pdf.

2015 SDAPCD Regulation IV: Prohibitions; Rule 67.0.1: Architectural Coatings. June 24. Accessed May 2017. http://www.sdapcd.org/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Prohibitions/APCD_R67-0-1.pdf.

2016 *2008 Eight-Hour Ozone Attainment Plan for San Diego County*. Final. Updated December 2016. http://www.sdapcd.org/content/dam/sdc/apcd/PDF/Air%20Quality%20Planning/8-Hr-O3%20Attain%20Plan-08%20Std.pdf.

2017a Regulation XII. Toxic Air Contaminates; Rule 1200: Toxic Air Contaminates – New Source Review. Accessed October 2017. http://www.sdapcd.org/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Toxic_Air_Cotaminants/ACPD_R1200.pdf.

2017b Regulation XII. Toxic Air Contaminates; Rule 1210: Toxic Air Contaminates – Public Notification and Risk Reduction. Accessed October 2017. http://www.sdapcd.org/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Toxic_Air_Cotaminants/APCD_R1210.pdf.

2019 *Supplemental Guidelines for Submission of Air Toxics "Hot Spots" Program.* May 2019. Accessed April 2020. https://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Toxics_Program/APCD_Hot_Spots_Supplemental_Guidelines.pdf.

2023 2022 *Regional Air Quality Strategy for San Diego County*. March 2023. Accessed July 2023. https://www.sdapcd.org/content/dam/sdapcd/documents/grants/planning/Att.%20A%20-%202022%20RAQS.pdf

Santa Barbara County Air Pollution Control District (SBCAPCD)

2020 Modeling Guidelines for Air Quality Impact Assessments. June 2020.

South Coast Air Quality Management District (SCAQMD)

1993 *CEQA Air Quality Handbook*.

2007 "Table XI-E, Mitigation Measure Examples: Fugitive Dust from Storage Piles." April 2007. Accessed April 2020. http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies/fugitive-dust.

2019 "SCAQMD Air Quality Significance Thresholds." Originally published in *CEQA Air Quality Handbook*, Table A9-11-A. Revised April 2019. http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf.

U.S. Environmental Protection Agency (EPA)

2009 *Integrated Science Assessment for Particulate Matter*. EPA/600/R-08/139F.

2016a *Integrated Science Assessment for Oxides of Nitrogen–Health Criteria (2016 Final Report)*. EPA/600/R-15/068.

2016b "EPA Region 9 Air Quality Maps and Geographic Information." Last updated April 27, 2016. Accessed August 2016. http://www.epa.gov/region9/air/maps/.

2019 "What is MERV Rating?" August 1, 2019. Accessed April 2020. https://www.epa.gov/indoor-air-quality-iaq/what-merv-rating-1.

2023 "AirData: Access to Air Pollution Data." Accessed January 2023. https://www.epa.gov/outdoor-air-quality-data/monitor-values-report.

U.S. Geological Survey (USGS)
2000 *Operational Guidelines (Version 1.0) for Geological Fieldwork in Areas 1 Endemic for Coccidioidomycosis (Valley Fever).*

Western Regional Climate Center (WRCC)
2017 Climate Summary for Chula Vista, California. Accessed October 2017. https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca1758.

ATTACHMENTS

ATTACHMENT 1

California Emissions Estimator Model Output Files

Nakano (No Mitigation, with PDFs, 2022 Title 24 Baseline) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Nakano (No Mitigation, with PDFs, 2022 Title 24 Baseline)
Construction Start Date	1/1/2024
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	19.4
Location	32.588671967843084, -117.03464459628472
County	San Diego
City	Chula Vista
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6668
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Apartments Low Rise	154	Dwelling Unit	14.2	163,240	119,082	11,241	430	—
Single Family Housing	67.0	Dwelling Unit	4.65	130,650	119,082	11,241	187	—
Other Asphalt Surfaces	5.00	Acre	5.00	0.00	0.00	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Transportation	T-1	Increase Residential Density
Transportation	T-4	Integrate A ordable and Below Market Rate Housing
Transportation	T-14*	Provide Electric Vehicle Charging Infrastructure
Transportation	T-31-A*	Locate Project in Area with High Destination Accessibility
Transportation	T-32*	Orient Project Toward Transit, Bicycle, or Pedestrian Facility
Transportation	T-33*	Locate Project near Bike Path/Bike Lane
Transportation	T-34*	Provide Bike Parking
Transportation	T-35*	Provide Tra c Calming Measures
Energy	E-1	Buildings Exceed 2019 Title 24 Building Envelope Energy Efficiency Standards
Energy	E-10-B	Establish Onsite Renewable Energy Systems: Solar Power
Energy	E-12-B	Install Electric Space Heater in Place of Natural Gas Heaters in Residences
Energy	E-13	Install Electric Ranges in Place of Gas Ranges
Water	W-6	Reduce Turf in Landscapes and Lawns
Area Sources	LL-1	Replace Gas Powered Landscape Equipment with Zero-Emission Landscape Equipment
Area Sources	LL-3*	Electric Yard Equipment Compatibility

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.52	3.67	38.7	32.7	0.08	1.51	4.58	6.09	1.39	1.69	3.08	—	10,029	10,029	0.45	0.58	7.74	10,221
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.52	44.4	38.9	33.7	0.08	1.60	7.81	9.41	1.47	3.97	5.45	—	10,020	10,020	0.45	0.58	0.20	10,204
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.07	6.27	15.1	17.2	0.03	0.61	1.91	2.51	0.56	0.69	1.25	—	4,136	4,136	0.18	0.18	2.00	4,195
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.38	1.14	2.76	3.13	0.01	0.11	0.35	0.46	0.10	0.13	0.23	—	685	685	0.03	0.03	0.33	695
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	137	250	550	250	—	—	100	—	—	67.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	137	250	550	250	—	—	100	—	—	67.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	4.52	3.67	38.7	32.7	0.08	1.51	4.58	6.09	1.39	1.69	3.08	—	10,029	10,029	0.45	0.58	7.74	10,221
2025	3.01	2.85	19.1	30.3	0.04	0.79	1.42	2.21	0.73	0.34	1.07	—	5,924	5,924	0.25	0.16	6.87	5,986
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	4.52	3.72	38.9	33.7	0.08	1.60	7.81	9.41	1.47	3.97	5.45	—	10,020	10,020	0.45	0.58	0.20	10,204
2025	1.98	44.4	11.7	18.9	0.03	0.44	1.29	1.73	0.41	0.31	0.71	—	4,199	4,199	0.19	0.15	0.16	4,249
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.07	1.73	15.1	17.2	0.03	0.61	1.91	2.51	0.56	0.69	1.25	—	4,136	4,136	0.18	0.18	2.00	4,195
2025	1.21	6.27	7.30	11.7	0.02	0.28	0.72	1.01	0.26	0.17	0.43	—	2,496	2,496	0.11	0.08	1.54	2,526
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.38	0.32	2.76	3.13	0.01	0.11	0.35	0.46	0.10	0.13	0.23	—	685	685	0.03	0.03	0.33	695
2025	0.22	1.14	1.33	2.14	< 0.005	0.05	0.13	0.18	0.05	0.03	0.08	—	413	413	0.02	0.01	0.25	418

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	4.52	3.67	38.7	32.7	0.08	1.51	4.58	6.09	1.39	1.69	3.08	—	10,029	10,029	0.45	0.58	7.74	10,221
2025	3.01	2.85	19.1	30.3	0.04	0.79	1.42	2.21	0.73	0.34	1.07	—	5,924	5,924	0.25	0.16	6.87	5,986

Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	4.52	3.72	38.9	33.7	0.08	1.60	7.81	9.41	1.47	3.97	5.45	—	10,020	10,020	0.45	0.58	0.20	10,204
2025	1.98	44.4	11.7	18.9	0.03	0.44	1.29	1.73	0.41	0.31	0.71	—	4,199	4,199	0.19	0.15	0.16	4,249
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.07	1.73	15.1	17.2	0.03	0.61	1.91	2.51	0.56	0.69	1.25	—	4,136	4,136	0.18	0.18	2.00	4,195
2025	1.21	6.27	7.30	11.7	0.02	0.28	0.72	1.01	0.26	0.17	0.43	—	2,496	2,496	0.11	0.08	1.54	2,526
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.38	0.32	2.76	3.13	0.01	0.11	0.35	0.46	0.10	0.13	0.23	—	685	685	0.03	0.03	0.33	695
2025	0.22	1.14	1.33	2.14	< 0.005	0.05	0.13	0.18	0.05	0.03	0.08	—	413	413	0.02	0.01	0.25	418

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.1	16.2	6.70	70.6	0.14	0.19	11.9	12.1	0.19	3.03	3.21	100	16,970	17,070	10.9	0.59	49.0	17,567
Mit.	8.49	14.6	6.19	55.0	0.14	0.17	11.3	11.5	0.17	2.87	3.03	100	15,277	15,377	10.8	0.55	46.5	15,859
% Reduced	16%	10%	8%	22%	6%	9%	5%	5%	10%	5%	6%	—	10%	10%	1%	6%	5%	10%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.81	14.9	7.13	55.0	0.14	0.19	11.9	12.1	0.18	3.03	3.21	100	16,315	16,415	11.0	0.62	3.32	16,878
Mit.	8.34	14.4	6.71	52.1	0.13	0.17	11.3	11.5	0.17	2.87	3.03	100	14,679	14,779	10.9	0.59	3.26	15,229
% Reduced	5%	3%	6%	5%	5%	7%	5%	5%	7%	5%	5%	—	10%	10%	1%	6%	2%	10%

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.62	14.7	6.64	56.8	0.13	0.18	10.9	11.1	0.18	2.76	2.93	100	15,378	15,479	10.9	0.57	20.8	15,942
Mit.	7.62	13.8	6.19	48.0	0.12	0.17	10.3	10.5	0.16	2.61	2.77	100	13,793	13,893	10.8	0.54	19.8	14,343
% Reduced	12%	6%	7%	16%	6%	8%	5%	5%	9%	5%	5%	—	10%	10%	1%	6%	5%	10%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.57	2.68	1.21	10.4	0.02	0.03	1.98	2.02	0.03	0.50	0.54	16.6	2,546	2,563	1.80	0.09	3.44	2,639
Mit.	1.39	2.51	1.13	8.76	0.02	0.03	1.88	1.91	0.03	0.48	0.51	16.6	2,284	2,300	1.79	0.09	3.28	2,375
% Reduced	12%	6%	7%	16%	6%	8%	5%	5%	9%	5%	5%	—	10%	10%	1%	6%	5%	10%
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	137	250	550	250	—	—	100	—	—	67.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Mit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	137	250	550	250	—	—	100	—	—	67.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Mit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	8.86	8.16	5.57	57.7	0.14	0.11	11.9	12.0	0.10	3.03	3.13	—	13,997	13,997	0.66	0.54	46.9	14,221
Area	1.17	7.94	0.12	12.5	< 0.005	< 0.005	—	< 0.005	0.01	—	0.01	0.00	33.5	33.5	< 0.005	< 0.005	—	33.6
Energy	0.12	0.06	1.01	0.43	0.01	0.08	—	0.08	0.08	—	0.08	—	2,814	2,814	0.20	0.01	—	2,823
Water	—	—	—	—	—	—	—	—	—	—	—	14.9	125	140	1.53	0.04	—	190
Waste	—	—	—	—	—	—	—	—	—	—	—	85.3	0.00	85.3	8.53	0.00	—	298
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.10	2.10
Total	10.1	16.2	6.70	70.6	0.14	0.19	11.9	12.1	0.19	3.03	3.21	100	16,970	17,070	10.9	0.59	49.0	17,567
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	8.69	7.98	6.12	54.6	0.13	0.11	11.9	12.0	0.10	3.03	3.13	—	13,376	13,376	0.71	0.57	1.22	13,565
Area	0.00	6.83	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	0.12	0.06	1.01	0.43	0.01	0.08	—	0.08	0.08	—	0.08	—	2,814	2,814	0.20	0.01	—	2,823
Water	—	—	—	—	—	—	—	—	—	—	—	14.9	125	140	1.53	0.04	—	190
Waste	—	—	—	—	—	—	—	—	—	—	—	85.3	0.00	85.3	8.53	0.00	—	298
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.10	2.10
Total	8.81	14.9	7.13	55.0	0.14	0.19	11.9	12.1	0.18	3.03	3.21	100	16,315	16,415	11.0	0.62	3.32	16,878
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.92	7.27	5.57	50.2	0.12	0.10	10.9	11.0	0.09	2.76	2.85	—	12,423	12,423	0.64	0.52	18.7	12,613
Area	0.58	7.38	0.06	6.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	16.5	16.5	< 0.005	< 0.005	—	16.6
Energy	0.12	0.06	1.01	0.43	0.01	0.08	—	0.08	0.08	—	0.08	—	2,814	2,814	0.20	0.01	—	2,823
Water	—	—	—	—	—	—	—	—	—	—	—	14.9	125	140	1.53	0.04	—	190
Waste	—	—	—	—	—	—	—	—	—	—	—	85.3	0.00	85.3	8.53	0.00	—	298
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.10	2.10
Total	8.62	14.7	6.64	56.8	0.13	0.18	10.9	11.1	0.18	2.76	2.93	100	15,378	15,479	10.9	0.57	20.8	15,942

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.45	1.33	1.02	9.17	0.02	0.02	1.98	2.00	0.02	0.50	0.52	—	2,057	2,057	0.11	0.09	3.09	2,088
Area	0.11	1.35	0.01	1.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	2.74	2.74	< 0.005	< 0.005	—	2.75
Energy	0.02	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	466	466	0.03	< 0.005	—	467
Water	—	—	—	—	—	—	—	—	—	—	—	2.46	20.8	23.2	0.25	0.01	—	31.4
Waste	—	—	—	—	—	—	—	—	—	—	—	14.1	0.00	14.1	1.41	0.00	—	49.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Total	1.57	2.68	1.21	10.4	0.02	0.03	1.98	2.02	0.03	0.50	0.54	16.6	2,546	2,563	1.80	0.09	3.44	2,639

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	8.39	7.73	5.27	54.6	0.13	0.10	11.3	11.4	0.09	2.87	2.96	—	13,254	13,254	0.63	0.51	44.4	13,466
Area	0.00	6.83	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	0.11	0.05	0.92	0.39	0.01	0.07	—	0.07	0.07	—	0.07	—	1,937	1,937	0.15	0.01	—	1,943
Water	—	—	—	—	—	—	—	—	—	—	—	14.9	85.7	101	1.53	0.04	—	150
Waste	—	—	—	—	—	—	—	—	—	—	—	85.3	0.00	85.3	8.53	0.00	—	298
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.10	2.10
Total	8.49	14.6	6.19	55.0	0.14	0.17	11.3	11.5	0.17	2.87	3.03	100	15,277	15,377	10.8	0.55	46.5	15,859
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	8.23	7.56	5.79	51.7	0.12	0.10	11.3	11.4	0.09	2.87	2.96	—	12,666	12,666	0.67	0.54	1.15	12,845
Area	0.00	6.83	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	0.11	0.05	0.92	0.39	0.01	0.07	—	0.07	0.07	—	0.07	—	1,927	1,927	0.15	0.01	—	1,933
Water	—	—	—	—	—	—	—	—	—	—	—	14.9	85.7	101	1.53	0.04	—	150

Waste	—	—	—	—	—	—	—	—	—	—	—	85.3	0.00	85.3	8.53	0.00	—	298
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.10	2.10
Total	8.34	14.4	6.71	52.1	0.13	0.17	11.3	11.5	0.17	2.87	3.03	100	14,679	14,779	10.9	0.59	3.26	15,229
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	7.51	6.89	5.28	47.6	0.12	0.09	10.3	10.4	0.09	2.61	2.70	—	11,775	11,775	0.61	0.49	17.7	11,955
Area	0.00	6.83	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	0.11	0.05	0.92	0.39	0.01	0.07	—	0.07	0.07	—	0.07	—	1,932	1,932	0.15	0.01	—	1,938
Water	—	—	—	—	—	—	—	—	—	—	—	14.9	85.7	101	1.53	0.04	—	150
Waste	—	—	—	—	—	—	—	—	—	—	—	85.3	0.00	85.3	8.53	0.00	—	298
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.10	2.10
Total	7.62	13.8	6.19	48.0	0.12	0.17	10.3	10.5	0.16	2.61	2.77	100	13,793	13,893	10.8	0.54	19.8	14,343
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.37	1.26	0.96	8.69	0.02	0.02	1.88	1.90	0.02	0.48	0.49	—	1,949	1,949	0.10	0.08	2.93	1,979
Area	0.00	1.25	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Energy	0.02	0.01	0.17	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	320	320	0.02	< 0.005	—	321
Water	—	—	—	—	—	—	—	—	—	—	—	2.46	14.2	16.7	0.25	0.01	—	24.8
Waste	—	—	—	—	—	—	—	—	—	—	—	14.1	0.00	14.1	1.41	0.00	—	49.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35
Total	1.39	2.51	1.13	8.76	0.02	0.03	1.88	1.91	0.03	0.48	0.51	16.6	2,284	2,300	1.79	0.09	3.28	2,375

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	0.23	2.27	2.07	< 0.005	0.10	—	0.10	0.09	—	0.09	—	334	334	0.01	< 0.005	—	335
Dust From Material Movement	—	—	—	—	—	—	0.48	0.48	—	0.25	0.25	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.41	0.38	< 0.005	0.02	—	0.02	0.02	—	0.02	—	55.2	55.2	< 0.005	< 0.005	—	55.4
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	0.76	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	160	160	0.01	0.01	0.02	162
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.2	10.2	< 0.005	< 0.005	0.02	10.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.68	1.68	< 0.005	< 0.005	< 0.005	1.71
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314

Dust From Material Movement	—	—	—	—	—	—	7.67	7.67	—	3.94	3.94	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.27	0.23	2.27	2.07	< 0.005	0.10	—	0.10	0.09	—	0.09	—	334	334	0.01	< 0.005	—	335
Dust From Material Movement	—	—	—	—	—	—	0.48	0.48	—	0.25	0.25	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.41	0.38	< 0.005	0.02	—	0.02	0.02	—	0.02	—	55.2	55.2	< 0.005	< 0.005	—	55.4
Dust From Material Movement	—	—	—	—	—	—	0.09	0.09	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.07	0.07	0.76	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	160	160	0.01	0.01	0.02	162
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.2	10.2	< 0.005	< 0.005	0.02	10.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.68	1.68	< 0.005	< 0.005	< 0.005	1.71
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.19	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.60	3.60	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.19	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	—	6,598	6,598	0.27	0.05	—	6,621

Dust From Material Movement	—	—	—	—	—	—	3.60	3.60	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73	0.62	6.01	5.29	0.01	0.25	—	0.25	0.23	—	0.23	—	1,157	1,157	0.05	0.01	—	1,161
Dust From Material Movement	—	—	—	—	—	—	0.63	0.63	—	0.25	0.25	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.10	0.97	< 0.005	0.05	—	0.05	0.04	—	0.04	—	192	192	0.01	< 0.005	—	192
Dust From Material Movement	—	—	—	—	—	—	0.12	0.12	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.99	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	194	194	0.01	0.01	0.78	197
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.25	0.07	4.36	1.55	0.02	0.06	0.82	0.88	0.06	0.22	0.28	—	3,238	3,238	0.18	0.52	6.96	3,404
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.09	0.08	0.07	0.87	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	183	183	0.01	0.01	0.02	185
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.24	0.07	4.51	1.57	0.02	0.06	0.82	0.88	0.06	0.22	0.28	—	3,239	3,239	0.18	0.52	0.18	3,398
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.3	32.3	< 0.005	< 0.005	0.06	32.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	0.01	0.79	0.27	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	—	568	568	0.03	0.09	0.53	596
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.35	5.35	< 0.005	< 0.005	0.01	5.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.14	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	94.0	94.0	0.01	0.02	0.09	98.7

3.4. Grading (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.19	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.60	3.60	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	4.19	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	—	6,598	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	—	3.60	3.60	—	1.43	1.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.73	0.62	6.01	5.29	0.01	0.25	—	0.25	0.23	—	0.23	—	1,157	1,157	0.05	0.01	—	1,161
Dust From Material Movement	—	—	—	—	—	—	0.63	0.63	—	0.25	0.25	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.10	0.97	< 0.005	0.05	—	0.05	0.04	—	0.04	—	192	192	0.01	< 0.005	—	192
Dust From Material Movement	—	—	—	—	—	—	0.12	0.12	—	0.05	0.05	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.99	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	194	194	0.01	0.01	0.78	197
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.25	0.07	4.36	1.55	0.02	0.06	0.82	0.88	0.06	0.22	0.28	—	3,238	3,238	0.18	0.52	6.96	3,404

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.07	0.87	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	183	183	0.01	0.01	0.02	185
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.24	0.07	4.51	1.57	0.02	0.06	0.82	0.88	0.06	0.22	0.28	—	3,239	3,239	0.18	0.52	0.18	3,398
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.3	32.3	< 0.005	< 0.005	0.06	32.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	0.01	0.79	0.27	< 0.005	0.01	0.14	0.15	0.01	0.04	0.05	—	568	568	0.03	0.09	0.53	596
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.35	5.35	< 0.005	< 0.005	0.01	5.43
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	< 0.005	0.14	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	94.0	94.0	0.01	0.02	0.09	98.7

3.5. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.69	0.58	5.38	6.29	0.01	0.24	—	0.24	0.22	—	0.22	—	1,150	1,150	0.05	0.01	—	1,153
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	0.98	1.15	< 0.005	0.04	—	0.04	0.04	—	0.04	—	190	190	0.01	< 0.005	—	191
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.61	0.57	0.45	6.67	0.00	0.00	1.14	1.14	0.00	0.27	0.27	—	1,306	1,306	0.06	0.05	5.25	1,327
Vendor	0.05	0.02	0.83	0.38	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	602	602	0.03	0.08	1.55	629
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.61	0.56	0.50	5.84	0.00	0.00	1.14	1.14	0.00	0.27	0.27	—	1,233	1,233	0.07	0.05	0.14	1,249
Vendor	0.05	0.02	0.86	0.39	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	602	602	0.03	0.08	0.04	628
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.26	0.24	2.84	0.00	0.00	0.54	0.54	0.00	0.13	0.13	—	597	597	0.03	0.02	1.08	605
Vendor	0.02	0.01	0.41	0.19	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	289	289	0.01	0.04	0.32	301

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.52	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	98.8	98.8	0.01	< 0.005	0.18	100
Vendor	< 0.005	< 0.005	0.08	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	47.8	47.8	< 0.005	0.01	0.05	49.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.69	0.58	5.38	6.29	0.01	0.24	—	0.24	0.22	—	0.22	—	1,150	1,150	0.05	0.01	—	1,153
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.13	0.11	0.98	1.15	< 0.005	0.04	—	0.04	0.04	—	0.04	—	190	190	0.01	< 0.005	—	191
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.61	0.57	0.45	6.67	0.00	0.00	1.14	1.14	0.00	0.27	0.27	—	1,306	1,306	0.06	0.05	5.25	1,327
Vendor	0.05	0.02	0.83	0.38	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	602	602	0.03	0.08	1.55	629
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.61	0.56	0.50	5.84	0.00	0.00	1.14	1.14	0.00	0.27	0.27	—	1,233	1,233	0.07	0.05	0.14	1,249
Vendor	0.05	0.02	0.86	0.39	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	602	602	0.03	0.08	0.04	628
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.29	0.26	0.24	2.84	0.00	0.00	0.54	0.54	0.00	0.13	0.13	—	597	597	0.03	0.02	1.08	605
Vendor	0.02	0.01	0.41	0.19	< 0.005	< 0.005	0.07	0.08	< 0.005	0.02	0.02	—	289	289	0.01	0.04	0.32	301
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.04	0.52	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	98.8	98.8	0.01	< 0.005	0.18	100
Vendor	< 0.005	< 0.005	0.08	0.03	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	47.8	47.8	< 0.005	0.01	0.05	49.9
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	0.60	5.58	6.97	0.01	0.23	—	0.23	0.21	—	0.21	—	1,281	1,281	0.05	0.01	—	1,285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.02	1.27	< 0.005	0.04	—	0.04	0.04	—	0.04	—	212	212	0.01	< 0.005	—	213
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.59	0.54	0.41	6.25	0.00	0.00	1.14	1.14	0.00	0.27	0.27	—	1,281	1,281	0.06	0.04	4.80	1,300
Vendor	0.05	0.02	0.79	0.37	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	591	591	0.03	0.08	1.53	618
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.58	0.54	0.46	5.47	0.00	0.00	1.14	1.14	0.00	0.27	0.27	—	1,209	1,209	0.07	0.05	0.12	1,225
Vendor	0.05	0.02	0.82	0.38	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	592	592	0.03	0.08	0.04	617
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.31	0.28	0.24	2.97	0.00	0.00	0.60	0.60	0.00	0.14	0.14	—	652	652	0.03	0.03	1.11	661
Vendor	0.03	0.01	0.43	0.20	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	316	316	0.01	0.04	0.36	330
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.54	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	108	108	0.01	< 0.005	0.18	110
Vendor	< 0.005	< 0.005	0.08	0.04	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	—	52.3	52.3	< 0.005	0.01	0.06	54.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.72	0.60	5.58	6.97	0.01	0.23	—	0.23	0.21	—	0.21	—	1,281	1,281	0.05	0.01	—	1,285
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.11	1.02	1.27	< 0.005	0.04	—	0.04	0.04	—	0.04	—	212	212	0.01	< 0.005	—	213
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.59	0.54	0.41	6.25	0.00	0.00	1.14	1.14	0.00	0.27	0.27	—	1,281	1,281	0.06	0.04	4.80	1,300
Vendor	0.05	0.02	0.79	0.37	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	591	591	0.03	0.08	1.53	618
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.58	0.54	0.46	5.47	0.00	0.00	1.14	1.14	0.00	0.27	0.27	—	1,209	1,209	0.07	0.05	0.12	1,225
Vendor	0.05	0.02	0.82	0.38	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	592	592	0.03	0.08	0.04	617
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.31	0.28	0.24	2.97	0.00	0.00	0.60	0.60	0.00	0.14	0.14	—	652	652	0.03	0.03	1.11	661
Vendor	0.03	0.01	0.43	0.20	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	—	316	316	0.01	0.04	0.36	330

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.54	0.00	0.00	0.11	0.11	0.00	0.03	0.03	—	108	108	0.01	< 0.005	0.18	110
Vendor	< 0.005	< 0.005	0.08	0.04	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	—	52.3	52.3	< 0.005	0.01	0.06	54.6
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.92	1.23	< 0.005	0.04	—	0.04	0.04	—	0.04	—	186	186	0.01	< 0.005	—	187
Paving	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.17	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	30.9	30.9	< 0.005	< 0.005	—	31.0
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.69	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	142	142	0.01	< 0.005	0.53	144
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	134	134	0.01	0.01	0.01	136
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.7	16.7	< 0.005	< 0.005	0.03	17.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.77	2.77	< 0.005	< 0.005	< 0.005	2.81
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Paving (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	—	0.29	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.92	1.23	< 0.005	0.04	—	0.04	0.04	—	0.04	—	186	186	0.01	< 0.005	—	187
Paving	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.17	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	—	30.9	30.9	< 0.005	< 0.005	—	31.0
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.05	0.69	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	142	142	0.01	< 0.005	0.53	144
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.05	0.61	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	134	134	0.01	0.01	0.01	136
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	16.7	16.7	< 0.005	< 0.005	0.03	17.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.77	2.77	< 0.005	< 0.005	< 0.005	2.81
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	44.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.10	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.7	15.7	< 0.005	< 0.005	—	15.8
Architectural Coatings	—	5.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.60	2.60	< 0.005	< 0.005	—	2.61
Architectural Coatings	—	0.95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.09	1.09	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	242	242	0.01	0.01	0.02	245
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.8	28.8	< 0.005	< 0.005	0.05	29.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.76	4.76	< 0.005	< 0.005	0.01	4.83
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Architectural Coating (2025) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	44.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.10	0.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.7	15.7	< 0.005	< 0.005	—	15.8
Architectural Coatings	—	5.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.60	2.60	< 0.005	< 0.005	—	2.61
Architectural Coatings	—	0.95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.09	1.09	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	242	242	0.01	0.01	0.02	245
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.13	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.8	28.8	< 0.005	< 0.005	0.05	29.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.76	4.76	< 0.005	< 0.005	0.01	4.83
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	5.93	5.46	3.73	38.6	0.09	0.07	7.99	8.06	0.07	2.03	2.09	—	9,367	9,367	0.44	0.36	31.4	9,517
Single Family Housing	2.93	2.70	1.84	19.1	0.05	0.04	3.95	3.98	0.03	1.00	1.03	—	4,629	4,629	0.22	0.18	15.5	4,704
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	8.86	8.16	5.57	57.7	0.14	0.11	11.9	12.0	0.10	3.03	3.13	—	13,997	13,997	0.66	0.54	46.9	14,221
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments Low Rise	5.82	5.34	4.09	36.5	0.09	0.07	7.99	8.06	0.07	2.03	2.09	—	8,952	8,952	0.47	0.38	0.81	9,078
Single Family Housing	2.88	2.64	2.02	18.1	0.04	0.04	3.95	3.98	0.03	1.00	1.03	—	4,424	4,424	0.23	0.19	0.40	4,487
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	8.69	7.98	6.12	54.6	0.13	0.11	11.9	12.0	0.10	3.03	3.13	—	13,376	13,376	0.71	0.57	1.22	13,565
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.94	0.86	0.66	5.95	0.01	0.01	1.29	1.30	0.01	0.33	0.34	—	1,336	1,336	0.07	0.06	2.01	1,356
Single Family Housing	0.51	0.47	0.36	3.21	0.01	0.01	0.70	0.70	0.01	0.18	0.18	—	721	721	0.04	0.03	1.08	732
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.45	1.33	1.02	9.17	0.02	0.02	1.98	2.00	0.02	0.50	0.52	—	2,057	2,057	0.11	0.09	3.09	2,088

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	5.52	5.09	3.47	35.9	0.09	0.07	7.44	7.51	0.06	1.89	1.95	—	8,725	8,725	0.41	0.34	29.2	8,865

Single Family Housing	2.87	2.64	1.80	18.7	0.04	0.03	3.86	3.90	0.03	0.98	1.01	—	4,529	4,529	0.21	0.17	15.2	4,601
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	8.39	7.73	5.27	54.6	0.13	0.10	11.3	11.4	0.09	2.87	2.96	—	13,254	13,254	0.63	0.51	44.4	13,466
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	5.42	4.97	3.81	34.0	0.08	0.07	7.44	7.51	0.06	1.89	1.95	—	8,338	8,338	0.44	0.36	0.76	8,456
Single Family Housing	2.81	2.58	1.98	17.7	0.04	0.03	3.86	3.90	0.03	0.98	1.01	—	4,328	4,328	0.23	0.18	0.39	4,389
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	8.23	7.56	5.79	51.7	0.12	0.10	11.3	11.4	0.09	2.87	2.96	—	12,666	12,666	0.67	0.54	1.15	12,845
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.87	0.80	0.61	5.55	0.01	0.01	1.20	1.21	0.01	0.30	0.31	—	1,244	1,244	0.06	0.05	1.87	1,263
Single Family Housing	0.50	0.45	0.35	3.14	0.01	0.01	0.68	0.69	0.01	0.17	0.18	—	705	705	0.04	0.03	1.06	716
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.37	1.26	0.96	8.69	0.02	0.02	1.88	1.90	0.02	0.48	0.49	—	1,949	1,949	0.10	0.08	2.93	1,979

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	868	868	0.05	0.01	—	871
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	664	664	0.04	< 0.005	—	666
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,532	1,532	0.09	0.01	—	1,537
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	868	868	0.05	0.01	—	871
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	664	664	0.04	< 0.005	—	666
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,532	1,532	0.09	0.01	—	1,537
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	144	144	0.01	< 0.005	—	144

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	110	110	0.01	< 0.005	—	110
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	254	254	0.01	< 0.005	—	255

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	439	439	0.02	< 0.005	—	440
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	335	335	0.02	< 0.005	—	336
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	773	773	0.04	0.01	—	776
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	432	432	0.02	< 0.005	—	433
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	332	332	0.02	< 0.005	—	333

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	764	764	0.04	0.01	—	766
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	72.1	72.1	< 0.005	< 0.005	—	72.3
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	55.2	55.2	< 0.005	< 0.005	—	55.3
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	127	127	0.01	< 0.005	—	128

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.06	0.03	0.53	0.22	< 0.005	0.04	—	0.04	0.04	—	0.04	—	670	670	0.06	< 0.005	—	671
Single Family Housing	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	612	612	0.05	< 0.005	—	614
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.12	0.06	1.01	0.43	0.01	0.08	—	0.08	0.08	—	0.08	—	1,282	1,282	0.11	< 0.005	—	1,285

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.06	0.03	0.53	0.22	< 0.005	0.04	—	0.04	0.04	—	0.04	—	670	670	0.06	< 0.005	—	671
Single Family Housing	0.06	0.03	0.48	0.21	< 0.005	0.04	—	0.04	0.04	—	0.04	—	612	612	0.05	< 0.005	—	614
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.12	0.06	1.01	0.43	0.01	0.08	—	0.08	0.08	—	0.08	—	1,282	1,282	0.11	< 0.005	—	1,285
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.01	0.01	0.10	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	111	111	0.01	< 0.005	—	111
Single Family Housing	0.01	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	101	101	0.01	< 0.005	—	102
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.18	0.08	< 0.005	0.01	—	0.01	0.01	—	0.01	—	212	212	0.02	< 0.005	—	213

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments Low Rise	0.06	0.03	0.48	0.20	< 0.005	0.04	—	0.04	0.04	—	0.04	—	609	609	0.05	< 0.005	—	611
Single Family Housing	0.05	0.03	0.44	0.19	< 0.005	0.04	—	0.04	0.04	—	0.04	—	554	554	0.05	< 0.005	—	556
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.11	0.05	0.92	0.39	0.01	0.07	—	0.07	0.07	—	0.07	—	1,164	1,164	0.10	< 0.005	—	1,167
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.06	0.03	0.48	0.20	< 0.005	0.04	—	0.04	0.04	—	0.04	—	609	609	0.05	< 0.005	—	611
Single Family Housing	0.05	0.03	0.44	0.19	< 0.005	0.04	—	0.04	0.04	—	0.04	—	554	554	0.05	< 0.005	—	556
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.11	0.05	0.92	0.39	0.01	0.07	—	0.07	0.07	—	0.07	—	1,164	1,164	0.10	< 0.005	—	1,167
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	0.01	0.01	0.09	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	101	101	0.01	< 0.005	—	101
Single Family Housing	0.01	< 0.005	0.08	0.03	< 0.005	0.01	—	0.01	0.01	—	0.01	—	91.8	91.8	0.01	< 0.005	—	92.1
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.02	0.01	0.17	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	193	193	0.02	< 0.005	—	193

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	6.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	1.17	1.11	0.12	12.5	< 0.005	< 0.005	—	< 0.005	0.01	—	0.01	—	33.5	33.5	< 0.005	< 0.005	—	33.6
Total	1.17	7.94	0.12	12.5	< 0.005	< 0.005	—	< 0.005	0.01	—	0.01	0.00	33.5	33.5	< 0.005	< 0.005	—	33.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	6.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	6.83	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00

Consum Products	—	1.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.11	0.10	0.01	1.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	2.74	2.74	< 0.005	< 0.005	—	2.75
Total	0.11	1.35	0.01	1.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	2.74	2.74	< 0.005	< 0.005	—	2.75

4.3.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	6.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	6.83	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	6.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	—	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	6.83	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00
Consumer Products	—	1.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.00	1.25	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	10.4	79.5	89.9	1.07	0.03	—	124
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	4.51	45.9	50.4	0.47	0.01	—	65.4
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	14.9	125	140	1.53	0.04	—	190

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	10.4	79.5	89.9	1.07	0.03	—	124
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	4.51	45.9	50.4	0.47	0.01	—	65.4
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	14.9	125	140	1.53	0.04	—	190
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1.72	13.2	14.9	0.18	< 0.005	—	20.6
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.75	7.60	8.35	0.08	< 0.005	—	10.8
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.46	20.8	23.2	0.25	0.01	—	31.4

4.4.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	10.4	59.6	70.0	1.07	0.03	—	104
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	4.51	26.1	30.6	0.46	0.01	—	45.5
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	14.9	85.7	101	1.53	0.04	—	150
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	10.4	59.6	70.0	1.07	0.03	—	104
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	4.51	26.1	30.6	0.46	0.01	—	45.5
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	14.9	85.7	101	1.53	0.04	—	150
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	1.72	9.87	11.6	0.18	< 0.005	—	17.3
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	0.75	4.31	5.06	0.08	< 0.005	—	7.53
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	2.46	14.2	16.7	0.25	0.01	—	24.8

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	61.4	0.00	61.4	6.14	0.00	—	215
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	23.9	0.00	23.9	2.39	0.00	—	83.6
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	85.3	0.00	85.3	8.53	0.00	—	298
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	61.4	0.00	61.4	6.14	0.00	—	215
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	23.9	0.00	23.9	2.39	0.00	—	83.6
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	85.3	0.00	85.3	8.53	0.00	—	298
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	—	—	—	—	—	—	—	—	—	—	—	10.2	0.00	10.2	1.02	0.00	—	35.6
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	3.96	0.00	3.96	0.40	0.00	—	13.8
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	14.1	0.00	14.1	1.41	0.00	—	49.4

4.5.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	61.4	0.00	61.4	6.14	0.00	—	215
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	23.9	0.00	23.9	2.39	0.00	—	83.6
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	85.3	0.00	85.3	8.53	0.00	—	298
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	61.4	0.00	61.4	6.14	0.00	—	215

Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	23.9	0.00	23.9	2.39	0.00	—	83.6
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	85.3	0.00	85.3	8.53	0.00	—	298
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	10.2	0.00	10.2	1.02	0.00	—	35.6
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	3.96	0.00	3.96	0.40	0.00	—	13.8
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	14.1	0.00	14.1	1.41	0.00	—	49.4

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.17	1.17
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.94	0.94

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.10	2.10
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.17	1.17
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.94	0.94
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.10	2.10
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.19	0.19
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.15	0.15
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.17	1.17
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.94	0.94
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.10	2.10

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.17	1.17
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.94	0.94
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.10	2.10
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Low Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.19	0.19
Single Family Housing	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.15	0.15
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.35	0.35

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetatio	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/1/2024	1/31/2024	5.00	23.0	—
Grading	Grading	2/1/2024	4/30/2024	5.00	64.0	—
Building Construction	Building Construction	5/1/2024	9/30/2025	5.00	370	—
Paving	Paving	9/1/2025	10/31/2025	5.00	45.0	—
Architectural Coating	Architectural Coating	11/1/2025	12/31/2025	5.00	43.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40

Site Preparation	Tractors/Loaders/Backh	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.63	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	—	7.63	HHDT,MHDT
Grading	Hauling	44.1	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	135	12.0	LDA,LDT1,LDT2
Building Construction	Vendor	23.6	7.63	HHDT,MHDT

Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	—	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	27.0	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.63	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	—	7.63	HHDT,MHDT
Grading	Hauling	44.1	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	135	12.0	LDA,LDT1,LDT2

Building Construction	Vendor	23.6	7.63	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	—	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	27.0	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	595,127	198,376	0.00	0.00	13,068

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)

Site Preparation	0.00	0.00	34.5	0.00	—
Grading	22,600	0.00	192	0.00	—
Paving	0.00	0.00	0.00	0.00	5.74

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Low Rise	—	0%
Single Family Housing	0.74	0%
Other Asphalt Surfaces	5.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO_2	CH_4	N_2O
2024	0.00	589	0.03	< 0.005
2025	0.00	589	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Low Rise	1,232	1,371	1,056	447,753	10,168	11,312	8,719	3,695,355

Single Family Housing	670	677	607	241,650	5,530	5,590	5,010	1,994,368
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Apartments Low Rise	1,148	1,277	984	417,071	9,471	10,537	8,121	3,442,136
Single Family Housing	655	663	594	236,392	5,409	5,469	4,901	1,950,974
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	154
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0

Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	67
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.1.2. Mitigated

Hearth Type	Unmitigated (number)
Apartments Low Rise	—
Wood Fireplaces	0
Gas Fireplaces	0
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	154
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0
Single Family Housing	—
Wood Fireplaces	0
Gas Fireplaces	0

Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	67
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
595127.25	198,376	0.00	0.00	13,068

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Low Rise	537,959	589	0.0330	0.0040	2,089,073
Single Family Housing	411,466	589	0.0330	0.0040	1,910,635
Other Asphalt Surfaces	0.00	589	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Low Rise	267,674	589	0.0330	0.0040	1,900,279
Single Family Housing	205,547	589	0.0330	0.0040	1,730,182
Other Asphalt Surfaces	0.00	589	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Low Rise	5,410,494	2,343,022
Single Family Housing	2,353,916	2,343,022
Other Asphalt Surfaces	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Low Rise	5,410,494	23,430
Single Family Housing	2,353,916	23,430
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Low Rise	114	—
Single Family Housing	44.3	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Low Rise	114	—
Single Family Housing	44.3	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Low Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Low Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
Single Family Housing	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Single Family Housing	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	7.94	annual days of extreme heat
Extreme Precipitation	2.15	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	1.25	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A

Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	35.3
AQ-PM	91.2
AQ-DPM	40.2
Drinking Water	23.5
Lead Risk Housing	23.3
Pesticides	0.00
Toxic Releases	83.2
Traffic	35.6
Effect Indicators	—
CleanUp Sites	58.2
Groundwater	78.9
Haz Waste Facilities/Generators	87.7
Impaired Water Bodies	23.9
Solid Waste	98.0
Sensitive Population	—
Asthma	44.2
Cardio-vascular	32.2
Low Birth Weights	63.3
Socioeconomic Factor Indicators	—
Education	63.4
Housing	28.7
Linguistic	59.0
Poverty	28.4

Unemployment	43.1

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	75.43949698
Employed	5.838573078
Median HI	79.10945721
Education	—
Bachelor's or higher	36.87925061
High school enrollment	100
Preschool enrollment	28.78224047
Transportation	—
Auto Access	98.98626973
Active commuting	31.93891954
Social	—
2-parent households	63.27473374
Voting	50.45553702
Neighborhood	—
Alcohol availability	88.24586167
Park access	62.71012447
Retail density	19.73566021
Supermarket access	30.0012832
Tree canopy	7.609393045
Housing	—
Homeownership	50.03208007

Housing habitability	62.77428461
Low-inc homeowner severe housing cost burden	69.56242782
Low-inc renter severe housing cost burden	76.63287566
Uncrowded housing	34.15886052
Health Outcomes	—
Insured adults	38.36776594
Arthritis	94.2
Asthma ER Admissions	45.5
High Blood Pressure	96.6
Cancer (excluding skin)	93.3
Asthma	72.9
Coronary Heart Disease	94.7
Chronic Obstructive Pulmonary Disease	89.8
Diagnosed Diabetes	67.4
Life Expectancy at Birth	58.2
Cognitively Disabled	92.5
Physically Disabled	92.6
Heart Attack ER Admissions	59.6
Mental Health Not Good	49.5
Chronic Kidney Disease	85.5
Obesity	60.5
Pedestrian Injuries	45.3
Physical Health Not Good	66.1
Stroke	91.3
Health Risk Behaviors	—
Binge Drinking	17.1
Current Smoker	52.6

No Leisure Time for Physical Activity	45.0
Climate Change Exposures	—
Wildfire Risk	73.6
SLR Inundation Area	0.0
Children	33.8
Elderly	92.4
English Speaking	61.8
Foreign-born	71.1
Outdoor Workers	75.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	63.1
Traffic Density	67.4
Traffic Access	55.4
Other Indices	—
Hardship	46.0
Other Decision Support	—
2016 Voting	51.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	57.0
Healthy Places Index Score for Project Location (b)	50.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	221 Units, 23.8 acres Landscape - 260,783 sf (22,482 sf Rec Areas)
Construction: Construction Phases	Construction schedule provided by applicant
Operations: Vehicle Data	Detached - 10 weekday trips/unit Multi-family - 8 weekday trips/unit Weekend trips adjusted proportionately based on weekday trip rates and CalEEMod defaults
Operations: Hearths	No fireplaces or wood stoves

ATTACHMENT 2

Health Risk Analysis Calculations

Nakano

Operational Roadway Health Risk Assessment - Roadway Emission Inventory

Vehicle Class	Fuel Type	Buildout Year Vehicle Volume (2024)[2]	Distance (meter)[3]	Distance (miles)	Daily VMT	PM10					Adjusted Indoor Emissions Exposure[4]	
						EF (g/mile)	Emission (g/day)	Emission (lb/hr)	Emission (lb/yr)	Emission (ton/yr)	Emission (lb/hr)	Emission (lb/yr)
SLINE1: I-805, Northbound												
All Trucks	DSL	4,656	1,224	0.76	3,542	0.0313	110.99	0.0102	89.31	0.0446551		
Non-Trucks	DSL	668	1,224	0.76	508	0.0218	11.09	0.0010	8.92	0.0044618		
All Diesel Trucks							122.08	0.0112	98.23	0.0491169	0.0034	29.86
SLINE2: I-805, Southbound												
All Trucks	DSL	5,055	1,217	0.76	3,824	0.0313	119.83	0.0110	96.43	0.0482127		
Non-Trucks	DSL	687	1,217	0.76	520	0.0218	11.34	0.0010	9.12	0.0045625		
All Diesel Trucks							131.17	0.0120	105.55	0.0527752	0.0037	32.09

1. Estimated based on the EMFAC2017 emission rates and vehicle fleet breakdown, and Caltrans average daily vehicle and truck traffic provided by PeMs (Caltrans 2019).
2. Estimated based on Caltrans annual growth projection between 2014 and 2019 using PeMs (Caltrans 2019). When annual growth was a negative number, no growth (0%) was conservatively assumed instead.
3. Based on the modeled link length used in the AERMOD model.
4. Adjusted indoor exposure assumes the following:

% Reduction Assumed

87%	% Time Indoors
80%	% MERV13 PM10 Reduction
69.60%	Total Reduction

Percent by Emissions	Vehicle Category	Plume Height by Type	Weighted Plume Height	Weighted Release Height
91%	Truck	6.8	**6.42**	**3.21**
9%	Non-trucks	2.6		
91%	Truck	6.8	**6.44**	**3.22**
9%	Non-trucks	2.6		

*Estimate the Top of Plume Height using an emissions-weighted average. For example, if light-duty and heavy-duty vehicles contribute 40 percent and 60 percent of the emissions of a given volume source, respectively, the Top of Plume Height would be calculated as: (0.4 * 2.6) + (0.6 * 6.8) = 5.1 meters.*

Year 2019 and 2024 Daily Traffic Volumes on I-805					
Segment of I-805, between Main Street and Palm Avenue	Year 2019 ADT	Year 2019 Truck ADT	Year 2019 Truck %	Year 2024[3] Truck	Year 2024[3] ADT
Total[1]	199,000	13,930	7.0%	14,627	208,950
Northbound[2]	97,915	6,678	6.8%	7,012	102,811
Southbound[2]	101,085	7,252	7.2%	7,614	106,139

[1] Total average daily traffic (ADT) from Caltrans Traffic Census Program accessed at https://dot.ca.gov/programs/traffic-operations/census

[2] Directional split for daily traffic estimated by agggregating data available at Caltrans PeMS 20.0.1 for corresponding locations; ADT and Truck % based on aggregate data from January 2019 to January 2020.

[3] Year 2024 ADT was estimated by applying a growth rate of 1.0% per year for a period of 5 years. The growth rate was calculated using year 2017 and 2018 Caltrans daily volumes for the I-805 freeway segment between Main Street and Palm Avenue.

Growth estimated from Caltrans Census 1.0% per year

Direction Split estimated using PeMS Data	
ADT	Truck
49.2%	47.94%
50.8%	52.06%

Diesel NonTru	Diesel Truck
668	4,656
687	5,055

Year 2019 Annual Average Truck Traffic - accessed at https://dot.ca.gov/programs/traffic-operations/census

LEG	DESCRIPTION	VEHICLE_AADT_TOTA	TRUCK_AADT_TOTAL	TRK_PERCENT_TOT	TRK_2_AXLE	TRK_3_AXLE	TRK_4_AXLE	TRK_5_AXLE	TRK_2_AXLE_PCT	TRK_3_AXLE_PCT	TRK_4_AXLE_PCT	TRK_5_AXLE_PCT
I-805 between Main Street and Palm Avenue		199,000	13,930	7	7,303	1,217	405	5,004	52	9	3	36

Nakano

Operational Roadway Health Risk Assessment - Emission Factors and Diesel Adjustments

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County
Region: San Diego
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, g/mile for RUNEX, PMBW and PMTW, g/trip for STREX, HOTSOAK and RUNLOSS, g/vehicle/day for IDLEX and DIURN

Heavy-Duty Diesel Truck Weighted Emission Factor

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Trips	PM10_RUNEX
San Diego	2024	HHDT	Aggregate	Aggregate	Diesel	14,732	1,859,685	220,551	0.0278
San Diego	2024	LHDT1	Aggregate	Aggregate	Diesel	30,083	1,194,853	378,412	0.0450
San Diego	2024	LHDT2	Aggregate	Aggregate	Diesel	11,684	483,249	146,971	0.0383
San Diego	2024	MHDT	Aggregate	Aggregate	Diesel	17,479	748,443	202,508	0.0138
									0.0313

Non-Truck Diesel Vehicles Weighted Emission Factor

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Trips	PM10_RUNEX
San Diego	2024	LDA	Aggregate	Aggregate	Diesel	5,631	172,213	23,871	0.016385173
San Diego	2024	LDT1	Aggregate	Aggregate	Diesel	61	888	174	0.282515534
San Diego	2024	LDT2	Aggregate	Aggregate	Diesel	2,079	87,678	9,900	0.005589806
San Diego	2024	MDV	Aggregate	Aggregate	Diesel	5,837	235,562	27,174	0.007898905
San Diego	2024	MH	Aggregate	Aggregate	Diesel	4,095	39,602	409	0.118987731
San Diego	2024	OBUS	Aggregate	Aggregate	Diesel	595	47,363	7,618	0.045592772
San Diego	2024	SBUS	Aggregate	Aggregate	Diesel	2,131	45,339	30,853	0.031385849
San Diego	2024	UBUS	Aggregate	Aggregate	Diesel	0	0	0	0
									0.0218

Heavy-Duty Truck Diesel v Non-Diesel Percent

Region	Calendar Year	Vehicle Category	Model Year	Speed	Fuel	Population	VMT	Trips	PM10_RUNEX	
San Diego	2024	HHDT	Aggregate	Aggregate	Gasoline	8	492	164	0	0.03%
San Diego	2024	HHDT	Aggregate	Aggregate	Diesel	14,732	1,859,685	220,551	0.0278	96.37%
San Diego	2024	HHDT	Aggregate	Aggregate	Natural Ga	1,074	69,525	6,691	0	3.60%
							1,929,702			*100.00%*
San Diego	2024	LHDT1	Aggregate	Aggregate	Gasoline	42,014	1,671,762	625,940	0	46.68%
San Diego	2024	LHDT1	Aggregate	Aggregate	Diesel	30,083	1,194,853	378,412	0.0450	33.36%
San Diego	2024	LHDT2	Aggregate	Aggregate	Gasoline	5,983	231,444	89,138	0	6.46%
San Diego	2024	LHDT2	Aggregate	Aggregate	Diesel	11,684	483,249	146,971	0.0383	13.49%
							3,581,308			*100.00%*

San Diego	2024	MHDT	Aggregate	Aggregate	Gasoline	3,473	196,459	69,488	0	20.79%
San Diego	2024	MHDT	Aggregate	Aggregate	Diesel	17,479	748,443	202,508	0.0138	79.21%
							944,902			*100.00%*

	Non-Diesel	Diesel
6,455,913	2,169,683	4,286,230
	33.61%	**66.39%**

Non-Truck Diesel v Non-Diesel Percent

Region	Calendar Y	Vehicle Cat	Model Year	Speed	Fuel	Population	VMT	Trips	PM10_RUNEX
San Diego	2024	LDA	Aggregate	Aggregate	Gasoline	1,175,418	46,842,847	5,461,506	0.001667136
San Diego	2024	LDA	Aggregate	Aggregate	Diesel	5,631	172,213	23,871	0.016385173
San Diego	2024	LDA	Aggregate	Aggregate	Plug-in Hyb	32,449	1,552,287	134,177	0.00085389
San Diego	2024	LDT1	Aggregate	Aggregate	Gasoline	129,009	4,429,823	561,039	0.00267929
San Diego	2024	LDT1	Aggregate	Aggregate	Diesel	61	888	174	0.282515534
San Diego	2024	LDT1	Aggregate	Aggregate	Plug-in Hyb	134	6,961	553	0.000521498
San Diego	2024	LDT2	Aggregate	Aggregate	Gasoline	556,633	22,430,753	2,594,887	0.001717038
San Diego	2024	LDT2	Aggregate	Aggregate	Diesel	2,079	87,678	9,900	0.005589806
San Diego	2024	LDT2	Aggregate	Aggregate	Plug-in Hyb	3,943	197,505	16,305	0.000653888
San Diego	2024	MCY	Aggregate	Aggregate	Gasoline	70,200	430,236	140,399	0.00237051
San Diego	2024	MDV	Aggregate	Aggregate	Gasoline	333,953	13,160,207	1,535,373	0.001717569
San Diego	2024	MDV	Aggregate	Aggregate	Diesel	5,837	235,562	27,174	0.007898905
San Diego	2024	MDV	Aggregate	Aggregate	Electricity	3,229	123,365	16,518	0
San Diego	2024	MDV	Aggregate	Aggregate	Plug-in Hyb	2,430	122,488	10,050	0.000796804
San Diego	2024	MH	Aggregate	Aggregate	Gasoline	10,136	93,222	1,014	0.001774987
San Diego	2024	MH	Aggregate	Aggregate	Diesel	4,095	39,602	409	0.118987731
San Diego	2024	OBUS	Aggregate	Aggregate	Diesel	595	47,363	7,618	0.045592772
San Diego	2024	SBUS	Aggregate	Aggregate	Gasoline	273	15,743	1,092	0.001589425
San Diego	2024	SBUS	Aggregate	Aggregate	Diesel	2,131	45,339	30,853	0.031385849
San Diego	2024	UBUS	Aggregate	Aggregate	Gasoline	135	13,565	541	0.000921764
San Diego	2024	UBUS	Aggregate	Aggregate	Electricity	25	3,155	102	0
San Diego	2024	UBUS	Aggregate	Aggregate	Natural Ga	894	109,904	3,578	0.000230843

Diesel	**628,645**	**0.70%**
Total VMT	**90,160,707**	

HARP2 - HRACalc (dated 19044) 8/31/2021 1:53:36 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: Cancer
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER

Start Age: -0.25
Total Exposure Duration: 30

Exposure Duration Bin Distribution
3rd Trimester Bin: 0.25
0<2 Years Bin: 2
2<9 Years Bin: 0
2<16 Years Bin: 14
16<30 Years Bin: 14
16 to 70 Years Bin: 0

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: RMP

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
3rd Trimester to 16 years: OFF
16 years to 70 years: ON

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

****
TIER 2 SETTINGS
Tier2 not used.

****

Calculating cancer risk
Cancer risk breakdown by pollutant and receptor saved to:
C:\Users\swang\Desktop\NAKANOROADWAY\hra\30yCancerCancerRisk.csv
Cancer risk total by receptor saved to:
C:\Users\swang\Desktop\NAKANOROADWAY\hra\30yCancerCancerRiskSumByRec.csv
HRA ran successfully

*HARP - HRACalc v19044 8/31/2021 1:53:36 PM - Cancer Risk - Input File: C:\Users\swang\Desktop\NAKANOROADWAY\hra\30yCancerHRAInput.hra

REC	GRP	NETID	X	Y	RISK_SUM	SCENARIO	INH_RISK	SOIL_RISK	DERMAL_R	MMILK_RIS	WATER_RIS	FISH_RISK	CROP_RISK	BEEF_RISK	DAIRY_RISK	PIG_RISK	CHICKEN_R	EGG_RISK
1	ALL		496667.1	3605624	2.56E-05	30YrCancer	2.56E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2	ALL		496677.1	3605624	2.33E-05	30YrCancer	2.33E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3	ALL		496687.1	3605624	2.14E-05	30YrCancer	2.14E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4	ALL		496697.1	3605624	1.97E-05	30YrCancer	1.97E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5	ALL		496707.1	3605624	1.82E-05	30YrCancer	1.82E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
6	ALL		496717.1	3605624	1.69E-05	30YrCancer	1.69E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7	ALL		496727.1	3605624	1.58E-05	30YrCancer	1.58E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8	ALL		496737.1	3605624	1.48E-05	30YrCancer	1.48E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9	ALL		496747.1	3605624	1.39E-05	30YrCancer	1.39E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10	ALL		496757.1	3605624	1.31E-05	30YrCancer	1.31E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11	ALL		496767.1	3605624	1.24E-05	30YrCancer	1.24E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12	ALL		496777.1	3605624	1.18E-05	30YrCancer	1.18E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
13	ALL		496787.1	3605624	1.12E-05	30YrCancer	1.12E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
14	ALL		496797.1	3605624	1.07E-05	30YrCancer	1.07E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
15	ALL		496807.1	3605624	1.02E-05	30YrCancer	1.02E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
16	ALL		496817.1	3605624	9.74E-06	30YrCancer	9.74E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
17	ALL		496667.1	3605634	2.49E-05	30YrCancer	2.49E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
18	ALL		496677.1	3605634	2.26E-05	30YrCancer	2.26E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
19	ALL		496687.1	3605634	2.08E-05	30YrCancer	2.08E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
20	ALL		496697.1	3605634	1.92E-05	30YrCancer	1.92E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
21	ALL		496707.1	3605634	1.78E-05	30YrCancer	1.78E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
22	ALL		496717.1	3605634	1.66E-05	30YrCancer	1.66E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
23	ALL		496727.1	3605634	1.55E-05	30YrCancer	1.55E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
24	ALL		496737.1	3605634	1.46E-05	30YrCancer	1.46E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
25	ALL		496747.1	3605634	1.38E-05	30YrCancer	1.38E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
26	ALL		496757.1	3605634	1.30E-05	30YrCancer	1.30E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
27	ALL		496767.1	3605634	1.23E-05	30YrCancer	1.23E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
28	ALL		496777.1	3605634	1.17E-05	30YrCancer	1.17E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
29	ALL		496787.1	3605634	1.11E-05	30YrCancer	1.11E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
30	ALL		496797.1	3605634	1.06E-05	30YrCancer	1.06E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
31	ALL		496807.1	3605634	1.02E-05	30YrCancer	1.02E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
32	ALL		496817.1	3605634	9.72E-06	30YrCancer	9.72E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
33	ALL		496827.1	3605634	9.31E-06	30YrCancer	9.31E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
34	ALL		496837.1	3605634	8.93E-06	30YrCancer	8.93E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
35	ALL		496847.1	3605634	8.58E-06	30YrCancer	8.58E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
36	ALL		496857.1	3605634	8.25E-06	30YrCancer	8.25E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
37	ALL		496867.1	3605634	7.94E-06	30YrCancer	7.94E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
38	ALL		496877.1	3605634	7.64E-06	30YrCancer	7.64E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
39	ALL		496667.1	3605644	2.48E-05	30YrCancer	2.48E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
40	ALL		496677.1	3605644	2.25E-05	30YrCancer	2.25E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
41	ALL		496687.1	3605644	2.07E-05	30YrCancer	2.07E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
42	ALL		496697.1	3605644	1.91E-05	30YrCancer	1.91E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
43	ALL		496707.1	3605644	1.77E-05	30YrCancer	1.77E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
44	ALL		496717.1	3605644	1.65E-05	30YrCancer	1.65E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
45	ALL		496727.1	3605644	1.55E-05	30YrCancer	1.55E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
46	ALL		496737.1	3605644	1.46E-05	30YrCancer	1.46E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
47	ALL		496747.1	3605644	1.38E-05	30YrCancer	1.38E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

48	ALL	496757.1	3605644	1.30E-05	30YrCancer	1.30E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
49	ALL	496767.1	3605644	1.23E-05	30YrCancer	1.23E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
50	ALL	496777.1	3605644	1.17E-05	30YrCancer	1.17E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
51	ALL	496787.1	3605644	1.11E-05	30YrCancer	1.11E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
52	ALL	496797.1	3605644	1.06E-05	30YrCancer	1.06E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
53	ALL	496807.1	3605644	1.02E-05	30YrCancer	1.02E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
54	ALL	496817.1	3605644	9.72E-06	30YrCancer	9.72E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
55	ALL	496827.1	3605644	9.32E-06	30YrCancer	9.32E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
56	ALL	496837.1	3605644	8.95E-06	30YrCancer	8.95E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
57	ALL	496847.1	3605644	8.60E-06	30YrCancer	8.60E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
58	ALL	496857.1	3605644	8.27E-06	30YrCancer	8.27E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
59	ALL	496867.1	3605644	7.96E-06	30YrCancer	7.96E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
60	ALL	496877.1	3605644	7.67E-06	30YrCancer	7.67E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
61	ALL	496887.1	3605644	7.39E-06	30YrCancer	7.39E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
62	ALL	496897.1	3605644	7.13E-06	30YrCancer	7.13E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
63	ALL	496907.1	3605644	6.88E-06	30YrCancer	6.88E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
64	ALL	496917.1	3605644	6.65E-06	30YrCancer	6.65E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
65	ALL	496927.1	3605644	6.43E-06	30YrCancer	6.43E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
66	ALL	496667.1	3605654	2.49E-05	30YrCancer	2.49E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
67	ALL	496677.1	3605654	2.26E-05	30YrCancer	2.26E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
68	ALL	496687.1	3605654	2.07E-05	30YrCancer	2.07E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
69	ALL	496697.1	3605654	1.91E-05	30YrCancer	1.91E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
70	ALL	496707.1	3605654	1.78E-05	30YrCancer	1.78E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
71	ALL	496717.1	3605654	1.66E-05	30YrCancer	1.66E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
72	ALL	496727.1	3605654	1.55E-05	30YrCancer	1.55E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
73	ALL	496737.1	3605654	1.46E-05	30YrCancer	1.46E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
74	ALL	496747.1	3605654	1.38E-05	30YrCancer	1.38E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
75	ALL	496757.1	3605654	1.30E-05	30YrCancer	1.30E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
76	ALL	496767.1	3605654	1.23E-05	30YrCancer	1.23E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
77	ALL	496777.1	3605654	1.17E-05	30YrCancer	1.17E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
78	ALL	496787.1	3605654	1.12E-05	30YrCancer	1.12E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
79	ALL	496797.1	3605654	1.07E-05	30YrCancer	1.07E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
80	ALL	496807.1	3605654	1.02E-05	30YrCancer	1.02E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
81	ALL	496817.1	3605654	9.75E-06	30YrCancer	9.75E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
82	ALL	496827.1	3605654	9.34E-06	30YrCancer	9.34E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
83	ALL	496837.1	3605654	8.97E-06	30YrCancer	8.97E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
84	ALL	496847.1	3605654	8.62E-06	30YrCancer	8.62E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
85	ALL	496857.1	3605654	8.29E-06	30YrCancer	8.29E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
86	ALL	496867.1	3605654	7.98E-06	30YrCancer	7.98E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
87	ALL	496877.1	3605654	7.69E-06	30YrCancer	7.69E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
88	ALL	496887.1	3605654	7.41E-06	30YrCancer	7.41E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
89	ALL	496897.1	3605654	7.15E-06	30YrCancer	7.15E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
90	ALL	496907.1	3605654	6.90E-06	30YrCancer	6.90E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
91	ALL	496917.1	3605654	6.67E-06	30YrCancer	6.67E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
92	ALL	496927.1	3605654	6.45E-06	30YrCancer	6.45E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
93	ALL	496937.1	3605654	6.24E-06	30YrCancer	6.24E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
94	ALL	496947.1	3605654	6.04E-06	30YrCancer	6.04E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
95	ALL	496667.1	3605664	2.49E-05	30YrCancer	2.49E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
96	ALL	496677.1	3605664	2.27E-05	30YrCancer	2.27E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

97	ALL	496687.1	3605664	2.08E-05	30YrCancer	2.08E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
98	ALL	496697.1	3605664	1.92E-05	30YrCancer	1.92E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
99	ALL	496707.1	3605664	1.78E-05	30YrCancer	1.78E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
100	ALL	496717.1	3605664	1.66E-05	30YrCancer	1.66E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
101	ALL	496727.1	3605664	1.55E-05	30YrCancer	1.55E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
102	ALL	496737.1	3605664	1.46E-05	30YrCancer	1.46E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
103	ALL	496747.1	3605664	1.38E-05	30YrCancer	1.38E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
104	ALL	496757.1	3605664	1.30E-05	30YrCancer	1.30E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
105	ALL	496767.1	3605664	1.24E-05	30YrCancer	1.24E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
106	ALL	496777.1	3605664	1.17E-05	30YrCancer	1.17E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
107	ALL	496787.1	3605664	1.12E-05	30YrCancer	1.12E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
108	ALL	496797.1	3605664	1.07E-05	30YrCancer	1.07E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
109	ALL	496807.1	3605664	1.02E-05	30YrCancer	1.02E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
110	ALL	496817.1	3605664	9.77E-06	30YrCancer	9.77E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
111	ALL	496827.1	3605664	9.36E-06	30YrCancer	9.36E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
112	ALL	496837.1	3605664	8.98E-06	30YrCancer	8.98E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
113	ALL	496847.1	3605664	8.63E-06	30YrCancer	8.63E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
114	ALL	496857.1	3605664	8.30E-06	30YrCancer	8.30E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
115	ALL	496867.1	3605664	8.00E-06	30YrCancer	8.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
116	ALL	496877.1	3605664	7.70E-06	30YrCancer	7.70E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
117	ALL	496887.1	3605664	7.43E-06	30YrCancer	7.43E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
118	ALL	496897.1	3605664	7.16E-06	30YrCancer	7.16E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
119	ALL	496907.1	3605664	6.92E-06	30YrCancer	6.92E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
120	ALL	496917.1	3605664	6.68E-06	30YrCancer	6.68E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
121	ALL	496927.1	3605664	6.46E-06	30YrCancer	6.46E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
122	ALL	496937.1	3605664	6.25E-06	30YrCancer	6.25E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
123	ALL	496947.1	3605664	6.05E-06	30YrCancer	6.05E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
124	ALL	496667.1	3605674	2.50E-05	30YrCancer	2.50E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
125	ALL	496677.1	3605674	2.27E-05	30YrCancer	2.27E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
126	ALL	496687.1	3605674	2.08E-05	30YrCancer	2.08E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
127	ALL	496697.1	3605674	1.92E-05	30YrCancer	1.92E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
128	ALL	496707.1	3605674	1.78E-05	30YrCancer	1.78E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
129	ALL	496717.1	3605674	1.66E-05	30YrCancer	1.66E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
130	ALL	496727.1	3605674	1.55E-05	30YrCancer	1.55E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
131	ALL	496737.1	3605674	1.46E-05	30YrCancer	1.46E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
132	ALL	496747.1	3605674	1.38E-05	30YrCancer	1.38E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
133	ALL	496757.1	3605674	1.30E-05	30YrCancer	1.30E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
134	ALL	496767.1	3605674	1.24E-05	30YrCancer	1.24E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
135	ALL	496777.1	3605674	1.18E-05	30YrCancer	1.18E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
136	ALL	496787.1	3605674	1.12E-05	30YrCancer	1.12E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
137	ALL	496797.1	3605674	1.07E-05	30YrCancer	1.07E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
138	ALL	496807.1	3605674	1.02E-05	30YrCancer	1.02E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
139	ALL	496817.1	3605674	9.79E-06	30YrCancer	9.79E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
140	ALL	496827.1	3605674	9.38E-06	30YrCancer	9.38E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
141	ALL	496837.1	3605674	9.01E-06	30YrCancer	9.01E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
142	ALL	496847.1	3605674	8.65E-06	30YrCancer	8.65E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
143	ALL	496857.1	3605674	8.32E-06	30YrCancer	8.32E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
144	ALL	496867.1	3605674	8.01E-06	30YrCancer	8.01E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
145	ALL	496877.1	3605674	7.72E-06	30YrCancer	7.72E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

146	ALL	496887.1	3605674	7.44E-06	30YrCance	7.44E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
147	ALL	496897.1	3605674	7.19E-06	30YrCance	7.19E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
148	ALL	496907.1	3605674	6.93E-06	30YrCance	6.93E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
149	ALL	496917.1	3605674	6.70E-06	30YrCance	6.70E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
150	ALL	496927.1	3605674	6.48E-06	30YrCance	6.48E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
151	ALL	496937.1	3605674	6.27E-06	30YrCance	6.27E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
152	ALL	496947.1	3605674	6.07E-06	30YrCance	6.07E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
153	ALL	496667.1	3605684	2.51E-05	30YrCance	2.51E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
154	ALL	496677.1	3605684	2.28E-05	30YrCance	2.28E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
155	ALL	496687.1	3605684	2.09E-05	30YrCance	2.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
156	ALL	496697.1	3605684	1.93E-05	30YrCance	1.93E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
157	ALL	496707.1	3605684	1.79E-05	30YrCance	1.79E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
158	ALL	496717.1	3605684	1.66E-05	30YrCance	1.66E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
159	ALL	496727.1	3605684	1.56E-05	30YrCance	1.56E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
160	ALL	496737.1	3605684	1.46E-05	30YrCance	1.46E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
161	ALL	496747.1	3605684	1.38E-05	30YrCance	1.38E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
162	ALL	496757.1	3605684	1.31E-05	30YrCance	1.31E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
163	ALL	496767.1	3605684	1.24E-05	30YrCance	1.24E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
164	ALL	496777.1	3605684	1.18E-05	30YrCance	1.18E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
165	ALL	496787.1	3605684	1.12E-05	30YrCance	1.12E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
166	ALL	496797.1	3605684	1.07E-05	30YrCance	1.07E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
167	ALL	496807.1	3605684	1.02E-05	30YrCance	1.02E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
168	ALL	496817.1	3605684	9.81E-06	30YrCance	9.81E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
169	ALL	496827.1	3605684	9.40E-06	30YrCance	9.40E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
170	ALL	496837.1	3605684	9.03E-06	30YrCance	9.03E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
171	ALL	496847.1	3605684	8.67E-06	30YrCance	8.67E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
172	ALL	496857.1	3605684	8.34E-06	30YrCance	8.34E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
173	ALL	496867.1	3605684	8.03E-06	30YrCance	8.03E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
174	ALL	496877.1	3605684	7.73E-06	30YrCance	7.73E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
175	ALL	496887.1	3605684	7.46E-06	30YrCance	7.46E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
176	ALL	496897.1	3605684	7.20E-06	30YrCance	7.20E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
177	ALL	496907.1	3605684	6.95E-06	30YrCance	6.95E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
178	ALL	496917.1	3605684	6.72E-06	30YrCance	6.72E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
179	ALL	496927.1	3605684	6.50E-06	30YrCance	6.50E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
180	ALL	496937.1	3605684	6.29E-06	30YrCance	6.29E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
181	ALL	496947.1	3605684	6.09E-06	30YrCance	6.09E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
182	ALL	496677.1	3605694	2.28E-05	30YrCance	2.28E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
183	ALL	496687.1	3605694	2.09E-05	30YrCance	2.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
184	ALL	496697.1	3605694	1.93E-05	30YrCance	1.93E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
185	ALL	496707.1	3605694	1.79E-05	30YrCance	1.79E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
186	ALL	496717.1	3605694	1.67E-05	30YrCance	1.67E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
187	ALL	496727.1	3605694	1.56E-05	30YrCance	1.56E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
188	ALL	496737.1	3605694	1.47E-05	30YrCance	1.47E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
189	ALL	496747.1	3605694	1.38E-05	30YrCance	1.38E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
190	ALL	496757.1	3605694	1.31E-05	30YrCance	1.31E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
191	ALL	496767.1	3605694	1.24E-05	30YrCance	1.24E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
192	ALL	496777.1	3605694	1.18E-05	30YrCance	1.18E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
193	ALL	496787.1	3605694	1.12E-05	30YrCance	1.12E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
194	ALL	496797.1	3605694	1.07E-05	30YrCance	1.07E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

195	ALL	496807.1	3605694	1.03E-05	30YrCancer	1.03E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
196	ALL	496817.1	3605694	9.82E-06	30YrCancer	9.82E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
197	ALL	496827.1	3605694	9.42E-06	30YrCancer	9.42E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
198	ALL	496837.1	3605694	9.04E-06	30YrCancer	9.04E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
199	ALL	496847.1	3605694	8.69E-06	30YrCancer	8.69E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
200	ALL	496857.1	3605694	8.36E-06	30YrCancer	8.36E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
201	ALL	496867.1	3605694	8.04E-06	30YrCancer	8.04E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
202	ALL	496877.1	3605694	7.75E-06	30YrCancer	7.75E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
203	ALL	496887.1	3605694	7.47E-06	30YrCancer	7.47E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
204	ALL	496897.1	3605694	7.21E-06	30YrCancer	7.21E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
205	ALL	496907.1	3605694	6.97E-06	30YrCancer	6.97E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
206	ALL	496917.1	3605694	6.73E-06	30YrCancer	6.73E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
207	ALL	496927.1	3605694	6.51E-06	30YrCancer	6.51E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
208	ALL	496937.1	3605694	6.30E-06	30YrCancer	6.30E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
209	ALL	496947.1	3605694	6.10E-06	30YrCancer	6.10E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
210	ALL	496677.1	3605704	2.29E-05	30YrCancer	2.29E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
211	ALL	496687.1	3605704	2.09E-05	30YrCancer	2.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
212	ALL	496697.1	3605704	1.93E-05	30YrCancer	1.93E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
213	ALL	496707.1	3605704	1.79E-05	30YrCancer	1.79E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
214	ALL	496717.1	3605704	1.67E-05	30YrCancer	1.67E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
215	ALL	496727.1	3605704	1.56E-05	30YrCancer	1.56E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
216	ALL	496737.1	3605704	1.47E-05	30YrCancer	1.47E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
217	ALL	496747.1	3605704	1.39E-05	30YrCancer	1.39E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
218	ALL	496757.1	3605704	1.31E-05	30YrCancer	1.31E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
219	ALL	496767.1	3605704	1.24E-05	30YrCancer	1.24E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
220	ALL	496777.1	3605704	1.18E-05	30YrCancer	1.18E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
221	ALL	496787.1	3605704	1.13E-05	30YrCancer	1.13E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
222	ALL	496797.1	3605704	1.08E-05	30YrCancer	1.08E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
223	ALL	496807.1	3605704	1.03E-05	30YrCancer	1.03E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
224	ALL	496817.1	3605704	9.84E-06	30YrCancer	9.84E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
225	ALL	496827.1	3605704	9.43E-06	30YrCancer	9.43E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
226	ALL	496837.1	3605704	9.06E-06	30YrCancer	9.06E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
227	ALL	496847.1	3605704	8.70E-06	30YrCancer	8.70E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
228	ALL	496857.1	3605704	8.37E-06	30YrCancer	8.37E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
229	ALL	496867.1	3605704	8.06E-06	30YrCancer	8.06E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
230	ALL	496877.1	3605704	7.76E-06	30YrCancer	7.76E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
231	ALL	496887.1	3605704	7.48E-06	30YrCancer	7.48E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
232	ALL	496897.1	3605704	7.22E-06	30YrCancer	7.22E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
233	ALL	496907.1	3605704	6.98E-06	30YrCancer	6.98E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
234	ALL	496917.1	3605704	6.75E-06	30YrCancer	6.75E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
235	ALL	496927.1	3605704	6.52E-06	30YrCancer	6.52E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
236	ALL	496937.1	3605704	6.31E-06	30YrCancer	6.31E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
237	ALL	496947.1	3605704	6.11E-06	30YrCancer	6.11E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
238	ALL	496677.1	3605714	2.29E-05	30YrCancer	2.29E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
239	ALL	496687.1	3605714	2.10E-05	30YrCancer	2.10E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
240	ALL	496697.1	3605714	1.94E-05	30YrCancer	1.94E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
241	ALL	496707.1	3605714	1.80E-05	30YrCancer	1.80E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
242	ALL	496717.1	3605714	1.67E-05	30YrCancer	1.67E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
243	ALL	496727.1	3605714	1.57E-05	30YrCancer	1.57E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

244	ALL	496737.1	3605714	1.47E-05	30YrCancer	1.47E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
245	ALL	496747.1	3605714	1.39E-05	30YrCancer	1.39E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
246	ALL	496757.1	3605714	1.31E-05	30YrCancer	1.31E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
247	ALL	496767.1	3605714	1.25E-05	30YrCancer	1.25E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
248	ALL	496777.1	3605714	1.18E-05	30YrCancer	1.18E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
249	ALL	496787.1	3605714	1.13E-05	30YrCancer	1.13E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
250	ALL	496797.1	3605714	1.08E-05	30YrCancer	1.08E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
251	ALL	496807.1	3605714	1.03E-05	30YrCancer	1.03E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
252	ALL	496817.1	3605714	9.86E-06	30YrCancer	9.86E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
253	ALL	496827.1	3605714	9.45E-06	30YrCancer	9.45E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
254	ALL	496837.1	3605714	9.07E-06	30YrCancer	9.07E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
255	ALL	496847.1	3605714	8.71E-06	30YrCancer	8.71E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
256	ALL	496857.1	3605714	8.38E-06	30YrCancer	8.38E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
257	ALL	496867.1	3605714	8.07E-06	30YrCancer	8.07E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
258	ALL	496877.1	3605714	7.78E-06	30YrCancer	7.78E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
259	ALL	496887.1	3605714	7.50E-06	30YrCancer	7.50E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
260	ALL	496897.1	3605714	7.24E-06	30YrCancer	7.24E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
261	ALL	496907.1	3605714	6.99E-06	30YrCancer	6.99E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
262	ALL	496917.1	3605714	6.76E-06	30YrCancer	6.76E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
263	ALL	496927.1	3605714	6.53E-06	30YrCancer	6.53E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
264	ALL	496937.1	3605714	6.32E-06	30YrCancer	6.32E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
265	ALL	496947.1	3605714	6.12E-06	30YrCancer	6.12E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
266	ALL	496677.1	3605724	2.29E-05	30YrCancer	2.29E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
267	ALL	496687.1	3605724	2.10E-05	30YrCancer	2.10E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
268	ALL	496697.1	3605724	1.94E-05	30YrCancer	1.94E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
269	ALL	496707.1	3605724	1.80E-05	30YrCancer	1.80E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
270	ALL	496717.1	3605724	1.68E-05	30YrCancer	1.68E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
271	ALL	496727.1	3605724	1.57E-05	30YrCancer	1.57E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
272	ALL	496737.1	3605724	1.48E-05	30YrCancer	1.48E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
273	ALL	496747.1	3605724	1.39E-05	30YrCancer	1.39E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
274	ALL	496757.1	3605724	1.32E-05	30YrCancer	1.32E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
275	ALL	496767.1	3605724	1.25E-05	30YrCancer	1.25E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
276	ALL	496777.1	3605724	1.19E-05	30YrCancer	1.19E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
277	ALL	496787.1	3605724	1.13E-05	30YrCancer	1.13E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
278	ALL	496797.1	3605724	1.08E-05	30YrCancer	1.08E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
279	ALL	496807.1	3605724	1.03E-05	30YrCancer	1.03E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
280	ALL	496817.1	3605724	9.87E-06	30YrCancer	9.87E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
281	ALL	496827.1	3605724	9.47E-06	30YrCancer	9.47E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
282	ALL	496837.1	3605724	9.08E-06	30YrCancer	9.08E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
283	ALL	496847.1	3605724	8.72E-06	30YrCancer	8.72E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
284	ALL	496857.1	3605724	8.39E-06	30YrCancer	8.39E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
285	ALL	496867.1	3605724	8.08E-06	30YrCancer	8.08E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
286	ALL	496877.1	3605724	7.79E-06	30YrCancer	7.79E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
287	ALL	496887.1	3605724	7.51E-06	30YrCancer	7.51E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
288	ALL	496897.1	3605724	7.25E-06	30YrCancer	7.25E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
289	ALL	496907.1	3605724	7.00E-06	30YrCancer	7.00E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
290	ALL	496917.1	3605724	6.77E-06	30YrCancer	6.77E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
291	ALL	496927.1	3605724	6.55E-06	30YrCancer	6.55E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
292	ALL	496937.1	3605724	6.34E-06	30YrCancer	6.34E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

293	ALL	496947.1	3605724	6.14E-06	30YrCancer	6.14E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
294	ALL	496677.1	3605734	2.30E-05	30YrCancer	2.30E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
295	ALL	496687.1	3605734	2.10E-05	30YrCancer	2.10E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
296	ALL	496697.1	3605734	1.94E-05	30YrCancer	1.94E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
297	ALL	496707.1	3605734	1.80E-05	30YrCancer	1.80E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
298	ALL	496717.1	3605734	1.68E-05	30YrCancer	1.68E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
299	ALL	496727.1	3605734	1.57E-05	30YrCancer	1.57E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
300	ALL	496737.1	3605734	1.48E-05	30YrCancer	1.48E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
301	ALL	496747.1	3605734	1.39E-05	30YrCancer	1.39E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
302	ALL	496757.1	3605734	1.32E-05	30YrCancer	1.32E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
303	ALL	496767.1	3605734	1.25E-05	30YrCancer	1.25E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
304	ALL	496777.1	3605734	1.19E-05	30YrCancer	1.19E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
305	ALL	496787.1	3605734	1.13E-05	30YrCancer	1.13E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
306	ALL	496797.1	3605734	1.08E-05	30YrCancer	1.08E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
307	ALL	496807.1	3605734	1.03E-05	30YrCancer	1.03E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
308	ALL	496817.1	3605734	9.89E-06	30YrCancer	9.89E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
309	ALL	496827.1	3605734	9.48E-06	30YrCancer	9.48E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
310	ALL	496837.1	3605734	9.10E-06	30YrCancer	9.10E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
311	ALL	496847.1	3605734	8.74E-06	30YrCancer	8.74E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
312	ALL	496857.1	3605734	8.40E-06	30YrCancer	8.40E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
313	ALL	496867.1	3605734	8.09E-06	30YrCancer	8.09E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
314	ALL	496877.1	3605734	7.80E-06	30YrCancer	7.80E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
315	ALL	496887.1	3605734	7.52E-06	30YrCancer	7.52E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
316	ALL	496897.1	3605734	7.26E-06	30YrCancer	7.26E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
317	ALL	496907.1	3605734	7.01E-06	30YrCancer	7.01E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
318	ALL	496917.1	3605734	6.78E-06	30YrCancer	6.78E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
319	ALL	496927.1	3605734	6.56E-06	30YrCancer	6.56E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
320	ALL	496937.1	3605734	6.35E-06	30YrCancer	6.35E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
321	ALL	496947.1	3605734	6.15E-06	30YrCancer	6.15E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
322	ALL	496677.1	3605744	2.30E-05	30YrCancer	2.30E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
323	ALL	496687.1	3605744	2.11E-05	30YrCancer	2.11E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
324	ALL	496697.1	3605744	1.95E-05	30YrCancer	1.95E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
325	ALL	496707.1	3605744	1.81E-05	30YrCancer	1.81E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
326	ALL	496717.1	3605744	1.68E-05	30YrCancer	1.68E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
327	ALL	496727.1	3605744	1.57E-05	30YrCancer	1.57E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
328	ALL	496737.1	3605744	1.48E-05	30YrCancer	1.48E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
329	ALL	496747.1	3605744	1.40E-05	30YrCancer	1.40E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
330	ALL	496757.1	3605744	1.32E-05	30YrCancer	1.32E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
331	ALL	496767.1	3605744	1.25E-05	30YrCancer	1.25E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
332	ALL	496777.1	3605744	1.19E-05	30YrCancer	1.19E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
333	ALL	496787.1	3605744	1.13E-05	30YrCancer	1.13E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
334	ALL	496797.1	3605744	1.08E-05	30YrCancer	1.08E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
335	ALL	496807.1	3605744	1.03E-05	30YrCancer	1.03E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
336	ALL	496817.1	3605744	9.90E-06	30YrCancer	9.90E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
337	ALL	496827.1	3605744	9.49E-06	30YrCancer	9.49E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
338	ALL	496837.1	3605744	9.11E-06	30YrCancer	9.11E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
339	ALL	496847.1	3605744	8.75E-06	30YrCancer	8.75E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
340	ALL	496857.1	3605744	8.42E-06	30YrCancer	8.42E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
341	ALL	496867.1	3605744	8.10E-06	30YrCancer	8.10E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

342	ALL	496877.1	3605744	7.81E-06	30YrCancer	7.81E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
343	ALL	496887.1	3605744	7.53E-06	30YrCancer	7.53E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
344	ALL	496897.1	3605744	7.27E-06	30YrCancer	7.27E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
345	ALL	496907.1	3605744	7.02E-06	30YrCancer	7.02E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
346	ALL	496917.1	3605744	6.79E-06	30YrCancer	6.79E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
347	ALL	496927.1	3605744	6.57E-06	30YrCancer	6.57E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
348	ALL	496937.1	3605744	6.36E-06	30YrCancer	6.36E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
349	ALL	496947.1	3605744	6.15E-06	30YrCancer	6.15E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
350	ALL	496677.1	3605754	2.30E-05	30YrCancer	2.30E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
351	ALL	496687.1	3605754	2.11E-05	30YrCancer	2.11E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
352	ALL	496697.1	3605754	1.95E-05	30YrCancer	1.95E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
353	ALL	496707.1	3605754	1.81E-05	30YrCancer	1.81E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
354	ALL	496717.1	3605754	1.69E-05	30YrCancer	1.69E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
355	ALL	496727.1	3605754	1.58E-05	30YrCancer	1.58E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
356	ALL	496737.1	3605754	1.48E-05	30YrCancer	1.48E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
357	ALL	496747.1	3605754	1.40E-05	30YrCancer	1.40E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
358	ALL	496757.1	3605754	1.32E-05	30YrCancer	1.32E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
359	ALL	496767.1	3605754	1.26E-05	30YrCancer	1.26E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
360	ALL	496777.1	3605754	1.19E-05	30YrCancer	1.19E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
361	ALL	496787.1	3605754	1.14E-05	30YrCancer	1.14E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
362	ALL	496797.1	3605754	1.08E-05	30YrCancer	1.08E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
363	ALL	496807.1	3605754	1.04E-05	30YrCancer	1.04E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
364	ALL	496817.1	3605754	9.91E-06	30YrCancer	9.91E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
365	ALL	496827.1	3605754	9.50E-06	30YrCancer	9.50E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
366	ALL	496837.1	3605754	9.12E-06	30YrCancer	9.12E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
367	ALL	496847.1	3605754	8.76E-06	30YrCancer	8.76E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
368	ALL	496857.1	3605754	8.43E-06	30YrCancer	8.43E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
369	ALL	496867.1	3605754	8.11E-06	30YrCancer	8.11E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
370	ALL	496877.1	3605754	7.82E-06	30YrCancer	7.82E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
371	ALL	496887.1	3605754	7.54E-06	30YrCancer	7.54E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
372	ALL	496897.1	3605754	7.28E-06	30YrCancer	7.28E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
373	ALL	496907.1	3605754	7.03E-06	30YrCancer	7.03E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
374	ALL	496917.1	3605754	6.80E-06	30YrCancer	6.80E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
375	ALL	496927.1	3605754	6.58E-06	30YrCancer	6.58E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
376	ALL	496937.1	3605754	6.36E-06	30YrCancer	6.36E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
377	ALL	496947.1	3605754	6.16E-06	30YrCancer	6.16E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
378	ALL	496677.1	3605764	2.31E-05	30YrCancer	2.31E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
379	ALL	496687.1	3605764	2.12E-05	30YrCancer	2.12E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
380	ALL	496697.1	3605764	1.95E-05	30YrCancer	1.95E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
381	ALL	496707.1	3605764	1.81E-05	30YrCancer	1.81E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
382	ALL	496717.1	3605764	1.69E-05	30YrCancer	1.69E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
383	ALL	496727.1	3605764	1.58E-05	30YrCancer	1.58E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
384	ALL	496737.1	3605764	1.49E-05	30YrCancer	1.49E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
385	ALL	496747.1	3605764	1.40E-05	30YrCancer	1.40E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
386	ALL	496757.1	3605764	1.33E-05	30YrCancer	1.33E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
387	ALL	496767.1	3605764	1.26E-05	30YrCancer	1.26E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
388	ALL	496777.1	3605764	1.20E-05	30YrCancer	1.20E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
389	ALL	496787.1	3605764	1.14E-05	30YrCancer	1.14E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
390	ALL	496797.1	3605764	1.09E-05	30YrCancer	1.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

391	ALL	496807.1	3605764	1.04E-05	30YrCancer	1.04E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
392	ALL	496817.1	3605764	9.93E-06	30YrCancer	9.93E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
393	ALL	496827.1	3605764	9.52E-06	30YrCancer	9.52E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
394	ALL	496837.1	3605764	9.13E-06	30YrCancer	9.13E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
395	ALL	496847.1	3605764	8.77E-06	30YrCancer	8.77E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
396	ALL	496857.1	3605764	8.44E-06	30YrCancer	8.44E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
397	ALL	496867.1	3605764	8.12E-06	30YrCancer	8.12E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
398	ALL	496877.1	3605764	7.83E-06	30YrCancer	7.83E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
399	ALL	496887.1	3605764	7.55E-06	30YrCancer	7.55E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
400	ALL	496897.1	3605764	7.29E-06	30YrCancer	7.29E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
401	ALL	496907.1	3605764	7.04E-06	30YrCancer	7.04E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
402	ALL	496917.1	3605764	6.81E-06	30YrCancer	6.81E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
403	ALL	496927.1	3605764	6.58E-06	30YrCancer	6.58E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
404	ALL	496937.1	3605764	6.37E-06	30YrCancer	6.37E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
405	ALL	496947.1	3605764	6.17E-06	30YrCancer	6.17E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
406	ALL	496687.1	3605774	2.12E-05	30YrCancer	2.12E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
407	ALL	496697.1	3605774	1.96E-05	30YrCancer	1.96E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
408	ALL	496707.1	3605774	1.81E-05	30YrCancer	1.81E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
409	ALL	496717.1	3605774	1.69E-05	30YrCancer	1.69E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
410	ALL	496727.1	3605774	1.58E-05	30YrCancer	1.58E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
411	ALL	496737.1	3605774	1.49E-05	30YrCancer	1.49E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
412	ALL	496747.1	3605774	1.40E-05	30YrCancer	1.40E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
413	ALL	496757.1	3605774	1.33E-05	30YrCancer	1.33E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
414	ALL	496767.1	3605774	1.26E-05	30YrCancer	1.26E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
415	ALL	496777.1	3605774	1.20E-05	30YrCancer	1.20E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
416	ALL	496787.1	3605774	1.14E-05	30YrCancer	1.14E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
417	ALL	496797.1	3605774	1.09E-05	30YrCancer	1.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
418	ALL	496807.1	3605774	1.04E-05	30YrCancer	1.04E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
419	ALL	496817.1	3605774	9.94E-06	30YrCancer	9.94E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
420	ALL	496827.1	3605774	9.53E-06	30YrCancer	9.53E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
421	ALL	496837.1	3605774	9.14E-06	30YrCancer	9.14E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
422	ALL	496847.1	3605774	8.78E-06	30YrCancer	8.78E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
423	ALL	496857.1	3605774	8.45E-06	30YrCancer	8.45E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
424	ALL	496867.1	3605774	8.13E-06	30YrCancer	8.13E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
425	ALL	496877.1	3605774	7.84E-06	30YrCancer	7.84E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
426	ALL	496887.1	3605774	7.56E-06	30YrCancer	7.56E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
427	ALL	496897.1	3605774	7.29E-06	30YrCancer	7.29E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
428	ALL	496907.1	3605774	7.04E-06	30YrCancer	7.04E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
429	ALL	496917.1	3605774	6.81E-06	30YrCancer	6.81E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
430	ALL	496927.1	3605774	6.59E-06	30YrCancer	6.59E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
431	ALL	496937.1	3605774	6.38E-06	30YrCancer	6.38E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
432	ALL	496947.1	3605774	6.18E-06	30YrCancer	6.18E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
433	ALL	496687.1	3605784	2.13E-05	30YrCancer	2.13E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
434	ALL	496697.1	3605784	1.96E-05	30YrCancer	1.96E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
435	ALL	496707.1	3605784	1.82E-05	30YrCancer	1.82E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
436	ALL	496717.1	3605784	1.70E-05	30YrCancer	1.70E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
437	ALL	496727.1	3605784	1.59E-05	30YrCancer	1.59E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
438	ALL	496737.1	3605784	1.49E-05	30YrCancer	1.49E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
439	ALL	496747.1	3605784	1.41E-05	30YrCancer	1.41E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

440	ALL	496757.1	3605784	1.33E-05	30YrCancer	1.33E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
441	ALL	496767.1	3605784	1.26E-05	30YrCancer	1.26E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
442	ALL	496777.1	3605784	1.20E-05	30YrCancer	1.20E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
443	ALL	496787.1	3605784	1.14E-05	30YrCancer	1.14E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
444	ALL	496797.1	3605784	1.09E-05	30YrCancer	1.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
445	ALL	496807.1	3605784	1.04E-05	30YrCancer	1.04E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
446	ALL	496817.1	3605784	9.96E-06	30YrCancer	9.96E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
447	ALL	496827.1	3605784	9.54E-06	30YrCancer	9.54E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
448	ALL	496837.1	3605784	9.15E-06	30YrCancer	9.15E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
449	ALL	496847.1	3605784	8.79E-06	30YrCancer	8.79E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
450	ALL	496857.1	3605784	8.46E-06	30YrCancer	8.46E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
451	ALL	496867.1	3605784	8.14E-06	30YrCancer	8.14E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
452	ALL	496877.1	3605784	7.84E-06	30YrCancer	7.84E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
453	ALL	496887.1	3605784	7.57E-06	30YrCancer	7.57E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
454	ALL	496897.1	3605784	7.30E-06	30YrCancer	7.30E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
455	ALL	496907.1	3605784	7.05E-06	30YrCancer	7.05E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
456	ALL	496917.1	3605784	6.82E-06	30YrCancer	6.82E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
457	ALL	496927.1	3605784	6.59E-06	30YrCancer	6.59E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
458	ALL	496937.1	3605784	6.38E-06	30YrCancer	6.38E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
459	ALL	496947.1	3605784	6.18E-06	30YrCancer	6.18E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
460	ALL	496687.1	3605794	2.13E-05	30YrCancer	2.13E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
461	ALL	496697.1	3605794	1.97E-05	30YrCancer	1.97E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
462	ALL	496707.1	3605794	1.82E-05	30YrCancer	1.82E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
463	ALL	496717.1	3605794	1.70E-05	30YrCancer	1.70E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
464	ALL	496727.1	3605794	1.59E-05	30YrCancer	1.59E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
465	ALL	496737.1	3605794	1.50E-05	30YrCancer	1.50E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
466	ALL	496747.1	3605794	1.41E-05	30YrCancer	1.41E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
467	ALL	496757.1	3605794	1.33E-05	30YrCancer	1.33E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
468	ALL	496767.1	3605794	1.26E-05	30YrCancer	1.26E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
469	ALL	496777.1	3605794	1.20E-05	30YrCancer	1.20E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
470	ALL	496787.1	3605794	1.14E-05	30YrCancer	1.14E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
471	ALL	496797.1	3605794	1.09E-05	30YrCancer	1.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
472	ALL	496807.1	3605794	1.04E-05	30YrCancer	1.04E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
473	ALL	496817.1	3605794	9.98E-06	30YrCancer	9.98E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
474	ALL	496827.1	3605794	9.56E-06	30YrCancer	9.56E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
475	ALL	496837.1	3605794	9.17E-06	30YrCancer	9.17E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
476	ALL	496847.1	3605794	8.80E-06	30YrCancer	8.80E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
477	ALL	496857.1	3605794	8.47E-06	30YrCancer	8.47E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
478	ALL	496867.1	3605794	8.15E-06	30YrCancer	8.15E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
479	ALL	496877.1	3605794	7.85E-06	30YrCancer	7.85E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
480	ALL	496887.1	3605794	7.57E-06	30YrCancer	7.57E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
481	ALL	496897.1	3605794	7.31E-06	30YrCancer	7.31E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
482	ALL	496907.1	3605794	7.06E-06	30YrCancer	7.06E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
483	ALL	496917.1	3605794	6.82E-06	30YrCancer	6.82E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
484	ALL	496927.1	3605794	6.60E-06	30YrCancer	6.60E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
485	ALL	496937.1	3605794	6.39E-06	30YrCancer	6.39E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
486	ALL	496947.1	3605794	6.18E-06	30YrCancer	6.18E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
487	ALL	496687.1	3605804	2.14E-05	30YrCancer	2.14E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
488	ALL	496697.1	3605804	1.97E-05	30YrCancer	1.97E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

489	ALL	496707.1	3605804	1.83E-05	30YrCancer	1.83E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
490	ALL	496717.1	3605804	1.70E-05	30YrCancer	1.70E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
491	ALL	496727.1	3605804	1.59E-05	30YrCancer	1.59E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
492	ALL	496737.1	3605804	1.50E-05	30YrCancer	1.50E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
493	ALL	496747.1	3605804	1.41E-05	30YrCancer	1.41E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
494	ALL	496757.1	3605804	1.34E-05	30YrCancer	1.34E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
495	ALL	496767.1	3605804	1.27E-05	30YrCancer	1.27E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
496	ALL	496777.1	3605804	1.20E-05	30YrCancer	1.20E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
497	ALL	496787.1	3605804	1.14E-05	30YrCancer	1.14E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
498	ALL	496797.1	3605804	1.09E-05	30YrCancer	1.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
499	ALL	496807.1	3605804	1.04E-05	30YrCancer	1.04E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
500	ALL	496817.1	3605804	9.99E-06	30YrCancer	9.99E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
501	ALL	496827.1	3605804	9.57E-06	30YrCancer	9.57E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
502	ALL	496837.1	3605804	9.18E-06	30YrCancer	9.18E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
503	ALL	496847.1	3605804	8.82E-06	30YrCancer	8.82E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
504	ALL	496857.1	3605804	8.48E-06	30YrCancer	8.48E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
505	ALL	496867.1	3605804	8.16E-06	30YrCancer	8.16E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
506	ALL	496877.1	3605804	7.86E-06	30YrCancer	7.86E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
507	ALL	496887.1	3605804	7.58E-06	30YrCancer	7.58E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
508	ALL	496897.1	3605804	7.31E-06	30YrCancer	7.31E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
509	ALL	496907.1	3605804	7.06E-06	30YrCancer	7.06E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
510	ALL	496917.1	3605804	6.82E-06	30YrCancer	6.82E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
511	ALL	496927.1	3605804	6.60E-06	30YrCancer	6.60E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
512	ALL	496937.1	3605804	6.39E-06	30YrCancer	6.39E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
513	ALL	496947.1	3605804	6.18E-06	30YrCancer	6.18E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
514	ALL	496687.1	3605814	2.14E-05	30YrCancer	2.14E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
515	ALL	496697.1	3605814	1.98E-05	30YrCancer	1.98E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
516	ALL	496707.1	3605814	1.83E-05	30YrCancer	1.83E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
517	ALL	496717.1	3605814	1.71E-05	30YrCancer	1.71E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
518	ALL	496727.1	3605814	1.60E-05	30YrCancer	1.60E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
519	ALL	496737.1	3605814	1.50E-05	30YrCancer	1.50E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
520	ALL	496747.1	3605814	1.42E-05	30YrCancer	1.42E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
521	ALL	496757.1	3605814	1.34E-05	30YrCancer	1.34E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
522	ALL	496767.1	3605814	1.27E-05	30YrCancer	1.27E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
523	ALL	496777.1	3605814	1.20E-05	30YrCancer	1.20E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
524	ALL	496787.1	3605814	1.15E-05	30YrCancer	1.15E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
525	ALL	496797.1	3605814	1.09E-05	30YrCancer	1.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
526	ALL	496807.1	3605814	1.05E-05	30YrCancer	1.05E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
527	ALL	496817.1	3605814	1.00E-05	30YrCancer	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
528	ALL	496827.1	3605814	9.58E-06	30YrCancer	9.58E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
529	ALL	496837.1	3605814	9.19E-06	30YrCancer	9.19E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
530	ALL	496847.1	3605814	8.82E-06	30YrCancer	8.82E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
531	ALL	496857.1	3605814	8.48E-06	30YrCancer	8.48E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
532	ALL	496867.1	3605814	8.16E-06	30YrCancer	8.16E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
533	ALL	496877.1	3605814	7.86E-06	30YrCancer	7.86E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
534	ALL	496887.1	3605814	7.58E-06	30YrCancer	7.58E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
535	ALL	496897.1	3605814	7.31E-06	30YrCancer	7.31E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
536	ALL	496907.1	3605814	7.06E-06	30YrCancer	7.06E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
537	ALL	496917.1	3605814	6.82E-06	30YrCancer	6.82E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

538 ALL	496927.1	3605814	6.60E-06	30YrCancer	6.60E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
539 ALL	496937.1	3605814	6.39E-06	30YrCancer	6.39E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
540 ALL	496947.1	3605814	6.18E-06	30YrCancer	6.18E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
541 ALL	496687.1	3605824	2.15E-05	30YrCancer	2.15E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
542 ALL	496697.1	3605824	1.98E-05	30YrCancer	1.98E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
543 ALL	496707.1	3605824	1.84E-05	30YrCancer	1.84E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
544 ALL	496717.1	3605824	1.71E-05	30YrCancer	1.71E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
545 ALL	496727.1	3605824	1.60E-05	30YrCancer	1.60E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
546 ALL	496737.1	3605824	1.51E-05	30YrCancer	1.51E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
547 ALL	496747.1	3605824	1.42E-05	30YrCancer	1.42E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
548 ALL	496757.1	3605824	1.34E-05	30YrCancer	1.34E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
549 ALL	496767.1	3605824	1.27E-05	30YrCancer	1.27E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
550 ALL	496777.1	3605824	1.20E-05	30YrCancer	1.20E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
551 ALL	496787.1	3605824	1.15E-05	30YrCancer	1.15E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
552 ALL	496797.1	3605824	1.09E-05	30YrCancer	1.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
553 ALL	496807.1	3605824	1.05E-05	30YrCancer	1.05E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
554 ALL	496817.1	3605824	1.00E-05	30YrCancer	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
555 ALL	496827.1	3605824	9.59E-06	30YrCancer	9.59E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
556 ALL	496837.1	3605824	9.19E-06	30YrCancer	9.19E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
557 ALL	496847.1	3605824	8.83E-06	30YrCancer	8.83E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
558 ALL	496857.1	3605824	8.49E-06	30YrCancer	8.49E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
559 ALL	496867.1	3605824	8.17E-06	30YrCancer	8.17E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
560 ALL	496877.1	3605824	7.87E-06	30YrCancer	7.87E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
561 ALL	496887.1	3605824	7.58E-06	30YrCancer	7.58E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
562 ALL	496897.1	3605824	7.32E-06	30YrCancer	7.32E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
563 ALL	496907.1	3605824	7.06E-06	30YrCancer	7.06E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
564 ALL	496917.1	3605824	6.83E-06	30YrCancer	6.83E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
565 ALL	496927.1	3605824	6.60E-06	30YrCancer	6.60E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
566 ALL	496937.1	3605824	6.39E-06	30YrCancer	6.39E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
567 ALL	496947.1	3605824	6.18E-06	30YrCancer	6.18E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
568 ALL	496727.1	3605834	1.61E-05	30YrCancer	1.61E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
569 ALL	496737.1	3605834	1.51E-05	30YrCancer	1.51E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
570 ALL	496747.1	3605834	1.42E-05	30YrCancer	1.42E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
571 ALL	496757.1	3605834	1.34E-05	30YrCancer	1.34E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
572 ALL	496767.1	3605834	1.27E-05	30YrCancer	1.27E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
573 ALL	496777.1	3605834	1.21E-05	30YrCancer	1.21E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
574 ALL	496787.1	3605834	1.15E-05	30YrCancer	1.15E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
575 ALL	496797.1	3605834	1.09E-05	30YrCancer	1.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
576 ALL	496807.1	3605834	1.05E-05	30YrCancer	1.05E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
577 ALL	496817.1	3605834	1.00E-05	30YrCancer	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
578 ALL	496827.1	3605834	9.58E-06	30YrCancer	9.58E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
579 ALL	496837.1	3605834	9.19E-06	30YrCancer	9.19E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
580 ALL	496847.1	3605834	8.83E-06	30YrCancer	8.83E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
581 ALL	496857.1	3605834	8.49E-06	30YrCancer	8.49E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
582 ALL	496867.1	3605834	8.17E-06	30YrCancer	8.17E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
583 ALL	496877.1	3605834	7.87E-06	30YrCancer	7.87E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
584 ALL	496887.1	3605834	7.58E-06	30YrCancer	7.58E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
585 ALL	496897.1	3605834	7.31E-06	30YrCancer	7.31E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
586 ALL	496907.1	3605834	7.06E-06	30YrCancer	7.06E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

587	ALL	496917.1	3605834	6.82E-06	30YrCancer	6.82E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
588	ALL	496927.1	3605834	6.60E-06	30YrCancer	6.60E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
589	ALL	496937.1	3605834	6.38E-06	30YrCancer	6.38E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
590	ALL	496947.1	3605834	6.18E-06	30YrCancer	6.18E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
591	ALL	496797.1	3605844	1.09E-05	30YrCancer	1.09E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
592	ALL	496807.1	3605844	1.04E-05	30YrCancer	1.04E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
593	ALL	496817.1	3605844	1.00E-05	30YrCancer	1.00E-05	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
594	ALL	496827.1	3605844	9.58E-06	30YrCancer	9.58E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
595	ALL	496837.1	3605844	9.19E-06	30YrCancer	9.19E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
596	ALL	496847.1	3605844	8.82E-06	30YrCancer	8.82E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
597	ALL	496857.1	3605844	8.49E-06	30YrCancer	8.49E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
598	ALL	496867.1	3605844	8.17E-06	30YrCancer	8.17E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
599	ALL	496877.1	3605844	7.87E-06	30YrCancer	7.87E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
600	ALL	496887.1	3605844	7.58E-06	30YrCancer	7.58E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
601	ALL	496897.1	3605844	7.31E-06	30YrCancer	7.31E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
602	ALL	496907.1	3605844	7.06E-06	30YrCancer	7.06E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
603	ALL	496917.1	3605844	6.82E-06	30YrCancer	6.82E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
604	ALL	496927.1	3605844	6.59E-06	30YrCancer	6.59E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
605	ALL	496937.1	3605844	6.38E-06	30YrCancer	6.38E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
606	ALL	496947.1	3605844	6.18E-06	30YrCancer	6.18E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
607	ALL	496857.1	3605854	8.48E-06	30YrCancer	8.48E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
608	ALL	496867.1	3605854	8.17E-06	30YrCancer	8.17E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
609	ALL	496877.1	3605854	7.86E-06	30YrCancer	7.86E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
610	ALL	496887.1	3605854	7.58E-06	30YrCancer	7.58E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
611	ALL	496897.1	3605854	7.31E-06	30YrCancer	7.31E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
612	ALL	496907.1	3605854	7.05E-06	30YrCancer	7.05E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
613	ALL	496917.1	3605854	6.81E-06	30YrCancer	6.81E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
614	ALL	496927.1	3605854	6.59E-06	30YrCancer	6.59E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
615	ALL	496937.1	3605854	6.37E-06	30YrCancer	6.37E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
616	ALL	496947.1	3605854	6.17E-06	30YrCancer	6.17E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
617	ALL	496927.1	3605864	6.58E-06	30YrCancer	6.58E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
618	ALL	496937.1	3605864	6.37E-06	30YrCancer	6.37E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
619	ALL	496947.1	3605864	6.16E-06	30YrCancer	6.16E-06	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

HARP2 - HRACalc (dated 19044) 8/31/2021 1:54:12 PM - Output Log

GLCs loaded successfully
Pollutants loaded successfully
Pathway receptors loaded successfully
****
RISK SCENARIO SETTINGS

Receptor Type: Resident
Scenario: NCChronic
Calculation Method: Derived

****
EXPOSURE DURATION PARAMETERS FOR CANCER
Exposure duration are only adjusted for cancer assessments

****
PATHWAYS ENABLED

NOTE: Inhalation is always enabled and used for all assessments. The remaining pathways are only used for cancer and noncancer chronic assessments.

Inhalation: True
Soil: True
Dermal: True
Mother's milk: True
Water: False
Fish: False
Homegrown crops: False
Beef: False
Dairy: False
Pig: False
Chicken: False
Egg: False

****
INHALATION

Daily breathing rate: LongTerm24HR

Worker Adjustment Factors
Worker adjustment factors enabled: NO

Fraction at time at home
NOTE: Exposure duration (i.e., start age, end age, ED, & FAH) are only adjusted for cancer assessments.

****
SOIL & DERMAL PATHWAY SETTINGS

Deposition rate (m/s): 0.05
Soil mixing depth (m): 0.01
Dermal climate: Mixed

****
TIER 2 SETTINGS
Tier2 not used.

****

Calculating chronic risk
Chronic risk breakdown by pollutant and receptor saved to:
C:\Users\swang\Desktop\NAKANOROADWAY\hra\ChronicNCChronicRisk.csv
Chronic risk total by receptor saved to:
C:\Users\swang\Desktop\NAKANOROADWAY\hra\ChronicNCChronicRiskSumByRec.csv
HRA ran successfully

*HARP - HRACalc v19044 8/31/2021 1:54:12 PM - Chronic Risk - Input File: C:\Users\swang\Desktop\NAKANOROADWAY\hra\ChronicHRAInput.hra

REC	GRP	NETID	X	Y	SCENARIO	CV	CNS	IMMUN	KIDNEY	GILV	REPRO/DEV	RESP	SKIN	EYE	BONE/TEET	ENDO	BLOOD	ODOR	GENERAL	MAXHI
1	ALL		496667.1	3605624	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.88E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.88E-03
2	ALL		496677.1	3605624	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.27E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.27E-03
3	ALL		496687.1	3605624	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.74E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.74E-03
4	ALL		496697.1	3605624	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.29E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.29E-03
5	ALL		496707.1	3605624	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.89E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.89E-03
6	ALL		496717.1	3605624	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.54E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.54E-03
7	ALL		496727.1	3605624	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.23E-03
8	ALL		496737.1	3605624	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.97E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.97E-03
9	ALL		496747.1	3605624	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.74E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.74E-03
10	ALL		496757.1	3605624	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.53E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.53E-03
11	ALL		496767.1	3605624	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.34E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.34E-03
12	ALL		496777.1	3605624	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.17E-03
13	ALL		496787.1	3605624	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.01E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.01E-03
14	ALL		496797.1	3605624	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.87E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.87E-03
15	ALL		496807.1	3605624	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.74E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.74E-03
16	ALL		496817.1	3605624	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.62E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.62E-03
17	ALL		496667.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.69E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.69E-03
18	ALL		496677.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.08E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.08E-03
19	ALL		496687.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.58E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.58E-03
20	ALL		496697.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.16E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.16E-03
21	ALL		496707.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.79E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.79E-03
22	ALL		496717.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.46E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.46E-03
23	ALL		496727.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.17E-03
24	ALL		496737.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.92E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.92E-03
25	ALL		496747.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.70E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.70E-03
26	ALL		496757.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.50E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.50E-03
27	ALL		496767.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.32E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.32E-03
28	ALL		496777.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.15E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.15E-03
29	ALL		496787.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.99E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.99E-03
30	ALL		496797.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.86E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.86E-03
31	ALL		496807.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.73E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.73E-03
32	ALL		496817.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.61E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.61E-03
33	ALL		496827.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.50E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.50E-03
34	ALL		496837.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.40E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.40E-03
35	ALL		496847.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.31E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.31E-03
36	ALL		496857.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.22E-03
37	ALL		496867.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.13E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.13E-03
38	ALL		496877.1	3605634	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.05E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.05E-03
39	ALL		496667.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.66E-03
40	ALL		496677.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.05E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.05E-03
41	ALL		496687.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.56E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.56E-03
42	ALL		496697.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.14E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.14E-03
43	ALL		496707.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.77E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.77E-03
44	ALL		496717.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.44E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.44E-03
45	ALL		496727.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.16E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.16E-03
46	ALL		496737.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.91E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.91E-03
47	ALL		496747.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.70E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.70E-03
48	ALL		496757.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.50E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.50E-03
49	ALL		496767.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.31E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.31E-03
50	ALL		496777.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.14E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.14E-03
51	ALL		496787.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.99E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.99E-03
52	ALL		496797.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.86E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.86E-03
53	ALL		496807.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.73E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.73E-03

54	ALL	496817.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.61E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.61E-03
55	ALL	496827.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.51E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.51E-03
56	ALL	496837.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.40E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.40E-03
57	ALL	496847.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.31E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.31E-03
58	ALL	496857.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.22E-03
59	ALL	496867.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.14E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.14E-03
60	ALL	496877.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.06E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.06E-03
61	ALL	496887.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.98E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.98E-03
62	ALL	496897.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.92E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.92E-03
63	ALL	496907.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.85E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.85E-03
64	ALL	496917.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.79E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.79E-03
65	ALL	496927.1	3605644	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.73E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.73E-03
66	ALL	496667.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.68E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.68E-03
67	ALL	496677.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.07E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.07E-03
68	ALL	496687.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.57E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.57E-03
69	ALL	496697.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.14E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.14E-03
70	ALL	496707.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.77E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.77E-03
71	ALL	496717.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.45E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.45E-03
72	ALL	496727.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.16E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.16E-03
73	ALL	496737.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.92E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.92E-03
74	ALL	496747.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.70E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.70E-03
75	ALL	496757.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.50E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.50E-03
76	ALL	496767.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.32E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.32E-03
77	ALL	496777.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.15E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.15E-03
78	ALL	496787.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E-03
79	ALL	496797.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.86E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.86E-03
80	ALL	496807.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.74E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.74E-03
81	ALL	496817.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.62E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.62E-03
82	ALL	496827.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.51E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.51E-03
83	ALL	496837.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.41E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.41E-03
84	ALL	496847.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.32E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.32E-03
85	ALL	496857.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.23E-03
86	ALL	496867.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.14E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.14E-03
87	ALL	496877.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.07E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.07E-03
88	ALL	496887.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.99E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.99E-03
89	ALL	496897.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.92E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.92E-03
90	ALL	496907.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.85E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.85E-03
91	ALL	496917.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.79E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.79E-03
92	ALL	496927.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.73E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.73E-03
93	ALL	496937.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.68E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.68E-03
94	ALL	496947.1	3605654	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.62E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.62E-03
95	ALL	496667.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.70E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.70E-03
96	ALL	496677.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.09E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.09E-03
97	ALL	496687.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.58E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.58E-03
98	ALL	496697.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.15E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.15E-03
99	ALL	496707.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.78E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.78E-03
100	ALL	496717.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.45E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.45E-03
101	ALL	496727.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.17E-03
102	ALL	496737.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.92E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.92E-03
103	ALL	496747.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.70E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.70E-03
104	ALL	496757.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.50E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.50E-03
105	ALL	496767.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.32E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.32E-03
106	ALL	496777.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.15E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.15E-03
107	ALL	496787.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.00E-03
108	ALL	496797.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.87E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.87E-03

109	ALL	496807.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.74E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.74E-03
110	ALL	496817.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.62E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.62E-03
111	ALL	496827.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.52E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.52E-03
112	ALL	496837.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.41E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.41E-03
113	ALL	496847.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.32E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.32E-03
114	ALL	496857.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.23E-03
115	ALL	496867.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.15E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.15E-03
116	ALL	496877.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.07E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.07E-03
117	ALL	496887.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.00E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.00E-03
118	ALL	496897.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.93E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.93E-03
119	ALL	496907.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.86E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.86E-03
120	ALL	496917.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.80E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.80E-03
121	ALL	496927.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.74E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.74E-03
122	ALL	496937.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.68E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.68E-03
123	ALL	496947.1	3605664	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.63E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.63E-03
124	ALL	496667.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.72E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.72E-03
125	ALL	496677.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.10E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.10E-03
126	ALL	496687.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.59E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.59E-03
127	ALL	496697.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.16E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.16E-03
128	ALL	496707.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.79E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.79E-03
129	ALL	496717.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.46E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.46E-03
130	ALL	496727.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.17E-03
131	ALL	496737.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.93E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.93E-03
132	ALL	496747.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-03
133	ALL	496757.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.51E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.51E-03
134	ALL	496767.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.33E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.33E-03
135	ALL	496777.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.16E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.16E-03
136	ALL	496787.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.01E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.01E-03
137	ALL	496797.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.87E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.87E-03
138	ALL	496807.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.75E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.75E-03
139	ALL	496817.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.63E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.63E-03
140	ALL	496827.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.52E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.52E-03
141	ALL	496837.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.42E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.42E-03
142	ALL	496847.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.32E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.32E-03
143	ALL	496857.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.24E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.24E-03
144	ALL	496867.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.15E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.15E-03
145	ALL	496877.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.07E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.07E-03
146	ALL	496887.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.00E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.00E-03
147	ALL	496897.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.93E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.93E-03
148	ALL	496907.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.86E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.86E-03
149	ALL	496917.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.80E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.80E-03
150	ALL	496927.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.74E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.74E-03
151	ALL	496937.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.69E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.69E-03
152	ALL	496947.1	3605674	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.63E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.63E-03
153	ALL	496667.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.74E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.74E-03
154	ALL	496677.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.12E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.12E-03
155	ALL	496687.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.61E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.61E-03
156	ALL	496697.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.17E-03
157	ALL	496707.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.80E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.80E-03
158	ALL	496717.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.47E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.47E-03
159	ALL	496727.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.18E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.18E-03
160	ALL	496737.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.93E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.93E-03
161	ALL	496747.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.71E-03
162	ALL	496757.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.51E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.51E-03
163	ALL	496767.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.33E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.33E-03

164	ALL	496777.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.17E-03
165	ALL	496787.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.02E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.02E-03
166	ALL	496797.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.88E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.88E-03
167	ALL	496807.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.75E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.75E-03
168	ALL	496817.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.63E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.63E-03
169	ALL	496827.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.53E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.53E-03
170	ALL	496837.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.43E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.43E-03
171	ALL	496847.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.33E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.33E-03
172	ALL	496857.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.24E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.24E-03
173	ALL	496867.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.16E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.16E-03
174	ALL	496877.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.08E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.08E-03
175	ALL	496887.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.00E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.00E-03
176	ALL	496897.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.93E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.93E-03
177	ALL	496907.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.87E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.87E-03
178	ALL	496917.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.81E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.81E-03
179	ALL	496927.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.75E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.75E-03
180	ALL	496937.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.69E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.69E-03
181	ALL	496947.1	3605684	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.64E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.64E-03
182	ALL	496677.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.13E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.13E-03
183	ALL	496687.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.62E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.62E-03
184	ALL	496697.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.18E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.18E-03
185	ALL	496707.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.81E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.81E-03
186	ALL	496717.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.48E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.48E-03
187	ALL	496727.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.19E-03
188	ALL	496737.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.94E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.94E-03
189	ALL	496747.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-03
190	ALL	496757.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.52E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.52E-03
191	ALL	496767.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.34E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.34E-03
192	ALL	496777.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.17E-03
193	ALL	496787.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.02E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.02E-03
194	ALL	496797.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.89E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.89E-03
195	ALL	496807.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.76E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.76E-03
196	ALL	496817.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.64E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.64E-03
197	ALL	496827.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.53E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.53E-03
198	ALL	496837.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.43E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.43E-03
199	ALL	496847.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.33E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.33E-03
200	ALL	496857.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.25E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.25E-03
201	ALL	496867.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.16E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.16E-03
202	ALL	496877.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.08E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.08E-03
203	ALL	496887.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.01E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.01E-03
204	ALL	496897.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.94E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.94E-03
205	ALL	496907.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.87E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.87E-03
206	ALL	496917.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.81E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.81E-03
207	ALL	496927.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.75E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.75E-03
208	ALL	496937.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.69E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.69E-03
209	ALL	496947.1	3605694	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.64E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.64E-03
210	ALL	496677.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.14E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.14E-03
211	ALL	496687.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.63E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.63E-03
212	ALL	496697.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.19E-03
213	ALL	496707.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.82E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.82E-03
214	ALL	496717.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.49E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.49E-03
215	ALL	496727.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.20E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.20E-03
216	ALL	496737.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.95E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.95E-03
217	ALL	496747.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.72E-03
218	ALL	496757.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.52E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.52E-03

219	ALL	496767.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.34E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.34E-03
220	ALL	496777.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.18E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.18E-03
221	ALL	496787.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.03E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.03E-03
222	ALL	496797.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.89E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.89E-03
223	ALL	496807.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.76E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.76E-03
224	ALL	496817.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.64E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.64E-03
225	ALL	496827.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.54E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.54E-03
226	ALL	496837.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.43E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.43E-03
227	ALL	496847.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.34E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.34E-03
228	ALL	496857.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.25E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.25E-03
229	ALL	496867.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.17E-03
230	ALL	496877.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.09E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.09E-03
231	ALL	496887.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.01E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.01E-03
232	ALL	496897.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.94E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.94E-03
233	ALL	496907.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.88E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.88E-03
234	ALL	496917.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.81E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.81E-03
235	ALL	496927.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.75E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.75E-03
236	ALL	496937.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.70E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.70E-03
237	ALL	496947.1	3605704	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.64E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.64E-03
238	ALL	496677.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.15E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.15E-03
239	ALL	496687.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.64E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.64E-03
240	ALL	496697.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.20E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.20E-03
241	ALL	496707.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.83E-03
242	ALL	496717.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.50E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.50E-03
243	ALL	496727.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.21E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.21E-03
244	ALL	496737.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.96E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.96E-03
245	ALL	496747.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.73E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.73E-03
246	ALL	496757.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.53E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.53E-03
247	ALL	496767.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.35E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.35E-03
248	ALL	496777.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.18E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.18E-03
249	ALL	496787.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.03E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.03E-03
250	ALL	496797.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.89E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.89E-03
251	ALL	496807.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.77E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.77E-03
252	ALL	496817.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.65E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.65E-03
253	ALL	496827.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.54E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.54E-03
254	ALL	496837.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.44E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.44E-03
255	ALL	496847.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.34E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.34E-03
256	ALL	496857.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.25E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.25E-03
257	ALL	496867.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.17E-03
258	ALL	496877.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.09E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.09E-03
259	ALL	496887.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.02E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.02E-03
260	ALL	496897.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.94E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.94E-03
261	ALL	496907.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.88E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.88E-03
262	ALL	496917.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.82E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.82E-03
263	ALL	496927.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.76E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.76E-03
264	ALL	496937.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.70E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.70E-03
265	ALL	496947.1	3605714	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.65E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.65E-03
266	ALL	496677.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.16E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.16E-03
267	ALL	496687.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.64E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.64E-03
268	ALL	496697.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.21E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.21E-03
269	ALL	496707.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.84E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.84E-03
270	ALL	496717.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.51E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.51E-03
271	ALL	496727.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.22E-03
272	ALL	496737.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.96E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.96E-03
273	ALL	496747.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.74E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.74E-03

274	ALL	496757.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.54E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.54E-03
275	ALL	496767.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.35E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.35E-03
276	ALL	496777.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.19E-03
277	ALL	496787.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.04E-03
278	ALL	496797.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.90E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.90E-03
279	ALL	496807.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.77E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.77E-03
280	ALL	496817.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.65E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.65E-03
281	ALL	496827.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.54E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.54E-03
282	ALL	496837.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.44E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.44E-03
283	ALL	496847.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.34E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.34E-03
284	ALL	496857.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.26E-03
285	ALL	496867.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.17E-03
286	ALL	496877.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.09E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.09E-03
287	ALL	496887.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.02E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.02E-03
288	ALL	496897.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-03
289	ALL	496907.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.88E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.88E-03
290	ALL	496917.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.82E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.82E-03
291	ALL	496927.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.76E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.76E-03
292	ALL	496937.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.70E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.70E-03
293	ALL	496947.1	3605724	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.65E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.65E-03
294	ALL	496677.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.17E-03
295	ALL	496687.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.65E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.65E-03
296	ALL	496697.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.22E-03
297	ALL	496707.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.84E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.84E-03
298	ALL	496717.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.51E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.51E-03
299	ALL	496727.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.22E-03
300	ALL	496737.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.97E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.97E-03
301	ALL	496747.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.75E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.75E-03
302	ALL	496757.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.54E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.54E-03
303	ALL	496767.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.36E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.36E-03
304	ALL	496777.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.19E-03
305	ALL	496787.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.04E-03
306	ALL	496797.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.90E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.90E-03
307	ALL	496807.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.78E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.78E-03
308	ALL	496817.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.66E-03
309	ALL	496827.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.55E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.55E-03
310	ALL	496837.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.44E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.44E-03
311	ALL	496847.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.35E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.35E-03
312	ALL	496857.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.26E-03
313	ALL	496867.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.17E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.17E-03
314	ALL	496877.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.10E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.10E-03
315	ALL	496887.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.02E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.02E-03
316	ALL	496897.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-03
317	ALL	496907.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.88E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.88E-03
318	ALL	496917.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.82E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.82E-03
319	ALL	496927.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.76E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.76E-03
320	ALL	496937.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-03
321	ALL	496947.1	3605734	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.65E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.65E-03
322	ALL	496677.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.18E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.18E-03
323	ALL	496687.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.66E-03
324	ALL	496697.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.23E-03
325	ALL	496707.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.85E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.85E-03
326	ALL	496717.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.52E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.52E-03
327	ALL	496727.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.23E-03
328	ALL	496737.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.98E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.98E-03

329	ALL	496747.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.75E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.75E-03
330	ALL	496757.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.55E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.55E-03
331	ALL	496767.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.37E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.37E-03
332	ALL	496777.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.20E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.20E-03
333	ALL	496787.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.05E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.05E-03
334	ALL	496797.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.91E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.91E-03
335	ALL	496807.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.78E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.78E-03
336	ALL	496817.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.66E-03
337	ALL	496827.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.55E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.55E-03
338	ALL	496837.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.45E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.45E-03
339	ALL	496847.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.35E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.35E-03
340	ALL	496857.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.26E-03
341	ALL	496867.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.18E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.18E-03
342	ALL	496877.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.10E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.10E-03
343	ALL	496887.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.02E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.02E-03
344	ALL	496897.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.95E-03
345	ALL	496907.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.89E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.89E-03
346	ALL	496917.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.82E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.82E-03
347	ALL	496927.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.76E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.76E-03
348	ALL	496937.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-03
349	ALL	496947.1	3605744	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.65E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.65E-03
350	ALL	496677.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.19E-03
351	ALL	496687.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.67E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.67E-03
352	ALL	496697.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.24E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.24E-03
353	ALL	496707.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.86E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.86E-03
354	ALL	496717.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.53E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.53E-03
355	ALL	496727.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.24E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.24E-03
356	ALL	496737.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.98E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.98E-03
357	ALL	496747.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.76E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.76E-03
358	ALL	496757.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.56E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.56E-03
359	ALL	496767.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.37E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.37E-03
360	ALL	496777.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.21E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.21E-03
361	ALL	496787.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.05E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.05E-03
362	ALL	496797.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.91E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.91E-03
363	ALL	496807.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.78E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.78E-03
364	ALL	496817.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.66E-03
365	ALL	496827.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.55E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.55E-03
366	ALL	496837.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.45E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.45E-03
367	ALL	496847.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.35E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.35E-03
368	ALL	496857.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.26E-03
369	ALL	496867.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.18E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.18E-03
370	ALL	496877.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.10E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.10E-03
371	ALL	496887.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.03E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.03E-03
372	ALL	496897.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03
373	ALL	496907.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.89E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.89E-03
374	ALL	496917.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03
375	ALL	496927.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03
376	ALL	496937.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-03
377	ALL	496947.1	3605754	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03
378	ALL	496677.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.21E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	6.21E-03
379	ALL	496687.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.68E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.68E-03
380	ALL	496697.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.25E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.25E-03
381	ALL	496707.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.87E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.87E-03
382	ALL	496717.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.54E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.54E-03
383	ALL	496727.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.24E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.24E-03

384	ALL	496737.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.99E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.99E-03
385	ALL	496747.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.76E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.76E-03
386	ALL	496757.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.56E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.56E-03
387	ALL	496767.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.38E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.38E-03
388	ALL	496777.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.21E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.21E-03
389	ALL	496787.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.06E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.06E-03
390	ALL	496797.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.92E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.92E-03
391	ALL	496807.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.79E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.79E-03
392	ALL	496817.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.67E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.67E-03
393	ALL	496827.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.56E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.56E-03
394	ALL	496837.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.45E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.45E-03
395	ALL	496847.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.36E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.36E-03
396	ALL	496857.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.27E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.27E-03
397	ALL	496867.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.18E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.18E-03
398	ALL	496877.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.10E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.10E-03
399	ALL	496887.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.03E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.03E-03
400	ALL	496897.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03
401	ALL	496907.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.89E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.89E-03
402	ALL	496917.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03
403	ALL	496927.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03
404	ALL	496937.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-03
405	ALL	496947.1	3605764	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03
406	ALL	496687.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.70E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.70E-03
407	ALL	496697.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.26E-03
408	ALL	496707.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.88E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.88E-03
409	ALL	496717.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.55E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.55E-03
410	ALL	496727.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.26E-03
411	ALL	496737.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.00E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.00E-03
412	ALL	496747.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.77E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.77E-03
413	ALL	496757.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.57E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.57E-03
414	ALL	496767.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.39E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.39E-03
415	ALL	496777.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.22E-03
416	ALL	496787.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.07E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.07E-03
417	ALL	496797.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.92E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.92E-03
418	ALL	496807.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.79E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.79E-03
419	ALL	496817.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.67E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.67E-03
420	ALL	496827.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.56E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.56E-03
421	ALL	496837.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.46E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.46E-03
422	ALL	496847.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.36E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.36E-03
423	ALL	496857.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.27E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.27E-03
424	ALL	496867.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.19E-03
425	ALL	496877.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03
426	ALL	496887.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.03E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.03E-03
427	ALL	496897.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03
428	ALL	496907.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.89E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.89E-03
429	ALL	496917.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03
430	ALL	496927.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03
431	ALL	496937.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-03
432	ALL	496947.1	3605774	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03
433	ALL	496687.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.71E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.71E-03
434	ALL	496697.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.27E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.27E-03
435	ALL	496707.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.89E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.89E-03
436	ALL	496717.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.56E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.56E-03
437	ALL	496727.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.26E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.26E-03
438	ALL	496737.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.01E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.01E-03

439	ALL	496747.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.78E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.78E-03
440	ALL	496757.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.58E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.58E-03
441	ALL	496767.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.39E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.39E-03
442	ALL	496777.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.22E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.22E-03
443	ALL	496787.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.07E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.07E-03
444	ALL	496797.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.93E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.93E-03
445	ALL	496807.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.80E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.80E-03
446	ALL	496817.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.68E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.68E-03
447	ALL	496827.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.56E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.56E-03
448	ALL	496837.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.46E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.46E-03
449	ALL	496847.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.36E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.36E-03
450	ALL	496857.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.27E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.27E-03
451	ALL	496867.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.19E-03
452	ALL	496877.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03
453	ALL	496887.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.03E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.03E-03
454	ALL	496897.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03
455	ALL	496907.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.89E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.89E-03
456	ALL	496917.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03
457	ALL	496927.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03
458	ALL	496937.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-03
459	ALL	496947.1	3605784	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03
460	ALL	496687.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.72E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.72E-03
461	ALL	496697.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.28E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.28E-03
462	ALL	496707.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.90E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.90E-03
463	ALL	496717.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.57E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.57E-03
464	ALL	496727.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.27E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.27E-03
465	ALL	496737.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.02E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.02E-03
466	ALL	496747.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.79E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.79E-03
467	ALL	496757.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.58E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.58E-03
468	ALL	496767.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.40E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.40E-03
469	ALL	496777.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.23E-03
470	ALL	496787.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.07E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.07E-03
471	ALL	496797.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.93E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.93E-03
472	ALL	496807.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.80E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.80E-03
473	ALL	496817.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.68E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.68E-03
474	ALL	496827.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.57E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.57E-03
475	ALL	496837.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.46E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.46E-03
476	ALL	496847.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.37E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.37E-03
477	ALL	496857.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-03
478	ALL	496867.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.19E-03
479	ALL	496877.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03
480	ALL	496887.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.03E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.03E-03
481	ALL	496897.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03
482	ALL	496907.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.90E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.90E-03
483	ALL	496917.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03
484	ALL	496927.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03
485	ALL	496937.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.72E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.72E-03
486	ALL	496947.1	3605794	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03
487	ALL	496687.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.74E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.74E-03
488	ALL	496697.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.30E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.30E-03
489	ALL	496707.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.91E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.91E-03
490	ALL	496717.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.58E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.58E-03
491	ALL	496727.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.29E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.29E-03
492	ALL	496737.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.03E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.03E-03
493	ALL	496747.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.80E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.80E-03

494	ALL	496757.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.59E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.59E-03
495	ALL	496767.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.40E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.40E-03
496	ALL	496777.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.23E-03
497	ALL	496787.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E-03
498	ALL	496797.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.94E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.94E-03
499	ALL	496807.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.81E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.81E-03
500	ALL	496817.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.68E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.68E-03
501	ALL	496827.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.57E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.57E-03
502	ALL	496837.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-03
503	ALL	496847.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.37E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.37E-03
504	ALL	496857.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-03
505	ALL	496867.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.19E-03
506	ALL	496877.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03
507	ALL	496887.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E-03
508	ALL	496897.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03
509	ALL	496907.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.90E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.90E-03
510	ALL	496917.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03
511	ALL	496927.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03
512	ALL	496937.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.72E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.72E-03
513	ALL	496947.1	3605804	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03
514	ALL	496687.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.76E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.76E-03
515	ALL	496697.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.31E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.31E-03
516	ALL	496707.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.93E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.93E-03
517	ALL	496717.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.59E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.59E-03
518	ALL	496727.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.30E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.30E-03
519	ALL	496737.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.04E-03
520	ALL	496747.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.80E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.80E-03
521	ALL	496757.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.59E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.59E-03
522	ALL	496767.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.40E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.40E-03
523	ALL	496777.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.23E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.23E-03
524	ALL	496787.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E-03
525	ALL	496797.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.94E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.94E-03
526	ALL	496807.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.81E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.81E-03
527	ALL	496817.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.69E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.69E-03
528	ALL	496827.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.57E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.57E-03
529	ALL	496837.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-03
530	ALL	496847.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.37E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.37E-03
531	ALL	496857.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-03
532	ALL	496867.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.19E-03
533	ALL	496877.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03
534	ALL	496887.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E-03
535	ALL	496897.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.97E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.97E-03
536	ALL	496907.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.90E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.90E-03
537	ALL	496917.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03
538	ALL	496927.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03
539	ALL	496937.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.72E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.72E-03
540	ALL	496947.1	3605814	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03
541	ALL	496687.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.77E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.77E-03
542	ALL	496697.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.32E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	5.32E-03
543	ALL	496707.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.94E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.94E-03
544	ALL	496717.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.61E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.61E-03
545	ALL	496727.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.31E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.31E-03
546	ALL	496737.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.05E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.05E-03
547	ALL	496747.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.81E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.81E-03
548	ALL	496757.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.60E-03

549	ALL	496767.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.41E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.41E-03
550	ALL	496777.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.24E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.24E-03
551	ALL	496787.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E-03
552	ALL	496797.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.94E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.94E-03
553	ALL	496807.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.81E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.81E-03
554	ALL	496817.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.69E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.69E-03
555	ALL	496827.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.58E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.58E-03
556	ALL	496837.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-03
557	ALL	496847.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.37E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.37E-03
558	ALL	496857.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-03
559	ALL	496867.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.19E-03
560	ALL	496877.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03
561	ALL	496887.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E-03
562	ALL	496897.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.97E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.97E-03
563	ALL	496907.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.90E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.90E-03
564	ALL	496917.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03
565	ALL	496927.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03
566	ALL	496937.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.72E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.72E-03
567	ALL	496947.1	3605824	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03
568	ALL	496727.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.33E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.33E-03
569	ALL	496737.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.06E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	4.06E-03
570	ALL	496747.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.83E-03
571	ALL	496757.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.61E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.61E-03
572	ALL	496767.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.42E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.42E-03
573	ALL	496777.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.24E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.24E-03
574	ALL	496787.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	3.08E-03
575	ALL	496797.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.94E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.94E-03
576	ALL	496807.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.81E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.81E-03
577	ALL	496817.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.69E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.69E-03
578	ALL	496827.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.57E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.57E-03
579	ALL	496837.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-03
580	ALL	496847.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.37E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.37E-03
581	ALL	496857.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-03
582	ALL	496867.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.20E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.20E-03
583	ALL	496877.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03
584	ALL	496887.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E-03
585	ALL	496897.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.97E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.97E-03
586	ALL	496907.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.90E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.90E-03
587	ALL	496917.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03
588	ALL	496927.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03
589	ALL	496937.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.72E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.72E-03
590	ALL	496947.1	3605834	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03
591	ALL	496797.1	3605844	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.94E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.94E-03
592	ALL	496807.1	3605844	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.81E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.81E-03
593	ALL	496817.1	3605844	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.69E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.69E-03
594	ALL	496827.1	3605844	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.57E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.57E-03
595	ALL	496837.1	3605844	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.47E-03
596	ALL	496847.1	3605844	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.37E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.37E-03
597	ALL	496857.1	3605844	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-03
598	ALL	496867.1	3605844	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.20E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.20E-03
599	ALL	496877.1	3605844	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03
600	ALL	496887.1	3605844	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E-03
601	ALL	496897.1	3605844	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03
602	ALL	496907.1	3605844	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.90E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.90E-03
603	ALL	496917.1	3605844	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03

604	ALL	496927.1	3605844	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03
605	ALL	496937.1	3605844	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-03
606	ALL	496947.1	3605844	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03
607	ALL	496857.1	3605854	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.28E-03
608	ALL	496867.1	3605854	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.19E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.19E-03
609	ALL	496877.1	3605854	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.11E-03
610	ALL	496887.1	3605854	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.04E-03
611	ALL	496897.1	3605854	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.96E-03
612	ALL	496907.1	3605854	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.89E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.89E-03
613	ALL	496917.1	3605854	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.83E-03
614	ALL	496927.1	3605854	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03
615	ALL	496937.1	3605854	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-03
616	ALL	496947.1	3605854	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03
617	ALL	496927.1	3605864	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.77E-03
618	ALL	496937.1	3605864	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.71E-03
619	ALL	496947.1	3605864	NonCancer	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.66E-03

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**
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**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 8/30/2021
** File: C:\Lakes\AERMOD View\NakanoFreeway\NakanoFreeway.ADI
**
****************************************
**
**
****************************************
** AERMOD Control Pathway
****************************************
**
**
CO STARTING
   TITLEONE Nakano Freeway HRA
   MODELOPT DFAULT CONC
   AVERTIME PERIOD
   POLLUTID PM_10
   RUNORNOT RUN
   ERRORFIL NakanoFreeway.err
CO FINISHED
**
****************************************
** AERMOD Source Pathway
****************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = 805NB
** DESCRSRC I-805 Northbound
** PREFIX
** Length of Side = 20.73
** Configuration = Adjacent
** Emission Rate = 1.0
** Vertical Dimension = 6.39
** SZINIT = 2.97
** Nodes = 5
** 496606.528, 3606360.234, 41.48, 3.19, 9.64
** 496604.640, 3605678.552, 41.57, 3.19, 9.64
** 496598.975, 3605579.415, 46.36, 3.19, 9.64
** 496578.204, 3605363.203, 53.33, 3.19, 9.64
** 496540.437, 3605140.381, 59.63, 3.19, 9.64
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   LOCATION L0000120     VOLUME   496606.442 3606329.145 44.27
   LOCATION L0000121     VOLUME   496606.385 3606308.419 43.73
   LOCATION L0000122     VOLUME   496606.328 3606287.692 43.20
   LOCATION L0000123     VOLUME   496606.270 3606266.966 42.81
   LOCATION L0000124     VOLUME   496606.213 3606246.240 42.46
   LOCATION L0000125     VOLUME   496606.155 3606225.513 42.11
   LOCATION L0000126     VOLUME   496606.098 3606204.787 41.75
   LOCATION L0000127     VOLUME   496606.040 3606184.061 41.37
   LOCATION L0000128     VOLUME   496605.983 3606163.334 40.96
   LOCATION L0000129     VOLUME   496605.926 3606142.608 40.51
   LOCATION L0000130     VOLUME   496605.868 3606121.882 40.05
   LOCATION L0000131     VOLUME   496605.811 3606101.155 39.60
   LOCATION L0000132     VOLUME   496605.753 3606080.429 39.10
   LOCATION L0000133     VOLUME   496605.696 3606059.703 38.67
   LOCATION L0000134     VOLUME   496605.639 3606038.977 38.37
   LOCATION L0000135     VOLUME   496605.581 3606018.250 38.25
   LOCATION L0000136     VOLUME   496605.524 3605997.524 36.85
   LOCATION L0000137     VOLUME   496605.466 3605976.798 33.49
   LOCATION L0000138     VOLUME   496605.409 3605956.071 27.85
   LOCATION L0000139     VOLUME   496605.351 3605935.345 24.51
   LOCATION L0000140     VOLUME   496605.294 3605914.619 24.58
   LOCATION L0000141     VOLUME   496605.237 3605893.892 25.38
   LOCATION L0000142     VOLUME   496605.179 3605873.166 29.56
   LOCATION L0000143     VOLUME   496605.122 3605852.440 37.80
   LOCATION L0000144     VOLUME   496605.064 3605831.713 38.85
   LOCATION L0000145     VOLUME   496605.007 3605810.987 39.47
   LOCATION L0000146     VOLUME   496604.950 3605790.261 39.90
   LOCATION L0000147     VOLUME   496604.892 3605769.534 40.40
   LOCATION L0000148     VOLUME   496604.835 3605748.808 40.92
   LOCATION L0000149     VOLUME   496604.777 3605728.082 41.46
   LOCATION L0000150     VOLUME   496604.720 3605707.355 42.06
   LOCATION L0000151     VOLUME   496604.663 3605686.629 42.64
   LOCATION L0000152     VOLUME   496603.919 3605665.923 43.24
   LOCATION L0000153     VOLUME   496602.736 3605645.231 43.89
   LOCATION L0000154     VOLUME   496601.554 3605624.538 44.59
   LOCATION L0000155     VOLUME   496600.371 3605603.845 45.31
   LOCATION L0000156     VOLUME   496599.189 3605583.153 46.05
   LOCATION L0000157     VOLUME   496597.351 3605562.510 46.75
   LOCATION L0000158     VOLUME   496595.369 3605541.879 47.37
   LOCATION L0000159     VOLUME   496593.387 3605521.247 48.04
   LOCATION L0000160     VOLUME   496591.405 3605500.616 48.69
   LOCATION L0000161     VOLUME   496589.423 3605479.985 49.33
   LOCATION L0000162     VOLUME   496587.441 3605459.353 49.98
   LOCATION L0000163     VOLUME   496585.459 3605438.722 50.56
   LOCATION L0000164     VOLUME   496583.477 3605418.090 51.11
   LOCATION L0000165     VOLUME   496581.495 3605397.459 51.84
   LOCATION L0000166     VOLUME   496579.513 3605376.828 52.61
   LOCATION L0000167     VOLUME   496577.027 3605356.263 53.31
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   LOCATION L0000168     VOLUME   496573.564 3605335.828 53.77
   LOCATION L0000169     VOLUME   496570.100 3605315.393 54.23
   LOCATION L0000170     VOLUME   496566.637 3605294.958 54.90
   LOCATION L0000171     VOLUME   496563.173 3605274.523 55.55
   LOCATION L0000172     VOLUME   496559.710 3605254.088 56.14
   LOCATION L0000173     VOLUME   496556.246 3605233.653 56.72
   LOCATION L0000174     VOLUME   496552.783 3605213.218 57.62
   LOCATION L0000175     VOLUME   496549.319 3605192.783 58.37
   LOCATION L0000176     VOLUME   496545.855 3605172.348 58.56
   LOCATION L0000177     VOLUME   496542.392 3605151.913 59.08
** End of LINE VOLUME Source ID = 805NB
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = 805SB
** DESCRSRC I-805 Southbound
** PREFIX
** Length of Side = 20.73
** Configuration = Adjacent
** Emission Rate = 1.0
** Vertical Dimension = 6.41
** SZINIT = 2.98
** Nodes = 6
** 496577.260, 3606362.123, 42.86, 3.20, 9.64
** 496578.204, 3605715.374, 42.09, 3.20, 9.64
** 496570.650, 3605572.806, 46.16, 3.20, 9.64
** 496555.544, 3605430.238, 50.67, 3.20, 9.64
** 496532.884, 3605260.289, 56.01, 3.20, 9.64
** 496514.945, 3605148.879, 59.81, 3.20, 9.64
** ------------------------------------------------------------------------
   LOCATION L0000178     VOLUME   496577.275 3606351.760 43.82
   LOCATION L0000179     VOLUME   496577.305 3606331.033 44.93
   LOCATION L0000180     VOLUME   496577.335 3606310.307 44.44
   LOCATION L0000181     VOLUME   496577.365 3606289.580 43.95
   LOCATION L0000182     VOLUME   496577.396 3606268.854 43.46
   LOCATION L0000183     VOLUME   496577.426 3606248.128 42.97
   LOCATION L0000184     VOLUME   496577.456 3606227.401 42.48
   LOCATION L0000185     VOLUME   496577.486 3606206.675 41.98
   LOCATION L0000186     VOLUME   496577.517 3606185.949 41.48
   LOCATION L0000187     VOLUME   496577.547 3606165.222 40.97
   LOCATION L0000188     VOLUME   496577.577 3606144.496 40.50
   LOCATION L0000189     VOLUME   496577.607 3606123.769 40.05
   LOCATION L0000190     VOLUME   496577.638 3606103.043 39.61
   LOCATION L0000191     VOLUME   496577.668 3606082.317 39.25
   LOCATION L0000192     VOLUME   496577.698 3606061.590 38.94
   LOCATION L0000193     VOLUME   496577.729 3606040.864 38.66
   LOCATION L0000194     VOLUME   496577.759 3606020.138 38.44
   LOCATION L0000195     VOLUME   496577.789 3605999.411 38.12
   LOCATION L0000196     VOLUME   496577.819 3605978.685 37.51
   LOCATION L0000197     VOLUME   496577.850 3605957.958 31.34
   LOCATION L0000198     VOLUME   496577.880 3605937.232 25.94
```

```
   LOCATION L0000199     VOLUME   496577.910 3605916.506 24.52
   LOCATION L0000200     VOLUME   496577.940 3605895.779 24.43
   LOCATION L0000201     VOLUME   496577.971 3605875.053 26.87
   LOCATION L0000202     VOLUME   496578.001 3605854.327 33.36
   LOCATION L0000203     VOLUME   496578.031 3605833.600 37.20
   LOCATION L0000204     VOLUME   496578.061 3605812.874 39.46
   LOCATION L0000205     VOLUME   496578.092 3605792.147 39.86
   LOCATION L0000206     VOLUME   496578.122 3605771.421 40.34
   LOCATION L0000207     VOLUME   496578.152 3605750.695 40.86
   LOCATION L0000208     VOLUME   496578.182 3605729.968 41.43
   LOCATION L0000209     VOLUME   496577.879 3605709.250 42.07
   LOCATION L0000210     VOLUME   496576.783 3605688.553 42.71
   LOCATION L0000211     VOLUME   496575.686 3605667.856 43.34
   LOCATION L0000212     VOLUME   496574.590 3605647.158 43.97
   LOCATION L0000213     VOLUME   496573.493 3605626.461 44.59
   LOCATION L0000214     VOLUME   496572.397 3605605.764 45.20
   LOCATION L0000215     VOLUME   496571.300 3605585.066 45.83
   LOCATION L0000216     VOLUME   496569.760 3605564.404 46.58
   LOCATION L0000217     VOLUME   496567.576 3605543.793 47.51
   LOCATION L0000218     VOLUME   496565.392 3605523.182 48.53
   LOCATION L0000219     VOLUME   496563.208 3605502.571 49.43
   LOCATION L0000220     VOLUME   496561.024 3605481.960 50.00
   LOCATION L0000221     VOLUME   496558.840 3605461.349 50.54
   LOCATION L0000222     VOLUME   496556.656 3605440.738 50.84
   LOCATION L0000223     VOLUME   496554.200 3605420.160 50.90
   LOCATION L0000224     VOLUME   496551.461 3605399.615 51.43
   LOCATION L0000225     VOLUME   496548.722 3605379.070 52.03
   LOCATION L0000226     VOLUME   496545.982 3605358.526 52.70
   LOCATION L0000227     VOLUME   496543.243 3605337.981 53.95
   LOCATION L0000228     VOLUME   496540.504 3605317.437 54.80
   LOCATION L0000229     VOLUME   496537.764 3605296.892 55.28
   LOCATION L0000230     VOLUME   496535.025 3605276.347 55.78
   LOCATION L0000231     VOLUME   496532.165 3605255.821 56.14
   LOCATION L0000232     VOLUME   496528.870 3605235.358 56.47
   LOCATION L0000233     VOLUME   496525.575 3605214.895 57.12
   LOCATION L0000234     VOLUME   496522.280 3605194.432 57.77
   LOCATION L0000235     VOLUME   496518.985 3605173.969 58.61
   LOCATION L0000236     VOLUME   496515.690 3605153.507 59.88
** End of LINE VOLUME Source ID = 805SB
** Source Parameters **
** LINE VOLUME Source ID = 805NB
   SRCPARAM L0000119     0.0169491525      3.19      9.64      2.97
   SRCPARAM L0000120     0.0169491525      3.19      9.64      2.97
   SRCPARAM L0000121     0.0169491525      3.19      9.64      2.97
   SRCPARAM L0000122     0.0169491525      3.19      9.64      2.97
   SRCPARAM L0000123     0.0169491525      3.19      9.64      2.97
   SRCPARAM L0000124     0.0169491525      3.19      9.64      2.97
   SRCPARAM L0000125     0.0169491525      3.19      9.64      2.97
   SRCPARAM L0000126     0.0169491525      3.19      9.64      2.97
   SRCPARAM L0000127     0.0169491525      3.19      9.64      2.97
```

SRCPARAM	L0000128	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000129	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000130	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000131	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000132	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000133	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000134	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000135	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000136	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000137	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000138	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000139	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000140	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000141	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000142	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000143	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000144	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000145	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000146	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000147	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000148	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000149	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000150	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000151	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000152	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000153	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000154	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000155	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000156	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000157	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000158	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000159	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000160	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000161	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000162	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000163	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000164	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000165	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000166	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000167	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000168	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000169	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000170	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000171	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000172	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000173	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000174	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000175	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000176	0.0169491525	3.19	9.64	2.97
SRCPARAM	L0000177	0.0169491525	3.19	9.64	2.97

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** ------------------------------------------------------------------
** LINE VOLUME Source ID = 805SB
   SRCPARAM L0000178     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000179     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000180     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000181     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000182     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000183     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000184     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000185     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000186     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000187     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000188     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000189     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000190     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000191     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000192     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000193     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000194     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000195     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000196     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000197     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000198     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000199     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000200     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000201     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000202     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000203     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000204     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000205     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000206     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000207     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000208     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000209     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000210     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000211     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000212     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000213     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000214     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000215     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000216     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000217     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000218     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000219     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000220     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000221     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000222     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000223     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000224     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000225     0.0169491525      3.20      9.64      2.98
```

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   SRCPARAM L0000226     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000227     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000228     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000229     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000230     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000231     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000232     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000233     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000234     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000235     0.0169491525      3.20      9.64      2.98
   SRCPARAM L0000236     0.0169491525      3.20      9.64      2.98
** ------------------------------------------------------------------------
   SRCGROUP 805NB    L0000119 L0000120 L0000121 L0000122 L0000123 L0000124
   SRCGROUP 805NB    L0000125 L0000126 L0000127 L0000128 L0000129 L0000130
   SRCGROUP 805NB    L0000131 L0000132 L0000133 L0000134 L0000135 L0000136
   SRCGROUP 805NB    L0000137 L0000138 L0000139 L0000140 L0000141 L0000142
   SRCGROUP 805NB    L0000143 L0000144 L0000145 L0000146 L0000147 L0000148
   SRCGROUP 805NB    L0000149 L0000150 L0000151 L0000152 L0000153 L0000154
   SRCGROUP 805NB    L0000155 L0000156 L0000157 L0000158 L0000159 L0000160
   SRCGROUP 805NB    L0000161 L0000162 L0000163 L0000164 L0000165 L0000166
   SRCGROUP 805NB    L0000167 L0000168 L0000169 L0000170 L0000171 L0000172
   SRCGROUP 805NB    L0000173 L0000174 L0000175 L0000176 L0000177
   SRCGROUP 805SB    L0000178 L0000179 L0000180 L0000181 L0000182 L0000183
   SRCGROUP 805SB    L0000184 L0000185 L0000186 L0000187 L0000188 L0000189
   SRCGROUP 805SB    L0000190 L0000191 L0000192 L0000193 L0000194 L0000195
   SRCGROUP 805SB    L0000196 L0000197 L0000198 L0000199 L0000200 L0000201
   SRCGROUP 805SB    L0000202 L0000203 L0000204 L0000205 L0000206 L0000207
   SRCGROUP 805SB    L0000208 L0000209 L0000210 L0000211 L0000212 L0000213
   SRCGROUP 805SB    L0000214 L0000215 L0000216 L0000217 L0000218 L0000219
   SRCGROUP 805SB    L0000220 L0000221 L0000222 L0000223 L0000224 L0000225
   SRCGROUP 805SB    L0000226 L0000227 L0000228 L0000229 L0000230 L0000231
   SRCGROUP 805SB    L0000232 L0000233 L0000234 L0000235 L0000236
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED NakanoFreeway.rou
RE FINISHED
**
****************************************
** AERMOD Meteorology Pathway
****************************************
**
**
ME STARTING
```

```
   SURFFILE "C:\Users\swang\Documents\1. Projects\12476.02 Pardee Homes
Nakano\Met\CVA_2010_2012_v18081.SFC"
   PROFFILE "C:\Users\swang\Documents\1. Projects\12476.02 Pardee Homes
Nakano\Met\CVA_2010_2012_v18081.PFL"
   SURFDATA 23188 2010 SAN_DIEGO/LINDBERGH_FIELD
   UAIRDATA 3190 2010
   SITEDATA 1 2010
   PROFBASE 174.0 FEET
ME FINISHED
**
****************************************
** AERMOD Output Pathway
****************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE PERIOD ALL NakanoFreeway.AD\PE00GALL.PLT 31
   PLOTFILE PERIOD 805NB NakanoFreeway.AD\PE00G001.PLT 32
   PLOTFILE PERIOD 805SB NakanoFreeway.AD\PE00G002.PLT 33
   SUMMFILE NakanoFreeway.sum
OU FINISHED


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

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

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


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


    ********   WARNING MESSAGES   ********
 ME W186     357       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
    0.50
 ME W187     357       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET


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

↑ *** AERMOD - VERSION 21112  ***   *** Nakano Freeway HRA
                         ***        08/30/21
 *** AERMET - VERSION  18081 ***   ***
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                          ***     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:
         ADJ_U*   - Use ADJ_U* option for SBL in AERMET
         CCVR_Sub - Meteorological data includes CCVR substitutions
         TEMP_Sub - Meteorological data includes TEMP substitutions

 **Model Assumes No FLAGPOLE Receptor Heights.

 **The User Specified a Pollutant Type of:  PM_10

 **Model Calculates PERIOD Averages Only

 **This Run Includes:    118 Source(s);       3 Source Group(s); and     619
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:    118 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 a total of     0 line(s)
```

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

**The AERMET Input Meteorological Data Version Date: 18081

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

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

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 53.04 ; 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 = 3.7 MB of RAM.

**Input Runstream File: aermod.inp

**Output Print File: aermod.out

**Detailed Error/Message File: NakanoFreeway.err

**File for Summary of Results: NakanoFreeway.sum

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** 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	URBAN SOURCE	EMISSION RATE SCALAR VARY

(METERS) BY

- -

L0000119	0	0.16949E-01	496606.5	3606349.9	43.7	3.19	9.64	2.97	NO
L0000120	0	0.16949E-01	496606.4	3606329.1	44.3	3.19	9.64	2.97	NO
L0000121	0	0.16949E-01	496606.4	3606308.4	43.7	3.19	9.64	2.97	NO
L0000122	0	0.16949E-01	496606.3	3606287.7	43.2	3.19	9.64	2.97	NO
L0000123	0	0.16949E-01	496606.3	3606267.0	42.8	3.19	9.64	2.97	NO
L0000124	0	0.16949E-01	496606.2	3606246.2	42.5	3.19	9.64	2.97	NO
L0000125	0	0.16949E-01	496606.2	3606225.5	42.1	3.19	9.64	2.97	NO
L0000126	0	0.16949E-01	496606.1	3606204.8	41.8	3.19	9.64	2.97	NO
L0000127	0	0.16949E-01	496606.0	3606184.1	41.4	3.19	9.64	2.97	NO
L0000128	0	0.16949E-01	496606.0	3606163.3	41.0	3.19	9.64	2.97	NO
L0000129	0	0.16949E-01	496605.9	3606142.6	40.5	3.19	9.64	2.97	NO
L0000130	0	0.16949E-01	496605.9	3606121.9	40.0	3.19	9.64	2.97	NO
L0000131	0	0.16949E-01	496605.8	3606101.2	39.6	3.19	9.64	2.97	NO
L0000132	0	0.16949E-01	496605.8	3606080.4	39.1	3.19	9.64	2.97	NO
L0000133	0	0.16949E-01	496605.7	3606059.7	38.7	3.19	9.64	2.97	NO
L0000134	0	0.16949E-01	496605.6	3606039.0	38.4	3.19	9.64	2.97	NO
L0000135	0	0.16949E-01	496605.6	3606018.2	38.2	3.19	9.64	2.97	NO
L0000136	0	0.16949E-01	496605.5	3605997.5	36.8	3.19	9.64	2.97	NO
L0000137	0	0.16949E-01	496605.5	3605976.8	33.5	3.19	9.64	2.97	NO
L0000138	0	0.16949E-01	496605.4	3605956.1	27.9	3.19	9.64	2.97	NO
L0000139	0	0.16949E-01	496605.4	3605935.3	24.5	3.19	9.64	2.97	NO
L0000140	0	0.16949E-01	496605.3	3605914.6	24.6	3.19	9.64	2.97	NO
L0000141	0	0.16949E-01	496605.2	3605893.9	25.4	3.19	9.64	2.97	NO

```
 L0000142         0   0.16949E-01  496605.2 3605873.2    29.6     3.19     9.64
2.97     NO
 L0000143         0   0.16949E-01  496605.1 3605852.4    37.8     3.19     9.64
2.97     NO
 L0000144         0   0.16949E-01  496605.1 3605831.7    38.8     3.19     9.64
2.97     NO
 L0000145         0   0.16949E-01  496605.0 3605811.0    39.5     3.19     9.64
2.97     NO
 L0000146         0   0.16949E-01  496605.0 3605790.3    39.9     3.19     9.64
2.97     NO
 L0000147         0   0.16949E-01  496604.9 3605769.5    40.4     3.19     9.64
2.97     NO
 L0000148         0   0.16949E-01  496604.8 3605748.8    40.9     3.19     9.64
2.97     NO
 L0000149         0   0.16949E-01  496604.8 3605728.1    41.5     3.19     9.64
2.97     NO
 L0000150         0   0.16949E-01  496604.7 3605707.4    42.1     3.19     9.64
2.97     NO
 L0000151         0   0.16949E-01  496604.7 3605686.6    42.6     3.19     9.64
2.97     NO
 L0000152         0   0.16949E-01  496603.9 3605665.9    43.2     3.19     9.64
2.97     NO
 L0000153         0   0.16949E-01  496602.7 3605645.2    43.9     3.19     9.64
2.97     NO
 L0000154         0   0.16949E-01  496601.6 3605624.5    44.6     3.19     9.64
2.97     NO
 L0000155         0   0.16949E-01  496600.4 3605603.8    45.3     3.19     9.64
2.97     NO
 L0000156         0   0.16949E-01  496599.2 3605583.2    46.0     3.19     9.64
2.97     NO
 L0000157         0   0.16949E-01  496597.4 3605562.5    46.8     3.19     9.64
2.97     NO
 L0000158         0   0.16949E-01  496595.4 3605541.9    47.4     3.19     9.64
2.97     NO
↑ *** AERMOD - VERSION 21112  ***   *** Nakano Freeway HRA
                         ***       08/30/21
 *** AERMET - VERSION  18081 ***   ***
                       ***       14:31:50

                                  PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                                *** 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
- -

L0000159	0	0.16949E-01	496593.4	3605521.2	48.0	3.19	9.64	2.97	NO
L0000160	0	0.16949E-01	496591.4	3605500.6	48.7	3.19	9.64	2.97	NO
L0000161	0	0.16949E-01	496589.4	3605480.0	49.3	3.19	9.64	2.97	NO
L0000162	0	0.16949E-01	496587.4	3605459.4	50.0	3.19	9.64	2.97	NO
L0000163	0	0.16949E-01	496585.5	3605438.7	50.6	3.19	9.64	2.97	NO
L0000164	0	0.16949E-01	496583.5	3605418.1	51.1	3.19	9.64	2.97	NO
L0000165	0	0.16949E-01	496581.5	3605397.5	51.8	3.19	9.64	2.97	NO
L0000166	0	0.16949E-01	496579.5	3605376.8	52.6	3.19	9.64	2.97	NO
L0000167	0	0.16949E-01	496577.0	3605356.3	53.3	3.19	9.64	2.97	NO
L0000168	0	0.16949E-01	496573.6	3605335.8	53.8	3.19	9.64	2.97	NO
L0000169	0	0.16949E-01	496570.1	3605315.4	54.2	3.19	9.64	2.97	NO
L0000170	0	0.16949E-01	496566.6	3605295.0	54.9	3.19	9.64	2.97	NO
L0000171	0	0.16949E-01	496563.2	3605274.5	55.5	3.19	9.64	2.97	NO
L0000172	0	0.16949E-01	496559.7	3605254.1	56.1	3.19	9.64	2.97	NO
L0000173	0	0.16949E-01	496556.2	3605233.7	56.7	3.19	9.64	2.97	NO
L0000174	0	0.16949E-01	496552.8	3605213.2	57.6	3.19	9.64	2.97	NO
L0000175	0	0.16949E-01	496549.3	3605192.8	58.4	3.19	9.64	2.97	NO
L0000176	0	0.16949E-01	496545.9	3605172.3	58.6	3.19	9.64	2.97	NO
L0000177	0	0.16949E-01	496542.4	3605151.9	59.1	3.19	9.64	2.97	NO
L0000178	0	0.16949E-01	496577.3	3606351.8	43.8	3.20	9.64	2.98	NO
L0000179	0	0.16949E-01	496577.3	3606331.0	44.9	3.20	9.64	2.98	NO
L0000180	0	0.16949E-01	496577.3	3606310.3	44.4	3.20	9.64	2.98	NO
L0000181	0	0.16949E-01	496577.4	3606289.6	43.9	3.20	9.64	2.98	NO

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 L0000182         0   0.16949E-01  496577.4 3606268.9    43.5     3.20     9.64
2.98     NO
 L0000183         0   0.16949E-01  496577.4 3606248.1    43.0     3.20     9.64
2.98     NO
 L0000184         0   0.16949E-01  496577.5 3606227.4    42.5     3.20     9.64
2.98     NO
 L0000185         0   0.16949E-01  496577.5 3606206.7    42.0     3.20     9.64
2.98     NO
 L0000186         0   0.16949E-01  496577.5 3606185.9    41.5     3.20     9.64
2.98     NO
 L0000187         0   0.16949E-01  496577.5 3606165.2    41.0     3.20     9.64
2.98     NO
 L0000188         0   0.16949E-01  496577.6 3606144.5    40.5     3.20     9.64
2.98     NO
 L0000189         0   0.16949E-01  496577.6 3606123.8    40.0     3.20     9.64
2.98     NO
 L0000190         0   0.16949E-01  496577.6 3606103.0    39.6     3.20     9.64
2.98     NO
 L0000191         0   0.16949E-01  496577.7 3606082.3    39.2     3.20     9.64
2.98     NO
 L0000192         0   0.16949E-01  496577.7 3606061.6    38.9     3.20     9.64
2.98     NO
 L0000193         0   0.16949E-01  496577.7 3606040.9    38.7     3.20     9.64
2.98     NO
 L0000194         0   0.16949E-01  496577.8 3606020.1    38.4     3.20     9.64
2.98     NO
 L0000195         0   0.16949E-01  496577.8 3605999.4    38.1     3.20     9.64
2.98     NO
 L0000196         0   0.16949E-01  496577.8 3605978.7    37.5     3.20     9.64
2.98     NO
 L0000197         0   0.16949E-01  496577.8 3605958.0    31.3     3.20     9.64
2.98     NO
 L0000198         0   0.16949E-01  496577.9 3605937.2    25.9     3.20     9.64
2.98     NO
```


```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                                  *** 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
- -

L0000199	0	0.16949E-01	496577.9	3605916.5	24.5	3.20	9.64	2.98	NO
L0000200	0	0.16949E-01	496577.9	3605895.8	24.4	3.20	9.64	2.98	NO
L0000201	0	0.16949E-01	496578.0	3605875.1	26.9	3.20	9.64	2.98	NO
L0000202	0	0.16949E-01	496578.0	3605854.3	33.4	3.20	9.64	2.98	NO
L0000203	0	0.16949E-01	496578.0	3605833.6	37.2	3.20	9.64	2.98	NO
L0000204	0	0.16949E-01	496578.1	3605812.9	39.5	3.20	9.64	2.98	NO
L0000205	0	0.16949E-01	496578.1	3605792.1	39.9	3.20	9.64	2.98	NO
L0000206	0	0.16949E-01	496578.1	3605771.4	40.3	3.20	9.64	2.98	NO
L0000207	0	0.16949E-01	496578.2	3605750.7	40.9	3.20	9.64	2.98	NO
L0000208	0	0.16949E-01	496578.2	3605730.0	41.4	3.20	9.64	2.98	NO
L0000209	0	0.16949E-01	496577.9	3605709.2	42.1	3.20	9.64	2.98	NO
L0000210	0	0.16949E-01	496576.8	3605688.6	42.7	3.20	9.64	2.98	NO
L0000211	0	0.16949E-01	496575.7	3605667.9	43.3	3.20	9.64	2.98	NO
L0000212	0	0.16949E-01	496574.6	3605647.2	44.0	3.20	9.64	2.98	NO
L0000213	0	0.16949E-01	496573.5	3605626.5	44.6	3.20	9.64	2.98	NO
L0000214	0	0.16949E-01	496572.4	3605605.8	45.2	3.20	9.64	2.98	NO
L0000215	0	0.16949E-01	496571.3	3605585.1	45.8	3.20	9.64	2.98	NO
L0000216	0	0.16949E-01	496569.8	3605564.4	46.6	3.20	9.64	2.98	NO
L0000217	0	0.16949E-01	496567.6	3605543.8	47.5	3.20	9.64	2.98	NO
L0000218	0	0.16949E-01	496565.4	3605523.2	48.5	3.20	9.64	2.98	NO
L0000219	0	0.16949E-01	496563.2	3605502.6	49.4	3.20	9.64	2.98	NO
L0000220	0	0.16949E-01	496561.0	3605482.0	50.0	3.20	9.64	2.98	NO
L0000221	0	0.16949E-01	496558.8	3605461.3	50.5	3.20	9.64	2.98	NO

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 L0000222         0   0.16949E-01  496556.7 3605440.7    50.8      3.20      9.64
2.98     NO
 L0000223         0   0.16949E-01  496554.2 3605420.2    50.9      3.20      9.64
2.98     NO
 L0000224         0   0.16949E-01  496551.5 3605399.6    51.4      3.20      9.64
2.98     NO
 L0000225         0   0.16949E-01  496548.7 3605379.1    52.0      3.20      9.64
2.98     NO
 L0000226         0   0.16949E-01  496546.0 3605358.5    52.7      3.20      9.64
2.98     NO
 L0000227         0   0.16949E-01  496543.2 3605338.0    53.9      3.20      9.64
2.98     NO
 L0000228         0   0.16949E-01  496540.5 3605317.4    54.8      3.20      9.64
2.98     NO
 L0000229         0   0.16949E-01  496537.8 3605296.9    55.3      3.20      9.64
2.98     NO
 L0000230         0   0.16949E-01  496535.0 3605276.3    55.8      3.20      9.64
2.98     NO
 L0000231         0   0.16949E-01  496532.2 3605255.8    56.1      3.20      9.64
2.98     NO
 L0000232         0   0.16949E-01  496528.9 3605235.4    56.5      3.20      9.64
2.98     NO
 L0000233         0   0.16949E-01  496525.6 3605214.9    57.1      3.20      9.64
2.98     NO
 L0000234         0   0.16949E-01  496522.3 3605194.4    57.8      3.20      9.64
2.98     NO
 L0000235         0   0.16949E-01  496519.0 3605174.0    58.6      3.20      9.64
2.98     NO
 L0000236         0   0.16949E-01  496515.7 3605153.5    59.9      3.20      9.64
2.98     NO
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```
                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

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


  805NB      L0000119    , L0000120    , L0000121    , L0000122    , L0000123    ,
L0000124    , L0000125    , L0000126    ,

             L0000127    , L0000128    , L0000129    , L0000130    , L0000131    ,
L0000132    , L0000133    , L0000134    ,
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L0000135 , L0000136 , L0000137 , L0000138 , L0000139 ,
L0000140 , L0000141 , L0000142 ,

L0000143 , L0000144 , L0000145 , L0000146 , L0000147 ,
L0000148 , L0000149 , L0000150 ,

L0000151 , L0000152 , L0000153 , L0000154 , L0000155 ,
L0000156 , L0000157 , L0000158 ,

L0000159 , L0000160 , L0000161 , L0000162 , L0000163 ,
L0000164 , L0000165 , L0000166 ,

L0000167 , L0000168 , L0000169 , L0000170 , L0000171 ,
L0000172 , L0000173 , L0000174 ,

L0000175 , L0000176 , L0000177 ,

805SB L0000178 , L0000179 , L0000180 , L0000181 , L0000182 ,
L0000183 , L0000184 , L0000185 ,

L0000186 , L0000187 , L0000188 , L0000189 , L0000190 ,
L0000191 , L0000192 , L0000193 ,

L0000194 , L0000195 , L0000196 , L0000197 , L0000198 ,
L0000199 , L0000200 , L0000201 ,

L0000202 , L0000203 , L0000204 , L0000205 , L0000206 ,
L0000207 , L0000208 , L0000209 ,

L0000210 , L0000211 , L0000212 , L0000213 , L0000214 ,
L0000215 , L0000216 , L0000217 ,

L0000218 , L0000219 , L0000220 , L0000221 , L0000222 ,
L0000223 , L0000224 , L0000225 ,

L0000226 , L0000227 , L0000228 , L0000229 , L0000230 ,
L0000231 , L0000232 , L0000233 ,

L0000234 , L0000235 , L0000236 ,

ALL L0000119 , L0000120 , L0000121 , L0000122 , L0000123 ,
L0000124 , L0000125 , L0000126 ,

L0000127 , L0000128 , L0000129 , L0000130 , L0000131 ,
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L0000135 , L0000136 , L0000137 , L0000138 , L0000139 ,
L0000140 , L0000141 , L0000142 ,

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             L0000143    , L0000144    , L0000145    , L0000146    , L0000147    ,
L0000148    , L0000149    , L0000150    ,
```


*** SOURCE IDs DEFINING SOURCE GROUPS ***

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


             L0000151    , L0000152    , L0000153    , L0000154    , L0000155    ,
L0000156    , L0000157    , L0000158    ,

             L0000159    , L0000160    , L0000161    , L0000162    , L0000163    ,
L0000164    , L0000165    , L0000166    ,

             L0000167    , L0000168    , L0000169    , L0000170    , L0000171    ,
L0000172    , L0000173    , L0000174    ,

             L0000175    , L0000176    , L0000177    , L0000178    , L0000179    ,
L0000180    , L0000181    , L0000182    ,

             L0000183    , L0000184    , L0000185    , L0000186    , L0000187    ,
L0000188    , L0000189    , L0000190    ,

             L0000191    , L0000192    , L0000193    , L0000194    , L0000195    ,
L0000196    , L0000197    , L0000198    ,

             L0000199    , L0000200    , L0000201    , L0000202    , L0000203    ,
L0000204    , L0000205    , L0000206    ,

             L0000207    , L0000208    , L0000209    , L0000210    , L0000211    ,
L0000212    , L0000213    , L0000214    ,

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L0000220    , L0000221    , L0000222    ,

             L0000223    , L0000224    , L0000225    , L0000226    , L0000227    ,
L0000228    , L0000229    , L0000230    ,

             L0000231    , L0000232    , L0000233    , L0000234    , L0000235    ,
L0000236    ,
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(496667.1, 3605624.0, 39.0, 150.4, 0.0); (496677.1, 3605624.0, 39.3, 150.4, 0.0);
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(496707.1, 3605624.0, 39.2, 150.4, 0.0); (496717.1, 3605624.0, 38.9, 150.4, 0.0);
(496727.1, 3605624.0, 38.6, 150.4, 0.0); (496737.1, 3605624.0, 38.6, 150.4, 0.0);
(496747.1, 3605624.0, 38.6, 150.4, 0.0); (496757.1, 3605624.0, 38.5, 150.4, 0.0);
(496767.1, 3605624.0, 38.4, 150.4, 0.0); (496777.1, 3605624.0, 38.3, 150.4, 0.0);
(496787.1, 3605624.0, 38.5, 150.4, 0.0); (496797.1, 3605624.0, 38.8, 150.4, 0.0);
(496807.1, 3605624.0, 39.1, 150.4, 0.0); (496817.1, 3605624.0, 38.8, 150.4, 0.0);
(496667.1, 3605634.0, 36.3, 150.4, 0.0); (496677.1, 3605634.0, 36.3, 150.4, 0.0);
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(496707.1, 3605634.0, 36.4, 150.4, 0.0); (496717.1, 3605634.0, 36.2, 150.4, 0.0);
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(496787.1, 3605634.0, 36.3, 150.4, 0.0); (496797.1, 3605634.0, 36.6, 150.4, 0.0);
(496807.1, 3605634.0, 36.8, 150.4, 0.0); (496817.1, 3605634.0, 37.0, 150.4, 0.0);
(496827.1, 3605634.0, 37.2, 150.4, 0.0); (496837.1, 3605634.0, 37.4, 150.4, 0.0);
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     (496707.1, 3605644.0,   35.4,   150.4,   0.0);   (496717.1,
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     (496767.1, 3605644.0,   35.6,   150.4,   0.0);   (496777.1,
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3605644.0,   37.0,   150.4,   0.0);
     (496847.1, 3605644.0,   37.3,   150.4,   0.0);   (496857.1,
3605644.0,   37.6,   150.4,   0.0);
     (496867.1, 3605644.0,   37.9,   150.4,   0.0);   (496877.1,
3605644.0,   38.3,   150.4,   0.0);
     (496887.1, 3605644.0,   38.7,   150.4,   0.0);   (496897.1,
3605644.0,   39.2,   150.4,   0.0);
     (496907.1, 3605644.0,   39.7,   150.4,   0.0);   (496917.1,
3605644.0,   39.9,   150.4,   0.0);
     (496927.1, 3605644.0,   39.9,   150.4,   0.0);   (496667.1,
3605654.0,   35.0,   150.4,   0.0);
     (496677.1, 3605654.0,   34.9,   150.4,   0.0);   (496687.1,
3605654.0,   34.9,   150.4,   0.0);
     (496697.1, 3605654.0,   34.9,   150.4,   0.0);   (496707.1,
3605654.0,   34.9,   150.4,   0.0);
     (496717.1, 3605654.0,   34.8,   150.4,   0.0);   (496727.1,
3605654.0,   34.6,   150.4,   0.0);
     (496737.1, 3605654.0,   34.7,   150.4,   0.0);   (496747.1,
3605654.0,   34.9,   150.4,   0.0);
     (496757.1, 3605654.0,   35.0,   150.4,   0.0);   (496767.1,
3605654.0,   35.1,   150.4,   0.0);
     (496777.1, 3605654.0,   35.1,   150.4,   0.0);   (496787.1,
3605654.0,   35.2,   150.4,   0.0);
     (496797.1, 3605654.0,   35.4,   150.4,   0.0);   (496807.1,
3605654.0,   35.7,   150.4,   0.0);
     (496817.1, 3605654.0,   36.0,   150.4,   0.0);   (496827.1,
3605654.0,   36.4,   150.4,   0.0);
     (496837.1, 3605654.0,   36.7,   150.4,   0.0);   (496847.1,
3605654.0,   37.0,   150.4,   0.0);
     (496857.1, 3605654.0,   37.3,   150.4,   0.0);   (496867.1,
3605654.0,   37.7,   150.4,   0.0);
     (496877.1, 3605654.0,   38.1,   150.4,   0.0);   (496887.1,
3605654.0,   38.5,   150.4,   0.0);
     (496897.1, 3605654.0,   38.9,   150.4,   0.0);   (496907.1,

3605654.0,   39.3,   150.4,   0.0);

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(496917.1, 3605654.0,   39.5,   150.4,   0.0);   (496927.1, 3605654.0,   39.4,   150.4,   0.0);
(496937.1, 3605654.0,   39.3,   150.4,   0.0);   (496947.1, 3605654.0,   39.8,   150.4,   0.0);
(496667.1, 3605664.0,   34.5,   150.4,   0.0);   (496677.1, 3605664.0,   34.5,   150.4,   0.0);
(496687.1, 3605664.0,   34.5,   150.4,   0.0);   (496697.1, 3605664.0,   34.5,   150.4,   0.0);
(496707.1, 3605664.0,   34.4,   150.4,   0.0);   (496717.1, 3605664.0,   34.3,   150.4,   0.0);
(496727.1, 3605664.0,   34.1,   150.4,   0.0);   (496737.1, 3605664.0,   34.2,   150.4,   0.0);
(496747.1, 3605664.0,   34.3,   150.4,   0.0);   (496757.1, 3605664.0,   34.5,   150.4,   0.0);
(496767.1, 3605664.0,   34.6,   150.4,   0.0);   (496777.1, 3605664.0,   34.7,   150.4,   0.0);
(496787.1, 3605664.0,   34.9,   150.4,   0.0);   (496797.1, 3605664.0,   35.1,   150.4,   0.0);
(496807.1, 3605664.0,   35.3,   150.4,   0.0);   (496817.1, 3605664.0,   35.7,   150.4,   0.0);
(496827.1, 3605664.0,   36.0,   150.4,   0.0);   (496837.1, 3605664.0,   36.4,   150.4,   0.0);
(496847.1, 3605664.0,   36.7,   150.4,   0.0);   (496857.1, 3605664.0,   37.1,   150.4,   0.0);
(496867.1, 3605664.0,   37.5,   150.4,   0.0);   (496877.1, 3605664.0,   37.8,   150.4,   0.0);
(496887.1, 3605664.0,   38.2,   150.4,   0.0);   (496897.1, 3605664.0,   38.6,   150.4,   0.0);
(496907.1, 3605664.0,   39.0,   150.4,   0.0);   (496917.1, 3605664.0,   39.0,   150.4,   0.0);
(496927.1, 3605664.0,   38.9,   150.4,   0.0);   (496937.1, 3605664.0,   38.8,   150.4,   0.0);
(496947.1, 3605664.0,   38.7,   150.4,   0.0);   (496667.1, 3605674.0,   34.2,   150.4,   0.0);
(496677.1, 3605674.0,   34.2,   150.4,   0.0);   (496687.1, 3605674.0,   34.1,   150.4,   0.0);
(496697.1, 3605674.0,   34.1,   150.4,   0.0);   (496707.1,

3605674.0, 34.0, 150.4, 0.0);
(496717.1, 3605674.0, 33.9, 150.4, 0.0); (496727.1,
3605674.0, 33.8, 150.4, 0.0);
(496737.1, 3605674.0, 33.8, 150.4, 0.0); (496747.1,
3605674.0, 34.0, 150.4, 0.0);
(496757.1, 3605674.0, 34.1, 150.4, 0.0); (496767.1,
3605674.0, 34.2, 150.4, 0.0);
(496777.1, 3605674.0, 34.4, 150.4, 0.0); (496787.1,
3605674.0, 34.6, 150.4, 0.0);
(496797.1, 3605674.0, 34.8, 150.4, 0.0); (496807.1,
3605674.0, 35.1, 150.4, 0.0);
(496817.1, 3605674.0, 35.4, 150.4, 0.0); (496827.1,
3605674.0, 35.8, 150.4, 0.0);
(496837.1, 3605674.0, 36.1, 150.4, 0.0); (496847.1,
3605674.0, 36.5, 150.4, 0.0);
(496857.1, 3605674.0, 36.8, 150.4, 0.0); (496867.1,
3605674.0, 37.2, 150.4, 0.0);
(496877.1, 3605674.0, 37.5, 150.4, 0.0); (496887.1,
3605674.0, 37.9, 150.4, 0.0);
(496897.1, 3605674.0, 38.2, 150.4, 0.0); (496907.1,
3605674.0, 38.6, 150.4, 0.0);
(496917.1, 3605674.0, 38.6, 150.4, 0.0); (496927.1,
3605674.0, 38.5, 150.4, 0.0);
(496937.1, 3605674.0, 38.4, 150.4, 0.0); (496947.1,
3605674.0, 38.2, 150.4, 0.0);
(496667.1, 3605684.0, 33.9, 150.3, 0.0); (496677.1,
3605684.0, 33.8, 150.4, 0.0);
(496687.1, 3605684.0, 33.8, 150.4, 0.0); (496697.1,
3605684.0, 33.8, 150.4, 0.0);
(496707.1, 3605684.0, 33.7, 150.4, 0.0); (496717.1,
3605684.0, 33.6, 150.4, 0.0);
(496727.1, 3605684.0, 33.5, 150.4, 0.0); (496737.1,
3605684.0, 33.5, 150.4, 0.0);
(496747.1, 3605684.0, 33.7, 150.4, 0.0); (496757.1,
3605684.0, 33.8, 150.4, 0.0);
(496767.1, 3605684.0, 33.9, 150.4, 0.0); (496777.1,
3605684.0, 34.1, 150.4, 0.0);
(496787.1, 3605684.0, 34.3, 150.4, 0.0); (496797.1,
3605684.0, 34.6, 150.4, 0.0);
(496807.1, 3605684.0, 34.8, 150.4, 0.0); (496817.1,
3605684.0, 35.2, 150.4, 0.0);
(496827.1, 3605684.0, 35.5, 150.4, 0.0); (496837.1,
3605684.0, 35.9, 150.4, 0.0);
(496847.1, 3605684.0, 36.2, 150.4, 0.0); (496857.1,
3605684.0, 36.6, 150.4, 0.0);
(496867.1, 3605684.0, 36.9, 150.4, 0.0); (496877.1,
3605684.0, 37.2, 150.4, 0.0);
(496887.1, 3605684.0, 37.5, 150.4, 0.0); (496897.1,
3605684.0, 37.8, 150.4, 0.0);
(496907.1, 3605684.0, 38.2, 150.4, 0.0); (496917.1,

3605684.0,   38.2,   150.4,   0.0);
     (496927.1, 3605684.0,   38.1,   150.4,   0.0);   (496937.1,
3605684.0,   38.1,   150.4,   0.0);

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

     (496947.1, 3605684.0,   37.9,   150.4,   0.0);   (496677.1,
3605694.0,   33.5,   150.3,   0.0);
     (496687.1, 3605694.0,   33.5,   150.4,   0.0);   (496697.1,
3605694.0,   33.5,   150.4,   0.0);
     (496707.1, 3605694.0,   33.4,   150.4,   0.0);   (496717.1,
3605694.0,   33.3,   150.4,   0.0);
     (496727.1, 3605694.0,   33.2,   150.4,   0.0);   (496737.1,
3605694.0,   33.2,   150.4,   0.0);
     (496747.1, 3605694.0,   33.4,   150.4,   0.0);   (496757.1,
3605694.0,   33.5,   150.4,   0.0);
     (496767.1, 3605694.0,   33.6,   150.4,   0.0);   (496777.1,
3605694.0,   33.8,   150.4,   0.0);
     (496787.1, 3605694.0,   34.0,   150.4,   0.0);   (496797.1,
3605694.0,   34.3,   150.4,   0.0);
     (496807.1, 3605694.0,   34.6,   150.4,   0.0);   (496817.1,
3605694.0,   35.0,   150.4,   0.0);
     (496827.1, 3605694.0,   35.3,   150.4,   0.0);   (496837.1,
3605694.0,   35.6,   150.4,   0.0);
     (496847.1, 3605694.0,   36.0,   150.4,   0.0);   (496857.1,
3605694.0,   36.3,   150.4,   0.0);
     (496867.1, 3605694.0,   36.6,   150.4,   0.0);   (496877.1,
3605694.0,   36.8,   150.4,   0.0);
     (496887.1, 3605694.0,   37.1,   150.4,   0.0);   (496897.1,
3605694.0,   37.4,   150.4,   0.0);
     (496907.1, 3605694.0,   37.8,   150.4,   0.0);   (496917.1,
3605694.0,   37.8,   150.4,   0.0);
     (496927.1, 3605694.0,   37.8,   150.4,   0.0);   (496937.1,
3605694.0,   37.7,   150.4,   0.0);
     (496947.1, 3605694.0,   37.7,   150.4,   0.0);   (496677.1,
3605704.0,   33.2,   150.3,   0.0);
     (496687.1, 3605704.0,   33.2,   150.3,   0.0);   (496697.1,
3605704.0,   33.2,   150.3,   0.0);
     (496707.1, 3605704.0,   33.1,   150.4,   0.0);   (496717.1,
3605704.0,   33.0,   150.4,   0.0);
     (496727.1, 3605704.0,   32.9,   150.4,   0.0);   (496737.1,

3605704.0, 33.0, 150.4, 0.0);
(496747.1, 3605704.0, 33.1, 150.4, 0.0); (496757.1,
3605704.0, 33.2, 150.4, 0.0);
(496767.1, 3605704.0, 33.4, 150.4, 0.0); (496777.1,
3605704.0, 33.6, 150.4, 0.0);
(496787.1, 3605704.0, 33.8, 150.4, 0.0); (496797.1,
3605704.0, 34.1, 150.4, 0.0);
(496807.1, 3605704.0, 34.4, 150.4, 0.0); (496817.1,
3605704.0, 34.7, 150.4, 0.0);
(496827.1, 3605704.0, 35.0, 150.4, 0.0); (496837.1,
3605704.0, 35.4, 150.4, 0.0);
(496847.1, 3605704.0, 35.7, 150.4, 0.0); (496857.1,
3605704.0, 36.0, 150.4, 0.0);
(496867.1, 3605704.0, 36.2, 150.4, 0.0); (496877.1,
3605704.0, 36.4, 150.4, 0.0);
(496887.1, 3605704.0, 36.7, 150.4, 0.0); (496897.1,
3605704.0, 37.0, 150.4, 0.0);
(496907.1, 3605704.0, 37.3, 150.4, 0.0); (496917.1,
3605704.0, 37.4, 150.4, 0.0);
(496927.1, 3605704.0, 37.3, 150.4, 0.0); (496937.1,
3605704.0, 37.3, 150.4, 0.0);
(496947.1, 3605704.0, 37.3, 150.4, 0.0); (496677.1,
3605714.0, 32.9, 150.3, 0.0);
(496687.1, 3605714.0, 32.9, 150.3, 0.0); (496697.1,
3605714.0, 32.9, 150.3, 0.0);
(496707.1, 3605714.0, 32.9, 150.3, 0.0); (496717.1,
3605714.0, 32.8, 150.3, 0.0);
(496727.1, 3605714.0, 32.8, 150.4, 0.0); (496737.1,
3605714.0, 32.8, 150.4, 0.0);
(496747.1, 3605714.0, 32.9, 150.4, 0.0); (496757.1,
3605714.0, 33.0, 150.4, 0.0);
(496767.1, 3605714.0, 33.2, 150.4, 0.0); (496777.1,
3605714.0, 33.4, 150.4, 0.0);
(496787.1, 3605714.0, 33.6, 150.4, 0.0); (496797.1,
3605714.0, 33.9, 150.4, 0.0);
(496807.1, 3605714.0, 34.2, 150.4, 0.0); (496817.1,
3605714.0, 34.5, 150.4, 0.0);
(496827.1, 3605714.0, 34.8, 150.4, 0.0); (496837.1,
3605714.0, 35.0, 150.4, 0.0);
(496847.1, 3605714.0, 35.3, 150.4, 0.0); (496857.1,
3605714.0, 35.6, 150.4, 0.0);
(496867.1, 3605714.0, 35.8, 150.4, 0.0); (496877.1,
3605714.0, 36.0, 150.4, 0.0);
(496887.1, 3605714.0, 36.3, 150.4, 0.0); (496897.1,
3605714.0, 36.5, 150.4, 0.0);
(496907.1, 3605714.0, 36.8, 150.4, 0.0); (496917.1,
3605714.0, 36.8, 150.4, 0.0);
(496927.1, 3605714.0, 36.8, 150.4, 0.0); (496937.1,
3605714.0, 36.8, 150.4, 0.0);
(496947.1, 3605714.0, 36.8, 150.4, 0.0); (496677.1,

3605724.0,   32.6,   150.3,   0.0);
     (496687.1, 3605724.0,   32.6,   150.3,   0.0);   (496697.1,
3605724.0,   32.7,   150.3,   0.0);
     (496707.1, 3605724.0,   32.7,   150.3,   0.0);   (496717.1,
3605724.0,   32.6,   150.3,   0.0);

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

     (496727.1, 3605724.0,   32.6,   150.3,   0.0);   (496737.1,
3605724.0,   32.6,   150.3,   0.0);
     (496747.1, 3605724.0,   32.7,   150.3,   0.0);   (496757.1,
3605724.0,   32.8,   150.3,   0.0);
     (496767.1, 3605724.0,   33.0,   150.3,   0.0);   (496777.1,
3605724.0,   33.2,   150.4,   0.0);
     (496787.1, 3605724.0,   33.4,   150.4,   0.0);   (496797.1,
3605724.0,   33.7,   150.4,   0.0);
     (496807.1, 3605724.0,   33.9,   150.4,   0.0);   (496817.1,
3605724.0,   34.2,   150.3,   0.0);
     (496827.1, 3605724.0,   34.5,   150.3,   0.0);   (496837.1,
3605724.0,   34.7,   150.3,   0.0);
     (496847.1, 3605724.0,   35.0,   150.3,   0.0);   (496857.1,
3605724.0,   35.2,   150.3,   0.0);
     (496867.1, 3605724.0,   35.4,   150.3,   0.0);   (496877.1,
3605724.0,   35.6,   150.3,   0.0);
     (496887.1, 3605724.0,   35.9,   150.3,   0.0);   (496897.1,
3605724.0,   36.0,   150.3,   0.0);
     (496907.1, 3605724.0,   36.2,   150.3,   0.0);   (496917.1,
3605724.0,   36.3,   150.3,   0.0);
     (496927.1, 3605724.0,   36.3,   150.3,   0.0);   (496937.1,
3605724.0,   36.3,   150.3,   0.0);
     (496947.1, 3605724.0,   36.3,   150.3,   0.0);   (496677.1,
3605734.0,   32.3,   150.2,   0.0);
     (496687.1, 3605734.0,   32.4,   150.3,   0.0);   (496697.1,
3605734.0,   32.5,   150.3,   0.0);
     (496707.1, 3605734.0,   32.5,   150.3,   0.0);   (496717.1,
3605734.0,   32.4,   150.3,   0.0);
     (496727.1, 3605734.0,   32.4,   150.3,   0.0);   (496737.1,
3605734.0,   32.5,   150.3,   0.0);
     (496747.1, 3605734.0,   32.6,   150.3,   0.0);   (496757.1,
3605734.0,   32.7,   150.3,   0.0);
     (496767.1, 3605734.0,   32.9,   150.3,   0.0);   (496777.1,

3605734.0, 33.1, 150.3, 0.0);
(496787.1, 3605734.0, 33.3, 150.3, 0.0); (496797.1, 3605734.0, 33.5, 150.3, 0.0);
(496807.1, 3605734.0, 33.7, 150.3, 0.0); (496817.1, 3605734.0, 33.9, 150.3, 0.0);
(496827.1, 3605734.0, 34.2, 150.3, 0.0); (496837.1, 3605734.0, 34.4, 150.3, 0.0);
(496847.1, 3605734.0, 34.6, 150.3, 0.0); (496857.1, 3605734.0, 34.8, 150.3, 0.0);
(496867.1, 3605734.0, 35.1, 150.3, 0.0); (496877.1, 3605734.0, 35.3, 150.3, 0.0);
(496887.1, 3605734.0, 35.5, 150.3, 0.0); (496897.1, 3605734.0, 35.6, 150.3, 0.0);
(496907.1, 3605734.0, 35.8, 150.3, 0.0); (496917.1, 3605734.0, 35.8, 150.3, 0.0);
(496927.1, 3605734.0, 35.9, 150.3, 0.0); (496937.1, 3605734.0, 35.9, 150.3, 0.0);
(496947.1, 3605734.0, 35.9, 150.3, 0.0); (496677.1, 3605744.0, 32.2, 150.2, 0.0);
(496687.1, 3605744.0, 32.2, 150.2, 0.0); (496697.1, 3605744.0, 32.3, 150.2, 0.0);
(496707.1, 3605744.0, 32.3, 150.2, 0.0); (496717.1, 3605744.0, 32.3, 150.3, 0.0);
(496727.1, 3605744.0, 32.2, 150.3, 0.0); (496737.1, 3605744.0, 32.3, 150.3, 0.0);
(496747.1, 3605744.0, 32.4, 150.3, 0.0); (496757.1, 3605744.0, 32.5, 150.3, 0.0);
(496767.1, 3605744.0, 32.8, 150.3, 0.0); (496777.1, 3605744.0, 33.0, 150.3, 0.0);
(496787.1, 3605744.0, 33.2, 150.3, 0.0); (496797.1, 3605744.0, 33.3, 150.3, 0.0);
(496807.1, 3605744.0, 33.5, 150.3, 0.0); (496817.1, 3605744.0, 33.7, 150.3, 0.0);
(496827.1, 3605744.0, 33.9, 150.3, 0.0); (496837.1, 3605744.0, 34.1, 150.3, 0.0);
(496847.1, 3605744.0, 34.3, 150.3, 0.0); (496857.1, 3605744.0, 34.5, 150.3, 0.0);
(496867.1, 3605744.0, 34.7, 150.3, 0.0); (496877.1, 3605744.0, 34.9, 150.3, 0.0);
(496887.1, 3605744.0, 35.1, 150.3, 0.0); (496897.1, 3605744.0, 35.3, 150.3, 0.0);
(496907.1, 3605744.0, 35.4, 150.3, 0.0); (496917.1, 3605744.0, 35.5, 150.3, 0.0);
(496927.1, 3605744.0, 35.5, 150.3, 0.0); (496937.1, 3605744.0, 35.5, 150.3, 0.0);
(496947.1, 3605744.0, 35.5, 150.3, 0.0); (496677.1, 3605754.0, 32.0, 150.2, 0.0);
(496687.1, 3605754.0, 32.1, 150.2, 0.0); (496697.1, 3605754.0, 32.2, 150.2, 0.0);
(496707.1, 3605754.0, 32.2, 150.2, 0.0); (496717.1,

```
3605754.0,      32.1,     150.2,        0.0);
     ( 496727.1, 3605754.0,      32.0,     150.2,        0.0);          ( 496737.1,
3605754.0,      32.1,     150.2,        0.0);
     ( 496747.1, 3605754.0,      32.2,     150.3,        0.0);          ( 496757.1,
3605754.0,      32.4,     150.3,        0.0);
     ( 496767.1, 3605754.0,      32.6,     150.3,        0.0);          ( 496777.1,
3605754.0,      32.9,     150.3,        0.0);
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```
                                                       *** DISCRETE CARTESIAN RECEPTORS ***
                                                     (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                                                     (METERS)

     ( 496787.1, 3605754.0,      33.0,     150.3,        0.0);          ( 496797.1,
3605754.0,      33.2,     150.3,        0.0);
     ( 496807.1, 3605754.0,      33.3,     150.3,        0.0);          ( 496817.1,
3605754.0,      33.5,     150.3,        0.0);
     ( 496827.1, 3605754.0,      33.7,     150.3,        0.0);          ( 496837.1,
3605754.0,      33.8,     150.3,        0.0);
     ( 496847.1, 3605754.0,      34.0,     150.3,        0.0);          ( 496857.1,
3605754.0,      34.2,     150.3,        0.0);
     ( 496867.1, 3605754.0,      34.4,     150.3,        0.0);          ( 496877.1,
3605754.0,      34.6,     150.3,        0.0);
     ( 496887.1, 3605754.0,      34.8,     150.3,        0.0);          ( 496897.1,
3605754.0,      34.9,     150.3,        0.0);
     ( 496907.1, 3605754.0,      35.0,     150.3,        0.0);          ( 496917.1,
3605754.0,      35.1,     150.3,        0.0);
     ( 496927.1, 3605754.0,      35.2,     150.3,        0.0);          ( 496937.1,
3605754.0,      35.2,     150.3,        0.0);
     ( 496947.1, 3605754.0,      35.2,     150.3,        0.0);          ( 496677.1,
3605764.0,      31.8,     150.2,        0.0);
     ( 496687.1, 3605764.0,      31.9,     150.2,        0.0);          ( 496697.1,
3605764.0,      32.0,     150.2,        0.0);
     ( 496707.1, 3605764.0,      32.0,     150.2,        0.0);          ( 496717.1,
3605764.0,      32.0,     150.2,        0.0);
     ( 496727.1, 3605764.0,      31.9,     150.2,        0.0);          ( 496737.1,
3605764.0,      32.0,     150.2,        0.0);
     ( 496747.1, 3605764.0,      32.1,     150.2,        0.0);          ( 496757.1,
3605764.0,      32.2,     150.2,        0.0);
     ( 496767.1, 3605764.0,      32.5,     150.2,        0.0);          ( 496777.1,
3605764.0,      32.7,     150.2,        0.0);
     ( 496787.1, 3605764.0,      32.9,     150.2,        0.0);          ( 496797.1,
3605764.0,      33.0,     150.2,        0.0);
     ( 496807.1, 3605764.0,      33.1,     150.2,        0.0);          ( 496817.1,
```

3605764.0, 33.2, 150.2, 0.0);
(496827.1, 3605764.0, 33.4, 150.2, 0.0); (496837.1,
3605764.0, 33.6, 150.2, 0.0);
(496847.1, 3605764.0, 33.7, 150.2, 0.0); (496857.1,
3605764.0, 33.9, 150.3, 0.0);
(496867.1, 3605764.0, 34.1, 150.3, 0.0); (496877.1,
3605764.0, 34.2, 150.3, 0.0);
(496887.1, 3605764.0, 34.4, 150.3, 0.0); (496897.1,
3605764.0, 34.5, 150.3, 0.0);
(496907.1, 3605764.0, 34.7, 150.3, 0.0); (496917.1,
3605764.0, 34.8, 150.3, 0.0);
(496927.1, 3605764.0, 34.8, 150.3, 0.0); (496937.1,
3605764.0, 34.9, 150.3, 0.0);
(496947.1, 3605764.0, 34.9, 150.3, 0.0); (496687.1,
3605774.0, 31.8, 80.5, 0.0);
(496697.1, 3605774.0, 31.9, 150.2, 0.0); (496707.1,
3605774.0, 31.9, 150.2, 0.0);
(496717.1, 3605774.0, 31.8, 150.2, 0.0); (496727.1,
3605774.0, 31.8, 150.2, 0.0);
(496737.1, 3605774.0, 31.9, 150.2, 0.0); (496747.1,
3605774.0, 32.0, 150.2, 0.0);
(496757.1, 3605774.0, 32.1, 150.2, 0.0); (496767.1,
3605774.0, 32.3, 150.2, 0.0);
(496777.1, 3605774.0, 32.5, 150.2, 0.0); (496787.1,
3605774.0, 32.6, 150.2, 0.0);
(496797.1, 3605774.0, 32.7, 150.2, 0.0); (496807.1,
3605774.0, 32.8, 150.2, 0.0);
(496817.1, 3605774.0, 33.0, 150.2, 0.0); (496827.1,
3605774.0, 33.1, 150.2, 0.0);
(496837.1, 3605774.0, 33.3, 150.2, 0.0); (496847.1,
3605774.0, 33.4, 150.2, 0.0);
(496857.1, 3605774.0, 33.6, 150.2, 0.0); (496867.1,
3605774.0, 33.8, 150.2, 0.0);
(496877.1, 3605774.0, 33.9, 150.2, 0.0); (496887.1,
3605774.0, 34.1, 150.2, 0.0);
(496897.1, 3605774.0, 34.2, 150.2, 0.0); (496907.1,
3605774.0, 34.3, 150.2, 0.0);
(496917.1, 3605774.0, 34.4, 150.2, 0.0); (496927.1,
3605774.0, 34.6, 150.2, 0.0);
(496937.1, 3605774.0, 34.7, 150.2, 0.0); (496947.1,
3605774.0, 34.7, 150.2, 0.0);
(496687.1, 3605784.0, 31.6, 80.5, 0.0); (496697.1,
3605784.0, 31.7, 80.5, 0.0);
(496707.1, 3605784.0, 31.8, 80.5, 0.0); (496717.1,
3605784.0, 31.7, 80.5, 0.0);
(496727.1, 3605784.0, 31.7, 150.2, 0.0); (496737.1,
3605784.0, 31.8, 150.2, 0.0);
(496747.1, 3605784.0, 31.9, 150.2, 0.0); (496757.1,
3605784.0, 32.0, 150.2, 0.0);
(496767.1, 3605784.0, 32.1, 150.2, 0.0); (496777.1,

```
3605784.0,      32.3,     150.2,       0.0);
     ( 496787.1, 3605784.0,      32.4,     150.2,       0.0);          ( 496797.1,
3605784.0,      32.5,     150.2,       0.0);
     ( 496807.1, 3605784.0,      32.6,     150.2,       0.0);          ( 496817.1,
3605784.0,      32.8,     150.2,       0.0);
     ( 496827.1, 3605784.0,      32.9,     150.2,       0.0);          ( 496837.1,
3605784.0,      33.0,     150.2,       0.0);
     ( 496847.1, 3605784.0,      33.2,     150.2,       0.0);          ( 496857.1,
3605784.0,      33.3,     150.2,       0.0);
```


*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
     ( 496867.1, 3605784.0,      33.5,     150.2,       0.0);          ( 496877.1,
3605784.0,      33.7,     150.2,       0.0);
     ( 496887.1, 3605784.0,      33.8,     150.2,       0.0);          ( 496897.1,
3605784.0,      33.9,     150.2,       0.0);
     ( 496907.1, 3605784.0,      34.0,     150.2,       0.0);          ( 496917.1,
3605784.0,      34.1,     150.2,       0.0);
     ( 496927.1, 3605784.0,      34.3,     150.2,       0.0);          ( 496937.1,
3605784.0,      34.4,     150.2,       0.0);
     ( 496947.1, 3605784.0,      34.5,     150.2,       0.0);          ( 496687.1,
3605794.0,      31.5,      80.5,       0.0);
     ( 496697.1, 3605794.0,      31.6,      80.5,       0.0);          ( 496707.1,
3605794.0,      31.7,      80.5,       0.0);
     ( 496717.1, 3605794.0,      31.6,      80.5,       0.0);          ( 496727.1,
3605794.0,      31.6,      80.5,       0.0);
     ( 496737.1, 3605794.0,      31.7,      80.5,       0.0);          ( 496747.1,
3605794.0,      31.8,      80.5,       0.0);
     ( 496757.1, 3605794.0,      31.9,      80.5,       0.0);          ( 496767.1,
3605794.0,      31.9,     149.6,       0.0);
     ( 496777.1, 3605794.0,      32.0,     150.2,       0.0);          ( 496787.1,
3605794.0,      32.1,     150.2,       0.0);
     ( 496797.1, 3605794.0,      32.3,     150.2,       0.0);          ( 496807.1,
3605794.0,      32.4,     150.2,       0.0);
     ( 496817.1, 3605794.0,      32.5,     150.2,       0.0);          ( 496827.1,
3605794.0,      32.6,     150.2,       0.0);
     ( 496837.1, 3605794.0,      32.8,     150.2,       0.0);          ( 496847.1,
3605794.0,      32.9,     150.2,       0.0);
     ( 496857.1, 3605794.0,      33.1,     150.2,       0.0);          ( 496867.1,
3605794.0,      33.2,     150.2,       0.0);
     ( 496877.1, 3605794.0,      33.4,     150.2,       0.0);          ( 496887.1,
```

3605794.0,   33.5,   150.2,   0.0);
     (496897.1, 3605794.0,   33.6,   150.2,   0.0);   (496907.1,
3605794.0,   33.7,   150.2,   0.0);
     (496917.1, 3605794.0,   33.8,   150.2,   0.0);   (496927.1,
3605794.0,   34.0,   150.2,   0.0);
     (496937.1, 3605794.0,   34.2,   150.2,   0.0);   (496947.1,
3605794.0,   34.2,   150.2,   0.0);
     (496687.1, 3605804.0,   31.5,   80.2,   0.0);   (496697.1,
3605804.0,   31.6,   80.2,   0.0);
     (496707.1, 3605804.0,   31.7,   80.4,   0.0);   (496717.1,
3605804.0,   31.6,   80.4,   0.0);
     (496727.1, 3605804.0,   31.6,   80.5,   0.0);   (496737.1,
3605804.0,   31.6,   80.5,   0.0);
     (496747.1, 3605804.0,   31.6,   80.5,   0.0);   (496757.1,
3605804.0,   31.6,   80.5,   0.0);
     (496767.1, 3605804.0,   31.7,   80.5,   0.0);   (496777.1,
3605804.0,   31.7,   80.5,   0.0);
     (496787.1, 3605804.0,   31.8,   80.5,   0.0);   (496797.1,
3605804.0,   32.0,   80.5,   0.0);
     (496807.1, 3605804.0,   32.1,   80.5,   0.0);   (496817.1,
3605804.0,   32.3,   86.9,   0.0);
     (496827.1, 3605804.0,   32.4,   86.9,   0.0);   (496837.1,
3605804.0,   32.5,   150.2,   0.0);
     (496847.1, 3605804.0,   32.7,   150.2,   0.0);   (496857.1,
3605804.0,   32.8,   150.2,   0.0);
     (496867.1, 3605804.0,   33.0,   150.2,   0.0);   (496877.1,
3605804.0,   33.1,   150.2,   0.0);
     (496887.1, 3605804.0,   33.3,   150.2,   0.0);   (496897.1,
3605804.0,   33.4,   150.2,   0.0);
     (496907.1, 3605804.0,   33.5,   150.2,   0.0);   (496917.1,
3605804.0,   33.6,   150.2,   0.0);
     (496927.1, 3605804.0,   33.8,   150.2,   0.0);   (496937.1,
3605804.0,   33.9,   150.2,   0.0);
     (496947.1, 3605804.0,   34.0,   150.2,   0.0);   (496687.1,
3605814.0,   31.5,   80.0,   0.0);
     (496697.1, 3605814.0,   31.6,   80.0,   0.0);   (496707.1,
3605814.0,   31.7,   80.0,   0.0);
     (496717.1, 3605814.0,   31.6,   80.0,   0.0);   (496727.1,
3605814.0,   31.6,   80.0,   0.0);
     (496737.1, 3605814.0,   31.5,   80.0,   0.0);   (496747.1,
3605814.0,   31.5,   80.2,   0.0);
     (496757.1, 3605814.0,   31.4,   80.4,   0.0);   (496767.1,
3605814.0,   31.4,   80.5,   0.0);
     (496777.1, 3605814.0,   31.4,   80.5,   0.0);   (496787.1,
3605814.0,   31.5,   80.5,   0.0);
     (496797.1, 3605814.0,   31.7,   80.5,   0.0);   (496807.1,
3605814.0,   31.9,   80.0,   0.0);
     (496817.1, 3605814.0,   32.0,   80.0,   0.0);   (496827.1,
3605814.0,   32.1,   80.0,   0.0);
     (496837.1, 3605814.0,   32.3,   80.0,   0.0);   (496847.1,

```
3605814.0,      32.4,      86.9,       0.0);
     ( 496857.1, 3605814.0,      32.6,      86.9,       0.0);          ( 496867.1,
3605814.0,      32.8,      86.9,       0.0);
     ( 496877.1, 3605814.0,      32.9,      86.9,       0.0);          ( 496887.1,
3605814.0,      33.0,      87.0,       0.0);
     ( 496897.1, 3605814.0,      33.1,      87.0,       0.0);          ( 496907.1,
3605814.0,      33.2,      87.0,       0.0);
     ( 496917.1, 3605814.0,      33.3,      87.0,       0.0);          ( 496927.1,
3605814.0,      33.5,      87.0,       0.0);
     ( 496937.1, 3605814.0,      33.6,      87.0,       0.0);          ( 496947.1,
3605814.0,      33.7,      87.0,       0.0);
```


*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
     ( 496687.1, 3605824.0,      31.3,      79.7,       0.0);          ( 496697.1,
3605824.0,      31.4,      80.0,       0.0);
     ( 496707.1, 3605824.0,      31.4,      80.0,       0.0);          ( 496717.1,
3605824.0,      31.5,      80.0,       0.0);
     ( 496727.1, 3605824.0,      31.5,      80.0,       0.0);          ( 496737.1,
3605824.0,      31.4,      80.0,       0.0);
     ( 496747.1, 3605824.0,      31.4,      80.0,       0.0);          ( 496757.1,
3605824.0,      31.3,      80.0,       0.0);
     ( 496767.1, 3605824.0,      31.2,      80.0,       0.0);          ( 496777.1,
3605824.0,      31.2,      80.0,       0.0);
     ( 496787.1, 3605824.0,      31.2,      80.0,       0.0);          ( 496797.1,
3605824.0,      31.4,      80.0,       0.0);
     ( 496807.1, 3605824.0,      31.6,      80.0,       0.0);          ( 496817.1,
3605824.0,      31.7,      80.0,       0.0);
     ( 496827.1, 3605824.0,      31.9,      80.0,       0.0);          ( 496837.1,
3605824.0,      32.0,      80.0,       0.0);
     ( 496847.1, 3605824.0,      32.2,      80.0,       0.0);          ( 496857.1,
3605824.0,      32.4,      80.0,       0.0);
     ( 496867.1, 3605824.0,      32.5,      80.0,       0.0);          ( 496877.1,
3605824.0,      32.6,      80.0,       0.0);
     ( 496887.1, 3605824.0,      32.8,      80.0,       0.0);          ( 496897.1,
3605824.0,      32.9,      86.9,       0.0);
     ( 496907.1, 3605824.0,      33.0,      86.9,       0.0);          ( 496917.1,
3605824.0,      33.1,      86.9,       0.0);
     ( 496927.1, 3605824.0,      33.2,      86.9,       0.0);          ( 496937.1,
3605824.0,      33.4,      86.9,       0.0);
     ( 496947.1, 3605824.0,      33.5,      86.9,       0.0);          ( 496727.1,
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3605834.0,   31.4,   79.7,   0.0);
     (496737.1, 3605834.0,   31.4,   80.0,   0.0);   (496747.1,
3605834.0,   31.3,   80.0,   0.0);
     (496757.1, 3605834.0,   31.2,   80.0,   0.0);   (496767.1,
3605834.0,   31.1,   80.0,   0.0);
     (496777.1, 3605834.0,   31.0,   80.0,   0.0);   (496787.1,
3605834.0,   31.0,   80.0,   0.0);
     (496797.1, 3605834.0,   31.1,   80.0,   0.0);   (496807.1,
3605834.0,   31.2,   80.0,   0.0);
     (496817.1, 3605834.0,   31.4,   80.0,   0.0);   (496827.1,
3605834.0,   31.6,   80.0,   0.0);
     (496837.1, 3605834.0,   31.8,   80.0,   0.0);   (496847.1,
3605834.0,   32.0,   80.0,   0.0);
     (496857.1, 3605834.0,   32.2,   80.0,   0.0);   (496867.1,
3605834.0,   32.3,   80.0,   0.0);
     (496877.1, 3605834.0,   32.4,   79.5,   0.0);   (496887.1,
3605834.0,   32.6,   79.5,   0.0);
     (496897.1, 3605834.0,   32.7,   79.5,   0.0);   (496907.1,
3605834.0,   32.8,   79.5,   0.0);
     (496917.1, 3605834.0,   32.9,   79.5,   0.0);   (496927.1,
3605834.0,   33.0,   79.5,   0.0);
     (496937.1, 3605834.0,   33.2,   79.5,   0.0);   (496947.1,
3605834.0,   33.3,   79.5,   0.0);
     (496797.1, 3605844.0,   30.8,   80.0,   0.0);   (496807.1,
3605844.0,   30.9,   80.0,   0.0);
     (496817.1, 3605844.0,   31.1,   80.0,   0.0);   (496827.1,
3605844.0,   31.3,   80.0,   0.0);
     (496837.1, 3605844.0,   31.6,   79.5,   0.0);   (496847.1,
3605844.0,   31.8,   79.5,   0.0);
     (496857.1, 3605844.0,   32.0,   79.5,   0.0);   (496867.1,
3605844.0,   32.1,   79.5,   0.0);
     (496877.1, 3605844.0,   32.2,   79.5,   0.0);   (496887.1,
3605844.0,   32.4,   79.5,   0.0);
     (496897.1, 3605844.0,   32.5,   79.5,   0.0);   (496907.1,
3605844.0,   32.5,   79.5,   0.0);
     (496917.1, 3605844.0,   32.7,   79.5,   0.0);   (496927.1,
3605844.0,   32.8,   79.5,   0.0);
     (496937.1, 3605844.0,   33.0,   79.5,   0.0);   (496947.1,
3605844.0,   33.1,   79.5,   0.0);
     (496857.1, 3605854.0,   31.8,   79.5,   0.0);   (496867.1,
3605854.0,   31.9,   79.5,   0.0);
     (496877.1, 3605854.0,   32.0,   79.5,   0.0);   (496887.1,
3605854.0,   32.2,   79.5,   0.0);
     (496897.1, 3605854.0,   32.2,   79.5,   0.0);   (496907.1,
3605854.0,   32.3,   79.5,   0.0);
     (496917.1, 3605854.0,   32.5,   79.5,   0.0);   (496927.1,
3605854.0,   32.6,   79.5,   0.0);
     (496937.1, 3605854.0,   32.8,   79.5,   0.0);   (496947.1,
3605854.0,   33.0,   77.6,   0.0);
     (496927.1, 3605864.0,   32.4,   77.6,   0.0);   (496937.1,

3605864.0,   32.6,   77.5,   0.0);
     (496947.1, 3605864.0,   32.8,   77.4,   0.0);

*** 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
```

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,

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

   Surface file:   C:\Users\swang\Documents\1. Projects\12476.02 Pardee Homes
Nakano\Met\CVA_2010_2   Met Version:  18081
   Profile file:   C:\Users\swang\Documents\1. Projects\12476.02 Pardee Homes
Nakano\Met\CVA_2010_2
   Surface format: FREE

   Profile format: FREE

   Surface station no.:    23188                  Upper air station no.:     3190
                  Name: SAN_DIEGO/LINDBERGH_FIELD                  Name: UNKNOWN

                  Year:   2010                                     Year:   2010

 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
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - -
 10 01 01   1 01   -5.7  0.108 -9.000 -9.000 -999.   85.     20.1  0.42   1.07
1.00    0.89   48.   10.0  283.1   10.0
 10 01 01   1 02   -6.5  0.116 -9.000 -9.000 -999.   94.     21.6  0.48   1.07
1.00    0.89   62.   10.0  283.1   10.0
 10 01 01   1 03   -5.7  0.108 -9.000 -9.000 -999.   85.     20.1  0.42   1.07
1.00    0.89   45.   10.0  282.5   10.0
 10 01 01   1 04   -6.5  0.116 -9.000 -9.000 -999.   94.     21.5  0.48   1.07
1.00    0.89   79.   10.0  281.9   10.0
 10 01 01   1 05   -1.8  0.072 -9.000 -9.000 -999.   47.     19.3  0.34   1.07
1.00    0.44  356.   10.0  280.9   10.0
 10 01 01   1 06   -5.7  0.108 -9.000 -9.000 -999.   85.     20.0  0.42   1.07
1.00    0.89   45.   10.0  280.9   10.0
 10 01 01   1 07   -5.7  0.108 -9.000 -9.000 -999.   85.     20.1  0.42   1.07
1.00    0.89   47.   10.0  281.9   10.0
 10 01 01   1 08   -4.9  0.117 -9.000 -9.000 -999.   97.     29.7  0.48   1.07
0.49    0.89   78.   10.0  282.5   10.0
 10 01 01   1 09   20.0  0.132  0.299  0.009   48.  115.    -10.4  0.25   1.07
0.30    0.89   24.   10.0  286.4   10.0
 10 01 01   1 10   62.9  0.163  0.574  0.009  109.  158.     -6.3  0.34   1.07
0.23    0.89  351.   10.0  288.1   10.0
 10 01 01   1 11   61.6  0.261  0.739  0.008  237.  320.    -26.1  0.35   1.07
0.21    1.78  311.   10.0  290.9   10.0
 10 01 01   1 12   70.0  0.312  0.881  0.008  354.  419.    -39.4  0.35   1.07
0.20    2.23  313.   10.0  292.5   10.0
 10 01 01   1 13   69.3  0.264  0.945  0.008  441.  326.    -23.9  0.35   1.07
0.20    1.78  305.   10.0  293.6   10.0
 10 01 01   1 14   59.8  0.310  0.942  0.008  504.  414.    -44.9  0.35   1.07
0.21    2.23  278.   10.0  294.8   10.0
 10 01 01   1 15   40.5  0.398  0.847  0.008  541.  603.   -140.6  0.35   1.07
```

```
0.24    3.12  289.   10.0  293.1   10.0
 10 01 01   1 16   21.6  0.290  0.694  0.008  558.  382.   -101.6  0.35   1.07
0.33    2.23  296.   10.0  291.4   10.0
 10 01 01   1 17  -10.6  0.154 -9.000 -9.000 -999.  157.     30.7  0.34   1.07
0.60    1.34  337.   10.0  291.4   10.0
 10 01 01   1 18  -11.2  0.153 -9.000 -9.000 -999.  143.     28.9  0.34   1.07
1.00    1.34  337.   10.0  290.4   10.0
 10 01 01   1 19   -2.0  0.075 -9.000 -9.000 -999.   51.     18.6  0.47   1.07
1.00    0.44  252.   10.0  288.6   10.0
 10 01 01   1 20   -1.9  0.074 -9.000 -9.000 -999.   48.     18.8  0.43   1.07
1.00    0.44  113.   10.0  287.5   10.0
 10 01 01   1 21   -4.4  0.095 -9.000 -9.000 -999.   70.     17.6  0.28   1.07
1.00    0.89  122.   10.0  286.9   10.0
 10 01 01   1 22  -13.4  0.168 -9.000 -9.000 -999.  166.     32.2  0.43   1.07
1.00    1.34   99.   10.0  286.4   10.0
 10 01 01   1 23   -4.9  0.101 -9.000 -9.000 -999.   78.     18.7  0.34   1.07
1.00    0.89  331.   10.0  285.4   10.0
 10 01 01   1 24   -5.6  0.108 -9.000 -9.000 -999.   85.     20.2  0.42   1.07
1.00    0.89   40.   10.0  285.4   10.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 10 01 01 01   10.0 1   48.    0.89   283.2   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
↑ *** AERMOD - VERSION 21112  ***   *** Nakano Freeway HRA
                         ***        08/30/21
 *** AERMET - VERSION  18081 ***   ***
                       ***        14:31:50

                                  PAGE  16
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: 805NB    ***
                                  INCLUDING SOURCE(S):     L0000119    , L0000120
, L0000121    , L0000122    , L0000123    ,
                 L0000124    , L0000125    , L0000126    , L0000127    , L0000128
, L0000129    , L0000130    , L0000131    ,
                 L0000132    , L0000133    , L0000134    , L0000135    , L0000136
, L0000137    , L0000138    , L0000139    ,
                 L0000140    , L0000141    , L0000142    , L0000143    , L0000144
, L0000145    , L0000146    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                   **
```

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
496667.09	3605623.96	44.16849	496677.09	3605623.96	39.84971
496687.09	3605623.96	36.15617	496697.09	3605623.96	33.06746
496707.09	3605623.96	30.38890	496717.09	3605623.96	28.04003
496727.09	3605623.96	26.01242	496737.09	3605623.96	24.30247
496747.09	3605623.96	22.79335	496757.09	3605623.96	21.44162
496767.09	3605623.96	20.22825	496777.09	3605623.96	19.12255
496787.09	3605623.96	18.14963	496797.09	3605623.96	17.26036
496807.09	3605623.96	16.44799	496817.09	3605623.96	15.66005
496667.09	3605633.96	42.79751	496677.09	3605633.96	38.47608
496687.09	3605633.96	35.02849	496697.09	3605633.96	32.14336
496707.09	3605633.96	29.64186	496717.09	3605633.96	27.44406
496727.09	3605633.96	25.53718	496737.09	3605633.96	23.93975
496747.09	3605633.96	22.52512	496757.09	3605633.96	21.23795
496767.09	3605633.96	20.03353	496777.09	3605633.96	18.94834
496787.09	3605633.96	17.99140	496797.09	3605633.96	17.13091
496807.09	3605633.96	16.33702	496817.09	3605633.96	15.60291
496827.09	3605633.96	14.92308	496837.09	3605633.96	14.29072
496847.09	3605633.96	13.70236	496857.09	3605633.96	13.15316
496867.09	3605633.96	12.64535	496877.09	3605633.96	12.15600
496667.09	3605643.96	42.62726	496677.09	3605643.96	38.28547
496687.09	3605643.96	34.84444	496697.09	3605643.96	31.97201
496707.09	3605643.96	29.49350	496717.09	3605643.96	27.32804
496727.09	3605643.96	25.44438	496737.09		

3605643.96 23.86263
496747.09 3605643.96 22.46385 496757.09
3605643.96 21.18921
496767.09 3605643.96 20.00462 496777.09
3605643.96 18.93345
496787.09 3605643.96 17.98139 496797.09
3605643.96 17.12069
496807.09 3605643.96 16.32890 496817.09
3605643.96 15.60902
496827.09 3605643.96 14.94001 496837.09
3605643.96 14.31492
496847.09 3605643.96 13.72910 496857.09
3605643.96 13.18175
496867.09 3605643.96 12.67249 496877.09
3605643.96 12.19471
496887.09 3605643.96 11.73274 496897.09
3605643.96 11.30937
496907.09 3605643.96 10.90877 496917.09
3605643.96 10.52685
496927.09 3605643.96 10.16531 496667.09
3605653.96 42.74904
496677.09 3605653.96 38.39501 496687.09
3605653.96 34.91625
496697.09 3605653.96 32.01349 496707.09
3605653.96 29.52038
496717.09 3605653.96 27.35346 496727.09
3605653.96 25.46663
496737.09 3605653.96 23.87323 496747.09
3605653.96 22.46242
496757.09 3605653.96 21.18948 496767.09
3605653.96 20.02202
496777.09 3605653.96 18.96439 496787.09
3605653.96 18.01555
496797.09 3605653.96 17.15275 496807.09
3605653.96 16.35942

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: 805NB ***
INCLUDING SOURCE(S): L0000119 , L0000120 , L0000121 , L0000122 , L0000123 ,
L0000124 , L0000125 , L0000126 , L0000127 , L0000128 , L0000129 , L0000130 , L0000131 ,
L0000132 , L0000133 , L0000134 , L0000135 , L0000136

, L0000137 , L0000138 , L0000139 ,
L0000140 , L0000141 , L0000142 , L0000143 , L0000144
, L0000145 , L0000146 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
496817.09	3605653.96	15.63830	496827.09	3605653.96	14.96803
496837.09	3605653.96	14.34323	496847.09	3605653.96	13.75904
496857.09	3605653.96	13.21251	496867.09	3605653.96	12.70245
496877.09	3605653.96	12.22357	496887.09	3605653.96	11.77306
496897.09	3605653.96	11.33567	496907.09	3605653.96	10.93427
496917.09	3605653.96	10.55166	496927.09	3605653.96	10.18927
496937.09	3605653.96	9.84756	496947.09	3605653.96	9.52753
496667.09	3605663.96	42.88440	496677.09	3605663.96	38.52605
496687.09	3605663.96	35.00167	496697.09	3605663.96	32.07481
496707.09	3605663.96	29.57199	496717.09	3605663.96	27.39851
496727.09	3605663.96	25.50934	496737.09	3605663.96	23.90751
496747.09	3605663.96	22.48595	496757.09	3605663.96	21.21255
496767.09	3605663.96	20.03271	496777.09	3605663.96	18.98925
496787.09	3605663.96	18.04450	496797.09	3605663.96	17.18046
496807.09	3605663.96	16.38603	496817.09	3605663.96	15.66409
496827.09	3605663.96	14.99319	496837.09	3605663.96	14.36883
496847.09	3605663.96	13.78622	496857.09	3605663.96	13.24097
496867.09	3605663.96	12.73032	496877.09	3605663.96	12.25058

496887.09   3605663.96   11.79914   496897.09
3605663.96   11.36052
496907.09   3605663.96   10.95835   496917.09
3605663.96   10.57492
496927.09   3605663.96   10.21169   496937.09
3605663.96   9.86910
496947.09   3605663.96   9.54654   496667.09
3605673.96   43.00423
496677.09   3605673.96   38.62763   496687.09
3605673.96   35.07874
496697.09   3605673.96   32.13053   496707.09
3605673.96   29.61929
496717.09   3605673.96   27.44274   496727.09
3605673.96   25.55107
496737.09   3605673.96   23.93972   496747.09
3605673.96   22.51272
496757.09   3605673.96   21.23684   496767.09
3605673.96   20.08995
496777.09   3605673.96   19.04689   496787.09
3605673.96   18.07393
496797.09   3605673.96   17.21029   496807.09
3605673.96   16.41660
496817.09   3605673.96   15.69325   496827.09
3605673.96   15.02121
496837.09   3605673.96   14.39587   496847.09
3605673.96   13.81211
496857.09   3605673.96   13.26686   496867.09
3605673.96   12.75453
496877.09   3605673.96   12.27319   496887.09
3605673.96   11.82096
496897.09   3605673.96   11.39526   496907.09
3605673.96   10.98056
496917.09   3605673.96   10.59735   496927.09
3605673.96   10.23414
496937.09   3605673.96   9.90242   496947.09
3605673.96   9.57786
496667.09   3605683.96   43.12007   496677.09
3605683.96   38.71878
496687.09   3605683.96   35.15314   496697.09
3605683.96   32.19690
496707.09   3605683.96   29.67278   496717.09
3605683.96   27.49253
496727.09   3605683.96   25.59510   496737.09
3605683.96   23.98102

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: 805NB ***
INCLUDING SOURCE(S): L0000119 , L0000120 , L0000121 , L0000122 , L0000123 ,
L0000124 , L0000125 , L0000126 , L0000127 , L0000128 , L0000129 , L0000130 , L0000131 ,
L0000132 , L0000133 , L0000134 , L0000135 , L0000136 , L0000137 , L0000138 , L0000139 ,
L0000140 , L0000141 , L0000142 , L0000143 , L0000144 , L0000145 , L0000146 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
496747.09	3605683.96	22.54947	496757.09	3605683.96	21.26986
496767.09	3605683.96	20.11997	496777.09	3605683.96	19.07447
496787.09	3605683.96	18.12986	496797.09	3605683.96	17.24009
496807.09	3605683.96	16.44733	496817.09	3605683.96	15.72273
496827.09	3605683.96	15.04932	496837.09	3605683.96	14.42235
496847.09	3605683.96	13.83678	496857.09	3605683.96	13.29011
496867.09	3605683.96	12.77653	496877.09	3605683.96	12.29367
496887.09	3605683.96	11.84067	496897.09	3605683.96	11.41502
496907.09	3605683.96	11.01360	496917.09	3605683.96	10.63062
496927.09	3605683.96	10.26730	496937.09	3605683.96	9.92444
496947.09	3605683.96	9.60012	496677.09	3605693.96	38.79448
496687.09	3605693.96	35.21591	496697.09	3605693.96	32.24609
496707.09	3605693.96	29.71871	496717.09	3605693.96	27.53288
496727.09	3605693.96	25.63361	496737.09		

3605693.96 24.01503
496747.09 3605693.96 22.58184 496757.09
3605693.96 21.29717
496767.09 3605693.96 20.14476 496777.09
3605693.96 19.09739
496787.09 3605693.96 18.15388 496797.09
3605693.96 17.29390
496807.09 3605693.96 16.47526 496817.09
3605693.96 15.74927
496827.09 3605693.96 15.07444 496837.09
3605693.96 14.44621
496847.09 3605693.96 13.86020 496857.09
3605693.96 13.31200
496867.09 3605693.96 12.79686 496877.09
3605693.96 12.31345
496887.09 3605693.96 11.85958 496897.09
3605693.96 11.43425
496907.09 3605693.96 11.03320 496917.09
3605693.96 10.65084
496927.09 3605693.96 10.28821 496937.09
3605693.96 9.94573
496947.09 3605693.96 9.62176 496677.09
3605703.96 38.84614
496687.09 3605703.96 35.27264 496697.09
3605703.96 32.30263
496707.09 3605703.96 29.77144 496717.09
3605703.96 27.58541
496727.09 3605703.96 25.68299 496737.09
3605703.96 24.05854
496747.09 3605703.96 22.61837 496757.09
3605703.96 21.32989
496767.09 3605703.96 20.17444 496777.09
3605703.96 19.12607
496787.09 3605703.96 18.18151 496797.09
3605703.96 17.31966
496807.09 3605703.96 16.52464 496817.09
3605703.96 15.77079
496827.09 3605703.96 15.09538 496837.09
3605703.96 14.46549
496847.09 3605703.96 13.87831 496857.09
3605703.96 13.32977
496867.09 3605703.96 12.81379 496877.09
3605703.96 12.32999
496887.09 3605703.96 11.87734 496897.09
3605703.96 11.45182
496907.09 3605703.96 11.05074 496917.09
3605703.96 10.66886
496927.09 3605703.96 10.30669 496937.09
3605703.96 9.96466
496947.09 3605703.96 9.64112 496677.09

3605713.96 38.88690
496687.09 3605713.96 35.32057 496697.09
3605713.96 32.35570

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: 805NB ***
INCLUDING SOURCE(S): L0000119 , L0000120 , L0000121 , L0000122 , L0000123 ,
L0000124 , L0000125 , L0000126 , L0000127 , L0000128 , L0000129 , L0000130 , L0000131 ,
L0000132 , L0000133 , L0000134 , L0000135 , L0000136 , L0000137 , L0000138 , L0000139 ,
L0000140 , L0000141 , L0000142 , L0000143 , L0000144 , L0000145 , L0000146 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
496707.09	3605713.96	29.83139	496717.09	3605713.96	27.66680
496727.09	3605713.96	25.76251	496737.09	3605713.96	24.12941
496747.09	3605713.96	22.65730	496757.09	3605713.96	21.36476
496767.09	3605713.96	20.20747	496777.09	3605713.96	19.15770
496787.09	3605713.96	18.20816	496797.09	3605713.96	17.34232
496807.09	3605713.96	16.54619	496817.09	3605713.96	15.81159
496827.09	3605713.96	15.11241	496837.09	3605713.96	14.48174
496847.09	3605713.96	13.89395	496857.09	3605713.96	13.34462
496867.09	3605713.96	12.82969	496877.09	3605713.96	12.34652

496887.09 3605713.96 11.89348 496897.09
3605713.96 11.46776
496907.09 3605713.96 11.06683 496917.09
3605713.96 10.68531
496927.09 3605713.96 10.32342 496937.09
3605713.96 9.98151
496947.09 3605713.96 9.65844 496677.09
3605723.96 38.94360
496687.09 3605723.96 35.38547 496697.09
3605723.96 32.43036
496707.09 3605723.96 29.90612 496717.09
3605723.96 27.71539
496727.09 3605723.96 25.81093 496737.09
3605723.96 24.17010
496747.09 3605723.96 22.71872 496757.09
3605723.96 21.42116
496767.09 3605723.96 20.23653 496777.09
3605723.96 19.18577
496787.09 3605723.96 18.23303 496797.09
3605723.96 17.36356
496807.09 3605723.96 16.56477 496817.09
3605723.96 15.82732
496827.09 3605723.96 15.14523 496837.09
3605723.96 14.49682
496847.09 3605723.96 13.90825 496857.09
3605723.96 13.35892
496867.09 3605723.96 12.84463 496877.09
3605723.96 12.36248
496887.09 3605723.96 11.90958 496897.09
3605723.96 11.48314
496907.09 3605723.96 11.08133 496917.09
3605723.96 10.69993
496927.09 3605723.96 10.33809 496937.09
3605723.96 9.99627
496947.09 3605723.96 9.67389 496677.09
3605733.96 38.99418
496687.09 3605733.96 35.43823 496697.09
3605733.96 32.47991
496707.09 3605733.96 29.95265 496717.09
3605733.96 27.75936
496727.09 3605733.96 25.85512 496737.09
3605733.96 24.20960
496747.09 3605733.96 22.75230 496757.09
3605733.96 21.45362
496767.09 3605733.96 20.26677 496777.09
3605733.96 19.21620
496787.09 3605733.96 18.26010 496797.09
3605733.96 17.38605
496807.09 3605733.96 16.58276 496817.09
3605733.96 15.84286

```
         496827.09    3605733.96       15.15886                              496837.09
3605733.96       14.52347
         496847.09    3605733.96       13.92373                              496857.09
3605733.96       13.37420
         496867.09    3605733.96       12.86030                              496877.09
3605733.96       12.37865
         496887.09    3605733.96       11.92630                              496897.09
3605733.96       11.49915
         496907.09    3605733.96       11.09717                              496917.09
3605733.96       10.71555
         496927.09    3605733.96       10.35410                              496937.09
3605733.96       10.01210
```



```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: 805NB    ***
                                  INCLUDING SOURCE(S):     L0000119    , L0000120
, L0000121    , L0000122    , L0000123    ,
                 L0000124    , L0000125    , L0000126    , L0000127    , L0000128
, L0000129    , L0000130    , L0000131    ,
                 L0000132    , L0000133    , L0000134    , L0000135    , L0000136
, L0000137    , L0000138    , L0000139    ,
                 L0000140    , L0000141    , L0000142    , L0000143    , L0000144
, L0000145    , L0000146    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                            X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -
         496947.09    3605733.96        9.68916                              496677.09
3605743.96       39.06957
         496687.09    3605743.96       35.49861                              496697.09
3605743.96       32.53559
         496707.09    3605743.96       30.00093                              496717.09
3605743.96       27.80180
         496727.09    3605743.96       25.89089                              496737.09
3605743.96       24.24361
         496747.09    3605743.96       22.78550                              496757.09
```

3605743.96 21.48601
496767.09 3605743.96 20.32853 496777.09
3605743.96 19.24926
496787.09 3605743.96 18.28866 496797.09
3605743.96 17.40821
496807.09 3605743.96 16.60011 496817.09
3605743.96 15.85865
496827.09 3605743.96 15.17370 496837.09
3605743.96 14.53700
496847.09 3605743.96 13.94482 496857.09
3605743.96 13.39228
496867.09 3605743.96 12.87639 496877.09
3605743.96 12.39509
496887.09 3605743.96 11.94265 496897.09
3605743.96 11.51571
496907.09 3605743.96 11.11313 496917.09
3605743.96 10.73177
496927.09 3605743.96 10.37031 496937.09
3605743.96 10.02838
496947.09 3605743.96 9.70360 496677.09
3605753.96 39.13533
496687.09 3605753.96 35.55800 496697.09
3605753.96 32.58478
496707.09 3605753.96 30.04335 496717.09
3605753.96 27.84056
496727.09 3605753.96 25.92661 496737.09
3605753.96 24.27534
496747.09 3605753.96 22.81362 496757.09
3605753.96 21.51560
496767.09 3605753.96 20.35912 496777.09
3605753.96 19.28058
496787.09 3605753.96 18.31613 496797.09
3605753.96 17.43001
496807.09 3605753.96 16.61745 496817.09
3605753.96 15.87476
496827.09 3605753.96 15.18807 496837.09
3605753.96 14.55132
496847.09 3605753.96 13.95814 496857.09
3605753.96 13.40554
496867.09 3605753.96 12.88957 496877.09
3605753.96 12.41111
496887.09 3605753.96 11.95791 496897.09
3605753.96 11.53049
496907.09 3605753.96 11.12797 496917.09
3605753.96 10.74655
496927.09 3605753.96 10.38530 496937.09
3605753.96 10.04341
496947.09 3605753.96 9.71641 496677.09
3605763.96 39.20017
496687.09 3605763.96 35.61621 496697.09

```
3605763.96       32.63378
         496707.09    3605763.96       30.08870                      496717.09
3605763.96       27.88115
         496727.09    3605763.96       25.96605                      496737.09
3605763.96       24.31139
         496747.09    3605763.96       22.84875                      496757.09
3605763.96       21.54551
         496767.09    3605763.96       20.38739                      496777.09
3605763.96       19.33618
         496787.09    3605763.96       18.33865                      496797.09
3605763.96       17.45064
         496807.09    3605763.96       16.63653                      496817.09
3605763.96       15.89162
         496827.09    3605763.96       15.20390                      496837.09
3605763.96       14.56564
         496847.09    3605763.96       13.97269                      496857.09
3605763.96       13.41987
         496867.09    3605763.96       12.90314                      496877.09
3605763.96       12.41930
         496887.09    3605763.96       11.96434                      496897.09
3605763.96       11.53542
↑ *** AERMOD - VERSION 21112  ***   *** Nakano Freeway HRA
                         ***       08/30/21
 *** AERMET - VERSION  18081 ***   ***
                       ***       14:31:50

                                    PAGE  21
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                               *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: 805NB    ***
                                   INCLUDING SOURCE(S):     L0000119    , L0000120
, L0000121    , L0000122    , L0000123    ,
                 L0000124    , L0000125    , L0000126    , L0000127    , L0000128
, L0000129    , L0000130    , L0000131    ,
                 L0000132    , L0000133    , L0000134    , L0000135    , L0000136
, L0000137    , L0000138    , L0000139    ,
                 L0000140    , L0000141    , L0000142    , L0000143    , L0000144
, L0000145    , L0000146    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                        X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -
```

496907.09 3605763.96 11.14151 496917.09
3605763.96 10.75964
496927.09 3605763.96 10.39866 496937.09
3605763.96 10.05691
496947.09 3605763.96 9.72880 496687.09
3605773.96 35.67398
496697.09 3605773.96 32.68531 496707.09
3605773.96 30.13335
496717.09 3605773.96 27.92665 496727.09
3605773.96 26.01024
496737.09 3605773.96 24.35400 496747.09
3605773.96 22.88839
496757.09 3605773.96 21.58123 496767.09
3605773.96 20.41294
496777.09 3605773.96 19.35439 496787.09
3605773.96 18.38488
496797.09 3605773.96 17.49700 496807.09
3605773.96 16.68234
496817.09 3605773.96 15.90994 496827.09
3605773.96 15.22074
496837.09 3605773.96 14.58178 496847.09
3605773.96 13.98816
496857.09 3605773.96 13.43504 496867.09
3605773.96 12.91791
496877.09 3605773.96 12.43294 496887.09
3605773.96 11.97751
496897.09 3605773.96 11.54724 496907.09
3605773.96 11.14160
496917.09 3605773.96 10.75938 496927.09
3605773.96 10.41150
496937.09 3605773.96 10.06934 496947.09
3605773.96 9.74131
496687.09 3605783.96 35.73359 496697.09
3605783.96 32.73479
496707.09 3605783.96 30.17943 496717.09
3605783.96 27.97147
496727.09 3605783.96 26.05455 496737.09
3605783.96 24.39524
496747.09 3605783.96 22.92902 496757.09
3605783.96 21.61843
496767.09 3605783.96 20.44040 496777.09
3605783.96 19.37422
496787.09 3605783.96 18.40425 496797.09
3605783.96 17.51742
496807.09 3605783.96 16.70237 496817.09
3605783.96 15.95227
496827.09 3605783.96 15.23824 496837.09
3605783.96 14.59804
496847.09 3605783.96 14.00423 496857.09
3605783.96 13.44992

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         496867.09    3605783.96       12.93164                              496877.09
3605783.96       12.44585
         496887.09    3605783.96       11.98888                              496897.09
3605783.96       11.55755
         496907.09    3605783.96       11.15082                              496917.09
3605783.96       10.76848
         496927.09    3605783.96       10.40751                              496937.09
3605783.96       10.06570
         496947.09    3605783.96        9.73785                              496687.09
3605793.96       35.81106
         496697.09    3605793.96       32.80080                              496707.09
3605793.96       30.23804
         496717.09    3605793.96       28.02801                              496727.09
3605793.96       26.10764
         496737.09    3605793.96       24.44331                              496747.09
3605793.96       22.96962
         496757.09    3605793.96       21.65330                              496767.09
3605793.96       20.46817
         496777.09    3605793.96       19.39596                              496787.09
3605793.96       18.42359
         496797.09    3605793.96       17.53634                              496807.09
3605793.96       16.72264
         496817.09    3605793.96       15.97085                              496827.09
3605793.96       15.27541
         496837.09    3605793.96       14.63157                              496847.09
3605793.96       14.02027
         496857.09    3605793.96       13.46514                              496867.09
3605793.96       12.94511
         496877.09    3605793.96       12.45781                              496887.09
3605793.96       11.99980
```


```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: 805NB    ***
                                  INCLUDING SOURCE(S):     L0000119    , L0000120
, L0000121    , L0000122    , L0000123    ,
                 L0000124    , L0000125    , L0000126    , L0000127    , L0000128
, L0000129    , L0000130    , L0000131    ,
                 L0000132    , L0000133    , L0000134    , L0000135    , L0000136
, L0000137    , L0000138    , L0000139    ,
                 L0000140    , L0000141    , L0000142    , L0000143    , L0000144
, L0000145    , L0000146    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
```

***

** CONC OF PM_10   IN MICROGRAMS/M**3
**

X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC

- -

496897.09	3605793.96	11.56697	496907.09	3605793.96	11.15884
496917.09	3605793.96	10.77601	496927.09	3605793.96	10.41465
496937.09	3605793.96	10.07260	496947.09	3605793.96	9.74489
496687.09	3605803.96	35.91898	496697.09	3605803.96	32.89344
496707.09	3605803.96	30.32350	496717.09	3605803.96	28.10275
496727.09	3605803.96	26.17791	496737.09	3605803.96	24.49680
496747.09	3605803.96	23.00974	496757.09	3605803.96	21.68227
496767.09	3605803.96	20.49140	496777.09	3605803.96	19.41402
496787.09	3605803.96	18.44231	496797.09	3605803.96	17.55613
496807.09	3605803.96	16.74168	496817.09	3605803.96	15.98830
496827.09	3605803.96	15.29142	496837.09	3605803.96	14.64677
496847.09	3605803.96	14.04768	496857.09	3605803.96	13.48916
496867.09	3605803.96	12.95862	496877.09	3605803.96	12.46928
496887.09	3605803.96	12.00985	496897.09	3605803.96	11.57575
496907.09	3605803.96	11.16715	496917.09	3605803.96	10.78256
496927.09	3605803.96	10.41996	496937.09	3605803.96	10.07637
496947.09	3605803.96	9.74902	496687.09	3605813.96	36.03590
496697.09	3605813.96	32.99563	496707.09	3605813.96	30.41426
496717.09	3605813.96	28.18803	496727.09	3605813.96	26.25626
496737.09	3605813.96	24.55986	496747.09	3605813.96	23.05614
496757.09	3605813.96	21.71715	496767.09		

```
3605813.96       20.51848
         496777.09    3605813.96       19.43397                              496787.09
3605813.96       18.46004
         496797.09    3605813.96       17.57597                              496807.09
3605813.96       16.76227
         496817.09    3605813.96       16.00665                              496827.09
3605813.96       15.30748
         496837.09    3605813.96       14.65986                              496847.09
3605813.96       14.05984
         496857.09    3605813.96       13.49893                              496867.09
3605813.96       12.97381
         496877.09    3605813.96       12.47915                              496887.09
3605813.96       12.01769
         496897.09    3605813.96       11.58252                              496907.09
3605813.96       11.17300
         496917.09    3605813.96       10.78698                              496927.09
3605813.96       10.42253
         496937.09    3605813.96       10.07788                              496947.09
3605813.96        9.75067
         496687.09    3605823.96       36.10616                              496697.09
3605823.96       33.05819
         496707.09    3605823.96       30.47931                              496717.09
3605823.96       28.26539
         496727.09    3605823.96       26.34296                              496737.09
3605823.96       24.63532
         496747.09    3605823.96       23.12077                              496757.09
3605823.96       21.76975
         496767.09    3605823.96       20.55796                              496777.09
3605823.96       19.46246
         496787.09    3605823.96       18.48127                              496797.09
3605823.96       17.59245
         496807.09    3605823.96       16.77742                              496817.09
3605823.96       16.02107
         496827.09    3605823.96       15.32100                              496837.09
3605823.96       14.67183
         496847.09    3605823.96       14.06928                              496857.09
3605823.96       13.50698
         496867.09    3605823.96       12.97968                              496877.09
3605823.96       12.48498
```


 *** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: 805NB ***

INCLUDING SOURCE(S):   L0000119   , L0000120

, L0000121 , L0000122 , L0000123 ,
L0000124 , L0000125 , L0000126 , L0000127 , L0000128
, L0000129 , L0000130 , L0000131 ,
L0000132 , L0000133 , L0000134 , L0000135 , L0000136
, L0000137 , L0000138 , L0000139 ,
L0000140 , L0000141 , L0000142 , L0000143 , L0000144
, L0000145 , L0000146 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
496887.09	3605823.96	12.02078	496897.09	3605823.96	11.58711
496907.09	3605823.96	11.17590	496917.09	3605823.96	10.78877
496927.09	3605823.96	10.42339	496937.09	3605823.96	10.07739
496947.09	3605823.96	9.75051	496727.09	3605833.96	26.43657
496737.09	3605833.96	24.72928	496747.09	3605833.96	23.20794
496757.09	3605833.96	21.84718	496767.09	3605833.96	20.61497
496777.09	3605833.96	19.50068	496787.09	3605833.96	18.50650
496797.09	3605833.96	17.60733	496807.09	3605833.96	16.78261
496817.09	3605833.96	16.02640	496827.09	3605833.96	15.32828
496837.09	3605833.96	14.68000	496847.09	3605833.96	14.07690
496857.09	3605833.96	13.51320	496867.09	3605833.96	12.98361
496877.09	3605833.96	12.48759	496887.09	3605833.96	12.02150
496897.09	3605833.96	11.58256	496907.09	3605833.96	11.16945
496917.09	3605833.96	10.78855	496927.09	3605833.96	10.42228
496937.09	3605833.96	10.07618	496947.09	3605833.96	9.74930
496797.09	3605843.96	17.61770	496807.09	3605843.96	16.78360

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        496817.09    3605843.96       16.02985                             496827.09
3605843.96       15.33118
        496837.09    3605843.96       14.68331                             496847.09
3605843.96       14.08014
        496857.09    3605843.96       13.51670                             496867.09
3605843.96       12.98519
        496877.09    3605843.96       12.48652                             496887.09
3605843.96       12.01928
        496897.09    3605843.96       11.57899                             496907.09
3605843.96       11.16416
        496917.09    3605843.96       10.77512                             496927.09
3605843.96       10.40825
        496937.09    3605843.96       10.07234                             496947.09
3605843.96        9.74526
        496857.09    3605853.96       13.51444                             496867.09
3605853.96       12.98160
        496877.09    3605853.96       12.48237                             496887.09
3605853.96       12.01326
        496897.09    3605853.96       11.57176                             496907.09
3605853.96       11.15671
        496917.09    3605853.96       10.76700                             496927.09
3605853.96       10.40006
        496937.09    3605853.96       10.05317                             496947.09
3605853.96        9.73893
        496927.09    3605863.96       10.39013                             496937.09
3605863.96       10.04232
        496947.09    3605863.96        9.71612
```



```
                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: 805SB    ***
                                  INCLUDING SOURCE(S):     L0000178    , L0000179
, L0000180    , L0000181    , L0000182    ,
                 L0000183    , L0000184    , L0000185    , L0000186    , L0000187
, L0000188    , L0000189    , L0000190    ,
                 L0000191    , L0000192    , L0000193    , L0000194    , L0000195
, L0000196    , L0000197    , L0000198    ,
                 L0000199    , L0000200    , L0000201    , L0000202    , L0000203
, L0000204    , L0000205    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***
```

** CONC OF PM_10   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
496667.09	3605623.96	33.41148	496677.09	3605623.96	30.82540
496687.09	3605623.96	28.51566	496697.09	3605623.96	26.50824
496707.09	3605623.96	24.71491	496717.09	3605623.96	23.10115
496727.09	3605623.96	21.67141	496737.09	3605623.96	20.43307
496747.09	3605623.96	19.31908	496757.09	3605623.96	18.30524
496767.09	3605623.96	17.37375	496777.09	3605623.96	16.54557
496787.09	3605623.96	15.76201	496797.09	3605623.96	15.06827
496807.09	3605623.96	14.42094	496817.09	3605623.96	13.79343
496667.09	3605633.96	32.62375	496677.09	3605633.96	30.05703
496687.09	3605633.96	27.87224	496697.09	3605633.96	25.97944
496707.09	3605633.96	24.28345	496717.09	3605633.96	22.76609
496727.09	3605633.96	21.40339	496737.09	3605633.96	20.23502
496747.09	3605633.96	19.16685	496757.09	3605633.96	18.19319
496767.09	3605633.96	17.27281	496777.09	3605633.96	16.44604
496787.09	3605633.96	15.69521	496797.09	3605633.96	14.99824
496807.09	3605633.96	14.36294	496817.09	3605633.96	13.77139
496827.09	3605633.96	13.21980	496837.09	3605633.96	12.70330
496847.09	3605633.96	12.21962	496857.09	3605633.96	11.76538
496867.09	3605633.96	11.34260	496877.09	3605633.96	10.93162
496667.09	3605643.96	32.52076	496677.09	3605643.96	29.93498
496687.09	3605643.96	27.77546	496697.09	3605643.96	25.89256
496707.09	3605643.96	24.21024	496717.09		

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3605643.96       22.69779
         496727.09    3605643.96       21.34944                        496737.09
3605643.96       20.19055
         496747.09    3605643.96       19.14679                        496757.09
3605643.96       18.18159
         496767.09    3605643.96       17.27378                        496777.09
3605643.96       16.44267
         496787.09    3605643.96       15.69495                        496797.09
3605643.96       15.01215
         496807.09    3605643.96       14.37887                        496817.09
3605643.96       13.78411
         496827.09    3605643.96       13.23972                        496837.09
3605643.96       12.72850
         496847.09    3605643.96       12.24684                        496857.09
3605643.96       11.79414
         496867.09    3605643.96       11.37018                        496877.09
3605643.96       10.97047
         496887.09    3605643.96       10.58305                        496897.09
3605643.96       10.22627
         496907.09    3605643.96        9.88731                        496917.09
3605643.96        9.56364
         496927.09    3605643.96        9.25639                        496667.09
3605653.96       32.59770
         496677.09    3605653.96       30.01378                        496687.09
3605653.96       27.83367
         496697.09    3605653.96       25.93240                        496707.09
3605653.96       24.24090
         496717.09    3605653.96       22.72767                        496727.09
3605653.96       21.37680
         496737.09    3605653.96       20.20912                        496747.09
3605653.96       19.15569
         496757.09    3605653.96       18.19089                        496767.09
3605653.96       17.29508
         496777.09    3605653.96       16.47372                        496787.09
3605653.96       15.72819
         496797.09    3605653.96       15.04374                        496807.09
3605653.96       14.40908
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                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: 805SB    ***
                                  INCLUDING SOURCE(S):     L0000178    , L0000179
, L0000180    , L0000181    , L0000182    ,
                 L0000183    , L0000184    , L0000185    , L0000186    , L0000187
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, L0000188     , L0000189     , L0000190     ,
                 L0000191     , L0000192     , L0000193     , L0000194     , L0000195
, L0000196     , L0000197     , L0000198     ,
                 L0000199     , L0000200     , L0000201     , L0000202     , L0000203
, L0000204     , L0000205     ,  . . .       ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
         496817.09    3605653.96       13.82746                      496827.09
3605653.96       13.26857
         496837.09    3605653.96       12.75693                      496847.09
3605653.96       12.27629
         496857.09    3605653.96       11.82427                      496867.09
3605653.96       11.39988
         496877.09    3605653.96       10.99920                      496887.09
3605653.96       10.61251
         496897.09    3605653.96       10.25494                      496907.09
3605653.96        9.91546
         496917.09    3605653.96        9.59129                      496927.09
3605653.96        9.28327
         496937.09    3605653.96        8.99155                      496947.09
3605653.96        8.71663
         496667.09    3605663.96       32.66527                      496677.09
3605663.96       30.08730
         496687.09    3605663.96       27.88082                      496697.09
3605663.96       25.96505
         496707.09    3605663.96       24.26739                      496717.09
3605663.96       22.74954
         496727.09    3605663.96       21.39680                      496737.09
3605663.96       20.22286
         496747.09    3605663.96       19.16172                      496757.09
3605663.96       18.19624
         496767.09    3605663.96       17.31281                      496777.09
3605663.96       16.50146
         496787.09    3605663.96       15.75836                      496797.09
3605663.96       15.07250
         496807.09    3605663.96       14.43669                      496817.09
3605663.96       13.85406
         496827.09    3605663.96       13.30915                      496837.09
3605663.96       12.78392
         496847.09    3605663.96       12.30381                      496857.09
3605663.96       11.85265
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         496867.09    3605663.96       11.42796                       496877.09
3605663.96       11.02673
         496887.09    3605663.96       10.64720                       496897.09
3605663.96       10.28259
         496907.09    3605663.96        9.94265                       496917.09
3605663.96        9.61770
         496927.09    3605663.96        9.30874                       496937.09
3605663.96        9.01598
         496947.09    3605663.96        8.73905                       496667.09
3605673.96       32.75544
         496677.09    3605673.96       30.16920                       496687.09
3605673.96       27.94734
         496697.09    3605673.96       26.01706                       496707.09
3605673.96       24.31287
         496717.09    3605673.96       22.79170                       496727.09
3605673.96       21.43593
         496737.09    3605673.96       20.25541                       496747.09
3605673.96       19.19063
         496757.09    3605673.96       18.22347                       496767.09
3605673.96       17.34213
         496777.09    3605673.96       16.53128                       496787.09
3605673.96       15.78939
         496797.09    3605673.96       15.10361                       496807.09
3605673.96       14.46779
         496817.09    3605673.96       13.88365                       496827.09
3605673.96       13.33751
         496837.09    3605673.96       12.82630                       496847.09
3605673.96       12.33103
         496857.09    3605673.96       11.87917                       496867.09
3605673.96       11.45322
         496877.09    3605673.96       11.05099                       496887.09
3605673.96       10.67100
         496897.09    3605673.96       10.31151                       496907.09
3605673.96        9.96830
         496917.09    3605673.96        9.64325                       496927.09
3605673.96        9.33376
         496937.09    3605673.96        9.04045                       496947.09
3605673.96        8.76095
         496667.09    3605683.96       32.84963                       496677.09
3605683.96       30.24714
         496687.09    3605683.96       28.01303                       496697.09
3605683.96       26.07602
         496707.09    3605683.96       24.36166                       496717.09
3605683.96       22.83750
         496727.09    3605683.96       21.47810                       496737.09
3605683.96       20.29466
```

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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: 805SB    ***
                                  INCLUDING SOURCE(S):     L0000178    , L0000179
, L0000180    , L0000181    , L0000182    ,
                 L0000183    , L0000184    , L0000185    , L0000186    , L0000187
, L0000188    , L0000189    , L0000190    ,
                 L0000191    , L0000192    , L0000193    , L0000194    , L0000195
, L0000196    , L0000197    , L0000198    ,
                 L0000199    , L0000200    , L0000201    , L0000202    , L0000203
, L0000204    , L0000205    ,  . . .      ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF PM_10    IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                         X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -
         496747.09    3605683.96       19.22596                        496757.09
3605683.96       18.25627
         496767.09    3605683.96       17.37342                        496777.09
3605683.96       16.56112
         496787.09    3605683.96       15.81879                        496797.09
3605683.96       15.13478
         496807.09    3605683.96       14.49958                        496817.09
3605683.96       13.91381
         496827.09    3605683.96       13.36633                        496837.09
3605683.96       12.85355
         496847.09    3605683.96       12.37188                        496857.09
3605683.96       11.90422
         496867.09    3605683.96       11.47678                        496877.09
3605683.96       11.07339
         496887.09    3605683.96       10.69299                        496897.09
3605683.96       10.33364
         496907.09    3605683.96        9.99309                        496917.09
3605683.96        9.66724
         496927.09    3605683.96        9.35702                        496937.09
3605683.96        9.06303
         496947.09    3605683.96        8.78371                        496677.09
3605693.96       30.31827
         496687.09    3605693.96       28.07334                        496697.09
3605693.96       26.12536
         496707.09    3605693.96       24.40767                        496717.09
```

3605693.96 22.87837
496727.09 3605693.96 21.51656 496737.09
3605693.96 20.32976
496747.09 3605693.96 19.25998 496757.09
3605693.96 18.28639
496767.09 3605693.96 17.40103 496777.09
3605693.96 16.58754
496787.09 3605693.96 15.84656 496797.09
3605693.96 15.16392
496807.09 3605693.96 14.52950 496817.09
3605693.96 13.94231
496827.09 3605693.96 13.39316 496837.09
3605693.96 12.87905
496847.09 3605693.96 12.39679 496857.09
3605693.96 11.94316
496867.09 3605693.96 11.49959 496877.09
3605693.96 11.09517
496887.09 3605693.96 10.71395 496897.09
3605693.96 10.35496
496907.09 3605693.96 10.01473 496917.09
3605693.96 9.68910
496927.09 3605693.96 9.37900 496937.09
3605693.96 9.08486
496947.09 3605693.96 8.80548 496677.09
3605703.96 30.37648
496687.09 3605703.96 28.13106 496697.09
3605703.96 26.18001
496707.09 3605703.96 24.45760 496717.09
3605703.96 22.92672
496727.09 3605703.96 21.56176 496737.09
3605703.96 20.37101
496747.09 3605703.96 19.29661 496757.09
3605703.96 18.32076
496767.09 3605703.96 17.43358 496777.09
3605703.96 16.61917
496787.09 3605703.96 15.87697 496797.09
3605703.96 15.19347
496807.09 3605703.96 14.55727 496817.09
3605703.96 13.96780
496827.09 3605703.96 13.41736 496837.09
3605703.96 12.90135
496847.09 3605703.96 12.41763 496857.09
3605703.96 11.96328
496867.09 3605703.96 11.53351 496877.09
3605703.96 11.11515
496887.09 3605703.96 10.73390 496897.09
3605703.96 10.37433
496907.09 3605703.96 10.03404 496917.09
3605703.96 9.70847
496927.09 3605703.96 9.39831 496937.09

```
3605703.96        9.10413
         496947.09    3605703.96        8.82471                      496677.09
3605713.96       30.42643
         496687.09    3605713.96       28.18169                      496697.09
3605713.96       26.23117
↑ *** AERMOD - VERSION 21112  ***   *** Nakano Freeway HRA
                           ***        08/30/21
 *** AERMET - VERSION  18081 ***   ***
                         ***       14:31:50

                                   PAGE  27
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                               *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: 805SB    ***
                                   INCLUDING SOURCE(S):     L0000178    , L0000179
, L0000180    , L0000181    , L0000182    ,
                 L0000183    , L0000184    , L0000185    , L0000186    , L0000187
, L0000188    , L0000189    , L0000190    ,
                 L0000191    , L0000192    , L0000193    , L0000194    , L0000195
, L0000196    , L0000197    , L0000198    ,
                 L0000199    , L0000200    , L0000201    , L0000202    , L0000203
, L0000204    , L0000205    ,  . . .      ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF PM_10    IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                        X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         496707.09    3605713.96       24.51135                      496717.09
3605713.96       22.97640
         496727.09    3605713.96       21.61063                      496737.09
3605713.96       20.41363
         496747.09    3605713.96       19.33479                      496757.09
3605713.96       18.35676
         496767.09    3605713.96       17.46872                      496777.09
3605713.96       16.65365
         496787.09    3605713.96       15.90772                      496797.09
3605713.96       15.22130
         496807.09    3605713.96       14.58455                      496817.09
3605713.96       13.99193
         496827.09    3605713.96       13.43942                      496837.09
3605713.96       12.92178
         496847.09    3605713.96       12.43679                      496857.09
3605713.96       11.98112
```

496867.09 3605713.96 11.55158 496877.09
3605713.96 11.14643
496887.09 3605713.96 10.76450 496897.09
3605713.96 10.39253
496907.09 3605713.96 10.05139 496917.09
3605713.96 9.72565
496927.09 3605713.96 9.41528 496937.09
3605713.96 9.12080
496947.09 3605713.96 8.84144 496677.09
3605723.96 30.46700
496687.09 3605723.96 28.22373 496697.09
3605723.96 26.27692
496707.09 3605723.96 24.55620 496717.09
3605723.96 23.02164
496727.09 3605723.96 21.65608 496737.09
3605723.96 20.45359
496747.09 3605723.96 19.37127 496757.09
3605723.96 18.38962
496767.09 3605723.96 17.50161 496777.09
3605723.96 16.68618
496787.09 3605723.96 15.93831 496797.09
3605723.96 15.24861
496807.09 3605723.96 14.61016 496817.09
3605723.96 14.01560
496827.09 3605723.96 13.46121 496837.09
3605723.96 12.94200
496847.09 3605723.96 12.45530 496857.09
3605723.96 11.99857
496867.09 3605723.96 11.56880 496877.09
3605723.96 11.16368
496887.09 3605723.96 10.78118 496897.09
3605723.96 10.41924
496907.09 3605723.96 10.07652 496917.09
3605723.96 9.74954
496927.09 3605723.96 9.43775 496937.09
3605723.96 9.14202
496947.09 3605723.96 8.86218 496677.09
3605733.96 30.52255
496687.09 3605733.96 28.27643 496697.09
3605733.96 26.32502
496707.09 3605733.96 24.60116 496717.09
3605733.96 23.06464
496727.09 3605733.96 21.69942 496737.09
3605733.96 20.49381
496747.09 3605733.96 19.40778 496757.09
3605733.96 18.42509
496767.09 3605733.96 17.53568 496777.09
3605733.96 16.72119
496787.09 3605733.96 15.97113 496797.09
3605733.96 15.27825

496807.09 3605733.96 14.63550 496817.09
3605733.96 14.03928
496827.09 3605733.96 13.48334 496837.09
3605733.96 12.96298
496847.09 3605733.96 12.47480 496857.09
3605733.96 12.01711
496867.09 3605733.96 11.58643 496877.09
3605733.96 11.18076
496887.09 3605733.96 10.79797 496897.09
3605733.96 10.43467
496907.09 3605733.96 10.09115 496917.09
3605733.96 9.76348
496927.09 3605733.96 9.45170 496937.09
3605733.96 9.15551

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: 805SB ***
INCLUDING SOURCE(S): L0000178 , L0000179 , L0000180 , L0000181 , L0000182 ,
L0000183 , L0000184 , L0000185 , L0000186 , L0000187 , L0000188 , L0000189 , L0000190 ,
L0000191 , L0000192 , L0000193 , L0000194 , L0000195 , L0000196 , L0000197 , L0000198 ,
L0000199 , L0000200 , L0000201 , L0000202 , L0000203 , L0000204 , L0000205 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
496947.09	3605733.96	8.87488	496677.09	3605743.96	30.59182
496687.09	3605743.96	28.33299	496697.09	3605743.96	26.37672
496707.09	3605743.96	24.64767	496717.09	3605743.96	23.10780
496727.09	3605743.96	21.73857	496737.09		

3605743.96 20.53206
496747.09 3605743.96 19.44535 496757.09
3605743.96 18.46207
496767.09 3605743.96 17.57343 496777.09
3605743.96 16.75885
496787.09 3605743.96 16.00575 496797.09
3605743.96 15.30824
496807.09 3605743.96 14.66169 496817.09
3605743.96 14.06290
496827.09 3605743.96 13.50596 496837.09
3605743.96 12.98411
496847.09 3605743.96 12.49519 496857.09
3605743.96 12.03587
496867.09 3605743.96 11.60436 496877.09
3605743.96 11.19784
496887.09 3605743.96 10.81393 496897.09
3605743.96 10.45005
496907.09 3605743.96 10.10545 496917.09
3605743.96 9.77755
496927.09 3605743.96 9.46545 496937.09
3605743.96 9.16908
496947.09 3605743.96 8.88655 496677.09
3605753.96 30.65078
496687.09 3605753.96 28.38658 496697.09
3605753.96 26.42399
496707.09 3605753.96 24.69104 496717.09
3605753.96 23.14902
496727.09 3605753.96 21.77819 496737.09
3605753.96 20.56975
496747.09 3605753.96 19.48137 496757.09
3605753.96 18.49880
496767.09 3605753.96 17.61054 496777.09
3605753.96 16.79615
496787.09 3605753.96 16.04028 496797.09
3605753.96 15.33811
496807.09 3605753.96 14.68775 496817.09
3605753.96 14.08738
496827.09 3605753.96 13.52756 496837.09
3605753.96 13.00474
496847.09 3605753.96 12.51433 496857.09
3605753.96 12.05418
496867.09 3605753.96 11.62165 496877.09
3605753.96 11.21376
496887.09 3605753.96 10.82884 496897.09
3605753.96 10.46366
496907.09 3605753.96 10.11833 496917.09
3605753.96 9.78990
496927.09 3605753.96 9.47766 496937.09
3605753.96 9.18111
496947.09 3605753.96 8.89653 496677.09

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3605763.96       30.79461
         496687.09    3605763.96       28.43893                              496697.09
3605763.96       26.47104
         496707.09    3605763.96       24.73696                              496717.09
3605763.96       23.19323
         496727.09    3605763.96       21.82250                              496737.09
3605763.96       20.61200
         496747.09    3605763.96       19.52297                              496757.09
3605763.96       18.53738
         496767.09    3605763.96       17.64726                              496777.09
3605763.96       16.83015
         496787.09    3605763.96       16.07094                              496797.09
3605763.96       15.36671
         496807.09    3605763.96       14.71432                              496817.09
3605763.96       14.11144
         496827.09    3605763.96       13.54992                              496837.09
3605763.96       13.02454
         496847.09    3605763.96       12.53270                              496857.09
3605763.96       12.07164
         496867.09    3605763.96       11.63776                              496877.09
3605763.96       11.22912
         496887.09    3605763.96       10.84268                              496897.09
3605763.96       10.47658
↑ *** AERMOD - VERSION 21112  ***   *** Nakano Freeway HRA
                          ***       08/30/21
 *** AERMET - VERSION  18081 ***   ***
                        ***       14:31:50

                                  PAGE  29
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: 805SB    ***
                                  INCLUDING SOURCE(S):     L0000178    , L0000179
, L0000180    , L0000181    , L0000182    ,
                 L0000183    , L0000184    , L0000185    , L0000186    , L0000187
, L0000188    , L0000189    , L0000190    ,
                 L0000191    , L0000192    , L0000193    , L0000194    , L0000195
, L0000196    , L0000197    , L0000198    ,
                 L0000199    , L0000200    , L0000201    , L0000202    , L0000203
, L0000204    , L0000205    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                            X-COORD (M)
Y-COORD (M)        CONC
```

- -
- -
496907.09 3605763.96 10.12987 496917.09
3605763.96 9.80082
496927.09 3605763.96 9.48841 496937.09
3605763.96 9.19167
496947.09 3605763.96 8.90622 496687.09
3605773.96 28.56956
496697.09 3605773.96 26.58855 496707.09
3605773.96 24.78555
496717.09 3605773.96 23.28666 496727.09
3605773.96 21.90551
496737.09 3605773.96 20.66106 496747.09
3605773.96 19.56959
496757.09 3605773.96 18.58067 496767.09
3605773.96 17.68356
496777.09 3605773.96 16.85999 496787.09
3605773.96 16.09798
496797.09 3605773.96 15.39273 496807.09
3605773.96 14.73952
496817.09 3605773.96 14.13476 496827.09
3605773.96 13.57120
496837.09 3605773.96 13.04430 496847.09
3605773.96 12.55105
496857.09 3605773.96 12.08831 496867.09
3605773.96 11.65301
496877.09 3605773.96 11.24296 496887.09
3605773.96 10.85563
496897.09 3605773.96 10.48801 496907.09
3605773.96 10.13983
496917.09 3605773.96 9.81039 496927.09
3605773.96 9.49805
496937.09 3605773.96 9.20112 496947.09
3605773.96 8.91562
496687.09 3605783.96 28.62191 496697.09
3605783.96 26.63505
496707.09 3605783.96 24.88500 496717.09
3605783.96 23.33072
496727.09 3605783.96 21.94895 496737.09
3605783.96 20.72762
496747.09 3605783.96 19.61875 496757.09
3605783.96 18.62607
496767.09 3605783.96 17.72097 496777.09
3605783.96 16.89113
496787.09 3605783.96 16.12663 496797.09
3605783.96 15.42044
496807.09 3605783.96 14.76532 496817.09
3605783.96 14.15685
496827.09 3605783.96 13.58997 496837.09
3605783.96 13.06164

496847.09 3605783.96 12.56773 496857.09
3605783.96 12.10341
496867.09 3605783.96 11.66649 496877.09
3605783.96 11.25473
496887.09 3605783.96 10.86555 496897.09
3605783.96 10.49681
496907.09 3605783.96 10.14753 496917.09
3605783.96 9.81786
496927.09 3605783.96 9.50555 496937.09
3605783.96 9.20873
496947.09 3605783.96 8.92325 496687.09
3605793.96 28.68681
496697.09 3605793.96 26.69348 496707.09
3605793.96 24.93916
496717.09 3605793.96 23.38358 496727.09
3605793.96 21.99903
496737.09 3605793.96 20.77324 496747.09
3605793.96 19.66815
496757.09 3605793.96 18.66501 496767.09
3605793.96 17.75767
496777.09 3605793.96 16.92113 496787.09
3605793.96 16.15348
496797.09 3605793.96 15.44563 496807.09
3605793.96 14.78954
496817.09 3605793.96 14.17838 496827.09
3605793.96 13.60873
496837.09 3605793.96 13.07740 496847.09
3605793.96 12.58154
496857.09 3605793.96 12.11663 496867.09
3605793.96 11.67807
496877.09 3605793.96 11.26487 496887.09
3605793.96 10.87450

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: 805SB ***
INCLUDING SOURCE(S): L0000178 , L0000179 , L0000180 , L0000181 , L0000182 ,
L0000183 , L0000184 , L0000185 , L0000186 , L0000187 , L0000188 , L0000189 , L0000190 ,
L0000191 , L0000192 , L0000193 , L0000194 , L0000195 , L0000196 , L0000197 , L0000198 ,
L0000199 , L0000200 , L0000201 , L0000202 , L0000203 , L0000204 , L0000205 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
496897.09	3605793.96	10.50405	496907.09	3605793.96	10.15327
496917.09	3605793.96	9.82314	496927.09	3605793.96	9.51059
496937.09	3605793.96	9.21367	496947.09	3605793.96	8.92837
496687.09	3605803.96	28.77319	496697.09	3605803.96	26.77138
496707.09	3605803.96	25.01286	496717.09	3605803.96	23.44969
496727.09	3605803.96	22.06110	496737.09	3605803.96	20.82207
496747.09	3605803.96	19.70555	496757.09	3605803.96	18.69254
496767.09	3605803.96	17.77066	496777.09	3605803.96	16.92610
496787.09	3605803.96	16.15586	496797.09	3605803.96	15.46768
496807.09	3605803.96	14.81028	496817.09	3605803.96	14.19711
496827.09	3605803.96	13.62511	496837.09	3605803.96	13.09234
496847.09	3605803.96	12.59434	496857.09	3605803.96	12.12729
496867.09	3605803.96	11.68777	496877.09	3605803.96	11.27304
496887.09	3605803.96	10.88160	496897.09	3605803.96	10.51012
496907.09	3605803.96	10.15901	496917.09	3605803.96	9.82735
496927.09	3605803.96	9.51343	496937.09	3605803.96	9.21543
496947.09	3605803.96	8.93058	496687.09	3605813.96	28.86786
496697.09	3605813.96	26.85743	496707.09	3605813.96	25.09094
496717.09	3605813.96	23.52277	496727.09	3605813.96	22.12768
496737.09	3605813.96	20.87586	496747.09		

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3605813.96       19.74506
         496757.09    3605813.96       18.72132                              496767.09
3605813.96       17.79209
         496777.09    3605813.96       16.94081                              496787.09
3605813.96       16.16830
         496797.09    3605813.96       15.45973                              496807.09
3605813.96       14.82905
         496817.09    3605813.96       14.21310                              496827.09
3605813.96       13.63912
         496837.09    3605813.96       13.10405                              496847.09
3605813.96       12.60469
         496857.09    3605813.96       12.13559                              496867.09
3605813.96       11.69404
         496877.09    3605813.96       11.27804                              496887.09
3605813.96       10.88553
         496897.09    3605813.96       10.51349                              496907.09
3605813.96       10.16189
         496917.09    3605813.96        9.82928                              496927.09
3605813.96        9.51408
         496937.09    3605813.96        9.21507                              496947.09
3605813.96        8.93028
         496687.09    3605823.96       28.92958                              496697.09
3605823.96       26.91567
         496707.09    3605823.96       25.14985                              496717.09
3605823.96       23.58791
         496727.09    3605823.96       22.19708                              496737.09
3605823.96       20.93457
         496747.09    3605823.96       19.79286                              496757.09
3605823.96       18.75853
         496767.09    3605823.96       17.81832                              496777.09
3605823.96       16.95788
         496787.09    3605823.96       16.17918                              496797.09
3605823.96       15.46805
         496807.09    3605823.96       14.80960                              496817.09
3605823.96       14.19371
         496827.09    3605823.96       13.64873                              496837.09
3605823.96       13.11217
         496847.09    3605823.96       12.61149                              496857.09
3605823.96       12.14123
         496867.09    3605823.96       11.69791                              496877.09
3605823.96       11.28016
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION

VALUES FOR SOURCE GROUP: 805SB ***
INCLUDING SOURCE(S): L0000178 , L0000179 , L0000180 , L0000181 , L0000182 ,
L0000183 , L0000184 , L0000185 , L0000186 , L0000187 , L0000188 , L0000189 , L0000190 ,
L0000191 , L0000192 , L0000193 , L0000194 , L0000195 , L0000196 , L0000197 , L0000198 ,
L0000199 , L0000200 , L0000201 , L0000202 , L0000203 , L0000204 , L0000205 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
496887.09	3605823.96	10.88622	496897.09	3605823.96	10.51375
496907.09	3605823.96	10.16139	496917.09	3605823.96	9.82832
496927.09	3605823.96	9.51271	496937.09	3605823.96	9.21287
496947.09	3605823.96	8.92862	496727.09	3605833.96	22.26523
496737.09	3605833.96	21.00146	496747.09	3605833.96	19.85391
496757.09	3605833.96	18.81182	496767.09	3605833.96	17.85537
496777.09	3605833.96	16.97993	496787.09	3605833.96	16.19136
496797.09	3605833.96	15.47181	496807.09	3605833.96	14.80608
496817.09	3605833.96	14.19170	496827.09	3605833.96	13.61992
496837.09	3605833.96	13.08561	496847.09	3605833.96	12.61482
496857.09	3605833.96	12.14417	496867.09	3605833.96	11.69942
496877.09	3605833.96	11.28055	496887.09	3605833.96	10.88537
496897.09	3605833.96	10.51159	496907.09	3605833.96	10.15827
496917.09	3605833.96	9.82474	496927.09	3605833.96	9.50910
496937.09	3605833.96	9.20960	496947.09	3605833.96	8.92571

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         496797.09    3605843.96       15.46168                              496807.09
3605843.96       14.78773
         496817.09    3605843.96       14.18628                              496827.09
3605843.96       13.61505
         496837.09    3605843.96       13.08249                              496847.09
3605843.96       12.58298
         496857.09    3605843.96       12.14353                              496867.09
3605843.96       11.69769
         496877.09    3605843.96       11.27735                              496887.09
3605843.96       10.88139
         496897.09    3605843.96       10.50658                              496907.09
3605843.96       10.15210
         496917.09    3605843.96        9.81853                              496927.09
3605843.96        9.50265
         496937.09    3605843.96        9.20356                              496947.09
3605843.96        8.92006
         496857.09    3605853.96       12.10700                              496867.09
3605853.96       11.69077
         496877.09    3605853.96       11.27033                              496887.09
3605853.96       10.87341
         496897.09    3605853.96       10.49815                              496907.09
3605853.96       10.14373
         496917.09    3605853.96        9.80965                              496927.09
3605853.96        9.49419
         496937.09    3605853.96        9.19476                              496947.09
3605853.96        8.91204
         496927.09    3605863.96        9.48377                              496937.09
3605863.96        9.18385
         496947.09    3605863.96        8.90168
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                             *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL     ***
                                 INCLUDING SOURCE(S):     L0000119    , L0000120
, L0000121    , L0000122    , L0000123    ,
                 L0000124    , L0000125    , L0000126    , L0000127    , L0000128
, L0000129    , L0000130    , L0000131    ,
                 L0000132    , L0000133    , L0000134    , L0000135    , L0000136
, L0000137    , L0000138    , L0000139    ,
                 L0000140    , L0000141    , L0000142    , L0000143    , L0000144
, L0000145    , L0000146    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
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** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
496667.09	3605623.96	77.57997	496677.09	3605623.96	70.67512
496687.09	3605623.96	64.67183	496697.09	3605623.96	59.57570
496707.09	3605623.96	55.10380	496717.09	3605623.96	51.14119
496727.09	3605623.96	47.68383	496737.09	3605623.96	44.73554
496747.09	3605623.96	42.11242	496757.09	3605623.96	39.74685
496767.09	3605623.96	37.60201	496777.09	3605623.96	35.66812
496787.09	3605623.96	33.91164	496797.09	3605623.96	32.32863
496807.09	3605623.96	30.86893	496817.09	3605623.96	29.45348
496667.09	3605633.96	75.42126	496677.09	3605633.96	68.53312
496687.09	3605633.96	62.90074	496697.09	3605633.96	58.12280
496707.09	3605633.96	53.92530	496717.09	3605633.96	50.21015
496727.09	3605633.96	46.94058	496737.09	3605633.96	44.17477
496747.09	3605633.96	41.69197	496757.09	3605633.96	39.43114
496767.09	3605633.96	37.30634	496777.09	3605633.96	35.39438
496787.09	3605633.96	33.68661	496797.09	3605633.96	32.12916
496807.09	3605633.96	30.69996	496817.09	3605633.96	29.37430
496827.09	3605633.96	28.14287	496837.09	3605633.96	26.99401
496847.09	3605633.96	25.92198	496857.09	3605633.96	24.91854
496867.09	3605633.96	23.98794	496877.09	3605633.96	23.08762
496667.09	3605643.96	75.14803	496677.09	3605643.96	68.22045
496687.09	3605643.96	62.61990	496697.09		

3605643.96 57.86457
496707.09 3605643.96 53.70374 496717.09
3605643.96 50.02583
496727.09 3605643.96 46.79382 496737.09
3605643.96 44.05318
496747.09 3605643.96 41.61064 496757.09
3605643.96 39.37080
496767.09 3605643.96 37.27840 496777.09
3605643.96 35.37612
496787.09 3605643.96 33.67634 496797.09
3605643.96 32.13284
496807.09 3605643.96 30.70777 496817.09
3605643.96 29.39313
496827.09 3605643.96 28.17972 496837.09
3605643.96 27.04342
496847.09 3605643.96 25.97594 496857.09
3605643.96 24.97589
496867.09 3605643.96 24.04268 496877.09
3605643.96 23.16518
496887.09 3605643.96 22.31578 496897.09
3605643.96 21.53565
496907.09 3605643.96 20.79608 496917.09
3605643.96 20.09050
496927.09 3605643.96 19.42169 496667.09
3605653.96 75.34674
496677.09 3605653.96 68.40879 496687.09
3605653.96 62.74992
496697.09 3605653.96 57.94589 496707.09
3605653.96 53.76128
496717.09 3605653.96 50.08113 496727.09
3605653.96 46.84343
496737.09 3605653.96 44.08235 496747.09
3605653.96 41.61811
496757.09 3605653.96 39.38037 496767.09
3605653.96 37.31710
496777.09 3605653.96 35.43811 496787.09
3605653.96 33.74374
496797.09 3605653.96 32.19649 496807.09
3605653.96 30.76850

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000119 , L0000120

, L0000121 , L0000122 , L0000123 ,
L0000124 , L0000125 , L0000126 , L0000127 , L0000128
, L0000129 , L0000130 , L0000131 ,
L0000132 , L0000133 , L0000134 , L0000135 , L0000136
, L0000137 , L0000138 , L0000139 ,
L0000140 , L0000141 , L0000142 , L0000143 , L0000144
, L0000145 , L0000146 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
496817.09	3605653.96	29.46576	496827.09	3605653.96	28.23660
496837.09	3605653.96	27.10017	496847.09	3605653.96	26.03533
496857.09	3605653.96	25.03678	496867.09	3605653.96	24.10233
496877.09	3605653.96	23.22277	496887.09	3605653.96	22.38556
496897.09	3605653.96	21.59061	496907.09	3605653.96	20.84973
496917.09	3605653.96	20.14295	496927.09	3605653.96	19.47254
496937.09	3605653.96	18.83910	496947.09	3605653.96	18.24416
496667.09	3605663.96	75.54968	496677.09	3605663.96	68.61335
496687.09	3605663.96	62.88249	496697.09	3605663.96	58.03986
496707.09	3605663.96	53.83938	496717.09	3605663.96	50.14805
496727.09	3605663.96	46.90614	496737.09	3605663.96	44.13037
496747.09	3605663.96	41.64767	496757.09	3605663.96	39.40878
496767.09	3605663.96	37.34552	496777.09	3605663.96	35.49071
496787.09	3605663.96	33.80285	496797.09	3605663.96	32.25296
496807.09	3605663.96	30.82273	496817.09	3605663.96	29.51815
496827.09	3605663.96	28.30234	496837.09	3605663.96	27.15275

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         496847.09   3605663.96       26.09003                          496857.09
3605663.96       25.09361
         496867.09   3605663.96       24.15828                          496877.09
3605663.96       23.27732
         496887.09   3605663.96       22.44634                          496897.09
3605663.96       21.64311
         496907.09   3605663.96       20.90100                          496917.09
3605663.96       20.19262
         496927.09   3605663.96       19.52043                          496937.09
3605663.96       18.88507
         496947.09   3605663.96       18.28559                          496667.09
3605673.96       75.75968
         496677.09   3605673.96       68.79683                          496687.09
3605673.96       63.02608
         496697.09   3605673.96       58.14758                          496707.09
3605673.96       53.93216
         496717.09   3605673.96       50.23444                          496727.09
3605673.96       46.98699
         496737.09   3605673.96       44.19513                          496747.09
3605673.96       41.70335
         496757.09   3605673.96       39.46031                          496767.09
3605673.96       37.43208
         496777.09   3605673.96       35.57817                          496787.09
3605673.96       33.86332
         496797.09   3605673.96       32.31389                          496807.09
3605673.96       30.88438
         496817.09   3605673.96       29.57691                          496827.09
3605673.96       28.35872
         496837.09   3605673.96       27.22217                          496847.09
3605673.96       26.14314
         496857.09   3605673.96       25.14603                          496867.09
3605673.96       24.20775
         496877.09   3605673.96       23.32418                          496887.09
3605673.96       22.49196
         496897.09   3605673.96       21.70676                          496907.09
3605673.96       20.94886
         496917.09   3605673.96       20.24060                          496927.09
3605673.96       19.56790
         496937.09   3605673.96       18.94287                          496947.09
3605673.96       18.33880
         496667.09   3605683.96       75.96970                          496677.09
3605683.96       68.96592
         496687.09   3605683.96       63.16617                          496697.09
3605683.96       58.27292
         496707.09   3605683.96       54.03444                          496717.09
3605683.96       50.33003
         496727.09   3605683.96       47.07320                          496737.09
3605683.96       44.27568
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000119 , L0000120
, L0000121 , L0000122 , L0000123 ,
L0000124 , L0000125 , L0000126 , L0000127 , L0000128
, L0000129 , L0000130 , L0000131 ,
L0000132 , L0000133 , L0000134 , L0000135 , L0000136
, L0000137 , L0000138 , L0000139 ,
L0000140 , L0000141 , L0000142 , L0000143 , L0000144
, L0000145 , L0000146 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_10 IN MICROGRAMS/M**3
**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
496747.09	3605683.96	41.77543	496757.09	3605683.96	39.52613
496767.09	3605683.96	37.49339	496777.09	3605683.96	35.63559
496787.09	3605683.96	33.94865	496797.09	3605683.96	32.37487
496807.09	3605683.96	30.94691	496817.09	3605683.96	29.63654
496827.09	3605683.96	28.41565	496837.09	3605683.96	27.27589
496847.09	3605683.96	26.20866	496857.09	3605683.96	25.19433
496867.09	3605683.96	24.25332	496877.09	3605683.96	23.36706
496887.09	3605683.96	22.53366	496897.09	3605683.96	21.74866
496907.09	3605683.96	21.00670	496917.09	3605683.96	20.29787
496927.09	3605683.96	19.62431	496937.09	3605683.96	18.98747
496947.09	3605683.96	18.38383	496677.09	3605693.96	69.11275
496687.09	3605693.96	63.28925	496697.09		

3605693.96 58.37145
496707.09 3605693.96 54.12639 496717.09
3605693.96 50.41125
496727.09 3605693.96 47.15017 496737.09
3605693.96 44.34478
496747.09 3605693.96 41.84182 496757.09
3605693.96 39.58356
496767.09 3605693.96 37.54579 496777.09
3605693.96 35.68493
496787.09 3605693.96 34.00044 496797.09
3605693.96 32.45783
496807.09 3605693.96 31.00476 496817.09
3605693.96 29.69158
496827.09 3605693.96 28.46759 496837.09
3605693.96 27.32527
496847.09 3605693.96 26.25698 496857.09
3605693.96 25.25517
496867.09 3605693.96 24.29645 496877.09
3605693.96 23.40862
496887.09 3605693.96 22.57353 496897.09
3605693.96 21.78921
496907.09 3605693.96 21.04794 496917.09
3605693.96 20.33994
496927.09 3605693.96 19.66721 496937.09
3605693.96 19.03059
496947.09 3605693.96 18.42724 496677.09
3605703.96 69.22262
496687.09 3605703.96 63.40370 496697.09
3605703.96 58.48264
496707.09 3605703.96 54.22904 496717.09
3605703.96 50.51213
496727.09 3605703.96 47.24475 496737.09
3605703.96 44.42955
496747.09 3605703.96 41.91498 496757.09
3605703.96 39.65065
496767.09 3605703.96 37.60802 496777.09
3605703.96 35.74524
496787.09 3605703.96 34.05849 496797.09
3605703.96 32.51313
496807.09 3605703.96 31.08191 496817.09
3605703.96 29.73860
496827.09 3605703.96 28.51274 496837.09
3605703.96 27.36684
496847.09 3605703.96 26.29594 496857.09
3605703.96 25.29305
496867.09 3605703.96 24.34730 496877.09
3605703.96 23.44514
496887.09 3605703.96 22.61124 496897.09
3605703.96 21.82615
496907.09 3605703.96 21.08478 496917.09

3605703.96   20.37733
         496927.09   3605703.96   19.70501   496937.09
3605703.96   19.06879
         496947.09   3605703.96   18.46583   496677.09
3605713.96   69.31333
         496687.09   3605713.96   63.50226   496697.09
3605713.96   58.58686

*** AERMOD - VERSION 21112 ***   *** Nakano Freeway HRA
                         ***   08/30/21
 *** AERMET - VERSION 18081 ***   ***
                       ***   14:31:50

                                     PAGE 35
 *** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

                                 *** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                     INCLUDING SOURCE(S):   L0000119   , L0000120
, L0000121   , L0000122   , L0000123   ,
                 L0000124   , L0000125   , L0000126   , L0000127   , L0000128
, L0000129   , L0000130   , L0000131   ,
                 L0000132   , L0000133   , L0000134   , L0000135   , L0000136
, L0000137   , L0000138   , L0000139   ,
                 L0000140   , L0000141   , L0000142   , L0000143   , L0000144
, L0000145   , L0000146   , . . .   ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF PM_10   IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         496707.09   3605713.96   54.34274   496717.09
3605713.96   50.64319
         496727.09   3605713.96   47.37314   496737.09
3605713.96   44.54304
         496747.09   3605713.96   41.99209   496757.09
3605713.96   39.72152
         496767.09   3605713.96   37.67619   496777.09
3605713.96   35.81135
         496787.09   3605713.96   34.11588   496797.09
3605713.96   32.56362
         496807.09   3605713.96   31.13075   496817.09
3605713.96   29.80352
         496827.09   3605713.96   28.55183   496837.09
3605713.96   27.40352

496847.09 3605713.96 26.33075 496857.09
3605713.96 25.32574
496867.09 3605713.96 24.38127 496877.09
3605713.96 23.49295
496887.09 3605713.96 22.65799 496897.09
3605713.96 21.86029
496907.09 3605713.96 21.11823 496917.09
3605713.96 20.41096
496927.09 3605713.96 19.73871 496937.09
3605713.96 19.10230
496947.09 3605713.96 18.49988 496677.09
3605723.96 69.41060
496687.09 3605723.96 63.60919 496697.09
3605723.96 58.70728
496707.09 3605723.96 54.46232 496717.09
3605723.96 50.73703
496727.09 3605723.96 47.46701 496737.09
3605723.96 44.62370
496747.09 3605723.96 42.08998 496757.09
3605723.96 39.81078
496767.09 3605723.96 37.73814 496777.09
3605723.96 35.87195
496787.09 3605723.96 34.17134 496797.09
3605723.96 32.61217
496807.09 3605723.96 31.17494 496817.09
3605723.96 29.84292
496827.09 3605723.96 28.60643 496837.09
3605723.96 27.43882
496847.09 3605723.96 26.36355 496857.09
3605723.96 25.35749
496867.09 3605723.96 24.41343 496877.09
3605723.96 23.52616
496887.09 3605723.96 22.69076 496897.09
3605723.96 21.90238
496907.09 3605723.96 21.15785 496917.09
3605723.96 20.44947
496927.09 3605723.96 19.77584 496937.09
3605723.96 19.13828
496947.09 3605723.96 18.53608 496677.09
3605733.96 69.51673
496687.09 3605733.96 63.71466 496697.09
3605733.96 58.80494
496707.09 3605733.96 54.55381 496717.09
3605733.96 50.82399
496727.09 3605733.96 47.55454 496737.09
3605733.96 44.70341
496747.09 3605733.96 42.16007 496757.09
3605733.96 39.87871
496767.09 3605733.96 37.80245 496777.09
3605733.96 35.93740

496787.09 3605733.96 34.23123 496797.09
3605733.96 32.66430
496807.09 3605733.96 31.21825 496817.09
3605733.96 29.88214
496827.09 3605733.96 28.64220 496837.09
3605733.96 27.48646
496847.09 3605733.96 26.39854 496857.09
3605733.96 25.39131
496867.09 3605733.96 24.44673 496877.09
3605733.96 23.55941
496887.09 3605733.96 22.72427 496897.09
3605733.96 21.93382
496907.09 3605733.96 21.18832 496917.09
3605733.96 20.47903
496927.09 3605733.96 19.80580 496937.09
3605733.96 19.16760

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000119 , L0000120 , L0000121 , L0000122 , L0000123 ,
L0000124 , L0000125 , L0000126 , L0000127 , L0000128 , L0000129 , L0000130 , L0000131 ,
L0000132 , L0000133 , L0000134 , L0000135 , L0000136 , L0000137 , L0000138 , L0000139 ,
L0000140 , L0000141 , L0000142 , L0000143 , L0000144 , L0000145 , L0000146 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
496947.09	3605733.96	18.56404	496677.09	3605743.96	69.66138
496687.09	3605743.96	63.83160	496697.09	3605743.96	58.91231
496707.09	3605743.96	54.64860	496717.09		

3605743.96 50.90960
496727.09 3605743.96 47.62946 496737.09
3605743.96 44.77567
496747.09 3605743.96 42.23085 496757.09
3605743.96 39.94808
496767.09 3605743.96 37.90196 496777.09
3605743.96 36.00811
496787.09 3605743.96 34.29440 496797.09
3605743.96 32.71645
496807.09 3605743.96 31.26180 496817.09
3605743.96 29.92155
496827.09 3605743.96 28.67966 496837.09
3605743.96 27.52111
496847.09 3605743.96 26.44001 496857.09
3605743.96 25.42815
496867.09 3605743.96 24.48075 496877.09
3605743.96 23.59293
496887.09 3605743.96 22.75659 496897.09
3605743.96 21.96576
496907.09 3605743.96 21.21857 496917.09
3605743.96 20.50931
496927.09 3605743.96 19.83576 496937.09
3605743.96 19.19746
496947.09 3605743.96 18.59014 496677.09
3605753.96 69.78611
496687.09 3605753.96 63.94459 496697.09
3605753.96 59.00876
496707.09 3605753.96 54.73439 496717.09
3605753.96 50.98958
496727.09 3605753.96 47.70480 496737.09
3605753.96 44.84509
496747.09 3605753.96 42.29499 496757.09
3605753.96 40.01440
496767.09 3605753.96 37.96966 496777.09
3605753.96 36.07673
496787.09 3605753.96 34.35641 496797.09
3605753.96 32.76812
496807.09 3605753.96 31.30520 496817.09
3605753.96 29.96214
496827.09 3605753.96 28.71563 496837.09
3605753.96 27.55606
496847.09 3605753.96 26.47247 496857.09
3605753.96 25.45972
496867.09 3605753.96 24.51122 496877.09
3605753.96 23.62488
496887.09 3605753.96 22.78675 496897.09
3605753.96 21.99415
496907.09 3605753.96 21.24631 496917.09
3605753.96 20.53645
496927.09 3605753.96 19.86296 496937.09

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3605753.96       19.22452
         496947.09    3605753.96       18.61294                              496677.09
3605763.96       69.99478
         496687.09    3605763.96       64.05514                              496697.09
3605763.96       59.10483
         496707.09    3605763.96       54.82566                              496717.09
3605763.96       51.07438
         496727.09    3605763.96       47.78855                              496737.09
3605763.96       44.92339
         496747.09    3605763.96       42.37171                              496757.09
3605763.96       40.08290
         496767.09    3605763.96       38.03466                              496777.09
3605763.96       36.16633
         496787.09    3605763.96       34.40958                              496797.09
3605763.96       32.81735
         496807.09    3605763.96       31.35084                              496817.09
3605763.96       30.00306
         496827.09    3605763.96       28.75382                              496837.09
3605763.96       27.59019
         496847.09    3605763.96       26.50539                              496857.09
3605763.96       25.49151
         496867.09    3605763.96       24.54090                              496877.09
3605763.96       23.64842
         496887.09    3605763.96       22.80702                              496897.09
3605763.96       22.01201
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                              *** THE PERIOD ( 26304 HRS) AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     L0000119    , L0000120
, L0000121    , L0000122    , L0000123    ,
                 L0000124    , L0000125    , L0000126    , L0000127    , L0000128
, L0000129    , L0000130    , L0000131    ,
                 L0000132    , L0000133    , L0000134    , L0000135    , L0000136
, L0000137    , L0000138    , L0000139    ,
                 L0000140    , L0000141    , L0000142    , L0000143    , L0000144
, L0000145    , L0000146    ,  . . .      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_10    IN MICROGRAMS/M**3
                   **
```

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
496907.09	3605763.96	21.27137	496917.09	3605763.96	20.56046
496927.09	3605763.96	19.88708	496937.09	3605763.96	19.24858
496947.09	3605763.96	18.63501	496687.09	3605773.96	64.24353
496697.09	3605773.96	59.27386	496707.09	3605773.96	54.91890
496717.09	3605773.96	51.21330	496727.09	3605773.96	47.91574
496737.09	3605773.96	45.01506	496747.09	3605773.96	42.45798
496757.09	3605773.96	40.16190	496767.09	3605773.96	38.09651
496777.09	3605773.96	36.21439	496787.09	3605773.96	34.48286
496797.09	3605773.96	32.88973	496807.09	3605773.96	31.42186
496817.09	3605773.96	30.04470	496827.09	3605773.96	28.79194
496837.09	3605773.96	27.62608	496847.09	3605773.96	26.53921
496857.09	3605773.96	25.52335	496867.09	3605773.96	24.57092
496877.09	3605773.96	23.67590	496887.09	3605773.96	22.83314
496897.09	3605773.96	22.03526	496907.09	3605773.96	21.28142
496917.09	3605773.96	20.56976	496927.09	3605773.96	19.90955
496937.09	3605773.96	19.27046	496947.09	3605773.96	18.65693
496687.09	3605783.96	64.35550	496697.09	3605783.96	59.36984
496707.09	3605783.96	55.06443	496717.09	3605783.96	51.30219
496727.09	3605783.96	48.00350	496737.09	3605783.96	45.12286
496747.09	3605783.96	42.54777	496757.09	3605783.96	40.24450
496767.09	3605783.96	38.16137	496777.09	3605783.96	36.26534
496787.09	3605783.96	34.53088	496797.09	3605783.96	32.93787
496807.09	3605783.96	31.46769	496817.09	3605783.96	30.10912

496827.09 3605783.96 28.82821 496837.09
3605783.96 27.65968
496847.09 3605783.96 26.57196 496857.09
3605783.96 25.55332
496867.09 3605783.96 24.59813 496877.09
3605783.96 23.70058
496887.09 3605783.96 22.85443 496897.09
3605783.96 22.05436
496907.09 3605783.96 21.29836 496917.09
3605783.96 20.58635
496927.09 3605783.96 19.91305 496937.09
3605783.96 19.27443
496947.09 3605783.96 18.66110 496687.09
3605793.96 64.49787
496697.09 3605793.96 59.49428 496707.09
3605793.96 55.17720
496717.09 3605793.96 51.41159 496727.09
3605793.96 48.10668
496737.09 3605793.96 45.21655 496747.09
3605793.96 42.63777
496757.09 3605793.96 40.31831 496767.09
3605793.96 38.22584
496777.09 3605793.96 36.31709 496787.09
3605793.96 34.57706
496797.09 3605793.96 32.98197 496807.09
3605793.96 31.51219
496817.09 3605793.96 30.14923 496827.09
3605793.96 28.88414
496837.09 3605793.96 27.70897 496847.09
3605793.96 26.60181
496857.09 3605793.96 25.58177 496867.09
3605793.96 24.62318
496877.09 3605793.96 23.72268 496887.09
3605793.96 22.87429

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000119 , L0000120 , L0000121 , L0000122 , L0000123 ,
L0000124 , L0000125 , L0000126 , L0000127 , L0000128 , L0000129 , L0000130 , L0000131 ,
L0000132 , L0000133 , L0000134 , L0000135 , L0000136 , L0000137 , L0000138 , L0000139 ,

L0000140 , L0000141 , L0000142 , L0000143 , L0000144 , L0000145 , L0000146 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
496897.09	3605793.96	22.07102	496907.09	3605793.96	21.31211
496917.09	3605793.96	20.59915	496927.09	3605793.96	19.92524
496937.09	3605793.96	19.28627	496947.09	3605793.96	18.67326
496687.09	3605803.96	64.69216	496697.09	3605803.96	59.66482
496707.09	3605803.96	55.33636	496717.09	3605803.96	51.55243
496727.09	3605803.96	48.23901	496737.09	3605803.96	45.31886
496747.09	3605803.96	42.71530	496757.09	3605803.96	40.37481
496767.09	3605803.96	38.26206	496777.09	3605803.96	36.34013
496787.09	3605803.96	34.59817	496797.09	3605803.96	33.02381
496807.09	3605803.96	31.55196	496817.09	3605803.96	30.18541
496827.09	3605803.96	28.91653	496837.09	3605803.96	27.73912
496847.09	3605803.96	26.64202	496857.09	3605803.96	25.61645
496867.09	3605803.96	24.64639	496877.09	3605803.96	23.74232
496887.09	3605803.96	22.89145	496897.09	3605803.96	22.08586
496907.09	3605803.96	21.32616	496917.09	3605803.96	20.60991
496927.09	3605803.96	19.93339	496937.09	3605803.96	19.29179
496947.09	3605803.96	18.67959	496687.09	3605813.96	64.90376
496697.09	3605813.96	59.85306	496707.09	3605813.96	55.50519
496717.09	3605813.96	51.71080	496727.09		

3605813.96 48.38394
496737.09 3605813.96 45.43572 496747.09
3605813.96 42.80120
496757.09 3605813.96 40.43846 496767.09
3605813.96 38.31057
496777.09 3605813.96 36.37479 496787.09
3605813.96 34.62834
496797.09 3605813.96 33.03569 496807.09
3605813.96 31.59132
496817.09 3605813.96 30.21976 496827.09
3605813.96 28.94660
496837.09 3605813.96 27.76391 496847.09
3605813.96 26.66452
496857.09 3605813.96 25.63453 496867.09
3605813.96 24.66785
496877.09 3605813.96 23.75719 496887.09
3605813.96 22.90322
496897.09 3605813.96 22.09601 496907.09
3605813.96 21.33489
496917.09 3605813.96 20.61626 496927.09
3605813.96 19.93661
496937.09 3605813.96 19.29294 496947.09
3605813.96 18.68095
496687.09 3605823.96 65.03574 496697.09
3605823.96 59.97386
496707.09 3605823.96 55.62916 496717.09
3605823.96 51.85330
496727.09 3605823.96 48.54003 496737.09
3605823.96 45.56989
496747.09 3605823.96 42.91363 496757.09
3605823.96 40.52828
496767.09 3605823.96 38.37629 496777.09
3605823.96 36.42034
496787.09 3605823.96 34.66045 496797.09
3605823.96 33.06050
496807.09 3605823.96 31.58702 496817.09
3605823.96 30.21479
496827.09 3605823.96 28.96973 496837.09
3605823.96 27.78400
496847.09 3605823.96 26.68077 496857.09
3605823.96 25.64821
496867.09 3605823.96 24.67759 496877.09
3605823.96 23.76514

*** THE PERIOD (26304 HRS) AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000119 , L0000120 , L0000121 , L0000122 , L0000123 ,
L0000124 , L0000125 , L0000126 , L0000127 , L0000128 , L0000129 , L0000130 , L0000131 ,
L0000132 , L0000133 , L0000134 , L0000135 , L0000136 , L0000137 , L0000138 , L0000139 ,
L0000140 , L0000141 , L0000142 , L0000143 , L0000144 , L0000145 , L0000146 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_10 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
496887.09	3605823.96	22.90700	496897.09	3605823.96	22.10086
496907.09	3605823.96	21.33729	496917.09	3605823.96	20.61709
496927.09	3605823.96	19.93610	496937.09	3605823.96	19.29026
496947.09	3605823.96	18.67913	496727.09	3605833.96	48.70180
496737.09	3605833.96	45.73074	496747.09	3605833.96	43.06184
496757.09	3605833.96	40.65900	496767.09	3605833.96	38.47035
496777.09	3605833.96	36.48061	496787.09	3605833.96	34.69786
496797.09	3605833.96	33.07914	496807.09	3605833.96	31.58869
496817.09	3605833.96	30.21810	496827.09	3605833.96	28.94820
496837.09	3605833.96	27.76562	496847.09	3605833.96	26.69172
496857.09	3605833.96	25.65736	496867.09	3605833.96	24.68302
496877.09	3605833.96	23.76815	496887.09	3605833.96	22.90687
496897.09	3605833.96	22.09415	496907.09	3605833.96	21.32771
496917.09	3605833.96	20.61329	496927.09	3605833.96	19.93139

496937.09   3605833.96   19.28578   496947.09
3605833.96   18.67501
496797.09   3605843.96   33.07937   496807.09
3605843.96   31.57133
496817.09   3605843.96   30.21613   496827.09
3605843.96   28.94623
496837.09   3605843.96   27.76580   496847.09
3605843.96   26.66312
496857.09   3605843.96   25.66023   496867.09
3605843.96   24.68288
496877.09   3605843.96   23.76387   496887.09
3605843.96   22.90066
496897.09   3605843.96   22.08556   496907.09
3605843.96   21.31627
496917.09   3605843.96   20.59365   496927.09
3605843.96   19.91090
496937.09   3605843.96   19.27590   496947.09
3605843.96   18.66532
496857.09   3605853.96   25.62144   496867.09
3605853.96   24.67237
496877.09   3605853.96   23.75270   496887.09
3605853.96   22.88667
496897.09   3605853.96   22.06991   496907.09
3605853.96   21.30044
496917.09   3605853.96   20.57666   496927.09
3605853.96   19.89425
496937.09   3605853.96   19.24793   496947.09
3605853.96   18.65097
496927.09   3605863.96   19.87390   496937.09
3605863.96   19.22617
496947.09   3605863.96   18.61779

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM PERIOD (26304 HRS) RESULTS ***

** CONC OF PM_10   IN MICROGRAMS/M**3 **

NETWORK
GROUP ID   AVERAGE CONC   RECEPTOR (XR, YR, ZELEV,

```
ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -

805NB     1ST HIGHEST VALUE IS      44.16849 AT (  496667.09,  3605623.96,    38.96,
  150.41,    0.00)  DC
          2ND HIGHEST VALUE IS      43.12007 AT (  496667.09,  3605683.96,    33.86,
  150.27,    0.00)  DC
          3RD HIGHEST VALUE IS      43.00423 AT (  496667.09,  3605673.96,    34.18,
  150.41,    0.00)  DC
          4TH HIGHEST VALUE IS      42.88440 AT (  496667.09,  3605663.96,    34.54,
  150.41,    0.00)  DC
          5TH HIGHEST VALUE IS      42.79751 AT (  496667.09,  3605633.96,    36.35,
  150.41,    0.00)  DC
          6TH HIGHEST VALUE IS      42.74904 AT (  496667.09,  3605653.96,    34.98,
  150.41,    0.00)  DC
          7TH HIGHEST VALUE IS      42.62726 AT (  496667.09,  3605643.96,    35.42,
  150.41,    0.00)  DC
          8TH HIGHEST VALUE IS      39.84971 AT (  496677.09,  3605623.96,    39.26,
  150.41,    0.00)  DC
          9TH HIGHEST VALUE IS      39.20017 AT (  496677.09,  3605763.96,    31.83,
  150.17,    0.00)  DC
         10TH HIGHEST VALUE IS      39.13533 AT (  496677.09,  3605753.96,    32.00,
  150.17,    0.00)  DC

805SB     1ST HIGHEST VALUE IS      33.41148 AT (  496667.09,  3605623.96,    38.96,
  150.41,    0.00)  DC
          2ND HIGHEST VALUE IS      32.84963 AT (  496667.09,  3605683.96,    33.86,
  150.27,    0.00)  DC
          3RD HIGHEST VALUE IS      32.75544 AT (  496667.09,  3605673.96,    34.18,
  150.41,    0.00)  DC
          4TH HIGHEST VALUE IS      32.66527 AT (  496667.09,  3605663.96,    34.54,
  150.41,    0.00)  DC
          5TH HIGHEST VALUE IS      32.62375 AT (  496667.09,  3605633.96,    36.35,
  150.41,    0.00)  DC
          6TH HIGHEST VALUE IS      32.59770 AT (  496667.09,  3605653.96,    34.98,
  150.41,    0.00)  DC
          7TH HIGHEST VALUE IS      32.52076 AT (  496667.09,  3605643.96,    35.42,
  150.41,    0.00)  DC
          8TH HIGHEST VALUE IS      30.82540 AT (  496677.09,  3605623.96,    39.26,
  150.41,    0.00)  DC
          9TH HIGHEST VALUE IS      30.79461 AT (  496677.09,  3605763.96,    31.83,
  150.17,    0.00)  DC
         10TH HIGHEST VALUE IS      30.65078 AT (  496677.09,  3605753.96,    32.00,
  150.17,    0.00)  DC

ALL       1ST HIGHEST VALUE IS      77.57997 AT (  496667.09,  3605623.96,    38.96,
  150.41,    0.00)  DC
          2ND HIGHEST VALUE IS      75.96970 AT (  496667.09,  3605683.96,    33.86,
  150.27,    0.00)  DC
```

```
        3RD HIGHEST VALUE IS      75.75968 AT (  496667.09,  3605673.96,    34.18,
 150.41,    0.00)  DC
        4TH HIGHEST VALUE IS      75.54968 AT (  496667.09,  3605663.96,    34.54,
 150.41,    0.00)  DC
        5TH HIGHEST VALUE IS      75.42126 AT (  496667.09,  3605633.96,    36.35,
 150.41,    0.00)  DC
        6TH HIGHEST VALUE IS      75.34674 AT (  496667.09,  3605653.96,    34.98,
 150.41,    0.00)  DC
        7TH HIGHEST VALUE IS      75.14803 AT (  496667.09,  3605643.96,    35.42,
 150.41,    0.00)  DC
        8TH HIGHEST VALUE IS      70.67512 AT (  496677.09,  3605623.96,    39.26,
 150.41,    0.00)  DC
        9TH HIGHEST VALUE IS      69.99478 AT (  496677.09,  3605763.96,    31.83,
 150.17,    0.00)  DC
       10TH HIGHEST VALUE IS      69.78611 AT (  496677.09,  3605753.96,    32.00,
 150.17,    0.00)  DC


*** RECEPTOR TYPES:  GC = GRIDCART
                     GP = GRIDPOLR
                     DC = DISCCART
                     DP = DISCPOLR
 *** AERMOD - VERSION 21112  ***   *** Nakano Freeway HRA
                        ***       08/30/21
*** AERMET - VERSION  18081 ***   ***
                      ***       14:31:50

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*** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

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

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

A Total of            0 Fatal Error Message(s)
A Total of           38 Warning Message(s)
A Total of          341 Informational Message(s)

A Total of        26304 Hours Were Processed

A Total of           16 Calm Hours Identified

A Total of          325 Missing Hours Identified (  1.24 Percent)


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


   ********   WARNING MESSAGES   ********
```

```
ME W186     357       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used
    0.50
ME W187     357       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

MX W441   14167        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081407
MX W441   14168        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081408
MX W441   14169        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081409
MX W441   14170        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081410
MX W441   14171        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081411
MX W441   14172        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081412
MX W441   14173        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081413
MX W441   14174        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081414
MX W441   14175        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081415
MX W441   14176        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081416
MX W441   14177        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081417
MX W441   14178        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081418
MX W441   14191        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081507
MX W441   14192        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081508
MX W441   14193        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081509
MX W441   14194        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081510
MX W441   14195        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081511
MX W441   14196        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081512
MX W441   14197        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081513
MX W441   14198        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081514
MX W441   14199        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081515
MX W441   14200        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081516
MX W441   14201        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081517
```

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MX W441   14202        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081518
MX W441   14215        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081607
MX W441   14216        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081608
MX W441   14217        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081609
MX W441   14218        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081610
MX W441   14219        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081611
MX W441   14220        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081612
MX W441   14221        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081613
MX W441   14222        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081614
MX W441   14223        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081615
MX W441   14224        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081616
MX W441   14225        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081617
MX W441   14226        METQA: Vert Pot Temp Grad abv ZI set to min .005, KURDAT=
11081618

   ************************************
   *** AERMOD Finishes Successfully ***
   ************************************
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ATTACHMENT 3

CO Hotspot Analysis

To verify that the proposed Nakano Project (Project) would not cause or contribute to a violation of the carbon monoxide (CO) standards, a screening evaluation of the potential for CO hotspots was conducted. The California Department of Transportation (Caltrans) and the U.C. Davis Institute of Transportation Studies *Transportation Project-Level Carbon Monoxide Protocol* (CO Protocol) (Caltrans 2010), and the South Coast Air Quality Management District (SCAQMD) *CEQA Air Quality Handbook* (SCAQMD 1993) were followed. CO hotspots are typically evaluated when (1) the level of service (LOS) of an intersection or roadway decreases to LOS E or worse, (2) signalization and/or channelization is added to an intersection, and (3) sensitive receptors such as residences, schools, and hospitals are located in the vicinity of the affected intersection or roadway segment.

According to the CO Protocol, there is a cap on the number of intersections that need to be analyzed for any one project. For a single project with multiple intersections, only the three intersections representing the worst LOS ratings of the project, and, to the extent they are different intersections, the three intersections representing the highest traffic volumes, need be analyzed. For each intersection failing a screening test as described in this protocol, an additional intersection should be analyzed (Caltrans 2010).

Table 1 shows a summary of the Project's LOS for all nine intersections evaluated for year 2024 cumulative conditions.

Table 1. Intersection Level of Service for Project Year 2024

Intersection	Control Type	Peak Hour	Existing + Project
			LOS
Pam Avenue/I-805 Southbound Ramps	Signal	AM PM	D **E**
Palm Avenue/I-805 Northbound Ramps	Signal	AM PM	D **E**
Palm Avenue/Dennery Road	Signal	AM PM	**F** **F**
Dennery Road/Project Access	Signal	AM PM	B A
Dennery Road/Red Fin Lane	DNE / Signal	AM PM	B B

Notes: LOS = level of service; DNE = do not enter.
Bold indicates an LOS of E or worse.

References Cited

Caltrans (California Department of Transportation). 2010. *Transportation Project-Level Carbon Monoxide Protocol – Revised December 1997.* UCD-ITS-RR-97-21. Revised, rendered searchable, and reissued by Caltrans October 13, 2010. Prepared by V.J. Garza, P. Graney, and D. Sperling; revised by D. Niemeier, D. Eisinger, T. Kear, D. Chang, and Yu Meng.

SCAQMD (South Coast Air Quality Management District). 1993. *CEQA Air Quality Handbook*.