Appendix A
Air Quality/Greenhouse Gases/HRA Technical Memorandum

Stantec

Memo

To:	Kevin Scudero City of Antioch	From:	Elena Nuño/Kaitlyn Heck Stantec Consulting Services Inc.
File:	185705497	Date:	November 23, 2021

Reference: **5200 Lone Tree Way Gas Station – Air Quality Methodology and Assumptions and Results Technical Memorandum**

CRITERIA AIR POLLUTANT AND GREENHOUSE GAS MODELING PARAMETERS/ASSUMPTIONS AND RESULTS

The following modeling parameters and assumptions will be used to generate criteria air pollutant and greenhouse gas (GHG) emissions for the 5200 Lone Tree Way Gas Station (project).

MODEL SELECTION

The California Emissions Estimator Model (CalEEMod) is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects. CalEEMod quantifies direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. Further, CalEEMod identifies mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from measures chosen by the user.

CalEEMod was developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California Air Districts. Default data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California Air Districts to account for local requirements and conditions.

CalEEMod version 2020.4.0 was used to estimate construction and some operational impacts of the proposed project.

AIR POLLUTANTS AND GHGS TO BE ASSESSED

Criteria Pollutants Assessed

The following criteria air pollutants will be assessed in this analysis: ROG, NO_X, PM_{10}, and $PM_{2.5}$.

Note that the proposed project would emit ozone precursors ROG and NO_X. However, the proposed project would not directly emit ozone since it is formed in the atmosphere during the photochemical reaction of ozone precursors.

GHGs Assessed

This analysis is restricted to GHGs identified by AB 32, which include CO_2, CH_4, N_2O, HFCs, PFCs, SF_6, and NF_3. The proposed project would generate a variety of GHGs, including several defined by AB 32 such as CO_2, CH_4 and N_2O.

Certain GHGs defined by AB 32 would not be emitted by the project. HFCs, PFCs, SF_6, and NF_3 are typically used in industrial applications, none of which would be used by the proposed project. Therefore, it is not anticipated that the proposed project would emit those GHGs.

GHG emissions associated with the proposed project construction, and operations will be estimated using CO_2e emissions as a proxy for all GHG emissions. Construction GHG emissions would be amortized over the lifetime of the Project. To obtain the CO_2e, an individual GHG is multiplied by its GWP. The GWP designates on a pound for pound basis the potency of the GHG compared to CO_2.

THRESHOLDS

Nearly all development projects in the Bay Area have the potential to generate air pollutants that may increase the difficultly of attaining National Ambient Air Quality Standards and California Ambient Air Quality Standards. Therefore, for most projects, evaluation of air quality impacts is required to comply with CEQA. The BAAQMD has developed the CEQA Air Quality Guidelines to help public agencies evaluate air quality impacts (BAAQMD 2017). The BAAQMD's guide includes recommended thresholds of significance, including mass emission thresholds for construction-related and operational ozone precursors. The May 2017 version of the Guidelines includes revisions made to the BAAQMD's 2010 Guidelines to address the California Supreme Court's 2015 opinion in *Cal. Bldg. Indus. Ass'n vs. Bay Area Air Quality Mgmt. Dist*., 62 Cal.4th 369.

The regional project-level emissions for the project will be estimated and compared to the BAAQMD thresholds for determining significance under CEQA.

Table 1: BAAQMD Project-Level Air Quality CEQA Thresholds of Significance

Criteria Pollutants	Construction-Related	Operational-Related	
Criteria Air Pollutants and Precursors (regional)	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tpy)
ROG	54	54	10
NO_x	54	54	10
PM_{10} (exhaust)	82	82	15
$PM_{2.5}$ (exhaust)	54	54	10
$PM_{10}/PM_{2.5}$ (fugitive dust)	Best Management Practices	None	
Local CO	None	9.0 ppm (8-hour average), 20.0 ppm (1-hour average)	

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Criteria Pollutants	Construction-Related	Operational-Related
GHGs (projects other than stationary sources)	None	Compliance with Qualified GHG Reduction Strategy OR 1,100 $MTCO_2e$/yr OR 4.6 $MTCO_2e$/SP/yr (residents + employees)
GHGs – Stationary Sources	None	10,000 $MTCO_2e$/yr
Risk and Hazards for new sources and receptors (Individual Project)	Same as operational thresholds	Compliance with Qualified Community Risk Reduction Plan OR Increased cancer risk of >10.0 in a million Increased non-cancer risk of > 1.0 Hazard Index (Chronic or Acute) Ambient PM2.5 increase: > 0.3 µg/m^3 annual average Zone of Influence: 1,000-foot radius from property line of source or receptor
Risk and Hazards for new sources and receptors (Cumulative Threshold)	Same as operational thresholds	Compliance with Qualified Community Risk Reduction Plan OR Increased cancer risk of >100.0 in a million Increased non-cancer risk of > 10.0 Hazard Index (Chronic or Acute) Ambient PM2.5 increase: > 0.8 µg/m^3 annual average Zone of Influence: 1,000-foot radius from
Accidental Release of Acutely Hazardous Air Pollutants	Non	Storage or use of acutely hazardous materials locating near receptors or new receptors locating near stored or used acutely hazardous materials considered significant.
Odors	None	Five confirmed complaints per year averaged over three years.

Notes:

CO = carbon monoxide

GHG = greenhouse gases

lbs/day = pounds per day

$MTCO_2e$/yr = metric tons of carbon dioxide equivalent per year

$MTCO_2e$/SP/yr = metric tons of carbon dioxide equivalent per service population per year

NOx = nitrogen oxide

$PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

PM_{10} = particulate matter 10 microns or less in diameter

ppm = parts per million

ROG = reactive organic gas

tpy = tons per year

Source: BAAQMD 2017

ASSUMPTIONS

CONSTRUCTION MODELING ASSUMPTIONS

The construction schedule utilized in the analysis represents a "worst-case" analysis scenario since emission factors for construction equipment decrease as the analysis year increases, due to improvements in technology and more stringent regulatory requirements. Therefore, construction emissions would decrease if the construction schedule moves to later years. The duration of construction activity and associated equipment represent a reasonable approximation of the expected construction fleet as required per CEQA guidelines. Site specific construction fleet may vary due to specific project needs at the time of construction.

Table 2 provides the construction schedule and off-road equipment list for the construction of the convenience store, car wash, fueling pumps, and associated parking. Construction schedule is based on the Applicant's assumption that construction will take place over an 8-month period (June 2022 to January 2023). Table 3 provides the number of vehicle trips to and from the project site during each phase of construction as well as the number of construction workers during each phase. According to the Applicant, the site will have on average 18 construction workers on the project site with a maximum of 30 workers at any one time. The proposed project will require approximately 640 cubic yards of excavated soil to be exported during the grading phase of construction as well as approximately 8,550 square feet of demolition debris. The number of hauling trucks required during the grading and demolition phases of construction are based on CalEEMod default truck sizes which assume a truck bed with a capacity of 16 CY or 20 tons. Hauling trucks are assumed to travel 22.3 miles to the Pleasant Hill Bayshore Disposal. The default trip length for worker and vendor trips was used in the modeling.

Construction emissions were totaled for each calendar year and divided by the total number of construction days to arrive at the average daily emissions. The average daily emissions were compared to the BAAQMD thresholds of significance.

Reference: **5200 Lone Tree Way Gas Station – Air Quality Methodology and Assumptions and Results Technical Memorandum**

Table 2: Project Construction Schedule and Equipment List – Waterside

Phase	Start Date	End Date	Construction Equipment	QTY	HP	Load Factor	Hours of Use per Day
Demolition	6/1/2022	6/21/2022	Concrete/Industrial Saws	1	81	0.73	6
			Tractors/Loaders/Backhoes	3	97	0.37	6
			Excavators	1	158	0.38	4
			Skid Steer Loaders	1	65	0.37	6
Site Preparation	6/22/2022	6/23/2022	Graders	1	187	0.41	6
			Rubber Tired Dozers	1	247	0.40	6
			Tractors/Loaders/Backhoes	1	97	0.37	6
Grading	6/24/2022	6/29/2022	Graders	1	187	0.41	6
			Rubber Tired Dozers	1	247	0.40	6
			Tractors/Loaders/Backhoes	2	97	0.37	6
Building Construction	6/30/2022	1/4/2023	Cranes	1	231	0.29	0.18
			Forklifts	1	89	0.20	6
			Generator Sets	1	84	0.74	7
			Tractors/Loaders/Backhoes	1	97	0.37	3
			Welders	3	46	0.45	4
			Aerial Lifts	1	63	0.31	0.18
Paving	1/5/2023	1/18/2023	Cement and Mortar Mixers	1	9	0.56	6
			Pavers	1	130	0.42	6
			Paving Equipment	1	132	0.36	6
			Rollers	1	80	0.38	6
			Tractors/Loaders/Backhoes	1	97	0.37	6
			Welders	3	46	0.45	4
Architectural Coating	1/19/2023	1/31/2023	Air Compressor	1	78	0.48	6

Notes
The horsepower (HP) and load factor are based on the defaults for each equipment type.

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Table 3: Construction Vehicle Trips

Phase	Number of Workers[1]	Worker Trips per Day	Vendor Trips per Day	Total Number of Hauling Trips	Worker Trip Length	Vendor Trip Length	Hauling Trip Length[2]
Demolition	18	36	0	39	10.8	-	22.3
Site Preparation	18	36	0	0	10.8	-	-
Grading	18	36	0	80	10.8	-	22.3
Building Construction	30	60	9	0	10.8	7.3	-
Paving	18	36	0	0	10.8	-	-
Architectural Coating	18	36	0	0	10.8	-	-

Notes

1 – According to the Project Applicant, during construction there will be an average of 18 workers onsite at any given time with a peak of 30 workers. In order to conservatively estimate construction emissions, it was assumed that 18 workers will be required during demolition, site preparation, grading, paving, and architectural coating phases of construction while the peak 30 workers would be required throughout the entire building construction phase.

2 – Construction waste will be hauled to Waste Management's Pleasant Hill Bayshore Disposal, located approximately 22.3 miles from the project site.

OPERATIONAL MODELING ASSUMPTIONS

Operational emissions are those emissions that occur during operation of the proposed project. Operational emissions will be estimated for 2023, the first full year of operation. The sources are summarized below.

Motor Vehicles

On-road

Motor vehicle emissions refer to exhaust and road dust emissions from the automobiles that would travel to and from the proposed project site. The trip generation rates for each phase of the project are shown in 4. Mobile on-road emissions will be estimated using CalEEMod.

Table 4: Trip Generation Rates

Land Use Type	CalEEMod Land Use Type	Unit	Weekday Average Daily Trip Rate	Saturday Average Daily Trip Rate	Sunday Average Daily Trip Rate
Car Wash	Automobile Care Center	1.13 ksf	10.22	23.72	11.88
Gas Station and Convenience Store	Convenience Market with Fuel Pumps	3.2 ksf	1,152.5	624.2	624.2
Parking Lot	Parking Lot	19 parking spaces	0	0	0
Other Asphalt Surfaces	Other Asphalt Surfaces	41.4 ksf	0	0	0

Notes:

ksf = 1,000 square feet

1. Weekday trip rates from Stantec Transportation Study, 2021. Weekend trip rates based on CalEEMod default assumptions. The Stantec Transportation Study calculated an average daily trip rate based on the number of trips per pump. The trip rate was updated within the modeling to calculate the total daily trips by 1,000 SF. Either trip rate results in an average daily trips for the market/gas station of 3,688.

Trip Lengths

The CalEEMod default round trip lengths for an urban setting were used in this analysis. Commercial trip types are defined as Commercial to Commercial (C-C), Commercial to Work (C-W) and Commercial to Non-Work (C-NW). The CalEEMod defaults for each of the land uses were used for this analysis. The default trips lengths of 7.3 for C-C trips, 9.5 for C-W trips, and 7.3 for C-NW were also retained. Trip lengths are for primary trips. Trip purposes are primary, diverted, and pass-by trips. Diverted trips are assumed to take a slightly different path than a primary trip. All trips for

the project were assumed to be primary trips. Table 5 includes the assumptions used within the modeling for trip lengths.

Table 5: Operational Trip Lengths

Land Use	Primary Trip Percentage	Diverted Trip Percentage	Pass-By Trip Percentage	C-C Trip Percentage	C-W Trip Percentage	C-NW Trip Percentage
Automobile Care Center	21	51	28	48	33	19
Convenience Market with Fuel Pumps	15.2	25.7	59.1	80.2	0.9	19

Vehicle Fleet Mix

The vehicle fleet mix is defined as the mix of motor vehicle classes active during the operation of the proposed project. Emission factors are assigned to the expected vehicle mix as a function of vehicle class, speed, and fuel use (gasoline- and diesel-powered vehicles). The CalEEMod default fleet mix was used to estimate the trips to the site and the associated emissions. Table 6 provides the fleet mix used in the operational analysis.

Table 6: CalEEMod Fleet Mix for Contra Costa County – Year 2023

Vehicle Category	Default
LDA	0.56
LDT1	0.06
LDT2	0.18
MDV	0.13
LHD1	0.02
LHD2	0.005
MHD	0.007
HHD	0.007
OBUS	0.0005
UBUS	0.0003
MCY	0.03
SBUS	0.0012

MH	0.0035
Total	1

Note: Numbers may not add to 1 due to rounding.

Area Sources

Consumer Products

Consumer products are various solvents used in non-industrial applications that emit ROGs during their product use. These typically include cleaning supplies, kitchen aerosols, cosmetics and toiletries. The default CalEEMod value was used for this project for a light industrial land use.

General Category

Emission Factor (lb ROG/sqft/day): 0.0000214

Parking

Degreaser Emission Factor (lb ROG/sqft/day): 0.0000003542

Architectural Coatings (Painting)

Paints release VOC emissions. The building would be repainted on occasion. CalEEMod assumes a 10 percent reapplication rate per year and an emission factor of 100 grams of ROG per liter for non-residential interior surfaces and 150 grams of ROG per liter for non-residential exterior surfaces.

Energy Use

The emissions associated with the building electricity and natural gas usage (non-hearth) are estimated based on the land use type and size. The electricity energy use is in units of kilowatt hours per size metric for each land use type. Natural gas use is in units of a thousand British Thermal Units per size metric for each land use type. 7 provides a summary of the energy use of the building to be constructed onsite.

Table 7: Operational Energy Use – Main Building

Land Use Subtype	Title 24 Electricity Energy Intensity KWhr/size/year)	Nontitle-24 Electricity Energy Intensity (KWhr/size/year)	Lighting Energy Intensity (KWhr/size/year)	Title-24 Natural Gas Energy Intensity (KBTU/size/year)	Nontitle-24 Natural Gas Energy Intensity (KBUT/size/year)
Automobile Care Center	1.32	3.70	3.08	19.51	6.67

Convenience Market with Gas Pumps	2.46	2.68	5.25	2.34	0
Other Asphalt Surfaces	0	0	0	0	0
Parking Lot	0	0	0.35	0	0

Water and Wastewater Use

Supplying and treating water for the project generates GHG emissions. Depending on the specific water supply used or treatment method used these numbers can vary over a wide range. Supplying water is bringing the water from its primary source such as the ground, river, or snowpack to the treatment plant. Distributing the water is bringing the water from the treatment plant to the end users. The electricity intensity factors are multiplied by the utility GHG emissions intensity factors for the GHGs and are classified as indirect emissions. The default electricity intensity is from the CEC's 2006 Refining Estimates of Water-Related Energy Use in California using the average values for Northern and Southern California.

Wastewater may also have direct emissions of GHGs. These depend on the type of wastewater treatment system (e.g., septic, aerobic, or lagoons).

The Applicant estimates that the proposed project will require 2,641 gallons of water day (gpd) or approximately 963,965 gallons per year (gpy). The total water use was applied for indoor water use and outdoor water use was reduced to zero. The car wash will use recycled water and, as a result, the Applicant estimates that the project will generate 1,894 gpd of wastewater or approximately 691,310 gpy. CalEEMod assumes 100% of indoor water use will become wastewater, since the model will not let the user override this default, the energy use from wastewater in this analysis represents a conservative estimate. Table 8 provides a summary of the water and wastewater energy use for the project.

Table 8: Water and Wastewater Energy Use

Source	CalEEMod Default
Electricity Intensity Factor to Supply (kWhr/Mgal)	2,117
Electricity Intensity Factor to Treat (kWhr/Mgal)	111
Electricity Intensity Factor to Distribute (kWhr/Mgal)	1,272
Electricity Intensity Factor for Wastewater (kWhr/Mgal)	1,911

Solid Waste

GHG emissions are associated with the disposal of solid waste generated by the vehicle trips to transport solid waste from the proposed project into landfills. Project generated construction waste would need to be in coordination with diversion requirements of the City.

During operation, the CalEEMod default solid waste generation rates were used for each land use. Waste disposal rates by land use and overall composition of municipal solid waste in California is primarily based on CalRecycle data. Table 9 provides the default solid waste generation rate.

Table 9: Solid Waste Generation Rate

Land Use	Size Metric	Solid Waste Generation Rate (tons/year)
Automobile Care Center	1000 SF	4.32
Convenience Market with Gas Pumps	1000 SF	9.62

Fueling Emissions

CalEEMod is designed to calculate the construction and operational emissions from land use development. The model is not able to capture the emissions associated with the sale and use of petroleum fuel. The Project anticipates selling approximately 8,000,000 gallons petroleum fuel per year. The sale of gasoline and diesel fuel will result in VOC emissions, the VOC emissions rate is provided in Table 10 and are based on United States Environmental Protection Agency's (U.S. EPA) gasoline dispensing calculator.

Table 10: Emission Rates by Fuel Type

Fuel Type	VOC Emissions Rate (tons/year/pump)
Pump	0.362

Source: US EPA. 2015. Gasoline Dispensing Calculator.

HEALTH RISK ASSESSMENT MODELING PARAMETERS AND ASSUMPTIONS

MODEL SELECTION AND PARAMETERS

An air dispersion model is a mathematical formulation used to estimate the air quality impacts at specific locations (receptors) surrounding a source of emissions given the rate of emissions and prevailing meteorological conditions. The air dispersion model applied in this assessment was the United States Environmental Protection Agency (EPA) AERMOD (version 19191) air dispersion model. Specifically, the AERMOD model was used to estimate levels of air emissions at sensitive receptor locations from potential sources of project-generated TACs. The use of the AERMOD model provides a refined methodology for estimating construction impacts by utilizing long-term, measured representative meteorological data for the project site and a representative construction schedule.

The modeling analysis also considered the spatial distribution and elevation of each emitting source in relation to the sensitive receptors. Direction-dependent calculations were obtained by identifying the Universal Transverse Mercator (UTM) coordinates for each source location. Terrain elevations were obtained for the project site using the AERMAP model, the AERMOD terrain data pre-processor. Specifically, National Elevation dataset (NED) data for the area were obtained and included in the model runs to account for complex terrain. The air dispersion model assessment used meteorological data from the Livermore Municipal Airport 23285 Station. The meteorological data used was preprocessed for use with AERMOD by the BAAQMD and included data for the years 2009 to 2014; all years were used in the assessment. To evaluate the proposed project's localized impacts at the point of maximum impact, all receptors were placed within the breathing zone at zero meters above ground level.

CONSTRUCTION

For the construction period, construction emissions were assumed to be distributed over the project site with a working schedule of eight hours per day and five days per week. Emissions were adjusted by a factor of 4.2 to convert for use with a 24-hour-per-day, 365 day-per-year averaging period.

Figure 1 shows a representation of the modeling parameters, including a 1,000-foot buffer, the project area (construction area source), modeled roadway segments, existing buildings, and locations of sensitive receptors.

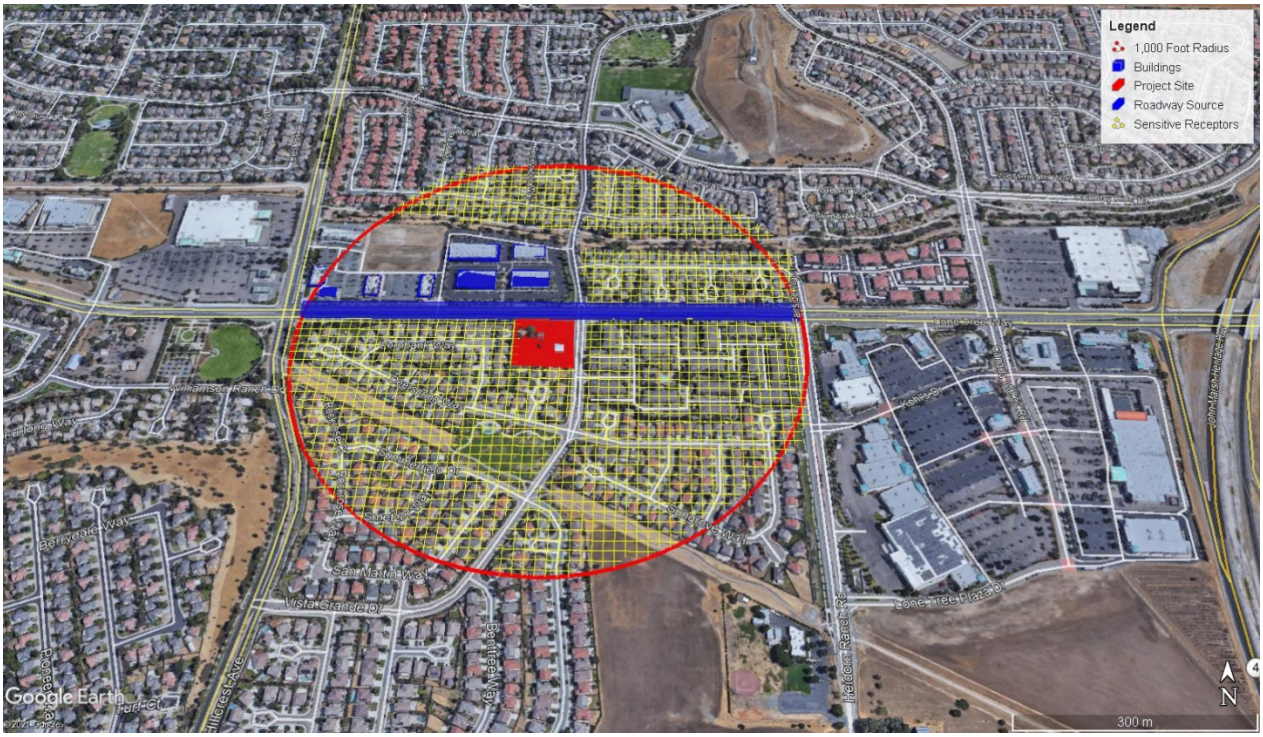

Figure 1 – Construction Dispersion Modeling Parameters

OPERATIONS

DPM

The project will primarily generate passenger vehicle trips from visitors traveling to and from the project site; however, the project will also be served with truck deliveries. The main source of DPM from the long-term operations of the proposed project will be from combustion of diesel fuel in diesel-powered engines in on-road delivery trucks and other visiting diesel vehicles. Motor vehicle emissions refer to DPM exhaust emissions from the motor vehicle traffic that would travel to and from the project site, as well as within the project site, each day.

The vehicle fleet mix for trucks would consist of Light-Heavy-Duty truck (LHDT), Medium-Heavy-Duty truck (MHDT), and Heavy-Heavy-Duty truck (HHDT). Emission factors are assigned to the expected vehicle mix as a function of vehicle age, vehicle class, speed, and fuel type. The fleet mix for the proposed project was adjusted based on the EMFAC 2021 fleet mix for Contra Costa County for the 2023 operational year. The operational fleet mix used to assess emissions from the proposed project is included as part of Attachment A.

Each operational emission source to be evaluated requires geometrical and emission release specifications for use in the air dispersion model. The emission source configurations applied in this assessment of operational DPM emissions are shown in Table 10.

Table 10: Summary of Select Operational Emission Source Configurations

Emission Source Type	Relevant Assumptions
On-site Truck Traffic	Configuration: line volume sources Release height: 10.2 feet (3.1 meters) Vehicle Speed: 5 mph Vehicle types: heavy-heavy duty (HHDT), medium heavy duty (MHDT), and light-heavy duty (LHDT) delivery trucks Emission factors: EMFAC2021
On-site Truck Idling	Configuration: line volume source Release height: 10.2 feet (3.1 meters) Idle time: 5 minutes per truck per day Vehicle type: HHDT diesel trucks Emission factors: EMFAC 2021 Number of Idling Diesel Vehicles per day: 79 (based on EMFAC2021)
Off-site Traffic	Configuration: line volume source Travel links along Lone Tree Way from the project to outlying areas within 1,000 feet of the project site were identified based and emissions were estimated along each travel link. Vehicle speeds: 25 mph (trucks), 35 mph (passenger vehicles and other vehicles) Vehicle types: fleet mix consistent with the assumptions used to estimate regional criteria pollutant emissions; percentage of diesel vehicles and diesel trucks based on EMFAC 2021 fleet mix for Contra Costa County Emission factors: EMFAC 2021
Facility Operations	24 hours per day/365 days per year (Additional gasoline dispensing activities are detailed in the benzene discussion)
Source: Attachment A.	

Operational emissions for the proposed project were assessed assuming the first year of operations would occur in 2023. Exhaust emissions of DPM (as $PM_{2.5}$ exhaust) were estimated using EMFAC2021.

Benzene

Out of the toxic compounds emitted from the gasoline stations, benzene, ethylbenzene, and naphthalene have cancer toxicity values. However, benzene is the toxic air contaminant (TAC) which drives the risk, accounting for 87 percent of cancer risk from gasoline vapors (SCAQMD 2015). Furthermore, benzene constitutes more than three to four times the weight of gasoline than ethylbenzene and naphthalene, respectively (SCAQMD 2015). Therefore, ethylbenzene and naphthalene were not modeled and were instead considered significant in the case that benzene emissions are significant. Additionally, there are substances emitted from gasoline stations, such as toluene and xylene which possess acute adverse health effects (though not cancer risk). However, it is not until the benzene concentrations are more than two orders of magnitude above 10 in one million that the emissions of toluene and xylene begin to cause adverse health effects (SCAQMD 2007, CAPCOA 1997). Therefore, toluene and xylene emissions were not modeled and were instead considered significant in the case that benzene concentrations are identified at two orders of magnitude above 10 in one million cancer risk.

Emissions sources to be included in the model consist of on-site fuel storage tanks and fuel dispensers. The proposed project contemplates three underground fuel storage tanks and eight fuel dispensers. The specific processes associated with fuel storage tanks and fuel dispensers that emit air toxics include loading, breathing, refueling, and spillage, as described below:

- Loading – Emissions occur when a fuel tanker truck unloads gasoline into the storage tanks. The storage tank vapors, displaced during loading, are emitted through its vent pipe. (A required pressure/vacuum valve installed on the tank vent pipe significantly reduces these emissions.)
- Breathing – Emissions occur through the storage tank vent pipe as a result of temperature and pressure changes in the tank vapor space.
- Refueling – Emissions occur during motor vehicle refueling when gasoline vapors escape through the vehicle/nozzle interface.
- Spillage – Emissions occur from evaporating gasoline that spills during vehicle refueling.

Loading and breathing emissions will exit the underground storage tank vent pipe and are thus treated as a point source. The height and diameter of the vent were assumed to be 3.66 meters and 0.05 meters, respectively. Refueling and spillage emissions were modeled as volume sources with a vertical dimension of 5 meters to correspond to the height of the canopy. For refueling, the release height was assumed to be 1 meter to approximate the height of a vehicle fuel tank inlet, whereas spillage emissions was assumed to be released at ground level since nearly all the gasoline from spillage reaches the ground.

The model was run to obtain the peak 24-hour and annual average concentration in micrograms per cubic meter [µg/m3] at nearby sensitive receptors.

The chronic and carcinogenic health risk calculations are based on the standardized equations contained in the U.S. EPA Human Health Evaluation Manual (1991) and the Office of Environmental Health Hazard Assessment (OEHHA) Guidance Manual (OEHHA 2015).

Cancer Risk

The model was run to obtain annual average concentration in micrograms per cubic meter [µg/m3] at future on-site sensitive residential receptors. Consistent with BAAQMD guidance, a health risk computation was performed to determine the risk of developing an excess cancer risk calculated on a 30-year exposure scenario. The chronic and carcinogenic health risk calculations were based on the standardized equations contained in the U.S. EPA Human Health Evaluation Manual (1991) and the OEHHA Guidance Manual.

Based on the OEHHA methodology, the residential inhalation cancer risk from the annual average DPM concentrations were calculated by multiplying the daily inhalation or oral dose, by a cancer potency factor, the age sensitivity factor (ASF), the frequency of time spent at home (for residents only), and the exposure duration divided by averaging time, to yield the excess cancer risk. These factors are discussed in more detail below. Cancer risk must be separately calculated for specified age groups, because of age differences in sensitivity to carcinogens and age differences in intake rates (per kg body weight). Separate risk estimates for these age groups provide a health-protective estimate of cancer risk by accounting for greater susceptibility in early life, including both age-related sensitivity and amount of exposure.

Exposure through inhalation (Dose-air) is a function the breathing rate, the exposure frequency, and the concentration of a substance in the air. For residential exposure, the breathing rates are determined for specific age groups, so Dose-air is calculated for each of these age groups, 3rd trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years.

To estimate cancer risk, the dose was estimated by applying the following formula to each ground-level concentration:

Dose-air = (C_{air} * {BR/BW} * A * EF * 10^{-6})

Where:

Dose-air	=	dose through inhalation (mg/kg/day)
Cair	=	air concentration (µg/m3) from air dispersion model
{BR/BW}	=	daily breathing rate normalized to body weight (L/kg body weight – day) (361 L\kg BW-day for 3rd Trimester, 1,090 L/kg BW-day for 0<2 years, 631 L/kg BW-day for 2<9 years, 572 L/kg BW-day for 2<16 years, 261 L/kg BW-day for 16<30 years, and 233 L/kg BW-day 16<70 years)
A	=	Inhalation absorption factor (unitless [1])
EF	=	exposure frequency (unitless), days/365 days (0.96 [approximately 350 days per year])
10^{-6}	=	conversion factor (micrograms to milligrams, liters to cubic meters)

OEHHA developed ASFs to take into account the increased sensitivity to carcinogens during early-in-life exposure. In the absence of chemical-specific data, OEHHA recommends a default ASF of 10 for the third trimester to age 2 years, an ASF of 3 for ages 2 through 15 years to account for potential increased sensitivity to carcinogens during childhood and an ASF of 1 for ages 16 through 70 years.

Fraction of time at home (FAH) during the day is used to adjust exposure duration and cancer risk from a specific facility's emissions, based on the assumption that exposure to the facility's emissions are not occurring away from home. The following FAH values were used in this assessment:

- From the third trimester to age <2 years: 100 percent (the OEHHA-recommended value is 85 percent of time is spent at home; however, 100 percent was assumed in order to present a conservative analysis);
- From age 2 through <16 years: 100 percent (the OEHHA-recommended value is 72 percent of time is spent at home; however, 100 percent was assumed in order to present a conservative analysis); and
- From age 16 years and greater: 73 percent (the OEHHA-recommended value is 73 percent of time is spent at home).

To estimate the cancer risk, the dose was multiplied by the cancer potency factor, the ASF, the exposure duration divided by averaging time, and the frequency of time spent at home (for residents only):

$Risk_{inh\text{-}res} = (Dose_{air} * CPH * ASF * ED/AT * FAH)$

Where:

$Risk_{inh\text{-}res}$	=	residential inhalation cancer risk (potential chances per million)
$Dose_{air}$	=	daily dose through inhalation (mg/kg-day)
CPF	=	inhalation cancer potency factor ($mg/kg\text{-}day^{-1}$)
ASF	=	age sensitivity factor for a specified age group (unitless)
ED	=	exposure duration (in years) for a specified age group
AT	=	averaging time of lifetime cancer risk (years)
FAH	=	fraction of time spent at home (unitless)

Chronic Non-Cancer Hazard

Non-cancer chronic impacts were calculated by dividing the annual average concentration by the Reference Exposure Level (REL) for that substance. The REL is defined as the concentration at which no adverse non-cancer health effects are anticipated. The following equation was used to determine the non-cancer risk:

Hazard Quotient = Ci/RELi

Where:

Ci	=	Concentration in the air of substance i (annual average concentration in $\mu g/m^3$)
RELi	=	Chronic noncancer Reference Exposure Level for substance i ($\mu g/m^3$)

Reference: **5200 Lone Tree Way Gas Station – Air Quality Methodology and Assumptions and Results Technical Memorandum**

RESULTS

CRITERIA AIR POLLUTANTS

Construction

Table 11: Construction Annual and Daily Average Emissions (Unmitigated Average Daily Rate)

Parameter	Air Pollutants			
	ROG	**NO_X**	**PM_{10} (Exhaust)**	**$PM_{2.5}$ (Exhaust)**
2022 Construction Year (tons/year)	0.08	0.56	0.03	0.03
2023 Construction Year (tons/year)	0.05	0.05	0.00	0.00
Total Emissions (tons/year)	*0.13*	*0.62*	*0.03*	*0.03*
Total Emissions (pounds/year)	258.60	1,232.20	56.92	55.10
Average Daily Emissions (pounds/day)[1]	**1.48**	**7.04**	**0.33**	**0.31**
Significance Threshold (pounds/day)	**54**	**54**	**82**	**54**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**

Notes:
[1] Calculated by dividing the total number of pounds by the total 175 working days of construction for the entire construction period.
Calculations use unrounded numbers.
lbs = pounds; NO_X = oxides of nitrogen; PM_{10} = particulate matter 10 microns in diameter; $PM_{2.5}$ = particulate matter 2.5 microns in diameter; ROG = reactive organic gases
Source: Criteria Pollutants and Greenhouse Gas Emissions Estimation Summary (Attachment B)

Reference: **5200 Lone Tree Way Gas Station – Air Quality Methodology and Assumptions and Results Technical Memorandum**

Operations

Table 12: Operational Annual Emissions

Emissions Source	Tons per Year			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Area	0.03	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00
Mobile (Motor Vehicles)	0.99	0.71	0.72	0.20
Fuel Dispensing	2.90	-	-	-
Total Project Annual Emissions	**3.92**	**0.72**	**0.72**	**0.20**
Thresholds of Significance	**10**	**10**	**15**	**10**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**

Notes:
NO_X = oxides of nitrogen; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter; ROG = reactive organic gases.
Assume approximately 8 fuel pumps, conservatively assuming a throughput of 1,000,000 gallons/pump/year.
Source: Criteria Pollutants and Greenhouse Gas Emissions Estimation Summary (Appendix A)

Table 13: Operational Average Daily Annual Emissions

Emissions Source	Tons per Year			
	ROG	NO_X	PM_{10}	$PM_{2.5}$
Total Project Annual Emissions[1] (tons/year)	**3.92**	**0.72**	**0.72**	**0.20**
Total Project Annual Emissions[2] (lbs/year)	7,816.2	1,431.46	1,441.48	394.48
Average Daily Emissions[3] (lbs/day)	**21.41**	**3.92**	**3.95**	**1.08**
BAAQMD Average Daily Emission Thresholds (lbs/day)	**54**	**54**	**82**	**54**
Exceeds Significance Threshold?	**No**	**No**	**No**	**No**

Notes:
[1] Tons per year are shown in Table 12.
[2] Pounds per year were calculated using the unrounded annual project operational emissions.
[3] The average daily operational emissions were estimated based on the total annual emissions divided by 365 days.
lbs = pounds; NO_X = oxides of nitrogen; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter; ROG = reactive organic gases
Source: Criteria Pollutants and Greenhouse Gas Emissions Estimation Summary (Attachment B)

GREENHOUSE GAS EMISSIONS

Construction

Table 14: Construction Greenhouse Gas Emissions

Construction (2022-2023)	$MTCO_2e$
Project Construction (2022)	126
Project Construction (2022)	12
Total Construction $MTCO_2e$	**138**
Emissions Amortized Over 30 Years[1]	**5**

Notes:
$MTCO_2e$ = metric tons of carbon dioxide equivalent
[1] Construction GHG emissions are amortized over the 30-year lifetime of the project.
Source: Criteria Pollutants and Greenhouse Gas Emissions Estimation Summary (Appendix A)

Operations

Table 15: Operational Greenhouse Gas Emissions

Source Category	2023 $MTCO_2e$	2030 $MTCO_2e$
Area	0	0
Energy Consumption	6	6
Mobile	718	611
Solid Waste Generation	7	7
Water Usage	2	2
Amortized Construction Emissions[1]	5	5
Total	*738*	*631*
Bright-Line Threshold 2023[2]	**968**	**-**
Bright-Line Threshold 2030[2]	**-**	**660**
Significant Impact?	**No**	**No**

Notes:
[1] Construction GHG emissions are amortized over the 30-year lifetime of the project.
[2] Value was calculated using the standard equation for linear interpolation between the data points for 2020 and 2030. An appropriate value was determined for the year 2023 based on interpolation of known data.
$MTCO_2e$ = metric tons of carbon dioxide equivalent; BAAQMD = Bay Area Air Quality Management District
Source: CalEEMod (Appendix A)

HEALTH RISK ASSESSMENT

Proposed Project, 30-Year Cancer Risk Assessment

Table 16: Unmitigated Health Risk

Health Impact Metric				Carcinogenic Inhalation Health Risk in One Million	Ambient PM2.5 Increase	Chronic Inhalation Hazard Index
Exposure Age	**Phase of Project**	**Exposure Duration**	**Source**			
Third Trimester	Construction	0.25	DPM	7.32	0.633	0.126
Infant	Construction	0.40	DPM	35.3	0.633	0.126
	Operation	1.60	DPM	0.80	0.004	0.001
			Benzene	1.57	0.077	0.003
Child	Operation	14	DPM	0.93	0.004	0.001
			Benzene	1.83	0.077	0.003
Adult	Operation	14	DPM	0.49	0.004	0.001
			Benzene	0.97	0.077	0.003
Threshold				**10**	**0.3**	**1**
Exceeds Threshold?				**Yes**	**Yes**	**No**

Notes:
Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as $PM_{2.5}$ exhaust) and benzene concentration by the REL of 5 µg/m^3 and 27 µg/m^3 , respectively.
Source: Appendix B.

Table 17: Mitigated Health Risk

Health Impact Metric				Carcinogenic Inhalation Health Risk in One Million	Ambient PM2.5 Increase	Chronic Inhalation Hazard Index
Exposure Age	**Phase of Project**	**Exposure Duration**	**Source**			
Third Trimester	Construction	0.25	DPM	0.40	0.034	0.007
Infant	Construction	0.40	DPM	1.91	0.034	0.007
	Operation	1.60	DPM	0.80	0.004	0.001
			Benzene	1.57	0.077	0.003
Child	Operation	14	DPM	0.93	0.004	0.001
			Benzene	1.83	0.077	0.003
Adult	Operation	14	DPM	0.49	0.004	0.001
			Benzene	0.97	0.077	0.003
Threshold				**10**	**0.3**	**1**
Exceeds Threshold?				**No**	**No**	**No**

Notes:
Chronic non-cancer hazard index was estimated by dividing the annual DPM concentration (as PM2.5 exhaust) and benzene concentration by the REL of 5 µg/m3 and 27 µg/m3 , respectively.
See MM AIR-1.
Source: Appendix B.

Cumulative Health Risk Assessment

The BAAQMD recommends assessing the potential cumulative impacts from sources of TACs within 1,000 feet of a project. A cumulative HRA was performed that examined the cumulative impacts of the Project's construction emissions and sources of TAC emissions within 1,000 feet of the Project. For a project-level analysis, BAAQMD provides several tools for use in screening potential sources of TACs. The BAAQMD-provided tools that were used to assess the potential cumulative impacts from TACs during Project construction at the MEI are described below.

- **Stationary Source Risk and Hazard Screening Tools.** The BAAQMD prepared a Geographic Information System (GIS) tool with the location of permitted sources. For each emissions source, the BAAQMD provides conservative estimates of cancer risk and $PM_{2.5}$ concentrations. Based on information from the GIS tool, there are three BAAQMD-permitted stationary sources within 1,000 feet of the Project site.

- **Health Risks for Local Roadways.** The BAAQMD pre-calculated concentrations and the associated potential cancer risks and $PM_{2.5}$ concentration increases for each county within their jurisdiction for roadways that carry at least 30,000 average daily trips. For certain areas, the BAAQMD also included local roadways that meet BAAQMD's "major roadway" criteria of 10,000 vehicles or 1,000 trucks per day. The latest available screening tool is in the form of a GIS raster file.

- **Freeway Screening Analysis Tool.** The BAAQMD prepared a GIS raster file that contains pre-estimated cancer risk and $PM_{2.5}$ concentration increases for highways within the Bay Area.

- **Rail Screening Tool.** The BAAQMD prepared a GIS raster file that contains estimated cancer risks and $PM_{2.5}$ concentrations from railroad operations at any point within the Air Basin.

Review of the tools provided by the BAAQMD demonstrates that there are no significant roadway or freeway sources of TACs near the project site. There are two stationary sources located within 1,000 feet of the project site (Verizon Wireless [Highway 4 Bypass] at 4701 Vista Grande Drive and Target Store T-1819 at 5769 Lone Tree Way). Both stationary sources were identified by the BAAQMD's Permitted Stationary Sources Risk and Hazards Tool as have no health risks associated with the site and PM2.5 concentrations of 0 $\mu g/m^3$. As a result, there are no additional sources of TACs that may impact the health of the MEIR in conjunction with the proposed project.

MITIGATION MEASURES

The following mitigation measures are required for the Project to be consistent with the Clean Air Plan and reduce health impacts to a less than significant level.

MM AIR-1: Implement Construction Best Management Practices

The applicant shall require all construction contractors to implement the basic construction mitigation measures recommended by the BAAQMD to reduce fugitive dust emissions. Emission reduction measures will include, at a minimum, the following measures. Additional measures may be identified by the BAAQMD or contractor as appropriate:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) will be watered two times per day
- All haul trucks transporting soil, sand, or other loose material off-site will be covered
- All visible mud or dirt track-out onto adjacent public roads will be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour
- All roadways, driveways, and sidewalks to be paved will be completed as soon as possible. Building pads will be laid as soon as possible after grading unless seeding or soil binders are used
- Idling times shall be minimized either by shutting equipment off when not in use or by reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure Title 13, Section 2485 of California Code of Regulations; clear signage shall be provided for construction workers at all access points
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications
- All equipment shall be checked by a certified visible emissions evaluator or checked by a certified mechanic and determined to be running in proper condition prior to operation
- Post a publicly visible sign with the telephone number and person to contact at the City regarding dust complaints. This person will respond and take corrective action within 48

hours. The Bay Area Air Quality Management District's phone number will also be visible to ensure compliance with applicable regulations.

MM AIR-2: Cleaner Off-road Construction Equipment

The following mitigation measure shall be implemented during all phases of construction to reduce potential exposure of diesel particulate matter (DPM) and particulate matter less than 2.5 micrometers in aerodynamic diameter (PM2.5) emissions to sensitive receptors located near the Project site. Prior to the issuance of any demolition, grading and/or building permits (whichever occurs earliest), the project applicant shall prepare and submit a construction - operations plan that includes specifications of the equipment to be used during construction to the Community Development Director or the Director's designee. The plan shall be accompanied by a letter signed by an air quality specialist, verifying that the equipment included in the plan meets the standards set forth below:

- For all construction equipment larger than 25 horsepower used at the site, equipment shall at a minimum, meet United States Environmental Protection Agency (US EPA) or California Air Resources Board (CARB) particulate matter emissions standards for Tier 4 Final engines.
- The construction contractor shall maintain records documenting its efforts to comply with this requirement, including equipment lists. Off-road equipment descriptions and information shall include, but are not limited to, equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, and engine serial number. The plan shall be submitted to the Community Development Director or the Director's designee for review and approval prior to the issuance of any demolition, grading and/or building permits (whichever occurs earliest).

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ATTACHMENT A: EMFAC2021

5200 Lone Tree Facility

Source: EMFAC2021 (v1.0.1) Emission Rates
Region Type: County
Region: Contra Costa
Calendar Year: 2023
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

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	Total VMT	Proportion	Proportion	CVMT	EVMT	Trips	Energy Cor	NOx_RUNE	NOx_IDLE	NOx_STRE	PM2.5_RU	PM2.5_IDL	PM2.5_STF	PM2.5_PM	PM2.5_PM	PM10_RUI	PM10_IDLI	PM10_STR	PM10_TIR	PM10_PMI	CO2_RUNE	CO2_IDLE	CO2_STRE	CH4_RUNE	CH4_IDLE	CH4_STRE	N2O_RUNI	N2O_IDLE	N2O_STRE	ROG_RUNI	ROG_IDLE	ROG_STRE	ROG_HOT	ROG_RUNI	ROG_DIUR	TOG_RUNI	TOG_IDLE	TOG_STRE	TOG_HOT	TOG_RUNI	TOG_DIUR	NH3_RUNE	CO_RUNEX	CO_IDLEX	CO_STREX	SOx_RUNE	SOx_IDLEX	SOx_STREX
Contra Cos	2023	HHDT	Aggregate	Aggregate	Gasoline	0.93031	50.36094	1.83E-06	0.006774	50.36094	0	18.61364	0	11.99912	0	2.516083	0.00397	0	0.00188	0.005	0.033715	0.004318	0	0.002045	0.02	0.096329	2201.09	0	50.49124	0.263044	0	0.000342	0.285404	0	0.045482	1.622253	0	0.001854	0.147939	1.326229	9.766383	2.367187	0	0.002029	0.147939	1.326229	9.766383	0.041057	72.93109	0	1.942975	0.02176	0	0.000499
Contra Cos	2023	HHDT	Aggregate	Aggregate	Diesel	4942.555	589482.5	0.021435	79.28909	589482.5	0	72214.08	0	2.006672	63.49015	2.822279	0.026526	0.033657	0	0.008786	0.027603	0.027725	0.035178	0	0.035143	0.078867	1653.995	12224.7	0	0.000845	0.237028	0	0.260588	1.926006	0	0.018196	5.103152	0	0	0	0	0.020715	5.80955	0	0	0	0	0.021423	0.090451	73.92679	0	0.015662	0.115761	0
Contra Cos	2023	HHDT	Aggregate	Aggregate	Electricity	3.721557	233.3092	8.48E-06	0.031382	0	233.3092	59.15553	427.6929	0	0	0	0	0	0	0.008787	0.013262	0	0	0	0.03515	0.03789	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contra Cos	2023	HHDT	Aggregate	Aggregate	Natural Ga	440.129	31102.72	0.001131	4.18351	31102.72	0	4036.563	0	1.091767	13.83746	0	0.001545	0.023681	0	0.009	0.047114	0.001681	0.025756	0	0.036	0.13461	1391.855	10638.61	0	2.41294	37.50548	0	0.283739	2.168751	0	0.046853	0.55942	0	0	0	0	0.476684	38.30391	0	0	0	0	0.476684	14.02771	72.61266	0	0	0	0
Contra Cos	2023	LDA	Aggregate	Aggregate	Gasoline	339849	12783779	0.464855	1719.499	12783779	0	1570116	0	0.047752	0	0.283543	0.001211	0	0.002029	0.002	0.002577	0.001317	0	0.002207	0.008	0.007364	283.7744	0	72.56977	0.002574	0	0.079426	0.005034	0	0.034896	0.010037	0	0.372465	0.101976	0.26199	1.576357	0.014644	0	0.407801	0.101976	0.26199	1.576357	0.033582	0.771435	0	3.602554	0.002805	0	0.000717
Contra Cos	2023	LDA	Aggregate	Aggregate	Diesel	1457.686	43468.17	0.001581	5.846742	43468.17	0	6205.568	0	0.224887	0	0	0.015578	0	0	0.002	0.002618	0.016282	0	0	0.008	0.007479	237.1689	0	0	0.001222	0	0	0.037366	0	0	0.026301	0	0	0	0	0	0.029942	0	0	0	0	0	0.003	0.324171	0	0	0.002247	0	0
Contra Cos	2023	LDA	Aggregate	Aggregate	Electricity	17209.23	777009.9	0.028254	104.5127	0	777009.9	85607.03	299990	0	0	0	0	0	0	0.002	0.00153	0	0	0	0.008	0.004372	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contra Cos	2023	LDA	Aggregate	Aggregate	Plug-in Hyl	8110.999	376134.6	0.013677	50.59247	191257.2	184877.5	33538.98	55838.51	0.003266	0	0.116031	0.000651	0	0.002133	0.002	0.001348	0.000708	0	0.002319	0.008	0.003851	139.0343	0	66.53834	0.000439	0	0.043077	0.000598	0	0.021231	0.001382	0	0.174307	0.041822	0.036712	0.448366	0.002017	0	0.190845	0.041822	0.036712	0.448366	0.019547	0.212844	0	1.351845	0.001374	0	0.000658
Contra Cos	2023	LDT1	Aggregate	Aggregate	Gasoline	33659.33	1179551	0.042892	158.657	1179551	0	148489.7	0	0.141318	0	0.436314	0.001798	0	0.002968	0.002	0.00312	0.001955	0	0.003228	0.008	0.008914	336.2327	0	90.14388	0.006794	0	0.121724	0.010314	0	0.041946	0.030196	0	0.636875	0.192229	0.561286	3.064956	0.044052	0	0.697296	0.192229	0.561286	3.064956	0.035354	1.498317	0	6.136672	0.003324	0	0.000891
Contra Cos	2023	LDT1	Aggregate	Aggregate	Diesel	18.53994	234.1819	8.52E-06	0.031499	234.1819	0	54.7031	0	1.571202	0	0	0.219307	0	0	0.002	0.00357	0.229223	0	0	0.008	0.010199	416.1105	0	0	0.014108	0	0	0.065558	0	0	0.303743	0	0	0	0	0	0.345791	0	0	0	0	0	0.003	1.894083	0	0	0.003943	0	0
Contra Cos	2023	LDT1	Aggregate	Aggregate	Electricity	67.1466	2606.54	9.48E-05	0.350596	0	2606.54	317.9241	1006.339	0	0	0	0	0	0	0.002	0.001538	0	0	0	0.008	0.004394	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contra Cos	2023	LDT1	Aggregate	Aggregate	Plug-in Hyl	22.01851	1175.667	4.28E-05	0.158135	542.2365	633.4305	91.04656	191.3149	0.002963	0	0.116031	0.000389	0	0.001416	0.002	0.00136	0.000423	0	0.00154	0.008	0.003887	126.1107	0	72.43565	0.0004	0	0.043318	0.000548	0	0.021456	0.001254	0	0.174307	0.024799	0.021839	0.285714	0.001829	0	0.190845	0.024799	0.021839	0.285714	0.019371	0.193059	0	1.351845	0.001247	0	0.000716
Contra Cos	2023	LDT2	Aggregate	Aggregate	Gasoline	154436.8	6246460	0.227139	840.188	6246460	0	720661	0	0.074237	0	0.365564	0.001252	0	0.002004	0.002	0.003004	0.001362	0	0.00218	0.008	0.008584	353.0288	0	90.6807	0.003016	0	0.090461	0.006322	0	0.039756	0.011791	0	0.42041	0.088706	0.232135	1.430285	0.017205	0	0.460295	0.088706	0.232135	1.430285	0.03502	0.86364	0	3.989951	0.00349	0	0.000896
Contra Cos	2023	LDT2	Aggregate	Aggregate	Diesel	633.6789	26711.66	0.000971	3.592886	26711.66	0	3009.847	0	0.051739	0	0	0.005339	0	0	0.002	0.002097	0.00558	0	0	0.008	0.008563	323.5579	0	0	0.000614	0	0	0.050977	0	0	0.013229	0	0	0	0	0	0.01506	0	0	0	0	0	0.003	0.131399	0	0	0.003066	0	0
Contra Cos	2023	LDT2	Aggregate	Aggregate	Electricity	543.2354	20038.9	0.000729	2.695358	0	20038.9	2787.246	7736.671	0	0	0	0	0	0	0.002	0.001524	0	0	0	0.008	0.004356	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contra Cos	2023	LDT2	Aggregate	Aggregate	Plug-in Hyl	866.1413	44564.16	0.00162	5.99416	21442.66	23121.51	3581.494	6983.384	0.003091	0	0.116031	0.000507	0	0.001768	0.002	0.001355	0.000552	0	0.001923	0.008	0.00387	131.565	0	78.99327	0.000418	0	0.043345	0.000572	0	0.021481	0.001308	0	0.174307	0.026463	0.024521	0.317578	0.001909	0	0.190845	0.026463	0.024521	0.317578	0.020159	0.201409	0	1.351845	0.001301	0	0.000781
Contra Cos	2023	LHDT1	Aggregate	Aggregate	Gasoline	12655.99	475389.3	0.017287	63.94284	475389.3	0	188555.4	0	0.203647	0.038096	0.678196	0.001574	0	0.000317	0.002	0.0273	0.001712	0	0.000345	0.008	0.078	899.5109	120.8528	25.9178	0.009071	0.118167	0.035078	0.011492	0.003069	0.053191	0.044649	0.436486	0.17434	0.051327	0.278016	2.90411	0.065152	0.636919	0.19088	0.051327	0.278016	2.90411	0.044908	1.161059	3.753975	3.048239	0.008893	0.001195	0.000256
Contra Cos	2023	LHDT1	Aggregate	Aggregate	Diesel	8519.363	324282.2	0.011792	43.61799	324282.2	0	107162.9	0	2.083739	2.171999	0	0.044534	0.026799	0	0.003	0.0273	0.046548	0.02801	0	0.012	0.078	640.4074	134.8876	0	0.009712	0.005098	0	0.108896	0.021252	0	0.209098	0.10976	0	0	0	0	0.238044	0.124954	0	0	0	0	0.155572	0.601279	0.909745	0	0.006068	0.001278	0
Contra Cos	2023	LHDT2	Aggregate	Aggregate	Gasoline	1464.124	54160.16	0.001969	7.284882	54160.16	0	21813.26	0	0.190529	0.037574	0.669303	0.001417	0	0.000262	0.002	0.00185	0.001541	0	0.000285	0.008	0.091	1008.946	139.5138	25.80974	0.007315	0.116985	0.034409	0.011286	0.003012	0.0522	0.034561	0.430774	0.170204	0.047408	0.248912	2.662836	0.050432	0.628585	0.186352	0.047408	0.248912	2.662836	0.044968	0.985304	3.76104	3.06164	0.009974	0.001379	0.000255
Contra Cos	2023	LHDT2	Aggregate	Aggregate	Diesel	3253.077	128992.1	0.004691	17.35025	128992.1	0	40919.62	0	1.495095	2.094788	0	0.038248	0.026557	0	0.003	0.03185	0.039978	0.027758	0	0.012	0.091	774.0388	214.507	0	0.008451	0.005098	0	0.12195	0.033796	0	0.181935	0.10976	0	0	0	0	0.207121	0.124954	0	0	0	0	0.174411	0.480675	0.909745	0	0.007334	0.002033	0
Contra Cos	2023	MCY	Aggregate	Aggregate	Gasoline	18091.31	103634.4	0.003768	13.93948	103634.4	0	36182.62	0	0.640323	0	0.161475	0.001792	0	0.003505	0.001	0.0042	0.001911	0	0.003718	0.004	0.012	191.0343	0	53.16126	0.183942	0	0.203891	0.042563	0	0.009306	1.246009	0	1.536415	3.594601	3.805706	4.364089	1.478381	0	1.66975	3.594601	3.805706	4.364089	0.008632	14.67123	0	8.354105	0.001889	0	0.000526
Contra Cos	2023	MDV	Aggregate	Aggregate	Gasoline	101544	3817544	0.138817	513.4837	3817544	0	465423.7	0	0.12818	0	0.510218	0.001309	0	0.002167	0.002	0.003091	0.001423	0	0.002357	0.008	0.008831	432.3998	0	111.7761	0.004717	0	0.119058	0.009169	0	0.045686	0.020103	0	0.605312	0.112325	0.316505	1.868961	0.029305	0	0.662737	0.112325	0.316505	1.868961	0.034653	1.105927	0	4.586992	0.004275	0	0.001105
Contra Cos	2023	MDV	Aggregate	Aggregate	Diesel	1630.417	65604.49	0.002386	8.824216	65604.49	0	7692.548	0	0.069337	0	0	0.006039	0	0	0.002	0.003063	0.006312	0	0	0.008	0.008752	422.7944	0	0	0.000576	0	0	0.066611	0	0	0.012392	0	0	0	0	0	0.014107	0	0	0	0	0	0.003	0.208565	0	0	0.004006	0	0
Contra Cos	2023	MDV	Aggregate	Aggregate	Electricity	571.1055	21131.77	0.000768	2.842356	0	21131.77	2933.275	8158.608	0	0	0	0	0	0	0.002	0.001524	0	0	0	0.008	0.004354	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contra Cos	2023	MDV	Aggregate	Aggregate	Plug-in Hyl	565.8702	27057.56	0.000984	3.639412	13541.14	13516.42	2339.873	4082.362	0.003215	0	0.116031	0.000671	0	0.002254	0.002	0.00135	0.00073	0	0.002451	0.008	0.003858	136.8404	0	98.94654	0.000433	0	0.043167	0.000591	0	0.021315	0.00136	0	0.174307	0.030964	0.029027	0.368292	0.001985	0	0.190845	0.030964	0.029027	0.368292	0.021019	0.209485	0	1.351845	0.001353	0	0.000978
Contra Cos	2023	MH	Aggregate	Aggregate	Gasoline	1847.487	16879.83	0.000614	2.270444	16879.83	0	184.8226	0	0.411604	0	0.420095	0.001555	0	0.000372	0.003	0.015756	0.001692	0	0.000405	0.012	0.045017	1947.128	0	31.5317	0.014492	0	0.0376	0.025583	0	0.044243	0.062465	0	0.157803	12.0571	0.274723	4.455138	0.044843	1.46331	0	3.425513	0.019249	0	0.000312
Contra Cos	2023	MH	Aggregate	Aggregate	Diesel	776.6235	7486.65	0.000272	1.007001	7486.65	0	77.66235	0	4.492778	0	0	0.10927	0	0	0.004	0.015675	0.11421	0	0.016	0.044785	1079.925	0	0	0.005939	0	0	0.170143	0	0	0.127854	0	0	0	0	0	0.145554	0	0	0	0	0	0.003	0.139663	0.433613	0	0	0.010233	0	0
Contra Cos	2023	MHDT	Aggregate	Aggregate	Gasoline	750.2651	37966.85	0.001381	5.107048	37968.85	0	15011.3	0	0.666402	0.08802	0.474311	0.001418	0	0.000589	0.003	0.015756	0.001542	0	0.00064	0.012	0.045017	1801.931	540.6593	48.24018	0.021497	0.250342	0.052124	0.03042	0.006791	0.032714	0.108926	1.005771	0.299734	0.043847	0.360493	3.478037	0.158944	1.467619	0.328171	0.043847	0.360493	3.478037	0.04496	2.312221	15.03585	6.598327	0.017814	0.005345	0.000477
Contra Cos	2023	MHDT	Aggregate	Aggregate	Diesel	5453.026	229951	0.008362	30.92985	229951	0	62830.4	0	1.451258	14.43296	1.635165	0.018233	0.041107	0	0.003	0.015873	0.019058	0.042965	0	0.012	0.045352	1148.719	2311.829	0	0.001883	0.013104	0	0.180981	0.36423	0	0.040542	0.282117	0	0	0	0	0.046154	0.321169	0	0	0	0	0.206712	0.140515	7.637089	0	0.010878	0.021892	0
Contra Cos	2023	MHDT	Aggregate	Aggregate	Electricity	2.531394	54.31117	1.97E-06	0.007305	0	54.31117	29.65281	58.3871	0	0	0	0	0	0	0.003	0.007948	0	0	0	0.012	0.022707	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contra Cos	2023	MHDT	Aggregate	Aggregate	Natural Ga	46.83625	2246.698	8.17E-05	0.302195	2246.698	0	430.5727	0	0.13931	6.458025	0	0.001121	0.017666	0	0.003	0.015956	0.001219	0.019213	0	0.012	0.045588	981.8217	5263.934	0	0.728488	17.32964	0	0.200151	1.073087	0	0.010409	0.247606	0	0	0	0	0.743476	17.68617	0	0	0	0	1.06	2.955847	33.74335	0	0	0	0
Contra Cos	2023	OBUS	Aggregate	Aggregate	Gasoline	261.9127	12187.45	0.000443	1.639289	12187.45	0	5240.348	0	0.680818	0.065137	0.440699	0.00083	0	0.000251	0.003	0.01568	0.000903	0	0.000274	0.012	0.044799	1795.284	383.9227	32.51731	0.019001	0.193564	0.03859	0.031488	0.005072	0.031618	0.093203	0.74737	0.206797	0.036302	0.162606	2.921978	0.136002	1.090561	0.226417	0.036302	0.162606	2.921978	0.044944	2.079447	5.781333	4.347025	0.017748	0.003795	0.000321
Contra Cos	2023	OBUS	Aggregate	Aggregate	Diesel	127.7261	9153.783	0.000333	1.231241	9153.783	0	1488.894	0	1.878575	12.59649	1.550952	0.03819	0.014499	0	0.003	0.019958	0.039917	0.015155	0	0.012	0.057022	1418.726	2569.659	0	0.004152	0.039511	0	0.223521	0.404851	0	0.089398	0.850661	0	0	0	0	0.968413	0	0	0	0	0	0.003	0.20771	0.266618	13.20622	0	0.013434	0.024333	0
Contra Cos	2023	OBUS	Aggregate	Aggregate	Natural Ga	0.958613	50.52101	1.84E-06	0.006795	50.52101	0	8.531659	0	0.25096	1.551253	0	0.000771	0.003569	0	0.003	0.016148	0.000839	0.003882	0	0.012	0.046137	1055.21	1234.828	0	0.756622	4.407761	0	0.215111	0.251728	0	0.010811	0.062978	0	0	0	0	0.772189	4.498443	0	0	0	0	1.06	3.16495	6.6088	0	0	0	0
Contra Cos	2023	SBUS	Aggregate	Aggregate	Gasoline	72.51602	3942.492	0.000143	0.53029	3942.492	0	290.0641	0	0.213507	0.92653	0.64521	0.000972	0	0.000658	0.002	0.015721	0.001057	0	0.000715	0.008	0.004917	791.0345	2535.372	54.45394	0.004708	2.521517	0.062751	0.015824	0.093655	0.064713	0.021714	10.64152	0.343264	0.065872	0.143031	0.879261	0.031686	15.52808	0.375831	0.065872	0.143031	0.879261	0.045	0.513775	82.24088	8.787652	0.00782	0.025065	0.000538
Contra Cos	2023	SBUS	Aggregate	Aggregate	Diesel	424.7008	10038.86	0.000365	1.35029	10038.86	0	6149.667	0	3.196504	19.31349	0.54375	0.016297	0.014361	0	0.003	0.015721	0.017034	0.015011	0	0.012	0.044917	1139.243	2253.905	0	0.002332	0.0079	0	0.179488	0.355104	0	0.050207	0.170096	0	0	0	0	0.057157	0.193641	0	0	0	0	0.154427	0.159672	4.981621	0	0.010788	0.021343	0
Contra Cos	2023	SBUS	Aggregate	Aggregate	Electricity	0.035906	0.416236	1.51E-08	5.60E-05	0	0.416236	0.519915	0.438486	0	0	0	0	0	0	0.003	0.00786	0	0	0	0.012	0.022459	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contra Cos	2023	SBUS	Aggregate	Aggregate	Natural Ga	19.10918	478.2572	1.74E-05	0.064329	478.2572	0	276.7009	0	0.626051	5.308513	0	0.003378	0.01046	0	0.003	0.015721	0.003674	0.011376	0	0.012	0.044917	1299.977	4072.281	0	3.598381	15.72111	0	0.265009	0.830161	0	0.051414	0.224624	0	0	0	0	1.06	12.40999	18.72385	0	0	0	0	1.06	12.40999	18.72385	0	0	0	0
Contra Cos	2023	UBUS	Aggregate	Aggregate	Gasoline	102.1046	5572.509	0.000203	0.749537	5572.509	0	408.4186	0	0.13826	0	0.716648	0.001127	0	0.000473	0.002	0.504	0.035199	0.001226	0	0.000515	0.010015	0.10057	1389.672	0	71.56508	0.002979	0	0.086298	0.013557	0	0.072998	0.009529	0	0.357612	0.039049	0.092598	0.48981	0.013905	0	0.39154	0.039049	0.092598	0.48981	0.045	0.432744	0	7.623965	0.013738	0	0.000707
Contra Cos	2023	UBUS	Aggregate	Aggregate	Diesel	225.1599	23149.45	0.000842	3.113747	23149.45	0	900.6396	0	1.390344	0	0	0.006695	0	0	0.003	0.00779	0.0385	0.006997	0	0.012	0.045159	0.11	1371.96	0	0.004828	0	0	0.216153	0	0	0.103948	0	0	0	0	0	0.118337	0	0	0	0	0	0.003	0.184554	0.123941	0	0	0.013	0	0
Contra Cos	2023	UBUS	Aggregate	Aggregate	Electricity	12.11222	336.0646	1.22E-05	0.045203	0	336.0646	48.44887	585.8427	0	0	0	0	0	0	0.005752	0.01925	0	0	0	0.023008	0.055	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contra Cos	2023	UBUS	Aggregate	Aggregate	Natural Ga	7.779029	679.3075	2.47E-05	0.091371	679.3075	0	31.11611	0	0.040823	0	0	0.000229	0	0	0.005823	0.0385	0.000239	0	0	0.02329	0.11	1103.974	0	0	3.468718	0	0	0.225052	0	0	0.049561	0	0	0	0	0	3.540081	0	0	0	0	0	0.97	35.47223	0	0	0	0	0

ATTACHMENT B: CALEEMOD RESULTS

5200 Lone Tree Facility

5200 Lone Tree Way Gas Station - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5200 Lone Tree Way Gas Station

Contra Costa County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	41.40	1000sqft	0.95	41,400.00	0
Other Non-Asphalt Surfaces	0.78	Acre	0.78	33,976.80	0
Parking Lot	19.00	Space	0.17	7,600.00	0
Automobile Care Center	1.13	1000sqft	0.03	1,130.00	0
Convenience Market with Gas Pumps	3.20	1000sqft	0.07	3,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project site include approximately 53,342 SF of impervious surfaces.

Construction Phase - Construction takes place over 8 months from June 2022 to January 2023.

Off-road Equipment - construction equipment updated to be consistent with similar projects.

Off-road Equipment - Construction equipment list updated to be consistent with similar projects.

Off-road Equipment - construction equipment updated to be consistent with similar projects.

Off-road Equipment - construction equipment updated to be consistent with similar projects.

Off-road Equipment - construction equipment updated to be consistent with similar projects.

5200 Lone Tree Way Gas Station - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Trips and VMT - Construction is anticipated to use 18 workers on average with a peak of 30 workers, in order to capture this peak assumed all of the building construction period would use 30 workers.

Demolition -

Grading - Project Description

Vehicle Trips - Weekday trip rates, diverted, and passby trips updated to reflect Trip Generation

Water And Wastewater - The proposed project will require 2,461 gallons of water per day, 963,965 gallons per year. The total water use was applied for indoor water use and outdoor water use was reduced to zero.

Construction Off-road Equipment Mitigation - Tier 4 for equipment > 50 hp

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstructionPhase	NumDays	10.00	9.00
tblConstructionPhase	NumDays	200.00	135.00
tblConstructionPhase	NumDays	20.00	15.00
tblGrading	AcresOfGrading	3.00	4.00
tblGrading	AcresOfGrading	1.50	1.88

5200 Lone Tree Way Gas Station - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblGrading	MaterialExported	0.00	640.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	6.00	0.20
tblOffRoadEquipment	UsageHours	8.00	7.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	6.00	3.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	7.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	6.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblTripsAndVMT	HaulingTripLength	20.00	22.30
tblTripsAndVMT	HaulingTripLength	20.00	22.30
tblTripsAndVMT	VendorTripNumber	14.00	9.00
tblTripsAndVMT	WorkerTripNumber	15.00	36.00
tblTripsAndVMT	WorkerTripNumber	8.00	36.00
tblTripsAndVMT	WorkerTripNumber	10.00	36.00
tblTripsAndVMT	WorkerTripNumber	36.00	60.00
tblTripsAndVMT	WorkerTripNumber	20.00	36.00
tblTripsAndVMT	WorkerTripNumber	7.00	36.00
tblVehicleTrips	DV_TP	21.00	25.70
tblVehicleTrips	PB_TP	65.00	59.10
tblVehicleTrips	PR_TP	14.00	15.20

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblVehicleTrips	WD_TR	23.72	10.22
tblVehicleTrips	WD_TR	624.20	1,152.50
tblWater	IndoorWaterUseRate	106,311.65	963,965.00
tblWater	IndoorWaterUseRate	237,032.07	0.00
tblWater	OutdoorWaterUseRate	65,158.75	0.00
tblWater	OutdoorWaterUseRate	145,277.72	0.00

2.0 Emissions Summary

5200 Lone Tree Way Gas Station - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0801	0.5631	0.7142	1.4300e-003	0.0604	0.0260	0.0864	0.0190	0.0252	0.0442	0.0000	124.5006	124.5006	0.0136	3.2800e-003	125.8175
2023	0.0492	0.0530	0.0788	1.4000e-004	3.5200e-003	2.4600e-003	5.9700e-003	9.4000e-004	2.3500e-003	3.2800e-003	0.0000	11.9770	11.9770	2.0600e-003	1.1000e-004	12.0626
Maximum	**0.0801**	**0.5631**	**0.7142**	**1.4300e-003**	**0.0604**	**0.0260**	**0.0864**	**0.0190**	**0.0252**	**0.0442**	**0.0000**	**124.5006**	**124.5006**	**0.0136**	**3.2800e-003**	**125.8175**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.0801	0.5631	0.7142	1.4300e-003	0.0604	0.0260	0.0864	0.0190	0.0252	0.0442	0.0000	124.5005	124.5005	0.0136	3.2800e-003	125.8174
2023	0.0492	0.0530	0.0788	1.4000e-004	3.5200e-003	2.4600e-003	5.9700e-003	9.4000e-004	2.3500e-003	3.2800e-003	0.0000	11.9770	11.9770	2.0600e-003	1.1000e-004	12.0626
Maximum	**0.0801**	**0.5631**	**0.7142**	**1.4300e-003**	**0.0604**	**0.0260**	**0.0864**	**0.0190**	**0.0252**	**0.0442**	**0.0000**	**124.5005**	**124.5005**	**0.0136**	**3.2800e-003**	**125.8174**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**6-1-2022**	**8-31-2022**	0.2943	0.2943
2	**9-1-2022**	**11-30-2022**	0.2599	0.2599
3	**12-1-2022**	**2-28-2023**	0.1921	0.1921
		Highest	0.2943	0.2943

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0263	1.0000e-005	6.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1700e-003	1.1700e-003	0.0000	0.0000	1.2500e-003
Energy	2.0000e-004	1.8200e-003	1.5300e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	6.1475	6.1475	7.1000e-004	1.2000e-004	6.2005
Mobile	0.9916	0.7139	5.9482	7.5000e-003	0.7136	6.9800e-003	0.7206	0.1906	6.4900e-003	0.1971	0.0000	698.5898	698.5898	0.0977	0.0559	717.6888
Waste						0.0000	0.0000		0.0000	0.0000	2.8297	0.0000	2.8297	0.1672	0.0000	7.0105
Water						0.0000	0.0000		0.0000	0.0000	0.3058	0.4826	0.7884	0.0315	7.5000e-004	1.7995
Total	**1.0181**	**0.7157**	**5.9503**	**7.5100e-003**	**0.7136**	**7.1200e-003**	**0.7207**	**0.1906**	**6.6300e-003**	**0.1972**	**3.1355**	**705.2211**	**708.3566**	**0.2972**	**0.0568**	**732.7004**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0263	1.0000e-005	6.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1700e-003	1.1700e-003	0.0000	0.0000	1.2500e-003
Energy	2.0000e-004	1.8200e-003	1.5300e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	6.1475	6.1475	7.1000e-004	1.2000e-004	6.2005
Mobile	0.9916	0.7139	5.9482	7.5000e-003	0.7136	6.9800e-003	0.7206	0.1906	6.4900e-003	0.1971	0.0000	698.5898	698.5898	0.0977	0.0559	717.6888
Waste						0.0000	0.0000		0.0000	0.0000	2.8297	0.0000	2.8297	0.1672	0.0000	7.0105
Water						0.0000	0.0000		0.0000	0.0000	0.3058	0.4826	0.7884	0.0315	7.5000e-004	1.7995
Total	**1.0181**	**0.7157**	**5.9503**	**7.5100e-003**	**0.7136**	**7.1200e-003**	**0.7207**	**0.1906**	**6.6300e-003**	**0.1972**	**3.1355**	**705.2211**	**708.3566**	**0.2972**	**0.0568**	**732.7004**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2022	6/21/2022	5	15	
2	Site Preparation	Site Preparation	6/22/2022	6/23/2022	5	2	
3	Grading	Grading	6/24/2022	6/29/2022	5	4	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Building Construction	Building Construction	6/30/2022	1/4/2023	5	135	
5	Paving	Paving	1/5/2023	1/18/2023	5	10	
6	Architectural Coating	Architectural Coating	1/19/2023	1/31/2023	5	9	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 1.9

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 6,495; Non-Residential Outdoor: 2,165; Striped Parking Area: 4,979 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	6.00	81	0.73
Demolition	Excavators	1	4.00	158	0.38
Demolition	Rubber Tired Dozers	0	8.00	247	0.40
Demolition	Skid Steer Loaders	1	6.00	65	0.37
Demolition	Tractors/Loaders/Backhoes	3	6.00	97	0.37
Site Preparation	Graders	1	6.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	6.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	6.00	97	0.37
Building Construction	Aerial Lifts	1	0.20	63	0.31
Building Construction	Cranes	1	0.20	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	7.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	3.00	97	0.37
Building Construction	Welders	3	4.00	46	0.45

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	6.00	132	0.36
Paving	Rollers	1	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Paving	Welders	3	4.00	46	0.45
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	6	36.00	0.00	39.00	10.80	7.30	22.30	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	36.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	36.00	0.00	80.00	10.80	7.30	22.30	LD_Mix	HDT_Mix	HHDT
Building Construction	8	60.00	9.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	36.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	36.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.2100e-003	0.0000	4.2100e-003	6.4000e-004	0.0000	6.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9400e-003	0.0559	0.0784	1.2000e-004		2.8800e-003	2.8800e-003		2.7200e-003	2.7200e-003	0.0000	10.3595	10.3595	2.5400e-003	0.0000	10.4229
Total	**5.9400e-003**	**0.0559**	**0.0784**	**1.2000e-004**	**4.2100e-003**	**2.8800e-003**	**7.0900e-003**	**6.4000e-004**	**2.7200e-003**	**3.3600e-003**	**0.0000**	**10.3595**	**10.3595**	**2.5400e-003**	**0.0000**	**10.4229**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-004	3.6800e-003	7.6000e-004	1.0000e-005	3.7000e-004	3.0000e-005	4.0000e-004	1.0000e-004	3.0000e-005	1.3000e-004	0.0000	1.3559	1.3559	4.0000e-005	2.1000e-004	1.4211
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	5.5000e-004	6.5500e-003	2.0000e-005	2.1400e-003	1.0000e-005	2.1500e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.7308	1.7308	5.0000e-005	5.0000e-005	1.7473
Total	**8.6000e-004**	**4.2300e-003**	**7.3100e-003**	**3.0000e-005**	**2.5100e-003**	**4.0000e-005**	**2.5500e-003**	**6.7000e-004**	**4.0000e-005**	**7.1000e-004**	**0.0000**	**3.0867**	**3.0867**	**9.0000e-005**	**2.6000e-004**	**3.1683**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.2100e-003	0.0000	4.2100e-003	6.4000e-004	0.0000	6.4000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	5.9400e-003	0.0559	0.0784	1.2000e-004		2.8800e-003	2.8800e-003		2.7200e-003	2.7200e-003	0.0000	10.3595	10.3595	2.5400e-003	0.0000	10.4229
Total	**5.9400e-003**	**0.0559**	**0.0784**	**1.2000e-004**	**4.2100e-003**	**2.8800e-003**	**7.0900e-003**	**6.4000e-004**	**2.7200e-003**	**3.3600e-003**	**0.0000**	**10.3595**	**10.3595**	**2.5400e-003**	**0.0000**	**10.4229**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-004	3.6800e-003	7.6000e-004	1.0000e-005	3.7000e-004	3.0000e-005	4.0000e-004	1.0000e-004	3.0000e-005	1.3000e-004	0.0000	1.3559	1.3559	4.0000e-005	2.1000e-004	1.4211
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.6000e-004	5.5000e-004	6.5500e-003	2.0000e-005	2.1400e-003	1.0000e-005	2.1500e-003	5.7000e-004	1.0000e-005	5.8000e-004	0.0000	1.7308	1.7308	5.0000e-005	5.0000e-005	1.7473
Total	**8.6000e-004**	**4.2300e-003**	**7.3100e-003**	**3.0000e-005**	**2.5100e-003**	**4.0000e-005**	**2.5500e-003**	**6.7000e-004**	**4.0000e-005**	**7.1000e-004**	**0.0000**	**3.0867**	**3.0867**	**9.0000e-005**	**2.6000e-004**	**3.1683**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.5100e-003	0.0000	5.5100e-003	2.5900e-003	0.0000	2.5900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0600e-003	0.0118	5.6600e-003	1.0000e-005		5.1000e-004	5.1000e-004		4.7000e-004	4.7000e-004	0.0000	1.2040	1.2040	3.9000e-004	0.0000	1.2137
Total	**1.0600e-003**	**0.0118**	**5.6600e-003**	**1.0000e-005**	**5.5100e-003**	**5.1000e-004**	**6.0200e-003**	**2.5900e-003**	**4.7000e-004**	**3.0600e-003**	**0.0000**	**1.2040**	**1.2040**	**3.9000e-004**	**0.0000**	**1.2137**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	7.0000e-005	8.7000e-004	0.0000	2.9000e-004	0.0000	2.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2308	0.2308	1.0000e-005	1.0000e-005	0.2330
Total	**1.0000e-004**	**7.0000e-005**	**8.7000e-004**	**0.0000**	**2.9000e-004**	**0.0000**	**2.9000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2308**	**0.2308**	**1.0000e-005**	**1.0000e-005**	**0.2330**

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3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.5100e-003	0.0000	5.5100e-003	2.5900e-003	0.0000	2.5900e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0600e-003	0.0118	5.6600e-003	1.0000e-005		5.1000e-004	5.1000e-004		4.7000e-004	4.7000e-004	0.0000	1.2040	1.2040	3.9000e-004	0.0000	1.2137
Total	**1.0600e-003**	**0.0118**	**5.6600e-003**	**1.0000e-005**	**5.5100e-003**	**5.1000e-004**	**6.0200e-003**	**2.5900e-003**	**4.7000e-004**	**3.0600e-003**	**0.0000**	**1.2040**	**1.2040**	**3.9000e-004**	**0.0000**	**1.2137**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	7.0000e-005	8.7000e-004	0.0000	2.9000e-004	0.0000	2.9000e-004	8.0000e-005	0.0000	8.0000e-005	0.0000	0.2308	0.2308	1.0000e-005	1.0000e-005	0.2330
Total	**1.0000e-004**	**7.0000e-005**	**8.7000e-004**	**0.0000**	**2.9000e-004**	**0.0000**	**2.9000e-004**	**8.0000e-005**	**0.0000**	**8.0000e-005**	**0.0000**	**0.2308**	**0.2308**	**1.0000e-005**	**1.0000e-005**	**0.2330**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0112	0.0000	0.0112	5.2000e-003	0.0000	5.2000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3700e-003	0.0261	0.0147	3.0000e-005		1.1500e-003	1.1500e-003		1.0600e-003	1.0600e-003	0.0000	2.8179	2.8179	9.1000e-004	0.0000	2.8407
Total	**2.3700e-003**	**0.0261**	**0.0147**	**3.0000e-005**	**0.0112**	**1.1500e-003**	**0.0123**	**5.2000e-003**	**1.0600e-003**	**6.2600e-003**	**0.0000**	**2.8179**	**2.8179**	**9.1000e-004**	**0.0000**	**2.8407**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-004	7.5400e-003	1.5600e-003	3.0000e-005	7.6000e-004	7.0000e-005	8.3000e-004	2.1000e-004	7.0000e-005	2.7000e-004	0.0000	2.7814	2.7814	9.0000e-005	4.4000e-004	2.9150
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.5000e-004	1.7500e-003	1.0000e-005	5.7000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4615	0.4615	1.0000e-005	1.0000e-005	0.4659
Total	**4.0000e-004**	**7.6900e-003**	**3.3100e-003**	**4.0000e-005**	**1.3300e-003**	**7.0000e-005**	**1.4000e-003**	**3.6000e-004**	**7.0000e-005**	**4.2000e-004**	**0.0000**	**3.2429**	**3.2429**	**1.0000e-004**	**4.5000e-004**	**3.3809**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0112	0.0000	0.0112	5.2000e-003	0.0000	5.2000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3700e-003	0.0261	0.0147	3.0000e-005		1.1500e-003	1.1500e-003		1.0600e-003	1.0600e-003	0.0000	2.8179	2.8179	9.1000e-004	0.0000	2.8407
Total	**2.3700e-003**	**0.0261**	**0.0147**	**3.0000e-005**	**0.0112**	**1.1500e-003**	**0.0123**	**5.2000e-003**	**1.0600e-003**	**6.2600e-003**	**0.0000**	**2.8179**	**2.8179**	**9.1000e-004**	**0.0000**	**2.8407**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.0000e-004	7.5400e-003	1.5600e-003	3.0000e-005	7.6000e-004	7.0000e-005	8.3000e-004	2.1000e-004	7.0000e-005	2.7000e-004	0.0000	2.7814	2.7814	9.0000e-005	4.4000e-004	2.9150
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-004	1.5000e-004	1.7500e-003	1.0000e-005	5.7000e-004	0.0000	5.7000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4615	0.4615	1.0000e-005	1.0000e-005	0.4659
Total	**4.0000e-004**	**7.6900e-003**	**3.3100e-003**	**4.0000e-005**	**1.3300e-003**	**7.0000e-005**	**1.4000e-003**	**3.6000e-004**	**7.0000e-005**	**4.2000e-004**	**0.0000**	**3.2429**	**3.2429**	**1.0000e-004**	**4.5000e-004**	**3.3809**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0568	0.4155	0.4976	8.0000e-004		0.0208	0.0208		0.0203	0.0203	0.0000	65.7656	65.7656	8.4700e-003	0.0000	65.9772
Total	**0.0568**	**0.4155**	**0.4976**	**8.0000e-004**		**0.0208**	**0.0208**		**0.0203**	**0.0203**	**0.0000**	**65.7656**	**65.7656**	**8.4700e-003**	**0.0000**	**65.9772**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3900e-003	0.0339	0.0103	1.3000e-004	3.9100e-003	3.7000e-004	4.2800e-003	1.1300e-003	3.6000e-004	1.4900e-003	0.0000	12.4090	12.4090	2.7000e-004	1.8100e-003	12.9542
Worker	0.0112	8.0200e-003	0.0961	2.8000e-004	0.0314	1.7000e-004	0.0316	8.3500e-003	1.5000e-004	8.5100e-003	0.0000	25.3844	25.3844	8.1000e-004	7.4000e-004	25.6265
Total	**0.0125**	**0.0419**	**0.1064**	**4.1000e-004**	**0.0353**	**5.4000e-004**	**0.0359**	**9.4800e-003**	**5.1000e-004**	**0.0100**	**0.0000**	**37.7933**	**37.7933**	**1.0800e-003**	**2.5500e-003**	**38.5807**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0568	0.4155	0.4976	8.0000e-004		0.0208	0.0208		0.0203	0.0203	0.0000	65.7655	65.7655	8.4700e-003	0.0000	65.9772
Total	**0.0568**	**0.4155**	**0.4976**	**8.0000e-004**		**0.0208**	**0.0208**		**0.0203**	**0.0203**	**0.0000**	**65.7655**	**65.7655**	**8.4700e-003**	**0.0000**	**65.9772**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.3900e-003	0.0339	0.0103	1.3000e-004	3.9100e-003	3.7000e-004	4.2800e-003	1.1300e-003	3.6000e-004	1.4900e-003	0.0000	12.4090	12.4090	2.7000e-004	1.8100e-003	12.9542
Worker	0.0112	8.0200e-003	0.0961	2.8000e-004	0.0314	1.7000e-004	0.0316	8.3500e-003	1.5000e-004	8.5100e-003	0.0000	25.3844	25.3844	8.1000e-004	7.4000e-004	25.6265
Total	**0.0125**	**0.0419**	**0.1064**	**4.1000e-004**	**0.0353**	**5.4000e-004**	**0.0359**	**9.4800e-003**	**5.1000e-004**	**0.0100**	**0.0000**	**37.7933**	**37.7933**	**1.0800e-003**	**2.5500e-003**	**38.5807**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.1900e-003	8.8700e-003	0.0112	2.0000e-005		4.1000e-004	4.1000e-004		4.0000e-004	4.0000e-004	0.0000	1.4948	1.4948	1.9000e-004	0.0000	1.4995
Total	**1.1900e-003**	**8.8700e-003**	**0.0112**	**2.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.0000e-004**	**4.0000e-004**	**0.0000**	**1.4948**	**1.4948**	**1.9000e-004**	**0.0000**	**1.4995**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	6.0000e-004	2.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	3.0000e-005	0.0000	3.0000e-005	0.0000	0.2705	0.2705	1.0000e-005	4.0000e-005	0.2823
Worker	2.4000e-004	1.6000e-004	2.0200e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5621	0.5621	2.0000e-005	2.0000e-005	0.5672
Total	**2.6000e-004**	**7.6000e-004**	**2.2200e-003**	**1.0000e-005**	**8.0000e-004**	**0.0000**	**8.1000e-004**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**0.8326**	**0.8326**	**3.0000e-005**	**6.0000e-005**	**0.8495**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.1900e-003	8.8700e-003	0.0112	2.0000e-005		4.1000e-004	4.1000e-004		4.0000e-004	4.0000e-004	0.0000	1.4948	1.4948	1.9000e-004	0.0000	1.4995
Total	**1.1900e-003**	**8.8700e-003**	**0.0112**	**2.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.0000e-004**	**4.0000e-004**	**0.0000**	**1.4948**	**1.4948**	**1.9000e-004**	**0.0000**	**1.4995**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	6.0000e-004	2.0000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	3.0000e-005	0.0000	3.0000e-005	0.0000	0.2705	0.2705	1.0000e-005	4.0000e-005	0.2823
Worker	2.4000e-004	1.6000e-004	2.0200e-003	1.0000e-005	7.1000e-004	0.0000	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5621	0.5621	2.0000e-005	2.0000e-005	0.5672
Total	**2.6000e-004**	**7.6000e-004**	**2.2200e-003**	**1.0000e-005**	**8.0000e-004**	**0.0000**	**8.1000e-004**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**0.8326**	**0.8326**	**3.0000e-005**	**6.0000e-005**	**0.8495**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.6300e-003	0.0369	0.0495	8.0000e-005		1.7100e-003	1.7100e-003		1.6100e-003	1.6100e-003	0.0000	6.3645	6.3645	1.7200e-003	0.0000	6.4074
Paving	1.4700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.1000e-003**	**0.0369**	**0.0495**	**8.0000e-005**		**1.7100e-003**	**1.7100e-003**		**1.6100e-003**	**1.6100e-003**	**0.0000**	**6.3645**	**6.3645**	**1.7200e-003**	**0.0000**	**6.4074**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	3.2000e-004	4.0500e-003	1.0000e-005	1.4300e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1243	1.1243	3.0000e-005	3.0000e-005	1.1345
Total	**4.7000e-004**	**3.2000e-004**	**4.0500e-003**	**1.0000e-005**	**1.4300e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1243**	**1.1243**	**3.0000e-005**	**3.0000e-005**	**1.1345**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.6300e-003	0.0369	0.0495	8.0000e-005		1.7100e-003	1.7100e-003		1.6100e-003	1.6100e-003	0.0000	6.3645	6.3645	1.7200e-003	0.0000	6.4074
Paving	1.4700e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.1000e-003**	**0.0369**	**0.0495**	**8.0000e-005**		**1.7100e-003**	**1.7100e-003**		**1.6100e-003**	**1.6100e-003**	**0.0000**	**6.3645**	**6.3645**	**1.7200e-003**	**0.0000**	**6.4074**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7000e-004	3.2000e-004	4.0500e-003	1.0000e-005	1.4300e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1243	1.1243	3.0000e-005	3.0000e-005	1.1345
Total	**4.7000e-004**	**3.2000e-004**	**4.0500e-003**	**1.0000e-005**	**1.4300e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1243**	**1.1243**	**3.0000e-005**	**3.0000e-005**	**1.1345**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0399					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.6000e-004	5.8600e-003	8.1500e-003	1.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	1.1490	1.1490	7.0000e-005	0.0000	1.1507
Total	**0.0408**	**5.8600e-003**	**8.1500e-003**	**1.0000e-005**		**3.2000e-004**	**3.2000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**1.1490**	**1.1490**	**7.0000e-005**	**0.0000**	**1.1507**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	2.9000e-004	3.6400e-003	1.0000e-005	1.2800e-003	1.0000e-005	1.2900e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.0118	1.0118	3.0000e-005	3.0000e-005	1.0210
Total	**4.2000e-004**	**2.9000e-004**	**3.6400e-003**	**1.0000e-005**	**1.2800e-003**	**1.0000e-005**	**1.2900e-003**	**3.4000e-004**	**1.0000e-005**	**3.5000e-004**	**0.0000**	**1.0118**	**1.0118**	**3.0000e-005**	**3.0000e-005**	**1.0210**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0399					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.6000e-004	5.8600e-003	8.1500e-003	1.0000e-005		3.2000e-004	3.2000e-004		3.2000e-004	3.2000e-004	0.0000	1.1490	1.1490	7.0000e-005	0.0000	1.1507
Total	**0.0408**	**5.8600e-003**	**8.1500e-003**	**1.0000e-005**		**3.2000e-004**	**3.2000e-004**		**3.2000e-004**	**3.2000e-004**	**0.0000**	**1.1490**	**1.1490**	**7.0000e-005**	**0.0000**	**1.1507**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.2000e-004	2.9000e-004	3.6400e-003	1.0000e-005	1.2800e-003	1.0000e-005	1.2900e-003	3.4000e-004	1.0000e-005	3.5000e-004	0.0000	1.0118	1.0118	3.0000e-005	3.0000e-005	1.0210
Total	**4.2000e-004**	**2.9000e-004**	**3.6400e-003**	**1.0000e-005**	**1.2800e-003**	**1.0000e-005**	**1.2900e-003**	**3.4000e-004**	**1.0000e-005**	**3.5000e-004**	**0.0000**	**1.0118**	**1.0118**	**3.0000e-005**	**3.0000e-005**	**1.0210**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.9916	0.7139	5.9482	7.5000e-003	0.7136	6.9800e-003	0.7206	0.1906	6.4900e-003	0.1971	0.0000	698.5898	698.5898	0.0977	0.0559	717.6888
Unmitigated	0.9916	0.7139	5.9482	7.5000e-003	0.7136	6.9800e-003	0.7206	0.1906	6.4900e-003	0.1971	0.0000	698.5898	698.5898	0.0977	0.0559	717.6888

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	11.55	26.80	13.42	13,942	13,942
Convenience Market with Gas Pumps	3,688.00	1,997.44	1997.44	1,915,033	1,915,033
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	3,699.55	2,024.24	2,010.86	1,928,975	1,928,975

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Convenience Market with Gas	9.50	7.30	7.30	0.80	80.20	19.00	15.2	25.7	59.1

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.558086	0.056127	0.180570	0.129764	0.024304	0.005480	0.007016	0.007028	0.000551	0.000343	0.026017	0.001231	0.003481
Convenience Market with Gas Pumps	0.558086	0.056127	0.180570	0.129764	0.024304	0.005480	0.007016	0.007028	0.000551	0.000343	0.026017	0.001231	0.003481
Other Asphalt Surfaces	0.558086	0.056127	0.180570	0.129764	0.024304	0.005480	0.007016	0.007028	0.000551	0.000343	0.026017	0.001231	0.003481
Other Non-Asphalt Surfaces	0.558086	0.056127	0.180570	0.129764	0.024304	0.005480	0.007016	0.007028	0.000551	0.000343	0.026017	0.001231	0.003481
Parking Lot	0.558086	0.056127	0.180570	0.129764	0.024304	0.005480	0.007016	0.007028	0.000551	0.000343	0.026017	0.001231	0.003481

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4.1692	4.1692	6.7000e-004	8.0000e-005	4.2104
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	4.1692	4.1692	6.7000e-004	8.0000e-005	4.2104
NaturalGas Mitigated	2.0000e-004	1.8200e-003	1.5300e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9783	1.9783	4.0000e-005	4.0000e-005	1.9900
NaturalGas Unmitigated	2.0000e-004	1.8200e-003	1.5300e-003	1.0000e-005		1.4000e-004	1.4000e-004		1.4000e-004	1.4000e-004	0.0000	1.9783	1.9783	4.0000e-005	4.0000e-005	1.9900

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	29583.4	1.6000e-004	1.4500e-003	1.2200e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5787	1.5787	3.0000e-005	3.0000e-005	1.5881
Convenience Market with Gas Pumps	7488	4.0000e-005	3.7000e-004	3.1000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.3996	0.3996	1.0000e-005	1.0000e-005	0.4020
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.0000e-004**	**1.8200e-003**	**1.5300e-003**	**1.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**1.9783**	**1.9783**	**4.0000e-005**	**4.0000e-005**	**1.9900**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	29583.4	1.6000e-004	1.4500e-003	1.2200e-003	1.0000e-005		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	1.5787	1.5787	3.0000e-005	3.0000e-005	1.5881
Convenience Market with Gas Pumps	7488	4.0000e-005	3.7000e-004	3.1000e-004	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.3996	0.3996	1.0000e-005	1.0000e-005	0.4020
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**2.0000e-004**	**1.8200e-003**	**1.5300e-003**	**1.0000e-005**		**1.4000e-004**	**1.4000e-004**		**1.4000e-004**	**1.4000e-004**	**0.0000**	**1.9783**	**1.9783**	**4.0000e-005**	**4.0000e-005**	**1.9900**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	9153	0.8469	1.4000e-004	2.0000e-005	0.8552
Convenience Market with Gas Pumps	33248	3.0762	5.0000e-004	6.0000e-005	3.1067
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	2660	0.2461	4.0000e-005	0.0000	0.2486
Total		**4.1692**	**6.8000e-004**	**8.0000e-005**	**4.2104**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	9153	0.8469	1.4000e-004	2.0000e-005	0.8552
Convenience Market with Gas Pumps	33248	3.0762	5.0000e-004	6.0000e-005	3.1067
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	2660	0.2461	4.0000e-005	0.0000	0.2486
Total		**4.1692**	**6.8000e-004**	**8.0000e-005**	**4.2104**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0263	1.0000e-005	6.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1700e-003	1.1700e-003	0.0000	0.0000	1.2500e-003
Unmitigated	0.0263	1.0000e-005	6.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1700e-003	1.1700e-003	0.0000	0.0000	1.2500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.9900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0223					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1700e-003	1.1700e-003	0.0000	0.0000	1.2500e-003
Total	**0.0263**	**1.0000e-005**	**6.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.1700e-003**	**1.1700e-003**	**0.0000**	**0.0000**	**1.2500e-003**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	3.9900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0223					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	6.0000e-005	1.0000e-005	6.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1700e-003	1.1700e-003	0.0000	0.0000	1.2500e-003
Total	**0.0263**	**1.0000e-005**	**6.0000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.1700e-003**	**1.1700e-003**	**0.0000**	**0.0000**	**1.2500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.7884	0.0315	7.5000e-004	1.7995
Unmitigated	0.7884	0.0315	7.5000e-004	1.7995

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.963965 / 0	0.7884	0.0315	7.5000e-004	1.7995
Convenience Market with Gas Pumps	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.7884**	**0.0315**	**7.5000e-004**	**1.7995**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.963965 / 0	0.7884	0.0315	7.5000e-004	1.7995
Convenience Market with Gas Pumps	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.7884**	**0.0315**	**7.5000e-004**	**1.7995**

8.0 Waste Detail

8.1 Mitigation Measures Waste

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.8297	0.1672	0.0000	7.0105
Unmitigated	2.8297	0.1672	0.0000	7.0105

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	4.32	0.8769	0.0518	0.0000	2.1725
Convenience Market with Gas Pumps	9.62	1.9528	0.1154	0.0000	4.8379
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**2.8297**	**0.1672**	**0.0000**	**7.0104**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	4.32	0.8769	0.0518	0.0000	2.1725
Convenience Market with Gas Pumps	9.62	1.9528	0.1154	0.0000	4.8379
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**2.8297**	**0.1672**	**0.0000**	**7.0104**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Other Asphalt Surfaces	41.40	1000sqft	0.95	41,400.00	0
Other Non-Asphalt Surfaces	0.78	Acre	0.78	33,976.80	0
Parking Lot	19.00	Space	0.17	7,600.00	0
Automobile Care Center	1.13	1000sqft	0.03	1,130.00	0
Convenience Market with Gas Pumps	3.20	1000sqft	0.07	3,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	58
Climate Zone	4			**Operational Year**	2030
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project site include approximately 53,342 SF of impervious surfaces.

Construction Phase - GHG Operational only for 2030

Off-road Equipment - construction equipment updated to be consistent with similar projects.

Trips and VMT - GHG Operational only for 2030

Demolition -

Grading - Project Description

Vehicle Trips - Weekday trip rates, diverted, and passby trips updated to reflect Trip Generation

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Water And Wastewater - The proposed project will require 2,461 gallons of water per day, 963,965 gallons per year. The total water use was applied for indoor water use and outdoor water use was reduced to zero.

Construction Off-road Equipment Mitigation - Tier 4 for equipment > 50 hp

Off-road Equipment - GHG Operational only for 2030

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstructionPhase	NumDays	10.00	9.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblTripsAndVMT	WorkerTripNumber	7.00	0.00
tblVehicleTrips	DV_TP	21.00	25.70
tblVehicleTrips	PB_TP	65.00	59.10
tblVehicleTrips	PR_TP	14.00	15.20
tblVehicleTrips	WD_TR	23.72	10.22
tblVehicleTrips	WD_TR	624.20	1,152.50
tblWater	IndoorWaterUseRate	106,311.65	963,965.00
tblWater	IndoorWaterUseRate	237,032.07	0.00
tblWater	OutdoorWaterUseRate	65,158.75	0.00
tblWater	OutdoorWaterUseRate	145,277.72	0.00

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum											**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Maximum											**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

		Highest		

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	1.1700e-003	1.1700e-003	0.0000	0.0000	1.2500e-003
Energy											0.0000	6.1475	6.1475	7.1000e-004	1.2000e-004	6.2005
Mobile											0.0000	596.2223	596.2223	0.0670	0.0435	610.8598
Waste											2.8297	0.0000	2.8297	0.1672	0.0000	7.0105
Water											0.3058	0.4826	0.7884	0.0315	7.5000e-004	1.7995
Total											**3.1355**	**602.8536**	**605.9891**	**0.2665**	**0.0444**	**625.8715**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area											0.0000	1.1700e-003	1.1700e-003	0.0000	0.0000	1.2500e-003
Energy											0.0000	6.1475	6.1475	7.1000e-004	1.2000e-004	6.2005
Mobile											0.0000	596.2223	596.2223	0.0670	0.0435	610.8598
Waste											2.8297	0.0000	2.8297	0.1672	0.0000	7.0105
Water											0.3058	0.4826	0.7884	0.0315	7.5000e-004	1.7995
Total											**3.1355**	**602.8536**	**605.9891**	**0.2665**	**0.0444**	**625.8715**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Architectural Coating	Architectural Coating	1/19/2023	1/31/2023	5	9	

Acres of Grading (Site Preparation Phase): 0

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Acres of Grading (Grading Phase): 0

Acres of Paving: 1.9

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 6,495; Non-Residential Outdoor: 2,165; Striped Parking Area: 4,979 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	0	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Architectural Coating	0	0.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total											**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	596.2223	596.2223	0.0670	0.0435	610.8598
Unmitigated											0.0000	596.2223	596.2223	0.0670	0.0435	610.8598

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Automobile Care Center	11.55	26.80	13.42	13,942	13,942
Convenience Market with Gas Pumps	3,688.00	1,997.44	1997.44	1,915,033	1,915,033
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Total	3,699.55	2,024.24	2,010.86	1,928,975	1,928,975

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Automobile Care Center	9.50	7.30	7.30	33.00	48.00	19.00	21	51	28
Convenience Market with Gas	9.50	7.30	7.30	0.80	80.20	19.00	15.2	25.7	59.1
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Automobile Care Center	0.577637	0.055806	0.175331	0.118814	0.021880	0.005573	0.007435	0.007088	0.000537	0.000305	0.024935	0.001797	0.002862
Convenience Market with Gas Pumps	0.577637	0.055806	0.175331	0.118814	0.021880	0.005573	0.007435	0.007088	0.000537	0.000305	0.024935	0.001797	0.002862
Other Asphalt Surfaces	0.577637	0.055806	0.175331	0.118814	0.021880	0.005573	0.007435	0.007088	0.000537	0.000305	0.024935	0.001797	0.002862
Other Non-Asphalt Surfaces	0.577637	0.055806	0.175331	0.118814	0.021880	0.005573	0.007435	0.007088	0.000537	0.000305	0.024935	0.001797	0.002862
Parking Lot	0.577637	0.055806	0.175331	0.118814	0.021880	0.005573	0.007435	0.007088	0.000537	0.000305	0.024935	0.001797	0.002862

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated											0.0000	4.1692	4.1692	6.7000e-004	8.0000e-005	4.2104
Electricity Unmitigated											0.0000	4.1692	4.1692	6.7000e-004	8.0000e-005	4.2104
NaturalGas Mitigated											0.0000	1.9783	1.9783	4.0000e-005	4.0000e-005	1.9900
NaturalGas Unmitigated											0.0000	1.9783	1.9783	4.0000e-005	4.0000e-005	1.9900

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	29583.4											0.0000	1.5787	1.5787	3.0000e-005	3.0000e-005	1.5881
Convenience Market with Gas Pumps	7488											0.0000	0.3996	0.3996	1.0000e-005	1.0000e-005	0.4020
Other Asphalt Surfaces	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total												**0.0000**	**1.9783**	**1.9783**	**4.0000e-005**	**4.0000e-005**	**1.9900**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Automobile Care Center	29583.4											0.0000	1.5787	1.5787	3.0000e-005	3.0000e-005	1.5881
Convenience Market with Gas Pumps	7488											0.0000	0.3996	0.3996	1.0000e-005	1.0000e-005	0.4020
Other Asphalt Surfaces	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total												**0.0000**	**1.9783**	**1.9783**	**4.0000e-005**	**4.0000e-005**	**1.9900**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	9153	0.8469	1.4000e-004	2.0000e-005	0.8552
Convenience Market with Gas Pumps	33248	3.0762	5.0000e-004	6.0000e-005	3.1067
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	2660	0.2461	4.0000e-005	0.0000	0.2486
Total		**4.1692**	**6.8000e-004**	**8.0000e-005**	**4.2104**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Automobile Care Center	9153	0.8469	1.4000e-004	2.0000e-005	0.8552
Convenience Market with Gas Pumps	33248	3.0762	5.0000e-004	6.0000e-005	3.1067
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	2660	0.2461	4.0000e-005	0.0000	0.2486
Total		**4.1692**	**6.8000e-004**	**8.0000e-005**	**4.2104**

6.0 Area Detail

6.1 Mitigation Measures Area

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated											0.0000	1.1700e-003	1.1700e-003	0.0000	0.0000	1.2500e-003
Unmitigated											0.0000	1.1700e-003	1.1700e-003	0.0000	0.0000	1.2500e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	1.1700e-003	1.1700e-003	0.0000	0.0000	1.2500e-003
Total											**0.0000**	**1.1700e-003**	**1.1700e-003**	**0.0000**	**0.0000**	**1.2500e-003**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products											0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping											0.0000	1.1700e-003	1.1700e-003	0.0000	0.0000	1.2500e-003
Total											**0.0000**	**1.1700e-003**	**1.1700e-003**	**0.0000**	**0.0000**	**1.2500e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

5200 Lone Tree Way Gas Station - 2030 - Contra Costa County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.7884	0.0315	7.5000e-004	1.7995
Unmitigated	0.7884	0.0315	7.5000e-004	1.7995

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.963965 / 0	0.7884	0.0315	7.5000e-004	1.7995
Convenience Market with Gas Pumps	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.7884**	**0.0315**	**7.5000e-004**	**1.7995**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Automobile Care Center	0.963965 / 0	0.7884	0.0315	7.5000e-004	1.7995
Convenience Market with Gas Pumps	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.7884**	**0.0315**	**7.5000e-004**	**1.7995**

8.0 Waste Detail

8.1 Mitigation Measures Waste

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.8297	0.1672	0.0000	7.0105
Unmitigated	2.8297	0.1672	0.0000	7.0105

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	4.32	0.8769	0.0518	0.0000	2.1725
Convenience Market with Gas Pumps	9.62	1.9528	0.1154	0.0000	4.8379
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**2.8297**	**0.1672**	**0.0000**	**7.0104**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Automobile Care Center	4.32	0.8769	0.0518	0.0000	2.1725
Convenience Market with Gas Pumps	9.62	1.9528	0.1154	0.0000	4.8379
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**2.8297**	**0.1672**	**0.0000**	**7.0104**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Reference: **5200 Lone Tree Way Gas Station – Air Quality Methodology and Assumptions and Results Technical Memorandum**

ATTACHMENT C: HEALTH RISK RESULTS AND AERMOD OUTPUT FILES

5200 Lone Tree Facility

Spillage, Refueling, Loading, and Breathing Emissions

Table I-I

Current and Revised TOG Emission Factors for Gasoline Dispensing Facilities

Sub Category	Current[a] (lbs/kgal)[b]		Revised (lbs/kgal)[b]		
	UEF	Pre-EVR	UEF	Pre-EVR	EVR
Phase II Fueling					
Non-ORVR Vehicles	8.4	0.74	8.4	2.4	0.42
ORVR Vehicles	NA	NA	0.42	0.12	0.021
Phase I Bulk Transfer Losses	8.4	0.42	7.7	0.38	0.15
Pressure Driven Losses	0.84	0.1	0.76	0.092	0.024
Phase II Fueling - Spillage	0.64	0.42	0.61	0.42	0.24
Gasoline Dispensing Hose Permeation					
Year 2013	NA	NA	0.062	0.062	0.062
Year 2017	NA	NA	0.009	0.009	0.009

https://ww3.arb.ca.gov/vapor/gdf-emisfactor/gdfumbrella.pdf
Most vehicles refueling will be equipped with ORVR technology
With current gas station regulation, use Phase II EVR spillage factors
Pressure Driven is equivalent to breathing loss

Volume Sources

Emissions from Spillage				
Annual Throughput (kgal)	**Spillage Loss TOG (lbs/kgal)**	**Annual Spillage Loss TOG (lbs/year)**	**TOG Emission Rate (g/s)**	**Benzene Emission Rate (g/s)***
8,000	0.24	1920	**0.0276096**	0.000276096
Emissions from Refueling				
Annual Throughput (kgal)	**Refueling TOG (lbs/kgal)**	**Annual Refueling Loss TOG (lbs/year)**	**Tog Emission Rate (g/s)**	**Benzene Emission Rate (g/s)***
8,000	0.021	168	**0.00241584**	2.41584E-05
Total TOG Emissions from Volume On-Site Sources			***0.03002544***	***0.000300254***

*According to CARB, benzene makes up less than 1% of TOG emissions based on 2009 data, see: https://ww3.arb.ca.gov/ei/speciate/profilereference/headspacee6_og683&684.pdf

Point Sources

Emissions from Bulk Loading				
Annual Throughput (kgal)	**Refueling TOG (lbs/kgal)***	**Annual Refueling Loss TOG (lbs/year)**	**TOG Emission Rate (g/s)**	**Benzene Emission Rate (g/s)****
8,000	0.15	1200	**0.017256**	0.00017256
Emissions from Pressure Driven (Breathing) Losses				
Annual Throughput (kgal)	**Refueling TOG (lbs/kgal)**	**Annual Refueling Loss TOG (lbs/year)**	**TOG Emission Rate (g/s)**	**Benzene Emission Rate (g/s)****
8,000	0.024	192	**0.00276096**	2.76096E-05
Total TOG Emissions from Point On-Site Sources			***0.02001696***	***0.00020017***

*assume Phase 1 because Phase 2 estimates are not provided by CARB
**According to CARB, benzene makes up less than 1% of TOG emissions based on 2009 data, see: https://ww3.arb.ca.gov/ei/speciate/profilereference/headspacee6_og683&684.pdf

Truck Traffic Emissions

On-Site Truck Idling

# of Trucks per Day	PM2.5 Idling Emissions (g/vehicle/day)*	Proportion of the Day Spent Idling**	PM2.5 emissions (grams/day)	PM2.5 emissions (g/s)
79	0.033657	0.003472222	0.009232302	***1.06855E-07***

*EMFAC 2021, aggregate speed for HHDT diesel

**5 minutes maximum idling per CARB regulations

On-Site Truck Traffic

Truck Type	# of Trucks per Day	PM2.5 Running Emissions (grams per Mile)*	Distance (miles/trip)**	PM2.5 emissions (grams/day)	PM2.5 emissions (g/s)
HDDT	79	0.131926	0.09469697	0.986946402	1.1423E-05
LHDT1	44	0.102992	0.09469697	0.429133333	4.96682E-06
LHDT2	17	0.08475	0.09469697	0.136434659	1.5791E-06
MHDT	31	0.067537	0.09469697	0.198262027	2.2947E-06
				TOTAL	***2.02636E-05***

*Averaged emissions fromEMFAC 2021, 5mph for HHDT, MHDT, and LHDT disel. According to EMFAC2021 for Contra Costa County, there are 79 HHDT trips, 44 LHDT1 trips, 17 LHDT2 trips, and 31 MHDT trips.

**Conservatively assume trucks travel 500 feet onsite

Off-Site Diesel Traffic

Vehicle Type	# of Diesel Trips per Day	Vehicle Speed (mph)	PM2.5 Running Emissions (grams per Mile)*	Distance (miles/trip)**	PM2.5 emissions (grams/day)	PM2.5 emissions (g/s)
HDDT	79	25	0.009743653	0.189393939	0.145785711	1.68733E-06
LHDT1	44	25	0.04603677	0.189393939	0.383639749	4.44027E-06
LHDT2	17	25	0.040019072	0.189393939	0.128849284	1.49131E-06
MHDT	31	25	0.018435184	0.189393939	0.108236873	1.25274E-06
LDA	6	35	0.015265167	0.189393939	0.017346781	2.00773E-07
LDT1	0	35	0.205386531	0.189393939	0	0
LDT2	4	35	0.005709829	0.189393939	0.004325628	5.00651E-08
MDV	9	35	0.006336424	0.189393939	0.010800723	1.25008E-07
MH	1	35	0.075974381	0.189393939	0.014389087	1.6654E-07
OBUS	1	35	0.03250693	0.189393939	0.006156616	7.12571E-08
SBUS	1	35	0.01299179	0.189393939	0.002460566	2.84788E-08
UBUS	3	35	0.0056954	0.189393939	0.003236023	3.7454E-08
					TOTAL	***9.55124E-06***

Cancer Risk Calculations

A. Equation 5.4.1.1: $\text{Dose-air} = C_{air} \times \{BR/BW\} \times A \times EF \times 10^{-6}$

1. Dose-air = Dose through inhalation (mg/kg/d)
2. C_{air} = Concentration in air ($\mu g/m^3$)
3. {BR/BW} = Daily Breathing rate normalized to body weight (L/kg body weight - day)
4. A = Inhalation absorption factor (unitless)
5. EF = Exposure frequency (unitless), days/365 days
6. 10^{-6} = Micrograms to milligrams conversion, liters to cubic meters conversion

a: Recommended default values for EQ 5.4.1.1:

1. {BR/BW} = Daily breathing rates by age groupings, see As supplemental information, the assessor may wish to evaluate the inhalation dose by using the mean point estimates in Table 5.6 to provide a range of breathing rates for cancer risk assessment to the risk manager.
2. Table (point estimates) and Table 5.7 (parametric model distributions for Tier III stochastic risk assessment). For Tier 1 residential estimates, use 95th percentile breathing rates in Table 5.6.
3. A = 1
4. EF = 0.96 (350 days/365 days in a year for a resident)

A. Equation 8.2.4 A: $\text{RISK}_{\text{inh-res}} = \text{DOSE}_{\text{air}} \times \text{CPF} \times \text{ASF} \times \text{ED/AT} \times \text{FAH}$

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

a: Recommended default values for EQ 8.2.4 A:

5. DOSE_{air} = Calculated for each age group from Eq. 5.4.1
6. CPF = Substance-specific (see Table 7.1)
7. ASF = See Section 8.2.1
8. ED = 0.25 years for 3rd trimester, 2 years for 0<2, 7 years for 2<9, 14 years for 2<16, 14 years for 16<30, 54 years for 16-70
9. AT = 70 years*
10. FAH = See Table 8.4

30-Year Cancer Risk

Cancer Risk Calculations (Unmitigated)

Dose (Equation 5.4.1.1)

Exposure Age	Concentration (ug/m3)	Breathing Rate L/kg body weight-day)	Inhalation Absorption Factor	EF	Multiplier	DOSE (mg/kg/day)
Construction (DPM)						
3rd Trimester	0.633	361	1	0.95890411	0.000001	0.000219122
Infant	0.633	1090	1	0.95890411	0.000001	0.000661615
Child	0.633	572	1	0.95890411	0.000001	0.000347196
Adult	0.633	261	1	0.95890411	0.000001	0.000158423
Operation (Trucks, DPM)						
Infant	0.00357	1090	1	0.95890411	0.000001	3.73138E-06
Child	0.00357	572	1	0.95890411	0.000001	1.95812E-06
Adult	0.00357	233	1	0.95890411	0.000001	7.97626E-07
Operation (On-Site, Benzene)						
Infant	0.07724	1090	1	0.95890411	0.000001	8.07317E-05
Child	0.07724	572	1	0.95890411	0.000001	4.23656E-05
Adult	0.07724	233	1	0.95890411	0.000001	1.72573E-05

Exposure Age	DOSE (mg/kg/day)	CPF (mg/kg-day^-1)	ASF	Exposure Duration (years)/Averaging Time (years)	FAH	RISK
Construction (DPM)						
3rd Trimester	0.00021912	1.1	10	0.003571429	0.85	7.32E-06
Infant	0.00066162	1.1	10	0.005714286	0.85	3.53E-05
Child	0.0003472	1.1	3	0.009528571	0.72	7.86E-06
Adult	0.00015842	1.1	1	0.009528571	0.73	1.21E-06
Operation (Trucks, DPM)						
Infant	3.7314E-06	1.1	10	0.022857143	0.85	7.97E-07
Child	1.9581E-06	1.1	3	0.2	0.72	9.30E-07
Adult	7.9763E-07	1.1	1	0.771428571	0.73	4.94E-07
Operation (On-Site, Benzene)						
Infant	8.0732E-05	0.1	10	0.022857143	0.85	1.57E-06
Child	4.2366E-05	0.1	3	0.2	0.72	1.83E-06
Adult	1.7257E-05	0.1	1	0.771428571	0.73	9.72E-07

Cancer Risk Calculations (Mitigated)

Dose (Equation 5.4.1.1)

Exposure Age	Concentration (ug/m3)	Breathing Rate L/kg body weight-day)	Inhalation Absorption Factor	EF	Multiplier	DOSE (mg/kg/day)
Construction (DPM)						
3rd Trimester	0.03429	361	1	0.95890411	0.000001	1.187E-05
Infant	0.03429	1090	1	0.95890411	0.000001	3.58401E-05
Child	0.03429	572	1	0.95890411	0.000001	1.88078E-05
Adult	0.03429	261	1	0.95890411	0.000001	8.58189E-06
Operation (Trucks, DPM)						
Infant	0.00357	1090	1	0.95890411	0.000001	3.73138E-06
Child	0.00357	572	1	0.95890411	0.000001	1.95812E-06
Adult	0.00357	233	1	0.95890411	0.000001	7.97626E-07
Operation (On-Site, Benzene)						
Infant	0.07724	1090	1	0.95890411	0.000001	8.07317E-05
Child	0.07724	572	1	0.95890411	0.000001	4.23656E-05
Adult	0.07724	233	1	0.95890411	0.000001	1.72573E-05

Exposure Age	DOSE (mg/kg/day)	CPF (mg/kg-day^-1)	ASF	Exposure Duration (years)/Averaging Time (years)	FAH	RISK
Construction (DPM)						
3rd Trimester	1.187E-05	1.1	10	0.003571429	0.85	3.96E-07
Infant	3.58401E-05	1.1	10	0.005714286	0.85	1.91E-06
Child	1.88078E-05	1.1	3	0.009528571	0.72	4.26E-07
Adult	8.58189E-06	1.1	1	0.009528571	0.73	6.57E-08
Operation (Trucks, DPM)						
Infant	3.73138E-06	1.1	10	0.022857143	0.85	7.97E-07
Child	1.95812E-06	1.1	3	0.2	0.72	9.30E-07
Adult	7.97626E-07	1.1	1	0.771428571	0.73	4.94E-07
Operation (On-Site, Benzene)						
Infant	8.07317E-05	0.1	10	0.022857143	0.85	1.57E-06
Child	4.23656E-05	0.1	3	0.2	0.72	1.83E-06
Adult	1.72573E-05	0.1	1	0.771428571	0.73	9.72E-07

Total Cancer Risk

Unmitigated

Exposure Age	Phase of Project	Duration of Exposure (years)	Risk
3rd trimester	Construction	0.25	7.32E-06
Infant	Construction	0.4	3.53E-05
Infant	Operation	1.6	2.37E-06
Child	Operation	14	2.76E-06
Adult	Operation	14	1.47E-06
	TOTAL	***30***	***4.93E-05***

Mitigated

Exposure Age	Phase of Project	Duration of Exposure (years)	Risk
3rd trimester	Construction	0.25	3.96E-07
Infant	Construction	0.4	1.91E-06
Infant	Operation	1.6	2.37E-06
Child	Operation	14	2.76E-06
Adult	Operation	14	1.47E-06
	TOTAL	***30***	***8.90E-06***

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 10/28/2021
** File: C:\Lakes\AERMOD
View\5200LoneTree_Construction\5200LoneTree_Construction.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel
   MODELOPT DFAULT CONC
   AVERTIME 1 ANNUAL
   URBANOPT 111502 Antioch
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL 5200LoneTree_Construction.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION PAREA2       AREAPOLY   609290.037  4202285.782       41.000
** Source Parameters **
   SRCPARAM PAREA2       3.8107E-07     3.000         4
   AREAVERT PAREA2       609290.037 4202285.782 609290.314 4202191.955
   AREAVERT PAREA2       609382.753 4202190.567 609381.365 4202286.893
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
```

```
RE STARTING
   INCLUDED 5200LoneTree_Construction.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.SFC"
   PROFFILE "C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.PFL"
   SURFDATA 23285 2009
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 125.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST 5200LONETREE_CONSTRUCTION.AD\01H1GALL.PLT 31
   PLOTFILE ANNUAL ALL 5200LONETREE_CONSTRUCTION.AD\AN00GALL.PLT 32
   SUMMFILE 5200LoneTree_Construction.sum
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     10
** ZONEINX  0
**
```

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 10/28/2021
** File: C:\Lakes\AERMOD
View\5200LoneTree_Construction\5200LoneTree_Construction.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel
   MODELOPT DFAULT CONC
   AVERTIME 1 ANNUAL
   URBANOPT 111502 Antioch
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL 5200LoneTree_Construction.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION PAREA2       AREAPOLY   609290.037  4202285.782       41.000
** Source Parameters **
   SRCPARAM PAREA2       3.8107E-07     3.000         4
   AREAVERT PAREA2       609290.037 4202285.782 609290.314 4202191.955
   AREAVERT PAREA2       609382.753 4202190.567 609381.365 4202286.893
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
```

```
RE STARTING
   INCLUDED 5200LoneTree_Construction.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.SFC"
   PROFFILE "C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.PFL"
   SURFDATA 23285 2009
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 125.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST 5200LONETREE_CONSTRUCTION.AD\01H1GALL.PLT 31
   PLOTFILE ANNUAL ALL 5200LONETREE_CONSTRUCTION.AD\AN00GALL.PLT 32
   SUMMFILE 5200LoneTree_Construction.sum
OU FINISHED

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

 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        12:03:34

                                  PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                          ***     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 URBAN Dispersion Algorithm for the SBL for     1 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =    111502.0 ;  Urban Roughness Length =  1.000 m

 **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.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        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_2.5

 **Model Calculates  1 Short Term Average(s) of:   1-HR
     and Calculates ANNUAL Averages

 **This Run Includes:      1 Source(s);       1 Source Group(s); and    1574
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 VOLUME source(s)
                 and:      1 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:  14134

 **Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
```

Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

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

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 125.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ;
Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.7 MB of RAM.

**Input Runstream File: aermod.inp

**Output Print File: aermod.out

**Detailed Error/Message File: 5200LoneTree_Construction.err

**File for Summary of Results: 5200LoneTree_Construction.sum

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** AREAPOLY SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC /METER**2)	LOCATION OF AREA X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	NUMBER OF VERTS.	INIT. SZ SOURCE SCALAR VARY BY	URBAN SOURCE
PAREA2	0	0.38107E-06	609290.0	4202285.8	41.0	3.00	4	0.00	YES

*** SOURCE IDs DEFINING SOURCE GROUPS ***

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

  ALL   PAREA2   ,

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

  URBAN ID   URBAN POP   SOURCE IDs
  --------   ---------   ----------

              111502.   PAREA2   ,

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

     (609304.1, 4201857.7,   44.0,   66.0,   0.0);   (609319.1, 4201857.7,   43.7,   66.0,   0.0);
     (609334.1, 4201857.7,   43.9,   66.0,   0.0);   (609349.1, 4201857.7,   44.4,   66.0,   0.0);

```
     ( 609364.1, 4201857.7,      44.6,      44.6,       0.0);         ( 609379.1,
4201857.7,      44.6,      44.6,       0.0);
     ( 609394.1, 4201857.7,      44.6,      44.6,       0.0);         ( 609259.1,
4201872.7,      43.2,      66.0,       0.0);
     ( 609304.1, 4201872.7,      43.2,      66.0,       0.0);         ( 609319.1,
4201872.7,      43.1,      66.0,       0.0);
     ( 609334.1, 4201872.7,      43.4,      66.0,       0.0);         ( 609349.1,
4201872.7,      43.9,      43.9,       0.0);
     ( 609364.1, 4201872.7,      44.1,      44.1,       0.0);         ( 609379.1,
4201872.7,      44.1,      44.1,       0.0);
     ( 609394.1, 4201872.7,      44.1,      44.1,       0.0);         ( 609409.1,
4201872.7,      44.1,      44.1,       0.0);
     ( 609424.1, 4201872.7,      44.1,      44.1,       0.0);         ( 609439.1,
4201872.7,      44.1,      44.1,       0.0);
     ( 609454.1, 4201872.7,      44.1,      44.1,       0.0);         ( 609199.1,
4201887.7,      42.1,      76.0,       0.0);
     ( 609214.1, 4201887.7,      42.2,      66.0,       0.0);         ( 609229.1,
4201887.7,      42.2,      66.0,       0.0);
     ( 609244.1, 4201887.7,      42.3,      66.0,       0.0);         ( 609259.1,
4201887.7,      42.5,      66.0,       0.0);
     ( 609274.1, 4201887.7,      42.6,      66.0,       0.0);         ( 609304.1,
4201887.7,      42.6,      66.0,       0.0);
     ( 609319.1, 4201887.7,      42.6,      66.0,       0.0);         ( 609334.1,
4201887.7,      42.9,      42.9,       0.0);
     ( 609349.1, 4201887.7,      43.4,      43.4,       0.0);         ( 609364.1,
4201887.7,      43.6,      43.6,       0.0);
     ( 609379.1, 4201887.7,      43.6,      43.6,       0.0);         ( 609394.1,
4201887.7,      43.7,      43.7,       0.0);
     ( 609409.1, 4201887.7,      43.9,      43.9,       0.0);         ( 609424.1,
4201887.7,      44.0,      44.0,       0.0);
     ( 609439.1, 4201887.7,      44.0,      44.0,       0.0);         ( 609454.1,
4201887.7,      43.9,      43.9,       0.0);
     ( 609469.1, 4201887.7,      43.7,      43.7,       0.0);         ( 609484.1,
4201887.7,      43.6,      43.6,       0.0);
     ( 609499.1, 4201887.7,      43.6,      43.6,       0.0);         ( 609169.1,
4201902.7,      41.1,      77.0,       0.0);
     ( 609184.1, 4201902.7,      41.1,      77.0,       0.0);         ( 609199.1,
4201902.7,      41.2,      77.0,       0.0);
     ( 609214.1, 4201902.7,      41.2,      76.0,       0.0);         ( 609229.1,
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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                        ***       12:03:34

                                  PAGE   6
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

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↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                        ***       12:03:34

                                  PAGE   7
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                    *** DISCRETE CARTESIAN RECEPTORS ***
                                  (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                               (METERS)
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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:03:34

                                   PAGE   8
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

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↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***       10/28/21
 *** AERMET - VERSION  14134 ***   ***
                        ***       12:03:34

                                  PAGE   9
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN
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*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***       10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***       12:03:34
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:03:34
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

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(609604.1, 4202097.7, 41.0, 41.0, 0.0); (609619.1, 4202097.7, 41.0, 41.0, 0.0);
(609634.1, 4202097.7, 41.0, 41.0, 0.0); (609649.1, 4202097.7, 41.0, 41.0, 0.0);
(609664.1, 4202097.7, 41.0, 41.0, 0.0); (609679.1, 4202097.7, 41.0, 41.0, 0.0);
(609694.1, 4202097.7, 41.0, 41.0, 0.0); (609709.1, 4202097.7, 41.0, 41.0, 0.0);
(609724.1, 4202097.7, 41.0, 41.0, 0.0); (608989.1, 4202112.7, 40.2, 77.0, 0.0);
(609004.1, 4202112.7, 40.0, 77.0, 0.0); (609019.1, 4202112.7, 39.9, 77.0, 0.0);
(609034.1, 4202112.7, 39.9, 77.0, 0.0); (609049.1, 4202112.7, 39.9, 77.0, 0.0);
(609064.1, 4202112.7, 39.9, 77.0, 0.0); (609079.1, 4202112.7, 39.9, 77.0, 0.0);
(609094.1, 4202112.7, 39.9, 77.0, 0.0); (609109.1, 4202112.7, 39.9, 77.0, 0.0);
(609124.1, 4202112.7, 39.9, 77.0, 0.0); (609139.1, 4202112.7, 40.0, 77.0, 0.0);

```
     ( 609154.1, 4202112.7,      40.0,      77.0,       0.0);         ( 609169.1,
4202112.7,      40.0,      40.0,       0.0);
     ( 609184.1, 4202112.7,      40.3,      40.3,       0.0);         ( 609199.1,
4202112.7,      40.8,      40.8,       0.0);
     ( 609214.1, 4202112.7,      40.9,      40.9,       0.0);         ( 609229.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609244.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609259.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609274.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609289.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609304.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609319.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609334.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609349.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609364.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609379.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609409.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609424.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609439.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609454.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609469.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609484.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609499.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609514.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609529.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609544.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609559.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609574.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609589.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609604.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609619.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609634.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609649.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609664.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609679.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609694.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609709.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609724.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 608989.1, 4202127.7,      40.5,      77.0,       0.0);         ( 609004.1,
4202127.7,      40.3,      77.0,       0.0);
     ( 609019.1, 4202127.7,      40.1,      77.0,       0.0);         ( 609034.1,
4202127.7,      40.0,      77.0,       0.0);
     ( 609049.1, 4202127.7,      40.0,      77.0,       0.0);         ( 609064.1,
4202127.7,      40.0,      77.0,       0.0);
     ( 609079.1, 4202127.7,      40.0,      77.0,       0.0);         ( 609094.1,
4202127.7,      40.0,      77.0,       0.0);
     ( 609109.1, 4202127.7,      40.0,      77.0,       0.0);         ( 609124.1,
4202127.7,      40.0,      77.0,       0.0);
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(609139.1, 4202127.7, 40.0, 77.0, 0.0); (609154.1, 4202127.7, 40.1, 77.0, 0.0);
(609169.1, 4202127.7, 40.3, 40.3, 0.0); (609184.1, 4202127.7, 40.6, 40.6, 0.0);
(609199.1, 4202127.7, 40.9, 40.9, 0.0); (609214.1, 4202127.7, 41.0, 41.0, 0.0);
(609229.1, 4202127.7, 41.0, 41.0, 0.0); (609244.1, 4202127.7, 41.0, 41.0, 0.0);
(609259.1, 4202127.7, 41.0, 41.0, 0.0); (609274.1, 4202127.7, 41.0, 41.0, 0.0);
(609289.1, 4202127.7, 41.0, 41.0, 0.0); (609304.1, 4202127.7, 41.0, 41.0, 0.0);
(609319.1, 4202127.7, 41.0, 41.0, 0.0); (609334.1, 4202127.7, 41.0, 41.0, 0.0);
(609349.1, 4202127.7, 41.0, 41.0, 0.0); (609364.1, 4202127.7, 41.0, 41.0, 0.0);
(609379.1, 4202127.7, 41.0, 41.0, 0.0); (609409.1, 4202127.7, 41.0, 41.0, 0.0);
(609424.1, 4202127.7, 41.0, 41.0, 0.0); (609439.1, 4202127.7, 41.0, 41.0, 0.0);
(609454.1, 4202127.7, 41.0, 41.0, 0.0); (609469.1, 4202127.7, 41.0, 41.0, 0.0);
(609484.1, 4202127.7, 41.0, 41.0, 0.0); (609499.1, 4202127.7, 41.0, 41.0, 0.0);
(609514.1, 4202127.7, 41.0, 41.0, 0.0); (609529.1, 4202127.7, 41.0, 41.0, 0.0);
(609544.1, 4202127.7, 41.0, 41.0, 0.0); (609559.1, 4202127.7, 41.0, 41.0, 0.0);
(609574.1, 4202127.7, 41.0, 41.0, 0.0); (609589.1, 4202127.7, 41.0, 41.0, 0.0);
(609604.1, 4202127.7, 41.0, 41.0, 0.0); (609619.1, 4202127.7, 41.0, 41.0, 0.0);
(609634.1, 4202127.7, 41.0, 41.0, 0.0); (609649.1, 4202127.7, 41.0, 41.0, 0.0);
(609664.1, 4202127.7, 41.0, 41.0, 0.0); (609679.1, 4202127.7, 41.0, 41.0, 0.0);
(609694.1, 4202127.7, 41.0, 41.0, 0.0); (609709.1, 4202127.7, 41.0, 41.0, 0.0);
(609724.1, 4202127.7, 41.0, 41.0, 0.0); (608974.1, 4202142.7, 41.0, 77.0, 0.0);

```
     ( 608989.1, 4202142.7,      40.9,      77.0,       0.0);         ( 609004.1,
4202142.7,      40.6,      77.0,       0.0);
     ( 609019.1, 4202142.7,      40.1,      77.0,       0.0);         ( 609034.1,
4202142.7,      40.0,      77.0,       0.0);
     ( 609049.1, 4202142.7,      40.0,      77.0,       0.0);         ( 609064.1,
4202142.7,      40.0,      77.0,       0.0);
     ( 609079.1, 4202142.7,      40.0,      77.0,       0.0);         ( 609094.1,
4202142.7,      40.0,      77.0,       0.0);
     ( 609109.1, 4202142.7,      40.0,      77.0,       0.0);         ( 609124.1,
4202142.7,      40.0,      77.0,       0.0);
     ( 609139.1, 4202142.7,      40.0,      77.0,       0.0);         ( 609154.1,
4202142.7,      40.3,      40.3,       0.0);
     ( 609169.1, 4202142.7,      40.8,      40.8,       0.0);         ( 609184.1,
4202142.7,      40.9,      40.9,       0.0);
     ( 609199.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609214.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609229.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609244.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609259.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609274.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609289.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609304.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609319.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609334.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609349.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609364.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609379.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609409.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609424.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609439.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609454.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609469.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609484.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609499.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609514.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609529.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609544.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609559.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609574.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609589.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609604.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609619.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609634.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609649.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609664.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609679.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609694.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609709.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609724.1, 4202142.7,      41.0,      41.0,       0.0);         ( 608974.1,
4202157.7,      41.0,      77.0,       0.0);
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(608989.1, 4202157.7, 41.0, 77.0, 0.0); (609004.1, 4202157.7, 40.7, 77.0, 0.0);
(609019.1, 4202157.7, 40.2, 77.0, 0.0); (609034.1, 4202157.7, 40.0, 77.0, 0.0);
(609049.1, 4202157.7, 40.0, 77.0, 0.0); (609064.1, 4202157.7, 40.0, 77.0, 0.0);
(609079.1, 4202157.7, 40.0, 77.0, 0.0); (609094.1, 4202157.7, 40.0, 77.0, 0.0);
(609109.1, 4202157.7, 40.0, 77.0, 0.0); (609124.1, 4202157.7, 40.0, 77.0, 0.0);
(609139.1, 4202157.7, 40.0, 77.0, 0.0); (609154.1, 4202157.7, 40.3, 40.3, 0.0);
(609169.1, 4202157.7, 40.8, 40.8, 0.0); (609184.1, 4202157.7, 41.0, 41.0, 0.0);
(609199.1, 4202157.7, 41.0, 41.0, 0.0); (609214.1, 4202157.7, 41.0, 41.0, 0.0);
(609229.1, 4202157.7, 41.0, 41.0, 0.0); (609244.1, 4202157.7, 41.0, 41.0, 0.0);
(609259.1, 4202157.7, 41.0, 41.0, 0.0); (609274.1, 4202157.7, 41.0, 41.0, 0.0);
(609289.1, 4202157.7, 41.0, 41.0, 0.0); (609304.1, 4202157.7, 41.0, 41.0, 0.0);
(609319.1, 4202157.7, 41.0, 41.0, 0.0); (609334.1, 4202157.7, 41.0, 41.0, 0.0);
(609349.1, 4202157.7, 41.0, 41.0, 0.0); (609364.1, 4202157.7, 41.0, 41.0, 0.0);
(609379.1, 4202157.7, 41.0, 41.0, 0.0); (609409.1, 4202157.7, 40.7, 40.7, 0.0);
(609424.1, 4202157.7, 40.7, 40.7, 0.0); (609439.1, 4202157.7, 40.9, 40.9, 0.0);
(609454.1, 4202157.7, 41.0, 41.0, 0.0); (609469.1, 4202157.7, 41.0, 41.0, 0.0);
(609484.1, 4202157.7, 41.0, 41.0, 0.0); (609499.1, 4202157.7, 41.0, 41.0, 0.0);
(609514.1, 4202157.7, 41.0, 41.0, 0.0); (609529.1, 4202157.7, 41.0, 41.0, 0.0);
(609544.1, 4202157.7, 41.0, 41.0, 0.0); (609559.1, 4202157.7, 41.0, 41.0, 0.0);

```
     ( 609574.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609589.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609604.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609619.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609634.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609649.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609664.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609679.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609694.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609709.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609724.1, 4202157.7,      41.0,      41.0,       0.0);         ( 608959.1,
4202172.7,      41.2,      77.0,       0.0);
     ( 608974.1, 4202172.7,      41.0,      77.0,       0.0);         ( 608989.1,
4202172.7,      41.0,      77.0,       0.0);
     ( 609004.1, 4202172.7,      40.7,      77.0,       0.0);         ( 609019.1,
4202172.7,      40.2,      77.0,       0.0);
     ( 609034.1, 4202172.7,      40.0,      77.0,       0.0);         ( 609049.1,
4202172.7,      40.0,      77.0,       0.0);
     ( 609064.1, 4202172.7,      40.0,      77.0,       0.0);         ( 609079.1,
4202172.7,      40.0,      77.0,       0.0);
     ( 609094.1, 4202172.7,      40.0,      77.0,       0.0);         ( 609109.1,
4202172.7,      40.0,      77.0,       0.0);
     ( 609124.1, 4202172.7,      40.0,      77.0,       0.0);         ( 609139.1,
4202172.7,      40.0,      40.0,       0.0);
     ( 609154.1, 4202172.7,      40.3,      40.3,       0.0);         ( 609169.1,
4202172.7,      40.8,      40.8,       0.0);
     ( 609184.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609199.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609214.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609229.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609244.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609259.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609274.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609289.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609304.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609319.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609334.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609349.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609364.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609379.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609409.1, 4202172.7,      40.2,      40.2,       0.0);         ( 609424.1,
4202172.7,      40.4,      40.4,       0.0);
     ( 609439.1, 4202172.7,      40.9,      40.9,       0.0);         ( 609454.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609469.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609484.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609499.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609514.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609529.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609544.1,
4202172.7,      41.0,      41.0,       0.0);
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*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(609589.1, 4202172.7, 41.0, 41.0, 0.0); (609604.1, 4202172.7, 41.0, 41.0, 0.0);
(609619.1, 4202172.7, 41.0, 41.0, 0.0); (609634.1, 4202172.7, 41.0, 41.0, 0.0);
(609649.1, 4202172.7, 41.0, 41.0, 0.0); (609664.1, 4202172.7, 41.0, 41.0, 0.0);
(609679.1, 4202172.7, 41.0, 41.0, 0.0); (609694.1, 4202172.7, 41.0, 41.0, 0.0);
(609709.1, 4202172.7, 41.0, 41.0, 0.0); (609724.1, 4202172.7, 41.0, 41.0, 0.0);
(608959.1, 4202187.7, 41.5, 77.0, 0.0); (608974.1, 4202187.7, 41.3, 77.0, 0.0);
(608989.1, 4202187.7, 41.1, 77.0, 0.0); (609004.1, 4202187.7, 40.8, 77.0, 0.0);
(609019.1, 4202187.7, 40.5, 77.0, 0.0); (609034.1, 4202187.7, 40.3, 77.0, 0.0);
(609049.1, 4202187.7, 40.1, 77.0, 0.0); (609064.1, 4202187.7, 40.0, 77.0, 0.0);
(609079.1, 4202187.7, 40.0, 77.0, 0.0); (609094.1, 4202187.7, 40.0, 77.0, 0.0);
(609109.1, 4202187.7, 40.0, 77.0, 0.0); (609124.1, 4202187.7, 40.0, 40.0, 0.0);
(609139.1, 4202187.7, 40.0, 40.0, 0.0); (609154.1, 4202187.7, 40.3, 40.3, 0.0);
(609169.1, 4202187.7, 40.8, 40.8, 0.0); (609184.1, 4202187.7, 41.0, 41.0, 0.0);
(609199.1, 4202187.7, 41.0, 41.0, 0.0); (609214.1, 4202187.7, 41.0, 41.0, 0.0);
(609229.1, 4202187.7, 41.0, 41.0, 0.0); (609244.1, 4202187.7, 41.0, 41.0, 0.0);
(609259.1, 4202187.7, 41.0, 41.0, 0.0); (609274.1, 4202187.7, 41.0, 41.0, 0.0);
(609409.1, 4202187.7, 40.1, 40.1, 0.0); (609424.1, 4202187.7, 40.2, 40.2, 0.0);
(609439.1, 4202187.7, 40.5, 40.5, 0.0); (609454.1, 4202187.7, 40.7, 40.7, 0.0);

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     ( 609469.1, 4202187.7,      40.9,      40.9,       0.0);         ( 609484.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609499.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609514.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609529.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609544.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609559.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609574.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609589.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609604.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609619.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609634.1,
4202187.7,      40.9,      40.9,       0.0);
     ( 609649.1, 4202187.7,      40.7,      40.7,       0.0);         ( 609664.1,
4202187.7,      40.7,      40.7,       0.0);
     ( 609679.1, 4202187.7,      40.9,      40.9,       0.0);         ( 609694.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609709.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609724.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 608959.1, 4202202.7,      41.9,      77.0,       0.0);         ( 608974.1,
4202202.7,      41.6,      77.0,       0.0);
     ( 608989.1, 4202202.7,      41.1,      77.0,       0.0);         ( 609004.1,
4202202.7,      41.0,      77.0,       0.0);
     ( 609019.1, 4202202.7,      40.9,      77.0,       0.0);         ( 609034.1,
4202202.7,      40.6,      77.0,       0.0);
     ( 609049.1, 4202202.7,      40.1,      77.0,       0.0);         ( 609064.1,
4202202.7,      40.0,      77.0,       0.0);
     ( 609079.1, 4202202.7,      40.0,      77.0,       0.0);         ( 609094.1,
4202202.7,      40.0,      77.0,       0.0);
     ( 609109.1, 4202202.7,      40.0,      40.0,       0.0);         ( 609124.1,
4202202.7,      40.0,      40.0,       0.0);
     ( 609139.1, 4202202.7,      40.0,      40.0,       0.0);         ( 609154.1,
4202202.7,      40.3,      40.3,       0.0);
     ( 609169.1, 4202202.7,      40.8,      40.8,       0.0);         ( 609184.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609199.1, 4202202.7,      41.0,      41.0,       0.0);         ( 609214.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609229.1, 4202202.7,      41.0,      41.0,       0.0);         ( 609244.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609259.1, 4202202.7,      41.0,      41.0,       0.0);         ( 609274.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609409.1, 4202202.7,      40.0,      40.0,       0.0);         ( 609424.1,
4202202.7,      40.0,      40.0,       0.0);
     ( 609439.1, 4202202.7,      40.1,      40.1,       0.0);         ( 609454.1,
4202202.7,      40.4,      40.4,       0.0);
     ( 609469.1, 4202202.7,      40.9,      40.9,       0.0);         ( 609484.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609499.1, 4202202.7,      41.0,      41.0,       0.0);         ( 609514.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609529.1, 4202202.7,      41.0,      41.0,       0.0);         ( 609544.1,
4202202.7,      41.0,      41.0,       0.0);
```

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

(609619.1, 4202202.7, 41.0, 41.0, 0.0); (609634.1, 4202202.7, 40.7, 40.7, 0.0);
(609649.1, 4202202.7, 40.2, 40.2, 0.0); (609664.1, 4202202.7, 40.4, 40.4, 0.0);
(609679.1, 4202202.7, 40.9, 40.9, 0.0); (609694.1, 4202202.7, 41.0, 41.0, 0.0);
(609709.1, 4202202.7, 41.0, 41.0, 0.0); (609724.1, 4202202.7, 41.0, 41.0, 0.0);
(608959.1, 4202217.7, 42.0, 77.0, 0.0); (608974.1, 4202217.7, 41.7, 77.0, 0.0);
(608989.1, 4202217.7, 41.2, 77.0, 0.0); (609004.1, 4202217.7, 41.0, 77.0, 0.0);
(609019.1, 4202217.7, 41.0, 77.0, 0.0); (609034.1, 4202217.7, 40.8, 77.0, 0.0);
(609049.1, 4202217.7, 40.5, 77.0, 0.0); (609064.1, 4202217.7, 40.3, 77.0, 0.0);
(609079.1, 4202217.7, 40.1, 77.0, 0.0); (609094.1, 4202217.7, 40.0, 40.0, 0.0);
(609109.1, 4202217.7, 40.0, 40.0, 0.0); (609124.1, 4202217.7, 40.0, 40.0, 0.0);
(609139.1, 4202217.7, 40.0, 40.0, 0.0); (609154.1, 4202217.7, 40.3, 40.3, 0.0);
(609169.1, 4202217.7, 40.8, 40.8, 0.0); (609184.1, 4202217.7, 41.0, 41.0, 0.0);
(609199.1, 4202217.7, 41.0, 41.0, 0.0); (609214.1, 4202217.7, 41.0, 41.0, 0.0);
(609229.1, 4202217.7, 41.0, 41.0, 0.0); (609244.1, 4202217.7, 41.0, 41.0, 0.0);
(609259.1, 4202217.7, 41.0, 41.0, 0.0); (609274.1, 4202217.7, 41.0, 41.0, 0.0);
(609484.1, 4202217.7, 40.7, 40.7, 0.0); (609499.1, 4202217.7, 40.9, 40.9, 0.0);
(609514.1, 4202217.7, 41.0, 41.0, 0.0); (609529.1, 4202217.7, 41.0, 41.0, 0.0);

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     ( 609544.1, 4202217.7,      41.0,      41.0,       0.0);         ( 609559.1,
4202217.7,      41.0,      41.0,       0.0);
     ( 609574.1, 4202217.7,      41.0,      41.0,       0.0);         ( 609589.1,
4202217.7,      41.0,      41.0,       0.0);
     ( 609604.1, 4202217.7,      40.9,      40.9,       0.0);         ( 609619.1,
4202217.7,      40.7,      40.7,       0.0);
     ( 609634.1, 4202217.7,      40.4,      40.4,       0.0);         ( 609649.1,
4202217.7,      40.1,      40.1,       0.0);
     ( 609664.1, 4202217.7,      40.2,      40.2,       0.0);         ( 609679.1,
4202217.7,      40.5,      40.5,       0.0);
     ( 609694.1, 4202217.7,      40.6,      40.6,       0.0);         ( 609709.1,
4202217.7,      40.6,      40.6,       0.0);
     ( 609724.1, 4202217.7,      41.0,      41.0,       0.0);         ( 608959.1,
4202232.7,      42.0,      77.0,       0.0);
     ( 608974.1, 4202232.7,      41.7,      77.0,       0.0);         ( 608989.1,
4202232.7,      41.2,      77.0,       0.0);
     ( 609004.1, 4202232.7,      41.0,      77.0,       0.0);         ( 609019.1,
4202232.7,      41.0,      77.0,       0.0);
     ( 609034.1, 4202232.7,      41.0,      77.0,       0.0);         ( 609049.1,
4202232.7,      40.9,      40.9,       0.0);
     ( 609064.1, 4202232.7,      40.6,      40.6,       0.0);         ( 609079.1,
4202232.7,      40.1,      40.1,       0.0);
     ( 609094.1, 4202232.7,      40.0,      40.0,       0.0);         ( 609109.1,
4202232.7,      40.0,      40.0,       0.0);
     ( 609124.1, 4202232.7,      40.0,      40.0,       0.0);         ( 609139.1,
4202232.7,      40.0,      40.0,       0.0);
     ( 609154.1, 4202232.7,      40.3,      40.3,       0.0);         ( 609169.1,
4202232.7,      40.8,      40.8,       0.0);
     ( 609184.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609199.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609214.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609229.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609244.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609259.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609274.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609424.1,
4202232.7,      40.0,      40.0,       0.0);
     ( 609439.1, 4202232.7,      40.0,      40.0,       0.0);         ( 609454.1,
4202232.7,      40.0,      40.0,       0.0);
     ( 609469.1, 4202232.7,      40.1,      40.1,       0.0);         ( 609484.1,
4202232.7,      40.4,      40.4,       0.0);
     ( 609499.1, 4202232.7,      40.9,      40.9,       0.0);         ( 609514.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609529.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609544.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609559.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609574.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609589.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609604.1,
4202232.7,      40.7,      40.7,       0.0);
     ( 609619.1, 4202232.7,      40.2,      40.2,       0.0);         ( 609634.1,
4202232.7,      40.1,      40.1,       0.0);
```

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     ( 609649.1, 4202232.7,      40.0,      40.0,       0.0);         ( 609664.1,
4202232.7,      40.0,      40.0,       0.0);
     ( 609679.1, 4202232.7,      40.1,      40.1,       0.0);         ( 609694.1,
4202232.7,      40.1,      40.1,       0.0);
     ( 609709.1, 4202232.7,      40.1,      41.0,       0.0);         ( 609724.1,
4202232.7,      41.0,      41.0,       0.0);
↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                         ***        12:03:34

                                    PAGE  16
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

     ( 608959.1, 4202247.7,      42.0,      77.0,       0.0);         ( 608974.1,
4202247.7,      41.7,      77.0,       0.0);
     ( 608989.1, 4202247.7,      41.2,      77.0,       0.0);         ( 609004.1,
4202247.7,      41.0,      77.0,       0.0);
     ( 609019.1, 4202247.7,      41.0,      77.0,       0.0);         ( 609034.1,
4202247.7,      41.0,      41.0,       0.0);
     ( 609049.1, 4202247.7,      41.0,      41.0,       0.0);         ( 609064.1,
4202247.7,      40.7,      40.7,       0.0);
     ( 609079.1, 4202247.7,      40.2,      40.2,       0.0);         ( 609094.1,
4202247.7,      40.0,      40.0,       0.0);
     ( 609109.1, 4202247.7,      40.0,      40.0,       0.0);         ( 609124.1,
4202247.7,      40.0,      40.0,       0.0);
     ( 609139.1, 4202247.7,      40.0,      40.0,       0.0);         ( 609154.1,
4202247.7,      40.2,      40.2,       0.0);
     ( 609169.1, 4202247.7,      40.5,      40.5,       0.0);         ( 609184.1,
4202247.7,      40.7,      40.7,       0.0);
     ( 609199.1, 4202247.7,      40.9,      40.9,       0.0);         ( 609214.1,
4202247.7,      41.0,      41.0,       0.0);
     ( 609229.1, 4202247.7,      41.0,      41.0,       0.0);         ( 609244.1,
4202247.7,      41.0,      41.0,       0.0);
     ( 609259.1, 4202247.7,      41.0,      41.0,       0.0);         ( 609274.1,
4202247.7,      41.0,      41.0,       0.0);
     ( 609424.1, 4202247.7,      40.0,      40.0,       0.0);         ( 609439.1,
4202247.7,      40.0,      40.0,       0.0);
     ( 609454.1, 4202247.7,      40.0,      40.0,       0.0);         ( 609469.1,
4202247.7,      40.0,      40.0,       0.0);
     ( 609484.1, 4202247.7,      40.2,      40.2,       0.0);         ( 609499.1,
4202247.7,      40.5,      40.5,       0.0);
     ( 609514.1, 4202247.7,      40.6,      40.6,       0.0);         ( 609529.1,
4202247.7,      40.6,      40.6,       0.0);
     ( 609544.1, 4202247.7,      40.7,      40.7,       0.0);         ( 609559.1,
4202247.7,      40.9,      40.9,       0.0);
```

```
     ( 609574.1, 4202247.7,      41.0,      41.0,       0.0);         ( 609589.1,
4202247.7,      41.0,      41.0,       0.0);
     ( 609604.1, 4202247.7,      40.7,      40.7,       0.0);         ( 609619.1,
4202247.7,      40.2,      40.2,       0.0);
     ( 609634.1, 4202247.7,      40.0,      40.0,       0.0);         ( 609649.1,
4202247.7,      40.0,      40.0,       0.0);
     ( 609664.1, 4202247.7,      40.0,      40.0,       0.0);         ( 609679.1,
4202247.7,      40.0,      40.0,       0.0);
     ( 609694.1, 4202247.7,      40.0,      40.0,       0.0);         ( 609709.1,
4202247.7,      40.0,      40.0,       0.0);
     ( 609724.1, 4202247.7,      40.9,      40.9,       0.0);         ( 608959.1,
4202262.7,      42.0,      77.0,       0.0);
     ( 608974.1, 4202262.7,      41.7,      77.0,       0.0);         ( 608989.1,
4202262.7,      41.2,      77.0,       0.0);
     ( 609004.1, 4202262.7,      41.0,      41.0,       0.0);         ( 609019.1,
4202262.7,      41.0,      41.0,       0.0);
     ( 609034.1, 4202262.7,      41.0,      41.0,       0.0);         ( 609049.1,
4202262.7,      41.0,      41.0,       0.0);
     ( 609064.1, 4202262.7,      40.7,      40.7,       0.0);         ( 609079.1,
4202262.7,      40.2,      40.2,       0.0);
     ( 609094.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609109.1,
4202262.7,      40.0,      40.0,       0.0);
     ( 609124.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609139.1,
4202262.7,      40.0,      40.0,       0.0);
     ( 609154.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609169.1,
4202262.7,      40.1,      40.1,       0.0);
     ( 609184.1, 4202262.7,      40.4,      40.4,       0.0);         ( 609199.1,
4202262.7,      40.9,      40.9,       0.0);
     ( 609214.1, 4202262.7,      41.0,      41.0,       0.0);         ( 609229.1,
4202262.7,      41.0,      41.0,       0.0);
     ( 609244.1, 4202262.7,      41.0,      41.0,       0.0);         ( 609259.1,
4202262.7,      41.0,      41.0,       0.0);
     ( 609274.1, 4202262.7,      41.0,      41.0,       0.0);         ( 609424.1,
4202262.7,      40.0,      40.0,       0.0);
     ( 609439.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609454.1,
4202262.7,      40.0,      40.0,       0.0);
     ( 609469.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609484.1,
4202262.7,      40.0,      40.0,       0.0);
     ( 609499.1, 4202262.7,      40.1,      40.1,       0.0);         ( 609514.1,
4202262.7,      40.1,      40.1,       0.0);
     ( 609529.1, 4202262.7,      40.1,      40.1,       0.0);         ( 609544.1,
4202262.7,      40.4,      40.4,       0.0);
     ( 609559.1, 4202262.7,      40.9,      40.9,       0.0);         ( 609574.1,
4202262.7,      41.0,      41.0,       0.0);
     ( 609589.1, 4202262.7,      41.0,      41.0,       0.0);         ( 609604.1,
4202262.7,      40.7,      40.7,       0.0);
     ( 609619.1, 4202262.7,      40.2,      40.2,       0.0);         ( 609634.1,
4202262.7,      40.0,      40.0,       0.0);
     ( 609649.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609664.1,
4202262.7,      40.0,      40.0,       0.0);
```

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

(609484.1, 4202277.7, 40.0, 40.0, 0.0); (609499.1, 4202277.7, 40.0, 40.0, 0.0);
(609514.1, 4202277.7, 40.0, 40.0, 0.0); (609529.1, 4202277.7, 40.0, 40.0, 0.0);
(609544.1, 4202277.7, 40.2, 40.2, 0.0); (609559.1, 4202277.7, 40.5, 40.5, 0.0);
(609574.1, 4202277.7, 40.6, 40.6, 0.0); (609589.1, 4202277.7, 40.6, 40.6, 0.0);
(609604.1, 4202277.7, 40.4, 40.4, 0.0); (609619.1, 4202277.7, 40.1, 40.1, 0.0);
(609634.1, 4202277.7, 40.0, 40.0, 0.0); (609649.1, 4202277.7, 40.0, 40.0, 0.0);
(609664.1, 4202277.7, 40.0, 40.0, 0.0); (609679.1, 4202277.7, 40.0, 40.0, 0.0);
(609694.1, 4202277.7, 40.0, 40.0, 0.0); (609709.1, 4202277.7, 40.0, 40.0, 0.0);
(609724.1, 4202277.7, 40.4, 40.4, 0.0); (609409.1, 4202322.7, 40.0, 40.0, 0.0);
(609424.1, 4202322.7, 40.0, 40.0, 0.0); (609439.1, 4202322.7, 40.0, 40.0, 0.0);
(609454.1, 4202322.7, 40.0, 40.0, 0.0); (609469.1, 4202322.7, 40.0, 40.0, 0.0);
(609484.1, 4202322.7, 40.0, 40.0, 0.0); (609499.1, 4202322.7, 40.0, 40.0, 0.0);
(609514.1, 4202322.7, 40.0, 40.0, 0.0); (609529.1, 4202322.7, 40.0, 40.0, 0.0);
(609544.1, 4202322.7, 40.0, 40.0, 0.0); (609559.1, 4202322.7, 40.0, 40.0, 0.0);
(609574.1, 4202322.7, 40.0, 40.0, 0.0); (609589.1, 4202322.7, 40.0, 40.0, 0.0);

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     ( 609604.1, 4202322.7,      40.0,      40.0,       0.0);         ( 609619.1,
4202322.7,      40.0,      40.0,       0.0);
     ( 609634.1, 4202322.7,      40.0,      40.0,       0.0);         ( 609649.1,
4202322.7,      40.0,      40.0,       0.0);
     ( 609664.1, 4202322.7,      40.0,      40.0,       0.0);         ( 609679.1,
4202322.7,      40.0,      40.0,       0.0);
     ( 609694.1, 4202322.7,      40.0,      40.0,       0.0);         ( 609409.1,
4202337.7,      40.0,      40.0,       0.0);
     ( 609424.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609439.1,
4202337.7,      40.0,      40.0,       0.0);
     ( 609454.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609469.1,
4202337.7,      40.0,      40.0,       0.0);
     ( 609484.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609499.1,
4202337.7,      40.0,      40.0,       0.0);
     ( 609514.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609529.1,
4202337.7,      40.0,      40.0,       0.0);
     ( 609544.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609559.1,
4202337.7,      40.0,      40.0,       0.0);
     ( 609574.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609589.1,
4202337.7,      40.0,      40.0,       0.0);
     ( 609604.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609619.1,
4202337.7,      40.0,      40.0,       0.0);
     ( 609634.1, 4202337.7,      39.9,      39.9,       0.0);         ( 609649.1,
4202337.7,      39.7,      39.7,       0.0);
     ( 609664.1, 4202337.7,      39.6,      39.6,       0.0);         ( 609679.1,
4202337.7,      39.6,      39.6,       0.0);
     ( 609694.1, 4202337.7,      39.6,      39.6,       0.0);         ( 609709.1,
4202337.7,      39.6,      39.6,       0.0);
     ( 609724.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609409.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609424.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609439.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609454.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609469.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609484.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609499.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609514.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609529.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609544.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609559.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609574.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609589.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609604.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609619.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609634.1, 4202352.7,      39.7,      39.7,       0.0);         ( 609649.1,
4202352.7,      39.2,      39.2,       0.0);
     ( 609664.1, 4202352.7,      39.1,      39.1,       0.0);         ( 609679.1,
4202352.7,      39.1,      39.1,       0.0);
     ( 609694.1, 4202352.7,      39.1,      39.1,       0.0);         ( 609709.1,
4202352.7,      39.1,      40.0,       0.0);
```

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

(609544.1, 4202367.7, 40.0, 40.0, 0.0); (609559.1, 4202367.7, 40.0, 40.0, 0.0);
(609574.1, 4202367.7, 39.9, 39.9, 0.0); (609589.1, 4202367.7, 39.7, 39.7, 0.0);
(609604.1, 4202367.7, 39.6, 39.6, 0.0); (609619.1, 4202367.7, 39.6, 39.6, 0.0);
(609634.1, 4202367.7, 39.4, 39.4, 0.0); (609649.1, 4202367.7, 39.1, 39.1, 0.0);
(609664.1, 4202367.7, 39.0, 39.0, 0.0); (609679.1, 4202367.7, 39.0, 39.0, 0.0);
(609694.1, 4202367.7, 39.0, 39.0, 0.0); (609709.1, 4202367.7, 39.0, 39.0, 0.0);
(609724.1, 4202367.7, 40.0, 40.0, 0.0); (609394.1, 4202382.7, 40.0, 40.0, 0.0);
(609409.1, 4202382.7, 40.0, 40.0, 0.0); (609424.1, 4202382.7, 40.0, 40.0, 0.0);
(609439.1, 4202382.7, 40.0, 40.0, 0.0); (609454.1, 4202382.7, 40.0, 40.0, 0.0);
(609469.1, 4202382.7, 40.0, 40.0, 0.0); (609484.1, 4202382.7, 40.0, 40.0, 0.0);
(609499.1, 4202382.7, 40.0, 40.0, 0.0); (609514.1, 4202382.7, 40.0, 40.0, 0.0);
(609529.1, 4202382.7, 40.0, 40.0, 0.0); (609544.1, 4202382.7, 40.0, 40.0, 0.0);
(609559.1, 4202382.7, 40.0, 40.0, 0.0); (609574.1, 4202382.7, 39.7, 39.7, 0.0);
(609589.1, 4202382.7, 39.2, 39.2, 0.0); (609604.1, 4202382.7, 39.1, 39.1, 0.0);

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     ( 609619.1, 4202382.7,      39.1,      39.1,       0.0);         ( 609634.1,
4202382.7,      39.1,      39.1,       0.0);
     ( 609649.1, 4202382.7,      39.0,      39.0,       0.0);         ( 609664.1,
4202382.7,      39.0,      39.0,       0.0);
     ( 609679.1, 4202382.7,      39.0,      39.0,       0.0);         ( 609694.1,
4202382.7,      39.0,      39.0,       0.0);
     ( 609709.1, 4202382.7,      39.0,      40.0,       0.0);         ( 609724.1,
4202382.7,      40.0,      40.0,       0.0);
     ( 609394.1, 4202397.7,      40.0,      40.0,       0.0);         ( 609409.1,
4202397.7,      40.0,      40.0,       0.0);
     ( 609424.1, 4202397.7,      40.0,      40.0,       0.0);         ( 609439.1,
4202397.7,      40.0,      40.0,       0.0);
     ( 609454.1, 4202397.7,      40.0,      40.0,       0.0);         ( 609469.1,
4202397.7,      40.0,      40.0,       0.0);
     ( 609484.1, 4202397.7,      40.0,      40.0,       0.0);         ( 609499.1,
4202397.7,      40.0,      40.0,       0.0);
     ( 609514.1, 4202397.7,      40.0,      40.0,       0.0);         ( 609529.1,
4202397.7,      40.0,      40.0,       0.0);
     ( 609544.1, 4202397.7,      39.9,      39.9,       0.0);         ( 609559.1,
4202397.7,      39.7,      39.7,       0.0);
     ( 609574.1, 4202397.7,      39.4,      39.4,       0.0);         ( 609589.1,
4202397.7,      39.1,      39.1,       0.0);
     ( 609604.1, 4202397.7,      39.0,      39.0,       0.0);         ( 609619.1,
4202397.7,      39.0,      39.0,       0.0);
     ( 609634.1, 4202397.7,      39.0,      39.0,       0.0);         ( 609649.1,
4202397.7,      39.0,      39.0,       0.0);
     ( 609664.1, 4202397.7,      39.0,      39.0,       0.0);         ( 609679.1,
4202397.7,      39.0,      39.0,       0.0);
     ( 609694.1, 4202397.7,      39.0,      39.0,       0.0);         ( 609709.1,
4202397.7,      39.0,      39.0,       0.0);
     ( 609724.1, 4202397.7,      39.6,      39.6,       0.0);         ( 609394.1,
4202412.7,      40.0,      40.0,       0.0);
     ( 609409.1, 4202412.7,      40.0,      40.0,       0.0);         ( 609424.1,
4202412.7,      40.0,      40.0,       0.0);
     ( 609439.1, 4202412.7,      40.0,      40.0,       0.0);         ( 609454.1,
4202412.7,      40.0,      40.0,       0.0);
     ( 609469.1, 4202412.7,      40.0,      40.0,       0.0);         ( 609484.1,
4202412.7,      40.0,      40.0,       0.0);
     ( 609499.1, 4202412.7,      40.0,      40.0,       0.0);         ( 609514.1,
4202412.7,      40.0,      40.0,       0.0);
     ( 609529.1, 4202412.7,      40.0,      40.0,       0.0);         ( 609544.1,
4202412.7,      39.7,      39.7,       0.0);
     ( 609559.1, 4202412.7,      39.2,      39.2,       0.0);         ( 609574.1,
4202412.7,      39.1,      39.1,       0.0);
     ( 609589.1, 4202412.7,      39.0,      39.0,       0.0);         ( 609604.1,
4202412.7,      39.0,      39.0,       0.0);
     ( 609619.1, 4202412.7,      39.0,      39.0,       0.0);         ( 609634.1,
4202412.7,      39.0,      39.0,       0.0);
     ( 609649.1, 4202412.7,      39.0,      39.0,       0.0);         ( 609664.1,
4202412.7,      39.0,      39.0,       0.0);
```

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

(609514.1, 4202427.7, 40.0, 40.0, 0.0); (609529.1, 4202427.7, 40.0, 40.0, 0.0);
(609544.1, 4202427.7, 39.8, 39.8, 0.0); (609559.1, 4202427.7, 39.5, 39.5, 0.0);
(609574.1, 4202427.7, 39.3, 39.3, 0.0); (609589.1, 4202427.7, 39.1, 39.1, 0.0);
(609604.1, 4202427.7, 39.0, 39.0, 0.0); (609619.1, 4202427.7, 39.0, 39.0, 0.0);
(609634.1, 4202427.7, 39.0, 39.0, 0.0); (609649.1, 4202427.7, 39.0, 39.0, 0.0);
(609664.1, 4202427.7, 39.0, 39.0, 0.0); (609679.1, 4202427.7, 39.0, 39.0, 0.0);
(609694.1, 4202427.7, 39.0, 39.0, 0.0); (609709.1, 4202427.7, 39.0, 39.0, 0.0);
(609724.1, 4202427.7, 39.0, 39.0, 0.0); (609439.1, 4202472.7, 40.0, 40.0, 0.0);
(609454.1, 4202472.7, 40.0, 40.0, 0.0); (609469.1, 4202472.7, 40.0, 40.0, 0.0);
(609484.1, 4202472.7, 40.0, 40.0, 0.0); (609499.1, 4202472.7, 40.0, 40.0, 0.0);
(609514.1, 4202472.7, 40.0, 40.0, 0.0); (609529.1, 4202472.7, 40.0, 40.0, 0.0);
(609544.1, 4202472.7, 40.0, 40.0, 0.0); (609559.1, 4202472.7, 40.0, 40.0, 0.0);
(609574.1, 4202472.7, 40.0, 40.0, 0.0); (609589.1, 4202472.7, 39.9, 39.9, 0.0);

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     ( 609604.1, 4202472.7,      39.6,      39.6,       0.0);         ( 609619.1,
4202472.7,      39.1,      39.1,       0.0);
     ( 609634.1, 4202472.7,      39.0,      39.0,       0.0);         ( 609649.1,
4202472.7,      39.0,      39.0,       0.0);
     ( 609664.1, 4202472.7,      39.0,      39.0,       0.0);         ( 609679.1,
4202472.7,      39.0,      39.0,       0.0);
     ( 609694.1, 4202472.7,      39.0,      39.0,       0.0);         ( 609319.1,
4202487.7,      41.4,      41.4,       0.0);
     ( 609334.1, 4202487.7,      41.4,      41.4,       0.0);         ( 609349.1,
4202487.7,      41.4,      41.4,       0.0);
     ( 609364.1, 4202487.7,      41.3,      41.3,       0.0);         ( 609394.1,
4202487.7,      40.8,      40.8,       0.0);
     ( 609409.1, 4202487.7,      40.5,      40.5,       0.0);         ( 609424.1,
4202487.7,      40.4,      40.4,       0.0);
     ( 609439.1, 4202487.7,      40.4,      40.4,       0.0);         ( 609454.1,
4202487.7,      40.3,      40.3,       0.0);
     ( 609469.1, 4202487.7,      40.1,      40.1,       0.0);         ( 609484.1,
4202487.7,      40.0,      40.0,       0.0);
     ( 609499.1, 4202487.7,      40.0,      40.0,       0.0);         ( 609514.1,
4202487.7,      40.0,      40.0,       0.0);
     ( 609529.1, 4202487.7,      40.0,      40.0,       0.0);         ( 609544.1,
4202487.7,      40.0,      40.0,       0.0);
     ( 609559.1, 4202487.7,      40.0,      40.0,       0.0);         ( 609574.1,
4202487.7,      40.0,      40.0,       0.0);
     ( 609589.1, 4202487.7,      40.0,      40.0,       0.0);         ( 609604.1,
4202487.7,      39.8,      39.8,       0.0);
     ( 609619.1, 4202487.7,      39.5,      39.5,       0.0);         ( 609634.1,
4202487.7,      39.4,      39.4,       0.0);
     ( 609649.1, 4202487.7,      39.4,      39.4,       0.0);         ( 609664.1,
4202487.7,      39.3,      39.3,       0.0);
     ( 609679.1, 4202487.7,      39.1,      39.1,       0.0);         ( 609184.1,
4202502.7,      41.9,      41.9,       0.0);
     ( 609199.1, 4202502.7,      41.9,      41.9,       0.0);         ( 609214.1,
4202502.7,      41.9,      41.9,       0.0);
     ( 609229.1, 4202502.7,      42.0,      42.0,       0.0);         ( 609244.1,
4202502.7,      42.0,      42.0,       0.0);
     ( 609259.1, 4202502.7,      42.0,      42.0,       0.0);         ( 609274.1,
4202502.7,      42.0,      42.0,       0.0);
     ( 609289.1, 4202502.7,      41.9,      41.9,       0.0);         ( 609304.1,
4202502.7,      41.9,      41.9,       0.0);
     ( 609319.1, 4202502.7,      41.9,      41.9,       0.0);         ( 609334.1,
4202502.7,      41.9,      41.9,       0.0);
     ( 609349.1, 4202502.7,      41.9,      41.9,       0.0);         ( 609364.1,
4202502.7,      41.6,      41.6,       0.0);
     ( 609394.1, 4202502.7,      41.0,      41.0,       0.0);         ( 609409.1,
4202502.7,      40.9,      40.9,       0.0);
     ( 609424.1, 4202502.7,      40.9,      40.9,       0.0);         ( 609439.1,
4202502.7,      40.9,      40.9,       0.0);
     ( 609454.1, 4202502.7,      40.6,      40.6,       0.0);         ( 609469.1,
4202502.7,      40.1,      40.1,       0.0);
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     ( 609484.1, 4202502.7,      40.0,      40.0,       0.0);         ( 609499.1,
4202502.7,      40.0,      40.0,       0.0);
     ( 609514.1, 4202502.7,      40.0,      40.0,       0.0);         ( 609529.1,
4202502.7,      40.0,      40.0,       0.0);
     ( 609544.1, 4202502.7,      40.0,      40.0,       0.0);         ( 609559.1,
4202502.7,      40.0,      40.0,       0.0);
     ( 609574.1, 4202502.7,      40.0,      40.0,       0.0);         ( 609589.1,
4202502.7,      40.0,      40.0,       0.0);
     ( 609604.1, 4202502.7,      40.0,      40.0,       0.0);         ( 609619.1,
4202502.7,      39.9,      39.9,       0.0);
     ( 609634.1, 4202502.7,      39.9,      39.9,       0.0);         ( 609649.1,
4202502.7,      39.9,      39.9,       0.0);
     ( 609664.1, 4202502.7,      39.6,      39.6,       0.0);         ( 609064.1,
4202517.7,      42.0,      42.0,       0.0);
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                         ***       12:03:34

                                   PAGE  20
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

     ( 609079.1, 4202517.7,      42.0,      42.0,       0.0);         ( 609094.1,
4202517.7,      42.0,      42.0,       0.0);
     ( 609109.1, 4202517.7,      42.0,      42.0,       0.0);         ( 609124.1,
4202517.7,      42.0,      42.0,       0.0);
     ( 609139.1, 4202517.7,      42.0,      42.0,       0.0);         ( 609154.1,
4202517.7,      42.0,      42.0,       0.0);
     ( 609169.1, 4202517.7,      42.0,      42.0,       0.0);         ( 609184.1,
4202517.7,      42.1,      42.1,       0.0);
     ( 609199.1, 4202517.7,      42.3,      42.3,       0.0);         ( 609214.1,
4202517.7,      42.4,      42.4,       0.0);
     ( 609229.1, 4202517.7,      42.4,      42.4,       0.0);         ( 609244.1,
4202517.7,      42.4,      42.4,       0.0);
     ( 609259.1, 4202517.7,      42.4,      42.4,       0.0);         ( 609274.1,
4202517.7,      42.4,      42.4,       0.0);
     ( 609289.1, 4202517.7,      42.4,      42.4,       0.0);         ( 609304.1,
4202517.7,      42.4,      42.4,       0.0);
     ( 609319.1, 4202517.7,      42.4,      42.4,       0.0);         ( 609334.1,
4202517.7,      42.3,      42.3,       0.0);
     ( 609349.1, 4202517.7,      42.1,      42.1,       0.0);         ( 609364.1,
4202517.7,      41.8,      41.8,       0.0);
     ( 609409.1, 4202517.7,      41.1,      41.1,       0.0);         ( 609424.1,
4202517.7,      41.0,      41.0,       0.0);
     ( 609439.1, 4202517.7,      41.0,      41.0,       0.0);         ( 609454.1,
4202517.7,      40.7,      40.7,       0.0);
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     ( 609469.1, 4202517.7,      40.2,      40.2,       0.0);         ( 609484.1,
4202517.7,      40.0,      40.0,       0.0);
     ( 609499.1, 4202517.7,      40.0,      40.0,       0.0);         ( 609514.1,
4202517.7,      40.0,      40.0,       0.0);
     ( 609529.1, 4202517.7,      40.0,      40.0,       0.0);         ( 609544.1,
4202517.7,      40.0,      40.0,       0.0);
     ( 609559.1, 4202517.7,      40.0,      40.0,       0.0);         ( 609574.1,
4202517.7,      40.0,      40.0,       0.0);
     ( 609589.1, 4202517.7,      40.0,      40.0,       0.0);         ( 609604.1,
4202517.7,      40.0,      40.0,       0.0);
     ( 609619.1, 4202517.7,      40.0,      40.0,       0.0);         ( 609634.1,
4202517.7,      40.0,      40.0,       0.0);
     ( 609649.1, 4202517.7,      40.0,      40.0,       0.0);         ( 609079.1,
4202532.7,      42.0,      42.0,       0.0);
     ( 609094.1, 4202532.7,      42.0,      42.0,       0.0);         ( 609109.1,
4202532.7,      42.0,      42.0,       0.0);
     ( 609124.1, 4202532.7,      42.0,      42.0,       0.0);         ( 609139.1,
4202532.7,      42.0,      42.0,       0.0);
     ( 609154.1, 4202532.7,      42.0,      42.0,       0.0);         ( 609169.1,
4202532.7,      42.0,      42.0,       0.0);
     ( 609184.1, 4202532.7,      42.3,      42.3,       0.0);         ( 609199.1,
4202532.7,      42.8,      42.8,       0.0);
     ( 609214.1, 4202532.7,      42.9,      42.9,       0.0);         ( 609229.1,
4202532.7,      42.9,      42.9,       0.0);
     ( 609244.1, 4202532.7,      42.9,      42.9,       0.0);         ( 609259.1,
4202532.7,      42.9,      42.9,       0.0);
     ( 609274.1, 4202532.7,      42.9,      42.9,       0.0);         ( 609289.1,
4202532.7,      42.9,      42.9,       0.0);
     ( 609304.1, 4202532.7,      42.9,      42.9,       0.0);         ( 609319.1,
4202532.7,      42.9,      42.9,       0.0);
     ( 609334.1, 4202532.7,      42.6,      42.6,       0.0);         ( 609349.1,
4202532.7,      42.1,      42.1,       0.0);
     ( 609364.1, 4202532.7,      42.0,      42.0,       0.0);         ( 609409.1,
4202532.7,      41.1,      41.1,       0.0);
     ( 609424.1, 4202532.7,      41.0,      41.0,       0.0);         ( 609439.1,
4202532.7,      41.0,      41.0,       0.0);
     ( 609454.1, 4202532.7,      40.7,      40.7,       0.0);         ( 609469.1,
4202532.7,      40.2,      40.2,       0.0);
     ( 609484.1, 4202532.7,      40.0,      40.0,       0.0);         ( 609499.1,
4202532.7,      40.0,      40.0,       0.0);
     ( 609514.1, 4202532.7,      40.0,      40.0,       0.0);         ( 609529.1,
4202532.7,      40.0,      40.0,       0.0);
     ( 609544.1, 4202532.7,      40.0,      40.0,       0.0);         ( 609559.1,
4202532.7,      40.0,      40.0,       0.0);
     ( 609574.1, 4202532.7,      40.0,      40.0,       0.0);         ( 609589.1,
4202532.7,      40.0,      40.0,       0.0);
     ( 609604.1, 4202532.7,      40.0,      40.0,       0.0);         ( 609619.1,
4202532.7,      40.0,      40.0,       0.0);
     ( 609094.1, 4202547.7,      42.0,      42.0,       0.0);         ( 609109.1,
4202547.7,      42.0,      42.0,       0.0);
```

(609124.1, 4202547.7, 42.0, 42.0, 0.0); (609139.1, 4202547.7, 42.0, 42.0, 0.0);
(609154.1, 4202547.7, 42.0, 42.0, 0.0); (609169.1, 4202547.7, 42.0, 42.0, 0.0);
(609184.1, 4202547.7, 42.3, 42.3, 0.0); (609199.1, 4202547.7, 42.8, 42.8, 0.0);
(609214.1, 4202547.7, 43.0, 43.0, 0.0); (609229.1, 4202547.7, 43.0, 43.0, 0.0);
(609244.1, 4202547.7, 43.0, 43.0, 0.0); (609259.1, 4202547.7, 43.0, 43.0, 0.0);
(609274.1, 4202547.7, 43.0, 43.0, 0.0); (609289.1, 4202547.7, 43.0, 43.0, 0.0);
(609304.1, 4202547.7, 43.0, 43.0, 0.0); (609319.1, 4202547.7, 43.0, 43.0, 0.0);
(609334.1, 4202547.7, 42.8, 42.8, 0.0); (609349.1, 4202547.7, 42.5, 42.5, 0.0);

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(609364.1, 4202547.7, 42.3, 42.3, 0.0); (609409.1, 4202547.7, 41.5, 41.5, 0.0);
(609424.1, 4202547.7, 41.3, 41.3, 0.0); (609439.1, 4202547.7, 41.1, 41.1, 0.0);
(609454.1, 4202547.7, 40.7, 40.7, 0.0); (609469.1, 4202547.7, 40.2, 40.2, 0.0);
(609484.1, 4202547.7, 40.0, 40.0, 0.0); (609499.1, 4202547.7, 40.0, 40.0, 0.0);
(609514.1, 4202547.7, 40.0, 40.0, 0.0); (609529.1, 4202547.7, 40.0, 40.0, 0.0);
(609544.1, 4202547.7, 40.0, 40.0, 0.0); (609559.1, 4202547.7, 40.0, 40.0, 0.0);
(609574.1, 4202547.7, 40.0, 40.0, 0.0); (609589.1, 4202547.7, 40.0, 40.0, 0.0);
(609109.1, 4202562.7, 42.0, 42.0, 0.0); (609124.1, 4202562.7, 42.0, 42.0, 0.0);
(609139.1, 4202562.7, 42.0, 42.0, 0.0); (609154.1, 4202562.7, 42.0, 42.0, 0.0);
(609169.1, 4202562.7, 42.0, 42.0, 0.0); (609184.1, 4202562.7, 42.3, 42.3, 0.0);
(609199.1, 4202562.7, 42.8, 42.8, 0.0); (609214.1, 4202562.7, 43.0, 43.0, 0.0);

```
     ( 609229.1, 4202562.7,      43.0,      43.0,       0.0);         ( 609244.1,
4202562.7,      43.0,      43.0,       0.0);
     ( 609259.1, 4202562.7,      43.0,      43.0,       0.0);         ( 609274.1,
4202562.7,      43.0,      43.0,       0.0);
     ( 609289.1, 4202562.7,      43.0,      43.0,       0.0);         ( 609304.1,
4202562.7,      43.0,      43.0,       0.0);
     ( 609319.1, 4202562.7,      43.0,      43.0,       0.0);         ( 609334.1,
4202562.7,      43.0,      43.0,       0.0);
     ( 609349.1, 4202562.7,      42.9,      42.9,       0.0);         ( 609364.1,
4202562.7,      42.6,      42.6,       0.0);
     ( 609409.1, 4202562.7,      41.9,      41.9,       0.0);         ( 609424.1,
4202562.7,      41.6,      41.6,       0.0);
     ( 609439.1, 4202562.7,      41.1,      41.1,       0.0);         ( 609454.1,
4202562.7,      40.7,      40.7,       0.0);
     ( 609469.1, 4202562.7,      40.2,      40.2,       0.0);         ( 609484.1,
4202562.7,      40.0,      40.0,       0.0);
     ( 609499.1, 4202562.7,      40.0,      40.0,       0.0);         ( 609514.1,
4202562.7,      40.0,      40.0,       0.0);
     ( 609529.1, 4202562.7,      40.0,      40.0,       0.0);         ( 609544.1,
4202562.7,      40.0,      40.0,       0.0);
     ( 609559.1, 4202562.7,      40.0,      40.0,       0.0);         ( 609574.1,
4202562.7,      40.0,      40.0,       0.0);
     ( 609124.1, 4202577.7,      42.0,      42.0,       0.0);         ( 609139.1,
4202577.7,      42.0,      42.0,       0.0);
     ( 609154.1, 4202577.7,      42.1,      42.1,       0.0);         ( 609169.1,
4202577.7,      42.3,      42.3,       0.0);
     ( 609184.1, 4202577.7,      42.6,      42.6,       0.0);         ( 609199.1,
4202577.7,      42.9,      42.9,       0.0);
     ( 609214.1, 4202577.7,      43.0,      43.0,       0.0);         ( 609229.1,
4202577.7,      43.0,      43.0,       0.0);
     ( 609244.1, 4202577.7,      43.0,      43.0,       0.0);         ( 609259.1,
4202577.7,      43.0,      43.0,       0.0);
     ( 609274.1, 4202577.7,      43.0,      43.0,       0.0);         ( 609289.1,
4202577.7,      43.0,      43.0,       0.0);
     ( 609304.1, 4202577.7,      43.0,      43.0,       0.0);         ( 609319.1,
4202577.7,      43.0,      43.0,       0.0);
     ( 609334.1, 4202577.7,      43.0,      43.0,       0.0);         ( 609349.1,
4202577.7,      43.0,      43.0,       0.0);
     ( 609364.1, 4202577.7,      42.8,      42.8,       0.0);         ( 609409.1,
4202577.7,      42.1,      42.1,       0.0);
     ( 609424.1, 4202577.7,      41.7,      41.7,       0.0);         ( 609439.1,
4202577.7,      41.2,      41.2,       0.0);
     ( 609454.1, 4202577.7,      40.7,      40.7,       0.0);         ( 609469.1,
4202577.7,      40.2,      40.2,       0.0);
     ( 609484.1, 4202577.7,      40.0,      40.0,       0.0);         ( 609499.1,
4202577.7,      40.0,      40.0,       0.0);
     ( 609514.1, 4202577.7,      40.0,      40.0,       0.0);         ( 609529.1,
4202577.7,      40.0,      40.0,       0.0);
     ( 609544.1, 4202577.7,      40.0,      40.0,       0.0);         ( 609139.1,
4202592.7,      42.0,      42.0,       0.0);
```

```
     ( 609154.1, 4202592.7,      42.3,      42.3,       0.0);         ( 609169.1,
4202592.7,      42.8,      42.8,       0.0);
     ( 609184.1, 4202592.7,      42.9,      42.9,       0.0);         ( 609199.1,
4202592.7,      43.0,      43.0,       0.0);
     ( 609214.1, 4202592.7,      43.0,      43.0,       0.0);         ( 609229.1,
4202592.7,      43.0,      43.0,       0.0);
     ( 609244.1, 4202592.7,      43.0,      43.0,       0.0);         ( 609259.1,
4202592.7,      43.0,      43.0,       0.0);
     ( 609274.1, 4202592.7,      43.0,      43.0,       0.0);         ( 609289.1,
4202592.7,      43.0,      43.0,       0.0);
     ( 609304.1, 4202592.7,      43.0,      43.0,       0.0);         ( 609319.1,
4202592.7,      43.0,      43.0,       0.0);
     ( 609334.1, 4202592.7,      43.0,      43.0,       0.0);         ( 609349.1,
4202592.7,      43.0,      43.0,       0.0);
     ( 609364.1, 4202592.7,      43.0,      43.0,       0.0);         ( 609409.1,
4202592.7,      42.1,      42.1,       0.0);
     ( 609424.1, 4202592.7,      41.7,      41.7,       0.0);         ( 609439.1,
4202592.7,      41.2,      41.2,       0.0);
↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:03:34

                                   PAGE  22
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

     ( 609454.1, 4202592.7,      40.7,      40.7,       0.0);         ( 609469.1,
4202592.7,      40.2,      40.2,       0.0);
     ( 609484.1, 4202592.7,      40.0,      40.0,       0.0);         ( 609499.1,
4202592.7,      40.0,      40.0,       0.0);
     ( 609514.1, 4202592.7,      40.0,      40.0,       0.0);         ( 609529.1,
4202592.7,      40.0,      40.0,       0.0);
     ( 609169.1, 4202607.7,      42.8,      42.8,       0.0);         ( 609184.1,
4202607.7,      43.0,      43.0,       0.0);
     ( 609199.1, 4202607.7,      43.0,      43.0,       0.0);         ( 609214.1,
4202607.7,      43.0,      43.0,       0.0);
     ( 609229.1, 4202607.7,      43.0,      43.0,       0.0);         ( 609244.1,
4202607.7,      43.0,      43.0,       0.0);
     ( 609259.1, 4202607.7,      43.0,      43.0,       0.0);         ( 609274.1,
4202607.7,      43.0,      43.0,       0.0);
     ( 609289.1, 4202607.7,      43.0,      43.0,       0.0);         ( 609304.1,
4202607.7,      43.0,      43.0,       0.0);
     ( 609319.1, 4202607.7,      43.0,      43.0,       0.0);         ( 609334.1,
4202607.7,      43.0,      43.0,       0.0);
     ( 609349.1, 4202607.7,      43.0,      43.0,       0.0);         ( 609364.1,
4202607.7,      43.0,      43.0,       0.0);
```

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                                          *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                                  (1=YES; 0=NO)

           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
           1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

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

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

Surface file: C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.SFC
Met Version: 14134
Profile file: C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 23285 Upper air station no.: 23230
Name: UNKNOWN Name: OAKLAND/WSO_AP
Year: 2009 Year: 2009

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
09	01	01	1	01	-12.6	0.221	-9.000	-9.000	-999.	250.	77.5	0.11	0.90	1.00	2.86	51.	10.0	279.2	2.0
09	01	01	1	02	-23.5	0.413	-9.000	-9.000	-999.	637.	269.8	0.11	0.90	1.00	4.86	48.	10.0	279.2	2.0
09	01	01	1	03	-11.1	0.195	-9.000	-9.000	-999.	254.	59.8	0.07	0.90	1.00	2.86	94.	10.0	278.8	2.0
09	01	01	1	04	-9.5	0.166	-9.000	-9.000	-999.	164.	43.7	0.11	0.90	1.00	2.36	53.	10.0	278.1	2.0

```
 09 01 01   1 05  -11.1  0.195 -9.000 -9.000 -999.  206.     59.6  0.07   0.90
1.00    2.86   63.   10.0  278.1    2.0
 09 01 01   1 06   -8.2  0.143 -9.000 -9.000 -999.  131.     32.3  0.07   0.90
1.00    2.36   72.   10.0  278.1    2.0
 09 01 01   1 07   -8.2  0.143 -9.000 -9.000 -999.  130.     32.3  0.07   0.90
1.00    2.36   75.   10.0  278.1    2.0
 09 01 01   1 08   -4.1  0.078 -9.000 -9.000 -999.   53.     10.3  0.11   0.90
0.75    1.76   13.   10.0  277.5    2.0
 09 01 01   1 09   -6.3  0.246 -9.000 -9.000 -999.  292.    211.6  0.12   0.90
0.40    2.86  347.   10.0  278.1    2.0
 09 01 01   1 10    6.6  0.303  0.261  0.016   96.  401.   -378.3  0.11   0.90
0.27    3.36   51.   10.0  278.8    2.0
 09 01 01   1 11   15.4  0.317  0.422  0.017  176.  429.   -186.8  0.07   0.90
0.23    3.86   94.   10.0  279.9    2.0
 09 01 01   1 12   47.5  0.448  0.742  0.017  309.  720.   -170.5  0.11   0.90
0.22    4.86   56.   10.0  280.9    2.0
 09 01 01   1 13   49.0  0.405  0.820  0.014  403.  621.   -122.0  0.07   0.90
0.21    4.86   63.   10.0  281.4    2.0
 09 01 01   1 14   42.7  0.405  0.809  0.014  444.  619.   -139.5  0.11   0.90
0.22    4.36   59.   10.0  282.0    2.0
 09 01 01   1 15   60.8  0.372  0.922  0.014  463.  545.    -75.6  0.07   0.90
0.25    4.36   72.   10.0  281.4    2.0
 09 01 01   1 16   14.1  0.309  0.569  0.016  467.  414.   -187.5  0.11   0.90
0.34    3.36   54.   10.0  282.0    2.0
 09 01 01   1 17  -30.4  0.311 -9.000 -9.000 -999.  417.     89.1  0.07   0.90
0.58    4.36   61.   10.0  280.4    2.0
 09 01 01   1 18  -27.0  0.239 -9.000 -9.000 -999.  282.     45.2  0.11   0.90
1.00    3.36   47.   10.0  279.9    2.0
 09 01 01   1 19  -14.9  0.131 -9.000 -9.000 -999.  120.     13.7  0.07   0.90
1.00    2.86   64.   10.0  279.2    2.0
 09 01 01   1 20   -5.8  0.078 -9.000 -9.000 -999.   53.      7.3  0.11   0.90
1.00    1.76   47.   10.0  278.8    2.0
 09 01 01   1 21 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.10   0.90
1.00    0.00    0.   10.0  277.5    2.0
 09 01 01   1 22   -4.9  0.070 -9.000 -9.000 -999.   44.      6.2  0.07   0.90
1.00    1.76   82.   10.0  276.4    2.0
 09 01 01   1 23 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.10   0.90
1.00    0.00    0.   10.0  277.0    2.0
 09 01 01   1 24 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.10   0.90
1.00    0.00    0.   10.0  277.0    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 09 01 01 01   10.0 1   51.    2.86   279.3   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609304.09	4201857.70	0.00296	609319.09	4201857.70	0.00294
609334.09	4201857.70	0.00297	609349.09	4201857.70	0.00305
609364.09	4201857.70	0.00320	609379.09	4201857.70	0.00342
609394.09	4201857.70	0.00372	609259.09	4201872.70	0.00363
609304.09	4201872.70	0.00321	609319.09	4201872.70	0.00319
609334.09	4201872.70	0.00322	609349.09	4201872.70	0.00332
609364.09	4201872.70	0.00350	609379.09	4201872.70	0.00376
609394.09	4201872.70	0.00411	609409.09	4201872.70	0.00455
609424.09	4201872.70	0.00510	609439.09	4201872.70	0.00575
609454.09	4201872.70	0.00649	609199.09	4201887.70	0.00552
609214.09	4201887.70	0.00506	609229.09	4201887.70	0.00466
609244.09	4201887.70	0.00430	609259.09	4201887.70	0.00401
609274.09	4201887.70	0.00377	609304.09	4201887.70	0.00351
609319.09	4201887.70	0.00347	609334.09	4201887.70	0.00351
609349.09	4201887.70	0.00363	609364.09	4201887.70	0.00384
609379.09	4201887.70	0.00415	609394.09		

```
4201887.70        0.00456
         609409.09    4201887.70        0.00509                    609424.09
4201887.70        0.00573
         609439.09    4201887.70        0.00650                    609454.09
4201887.70        0.00738
         609469.09    4201887.70        0.00836                    609484.09
4201887.70        0.00942
         609499.09    4201887.70        0.01054                    609169.09
4201902.70        0.00741
         609184.09    4201902.70        0.00681                    609199.09
4201902.70        0.00623
         609214.09    4201902.70        0.00570                    609229.09
4201902.70        0.00522
         609244.09    4201902.70        0.00480                    609259.09
4201902.70        0.00444
         609274.09    4201902.70        0.00416                    609319.09
4201902.70        0.00380
         609334.09    4201902.70        0.00384                    609349.09
4201902.70        0.00398
         609364.09    4201902.70        0.00423                    609379.09
4201902.70        0.00460
         609394.09    4201902.70        0.00510                    609409.09
4201902.70        0.00572
         609424.09    4201902.70        0.00649                    609439.09
4201902.70        0.00740
         609454.09    4201902.70        0.00845                    609469.09
4201902.70        0.00960
         609484.09    4201902.70        0.01083                    609499.09
4201902.70        0.01211
         609514.09    4201902.70        0.01341                    609529.09
4201902.70        0.01469
         609139.09    4201917.70        0.00977                    609154.09
4201917.70        0.00909
         609169.09    4201917.70        0.00841                    609184.09
4201917.70        0.00773
         609199.09    4201917.70        0.00707                    609214.09
4201917.70        0.00644
         609229.09    4201917.70        0.00588                    609244.09
4201917.70        0.00538
         609259.09    4201917.70        0.00496                    609274.09
4201917.70        0.00462
         609289.09    4201917.70        0.00438                    609319.09
4201917.70        0.00417
         609334.09    4201917.70        0.00423                    609349.09
4201917.70        0.00439
         609364.09    4201917.70        0.00470                    609379.09
4201917.70        0.00514
         609394.09    4201917.70        0.00574                    609409.09
4201917.70        0.00650
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
```

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
                                INCLUDING SOURCE(S): PAREA2 ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                    ** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609424.09	4201917.70	0.00742	609439.09	4201917.70	0.00851
609454.09	4201917.70	0.00974	609469.09	4201917.70	0.01109
609484.09	4201917.70	0.01251	609499.09	4201917.70	0.01397
609514.09	4201917.70	0.01542	609529.09	4201917.70	0.01684
609544.09	4201917.70	0.01818	609109.09	4201932.70	0.01248
609124.09	4201932.70	0.01180	609139.09	4201932.70	0.01108
609154.09	4201932.70	0.01035	609169.09	4201932.70	0.00959
609184.09	4201932.70	0.00882	609199.09	4201932.70	0.00805
609214.09	4201932.70	0.00733	609229.09	4201932.70	0.00666
609244.09	4201932.70	0.00607	609259.09	4201932.70	0.00557
609274.09	4201932.70	0.00516	609289.09	4201932.70	0.00486
609334.09	4201932.70	0.00467	609349.09	4201932.70	0.00488
609364.09	4201932.70	0.00524	609379.09	4201932.70	0.00579
609394.09	4201932.70	0.00652	609409.09	4201932.70	0.00744
609424.09	4201932.70	0.00856	609439.09		

4201932.70 0.00986
609454.09 4201932.70 0.01132 609469.09
4201932.70 0.01289
609484.09 4201932.70 0.01452 609499.09
4201932.70 0.01618
609514.09 4201932.70 0.01780 609529.09
4201932.70 0.01935
609544.09 4201932.70 0.02078 609559.09
4201932.70 0.02207
609079.09 4201947.70 0.01541 609094.09
4201947.70 0.01482
609109.09 4201947.70 0.01414 609124.09
4201947.70 0.01343
609139.09 4201947.70 0.01267 609154.09
4201947.70 0.01187
609169.09 4201947.70 0.01103 609184.09
4201947.70 0.01015
609199.09 4201947.70 0.00926 609214.09
4201947.70 0.00841
609229.09 4201947.70 0.00761 609244.09
4201947.70 0.00690
609259.09 4201947.70 0.00630 609274.09
4201947.70 0.00580
609289.09 4201947.70 0.00543 609304.09
4201947.70 0.00520
609334.09 4201947.70 0.00519 609349.09
4201947.70 0.00545
609364.09 4201947.70 0.00590 609379.09
4201947.70 0.00657
609394.09 4201947.70 0.00747 609409.09
4201947.70 0.00860
609424.09 4201947.70 0.00996 609439.09
4201947.70 0.01152
609454.09 4201947.70 0.01324 609469.09
4201947.70 0.01508
609484.09 4201947.70 0.01696 609499.09
4201947.70 0.01883
609514.09 4201947.70 0.02062 609529.09
4201947.70 0.02229
609544.09 4201947.70 0.02379 609559.09
4201947.70 0.02510
609574.09 4201947.70 0.02620 609064.09
4201962.70 0.01777
609079.09 4201962.70 0.01733 609094.09
4201962.70 0.01675
609109.09 4201962.70 0.01605 609124.09
4201962.70 0.01533
609139.09 4201962.70 0.01456 609154.09
4201962.70 0.01370
609169.09 4201962.70 0.01277 609184.09

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609199.09	4201962.70	0.01074	609214.09	4201962.70	0.00974
609229.09	4201962.70	0.00879	609244.09	4201962.70	0.00792
609259.09	4201962.70	0.00717	609274.09	4201962.70	0.00657
609289.09	4201962.70	0.00611	609304.09	4201962.70	0.00582
609349.09	4201962.70	0.00612	609364.09	4201962.70	0.00669
609379.09	4201962.70	0.00752	609394.09	4201962.70	0.00864
609409.09	4201962.70	0.01005	609424.09	4201962.70	0.01170
609439.09	4201962.70	0.01357	609454.09	4201962.70	0.01561
609469.09	4201962.70	0.01775	609484.09	4201962.70	0.01991
609499.09	4201962.70	0.02200	609514.09	4201962.70	0.02396
609529.09	4201962.70	0.02573	609544.09	4201962.70	0.02728
609559.09	4201962.70	0.02856	609574.09	4201962.70	0.02959
609589.09	4201962.70	0.03035	609604.09	4201962.70	0.03090
609049.09	4201977.70	0.02020	609064.09		

4201977.70 0.01988
609079.09 4201977.70 0.01950 609094.09
4201977.70 0.01897
609109.09 4201977.70 0.01830 609124.09
4201977.70 0.01760
609139.09 4201977.70 0.01681 609154.09
4201977.70 0.01588
609169.09 4201977.70 0.01484 609184.09
4201977.70 0.01372
609199.09 4201977.70 0.01255 609214.09
4201977.70 0.01138
609229.09 4201977.70 0.01024 609244.09
4201977.70 0.00919
609259.09 4201977.70 0.00827 609274.09
4201977.70 0.00751
609289.09 4201977.70 0.00694 609304.09
4201977.70 0.00657
609319.09 4201977.70 0.00643 609349.09
4201977.70 0.00694
609364.09 4201977.70 0.00765 609379.09
4201977.70 0.00871
609394.09 4201977.70 0.01011 609409.09
4201977.70 0.01185
609424.09 4201977.70 0.01389 609439.09
4201977.70 0.01616
609454.09 4201977.70 0.01859 609469.09
4201977.70 0.02110
609484.09 4201977.70 0.02355 609499.09
4201977.70 0.02587
609514.09 4201977.70 0.02798 609529.09
4201977.70 0.02981
609544.09 4201977.70 0.03134 609559.09
4201977.70 0.03255
609574.09 4201977.70 0.03343 609589.09
4201977.70 0.03401
609604.09 4201977.70 0.03433 609619.09
4201977.70 0.03441
609049.09 4201992.70 0.02243 609064.09
4201992.70 0.02221
609079.09 4201992.70 0.02193 609094.09
4201992.70 0.02150
609109.09 4201992.70 0.02092 609124.09
4201992.70 0.02026
609139.09 4201992.70 0.01947 609154.09
4201992.70 0.01848
609169.09 4201992.70 0.01732 609184.09
4201992.70 0.01609
609199.09 4201992.70 0.01479 609214.09
4201992.70 0.01342
609229.09 4201992.70 0.01207 609244.09

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5
YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_2.5 IN MICROGRAMS/M**3
**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609289.09	4201992.70	0.00794	609304.09	4201992.70	0.00747
609319.09	4201992.70	0.00730	609364.09	4201992.70	0.00885
609379.09	4201992.70	0.01020	609394.09	4201992.70	0.01199
609409.09	4201992.70	0.01415	609424.09	4201992.70	0.01667
609439.09	4201992.70	0.01945	609454.09	4201992.70	0.02236
609469.09	4201992.70	0.02526	609484.09	4201992.70	0.02803
609499.09	4201992.70	0.03056	609514.09	4201992.70	0.03276
609529.09	4201992.70	0.03459	609544.09	4201992.70	0.03602
609559.09	4201992.70	0.03706	609574.09	4201992.70	0.03772
609589.09	4201992.70	0.03803	609604.09	4201992.70	0.03805
609619.09	4201992.70	0.03780	609634.09	4201992.70	0.03733
609034.09	4202007.70	0.02494	609049.09	4202007.70	0.02492
609064.09	4202007.70	0.02487	609079.09		

4202007.70 0.02473
609094.09 4202007.70 0.02443 609109.09
4202007.70 0.02395
609124.09 4202007.70 0.02338 609139.09
4202007.70 0.02264
609154.09 4202007.70 0.02162 609169.09
4202007.70 0.02038
609184.09 4202007.70 0.01904 609199.09
4202007.70 0.01759
609214.09 4202007.70 0.01599 609229.09
4202007.70 0.01437
609244.09 4202007.70 0.01281 609259.09
4202007.70 0.01139
609274.09 4202007.70 0.01017 609289.09
4202007.70 0.00922
609304.09 4202007.70 0.00860 609319.09
4202007.70 0.00837
609334.09 4202007.70 0.00854 609379.09
4202007.70 0.01211
609394.09 4202007.70 0.01439 609409.09
4202007.70 0.01716
609424.09 4202007.70 0.02028 609439.09
4202007.70 0.02362
609454.09 4202007.70 0.02705 609469.09
4202007.70 0.03038
609484.09 4202007.70 0.03344 609499.09
4202007.70 0.03612
609514.09 4202007.70 0.03834 609529.09
4202007.70 0.04007
609544.09 4202007.70 0.04130 609559.09
4202007.70 0.04205
609574.09 4202007.70 0.04238 609589.09
4202007.70 0.04234
609604.09 4202007.70 0.04197 609619.09
4202007.70 0.04135
609634.09 4202007.70 0.04051 609649.09
4202007.70 0.03952
609034.09 4202022.70 0.02739 609049.09
4202022.70 0.02761
609064.09 4202022.70 0.02779 609079.09
4202022.70 0.02786
609094.09 4202022.70 0.02775 609109.09
4202022.70 0.02744
609124.09 4202022.70 0.02701 609139.09
4202022.70 0.02638
609154.09 4202022.70 0.02540 609169.09
4202022.70 0.02412
609184.09 4202022.70 0.02270 609199.09
4202022.70 0.02109
609214.09 4202022.70 0.01926 609229.09

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5
YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_2.5 IN MICROGRAMS/M**3
**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609304.09	4202022.70	0.01004	609319.09	4202022.70	0.00972
609334.09	4202022.70	0.00994	609349.09	4202022.70	0.01079
609379.09	4202022.70	0.01461	609394.09	4202022.70	0.01755
609409.09	4202022.70	0.02107	609424.09	4202022.70	0.02498
609439.09	4202022.70	0.02898	609454.09	4202022.70	0.03297
609469.09	4202022.70	0.03672	609484.09	4202022.70	0.04002
609499.09	4202022.70	0.04276	609514.09	4202022.70	0.04487
609529.09	4202022.70	0.04635	609544.09	4202022.70	0.04723
609559.09	4202022.70	0.04757	609574.09	4202022.70	0.04744
609589.09	4202022.70	0.04692	609604.09	4202022.70	0.04609
609619.09	4202022.70	0.04502	609634.09	4202022.70	0.04377
609649.09	4202022.70	0.04239	609664.09		

4202022.70 0.04093
609019.09 4202037.70 0.02933 609034.09
4202037.70 0.02997
609049.09 4202037.70 0.03048 609064.09
4202037.70 0.03099
609079.09 4202037.70 0.03141 609094.09
4202037.70 0.03159
609109.09 4202037.70 0.03154 609124.09
4202037.70 0.03129
609139.09 4202037.70 0.03080 609154.09
4202037.70 0.02997
609169.09 4202037.70 0.02879 609184.09
4202037.70 0.02730
609199.09 4202037.70 0.02552 609214.09
4202037.70 0.02342
609229.09 4202037.70 0.02115 609244.09
4202037.70 0.01883
609259.09 4202037.70 0.01660 609274.09
4202037.70 0.01460
609289.09 4202037.70 0.01298 609304.09
4202037.70 0.01189
609319.09 4202037.70 0.01145 609334.09
4202037.70 0.01173
609349.09 4202037.70 0.01287 609394.09
4202037.70 0.02177
609409.09 4202037.70 0.02625 609424.09
4202037.70 0.03111
609439.09 4202037.70 0.03601 609454.09
4202037.70 0.04058
609469.09 4202037.70 0.04464 609484.09
4202037.70 0.04804
609499.09 4202037.70 0.05066 609514.09
4202037.70 0.05247
609529.09 4202037.70 0.05350 609544.09
4202037.70 0.05384
609559.09 4202037.70 0.05359 609574.09
4202037.70 0.05286
609589.09 4202037.70 0.05175 609604.09
4202037.70 0.05036
609619.09 4202037.70 0.04876 609634.09
4202037.70 0.04704
609649.09 4202037.70 0.04524 609664.09
4202037.70 0.04339
609679.09 4202037.70 0.04155 609019.09
4202052.70 0.03166
609034.09 4202052.70 0.03261 609049.09
4202052.70 0.03344
609064.09 4202052.70 0.03438 609079.09
4202052.70 0.03527
609094.09 4202052.70 0.03587 609109.09

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5
YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_2.5 IN MICROGRAMS/M**3
**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609214.09	4202052.70	0.02879	609229.09	4202052.70	0.02615
609244.09	4202052.70	0.02334	609259.09	4202052.70	0.02055
609274.09	4202052.70	0.01797	609289.09	4202052.70	0.01582
609304.09	4202052.70	0.01435	609319.09	4202052.70	0.01372
609334.09	4202052.70	0.01409	609349.09	4202052.70	0.01565
609364.09	4202052.70	0.01846	609394.09	4202052.70	0.02752
609409.09	4202052.70	0.03325	609424.09	4202052.70	0.03926
609439.09	4202052.70	0.04508	609454.09	4202052.70	0.05030
609469.09	4202052.70	0.05450	609484.09	4202052.70	0.05776
609499.09	4202052.70	0.06000	609514.09	4202052.70	0.06123
609529.09	4202052.70	0.06154	609544.09		

4202052.70 0.06111
609559.09 4202052.70 0.06007 609574.09
4202052.70 0.05857
609589.09 4202052.70 0.05674 609604.09
4202052.70 0.05468
609619.09 4202052.70 0.05249 609634.09
4202052.70 0.05025
609649.09 4202052.70 0.04799 609664.09
4202052.70 0.04574
609679.09 4202052.70 0.04355 609694.09
4202052.70 0.04142
609004.09 4202067.70 0.03257 609019.09
4202067.70 0.03391
609034.09 4202067.70 0.03525 609049.09
4202067.70 0.03655
609064.09 4202067.70 0.03791 609079.09
4202067.70 0.03924
609094.09 4202067.70 0.04034 609109.09
4202067.70 0.04117
609124.09 4202067.70 0.04178 609139.09
4202067.70 0.04206
609154.09 4202067.70 0.04195 609169.09
4202067.70 0.04135
609184.09 4202067.70 0.04010 609199.09
4202067.70 0.03821
609214.09 4202067.70 0.03579 609229.09
4202067.70 0.03287
609244.09 4202067.70 0.02954 609259.09
4202067.70 0.02605
609274.09 4202067.70 0.02270 609289.09
4202067.70 0.01980
609304.09 4202067.70 0.01774 609319.09
4202067.70 0.01681
609334.09 4202067.70 0.01731 609349.09
4202067.70 0.01949
609364.09 4202067.70 0.02339 609409.09
4202067.70 0.04284
609424.09 4202067.70 0.05019 609439.09
4202067.70 0.05694
609454.09 4202067.70 0.06259 609469.09
4202067.70 0.06685
609484.09 4202067.70 0.06962 609499.09
4202067.70 0.07106
609514.09 4202067.70 0.07130 609529.09
4202067.70 0.07054
609544.09 4202067.70 0.06903 609559.09
4202067.70 0.06696
609574.09 4202067.70 0.06451 609589.09
4202067.70 0.06182
609604.09 4202067.70 0.05901 609619.09

4202067.70   0.05616
         609634.09   4202067.70   0.05333   609649.09
4202067.70   0.05058
         609664.09   4202067.70   0.04792   609679.09
4202067.70   0.04537
         609694.09   4202067.70   0.04296   609709.09
4202067.70   0.04068
         609004.09   4202082.70   0.03435   609019.09
4202082.70   0.03602

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   PAREA2   ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         609034.09   4202082.70   0.03780   609049.09
4202082.70   0.03962
         609064.09   4202082.70   0.04147   609079.09
4202082.70   0.04327
         609094.09   4202082.70   0.04495   609109.09
4202082.70   0.04645
         609124.09   4202082.70   0.04786   609139.09
4202082.70   0.04901
         609154.09   4202082.70   0.04956   609169.09
4202082.70   0.04949
         609184.09   4202082.70   0.04872   609199.09
4202082.70   0.04715
         609214.09   4202082.70   0.04492   609229.09
4202082.70   0.04191
         609244.09   4202082.70   0.03806   609259.09
4202082.70   0.03375
         609274.09   4202082.70   0.02940   609289.09
4202082.70   0.02548
         609304.09   4202082.70   0.02254   609319.09

4202082.70 0.02116
609334.09 4202082.70 0.02187 609349.09
4202082.70 0.02499
609364.09 4202082.70 0.03049 609409.09
4202082.70 0.05617
609424.09 4202082.70 0.06500 609439.09
4202082.70 0.07252
609454.09 4202082.70 0.07820 609469.09
4202082.70 0.08185
609484.09 4202082.70 0.08358 609499.09
4202082.70 0.08366
609514.09 4202082.70 0.08243 609529.09
4202082.70 0.08021
609544.09 4202082.70 0.07732 609559.09
4202082.70 0.07400
609574.09 4202082.70 0.07044 609589.09
4202082.70 0.06680
609604.09 4202082.70 0.06316 609619.09
4202082.70 0.05961
609634.09 4202082.70 0.05620 609649.09
4202082.70 0.05295
609664.09 4202082.70 0.04988 609679.09
4202082.70 0.04700
609694.09 4202082.70 0.04430 609709.09
4202082.70 0.04178
609004.09 4202097.70 0.03596 609019.09
4202097.70 0.03801
609034.09 4202097.70 0.04023 609049.09
4202097.70 0.04256
609064.09 4202097.70 0.04496 609079.09
4202097.70 0.04739
609094.09 4202097.70 0.04981 609109.09
4202097.70 0.05215
609124.09 4202097.70 0.05443 609139.09
4202097.70 0.05652
609154.09 4202097.70 0.05808 609169.09
4202097.70 0.05899
609184.09 4202097.70 0.05925 609199.09
4202097.70 0.05859
609214.09 4202097.70 0.05686 609229.09
4202097.70 0.05392
609244.09 4202097.70 0.04970 609259.09
4202097.70 0.04453
609274.09 4202097.70 0.03895 609289.09
4202097.70 0.03367
609304.09 4202097.70 0.02953 609319.09
4202097.70 0.02755
609334.09 4202097.70 0.02863 609349.09
4202097.70 0.03322
609364.09 4202097.70 0.04111 609409.09

```
4202097.70        0.07496
         609424.09    4202097.70        0.08520                      609439.09
4202097.70        0.09298
         609454.09    4202097.70        0.09787                      609469.09
4202097.70        0.10000
         609484.09    4202097.70        0.09978                      609499.09
4202097.70        0.09776
         609514.09    4202097.70        0.09448                      609529.09
4202097.70        0.09037
         609544.09    4202097.70        0.08579                      609559.09
4202097.70        0.08101
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        12:03:34

                                  PAGE  32
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA2      ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                               ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                         X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         609574.09    4202097.70        0.07622                      609589.09
4202097.70        0.07153
         609604.09    4202097.70        0.06703                      609619.09
4202097.70        0.06277
         609634.09    4202097.70        0.05877                      609649.09
4202097.70        0.05504
         609664.09    4202097.70        0.05158                      609679.09
4202097.70        0.04837
         609694.09    4202097.70        0.04541                      609709.09
4202097.70        0.04268
         609724.09    4202097.70        0.04015                      608989.09
4202112.70        0.03505
         609004.09    4202112.70        0.03729                      609019.09
4202112.70        0.03974
         609034.09    4202112.70        0.04237                      609049.09
4202112.70        0.04519
         609064.09    4202112.70        0.04818                      609079.09
```

4202112.70 0.05131
609094.09 4202112.70 0.05457 609109.09
4202112.70 0.05789
609124.09 4202112.70 0.06121 609139.09
4202112.70 0.06443
609154.09 4202112.70 0.06735 609169.09
4202112.70 0.06977
609184.09 4202112.70 0.07175 609199.09
4202112.70 0.07281
609214.09 4202112.70 0.07228 609229.09
4202112.70 0.07000
609244.09 4202112.70 0.06588 609259.09
4202112.70 0.06004
609274.09 4202112.70 0.05309 609289.09
4202112.70 0.04601
609304.09 4202112.70 0.04023 609319.09
4202112.70 0.03747
609334.09 4202112.70 0.03927 609349.09
4202112.70 0.04621
609364.09 4202112.70 0.05766 609379.09
4202112.70 0.07210
609409.09 4202112.70 0.10178 609424.09
4202112.70 0.11284
609439.09 4202112.70 0.11968 609454.09
4202112.70 0.12233
609469.09 4202112.70 0.12152 609484.09
4202112.70 0.11817
609499.09 4202112.70 0.11315 609514.09
4202112.70 0.10716
609529.09 4202112.70 0.10071 609544.09
4202112.70 0.09417
609559.09 4202112.70 0.08776 609574.09
4202112.70 0.08164
609589.09 4202112.70 0.07587 609604.09
4202112.70 0.07050
609619.09 4202112.70 0.06554 609634.09
4202112.70 0.06097
609649.09 4202112.70 0.05679 609664.09
4202112.70 0.05296
609679.09 4202112.70 0.04946 609694.09
4202112.70 0.04626
609709.09 4202112.70 0.04334 609724.09
4202112.70 0.04066
608989.09 4202127.70 0.03581 609004.09
4202127.70 0.03828
609019.09 4202127.70 0.04097 609034.09
4202127.70 0.04395
609049.09 4202127.70 0.04721 609064.09
4202127.70 0.05075
609079.09 4202127.70 0.05458 609094.09

4202127.70 0.05868
 609109.09 4202127.70 0.06305 609124.09
4202127.70 0.06761
 609139.09 4202127.70 0.07231 609154.09
4202127.70 0.07712
 609169.09 4202127.70 0.08181 609184.09
4202127.70 0.08612
 609199.09 4202127.70 0.08960 609214.09
4202127.70 0.09150
 609229.09 4202127.70 0.09128 609244.09
4202127.70 0.08846
 609259.09 4202127.70 0.08277 609274.09
4202127.70 0.07462

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609289.09	4202127.70	0.06539	609304.09	4202127.70	0.05747
609319.09	4202127.70	0.05397	609334.09	4202127.70	0.05734
609349.09	4202127.70	0.06801	609364.09	4202127.70	0.08455
609379.09	4202127.70	0.10438	609409.09	4202127.70	0.14057
609424.09	4202127.70	0.15065	609439.09	4202127.70	0.15405
609454.09	4202127.70	0.15201	609469.09	4202127.70	0.14625
609484.09	4202127.70	0.13830	609499.09	4202127.70	0.12928
609514.09	4202127.70	0.11996	609529.09		

4202127.70 0.11080
609544.09 4202127.70 0.10208 609559.09
4202127.70 0.09395
609574.09 4202127.70 0.08646 609589.09
4202127.70 0.07962
609604.09 4202127.70 0.07342 609619.09
4202127.70 0.06780
609634.09 4202127.70 0.06272 609649.09
4202127.70 0.05813
609664.09 4202127.70 0.05398 609679.09
4202127.70 0.05023
609694.09 4202127.70 0.04683 609709.09
4202127.70 0.04375
609724.09 4202127.70 0.04095 608974.09
4202142.70 0.03369
608989.09 4202142.70 0.03613 609004.09
4202142.70 0.03877
609019.09 4202142.70 0.04164 609034.09
4202142.70 0.04489
609049.09 4202142.70 0.04853 609064.09
4202142.70 0.05256
609079.09 4202142.70 0.05702 609094.09
4202142.70 0.06193
609109.09 4202142.70 0.06733 609124.09
4202142.70 0.07321
609139.09 4202142.70 0.07955 609154.09
4202142.70 0.08663
609169.09 4202142.70 0.09420 609184.09
4202142.70 0.10160
609199.09 4202142.70 0.10858 609214.09
4202142.70 0.11458
609229.09 4202142.70 0.11867 609244.09
4202142.70 0.11966
609259.09 4202142.70 0.11633 609274.09
4202142.70 0.10824
609289.09 4202142.70 0.09701 609304.09
4202142.70 0.08692
609319.09 4202142.70 0.08386 609334.09
4202142.70 0.09093
609349.09 4202142.70 0.10725 609364.09
4202142.70 0.13037
609379.09 4202142.70 0.15675 609409.09
4202142.70 0.19720
609424.09 4202142.70 0.20184 609439.09
4202142.70 0.19710
609454.09 4202142.70 0.18664 609469.09
4202142.70 0.17340
609484.09 4202142.70 0.15926 609499.09
4202142.70 0.14533
609514.09 4202142.70 0.13217 609529.09

4202142.70   0.12006
         609544.09   4202142.70   0.10909   609559.09
4202142.70   0.09924
         609574.09   4202142.70   0.09045   609589.09
4202142.70   0.08262
         609604.09   4202142.70   0.07565   609619.09
4202142.70   0.06946
         609634.09   4202142.70   0.06393   609649.09
4202142.70   0.05900
         609664.09   4202142.70   0.05459   609679.09
4202142.70   0.05064
         609694.09   4202142.70   0.04709   609709.09
4202142.70   0.04389
         609724.09   4202142.70   0.04100   608974.09
4202157.70   0.03330

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   PAREA2   ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         608989.09   4202157.70   0.03582   609004.09
4202157.70   0.03858
         609019.09   4202157.70   0.04159   609034.09
4202157.70   0.04504
         609049.09   4202157.70   0.04896   609064.09
4202157.70   0.05337
         609079.09   4202157.70   0.05834   609094.09
4202157.70   0.06394
         609109.09   4202157.70   0.07025   609124.09
4202157.70   0.07735
         609139.09   4202157.70   0.08531   609154.09
4202157.70   0.09460
         609169.09   4202157.70   0.10514   609184.09

4202157.70 0.11631
609199.09 4202157.70 0.12806 609214.09
4202157.70 0.14016
609229.09 4202157.70 0.15171 609244.09
4202157.70 0.16104
609259.09 4202157.70 0.16544 609274.09
4202157.70 0.16181
609289.09 4202157.70 0.15055 609304.09
4202157.70 0.14054
609319.09 4202157.70 0.14389 609334.09
4202157.70 0.16032
609349.09 4202157.70 0.18411 609364.09
4202157.70 0.21308
609379.09 4202157.70 0.24548 609409.09
4202157.70 0.27838
609424.09 4202157.70 0.26793 609439.09
4202157.70 0.24808
609454.09 4202157.70 0.22459 609469.09
4202157.70 0.20124
609484.09 4202157.70 0.17958 609499.09
4202157.70 0.16012
609514.09 4202157.70 0.14293 609529.09
4202157.70 0.12787
609544.09 4202157.70 0.11475 609559.09
4202157.70 0.10332
609574.09 4202157.70 0.09337 609589.09
4202157.70 0.08469
609604.09 4202157.70 0.07709 609619.09
4202157.70 0.07043
609634.09 4202157.70 0.06456 609649.09
4202157.70 0.05937
609664.09 4202157.70 0.05477 609679.09
4202157.70 0.05068
609694.09 4202157.70 0.04702 609709.09
4202157.70 0.04375
609724.09 4202157.70 0.04080 608959.09
4202172.70 0.03004
608974.09 4202172.70 0.03231 608989.09
4202172.70 0.03484
609004.09 4202172.70 0.03763 609019.09
4202172.70 0.04070
609034.09 4202172.70 0.04423 609049.09
4202172.70 0.04829
609064.09 4202172.70 0.05291 609079.09
4202172.70 0.05820
609094.09 4202172.70 0.06426 609109.09
4202172.70 0.07123
609124.09 4202172.70 0.07926 609139.09
4202172.70 0.08855
609154.09 4202172.70 0.09975 609169.09

4202172.70   0.11301
         609184.09   4202172.70   0.12793   609199.09
4202172.70   0.14493
         609214.09   4202172.70   0.16439   609229.09
4202172.70   0.18631
         609244.09   4202172.70   0.21001   609259.09
4202172.70   0.23288
         609274.09   4202172.70   0.24737   609289.09
4202172.70   0.24412
         609304.09   4202172.70   0.24587   609319.09
4202172.70   0.27939
         609334.09   4202172.70   0.31894   609349.09
4202172.70   0.35009
         609364.09   4202172.70   0.37526   609379.09
4202172.70   0.40581
         609409.09   4202172.70   0.38993   609424.09
4202172.70   0.34647

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   PAREA2   ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         609439.09   4202172.70   0.30301   609454.09
4202172.70   0.26228
         609469.09   4202172.70   0.22705   609484.09
4202172.70   0.19731
         609499.09   4202172.70   0.17231   609514.09
4202172.70   0.15130
         609529.09   4202172.70   0.13359   609544.09
4202172.70   0.11862
         609559.09   4202172.70   0.10589   609574.09
4202172.70   0.09503
         609589.09   4202172.70   0.08570   609604.09

4202172.70 0.07764
609619.09 4202172.70 0.07066 609634.09
4202172.70 0.06456
609649.09 4202172.70 0.05921 609664.09
4202172.70 0.05450
609679.09 4202172.70 0.05034 609694.09
4202172.70 0.04663
609709.09 4202172.70 0.04332 609724.09
4202172.70 0.04036
608959.09 4202187.70 0.02850 608974.09
4202187.70 0.03070
608989.09 4202187.70 0.03317 609004.09
4202187.70 0.03590
609019.09 4202187.70 0.03897 609034.09
4202187.70 0.04246
609049.09 4202187.70 0.04643 609064.09
4202187.70 0.05103
609079.09 4202187.70 0.05637 609094.09
4202187.70 0.06258
609109.09 4202187.70 0.06982 609124.09
4202187.70 0.07832
609139.09 4202187.70 0.08837 609154.09
4202187.70 0.10079
609169.09 4202187.70 0.11593 609184.09
4202187.70 0.13371
609199.09 4202187.70 0.15501 609214.09
4202187.70 0.18103
609229.09 4202187.70 0.21314 609244.09
4202187.70 0.25324
609259.09 4202187.70 0.30379 609274.09
4202187.70 0.36321
609409.09 4202187.70 0.52437 609424.09
4202187.70 0.42609
609439.09 4202187.70 0.35191 609454.09
4202187.70 0.29350
609469.09 4202187.70 0.24734 609484.09
4202187.70 0.21033
609499.09 4202187.70 0.18056 609514.09
4202187.70 0.15643
609529.09 4202187.70 0.13668 609544.09
4202187.70 0.12035
609559.09 4202187.70 0.10673 609574.09
4202187.70 0.09528
609589.09 4202187.70 0.08556 609604.09
4202187.70 0.07726
609619.09 4202187.70 0.07011 609634.09
4202187.70 0.06389
609649.09 4202187.70 0.05846 609664.09
4202187.70 0.05375
609679.09 4202187.70 0.04960 609694.09

4202187.70   0.04591
         609709.09   4202187.70   0.04262   609724.09
4202187.70   0.03968
         608959.09   4202202.70   0.02644   608974.09
4202202.70   0.02851
         608989.09   4202202.70   0.03082   609004.09
4202202.70   0.03342
         609019.09   4202202.70   0.03636   609034.09
4202202.70   0.03966
         609049.09   4202202.70   0.04336   609064.09
4202202.70   0.04772
         609079.09   4202202.70   0.05284   609094.09
4202202.70   0.05883
         609109.09   4202202.70   0.06589   609124.09
4202202.70   0.07429
         609139.09   4202202.70   0.08435   609154.09
4202202.70   0.09699
         609169.09   4202202.70   0.11274   609184.09
4202202.70   0.13173

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   PAREA2   ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         609199.09   4202202.70   0.15518   609214.09
4202202.70   0.18483
         609229.09   4202202.70   0.22288   609244.09
4202202.70   0.27275
         609259.09   4202202.70   0.33956   609274.09
4202202.70   0.42509
         609409.09   4202202.70   0.63294   609424.09
4202202.70   0.48591
         609439.09   4202202.70   0.38480   609454.09

4202202.70 0.31301
609469.09 4202202.70 0.25910 609484.09
4202202.70 0.21687
609499.09 4202202.70 0.18383 609514.09
4202202.70 0.15774
609529.09 4202202.70 0.13680 609544.09
4202202.70 0.11977
609559.09 4202202.70 0.10575 609574.09
4202202.70 0.09408
609589.09 4202202.70 0.08426 609604.09
4202202.70 0.07593
609619.09 4202202.70 0.06879 609634.09
4202202.70 0.06258
609649.09 4202202.70 0.05716 609664.09
4202202.70 0.05254
609679.09 4202202.70 0.04850 609694.09
4202202.70 0.04488
609709.09 4202202.70 0.04165 609724.09
4202202.70 0.03877
608959.09 4202217.70 0.02399 608974.09
4202217.70 0.02585
608989.09 4202217.70 0.02793 609004.09
4202217.70 0.03027
609019.09 4202217.70 0.03293 609034.09
4202217.70 0.03593
609049.09 4202217.70 0.03933 609064.09
4202217.70 0.04327
609079.09 4202217.70 0.04784 609094.09
4202217.70 0.05326
609109.09 4202217.70 0.05972 609124.09
4202217.70 0.06744
609139.09 4202217.70 0.07678 609154.09
4202217.70 0.08864
609169.09 4202217.70 0.10362 609184.09
4202217.70 0.12201
609199.09 4202217.70 0.14518 609214.09
4202217.70 0.17515
609229.09 4202217.70 0.21449 609244.09
4202217.70 0.26705
609259.09 4202217.70 0.33830 609274.09
4202217.70 0.43001
609484.09 4202217.70 0.21561 609499.09
4202217.70 0.18166
609514.09 4202217.70 0.15505 609529.09
4202217.70 0.13392
609544.09 4202217.70 0.11690 609559.09
4202217.70 0.10300
609574.09 4202217.70 0.09150 609589.09
4202217.70 0.08186
609604.09 4202217.70 0.07368 609619.09

4202217.70   0.06669
         609634.09   4202217.70   0.06066   609649.09
4202217.70   0.05543
         609664.09   4202217.70   0.05094   609679.09
4202217.70   0.04702
         609694.09   4202217.70   0.04352   609709.09
4202217.70   0.04041
         609724.09   4202217.70   0.03766   608959.09
4202232.70   0.02129
         608974.09   4202232.70   0.02289   608989.09
4202232.70   0.02468
         609004.09   4202232.70   0.02670   609019.09
4202232.70   0.02898
         609034.09   4202232.70   0.03158   609049.09
4202232.70   0.03455
         609064.09   4202232.70   0.03792   609079.09
4202232.70   0.04177
         609094.09   4202232.70   0.04637   609109.09
4202232.70   0.05189
         609124.09   4202232.70   0.05852   609139.09
4202232.70   0.06655

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   PAREA2   ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         609154.09   4202232.70   0.07681   609169.09
4202232.70   0.08990
         609184.09   4202232.70   0.10616   609199.09
4202232.70   0.12702
         609214.09   4202232.70   0.15465   609229.09
4202232.70   0.19201
         609244.09   4202232.70   0.24360   609259.09

```
4202232.70        0.31591
         609274.09    4202232.70        0.41200                    609424.09
4202232.70        0.51835
         609439.09    4202232.70        0.39466                    609454.09
4202232.70        0.31019
         609469.09    4202232.70        0.25038                    609484.09
4202232.70        0.20715
         609499.09    4202232.70        0.17446                    609514.09
4202232.70        0.14872
         609529.09    4202232.70        0.12833                    609544.09
4202232.70        0.11199
         609559.09    4202232.70        0.09868                    609574.09
4202232.70        0.08769
         609589.09    4202232.70        0.07851                    609604.09
4202232.70        0.07067
         609619.09    4202232.70        0.06394                    609634.09
4202232.70        0.05823
         609649.09    4202232.70        0.05330                    609664.09
4202232.70        0.04901
         609679.09    4202232.70        0.04524                    609694.09
4202232.70        0.04191
         609709.09    4202232.70        0.03894                    609724.09
4202232.70        0.03637
         608959.09    4202247.70        0.01850                    608974.09
4202247.70        0.01982
         608989.09    4202247.70        0.02130                    609004.09
4202247.70        0.02296
         609019.09    4202247.70        0.02482                    609034.09
4202247.70        0.02694
         609049.09    4202247.70        0.02936                    609064.09
4202247.70        0.03208
         609079.09    4202247.70        0.03515                    609094.09
4202247.70        0.03883
         609109.09    4202247.70        0.04324                    609124.09
4202247.70        0.04851
         609139.09    4202247.70        0.05488                    609154.09
4202247.70        0.06293
         609169.09    4202247.70        0.07315                    609184.09
4202247.70        0.08622
         609199.09    4202247.70        0.10343                    609214.09
4202247.70        0.12652
         609229.09    4202247.70        0.15868                    609244.09
4202247.70        0.20523
         609259.09    4202247.70        0.27434                    609274.09
4202247.70        0.37161
         609424.09    4202247.70        0.49061                    609439.09
4202247.70        0.37081
         609454.09    4202247.70        0.29023                    609469.09
4202247.70        0.23381
         609484.09    4202247.70        0.19334                    609499.09
```

4202247.70   0.16295
         609514.09   4202247.70   0.13917   609529.09
4202247.70   0.12036
         609544.09   4202247.70   0.10537   609559.09
4202247.70   0.09313
         609574.09   4202247.70   0.08295   609589.09
4202247.70   0.07441
         609604.09   4202247.70   0.06709   609619.09
4202247.70   0.06080
         609634.09   4202247.70   0.05546   609649.09
4202247.70   0.05086
         609664.09   4202247.70   0.04683   609679.09
4202247.70   0.04328
         609694.09   4202247.70   0.04014   609709.09
4202247.70   0.03735
         609724.09   4202247.70   0.03492   608959.09
4202262.70   0.01579
         608974.09   4202262.70   0.01685   608989.09
4202262.70   0.01802
         609004.09   4202262.70   0.01931   609019.09
4202262.70   0.02076
         609034.09   4202262.70   0.02240   609049.09
4202262.70   0.02426

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                INCLUDING SOURCE(S):   PAREA2   ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         609064.09   4202262.70   0.02632   609079.09
4202262.70   0.02863
         609094.09   4202262.70   0.03138   609109.09
4202262.70   0.03465
         609124.09   4202262.70   0.03852   609139.09

4202262.70 0.04316
609154.09 4202262.70 0.04885 609169.09
4202262.70 0.05596
609184.09 4202262.70 0.06535 609199.09
4202262.70 0.07794
609214.09 4202262.70 0.09467 609229.09
4202262.70 0.11826
609244.09 4202262.70 0.15376 609259.09
4202262.70 0.21036
609274.09 4202262.70 0.29865 609424.09
4202262.70 0.43614
609439.09 4202262.70 0.33157 609454.09
4202262.70 0.26138
609469.09 4202262.70 0.21199 609484.09
4202262.70 0.17596
609499.09 4202262.70 0.14881 609514.09
4202262.70 0.12770
609529.09 4202262.70 0.11098 609544.09
4202262.70 0.09771
609559.09 4202262.70 0.08682 609574.09
4202262.70 0.07761
609589.09 4202262.70 0.06982 609604.09
4202262.70 0.06313
609619.09 4202262.70 0.05736 609634.09
4202262.70 0.05245
609649.09 4202262.70 0.04820 609664.09
4202262.70 0.04447
609679.09 4202262.70 0.04118 609694.09
4202262.70 0.03826
609709.09 4202262.70 0.03565 609724.09
4202262.70 0.03338
609424.09 4202277.70 0.36337 609439.09
4202277.70 0.28349
609454.09 4202277.70 0.22793 609469.09
4202277.70 0.18763
609484.09 4202277.70 0.15745 609499.09
4202277.70 0.13427
609514.09 4202277.70 0.11607 609529.09
4202277.70 0.10150
609544.09 4202277.70 0.08978 609559.09
4202277.70 0.08011
609574.09 4202277.70 0.07191 609589.09
4202277.70 0.06494
609604.09 4202277.70 0.05894 609619.09
4202277.70 0.05376
609634.09 4202277.70 0.04930 609649.09
4202277.70 0.04543
609664.09 4202277.70 0.04201 609679.09
4202277.70 0.03899
609694.09 4202277.70 0.03630 609709.09

4202277.70   0.03389
         609724.09   4202277.70   0.03176   609409.09
4202322.70   0.20433
         609424.09   4202322.70   0.18291   609439.09
4202322.70   0.16110
         609454.09   4202322.70   0.14116   609469.09
4202322.70   0.12376
         609484.09   4202322.70   0.10888   609499.09
4202322.70   0.09626
         609514.09   4202322.70   0.08556   609529.09
4202322.70   0.07649
         609544.09   4202322.70   0.06878   609559.09
4202322.70   0.06218
         609574.09   4202322.70   0.05652   609589.09
4202322.70   0.05163
         609604.09   4202322.70   0.04738   609619.09
4202322.70   0.04366
         609634.09   4202322.70   0.04039   609649.09
4202322.70   0.03750
         609664.09   4202322.70   0.03493   609679.09
4202322.70   0.03263
         609694.09   4202322.70   0.03057   609409.09
4202337.70   0.15901
         609424.09   4202337.70   0.14780   609439.09
4202337.70   0.13446

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   PAREA2   ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         609454.09   4202337.70   0.12093   609469.09
4202337.70   0.10821
         609484.09   4202337.70   0.09673   609499.09

4202337.70 0.08659
609514.09 4202337.70 0.07772 609529.09
4202337.70 0.07002
609544.09 4202337.70 0.06334 609559.09
4202337.70 0.05754
609574.09 4202337.70 0.05250 609589.09
4202337.70 0.04810
609604.09 4202337.70 0.04426 609619.09
4202337.70 0.04088
609634.09 4202337.70 0.03787 609649.09
4202337.70 0.03519
609664.09 4202337.70 0.03283 609679.09
4202337.70 0.03072
609694.09 4202337.70 0.02883 609709.09
4202337.70 0.02712
609724.09 4202337.70 0.02560 609409.09
4202352.70 0.12619
609424.09 4202352.70 0.12066 609439.09
4202352.70 0.11279
609454.09 4202352.70 0.10388 609469.09
4202352.70 0.09483
609484.09 4202352.70 0.08615 609499.09
4202352.70 0.07812
609514.09 4202352.70 0.07085 609529.09
4202352.70 0.06435
609544.09 4202352.70 0.05859 609559.09
4202352.70 0.05349
609574.09 4202352.70 0.04900 609589.09
4202352.70 0.04503
609604.09 4202352.70 0.04153 609619.09
4202352.70 0.03844
609634.09 4202352.70 0.03564 609649.09
4202352.70 0.03312
609664.09 4202352.70 0.03093 609679.09
4202352.70 0.02899
609694.09 4202352.70 0.02724 609709.09
4202352.70 0.02566
609724.09 4202352.70 0.02430 609409.09
4202367.70 0.10189
609424.09 4202367.70 0.09952 609439.09
4202367.70 0.09509
609454.09 4202367.70 0.08941 609469.09
4202367.70 0.08314
609484.09 4202367.70 0.07675 609499.09
4202367.70 0.07054
609514.09 4202367.70 0.06469 609529.09
4202367.70 0.05928
609544.09 4202367.70 0.05436 609559.09
4202367.70 0.04991
609574.09 4202367.70 0.04588 609589.09

4202367.70   0.04226
         609604.09   4202367.70   0.03907   609619.09
4202367.70   0.03624
         609634.09   4202367.70   0.03367   609649.09
4202367.70   0.03136
         609664.09   4202367.70   0.02932   609679.09
4202367.70   0.02751
         609694.09   4202367.70   0.02587   609709.09
4202367.70   0.02439
         609724.09   4202367.70   0.02313   609394.09
4202382.70   0.08212
         609409.09   4202382.70   0.08358   609424.09
4202382.70   0.08293
         609439.09   4202382.70   0.08062   609454.09
4202382.70   0.07713
         609469.09   4202382.70   0.07292   609484.09
4202382.70   0.06833
         609499.09   4202382.70   0.06364   609514.09
4202382.70   0.05903
         609529.09   4202382.70   0.05462   609544.09
4202382.70   0.05049
         609559.09   4202382.70   0.04666   609574.09
4202382.70   0.04306
         609589.09   4202382.70   0.03975   609604.09
4202382.70   0.03685
         609619.09   4202382.70   0.03427   609634.09
4202382.70   0.03194

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   PAREA2   ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         609649.09   4202382.70   0.02983   609664.09

4202382.70 0.02794
609679.09 4202382.70 0.02623 609694.09
4202382.70 0.02469
609709.09 4202382.70 0.02328 609724.09
4202382.70 0.02210
609394.09 4202397.70 0.06774 609409.09
4202397.70 0.06956
609424.09 4202397.70 0.06984 609439.09
4202397.70 0.06881
609454.09 4202397.70 0.06676 609469.09
4202397.70 0.06400
609484.09 4202397.70 0.06078 609499.09
4202397.70 0.05732
609514.09 4202397.70 0.05377 609529.09
4202397.70 0.05026
609544.09 4202397.70 0.04680 609559.09
4202397.70 0.04350
609574.09 4202397.70 0.04040 609589.09
4202397.70 0.03752
609604.09 4202397.70 0.03493 609619.09
4202397.70 0.03259
609634.09 4202397.70 0.03045 609649.09
4202397.70 0.02850
609664.09 4202397.70 0.02673 609679.09
4202397.70 0.02512
609694.09 4202397.70 0.02365 609709.09
4202397.70 0.02232
609724.09 4202397.70 0.02116 609394.09
4202412.70 0.05677
609409.09 4202412.70 0.05867 609424.09
4202412.70 0.05942
609439.09 4202412.70 0.05915 609454.09
4202412.70 0.05804
609469.09 4202412.70 0.05629 609484.09
4202412.70 0.05408
609499.09 4202412.70 0.05157 609514.09
4202412.70 0.04889
609529.09 4202412.70 0.04614 609544.09
4202412.70 0.04328
609559.09 4202412.70 0.04045 609574.09
4202412.70 0.03785
609589.09 4202412.70 0.03543 609604.09
4202412.70 0.03316
609619.09 4202412.70 0.03106 609634.09
4202412.70 0.02911
609649.09 4202412.70 0.02731 609664.09
4202412.70 0.02565
609679.09 4202412.70 0.02414 609694.09
4202412.70 0.02275
609709.09 4202412.70 0.02148 609724.09

4202412.70   0.02033
         609394.09   4202427.70   0.04824   609409.09
4202427.70   0.05008
         609424.09   4202427.70   0.05105   609439.09
4202427.70   0.05123
         609454.09   4202427.70   0.05072   609469.09
4202427.70   0.04966
         609484.09   4202427.70   0.04817   609499.09
4202427.70   0.04639
         609514.09   4202427.70   0.04439   609529.09
4202427.70   0.04228
         609544.09   4202427.70   0.04003   609559.09
4202427.70   0.03776
         609574.09   4202427.70   0.03556   609589.09
4202427.70   0.03344
         609604.09   4202427.70   0.03146   609619.09
4202427.70   0.02960
         609634.09   4202427.70   0.02784   609649.09
4202427.70   0.02619
         609664.09   4202427.70   0.02466   609679.09
4202427.70   0.02325
         609694.09   4202427.70   0.02194   609709.09
4202427.70   0.02073
         609724.09   4202427.70   0.01962   609439.09
4202472.70   0.03475
         609454.09   4202472.70   0.03501   609469.09
4202472.70   0.03494
         609484.09   4202472.70   0.03459   609499.09
4202472.70   0.03402

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   PAREA2   ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

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

```
- - - - - - - - - - - - - - - - - - - - - - - -
         609514.09    4202472.70         0.03325                           609529.09
4202472.70         0.03235
         609544.09    4202472.70         0.03133                           609559.09
4202472.70         0.03024
         609574.09    4202472.70         0.02908                           609589.09
4202472.70         0.02789
         609604.09    4202472.70         0.02663                           609619.09
4202472.70         0.02536
         609634.09    4202472.70         0.02417                           609649.09
4202472.70         0.02302
         609664.09    4202472.70         0.02190                           609679.09
4202472.70         0.02083
         609694.09    4202472.70         0.01980                           609319.09
4202487.70         0.01860
         609334.09    4202487.70         0.02070                           609349.09
4202487.70         0.02280
         609364.09    4202487.70         0.02481                           609394.09
4202487.70         0.02820
         609409.09    4202487.70         0.02944                           609424.09
4202487.70         0.03040
         609439.09    4202487.70         0.03106                           609454.09
4202487.70         0.03137
         609469.09    4202487.70         0.03138                           609484.09
4202487.70         0.03119
         609499.09    4202487.70         0.03082                           609514.09
4202487.70         0.03028
         609529.09    4202487.70         0.02961                           609544.09
4202487.70         0.02884
         609559.09    4202487.70         0.02798                           609574.09
4202487.70         0.02706
         609589.09    4202487.70         0.02610                           609604.09
4202487.70         0.02507
         609619.09    4202487.70         0.02403                           609634.09
4202487.70         0.02301
         609649.09    4202487.70         0.02202                           609664.09
4202487.70         0.02102
         609679.09    4202487.70         0.02004                           609184.09
4202502.70         0.00649
         609199.09    4202502.70         0.00707                           609214.09
4202502.70         0.00775
         609229.09    4202502.70         0.00855                           609244.09
4202502.70         0.00950
         609259.09    4202502.70         0.01063                           609274.09
4202502.70         0.01195
         609289.09    4202502.70         0.01343                           609304.09
4202502.70         0.01507
         609319.09    4202502.70         0.01680                           609334.09
4202502.70         0.01860
         609349.09    4202502.70         0.02039                           609364.09
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4202502.70        0.02213
         609394.09    4202502.70        0.02515                      609409.09
4202502.70        0.02632
         609424.09    4202502.70        0.02724                      609439.09
4202502.70        0.02790
         609454.09    4202502.70        0.02824                      609469.09
4202502.70        0.02831
         609484.09    4202502.70        0.02823                      609499.09
4202502.70        0.02801
         609514.09    4202502.70        0.02764                      609529.09
4202502.70        0.02715
         609544.09    4202502.70        0.02656                      609559.09
4202502.70        0.02589
         609574.09    4202502.70        0.02516                      609589.09
4202502.70        0.02438
         609604.09    4202502.70        0.02356                      609619.09
4202502.70        0.02272
         609634.09    4202502.70        0.02187                      609649.09
4202502.70        0.02101
         609664.09    4202502.70        0.02013                      609064.09
4202517.70        0.00350
         609079.09    4202517.70        0.00372                      609094.09
4202517.70        0.00397
         609109.09    4202517.70        0.00424                      609124.09
4202517.70        0.00456
         609139.09    4202517.70        0.00490                      609154.09
4202517.70        0.00528
         609169.09    4202517.70        0.00570                      609184.09
4202517.70        0.00616
         609199.09    4202517.70        0.00669                      609214.09
4202517.70        0.00730
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        12:03:34

                                  PAGE  42
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA2      ,

                                       *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                     ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

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

```
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         609229.09    4202517.70        0.00803                      609244.09
4202517.70        0.00889
         609259.09    4202517.70        0.00990                      609274.09
4202517.70        0.01106
         609289.09    4202517.70        0.01235                      609304.09
4202517.70        0.01377
         609319.09    4202517.70        0.01526                      609334.09
4202517.70        0.01682
         609349.09    4202517.70        0.01837                      609364.09
4202517.70        0.01988
         609409.09    4202517.70        0.02362                      609424.09
4202517.70        0.02448
         609439.09    4202517.70        0.02512                      609454.09
4202517.70        0.02550
         609469.09    4202517.70        0.02563                      609484.09
4202517.70        0.02564
         609499.09    4202517.70        0.02553                      609514.09
4202517.70        0.02529
         609529.09    4202517.70        0.02494                      609544.09
4202517.70        0.02449
         609559.09    4202517.70        0.02397                      609574.09
4202517.70        0.02339
         609589.09    4202517.70        0.02276                      609604.09
4202517.70        0.02210
         609619.09    4202517.70        0.02140                      609634.09
4202517.70        0.02069
         609649.09    4202517.70        0.01996                      609079.09
4202532.70        0.00359
         609094.09    4202532.70        0.00382                      609109.09
4202532.70        0.00409
         609124.09    4202532.70        0.00439                      609139.09
4202532.70        0.00471
         609154.09    4202532.70        0.00505                      609169.09
4202532.70        0.00544
         609184.09    4202532.70        0.00586                      609199.09
4202532.70        0.00633
         609214.09    4202532.70        0.00689                      609229.09
4202532.70        0.00755
         609244.09    4202532.70        0.00833                      609259.09
4202532.70        0.00923
         609274.09    4202532.70        0.01026                      609289.09
4202532.70        0.01140
         609304.09    4202532.70        0.01264                      609319.09
4202532.70        0.01393
         609334.09    4202532.70        0.01529                      609349.09
4202532.70        0.01666
         609364.09    4202532.70        0.01797                      609409.09
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4202532.70        0.02131
         609424.09    4202532.70        0.02211                      609439.09
4202532.70        0.02273
         609454.09    4202532.70        0.02312                      609469.09
4202532.70        0.02330
         609484.09    4202532.70        0.02338                      609499.09
4202532.70        0.02335
         609514.09    4202532.70        0.02320                      609529.09
4202532.70        0.02295
         609544.09    4202532.70        0.02262                      609559.09
4202532.70        0.02222
         609574.09    4202532.70        0.02176                      609589.09
4202532.70        0.02125
         609604.09    4202532.70        0.02071                      609619.09
4202532.70        0.02014
         609094.09    4202547.70        0.00370                      609109.09
4202547.70        0.00395
         609124.09    4202547.70        0.00422                      609139.09
4202547.70        0.00452
         609154.09    4202547.70        0.00484                      609169.09
4202547.70        0.00519
         609184.09    4202547.70        0.00557                      609199.09
4202547.70        0.00601
         609214.09    4202547.70        0.00652                      609229.09
4202547.70        0.00713
         609244.09    4202547.70        0.00784                      609259.09
4202547.70        0.00866
         609274.09    4202547.70        0.00957                      609289.09
4202547.70        0.01058
         609304.09    4202547.70        0.01167                      609319.09
4202547.70        0.01280
         609334.09    4202547.70        0.01398                      609349.09
4202547.70        0.01517
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        12:03:34

                                  PAGE  43
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA2      ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **
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X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609364.09	4202547.70	0.01632	609409.09	4202547.70	0.01932
609424.09	4202547.70	0.02006	609439.09	4202547.70	0.02065
609454.09	4202547.70	0.02105	609469.09	4202547.70	0.02127
609484.09	4202547.70	0.02139	609499.09	4202547.70	0.02142
609514.09	4202547.70	0.02134	609529.09	4202547.70	0.02117
609544.09	4202547.70	0.02093	609559.09	4202547.70	0.02062
609574.09	4202547.70	0.02026	609589.09	4202547.70	0.01985
609109.09	4202562.70	0.00381	609124.09	4202562.70	0.00407
609139.09	4202562.70	0.00434	609154.09	4202562.70	0.00463
609169.09	4202562.70	0.00495	609184.09	4202562.70	0.00531
609199.09	4202562.70	0.00571	609214.09	4202562.70	0.00619
609229.09	4202562.70	0.00675	609244.09	4202562.70	0.00740
609259.09	4202562.70	0.00814	609274.09	4202562.70	0.00896
609289.09	4202562.70	0.00986	609304.09	4202562.70	0.01081
609319.09	4202562.70	0.01181	609334.09	4202562.70	0.01284
609349.09	4202562.70	0.01387	609364.09	4202562.70	0.01489
609409.09	4202562.70	0.01758	609424.09	4202562.70	0.01828
609439.09	4202562.70	0.01884	609454.09	4202562.70	0.01924
609469.09	4202562.70	0.01948	609484.09	4202562.70	0.01963
609499.09	4202562.70	0.01970	609514.09	4202562.70	0.01968
609529.09	4202562.70	0.01957	609544.09	4202562.70	0.01940
609559.09	4202562.70	0.01917	609574.09	4202562.70	0.01888
609124.09	4202577.70	0.00392	609139.09		

4202577.70   0.00417
         609154.09   4202577.70   0.00443   609169.09
4202577.70   0.00473
         609184.09   4202577.70   0.00506   609199.09
4202577.70   0.00543
         609214.09   4202577.70   0.00588   609229.09
4202577.70   0.00640
         609244.09   4202577.70   0.00699   609259.09
4202577.70   0.00766
         609274.09   4202577.70   0.00841   609289.09
4202577.70   0.00921
         609304.09   4202577.70   0.01006   609319.09
4202577.70   0.01094
         609334.09   4202577.70   0.01184   609349.09
4202577.70   0.01275
         609364.09   4202577.70   0.01366   609409.09
4202577.70   0.01608
         609424.09   4202577.70   0.01673   609439.09
4202577.70   0.01726
         609454.09   4202577.70   0.01765   609469.09
4202577.70   0.01790
         609484.09   4202577.70   0.01808   609499.09
4202577.70   0.01818
         609514.09   4202577.70   0.01819   609529.09
4202577.70   0.01814
         609544.09   4202577.70   0.01802   609139.09
4202592.70   0.00400
         609154.09   4202592.70   0.00424   609169.09
4202592.70   0.00451
         609184.09   4202592.70   0.00482   609199.09
4202592.70   0.00518
         609214.09   4202592.70   0.00560   609229.09
4202592.70   0.00608
         609244.09   4202592.70   0.00662   609259.09
4202592.70   0.00723

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   PAREA2   ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609274.09	4202592.70	0.00790	609289.09	4202592.70	0.00862
609304.09	4202592.70	0.00938	609319.09	4202592.70	0.01017
609334.09	4202592.70	0.01097	609349.09	4202592.70	0.01177
609364.09	4202592.70	0.01257	609409.09	4202592.70	0.01477
609424.09	4202592.70	0.01537	609439.09	4202592.70	0.01587
609454.09	4202592.70	0.01625	609469.09	4202592.70	0.01650
609484.09	4202592.70	0.01670	609499.09	4202592.70	0.01682
609514.09	4202592.70	0.01686	609529.09	4202592.70	0.01684
609169.09	4202607.70	0.00432	609184.09	4202607.70	0.00461
609199.09	4202607.70	0.00495	609214.09	4202607.70	0.00533
609229.09	4202607.70	0.00578	609244.09	4202607.70	0.00628
609259.09	4202607.70	0.00684	609274.09	4202607.70	0.00745
609289.09	4202607.70	0.00809	609304.09	4202607.70	0.00877
609319.09	4202607.70	0.00947	609334.09	4202607.70	0.01019
609349.09	4202607.70	0.01091	609364.09	4202607.70	0.01162
609409.09	4202607.70	0.01362	609424.09	4202607.70	0.01417
609439.09	4202607.70	0.01464	609454.09	4202607.70	0.01500
609469.09	4202607.70	0.01526	609484.09	4202607.70	0.01546
609499.09	4202607.70	0.01560	609199.09	4202622.70	0.00473
609214.09	4202622.70	0.00509	609229.09	4202622.70	0.00551
609244.09	4202622.70	0.00597	609259.09	4202622.70	0.00648
609274.09	4202622.70	0.00703	609289.09		

4201872.70 0.89085 (12012619)
609454.09 4201872.70 0.86818 (09122003) 609199.09
4201887.70 0.90057 (09123119)
609214.09 4201887.70 0.92001 (10010301) 609229.09
4201887.70 0.93898 (09012222)
609244.09 4201887.70 0.97365 (09012222) 609259.09
4201887.70 0.97813 (10010720)
609274.09 4201887.70 0.96627 (10010720) 609304.09
4201887.70 0.97284 (12020204)
609319.09 4201887.70 0.95130 (12020204) 609334.09
4201887.70 0.95594 (12010420)
609349.09 4201887.70 0.98140 (09012323) 609364.09
4201887.70 0.97066 (09012323)
609379.09 4201887.70 0.93730 (12123104) 609394.09
4201887.70 0.95568 (09012120)
609409.09 4201887.70 0.95961 (09012120) 609424.09
4201887.70 0.92695 (10021118)
609439.09 4201887.70 0.93482 (12012619) 609454.09
4201887.70 0.91692 (09122003)
609469.09 4201887.70 0.90469 (12120619) 609484.09
4201887.70 0.89477 (12120619)
609499.09 4201887.70 0.88277 (10121002) 609169.09
4201902.70 0.91275 (12020820)
609184.09 4201902.70 0.93121 (09123119) 609199.09
4201902.70 0.95623 (09123119)
609214.09 4201902.70 0.96949 (10010301) 609229.09
4201902.70 0.96836 (09012222)
609244.09 4201902.70 1.02365 (09012222) 609259.09
4201902.70 1.02529 (10010720)
609274.09 4201902.70 1.02730 (10010720) 609319.09
4201902.70 1.00750 (12020204)
609334.09 4201902.70 1.00920 (12010420) 609349.09
4201902.70 1.03668 (09012323)
609364.09 4201902.70 1.02118 (09012323) 609379.09
4201902.70 0.98876 (12123104)
609394.09 4201902.70 1.01432 (09012120) 609409.09
4201902.70 1.00473 (09012120)
609424.09 4201902.70 0.98508 (12012619) 609439.09
4201902.70 0.97720 (12012619)
609454.09 4201902.70 0.96325 (09122003) 609469.09
4201902.70 0.95767 (12120619)
609484.09 4201902.70 0.93360 (10121002) 609499.09
4201902.70 0.91992 (10121002)
609514.09 4201902.70 0.87609 (10012503) 609529.09
4201902.70 0.87367 (09022304)
609139.09 4201917.70 0.92033 (10011607) 609154.09
4201917.70 0.94796 (11010301)
609169.09 4201917.70 0.95366 (12020820) 609184.09
4201917.70 0.97002 (09121706)
609199.09 4201917.70 1.00539 (09123119) 609214.09

 4201917.70   1.01323 (10010301)
       609229.09   4201917.70   1.02133 (10010301)   609244.09
 4201917.70   1.07196 (09012222)
       609259.09   4201917.70   1.07906 (09012222)   609274.09
 4201917.70   1.09126 (10010720)
       609289.09   4201917.70   1.03168 (10010720)   609319.09
 4201917.70   1.06880 (12020204)
       609334.09   4201917.70   1.06739 (12010420)   609349.09
 4201917.70   1.09697 (09012323)
       609364.09   4201917.70   1.07588 (09012323)   609379.09
 4201917.70   1.04390 (12123104)
       609394.09   4201917.70   1.07683 (09012120)   609409.09
 4201917.70   1.05174 (09012120)

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                               *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   PAREA2   ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

      X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
 -
- -
       609424.09   4201917.70   1.04672 (12012619)   609439.09
 4201917.70   1.02068 (09122003)
       609454.09   4201917.70   1.00665 (09122003)   609469.09
 4201917.70   1.00560 (12120619)
       609484.09   4201917.70   0.98768 (10121002)   609499.09
 4201917.70   0.95325 (10012503)
       609514.09   4201917.70   0.91911 (09022304)   609529.09
 4201917.70   0.91952 (09022304)
       609544.09   4201917.70   0.89082 (11011324)   609109.09
 4201932.70   0.90350 (10122508)
       609124.09   4201932.70   0.90838 (09013019)   609139.09
 4201932.70   0.95247 (10011607)
       609154.09   4201932.70   0.98384 (11010301)   609169.09
 4201932.70   1.00401 (11010301)
       609184.09   4201932.70   1.02052 (12020820)   609199.09

4201932.70 1.04646 (09123119)
609214.09 4201932.70 1.06656 (09123119) 609229.09
4201932.70 1.08442 (10010301)
609244.09 4201932.70 1.11578 (09012222) 609259.09
4201932.70 1.14808 (09012222)
609274.09 4201932.70 1.15813 (10010720) 609289.09
4201932.70 1.10999 (10010720)
609334.09 4201932.70 1.13123 (12010420) 609349.09
4201932.70 1.16290 (09012323)
609364.09 4201932.70 1.13511 (09012323) 609379.09
4201932.70 1.10306 (12123104)
609394.09 4201932.70 1.14282 (09012120) 609409.09
4201932.70 1.10764 (10021118)
609424.09 4201932.70 1.10924 (12012619) 609439.09
4201932.70 1.08551 (09122003)
609454.09 4201932.70 1.07361 (12120619) 609469.09
4201932.70 1.04674 (12120619)
609484.09 4201932.70 1.03374 (10121002) 609499.09
4201932.70 0.98098 (10012503)
609514.09 4201932.70 0.98124 (09022304) 609529.09
4201932.70 0.95880 (11011324)
609544.09 4201932.70 0.91944 (09120624) 609559.09
4201932.70 0.88887 (10011219)
609079.09 4201947.70 0.88507 (10010802) 609094.09
4201947.70 0.92207 (10121905)
609109.09 4201947.70 0.93195 (12021405) 609124.09
4201947.70 0.96074 (10122508)
609139.09 4201947.70 0.97682 (09121818) 609154.09
4201947.70 1.02722 (10011607)
609169.09 4201947.70 1.06238 (11010301) 609184.09
4201947.70 1.07077 (12020820)
609199.09 4201947.70 1.09041 (09121706) 609214.09
4201947.70 1.13187 (09123119)
609229.09 4201947.70 1.14628 (10010301) 609244.09
4201947.70 1.15735 (09012222)
609259.09 4201947.70 1.21600 (09012222) 609274.09
4201947.70 1.22618 (10010720)
609289.09 4201947.70 1.19388 (10010720) 609304.09
4201947.70 1.20816 (12020204)
609334.09 4201947.70 1.20139 (12010420) 609349.09
4201947.70 1.23509 (09012323)
609364.09 4201947.70 1.19925 (09012323) 609379.09
4201947.70 1.18272 (09012120)
609394.09 4201947.70 1.21158 (09012120) 609409.09
4201947.70 1.16927 (10021118)
609424.09 4201947.70 1.17078 (12012619) 609439.09
4201947.70 1.14690 (09122003)
609454.09 4201947.70 1.13788 (12120619) 609469.09
4201947.70 1.11368 (10121002)
609484.09 4201947.70 1.07444 (10012503) 609499.09

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609199.09	4201962.70	1.15526	(12020820)	609214.09	4201962.70	1.19043	(09123119)
609229.09	4201962.70	1.20376	(10010301)	609244.09	4201962.70	1.22158	(10010301)
609259.09	4201962.70	1.28303	(09012222)	609274.09	4201962.70	1.29577	(10010720)
609289.09	4201962.70	1.28405	(10010720)	609304.09	4201962.70	1.27972	(12020204)
609349.09	4201962.70	1.31446	(09012323)	609364.09	4201962.70	1.26923	(09012323)
609379.09	4201962.70	1.27123	(09012120)	609394.09	4201962.70	1.28371	(09012120)
609409.09	4201962.70	1.25521	(12012619)	609424.09			

4201962.70 1.23032 (12012619)
609439.09 4201962.70 1.21180 (12120619) 609454.09
4201962.70 1.19518 (12120619)
609469.09 4201962.70 1.17315 (10121002) 609484.09
4201962.70 1.10940 (10012503)
609499.09 4201962.70 1.11101 (09022304) 609514.09
4201962.70 1.07654 (11011324)
609529.09 4201962.70 1.02794 (09120624) 609544.09
4201962.70 1.01226 (10011219)
609559.09 4201962.70 0.98127 (10011219) 609574.09
4201962.70 0.93677 (11123024)
609589.09 4201962.70 0.91290 (11123024) 609604.09
4201962.70 0.87235 (09010206)
609049.09 4201977.70 0.89076 (09020508) 609064.09
4201977.70 0.91340 (10120519)
609079.09 4201977.70 0.95390 (10120519) 609094.09
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609109.09 4201977.70 1.01248 (10121905) 609124.09
4201977.70 1.05152 (10121905)
609139.09 4201977.70 1.08459 (10122508) 609154.09
4201977.70 1.09881 (09013019)
609169.09 4201977.70 1.15996 (10011607) 609184.09
4201977.70 1.20334 (11010301)
609199.09 4201977.70 1.21751 (12020820) 609214.09
4201977.70 1.24206 (09121706)
609229.09 4201977.70 1.28946 (09123119) 609244.09
4201977.70 1.30822 (10010301)
609259.09 4201977.70 1.35122 (09012222) 609274.09
4201977.70 1.36962 (09012222)
609289.09 4201977.70 1.37873 (10010720) 609304.09
4201977.70 1.35608 (12020204)
609319.09 4201977.70 1.37914 (12020204) 609349.09
4201977.70 1.40219 (09012323)
609364.09 4201977.70 1.34581 (09012323) 609379.09
4201977.70 1.36750 (09012120)
609394.09 4201977.70 1.35931 (09012120) 609409.09
4201977.70 1.34369 (12012619)
609424.09 4201977.70 1.31385 (09122003) 609439.09
4201977.70 1.29990 (12120619)
609454.09 4201977.70 1.27039 (10121002) 609469.09
4201977.70 1.22570 (10012503)
609484.09 4201977.70 1.19174 (09022304) 609499.09
4201977.70 1.16921 (11011324)
609514.09 4201977.70 1.11692 (09120624) 609529.09
4201977.70 1.08600 (10011219)
609544.09 4201977.70 1.06224 (10011219) 609559.09
4201977.70 1.00557 (11123024)
609574.09 4201977.70 0.98261 (11123024) 609589.09
4201977.70 0.93706 (09010206)
609604.09 4201977.70 0.87743 (13022722) 609619.09

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609289.09	4201992.70	1.47803	(10010720)	609304.09	4201992.70	1.43824	(12020204)
609319.09	4201992.70	1.47783	(12020204)	609364.09	4201992.70	1.43638	(12123104)
609379.09	4201992.70	1.47160	(09012120)	609394.09	4201992.70	1.43878	(10021118)
609409.09	4201992.70	1.43356	(12012619)	609424.09	4201992.70	1.39856	(09122003)
609439.09	4201992.70	1.38210	(12120619)	609454.09	4201992.70	1.35020	(10121002)
609469.09	4201992.70	1.27189	(10012503)	609484.09			

4201992.70 1.27266 (09022304)
609499.09 4201992.70 1.21867 (11011324) 609514.09
4201992.70 1.16620 (10011219)
609529.09 4201992.70 1.15267 (10011219) 609544.09
4201992.70 1.08362 (10011219)
609559.09 4201992.70 1.06145 (11123024) 609574.09
4201992.70 1.01099 (09010206)
609589.09 4201992.70 0.94407 (13022722) 609604.09
4201992.70 0.93482 (13012505)
609619.09 4201992.70 0.91287 (13012505) 609634.09
4201992.70 0.86730 (13012505)
609034.09 4202007.70 0.90254 (10011203) 609049.09
4202007.70 0.94051 (10011708)
609064.09 4202007.70 0.97700 (10020603) 609079.09
4202007.70 1.01631 (09020508)
609094.09 4202007.70 1.04833 (09123118) 609109.09
4202007.70 1.09909 (10121405)
609124.09 4202007.70 1.14369 (10020602) 609139.09
4202007.70 1.19602 (10121905)
609154.09 4202007.70 1.22578 (10121905) 609169.09
4202007.70 1.26882 (10122508)
609184.09 4202007.70 1.31584 (10011607) 609199.09
4202007.70 1.37940 (11010301)
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4202007.70 1.43864 (09123119)
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609274.09 4202007.70 1.57478 (09012222) 609289.09
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609304.09 4202007.70 1.53040 (12020204) 609319.09
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609394.09 4202007.70 1.53713 (10021118) 609409.09
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609424.09 4202007.70 1.49980 (12120619) 609439.09
4202007.70 1.46820 (10121002)
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4202007.70 1.09467 (09010206)
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4202007.70 1.00994 (13012505)
609604.09 4202007.70 0.98038 (13012505) 609619.09
4202007.70 0.92471 (13012505)
609634.09 4202007.70 0.88431 (09122007) 609649.09

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        609034.09   4202022.70   0.93607 (10011203)   609049.09
 4202022.70   0.96672 (10011203)
        609064.09   4202022.70   1.00508 (10011708)   609079.09
 4202022.70   1.05106 (10020603)
        609094.09   4202022.70   1.09454 (09020508)   609109.09
 4202022.70   1.13334 (09123118)
        609124.09   4202022.70   1.19445 (10121405)   609139.09
 4202022.70   1.24653 (10020602)
        609154.09   4202022.70   1.30457 (10121905)   609169.09
 4202022.70   1.33923 (10122508)
        609184.09   4202022.70   1.37733 (10122508)   609199.09
 4202022.70   1.45697 (10011607)
        609214.09   4202022.70   1.51289 (11010301)   609229.09
 4202022.70   1.53960 (12020820)
        609244.09   4202022.70   1.59654 (09123119)   609259.09
 4202022.70   1.62261 (10010301)
        609274.09   4202022.70   1.68222 (09012222)   609289.09
 4202022.70   1.70389 (10010720)

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                               *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                   INCLUDING SOURCE(S):   PAREA2   ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
 -
- -
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        609334.09   4202022.70   1.69248 (12010420)   609349.09
 4202022.70   1.73032 (09012323)
        609379.09   4202022.70   1.70510 (09012120)   609394.09
 4202022.70   1.66775 (12012619)
        609409.09   4202022.70   1.63482 (09122003)   609424.09
 4202022.70   1.61613 (12120619)
        609439.09   4202022.70   1.57445 (10121002)   609454.09

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4202022.70        1.48685  (09022304)
       609469.09   4202022.70        1.47250  (09022304)                609484.09
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       609499.09   4202022.70        1.36479  (10011219)                609514.09
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       609529.09   4202022.70        1.25301  (11123024)                609544.09
4202022.70        1.19061  (09010206)
       609559.09   4202022.70        1.10603  (13022722)                609574.09
4202022.70        1.09523  (13012505)
       609589.09   4202022.70        1.05616  (13012505)                609604.09
4202022.70        0.98800  (13012505)
       609619.09   4202022.70        0.95750  (09122007)                609634.09
4202022.70        0.92786  (09122007)
       609649.09   4202022.70        0.89294  (10120324)                609664.09
4202022.70        0.84372  (10120324)
       609019.09   4202037.70        0.99561  (10011620)                609034.09
4202037.70        0.98023  (10011620)
       609049.09   4202037.70        0.99350  (10011203)                609064.09
4202037.70        1.04235  (10011203)
       609079.09   4202037.70        1.08163  (10011708)                609094.09
4202037.70        1.13828  (10020603)
       609109.09   4202037.70        1.18834  (09020508)                609124.09
4202037.70        1.23866  (09123118)
       609139.09   4202037.70        1.30793  (10121405)                609154.09
4202037.70        1.36298  (10020602)
       609169.09   4202037.70        1.43167  (10121905)                609184.09
4202037.70        1.48085  (10122508)
       609199.09   4202037.70        1.52350  (09121818)                609214.09
4202037.70        1.60294  (11010301)
       609229.09   4202037.70        1.64230  (12020820)                609244.09
4202037.70        1.69739  (09123119)
       609259.09   4202037.70        1.73990  (10010301)                609274.09
4202037.70        1.79041  (09012222)
       609289.09   4202037.70        1.82818  (10010720)                609304.09
4202037.70        1.81364  (10010720)
       609319.09   4202037.70        1.85035  (12020204)                609334.09
4202037.70        1.83122  (12010420)
       609349.09   4202037.70        1.86784  (09012323)                609394.09
4202037.70        1.80613  (12012619)
       609409.09   4202037.70        1.75819  (09122003)                609424.09
4202037.70        1.72321  (12120619)
       609439.09   4202037.70        1.66577  (10012503)                609454.09
4202037.70        1.62252  (09022304)
       609469.09   4202037.70        1.55377  (11011324)                609484.09
4202037.70        1.49007  (10011219)
       609499.09   4202037.70        1.43999  (10011219)                609514.09
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4202037.70        1.20565  (13022722)
       609559.09   4202037.70        1.19282  (13012505)                609574.09
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       609589.09   4202037.70   1.05791 (13012505)   609604.09
 4202037.70   1.03814 (09122007)
       609619.09   4202037.70   0.99987 (10120324)   609634.09
 4202037.70   0.95231 (10120324)
       609649.09   4202037.70   0.90509 (12022704)   609664.09
 4202037.70   0.86867 (12022704)
       609679.09   4202037.70   0.82390 (12123118)   609019.09
 4202052.70   1.06176 (10020504)
       609034.09   4202052.70   1.08311 (10011620)   609049.09
 4202052.70   1.08231 (10011620)
       609064.09   4202052.70   1.07147 (10011622)   609079.09
 4202052.70   1.13112 (10011203)
       609094.09   4202052.70   1.17297 (10011203)   609109.09
 4202052.70   1.23884 (10011708)
       609124.09   4202052.70   1.29737 (09020508)   609139.09
 4202052.70   1.35809 (09123118)
       609154.09   4202052.70   1.43802 (10121405)   609169.09
 4202052.70   1.50351 (10020602)
       609184.09   4202052.70   1.58287 (10121905)   609199.09
 4202052.70   1.63839 (10122508)

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                               *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   PAREA2   ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                  **

      X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
 -
- -
       609214.09   4202052.70   1.70287 (10011607)   609229.09
 4202052.70   1.78326 (11010301)
       609244.09   4202052.70   1.82143 (12020820)   609259.09
 4202052.70   1.88848 (09123119)
       609274.09   4202052.70   1.90790 (10010301)   609289.09
 4202052.70   1.98559 (09012222)
       609304.09   4202052.70   1.98592 (10010720)   609319.09

4202052.70 2.00694 (12020204)
609334.09 4202052.70 1.98946 (12010420) 609349.09
4202052.70 2.02363 (09012323)
609364.09 4202052.70 1.97577 (09012120) 609394.09
4202052.70 1.94996 (12012619)
609409.09 4202052.70 1.91485 (12120619) 609424.09
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609439.09 4202052.70 1.77459 (09022304) 609454.09
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609499.09 4202052.70 1.50851 (11123024) 609514.09
4202052.70 1.43152 (09010206)
609529.09 4202052.70 1.32382 (13012505) 609544.09
4202052.70 1.30532 (13012505)
609559.09 4202052.70 1.23833 (13012505) 609574.09
4202052.70 1.16000 (09122007)
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4202052.70 0.87910 (10121903)
609679.09 4202052.70 0.83099 (10121903) 609694.09
4202052.70 0.77633 (10121903)
609004.09 4202067.70 1.07979 (10020504) 609019.09
4202067.70 1.12860 (10020504)
609034.09 4202067.70 1.16028 (10020504) 609049.09
4202067.70 1.17351 (10011620)
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4202067.70 1.20148 (10011620)
609094.09 4202067.70 1.22350 (10011203) 609109.09
4202067.70 1.28485 (10011203)
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4202067.70 1.42481 (10020603)
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4202067.70 1.59462 (10121405)
609184.09 4202067.70 1.66329 (10020602) 609199.09
4202067.70 1.75028 (10121905)
609214.09 4202067.70 1.81326 (10122508) 609229.09
4202067.70 1.91282 (10011607)
609244.09 4202067.70 1.97322 (11010301) 609259.09
4202067.70 2.04918 (09123119)
609274.09 4202067.70 2.09617 (10010301) 609289.09
4202067.70 2.17073 (09012222)
609304.09 4202067.70 2.18253 (10010720) 609319.09
4202067.70 2.18600 (12020204)
609334.09 4202067.70 2.17119 (12010420) 609349.09
4202067.70 2.20128 (09012323)
609364.09 4202067.70 2.17151 (09012120) 609409.09

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 4202067.70        1.43665  (13012505)
       609544.09   4202067.70        1.34895  (13012505)               609559.09
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       609574.09   4202067.70        1.22699  (10120324)               609589.09
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       609604.09   4202067.70        1.09898  (12022704)               609619.09
 4202067.70        1.04352  (12022704)
       609634.09   4202067.70        0.98755  (10121903)               609649.09
 4202067.70        0.93281  (10121903)
       609664.09   4202067.70        0.86957  (10121903)               609679.09
 4202067.70        0.81724  (11011122)
       609694.09   4202067.70        0.78213  (11011122)               609709.09
 4202067.70        0.74184  (11011122)
       609004.09   4202082.70        1.06182  (10021222)               609019.09
 4202082.70        1.12670  (10020504)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:03:34

                                   PAGE  51
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA2      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       609034.09   4202082.70        1.20089  (10020504)               609049.09
 4202082.70        1.26036  (10020504)
       609064.09   4202082.70        1.29973  (10020504)               609079.09
 4202082.70        1.32300  (10011620)
       609094.09   4202082.70        1.34601  (10011620)               609109.09
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4202082.70 1.33233 (10011620)
609124.09 4202082.70 1.41249 (10011203) 609139.09
4202082.70 1.49052 (10011708)
609154.09 4202082.70 1.58215 (10020603) 609169.09
4202082.70 1.66839 (09020508)
609184.09 4202082.70 1.77358 (10121405) 609199.09
4202082.70 1.86095 (10121905)
609214.09 4202082.70 1.95232 (10122508) 609229.09
4202082.70 2.04418 (09121818)
609244.09 4202082.70 2.16726 (11010301) 609259.09
4202082.70 2.22546 (12020820)
609274.09 4202082.70 2.29731 (09123119) 609289.09
4202082.70 2.37321 (09012222)
609304.09 4202082.70 2.40359 (10010720) 609319.09
4202082.70 2.39185 (12020204)
609334.09 4202082.70 2.38147 (12010420) 609349.09
4202082.70 2.40568 (09012323)
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4202082.70 0.75731 (12121308)
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4202097.70 1.12195 (10021222)
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4202097.70 1.26709 (10020504)
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4202097.70 1.42905 (10020504)
609094.09 4202097.70 1.47463 (10020504) 609109.09
4202097.70 1.50433 (10011620)
609124.09 4202097.70 1.52560 (10011620) 609139.09
4202097.70 1.55915 (10011203)
609154.09 4202097.70 1.64167 (10011708) 609169.09

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 4202097.70        1.75835  (10020603)
       609184.09   4202097.70        1.86680  (09020508)               609199.09
 4202097.70        1.99573  (10121405)
       609214.09   4202097.70        2.11760  (10121905)               609229.09
 4202097.70        2.22825  (10122508)
       609244.09   4202097.70        2.34373  (10011607)               609259.09
 4202097.70        2.44000  (11010301)
       609274.09   4202097.70        2.54031  (09123119)               609289.09
 4202097.70        2.58235  (09012222)
       609304.09   4202097.70        2.64521  (10010720)               609319.09
 4202097.70        2.62931  (12020204)
       609334.09   4202097.70        2.62671  (12010420)               609349.09
 4202097.70        2.64318  (09012323)
       609364.09   4202097.70        2.63976  (09012120)               609409.09
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       609424.09   4202097.70        2.37974  (09022304)               609439.09
 4202097.70        2.24400  (10011219)
       609454.09   4202097.70        2.12797  (10011219)               609469.09
 4202097.70        1.99660  (09010206)
       609484.09   4202097.70        1.84791  (13012505)               609499.09
 4202097.70        1.77229  (13012505)
       609514.09   4202097.70        1.62797  (09122007)               609529.09
 4202097.70        1.55940  (09122007)
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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        12:03:34

                                  PAGE  52
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                 INCLUDING SOURCE(S):     PAREA2      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       609574.09   4202097.70        1.28721  (12123118)               609589.09
 4202097.70        1.21066  (10121903)
       609604.09   4202097.70        1.12260  (10121903)               609619.09
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4202097.70        1.03811  (11011122)
       609634.09   4202097.70        0.98375  (11011122)                609649.09
4202097.70        0.92282  (11011122)
       609664.09   4202097.70        0.88071  (12121308)                609679.09
4202097.70        0.84560  (12121308)
       609694.09   4202097.70        0.81315  (11011323)                609709.09
4202097.70        0.78451  (11011323)
       609724.09   4202097.70        0.75279  (11011323)                608989.09
4202112.70        1.05110  (13012320)
       609004.09   4202112.70        1.10573  (10122201)                609019.09
4202112.70        1.15607  (10122201)
       609034.09   4202112.70        1.20762  (10021223)                609049.09
4202112.70        1.25905  (10021222)
       609064.09   4202112.70        1.33980  (10021222)                609079.09
4202112.70        1.44235  (10020504)
       609094.09   4202112.70        1.55267  (10020504)                609109.09
4202112.70        1.63985  (10020504)
       609124.09   4202112.70        1.69508  (10020504)                609139.09
4202112.70        1.73345  (10011620)
       609154.09   4202112.70        1.74430  (10011620)                609169.09
4202112.70        1.83923  (10011203)
       609184.09   4202112.70        1.97293  (10020603)                609199.09
4202112.70        2.11970  (09020508)
       609214.09   4202112.70        2.27813  (10121405)                609229.09
4202112.70        2.43014  (10121905)
       609244.09   4202112.70        2.54800  (10122508)                609259.09
4202112.70        2.69559  (11010301)
       609274.09   4202112.70        2.78760  (13121217)                609289.09
4202112.70        2.86818  (10010301)
       609304.09   4202112.70        2.92901  (09012222)                609319.09
4202112.70        2.90870  (12020204)
       609334.09   4202112.70        2.91582  (12010420)                609349.09
4202112.70        2.92311  (09012323)
       609364.09   4202112.70        2.92627  (09012120)                609379.09
4202112.70        2.88255  (12012619)
       609409.09   4202112.70        2.71931  (09022304)                609424.09
4202112.70        2.57110  (09120624)
       609439.09   4202112.70        2.45428  (10011219)                609454.09
4202112.70        2.28079  (11123024)
       609469.09   4202112.70        2.10398  (13012505)                609484.09
4202112.70        1.99076  (13012505)
       609499.09   4202112.70        1.83931  (09122007)                609514.09
4202112.70        1.73767  (10120324)
       609529.09   4202112.70        1.60623  (12022704)                609544.09
4202112.70        1.50640  (12022704)
       609559.09   4202112.70        1.40512  (10121903)                609574.09
4202112.70        1.29847  (10121903)
       609589.09   4202112.70        1.19002  (11011122)                609604.09
4202112.70        1.12052  (11011122)
       609619.09   4202112.70        1.04350  (11011122)                609634.09
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 4202112.70        0.99862  (12121308)
       609649.09   4202112.70        0.95394  (12022118)               609664.09
 4202112.70        0.91659  (11011323)
       609679.09   4202112.70        0.87692  (11011323)               609694.09
 4202112.70        0.83442  (11011323)
       609709.09   4202112.70        0.79191  (12013024)               609724.09
 4202112.70        0.75887  (12013024)
       608989.09   4202127.70        1.07164  (10020824)               609004.09
 4202127.70        1.12172  (13012320)
       609019.09   4202127.70        1.17754  (13012320)               609034.09
 4202127.70        1.23209  (10122201)
       609049.09   4202127.70        1.30277  (10122201)               609064.09
 4202127.70        1.36686  (10021223)
       609079.09   4202127.70        1.43249  (10021223)               609094.09
 4202127.70        1.52707  (10021222)
       609109.09   4202127.70        1.65689  (10020504)               609124.09
 4202127.70        1.79380  (10020504)
       609139.09   4202127.70        1.90290  (10020504)               609154.09
 4202127.70        1.97417  (10020504)
       609169.09   4202127.70        2.02295  (10011620)               609184.09
 4202127.70        2.08182  (10011203)
       609199.09   4202127.70        2.24374  (10011708)               609214.09
 4202127.70        2.42645  (09020508)
       609229.09   4202127.70        2.62434  (10121405)               609244.09
 4202127.70        2.81529  (10121905)
       609259.09   4202127.70        2.96507  (09121818)               609274.09
 4202127.70        3.11384  (12020820)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        12:03:34

                                  PAGE  53
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA2      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
        609289.09   4202127.70        3.22130  (09123119)               609304.09
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4202127.70        3.27886  (09012222)
       609319.09   4202127.70        3.24477  (12020204)                609334.09
4202127.70        3.26212  (12010420)
       609349.09   4202127.70        3.25908  (09012323)                609364.09
4202127.70        3.27094  (10021118)
       609379.09   4202127.70        3.22228  (12120619)                609409.09
4202127.70        3.03397  (11011324)
       609424.09   4202127.70        2.86518  (10011219)                609439.09
4202127.70        2.64455  (11123024)
       609454.09   4202127.70        2.42706  (13012505)                609469.09
4202127.70        2.25697  (13012505)
       609484.09   4202127.70        2.08817  (09122007)                609499.09
4202127.70        1.93923  (10120324)
       609514.09   4202127.70        1.79190  (12022704)                609529.09
4202127.70        1.65734  (10121903)
       609544.09   4202127.70        1.52489  (10121903)                609559.09
4202127.70        1.38401  (11011122)
       609574.09   4202127.70        1.29266  (11011122)                609589.09
4202127.70        1.20216  (12121308)
       609604.09   4202127.70        1.14335  (12022118)                609619.09
4202127.70        1.09127  (11011323)
       609634.09   4202127.70        1.04002  (11011323)                609649.09
4202127.70        0.98508  (11011323)
       609664.09   4202127.70        0.92908  (12013024)                609679.09
4202127.70        0.88546  (12013024)
       609694.09   4202127.70        0.84404  (10121022)                609709.09
4202127.70        0.81009  (10121022)
       609724.09   4202127.70        0.77514  (10121022)                608974.09
4202142.70        1.03802  (09123103)
       608989.09   4202142.70        1.08592  (09123103)                609004.09
4202142.70        1.13371  (10122106)
       609019.09   4202142.70        1.18949  (13010602)                609034.09
4202142.70        1.25281  (10020824)
       609049.09   4202142.70        1.32079  (13012320)                609064.09
4202142.70        1.39578  (13012320)
       609079.09   4202142.70        1.47463  (10122201)                609094.09
4202142.70        1.56407  (10122201)
       609109.09   4202142.70        1.65231  (10021223)                609124.09
4202142.70        1.75952  (10021222)
       609139.09   4202142.70        1.92888  (10020504)                609154.09
4202142.70        2.11072  (10020504)
       609169.09   4202142.70        2.26417  (10020504)                609184.09
4202142.70        2.36363  (10020504)
       609199.09   4202142.70        2.42194  (10011620)                609214.09
4202142.70        2.56685  (10011708)
       609229.09   4202142.70        2.81277  (09020508)                609244.09
4202142.70        3.07803  (10121405)
       609259.09   4202142.70        3.31412  (10121905)                609274.09
4202142.70        3.52052  (13122901)
       609289.09   4202142.70        3.65935  (09123119)                609304.09
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 4202142.70        3.69664  (09012222)
       609319.09   4202142.70        3.68242  (12123120)               609334.09
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       609349.09   4202142.70        3.67180  (09012323)               609364.09
 4202142.70        3.70951  (10021118)
       609379.09   4202142.70        3.68646  (12120619)               609409.09
 4202142.70        3.39285  (10011219)
       609424.09   4202142.70        3.12778  (11123024)               609439.09
 4202142.70        2.84735  (13012505)
       609454.09   4202142.70        2.58725  (13012505)               609469.09
 4202142.70        2.39049  (10120324)
       609484.09   4202142.70        2.17691  (12022704)               609499.09
 4202142.70        1.99592  (10121903)
       609514.09   4202142.70        1.82498  (10121903)               609529.09
 4202142.70        1.63864  (11011122)
       609544.09   4202142.70        1.51461  (11011122)               609559.09
 4202142.70        1.40846  (12121308)
       609574.09   4202142.70        1.33131  (12022118)               609589.09
 4202142.70        1.26180  (11011323)
       609604.09   4202142.70        1.18816  (11011323)               609619.09
 4202142.70        1.11225  (11011323)
       609634.09   4202142.70        1.05258  (12013024)               609649.09
 4202142.70        0.99999  (10121022)
       609664.09   4202142.70        0.95264  (10121022)               609679.09
 4202142.70        0.90467  (10121022)
       609694.09   4202142.70        0.85696  (10121022)               609709.09
 4202142.70        0.81405  (13012506)
       609724.09   4202142.70        0.77299  (13012506)               608974.09
 4202157.70        1.04979  (12012005)
↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:03:34

                                   PAGE  54
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                   INCLUDING SOURCE(S):     PAREA2      ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                  **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       608989.09   4202157.70        1.10163  (12012005)               609004.09
 4202157.70        1.15364  (10010205)
       609019.09   4202157.70        1.20963  (10010205)               609034.09
 4202157.70        1.27023  (09123103)
       609049.09   4202157.70        1.33618  (09123103)               609064.09
 4202157.70        1.40946  (13010602)
       609079.09   4202157.70        1.49584  (12120523)               609094.09
 4202157.70        1.58947  (12120523)
       609109.09   4202157.70        1.69187  (13012320)               609124.09
 4202157.70        1.80548  (10122201)
       609139.09   4202157.70        1.92531  (10021223)               609154.09
 4202157.70        2.06426  (10021222)
       609169.09   4202157.70        2.30517  (10020504)               609184.09
 4202157.70        2.54710  (10020504)
       609199.09   4202157.70        2.75447  (10020504)               609214.09
 4202157.70        2.90543  (10020504)
       609229.09   4202157.70        3.00349  (10011203)               609244.09
 4202157.70        3.33004  (10020603)
       609259.09   4202157.70        3.70621  (10121405)               609274.09
 4202157.70        4.02352  (11020623)
       609289.09   4202157.70        4.22539  (12020820)               609304.09
 4202157.70        4.24529  (13122120)
       609319.09   4202157.70        4.24294  (12123120)               609334.09
 4202157.70        4.23087  (13022419)
       609349.09   4202157.70        4.19710  (10021118)               609364.09
 4202157.70        4.26153  (10021118)
       609379.09   4202157.70        4.26508  (10121002)               609409.09
 4202157.70        3.77275  (11123024)
       609424.09   4202157.70        3.39933  (13012505)               609439.09
 4202157.70        3.04405  (09122007)
       609454.09   4202157.70        2.75277  (10120324)               609469.09
 4202157.70        2.47924  (12123118)
       609484.09   4202157.70        2.23856  (10121903)               609499.09
 4202157.70        1.98597  (10121903)
       609514.09   4202157.70        1.80856  (11011122)               609529.09
 4202157.70        1.68331  (12022118)
       609544.09   4202157.70        1.57712  (11011323)               609559.09
 4202157.70        1.47307  (11011323)
       609574.09   4202157.70        1.36701  (11011323)               609589.09
 4202157.70        1.28081  (12013024)
       609604.09   4202157.70        1.21036  (10121022)               609619.09
 4202157.70        1.14191  (10121022)
       609634.09   4202157.70        1.07397  (10121022)               609649.09
 4202157.70        1.01062  (13012506)
       609664.09   4202157.70        0.95244  (13012506)               609679.09
 4202157.70        0.89622  (13012506)
       609694.09   4202157.70        0.85550  (09010202)               609709.09
 4202157.70        0.81674  (09010202)
       609724.09   4202157.70        0.77906  (09010202)               608959.09
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 4202172.70        1.01362  (12012524)
       608974.09   4202172.70        1.06084  (12012524)               608989.09
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       609004.09   4202172.70        1.16332  (10120218)               609019.09
 4202172.70        1.22030  (12011923)
       609034.09   4202172.70        1.28424  (12011923)               609049.09
 4202172.70        1.35782  (12012005)
       609064.09   4202172.70        1.43409  (10010205)               609079.09
 4202172.70        1.52062  (10010205)
       609094.09   4202172.70        1.61247  (09123103)               609109.09
 4202172.70        1.71019  (10122106)
       609124.09   4202172.70        1.82862  (12120523)               609139.09
 4202172.70        1.96421  (12120523)
       609154.09   4202172.70        2.11912  (13012320)               609169.09
 4202172.70        2.30425  (10122201)
       609184.09   4202172.70        2.49686  (10021223)               609199.09
 4202172.70        2.80358  (10020504)
       609214.09   4202172.70        3.14664  (10020504)               609229.09
 4202172.70        3.47824  (10020504)
       609244.09   4202172.70        3.76641  (10020504)               609259.09
 4202172.70        4.06002  (10020603)
       609274.09   4202172.70        4.62985  (10121405)               609289.09
 4202172.70        4.99232  (09121818)
       609304.09   4202172.70        4.95657  (09123119)               609319.09
 4202172.70        4.90241  (12123120)
       609334.09   4202172.70        4.86524  (13022419)               609349.09
 4202172.70        4.88681  (10021118)
       609364.09   4202172.70        4.94080  (12010523)               609379.09
 4202172.70        4.99997  (11120403)
       609409.09   4202172.70        4.11989  (13012505)               609424.09
 4202172.70        3.61901  (10120324)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        12:03:34

                                  PAGE  55
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA2      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                  **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
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Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        609439.09   4202172.70        3.20943  (12123118)                609454.09
 4202172.70        2.83930  (10121903)
        609469.09   4202172.70        2.47716  (10121903)                609484.09
 4202172.70        2.23128  (12022118)
        609499.09   4202172.70        2.05482  (12022118)                609514.09
 4202172.70        1.89495  (11011323)
        609529.09   4202172.70        1.73702  (11011323)                609544.09
 4202172.70        1.61097  (10121022)
        609559.09   4202172.70        1.50502  (10121022)                609574.09
 4202172.70        1.40156  (10121022)
        609589.09   4202172.70        1.30297  (13012506)                609604.09
 4202172.70        1.21554  (13012506)
        609619.09   4202172.70        1.13518  (09010202)                609634.09
 4202172.70        1.07395  (09010202)
        609649.09   4202172.70        1.01518  (09010202)                609664.09
 4202172.70        0.95896  (09010202)
        609679.09   4202172.70        0.90557  (09010202)                609694.09
 4202172.70        0.85496  (09010202)
        609709.09   4202172.70        0.80704  (09010202)                609724.09
 4202172.70        0.76915  (11120401)
        608959.09   4202187.70        1.01426  (11121204)                608974.09
 4202187.70        1.06344  (11121204)
        608989.09   4202187.70        1.11499  (11121204)                609004.09
 4202187.70        1.17164  (09122008)
        609019.09   4202187.70        1.23190  (09122008)                609034.09
 4202187.70        1.30062  (12012524)
        609049.09   4202187.70        1.37320  (12012524)                609064.09
 4202187.70        1.45020  (12012524)
        609079.09   4202187.70        1.53629  (10120218)                609094.09
 4202187.70        1.63146  (12011923)
        609109.09   4202187.70        1.73925  (12012005)                609124.09
 4202187.70        1.85910  (12012005)
        609139.09   4202187.70        1.99189  (10010205)                609154.09
 4202187.70        2.14791  (09123103)
        609169.09   4202187.70        2.33358  (10120918)                609184.09
 4202187.70        2.54763  (12120523)
        609199.09   4202187.70        2.78119  (13012320)                609214.09
 4202187.70        3.06608  (10122201)
        609229.09   4202187.70        3.51380  (10020504)                609244.09
 4202187.70        4.05517  (10020504)
        609259.09   4202187.70        4.67800  (10020504)                609274.09
 4202187.70        5.33056  (10020504)
        609409.09   4202187.70        4.33391  (10020321)                609424.09
 4202187.70        3.69895  (12123118)
        609439.09   4202187.70        3.19354  (10021519)                609454.09
 4202187.70        2.85613  (12022118)
        609469.09   4202187.70        2.56706  (11011323)                609484.09
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 4202187.70        2.30939  (12013024)
       609499.09   4202187.70        2.11277  (10121022)               609514.09
 4202187.70        1.93655  (10121022)
       609529.09   4202187.70        1.77230  (10121022)               609544.09
 4202187.70        1.62775  (13012506)
       609559.09   4202187.70        1.50485  (09010202)               609574.09
 4202187.70        1.40317  (09010202)
       609589.09   4202187.70        1.30812  (09010202)               609604.09
 4202187.70        1.21961  (09010202)
       609619.09   4202187.70        1.13723  (09010202)               609634.09
 4202187.70        1.06565  (11120401)
       609649.09   4202187.70        1.00625  (11120401)               609664.09
 4202187.70        0.95426  (11021923)
       609679.09   4202187.70        0.90979  (11021923)               609694.09
 4202187.70        0.86752  (11021923)
       609709.09   4202187.70        0.82769  (11021923)               609724.09
 4202187.70        0.79016  (11021923)
       608959.09   4202202.70        1.02177  (09020523)               608974.09
 4202202.70        1.07261  (09020523)
       608989.09   4202202.70        1.12675  (09020523)               609004.09
 4202202.70        1.18418  (09020523)
       609019.09   4202202.70        1.24533  (09020523)               609034.09
 4202202.70        1.30893  (09021723)
       609049.09   4202202.70        1.37931  (09021723)               609064.09
 4202202.70        1.45701  (09021723)
       609079.09   4202202.70        1.54484  (11121204)               609094.09
 4202202.70        1.64190  (11121204)
       609109.09   4202202.70        1.75213  (09122008)               609124.09
 4202202.70        1.87758  (12012524)
       609139.09   4202202.70        2.01408  (12012524)               609154.09
 4202202.70        2.17468  (10120218)
       609169.09   4202202.70        2.36265  (10120218)               609184.09
 4202202.70        2.57033  (12012005)
↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        12:03:34

                                   PAGE  56
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                   INCLUDING SOURCE(S):     PAREA2      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **
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X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609199.09	4202202.70	2.80701	(10010205)	609214.09	4202202.70	3.09539	(10120918)
609229.09	4202202.70	3.44453	(10120918)	609244.09	4202202.70	3.87528	(10020504)
609259.09	4202202.70	4.61996	(10020504)	609274.09	4202202.70	5.44929	(10020504)
609409.09	4202202.70	4.26709	(12022118)	609424.09	4202202.70	3.68823	(12022118)
609439.09	4202202.70	3.22777	(10021418)	609454.09	4202202.70	2.89163	(10121022)
609469.09	4202202.70	2.59980	(10121022)	609484.09	4202202.70	2.33525	(10021219)
609499.09	4202202.70	2.12131	(09010202)	609514.09	4202202.70	1.93602	(09010202)
609529.09	4202202.70	1.76972	(09010202)	609544.09	4202202.70	1.62443	(11120401)
609559.09	4202202.70	1.50602	(11021923)	609574.09	4202202.70	1.40810	(11021923)
609589.09	4202202.70	1.31898	(11021923)	609604.09	4202202.70	1.23751	(11021923)
609619.09	4202202.70	1.16288	(11021923)	609634.09	4202202.70	1.09308	(11021923)
609649.09	4202202.70	1.02826	(12121606)	609664.09	4202202.70	0.97398	(12121606)
609679.09	4202202.70	0.92452	(12121606)	609694.09	4202202.70	0.87759	(12121606)
609709.09	4202202.70	0.83365	(12121606)	609724.09	4202202.70	0.79523	(12013101)
608959.09	4202217.70	1.03134	(12120423)	608974.09	4202217.70	1.08304	(12120423)
608989.09	4202217.70	1.13864	(12120423)	609004.09	4202217.70	1.19828	(12120423)
609019.09	4202217.70	1.26272	(12120423)	609034.09	4202217.70	1.33112	(12120423)
609049.09	4202217.70	1.40422	(12120423)	609064.09	4202217.70	1.48371	(12120423)
609079.09	4202217.70	1.56996	(12120423)	609094.09	4202217.70	1.66597	(12120423)
609109.09	4202217.70	1.77232	(12120423)	609124.09	4202217.70	1.88987	(10120920)
609139.09	4202217.70	2.02767	(10120920)	609154.09	4202217.70	2.19078	(10120920)
609169.09	4202217.70	2.37926	(10120920)	609184.09	4202217.70	2.58344	(10120920)
609199.09	4202217.70	2.81469	(13022823)	609214.09			

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 4202217.70        3.09637  (13122019)
       609229.09   4202217.70        3.43659  (12011119)               609244.09
 4202217.70        3.85899  (12011119)
       609259.09   4202217.70        4.38354  (13122220)               609274.09
 4202217.70        5.24807  (10020504)
       609484.09   4202217.70        2.35229  (11011518)               609499.09
 4202217.70        2.14031  (11011518)
       609514.09   4202217.70        1.95763  (12121606)               609529.09
 4202217.70        1.79899  (12121606)
       609544.09   4202217.70        1.65964  (12013101)               609559.09
 4202217.70        1.54113  (12013101)
       609574.09   4202217.70        1.43556  (12013101)               609589.09
 4202217.70        1.34109  (12013101)
       609604.09   4202217.70        1.25532  (12013101)               609619.09
 4202217.70        1.17754  (12013101)
       609634.09   4202217.70        1.10674  (12013101)               609649.09
 4202217.70        1.04220  (12013101)
       609664.09   4202217.70        0.98541  (12013101)               609679.09
 4202217.70        0.93403  (12013101)
       609694.09   4202217.70        0.88597  (12013101)               609709.09
 4202217.70        0.84144  (12013101)
       609724.09   4202217.70        0.80127  (12013101)               608959.09
 4202232.70        1.01354  (10013006)
       608974.09   4202232.70        1.06381  (10013006)               608989.09
 4202232.70        1.11824  (10013006)
       609004.09   4202232.70        1.17698  (10013006)               609019.09
 4202232.70        1.24093  (10013006)
       609034.09   4202232.70        1.31060  (10013006)               609049.09
 4202232.70        1.38650  (10013006)
       609064.09   4202232.70        1.46730  (10013006)               609079.09
 4202232.70        1.55330  (10013006)
       609094.09   4202232.70        1.65128  (10013006)               609109.09
 4202232.70        1.76172  (10013006)
       609124.09   4202232.70        1.88431  (10013006)               609139.09
 4202232.70        2.02238  (10121319)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        12:03:34

                                  PAGE  57
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA2      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***
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** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609154.09	4202232.70	2.18854	(10121319)	609169.09	4202232.70	2.38220	(12120423)
609184.09	4202232.70	2.59459	(12120423)	609199.09	4202232.70	2.83238	(12120423)
609214.09	4202232.70	3.10849	(12120423)	609229.09	4202232.70	3.43826	(12012707)
609244.09	4202232.70	3.84828	(12012707)	609259.09	4202232.70	4.36120	(11020419)
609274.09	4202232.70	4.90255	(12042123)	609424.09	4202232.70	3.63661	(10010104)
609439.09	4202232.70	3.21127	(10010104)	609454.09	4202232.70	2.87135	(12013101)
609469.09	4202232.70	2.58621	(12013101)	609484.09	4202232.70	2.35069	(12013101)
609499.09	4202232.70	2.14598	(12013101)	609514.09	4202232.70	1.95979	(12013101)
609529.09	4202232.70	1.79531	(12013101)	609544.09	4202232.70	1.65147	(12013101)
609559.09	4202232.70	1.52642	(12121805)	609574.09	4202232.70	1.41868	(12121805)
609589.09	4202232.70	1.32295	(12121805)	609604.09	4202232.70	1.23584	(12121805)
609619.09	4202232.70	1.15691	(12121805)	609634.09	4202232.70	1.08748	(12121805)
609649.09	4202232.70	1.02546	(12121805)	609664.09	4202232.70	0.96940	(12121805)
609679.09	4202232.70	0.91853	(12121805)	609694.09	4202232.70	0.87187	(12121805)
609709.09	4202232.70	0.82903	(12121805)	609724.09	4202232.70	0.79180	(12121805)
608959.09	4202247.70	1.02701	(10021206)	608974.09	4202247.70	1.07753	(10021206)
608989.09	4202247.70	1.13206	(10021206)	609004.09	4202247.70	1.19109	(10021206)
609019.09	4202247.70	1.25521	(10021206)	609034.09	4202247.70	1.32504	(10021206)
609049.09	4202247.70	1.40143	(10021206)	609064.09	4202247.70	1.48206	(10021206)
609079.09	4202247.70	1.56737	(10021206)	609094.09	4202247.70	1.66452	(10021206)
609109.09	4202247.70	1.77450	(10021206)	609124.09	4202247.70	1.89643	(10021206)
609139.09	4202247.70	2.03196	(10021206)	609154.09			

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 4202247.70        2.19043  (10021206)
       609169.09   4202247.70        2.37317  (10021206)               609184.09
 4202247.70        2.58020  (13121719)
       609199.09   4202247.70        2.82468  (13121719)               609214.09
 4202247.70        3.10592  (13121719)
       609229.09   4202247.70        3.44194  (13022822)               609244.09
 4202247.70        3.85442  (13022822)
       609259.09   4202247.70        4.36565  (13022822)               609274.09
 4202247.70        4.92276  (12020821)
       609424.09   4202247.70        3.61217  (10012718)               609439.09
 4202247.70        3.18509  (10011408)
       609454.09   4202247.70        2.84265  (10011408)               609469.09
 4202247.70        2.55291  (10011408)
       609484.09   4202247.70        2.31175  (10011408)               609499.09
 4202247.70        2.10281  (10011408)
       609514.09   4202247.70        1.91907  (10011218)               609529.09
 4202247.70        1.76302  (12121805)
       609544.09   4202247.70        1.62886  (12121805)               609559.09
 4202247.70        1.51105  (12121805)
       609574.09   4202247.70        1.40551  (12121805)               609589.09
 4202247.70        1.31133  (12121805)
       609604.09   4202247.70        1.22537  (12121805)               609619.09
 4202247.70        1.14722  (12121805)
       609634.09   4202247.70        1.07888  (12121805)               609649.09
 4202247.70        1.01796  (12121805)
       609664.09   4202247.70        0.96267  (12121805)               609679.09
 4202247.70        0.91224  (12121805)
       609694.09   4202247.70        0.86606  (12121805)               609709.09
 4202247.70        0.82373  (12121805)
       609724.09   4202247.70        0.78703  (12121805)               608959.09
 4202262.70        1.02555  (12012004)
       608974.09   4202262.70        1.07585  (12012004)               608989.09
 4202262.70        1.12987  (12012004)
       609004.09   4202262.70        1.18788  (12012004)               609019.09
 4202262.70        1.25052  (12012004)
       609034.09   4202262.70        1.31837  (12012004)               609049.09
 4202262.70        1.39199  (12012004)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        12:03:34

                                  PAGE  58
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA2      ,

                                           *** DISCRETE CARTESIAN RECEPTOR POINTS
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***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609064.09	4202262.70	1.46964	(09020604)	609079.09	4202262.70	1.55789	(09020604)
609094.09	4202262.70	1.65717	(09020604)	609109.09	4202262.70	1.76805	(09020604)
609124.09	4202262.70	1.89137	(11123006)	609139.09	4202262.70	2.02989	(11123006)
609154.09	4202262.70	2.18356	(11123006)	609169.09	4202262.70	2.35542	(11123006)
609184.09	4202262.70	2.56116	(11123006)	609199.09	4202262.70	2.80783	(09011224)
609214.09	4202262.70	3.09917	(09011224)	609229.09	4202262.70	3.44117	(12020821)
609244.09	4202262.70	3.87165	(12020821)	609259.09	4202262.70	4.40035	(12020821)
609274.09	4202262.70	5.02921	(13121619)	609424.09	4202262.70	3.62007	(13120704)
609439.09	4202262.70	3.18554	(10012718)	609454.09	4202262.70	2.84260	(10012718)
609469.09	4202262.70	2.55624	(10012718)	609484.09	4202262.70	2.31264	(10012718)
609499.09	4202262.70	2.10160	(10012718)	609514.09	4202262.70	1.92448	(10011408)
609529.09	4202262.70	1.77475	(10011408)	609544.09	4202262.70	1.64621	(10011408)
609559.09	4202262.70	1.53138	(10011408)	609574.09	4202262.70	1.42470	(10011408)
609589.09	4202262.70	1.32772	(10011408)	609604.09	4202262.70	1.23837	(10011408)
609619.09	4202262.70	1.15643	(10011408)	609634.09	4202262.70	1.08419	(10011408)
609649.09	4202262.70	1.01943	(10011408)	609664.09	4202262.70	0.96027	(10011408)
609679.09	4202262.70	0.90610	(10011408)	609694.09	4202262.70	0.85645	(10011408)
609709.09	4202262.70	0.81077	(10011408)	609724.09	4202262.70	0.77052	(10011408)
609424.09	4202277.70	3.60989	(10010102)	609439.09	4202277.70	3.15539	(13012303)
609454.09	4202277.70	2.81121	(11121823)	609469.09	4202277.70	2.52862	(11121823)
609484.09	4202277.70	2.27812	(11121823)	609499.09			

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 4202277.70        2.06067  (13120704)
       609514.09   4202277.70        1.87292  (13120704)                609529.09
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       609544.09   4202277.70        1.60626  (10012718)                609559.09
 4202277.70        1.49753  (10012718)
       609574.09   4202277.70        1.39566  (10012718)                609589.09
 4202277.70        1.30186  (10012718)
       609604.09   4202277.70        1.21480  (10012718)                609619.09
 4202277.70        1.13975  (10011408)
       609634.09   4202277.70        1.07743  (10011408)                609649.09
 4202277.70        1.02042  (10011408)
       609664.09   4202277.70        0.96754  (10011408)                609679.09
 4202277.70        0.91850  (10011408)
       609694.09   4202277.70        0.87294  (10011408)                609709.09
 4202277.70        0.83061  (10011408)
       609724.09   4202277.70        0.79228  (10011408)                609409.09
 4202322.70        3.78456  (12120506)
       609424.09   4202322.70        3.47138  (09022423)                609439.09
 4202322.70        3.14839  (09122922)
       609454.09   4202322.70        2.87322  (10122817)                609469.09
 4202322.70        2.62420  (11123023)
       609484.09   4202322.70        2.35850  (11123023)                609499.09
 4202322.70        2.06608  (11123023)
       609514.09   4202322.70        1.80382  (12020722)                609529.09
 4202322.70        1.66661  (09012121)
       609544.09   4202322.70        1.53518  (11010118)                609559.09
 4202322.70        1.40779  (11010118)
       609574.09   4202322.70        1.31297  (13012303)                609589.09
 4202322.70        1.23585  (11121823)
       609604.09   4202322.70        1.17612  (11121823)                609619.09
 4202322.70        1.11480  (11121823)
       609634.09   4202322.70        1.05317  (11121823)                609649.09
 4202322.70        0.99220  (11121823)
       609664.09   4202322.70        0.93257  (11121823)                609679.09
 4202322.70        0.87670  (09010806)
       609694.09   4202322.70        0.83041  (13120704)                609409.09
 4202337.70        3.41786  (12120506)
       609424.09   4202337.70        3.17791  (10012518)                609439.09
 4202337.70        2.96128  (09022423)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        12:03:34

                                  PAGE  59
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                 INCLUDING SOURCE(S):     PAREA2      ,
```

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609454.09	4202337.70	2.72756	(09122922)	609469.09	4202337.70	2.51626	(10122817)
609484.09	4202337.70	2.32063	(11123023)	609499.09	4202337.70	2.15449	(11123023)
609514.09	4202337.70	1.94319	(11123023)	609529.09	4202337.70	1.70914	(11123023)
609544.09	4202337.70	1.51146	(12020722)	609559.09	4202337.70	1.41139	(09012121)
609574.09	4202337.70	1.31354	(11010118)	609589.09	4202337.70	1.22106	(11010118)
609604.09	4202337.70	1.13506	(13012303)	609619.09	4202337.70	1.06784	(13012303)
609634.09	4202337.70	1.01147	(11121823)	609649.09	4202337.70	0.97025	(11121823)
609664.09	4202337.70	0.92771	(11121823)	609679.09	4202337.70	0.88450	(11121823)
609694.09	4202337.70	0.84083	(11121823)	609709.09	4202337.70	0.79742	(11121823)
609724.09	4202337.70	0.75598	(11121823)	609409.09	4202352.70	3.08958	(12120608)
609424.09	4202352.70	2.96056	(12120506)	609439.09	4202352.70	2.72706	(10012518)
609454.09	4202352.70	2.57130	(09022423)	609469.09	4202352.70	2.39250	(09021721)
609484.09	4202352.70	2.21230	(09122922)	609499.09	4202352.70	2.08848	(10122817)
609514.09	4202352.70	1.94855	(11123023)	609529.09	4202352.70	1.80649	(11123023)
609544.09	4202352.70	1.63077	(11123023)	609559.09	4202352.70	1.43849	(11123023)
609574.09	4202352.70	1.29008	(12020722)	609589.09	4202352.70	1.21422	(09012121)
609604.09	4202352.70	1.14049	(09012121)	609619.09	4202352.70	1.07026	(11010118)
609634.09	4202352.70	0.99657	(11010118)	609649.09	4202352.70	0.93769	(13012303)
609664.09	4202352.70	0.88683	(13012303)	609679.09	4202352.70	0.84499	(11121823)
609694.09	4202352.70	0.81709	(11121823)	609709.09			

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 4202352.70        0.78708  (11121823)
       609724.09   4202352.70        0.75884  (11121823)                609409.09
 4202367.70        2.81679  (12120608)
       609424.09   4202367.70        2.67690  (13020722)                609439.09
 4202367.70        2.58360  (12120506)
       609454.09   4202367.70        2.37569  (10012518)                609469.09
 4202367.70        2.26359  (09022423)
       609484.09   4202367.70        2.11993  (09021721)                609499.09
 4202367.70        1.99210  (09122922)
       609514.09   4202367.70        1.87901  (10122817)                609529.09
 4202367.70        1.75568  (10122817)
       609544.09   4202367.70        1.66329  (11123023)                609559.09
 4202367.70        1.53820  (11123023)
       609574.09   4202367.70        1.38733  (11123023)                609589.09
 4202367.70        1.22442  (11123023)
       609604.09   4202367.70        1.11525  (12020722)                609619.09
 4202367.70        1.05665  (12020722)
       609634.09   4202367.70        0.99950  (09012121)                609649.09
 4202367.70        0.94196  (11010118)
       609664.09   4202367.70        0.88658  (11010118)                609679.09
 4202367.70        0.83120  (13012303)
       609694.09   4202367.70        0.79408  (13012303)                609709.09
 4202367.70        0.75518  (13012303)
       609724.09   4202367.70        0.72548  (11121823)                609394.09
 4202382.70        2.62546  (12021206)
       609409.09   4202382.70        2.57881  (12021724)                609424.09
 4202382.70        2.49166  (12120608)
       609439.09   4202382.70        2.36689  (11010201)                609454.09
 4202382.70        2.27175  (12120506)
       609469.09   4202382.70        2.09589  (13011002)                609484.09
 4202382.70        2.01476  (09022423)
       609499.09   4202382.70        1.89283  (09021721)                609514.09
 4202382.70        1.80104  (09122922)
       609529.09   4202382.70        1.68919  (10122817)                609544.09
 4202382.70        1.61261  (10122817)
       609559.09   4202382.70        1.52004  (11123023)                609574.09
 4202382.70        1.43340  (11123023)
       609589.09   4202382.70        1.31724  (11123023)                609604.09
 4202382.70        1.18861  (11123023)
       609619.09   4202382.70        1.05362  (11123023)                609634.09
 4202382.70        0.97603  (12020722)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
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                                   PAGE  60
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
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VALUES FOR SOURCE GROUP: ALL   ***
                                INCLUDING SOURCE(S):   PAREA2   ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                  **

      X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M)
Y-COORD (M)   CONC   (YYMMDDHH)
 -
- -
        609649.09   4202382.70   0.93064 (12020722)   609664.09
 4202382.70   0.88587 (09012121)
        609679.09   4202382.70   0.84023 (11010118)   609694.09
 4202382.70   0.79758 (11010118)
        609709.09   4202382.70   0.75252 (11010118)   609724.09
 4202382.70   0.71745 (13012303)
        609394.09   4202397.70   2.39682 (11022222)   609409.09
 4202397.70   2.37108 (10020523)
        609424.09   4202397.70   2.29504 (12120608)   609439.09
 4202397.70   2.18287 (10021424)
        609454.09   4202397.70   2.11931 (12120506)   609469.09
 4202397.70   2.01176 (12120506)
        609484.09   4202397.70   1.87354 (13011002)   609499.09
 4202397.70   1.80941 (09022423)
        609514.09   4202397.70   1.71327 (09022423)   609529.09
 4202397.70   1.63467 (09122922)
        609544.09   4202397.70   1.52773 (09122922)   609559.09
 4202397.70   1.47304 (10122817)
        609574.09   4202397.70   1.38400 (10122817)   609589.09
 4202397.70   1.32221 (11123023)
        609604.09   4202397.70   1.24397 (11123023)   609619.09
 4202397.70   1.14625 (11123023)
        609634.09   4202397.70   1.03600 (11123023)   609649.09
 4202397.70   0.92034 (11123023)
        609664.09   4202397.70   0.86624 (12020722)   609679.09
 4202397.70   0.83066 (12020722)
        609694.09   4202397.70   0.79374 (09012121)   609709.09
 4202397.70   0.75638 (09012121)
        609724.09   4202397.70   0.72382 (11010118)   609394.09
 4202412.70   2.21373 (09022220)
        609409.09   4202412.70   2.17722 (12021206)   609424.09
 4202412.70   2.13354 (12021724)
        609439.09   4202412.70   2.07184 (12120608)   609454.09
 4202412.70   1.96454 (13020722)
        609469.09   4202412.70   1.91549 (12120506)   609484.09
 4202412.70   1.79227 (12120506)
        609499.09   4202412.70   1.68877 (13011002)   609514.09

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 4202412.70        1.63739  (09022423)
       609529.09   4202412.70        1.56289  (09022423)                609544.09
 4202412.70        1.48729  (09021721)
       609559.09   4202412.70        1.40349  (09122922)                609574.09
 4202412.70        1.34090  (10122817)
       609589.09   4202412.70        1.28444  (10122817)                609604.09
 4202412.70        1.21863  (11123023)
       609619.09   4202412.70        1.16849  (11123023)                609634.09
 4202412.70        1.09624  (11123023)
       609649.09   4202412.70        1.00861  (11123023)                609664.09
 4202412.70        0.91201  (11123023)
       609679.09   4202412.70        0.81196  (11123023)                609694.09
 4202412.70        0.77608  (12020722)
       609709.09   4202412.70        0.74748  (12020722)                609724.09
 4202412.70        0.71680  (09012121)
       609394.09   4202427.70        2.06836  (09022220)                609409.09
 4202427.70        2.01084  (12021206)
       609424.09   4202427.70        1.98624  (09022307)                609439.09
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       609454.09   4202427.70        1.84776  (12120608)                609469.09
 4202427.70        1.78072  (13020722)
       609484.09   4202427.70        1.73650  (12120506)                609499.09
 4202427.70        1.62080  (10012518)
       609514.09   4202427.70        1.53288  (13011002)                609529.09
 4202427.70        1.49133  (09022423)
       609544.09   4202427.70        1.43062  (09022423)                609559.09
 4202427.70        1.36355  (09021721)
       609574.09   4202427.70        1.30021  (09122922)                609589.09
 4202427.70        1.22716  (10122817)
       609604.09   4202427.70        1.19367  (10122817)                609619.09
 4202427.70        1.13009  (10122817)
       609634.09   4202427.70        1.09084  (11123023)                609649.09
 4202427.70        1.04030  (11123023)
       609664.09   4202427.70        0.97298  (11123023)                609679.09
 4202427.70        0.89440  (11123023)
       609694.09   4202427.70        0.80913  (11123023)                609709.09
 4202427.70        0.72194  (11123023)
       609724.09   4202427.70        0.70061  (12020722)                609439.09
 4202472.70        1.58995  (10020523)
       609454.09   4202472.70        1.55453  (10022423)                609469.09
 4202472.70        1.51659  (12120608)
       609484.09   4202472.70        1.43518  (12120608)                609499.09
 4202472.70        1.40699  (13020722)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
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                                  PAGE  61
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN
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*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609514.09	4202472.70	1.37769	(12120506)	609529.09	4202472.70	1.31624	(12120506)
609544.09	4202472.70	1.24566	(10012518)	609559.09	4202472.70	1.18594	(13011002)
609574.09	4202472.70	1.16259	(09022423)	609589.09	4202472.70	1.13418	(09022423)
609604.09	4202472.70	1.07800	(09021721)	609619.09	4202472.70	1.04262	(09122922)
609634.09	4202472.70	0.99957	(09122922)	609649.09	4202472.70	0.95061	(10122817)
609664.09	4202472.70	0.93576	(10122817)	609679.09	4202472.70	0.90014	(10122817)
609694.09	4202472.70	0.86344	(12121607)	609319.09	4202487.70	1.71548	(10012801)
609334.09	4202487.70	1.74044	(10120908)	609349.09	4202487.70	1.63865	(10121108)
609364.09	4202487.70	1.61620	(11020103)	609394.09	4202487.70	1.56965	(10121808)
609409.09	4202487.70	1.56035	(09022220)	609424.09	4202487.70	1.50539	(11022222)
609439.09	4202487.70	1.49371	(12021206)	609454.09	4202487.70	1.47085	(09022307)
609469.09	4202487.70	1.42536	(10022423)	609484.09	4202487.70	1.39512	(12120608)
609499.09	4202487.70	1.32077	(10021424)	609514.09	4202487.70	1.29808	(11010201)
609529.09	4202487.70	1.27602	(12120506)	609544.09	4202487.70	1.20677	(12120506)
609559.09	4202487.70	1.15046	(10012518)	609574.09	4202487.70	1.09868	(13011002)
609589.09	4202487.70	1.07926	(09022423)	609604.09	4202487.70	1.05625	(09022423)
609619.09	4202487.70	1.00142	(09021721)	609634.09	4202487.70	0.97753	(09021721)
609649.09	4202487.70	0.94301	(09122922)	609664.09			

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 4202487.70        0.89001  (10020522)
       609679.09   4202487.70        0.87615  (10122817)                609184.09
 4202502.70        1.40900  (10010218)
       609199.09   4202502.70        1.43023  (10010218)                609214.09
 4202502.70        1.43640  (11011921)
       609229.09   4202502.70        1.50094  (12122821)                609244.09
 4202502.70        1.54112  (10121308)
       609259.09   4202502.70        1.56311  (09121604)                609274.09
 4202502.70        1.59414  (11123003)
       609289.09   4202502.70        1.58846  (09011124)                609304.09
 4202502.70        1.61589  (11012907)
       609319.09   4202502.70        1.61565  (10012801)                609334.09
 4202502.70        1.63671  (10120908)
       609349.09   4202502.70        1.53929  (10121108)                609364.09
 4202502.70        1.51444  (09120508)
       609394.09   4202502.70        1.49137  (10121808)                609409.09
 4202502.70        1.46950  (09022220)
       609424.09   4202502.70        1.42407  (10020719)                609439.09
 4202502.70        1.41078  (12021206)
       609454.09   4202502.70        1.39217  (10020523)                609469.09
 4202502.70        1.35878  (10022423)
       609484.09   4202502.70        1.32434  (12120608)                609499.09
 4202502.70        1.27254  (12120608)
       609514.09   4202502.70        1.23054  (13020722)                609529.09
 4202502.70        1.20504  (09022424)
       609544.09   4202502.70        1.18316  (12120506)                609559.09
 4202502.70        1.11282  (10122303)
       609574.09   4202502.70        1.06647  (10012518)                609589.09
 4202502.70        1.02160  (13011002)
       609604.09   4202502.70        1.00539  (09022423)                609619.09
 4202502.70        0.98828  (09022423)
       609634.09   4202502.70        0.93906  (09022423)                609649.09
 4202502.70        0.91984  (09021721)
       609664.09   4202502.70        0.88896  (09122922)                609064.09
 4202517.70        1.04377  (09122817)
       609079.09   4202517.70        1.06543  (13012924)                609094.09
 4202517.70        1.09525  (13012924)
       609109.09   4202517.70        1.15997  (09021623)                609124.09
 4202517.70        1.19043  (12122304)
       609139.09   4202517.70        1.23503  (12122304)                609154.09
 4202517.70        1.27179  (11021706)
       609169.09   4202517.70        1.31238  (09012124)                609184.09
 4202517.70        1.34726  (10010218)
       609199.09   4202517.70        1.33853  (13120920)                609214.09
 4202517.70        1.38273  (11011921)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        12:03:34
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609229.09	4202517.70	1.43102	(10121308)	609244.09	4202517.70	1.46475	(10122619)
609259.09	4202517.70	1.46936	(10010508)	609274.09	4202517.70	1.50270	(11123003)
609289.09	4202517.70	1.49863	(09022320)	609304.09	4202517.70	1.52158	(11012907)
609319.09	4202517.70	1.52414	(10012801)	609334.09	4202517.70	1.54259	(10120908)
609349.09	4202517.70	1.44980	(10121108)	609364.09	4202517.70	1.42859	(09120508)
609409.09	4202517.70	1.37666	(11122819)	609424.09	4202517.70	1.35505	(09022220)
609439.09	4202517.70	1.31497	(12021206)	609454.09	4202517.70	1.30973	(10020523)
609469.09	4202517.70	1.28892	(12021724)	609484.09	4202517.70	1.25379	(10022423)
609499.09	4202517.70	1.23239	(12120608)	609514.09	4202517.70	1.16414	(10021424)
609529.09	4202517.70	1.14917	(13020722)	609544.09	4202517.70	1.12450	(09022424)
609559.09	4202517.70	1.09849	(12120506)	609574.09	4202517.70	1.03230	(10012518)
609589.09	4202517.70	0.99153	(10012518)	609604.09	4202517.70	0.95322	(13011002)
609619.09	4202517.70	0.93976	(09022423)	609634.09	4202517.70	0.92700	(09022423)
609649.09	4202517.70	0.88512	(09022423)	609079.09	4202532.70	1.02745	(13012924)
609094.09	4202532.70	1.08259	(09021623)	609109.09	4202532.70	1.11333	(11121408)
609124.09	4202532.70	1.15671	(12122304)	609139.09	4202532.70	1.17964	(11021706)
609154.09	4202532.70	1.21786	(09012124)	609169.09			

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 4202532.70        1.25388  (10010218)
       609184.09   4202532.70        1.26167  (10010218)               609199.09
 4202532.70        1.26418  (13120920)
       609214.09   4202532.70        1.32101  (12122821)               609229.09
 4202532.70        1.36431  (10121308)
       609244.09   4202532.70        1.38399  (10122619)               609259.09
 4202532.70        1.39018  (10010508)
       609274.09   4202532.70        1.41239  (11123003)               609289.09
 4202532.70        1.42453  (09022320)
       609304.09   4202532.70        1.43346  (11012907)               609319.09
 4202532.70        1.43987  (10012801)
       609334.09   4202532.70        1.45678  (10120908)               609349.09
 4202532.70        1.36857  (10121108)
       609364.09   4202532.70        1.34959  (09120508)               609409.09
 4202532.70        1.30263  (11122819)
       609424.09   4202532.70        1.29299  (09022220)               609439.09
 4202532.70        1.24999  (11022222)
       609454.09   4202532.70        1.24348  (12021206)               609469.09
 4202532.70        1.22322  (10020523)
       609484.09   4202532.70        1.19902  (10022423)               609499.09
 4202532.70        1.16840  (12120608)
       609514.09   4202532.70        1.13728  (12120608)               609529.09
 4202532.70        1.08425  (10021424)
       609544.09   4202532.70        1.07107  (13020722)               609559.09
 4202532.70        1.05408  (12120506)
       609574.09   4202532.70        1.02130  (12120506)               609589.09
 4202532.70        0.96590  (10012518)
       609604.09   4202532.70        0.92467  (10012518)               609619.09
 4202532.70        0.89222  (13011002)
       609094.09   4202547.70        1.04369  (11121408)               609109.09
 4202547.70        1.08191  (12122304)
       609124.09   4202547.70        1.10075  (11122707)               609139.09
 4202547.70        1.13603  (11021706)
       609154.09   4202547.70        1.16950  (09012124)               609169.09
 4202547.70        1.19894  (10010218)
       609184.09   4202547.70        1.18880  (13120920)               609199.09
 4202547.70        1.22119  (11011921)
       609214.09   4202547.70        1.25755  (12122821)               609229.09
 4202547.70        1.28989  (10121308)
       609244.09   4202547.70        1.31189  (09121604)               609259.09
 4202547.70        1.32671  (11123003)
       609274.09   4202547.70        1.33203  (09011124)               609289.09
 4202547.70        1.35540  (09022320)
       609304.09   4202547.70        1.35297  (11012907)               609319.09
 4202547.70        1.36408  (10012801)
       609334.09   4202547.70        1.37877  (10120908)               609349.09
 4202547.70        1.29377  (10121108)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609364.09	4202547.70	1.27654	(09120508)	609409.09	4202547.70	1.22890	(11122819)
609424.09	4202547.70	1.22744	(09022220)	609439.09	4202547.70	1.18665	(10020719)
609454.09	4202547.70	1.17231	(12021206)	609469.09	4202547.70	1.16069	(10020523)
609484.09	4202547.70	1.14306	(12021724)	609499.09	4202547.70	1.11502	(10022423)
609514.09	4202547.70	1.09793	(12120608)	609529.09	4202547.70	1.04258	(12120608)
609544.09	4202547.70	1.02071	(13020722)	609559.09	4202547.70	1.00325	(11010201)
609574.09	4202547.70	0.99010	(12120506)	609589.09	4202547.70	0.95101	(12120506)
609109.09	4202562.70	1.03498	(12122304)	609124.09	4202562.70	1.06623	(11021706)
609139.09	4202562.70	1.09691	(09012124)	609154.09	4202562.70	1.12514	(10010218)
609169.09	4202562.70	1.12472	(10010218)	609184.09	4202562.70	1.13003	(13120920)
609199.09	4202562.70	1.17333	(12122821)	609214.09	4202562.70	1.21315	(10121308)
609229.09	4202562.70	1.23646	(10122619)	609244.09	4202562.70	1.23836	(09121604)
609259.09	4202562.70	1.26818	(11123003)	609274.09	4202562.70	1.26554	(09011124)
609289.09	4202562.70	1.28983	(09022320)	609304.09	4202562.70	1.27834	(11012907)
609319.09	4202562.70	1.29473	(10012801)	609334.09	4202562.70	1.30758	(10120908)
609349.09	4202562.70	1.22510	(10121108)	609364.09			

```
 4202562.70         1.20893  (09120508)
       609409.09   4202562.70         1.16962  (10121808)                609424.09
 4202562.70         1.16010  (09022220)
       609439.09   4202562.70         1.13232  (09022220)                609454.09
 4202562.70         1.10186  (11022222)
       609469.09   4202562.70         1.10248  (12021206)                609484.09
 4202562.70         1.08897  (09022307)
       609499.09   4202562.70         1.06959  (10022423)                609514.09
 4202562.70         1.03994  (12120608)
       609529.09   4202562.70         1.02335  (12120608)                609544.09
 4202562.70         0.97166  (10021424)
       609559.09   4202562.70         0.96228  (13020722)                609574.09
 4202562.70         0.94294  (09022424)
       609124.09   4202577.70         1.02172  (09012124)                609139.09
 4202577.70         1.04881  (09012124)
       609154.09   4202577.70         1.07521  (10010218)                609169.09
 4202577.70         1.06535  (13120920)
       609184.09   4202577.70         1.08893  (11011921)                609199.09
 4202577.70         1.12807  (12122821)
       609214.09   4202577.70         1.16130  (10121308)                609229.09
 4202577.70         1.17800  (10122619)
       609244.09   4202577.70         1.18141  (10010508)                609259.09
 4202577.70         1.20840  (11123003)
       609274.09   4202577.70         1.20075  (09011124)                609289.09
 4202577.70         1.22735  (09022320)
       609304.09   4202577.70         1.20875  (11012907)                609319.09
 4202577.70         1.23232  (12012604)
       609334.09   4202577.70         1.24257  (10120908)                609349.09
 4202577.70         1.16299  (10121108)
       609364.09   4202577.70         1.14659  (09120508)                609409.09
 4202577.70         1.12127  (10121808)
       609424.09   4202577.70         1.09745  (11122819)                609439.09
 4202577.70         1.08962  (09022220)
       609454.09   4202577.70         1.05585  (11022222)                609469.09
 4202577.70         1.04990  (12021206)
       609484.09   4202577.70         1.03908  (10020523)                609499.09
 4202577.70         1.02390  (12021724)
       609514.09   4202577.70         1.00046  (10022423)                609529.09
 4202577.70         0.98540  (12120608)
       609544.09   4202577.70         0.94749  (12120608)                609139.09
 4202592.70         1.01661  (10010218)
       609154.09   4202592.70         1.00975  (10010218)                609169.09
 4202592.70         1.01683  (13120920)
       609184.09   4202592.70         1.05191  (11011921)                609199.09
 4202592.70         1.08227  (10121308)
       609214.09   4202592.70         1.10298  (10122619)                609229.09
 4202592.70         1.12284  (09121604)
       609244.09   4202592.70         1.12621  (10010508)                609259.09
 4202592.70         1.14832  (11123003)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
```

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                            *** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
                                INCLUDING SOURCE(S):   PAREA2   ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS ***

                                     ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                  **

      X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)   X-COORD (M) Y-COORD (M)   CONC   (YYMMDDHH)
 -
       609274.09   4202592.70   1.13792 (09011124)   609289.09   4202592.70   1.16782 (09022320)
       609304.09   4202592.70   1.14381 (11012907)   609319.09   4202592.70   1.17486 (12012604)
       609334.09   4202592.70   1.18288 (10120908)   609349.09   4202592.70   1.10776 (10120908)
       609364.09   4202592.70   1.09001 (11012906)   609409.09   4202592.70   1.07320 (10121808)
       609424.09   4202592.70   1.04687 (11122819)   609439.09   4202592.70   1.04358 (09022220)
       609454.09   4202592.70   1.00755 (10020719)   609469.09   4202592.70   0.99114 (12021206)
       609484.09   4202592.70   0.98573 (12021206)   609499.09   4202592.70   0.97914 (09022307)
       609514.09   4202592.70   0.96219 (10022423)   609529.09   4202592.70   0.93273 (12120608)
       609169.09   4202607.70   0.97705 (11011921)   609184.09   4202607.70   1.01634 (12122821)
       609199.09   4202607.70   1.04678 (10121308)   609214.09   4202607.70   1.06347 (10122619)
       609229.09   4202607.70   1.06840 (09121604)   609244.09   4202607.70   1.08171 (11123003)
       609259.09   4202607.70   1.08861 (11123003)   609274.09   4202607.70   1.08820 (09022320)
       609289.09   4202607.70   1.11139 (11012907)   609304.09   4202607.70   1.08567 (12022721)
       609319.09   4202607.70   1.12162 (12012604)   609334.09   4202607.70   1.12777 (10120908)
       609349.09   4202607.70   1.05690 (10120908)   609364.09

```
 4202607.70        1.03920  (11012906)
       609409.09   4202607.70        1.02604  (10121808)                609424.09
 4202607.70        0.99606  (11122819)
       609439.09   4202607.70        0.99516  (09022220)                609454.09
 4202607.70        0.96291  (09022220)
       609469.09   4202607.70        0.94307  (11022222)                609484.09
 4202607.70        0.94674  (12021206)
       609499.09   4202607.70        0.93754  (10020523)                609199.09
 4202622.70        1.00403  (10121308)
       609214.09   4202622.70        1.01866  (10122619)                609229.09
 4202622.70        1.01736  (10010508)
       609244.09   4202622.70        1.04144  (11123003)                609259.09
 4202622.70        1.03666  (09011124)
       609274.09   4202622.70        1.04770  (09022320)                609289.09
 4202622.70        1.06249  (11012907)
       609304.09   4202622.70        1.03892  (12022721)                609319.09
 4202622.70        1.07213  (12012604)
       609334.09   4202622.70        1.07683  (10120908)                609349.09
 4202622.70        1.00988  (10120908)
       609364.09   4202622.70        0.99189  (11012906)                609409.09
 4202622.70        0.97976  (10121808)
       609424.09   4202622.70        0.94716  (10121808)                609439.09
 4202622.70        0.94546  (09022220)
       609454.09   4202622.70        0.93281  (09022220)                609469.09
 4202622.70        0.90709  (11022222)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        12:03:34

                                  PAGE  65
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                  *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   5 YEARS ***


                                   ** CONC OF PM_2.5   IN MICROGRAMS/M**3
             **


                        NETWORK
GROUP ID                      AVERAGE CONC               RECEPTOR  (XR, YR,
ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -

ALL       1ST HIGHEST VALUE IS       0.63294 AT (  609409.09,  4202202.70,
40.02,    40.02,    0.00)  DC
          2ND HIGHEST VALUE IS       0.52437 AT (  609409.09,  4202187.70,
```

40.10,   40.10,   0.00) DC
          3RD HIGHEST VALUE IS   0.51835 AT (609424.09, 4202232.70,
40.00,   40.00,   0.00) DC
          4TH HIGHEST VALUE IS   0.49061 AT (609424.09, 4202247.70,
40.00,   40.00,   0.00) DC
          5TH HIGHEST VALUE IS   0.48591 AT (609424.09, 4202202.70,
40.03,   40.03,   0.00) DC
          6TH HIGHEST VALUE IS   0.43614 AT (609424.09, 4202262.70,
40.00,   40.00,   0.00) DC
          7TH HIGHEST VALUE IS   0.43001 AT (609274.09, 4202217.70,
41.00,   41.00,   0.00) DC
          8TH HIGHEST VALUE IS   0.42609 AT (609424.09, 4202187.70,
40.21,   40.21,   0.00) DC
          9TH HIGHEST VALUE IS   0.42509 AT (609274.09, 4202202.70,
41.00,   41.00,   0.00) DC
         10TH HIGHEST VALUE IS   0.41200 AT (609274.09, 4202232.70,
41.00,   41.00,   0.00) DC

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

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                                                *** THE SUMMARY OF HIGHEST 1-HR
RESULTS ***

                                   ** CONC OF PM_2.5   IN MICROGRAMS/M**3
              **

                                                      DATE
                                          NETWORK
GROUP ID   AVERAGE CONC   (YYMMDDHH)   RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)   OF TYPE GRID-ID
- -
- -

ALL   HIGH   1ST HIGH VALUE IS   5.44929 ON 10020504: AT (609274.09,
4202202.70,   41.00,   41.00,   0.00) DC

 *** RECEPTOR TYPES: GC = GRIDCART

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

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

A Total of 0 Fatal Error Message(s)
A Total of 1 Warning Message(s)
A Total of 15235 Informational Message(s)

A Total of 43872 Hours Were Processed

A Total of 13448 Calm Hours Identified

A Total of 1787 Missing Hours Identified (4.07 Percent)

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

******** WARNING MESSAGES ********
MX W481 43873 MAIN: Data Remaining After End of Year. Number of Hours= 48

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

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 10/28/2021
** File: C:\Lakes\AERMOD
View\5200LoneTree_Construction_TIER4MITGATION\5200LoneTree_Construction_TIER4MITGAT
ION.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel
   MODELOPT DFAULT CONC
   AVERTIME 1 ANNUAL
   URBANOPT 111502 Antioch
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL 5200LoneTree_Construction_TIER4MITGATION.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION PAREA4       AREAPOLY   609290.367  4202285.159       41.000
** Source Parameters **
   SRCPARAM PAREA4       2.0497E-08     3.100         4
   AREAVERT PAREA4       609290.367 4202285.159 609382.368 4202285.833
   AREAVERT PAREA4       609383.716 4202191.136 609290.704 4202191.473
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
```

```
**
RE STARTING
   INCLUDED 5200LoneTree_Construction_TIER4MITGATION.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.SFC"
   PROFFILE "C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.PFL"
   SURFDATA 23285 2009
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 125.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST 5200LONETREE_CONSTRUCTION_TIER4MITGATION.AD\01H1GALL.PLT 31
   PLOTFILE ANNUAL ALL 5200LONETREE_CONSTRUCTION_TIER4MITGATION.AD\AN00GALL.PLT 32
   SUMMFILE 5200LoneTree_Construction_TIER4MITGATION.sum
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     10
** ZONEINX  0
**
```

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 10/28/2021
** File: C:\Lakes\AERMOD
View\5200LoneTree_Construction_TIER4MITGATION\5200LoneTree_Construction_TIER4MITGAT
ION.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel
   MODELOPT DFAULT CONC
   AVERTIME 1 ANNUAL
   URBANOPT 111502 Antioch
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL 5200LoneTree_Construction_TIER4MITGATION.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION PAREA4       AREAPOLY   609290.367  4202285.159       41.000
** Source Parameters **
   SRCPARAM PAREA4       2.0497E-08     3.100         4
   AREAVERT PAREA4       609290.367 4202285.159 609382.368 4202285.833
   AREAVERT PAREA4       609383.716 4202191.136 609290.704 4202191.473
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
```

```
**
RE STARTING
   INCLUDED 5200LoneTree_Construction_TIER4MITGATION.rou
RE FINISHED
**
************************************
** AERMOD Meteorology Pathway
************************************
**
**
ME STARTING
   SURFFILE "C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.SFC"
   PROFFILE "C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.PFL"
   SURFDATA 23285 2009
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 125.0 METERS
ME FINISHED
**
************************************
** AERMOD Output Pathway
************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST 5200LONETREE_CONSTRUCTION_TIER4MITGATION.AD\01H1GALL.PLT 31
   PLOTFILE ANNUAL ALL 5200LONETREE_CONSTRUCTION_TIER4MITGATION.AD\AN00GALL.PLT 32
   SUMMFILE 5200LoneTree_Construction_TIER4MITGATION.sum
OU FINISHED

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

↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:32:22

                                  PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                          ***     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 URBAN Dispersion Algorithm for the SBL for     1 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =    111502.0 ;  Urban Roughness Length =  1.000 m

 **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.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        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_2.5

 **Model Calculates  1 Short Term Average(s) of:   1-HR
     and Calculates ANNUAL Averages

 **This Run Includes:      1 Source(s);       1 Source Group(s); and    1574
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      0 VOLUME source(s)
                 and:      1 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:  14134

 **Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
```

Keyword)
          Model Outputs External File(s) of High Values for Plotting (PLOTFILE
Keyword)
          Model Outputs Separate Summary File of High Ranked Values (SUMMFILE
Keyword)

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

 **Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) =   125.00 ; Decay
Coef. =   0.000   ; Rot. Angle =   0.0
                  Emission Units = GRAMS/SEC   ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =   3.7 MB of RAM.

 **Input Runstream File: aermod.inp

 **Output Print File: aermod.out

 **Detailed Error/Message File: 5200LoneTree_Construction_TIER4MITGATION.err

 **File for Summary of Results: 5200LoneTree_Construction_TIER4MITGATION.sum

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                                                *** AREAPOLY SOURCE DATA ***

               NUMBER EMISSION RATE   LOCATION OF AREA BASE   RELEASE NUMBER
  INIT.   URBAN EMISSION RATE
   SOURCE   PART. (GRAMS/SEC   X   Y   ELEV.   HEIGHT OF VERTS.
   SZ   SOURCE SCALAR VARY
     ID   CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS)
(METERS)   BY
 -
- -

 PAREA4   0   0.20497E-07 609290.4 4202285.2   41.0   3.10   4

                                          *** SOURCE IDs DEFINING SOURCE GROUPS
***

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

  ALL   PAREA4   ,

                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***

  URBAN ID   URBAN POP   SOURCE IDs
  --------   ---------   ----------

              111502.   PAREA4   ,

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

     (609304.1, 4201857.7,   44.0,   66.0,   0.0);   (609319.1,
4201857.7,   43.7,   66.0,   0.0);
     (609334.1, 4201857.7,   43.9,   66.0,   0.0);   (609349.1,

```
4201857.7,      44.4,      66.0,       0.0);
     ( 609364.1, 4201857.7,      44.6,      44.6,       0.0);         ( 609379.1,
4201857.7,      44.6,      44.6,       0.0);
     ( 609394.1, 4201857.7,      44.6,      44.6,       0.0);         ( 609259.1,
4201872.7,      43.2,      66.0,       0.0);
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 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

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     ( 609139.1, 4201947.7,      38.9,      77.0,       0.0);         ( 609154.1,
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     ( 609424.1, 4201947.7,      42.7,      42.7,       0.0);         ( 609439.1,
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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                        ***       11:32:22

                                  PAGE   7
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                    *** DISCRETE CARTESIAN RECEPTORS ***
                                  (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                              (METERS)
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     ( 609109.1, 4201977.7,      38.1,      77.0,       0.0);         ( 609124.1,
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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:32:22

                                   PAGE   8
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                         ***       11:32:22

                                   PAGE   9
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN
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*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                        ***       11:32:22
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(609244.1, 4202097.7, 41.0, 41.0, 0.0); (609259.1, 4202097.7, 41.0, 41.0, 0.0);
(609274.1, 4202097.7, 41.0, 41.0, 0.0); (609289.1, 4202097.7, 41.0, 41.0, 0.0);
(609304.1, 4202097.7, 41.0, 41.0, 0.0); (609319.1, 4202097.7, 41.0, 41.0, 0.0);
(609334.1, 4202097.7, 41.0, 41.0, 0.0); (609349.1, 4202097.7, 41.0, 41.0, 0.0);
(609364.1, 4202097.7, 41.0, 41.0, 0.0); (609409.1, 4202097.7, 41.0, 41.0, 0.0);
(609424.1, 4202097.7, 41.0, 41.0, 0.0); (609439.1, 4202097.7, 41.0, 41.0, 0.0);
(609454.1, 4202097.7, 41.0, 41.0, 0.0); (609469.1, 4202097.7, 41.0, 41.0, 0.0);
(609484.1, 4202097.7, 41.0, 41.0, 0.0); (609499.1, 4202097.7, 41.0, 41.0, 0.0);
(609514.1, 4202097.7, 41.0, 41.0, 0.0); (609529.1, 4202097.7, 41.0, 41.0, 0.0);
(609544.1, 4202097.7, 41.0, 41.0, 0.0); (609559.1, 4202097.7, 41.0, 41.0, 0.0);
(609574.1, 4202097.7, 41.0, 41.0, 0.0); (609589.1, 4202097.7, 41.0, 41.0, 0.0);
(609604.1, 4202097.7, 41.0, 41.0, 0.0); (609619.1, 4202097.7, 41.0, 41.0, 0.0);
(609634.1, 4202097.7, 41.0, 41.0, 0.0); (609649.1, 4202097.7, 41.0, 41.0, 0.0);
(609664.1, 4202097.7, 41.0, 41.0, 0.0); (609679.1, 4202097.7, 41.0, 41.0, 0.0);
(609694.1, 4202097.7, 41.0, 41.0, 0.0); (609709.1, 4202097.7, 41.0, 41.0, 0.0);
(609724.1, 4202097.7, 41.0, 41.0, 0.0); (608989.1, 4202112.7, 40.2, 77.0, 0.0);
(609004.1, 4202112.7, 40.0, 77.0, 0.0); (609019.1, 4202112.7, 39.9, 77.0, 0.0);
(609034.1, 4202112.7, 39.9, 77.0, 0.0); (609049.1, 4202112.7, 39.9, 77.0, 0.0);
(609064.1, 4202112.7, 39.9, 77.0, 0.0); (609079.1, 4202112.7, 39.9, 77.0, 0.0);
(609094.1, 4202112.7, 39.9, 77.0, 0.0); (609109.1, 4202112.7, 39.9, 77.0, 0.0);
(609124.1, 4202112.7, 39.9, 77.0, 0.0); (609139.1,

```
4202112.7,      40.0,      77.0,       0.0);
     ( 609154.1, 4202112.7,      40.0,      77.0,       0.0);         ( 609169.1,
4202112.7,      40.0,      40.0,       0.0);
     ( 609184.1, 4202112.7,      40.3,      40.3,       0.0);         ( 609199.1,
4202112.7,      40.8,      40.8,       0.0);
     ( 609214.1, 4202112.7,      40.9,      40.9,       0.0);         ( 609229.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609244.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609259.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609274.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609289.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609304.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609319.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609334.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609349.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609364.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609379.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609409.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609424.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609439.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609454.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609469.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609484.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609499.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609514.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609529.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609544.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609559.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609574.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609589.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609604.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609619.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609634.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609649.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609664.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609679.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609694.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609709.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609724.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 608989.1, 4202127.7,      40.5,      77.0,       0.0);         ( 609004.1,
4202127.7,      40.3,      77.0,       0.0);
     ( 609019.1, 4202127.7,      40.1,      77.0,       0.0);         ( 609034.1,
4202127.7,      40.0,      77.0,       0.0);
     ( 609049.1, 4202127.7,      40.0,      77.0,       0.0);         ( 609064.1,
4202127.7,      40.0,      77.0,       0.0);
     ( 609079.1, 4202127.7,      40.0,      77.0,       0.0);         ( 609094.1,
4202127.7,      40.0,      77.0,       0.0);
     ( 609109.1, 4202127.7,      40.0,      77.0,       0.0);         ( 609124.1,
4202127.7,      40.0,      77.0,       0.0);
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
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 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

     (609139.1, 4202127.7,   40.0,   77.0,   0.0);   (609154.1,
4202127.7,   40.1,   77.0,   0.0);
     (609169.1, 4202127.7,   40.3,   40.3,   0.0);   (609184.1,
4202127.7,   40.6,   40.6,   0.0);
     (609199.1, 4202127.7,   40.9,   40.9,   0.0);   (609214.1,
4202127.7,   41.0,   41.0,   0.0);
     (609229.1, 4202127.7,   41.0,   41.0,   0.0);   (609244.1,
4202127.7,   41.0,   41.0,   0.0);
     (609259.1, 4202127.7,   41.0,   41.0,   0.0);   (609274.1,
4202127.7,   41.0,   41.0,   0.0);
     (609289.1, 4202127.7,   41.0,   41.0,   0.0);   (609304.1,
4202127.7,   41.0,   41.0,   0.0);
     (609319.1, 4202127.7,   41.0,   41.0,   0.0);   (609334.1,
4202127.7,   41.0,   41.0,   0.0);
     (609349.1, 4202127.7,   41.0,   41.0,   0.0);   (609364.1,
4202127.7,   41.0,   41.0,   0.0);
     (609379.1, 4202127.7,   41.0,   41.0,   0.0);   (609409.1,
4202127.7,   41.0,   41.0,   0.0);
     (609424.1, 4202127.7,   41.0,   41.0,   0.0);   (609439.1,
4202127.7,   41.0,   41.0,   0.0);
     (609454.1, 4202127.7,   41.0,   41.0,   0.0);   (609469.1,
4202127.7,   41.0,   41.0,   0.0);
     (609484.1, 4202127.7,   41.0,   41.0,   0.0);   (609499.1,
4202127.7,   41.0,   41.0,   0.0);
     (609514.1, 4202127.7,   41.0,   41.0,   0.0);   (609529.1,
4202127.7,   41.0,   41.0,   0.0);
     (609544.1, 4202127.7,   41.0,   41.0,   0.0);   (609559.1,
4202127.7,   41.0,   41.0,   0.0);
     (609574.1, 4202127.7,   41.0,   41.0,   0.0);   (609589.1,
4202127.7,   41.0,   41.0,   0.0);
     (609604.1, 4202127.7,   41.0,   41.0,   0.0);   (609619.1,
4202127.7,   41.0,   41.0,   0.0);
     (609634.1, 4202127.7,   41.0,   41.0,   0.0);   (609649.1,
4202127.7,   41.0,   41.0,   0.0);
     (609664.1, 4202127.7,   41.0,   41.0,   0.0);   (609679.1,
4202127.7,   41.0,   41.0,   0.0);
     (609694.1, 4202127.7,   41.0,   41.0,   0.0);   (609709.1,
4202127.7,   41.0,   41.0,   0.0);
     (609724.1, 4202127.7,   41.0,   41.0,   0.0);   (608974.1,

```
4202142.7,      41.0,      77.0,       0.0);
     ( 608989.1, 4202142.7,      40.9,      77.0,       0.0);         ( 609004.1,
4202142.7,      40.6,      77.0,       0.0);
     ( 609019.1, 4202142.7,      40.1,      77.0,       0.0);         ( 609034.1,
4202142.7,      40.0,      77.0,       0.0);
     ( 609049.1, 4202142.7,      40.0,      77.0,       0.0);         ( 609064.1,
4202142.7,      40.0,      77.0,       0.0);
     ( 609079.1, 4202142.7,      40.0,      77.0,       0.0);         ( 609094.1,
4202142.7,      40.0,      77.0,       0.0);
     ( 609109.1, 4202142.7,      40.0,      77.0,       0.0);         ( 609124.1,
4202142.7,      40.0,      77.0,       0.0);
     ( 609139.1, 4202142.7,      40.0,      77.0,       0.0);         ( 609154.1,
4202142.7,      40.3,      40.3,       0.0);
     ( 609169.1, 4202142.7,      40.8,      40.8,       0.0);         ( 609184.1,
4202142.7,      40.9,      40.9,       0.0);
     ( 609199.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609214.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609229.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609244.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609259.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609274.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609289.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609304.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609319.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609334.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609349.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609364.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609379.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609409.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609424.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609439.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609454.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609469.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609484.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609499.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609514.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609529.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609544.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609559.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609574.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609589.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609604.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609619.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609634.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609649.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609664.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609679.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609694.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609709.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609724.1, 4202142.7,      41.0,      41.0,       0.0);         ( 608974.1,
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*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

     (608989.1, 4202157.7,   41.0,   77.0,   0.0);   (609004.1,
4202157.7,   40.7,   77.0,   0.0);
     (609019.1, 4202157.7,   40.2,   77.0,   0.0);   (609034.1,
4202157.7,   40.0,   77.0,   0.0);
     (609049.1, 4202157.7,   40.0,   77.0,   0.0);   (609064.1,
4202157.7,   40.0,   77.0,   0.0);
     (609079.1, 4202157.7,   40.0,   77.0,   0.0);   (609094.1,
4202157.7,   40.0,   77.0,   0.0);
     (609109.1, 4202157.7,   40.0,   77.0,   0.0);   (609124.1,
4202157.7,   40.0,   77.0,   0.0);
     (609139.1, 4202157.7,   40.0,   77.0,   0.0);   (609154.1,
4202157.7,   40.3,   40.3,   0.0);
     (609169.1, 4202157.7,   40.8,   40.8,   0.0);   (609184.1,
4202157.7,   41.0,   41.0,   0.0);
     (609199.1, 4202157.7,   41.0,   41.0,   0.0);   (609214.1,
4202157.7,   41.0,   41.0,   0.0);
     (609229.1, 4202157.7,   41.0,   41.0,   0.0);   (609244.1,
4202157.7,   41.0,   41.0,   0.0);
     (609259.1, 4202157.7,   41.0,   41.0,   0.0);   (609274.1,
4202157.7,   41.0,   41.0,   0.0);
     (609289.1, 4202157.7,   41.0,   41.0,   0.0);   (609304.1,
4202157.7,   41.0,   41.0,   0.0);
     (609319.1, 4202157.7,   41.0,   41.0,   0.0);   (609334.1,
4202157.7,   41.0,   41.0,   0.0);
     (609349.1, 4202157.7,   41.0,   41.0,   0.0);   (609364.1,
4202157.7,   41.0,   41.0,   0.0);
     (609379.1, 4202157.7,   41.0,   41.0,   0.0);   (609409.1,
4202157.7,   40.7,   40.7,   0.0);
     (609424.1, 4202157.7,   40.7,   40.7,   0.0);   (609439.1,
4202157.7,   40.9,   40.9,   0.0);
     (609454.1, 4202157.7,   41.0,   41.0,   0.0);   (609469.1,
4202157.7,   41.0,   41.0,   0.0);
     (609484.1, 4202157.7,   41.0,   41.0,   0.0);   (609499.1,
4202157.7,   41.0,   41.0,   0.0);
     (609514.1, 4202157.7,   41.0,   41.0,   0.0);   (609529.1,
4202157.7,   41.0,   41.0,   0.0);
     (609544.1, 4202157.7,   41.0,   41.0,   0.0);   (609559.1,

```
4202157.7,      41.0,      41.0,       0.0);
     ( 609574.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609589.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609604.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609619.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609634.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609649.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609664.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609679.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609694.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609709.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609724.1, 4202157.7,      41.0,      41.0,       0.0);         ( 608959.1,
4202172.7,      41.2,      77.0,       0.0);
     ( 608974.1, 4202172.7,      41.0,      77.0,       0.0);         ( 608989.1,
4202172.7,      41.0,      77.0,       0.0);
     ( 609004.1, 4202172.7,      40.7,      77.0,       0.0);         ( 609019.1,
4202172.7,      40.2,      77.0,       0.0);
     ( 609034.1, 4202172.7,      40.0,      77.0,       0.0);         ( 609049.1,
4202172.7,      40.0,      77.0,       0.0);
     ( 609064.1, 4202172.7,      40.0,      77.0,       0.0);         ( 609079.1,
4202172.7,      40.0,      77.0,       0.0);
     ( 609094.1, 4202172.7,      40.0,      77.0,       0.0);         ( 609109.1,
4202172.7,      40.0,      77.0,       0.0);
     ( 609124.1, 4202172.7,      40.0,      77.0,       0.0);         ( 609139.1,
4202172.7,      40.0,      40.0,       0.0);
     ( 609154.1, 4202172.7,      40.3,      40.3,       0.0);         ( 609169.1,
4202172.7,      40.8,      40.8,       0.0);
     ( 609184.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609199.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609214.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609229.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609244.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609259.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609274.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609289.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609304.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609319.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609334.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609349.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609364.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609379.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609409.1, 4202172.7,      40.2,      40.2,       0.0);         ( 609424.1,
4202172.7,      40.4,      40.4,       0.0);
     ( 609439.1, 4202172.7,      40.9,      40.9,       0.0);         ( 609454.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609469.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609484.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609499.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609514.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609529.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609544.1,
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*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

     (609589.1, 4202172.7,   41.0,   41.0,   0.0);   (609604.1,
4202172.7,   41.0,   41.0,   0.0);
     (609619.1, 4202172.7,   41.0,   41.0,   0.0);   (609634.1,
4202172.7,   41.0,   41.0,   0.0);
     (609649.1, 4202172.7,   41.0,   41.0,   0.0);   (609664.1,
4202172.7,   41.0,   41.0,   0.0);
     (609679.1, 4202172.7,   41.0,   41.0,   0.0);   (609694.1,
4202172.7,   41.0,   41.0,   0.0);
     (609709.1, 4202172.7,   41.0,   41.0,   0.0);   (609724.1,
4202172.7,   41.0,   41.0,   0.0);
     (608959.1, 4202187.7,   41.5,   77.0,   0.0);   (608974.1,
4202187.7,   41.3,   77.0,   0.0);
     (608989.1, 4202187.7,   41.1,   77.0,   0.0);   (609004.1,
4202187.7,   40.8,   77.0,   0.0);
     (609019.1, 4202187.7,   40.5,   77.0,   0.0);   (609034.1,
4202187.7,   40.3,   77.0,   0.0);
     (609049.1, 4202187.7,   40.1,   77.0,   0.0);   (609064.1,
4202187.7,   40.0,   77.0,   0.0);
     (609079.1, 4202187.7,   40.0,   77.0,   0.0);   (609094.1,
4202187.7,   40.0,   77.0,   0.0);
     (609109.1, 4202187.7,   40.0,   77.0,   0.0);   (609124.1,
4202187.7,   40.0,   40.0,   0.0);
     (609139.1, 4202187.7,   40.0,   40.0,   0.0);   (609154.1,
4202187.7,   40.3,   40.3,   0.0);
     (609169.1, 4202187.7,   40.8,   40.8,   0.0);   (609184.1,
4202187.7,   41.0,   41.0,   0.0);
     (609199.1, 4202187.7,   41.0,   41.0,   0.0);   (609214.1,
4202187.7,   41.0,   41.0,   0.0);
     (609229.1, 4202187.7,   41.0,   41.0,   0.0);   (609244.1,
4202187.7,   41.0,   41.0,   0.0);
     (609259.1, 4202187.7,   41.0,   41.0,   0.0);   (609274.1,
4202187.7,   41.0,   41.0,   0.0);
     (609409.1, 4202187.7,   40.1,   40.1,   0.0);   (609424.1,
4202187.7,   40.2,   40.2,   0.0);
     (609439.1, 4202187.7,   40.5,   40.5,   0.0);   (609454.1,

```
4202187.7,      40.7,      40.7,       0.0);
     ( 609469.1, 4202187.7,      40.9,      40.9,       0.0);         ( 609484.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609499.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609514.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609529.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609544.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609559.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609574.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609589.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609604.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609619.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609634.1,
4202187.7,      40.9,      40.9,       0.0);
     ( 609649.1, 4202187.7,      40.7,      40.7,       0.0);         ( 609664.1,
4202187.7,      40.7,      40.7,       0.0);
     ( 609679.1, 4202187.7,      40.9,      40.9,       0.0);         ( 609694.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609709.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609724.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 608959.1, 4202202.7,      41.9,      77.0,       0.0);         ( 608974.1,
4202202.7,      41.6,      77.0,       0.0);
     ( 608989.1, 4202202.7,      41.1,      77.0,       0.0);         ( 609004.1,
4202202.7,      41.0,      77.0,       0.0);
     ( 609019.1, 4202202.7,      40.9,      77.0,       0.0);         ( 609034.1,
4202202.7,      40.6,      77.0,       0.0);
     ( 609049.1, 4202202.7,      40.1,      77.0,       0.0);         ( 609064.1,
4202202.7,      40.0,      77.0,       0.0);
     ( 609079.1, 4202202.7,      40.0,      77.0,       0.0);         ( 609094.1,
4202202.7,      40.0,      77.0,       0.0);
     ( 609109.1, 4202202.7,      40.0,      40.0,       0.0);         ( 609124.1,
4202202.7,      40.0,      40.0,       0.0);
     ( 609139.1, 4202202.7,      40.0,      40.0,       0.0);         ( 609154.1,
4202202.7,      40.3,      40.3,       0.0);
     ( 609169.1, 4202202.7,      40.8,      40.8,       0.0);         ( 609184.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609199.1, 4202202.7,      41.0,      41.0,       0.0);         ( 609214.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609229.1, 4202202.7,      41.0,      41.0,       0.0);         ( 609244.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609259.1, 4202202.7,      41.0,      41.0,       0.0);         ( 609274.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609409.1, 4202202.7,      40.0,      40.0,       0.0);         ( 609424.1,
4202202.7,      40.0,      40.0,       0.0);
     ( 609439.1, 4202202.7,      40.1,      40.1,       0.0);         ( 609454.1,
4202202.7,      40.4,      40.4,       0.0);
     ( 609469.1, 4202202.7,      40.9,      40.9,       0.0);         ( 609484.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609499.1, 4202202.7,      41.0,      41.0,       0.0);         ( 609514.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609529.1, 4202202.7,      41.0,      41.0,       0.0);         ( 609544.1,
```

4202202.7,   41.0,   41.0,   0.0);
     (609559.1, 4202202.7,   41.0,   41.0,   0.0);   (609574.1,
4202202.7,   41.0,   41.0,   0.0);
     (609589.1, 4202202.7,   41.0,   41.0,   0.0);   (609604.1,
4202202.7,   41.0,   41.0,   0.0);

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

     (609619.1, 4202202.7,   41.0,   41.0,   0.0);   (609634.1,
4202202.7,   40.7,   40.7,   0.0);
     (609649.1, 4202202.7,   40.2,   40.2,   0.0);   (609664.1,
4202202.7,   40.4,   40.4,   0.0);
     (609679.1, 4202202.7,   40.9,   40.9,   0.0);   (609694.1,
4202202.7,   41.0,   41.0,   0.0);
     (609709.1, 4202202.7,   41.0,   41.0,   0.0);   (609724.1,
4202202.7,   41.0,   41.0,   0.0);
     (608959.1, 4202217.7,   42.0,   77.0,   0.0);   (608974.1,
4202217.7,   41.7,   77.0,   0.0);
     (608989.1, 4202217.7,   41.2,   77.0,   0.0);   (609004.1,
4202217.7,   41.0,   77.0,   0.0);
     (609019.1, 4202217.7,   41.0,   77.0,   0.0);   (609034.1,
4202217.7,   40.8,   77.0,   0.0);
     (609049.1, 4202217.7,   40.5,   77.0,   0.0);   (609064.1,
4202217.7,   40.3,   77.0,   0.0);
     (609079.1, 4202217.7,   40.1,   77.0,   0.0);   (609094.1,
4202217.7,   40.0,   40.0,   0.0);
     (609109.1, 4202217.7,   40.0,   40.0,   0.0);   (609124.1,
4202217.7,   40.0,   40.0,   0.0);
     (609139.1, 4202217.7,   40.0,   40.0,   0.0);   (609154.1,
4202217.7,   40.3,   40.3,   0.0);
     (609169.1, 4202217.7,   40.8,   40.8,   0.0);   (609184.1,
4202217.7,   41.0,   41.0,   0.0);
     (609199.1, 4202217.7,   41.0,   41.0,   0.0);   (609214.1,
4202217.7,   41.0,   41.0,   0.0);
     (609229.1, 4202217.7,   41.0,   41.0,   0.0);   (609244.1,
4202217.7,   41.0,   41.0,   0.0);
     (609259.1, 4202217.7,   41.0,   41.0,   0.0);   (609274.1,
4202217.7,   41.0,   41.0,   0.0);
     (609484.1, 4202217.7,   40.7,   40.7,   0.0);   (609499.1,
4202217.7,   40.9,   40.9,   0.0);
     (609514.1, 4202217.7,   41.0,   41.0,   0.0);   (609529.1,

```
4202217.7,      41.0,      41.0,       0.0);
     ( 609544.1, 4202217.7,      41.0,      41.0,       0.0);         ( 609559.1,
4202217.7,      41.0,      41.0,       0.0);
     ( 609574.1, 4202217.7,      41.0,      41.0,       0.0);         ( 609589.1,
4202217.7,      41.0,      41.0,       0.0);
     ( 609604.1, 4202217.7,      40.9,      40.9,       0.0);         ( 609619.1,
4202217.7,      40.7,      40.7,       0.0);
     ( 609634.1, 4202217.7,      40.4,      40.4,       0.0);         ( 609649.1,
4202217.7,      40.1,      40.1,       0.0);
     ( 609664.1, 4202217.7,      40.2,      40.2,       0.0);         ( 609679.1,
4202217.7,      40.5,      40.5,       0.0);
     ( 609694.1, 4202217.7,      40.6,      40.6,       0.0);         ( 609709.1,
4202217.7,      40.6,      40.6,       0.0);
     ( 609724.1, 4202217.7,      41.0,      41.0,       0.0);         ( 608959.1,
4202232.7,      42.0,      77.0,       0.0);
     ( 608974.1, 4202232.7,      41.7,      77.0,       0.0);         ( 608989.1,
4202232.7,      41.2,      77.0,       0.0);
     ( 609004.1, 4202232.7,      41.0,      77.0,       0.0);         ( 609019.1,
4202232.7,      41.0,      77.0,       0.0);
     ( 609034.1, 4202232.7,      41.0,      77.0,       0.0);         ( 609049.1,
4202232.7,      40.9,      40.9,       0.0);
     ( 609064.1, 4202232.7,      40.6,      40.6,       0.0);         ( 609079.1,
4202232.7,      40.1,      40.1,       0.0);
     ( 609094.1, 4202232.7,      40.0,      40.0,       0.0);         ( 609109.1,
4202232.7,      40.0,      40.0,       0.0);
     ( 609124.1, 4202232.7,      40.0,      40.0,       0.0);         ( 609139.1,
4202232.7,      40.0,      40.0,       0.0);
     ( 609154.1, 4202232.7,      40.3,      40.3,       0.0);         ( 609169.1,
4202232.7,      40.8,      40.8,       0.0);
     ( 609184.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609199.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609214.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609229.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609244.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609259.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609274.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609424.1,
4202232.7,      40.0,      40.0,       0.0);
     ( 609439.1, 4202232.7,      40.0,      40.0,       0.0);         ( 609454.1,
4202232.7,      40.0,      40.0,       0.0);
     ( 609469.1, 4202232.7,      40.1,      40.1,       0.0);         ( 609484.1,
4202232.7,      40.4,      40.4,       0.0);
     ( 609499.1, 4202232.7,      40.9,      40.9,       0.0);         ( 609514.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609529.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609544.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609559.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609574.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609589.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609604.1,
4202232.7,      40.7,      40.7,       0.0);
     ( 609619.1, 4202232.7,      40.2,      40.2,       0.0);         ( 609634.1,
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*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

     (608959.1, 4202247.7,   42.0,   77.0,   0.0);   (608974.1,
4202247.7,   41.7,   77.0,   0.0);
     (608989.1, 4202247.7,   41.2,   77.0,   0.0);   (609004.1,
4202247.7,   41.0,   77.0,   0.0);
     (609019.1, 4202247.7,   41.0,   77.0,   0.0);   (609034.1,
4202247.7,   41.0,   41.0,   0.0);
     (609049.1, 4202247.7,   41.0,   41.0,   0.0);   (609064.1,
4202247.7,   40.7,   40.7,   0.0);
     (609079.1, 4202247.7,   40.2,   40.2,   0.0);   (609094.1,
4202247.7,   40.0,   40.0,   0.0);
     (609109.1, 4202247.7,   40.0,   40.0,   0.0);   (609124.1,
4202247.7,   40.0,   40.0,   0.0);
     (609139.1, 4202247.7,   40.0,   40.0,   0.0);   (609154.1,
4202247.7,   40.2,   40.2,   0.0);
     (609169.1, 4202247.7,   40.5,   40.5,   0.0);   (609184.1,
4202247.7,   40.7,   40.7,   0.0);
     (609199.1, 4202247.7,   40.9,   40.9,   0.0);   (609214.1,
4202247.7,   41.0,   41.0,   0.0);
     (609229.1, 4202247.7,   41.0,   41.0,   0.0);   (609244.1,
4202247.7,   41.0,   41.0,   0.0);
     (609259.1, 4202247.7,   41.0,   41.0,   0.0);   (609274.1,
4202247.7,   41.0,   41.0,   0.0);
     (609424.1, 4202247.7,   40.0,   40.0,   0.0);   (609439.1,
4202247.7,   40.0,   40.0,   0.0);
     (609454.1, 4202247.7,   40.0,   40.0,   0.0);   (609469.1,
4202247.7,   40.0,   40.0,   0.0);
     (609484.1, 4202247.7,   40.2,   40.2,   0.0);   (609499.1,
4202247.7,   40.5,   40.5,   0.0);
     (609514.1, 4202247.7,   40.6,   40.6,   0.0);   (609529.1,
4202247.7,   40.6,   40.6,   0.0);
     (609544.1, 4202247.7,   40.7,   40.7,   0.0);   (609559.1,

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4202247.7,      40.9,      40.9,       0.0);
     ( 609574.1, 4202247.7,      41.0,      41.0,       0.0);         ( 609589.1,
4202247.7,      41.0,      41.0,       0.0);
     ( 609604.1, 4202247.7,      40.7,      40.7,       0.0);         ( 609619.1,
4202247.7,      40.2,      40.2,       0.0);
     ( 609634.1, 4202247.7,      40.0,      40.0,       0.0);         ( 609649.1,
4202247.7,      40.0,      40.0,       0.0);
     ( 609664.1, 4202247.7,      40.0,      40.0,       0.0);         ( 609679.1,
4202247.7,      40.0,      40.0,       0.0);
     ( 609694.1, 4202247.7,      40.0,      40.0,       0.0);         ( 609709.1,
4202247.7,      40.0,      40.0,       0.0);
     ( 609724.1, 4202247.7,      40.9,      40.9,       0.0);         ( 608959.1,
4202262.7,      42.0,      77.0,       0.0);
     ( 608974.1, 4202262.7,      41.7,      77.0,       0.0);         ( 608989.1,
4202262.7,      41.2,      77.0,       0.0);
     ( 609004.1, 4202262.7,      41.0,      41.0,       0.0);         ( 609019.1,
4202262.7,      41.0,      41.0,       0.0);
     ( 609034.1, 4202262.7,      41.0,      41.0,       0.0);         ( 609049.1,
4202262.7,      41.0,      41.0,       0.0);
     ( 609064.1, 4202262.7,      40.7,      40.7,       0.0);         ( 609079.1,
4202262.7,      40.2,      40.2,       0.0);
     ( 609094.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609109.1,
4202262.7,      40.0,      40.0,       0.0);
     ( 609124.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609139.1,
4202262.7,      40.0,      40.0,       0.0);
     ( 609154.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609169.1,
4202262.7,      40.1,      40.1,       0.0);
     ( 609184.1, 4202262.7,      40.4,      40.4,       0.0);         ( 609199.1,
4202262.7,      40.9,      40.9,       0.0);
     ( 609214.1, 4202262.7,      41.0,      41.0,       0.0);         ( 609229.1,
4202262.7,      41.0,      41.0,       0.0);
     ( 609244.1, 4202262.7,      41.0,      41.0,       0.0);         ( 609259.1,
4202262.7,      41.0,      41.0,       0.0);
     ( 609274.1, 4202262.7,      41.0,      41.0,       0.0);         ( 609424.1,
4202262.7,      40.0,      40.0,       0.0);
     ( 609439.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609454.1,
4202262.7,      40.0,      40.0,       0.0);
     ( 609469.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609484.1,
4202262.7,      40.0,      40.0,       0.0);
     ( 609499.1, 4202262.7,      40.1,      40.1,       0.0);         ( 609514.1,
4202262.7,      40.1,      40.1,       0.0);
     ( 609529.1, 4202262.7,      40.1,      40.1,       0.0);         ( 609544.1,
4202262.7,      40.4,      40.4,       0.0);
     ( 609559.1, 4202262.7,      40.9,      40.9,       0.0);         ( 609574.1,
4202262.7,      41.0,      41.0,       0.0);
     ( 609589.1, 4202262.7,      41.0,      41.0,       0.0);         ( 609604.1,
4202262.7,      40.7,      40.7,       0.0);
     ( 609619.1, 4202262.7,      40.2,      40.2,       0.0);         ( 609634.1,
4202262.7,      40.0,      40.0,       0.0);
     ( 609649.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609664.1,
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*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

     (609484.1, 4202277.7,   40.0,   40.0,   0.0);   (609499.1,
4202277.7,   40.0,   40.0,   0.0);
     (609514.1, 4202277.7,   40.0,   40.0,   0.0);   (609529.1,
4202277.7,   40.0,   40.0,   0.0);
     (609544.1, 4202277.7,   40.2,   40.2,   0.0);   (609559.1,
4202277.7,   40.5,   40.5,   0.0);
     (609574.1, 4202277.7,   40.6,   40.6,   0.0);   (609589.1,
4202277.7,   40.6,   40.6,   0.0);
     (609604.1, 4202277.7,   40.4,   40.4,   0.0);   (609619.1,
4202277.7,   40.1,   40.1,   0.0);
     (609634.1, 4202277.7,   40.0,   40.0,   0.0);   (609649.1,
4202277.7,   40.0,   40.0,   0.0);
     (609664.1, 4202277.7,   40.0,   40.0,   0.0);   (609679.1,
4202277.7,   40.0,   40.0,   0.0);
     (609694.1, 4202277.7,   40.0,   40.0,   0.0);   (609709.1,
4202277.7,   40.0,   40.0,   0.0);
     (609724.1, 4202277.7,   40.4,   40.4,   0.0);   (609409.1,
4202322.7,   40.0,   40.0,   0.0);
     (609424.1, 4202322.7,   40.0,   40.0,   0.0);   (609439.1,
4202322.7,   40.0,   40.0,   0.0);
     (609454.1, 4202322.7,   40.0,   40.0,   0.0);   (609469.1,
4202322.7,   40.0,   40.0,   0.0);
     (609484.1, 4202322.7,   40.0,   40.0,   0.0);   (609499.1,
4202322.7,   40.0,   40.0,   0.0);
     (609514.1, 4202322.7,   40.0,   40.0,   0.0);   (609529.1,
4202322.7,   40.0,   40.0,   0.0);
     (609544.1, 4202322.7,   40.0,   40.0,   0.0);   (609559.1,
4202322.7,   40.0,   40.0,   0.0);
     (609574.1, 4202322.7,   40.0,   40.0,   0.0);   (609589.1,

```
4202322.7,      40.0,      40.0,       0.0);
     ( 609604.1, 4202322.7,      40.0,      40.0,       0.0);         ( 609619.1,
4202322.7,      40.0,      40.0,       0.0);
     ( 609634.1, 4202322.7,      40.0,      40.0,       0.0);         ( 609649.1,
4202322.7,      40.0,      40.0,       0.0);
     ( 609664.1, 4202322.7,      40.0,      40.0,       0.0);         ( 609679.1,
4202322.7,      40.0,      40.0,       0.0);
     ( 609694.1, 4202322.7,      40.0,      40.0,       0.0);         ( 609409.1,
4202337.7,      40.0,      40.0,       0.0);
     ( 609424.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609439.1,
4202337.7,      40.0,      40.0,       0.0);
     ( 609454.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609469.1,
4202337.7,      40.0,      40.0,       0.0);
     ( 609484.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609499.1,
4202337.7,      40.0,      40.0,       0.0);
     ( 609514.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609529.1,
4202337.7,      40.0,      40.0,       0.0);
     ( 609544.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609559.1,
4202337.7,      40.0,      40.0,       0.0);
     ( 609574.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609589.1,
4202337.7,      40.0,      40.0,       0.0);
     ( 609604.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609619.1,
4202337.7,      40.0,      40.0,       0.0);
     ( 609634.1, 4202337.7,      39.9,      39.9,       0.0);         ( 609649.1,
4202337.7,      39.7,      39.7,       0.0);
     ( 609664.1, 4202337.7,      39.6,      39.6,       0.0);         ( 609679.1,
4202337.7,      39.6,      39.6,       0.0);
     ( 609694.1, 4202337.7,      39.6,      39.6,       0.0);         ( 609709.1,
4202337.7,      39.6,      39.6,       0.0);
     ( 609724.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609409.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609424.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609439.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609454.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609469.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609484.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609499.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609514.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609529.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609544.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609559.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609574.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609589.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609604.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609619.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609634.1, 4202352.7,      39.7,      39.7,       0.0);         ( 609649.1,
4202352.7,      39.2,      39.2,       0.0);
     ( 609664.1, 4202352.7,      39.1,      39.1,       0.0);         ( 609679.1,
4202352.7,      39.1,      39.1,       0.0);
     ( 609694.1, 4202352.7,      39.1,      39.1,       0.0);         ( 609709.1,
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*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

     (609544.1, 4202367.7,   40.0,   40.0,   0.0);   (609559.1,
4202367.7,   40.0,   40.0,   0.0);
     (609574.1, 4202367.7,   39.9,   39.9,   0.0);   (609589.1,
4202367.7,   39.7,   39.7,   0.0);
     (609604.1, 4202367.7,   39.6,   39.6,   0.0);   (609619.1,
4202367.7,   39.6,   39.6,   0.0);
     (609634.1, 4202367.7,   39.4,   39.4,   0.0);   (609649.1,
4202367.7,   39.1,   39.1,   0.0);
     (609664.1, 4202367.7,   39.0,   39.0,   0.0);   (609679.1,
4202367.7,   39.0,   39.0,   0.0);
     (609694.1, 4202367.7,   39.0,   39.0,   0.0);   (609709.1,
4202367.7,   39.0,   39.0,   0.0);
     (609724.1, 4202367.7,   40.0,   40.0,   0.0);   (609394.1,
4202382.7,   40.0,   40.0,   0.0);
     (609409.1, 4202382.7,   40.0,   40.0,   0.0);   (609424.1,
4202382.7,   40.0,   40.0,   0.0);
     (609439.1, 4202382.7,   40.0,   40.0,   0.0);   (609454.1,
4202382.7,   40.0,   40.0,   0.0);
     (609469.1, 4202382.7,   40.0,   40.0,   0.0);   (609484.1,
4202382.7,   40.0,   40.0,   0.0);
     (609499.1, 4202382.7,   40.0,   40.0,   0.0);   (609514.1,
4202382.7,   40.0,   40.0,   0.0);
     (609529.1, 4202382.7,   40.0,   40.0,   0.0);   (609544.1,
4202382.7,   40.0,   40.0,   0.0);
     (609559.1, 4202382.7,   40.0,   40.0,   0.0);   (609574.1,
4202382.7,   39.7,   39.7,   0.0);
     (609589.1, 4202382.7,   39.2,   39.2,   0.0);   (609604.1,

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4202382.7,      39.1,      39.1,       0.0);
     ( 609619.1, 4202382.7,      39.1,      39.1,       0.0);         ( 609634.1,
4202382.7,      39.1,      39.1,       0.0);
     ( 609649.1, 4202382.7,      39.0,      39.0,       0.0);         ( 609664.1,
4202382.7,      39.0,      39.0,       0.0);
     ( 609679.1, 4202382.7,      39.0,      39.0,       0.0);         ( 609694.1,
4202382.7,      39.0,      39.0,       0.0);
     ( 609709.1, 4202382.7,      39.0,      40.0,       0.0);         ( 609724.1,
4202382.7,      40.0,      40.0,       0.0);
     ( 609394.1, 4202397.7,      40.0,      40.0,       0.0);         ( 609409.1,
4202397.7,      40.0,      40.0,       0.0);
     ( 609424.1, 4202397.7,      40.0,      40.0,       0.0);         ( 609439.1,
4202397.7,      40.0,      40.0,       0.0);
     ( 609454.1, 4202397.7,      40.0,      40.0,       0.0);         ( 609469.1,
4202397.7,      40.0,      40.0,       0.0);
     ( 609484.1, 4202397.7,      40.0,      40.0,       0.0);         ( 609499.1,
4202397.7,      40.0,      40.0,       0.0);
     ( 609514.1, 4202397.7,      40.0,      40.0,       0.0);         ( 609529.1,
4202397.7,      40.0,      40.0,       0.0);
     ( 609544.1, 4202397.7,      39.9,      39.9,       0.0);         ( 609559.1,
4202397.7,      39.7,      39.7,       0.0);
     ( 609574.1, 4202397.7,      39.4,      39.4,       0.0);         ( 609589.1,
4202397.7,      39.1,      39.1,       0.0);
     ( 609604.1, 4202397.7,      39.0,      39.0,       0.0);         ( 609619.1,
4202397.7,      39.0,      39.0,       0.0);
     ( 609634.1, 4202397.7,      39.0,      39.0,       0.0);         ( 609649.1,
4202397.7,      39.0,      39.0,       0.0);
     ( 609664.1, 4202397.7,      39.0,      39.0,       0.0);         ( 609679.1,
4202397.7,      39.0,      39.0,       0.0);
     ( 609694.1, 4202397.7,      39.0,      39.0,       0.0);         ( 609709.1,
4202397.7,      39.0,      39.0,       0.0);
     ( 609724.1, 4202397.7,      39.6,      39.6,       0.0);         ( 609394.1,
4202412.7,      40.0,      40.0,       0.0);
     ( 609409.1, 4202412.7,      40.0,      40.0,       0.0);         ( 609424.1,
4202412.7,      40.0,      40.0,       0.0);
     ( 609439.1, 4202412.7,      40.0,      40.0,       0.0);         ( 609454.1,
4202412.7,      40.0,      40.0,       0.0);
     ( 609469.1, 4202412.7,      40.0,      40.0,       0.0);         ( 609484.1,
4202412.7,      40.0,      40.0,       0.0);
     ( 609499.1, 4202412.7,      40.0,      40.0,       0.0);         ( 609514.1,
4202412.7,      40.0,      40.0,       0.0);
     ( 609529.1, 4202412.7,      40.0,      40.0,       0.0);         ( 609544.1,
4202412.7,      39.7,      39.7,       0.0);
     ( 609559.1, 4202412.7,      39.2,      39.2,       0.0);         ( 609574.1,
4202412.7,      39.1,      39.1,       0.0);
     ( 609589.1, 4202412.7,      39.0,      39.0,       0.0);         ( 609604.1,
4202412.7,      39.0,      39.0,       0.0);
     ( 609619.1, 4202412.7,      39.0,      39.0,       0.0);         ( 609634.1,
4202412.7,      39.0,      39.0,       0.0);
     ( 609649.1, 4202412.7,      39.0,      39.0,       0.0);         ( 609664.1,
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4202412.7,   39.0,   39.0,   0.0);
     (609679.1, 4202412.7,   39.0,   39.0,   0.0);   (609694.1,
4202412.7,   39.0,   39.0,   0.0);
     (609709.1, 4202412.7,   39.0,   39.0,   0.0);   (609724.1,
4202412.7,   39.1,   39.1,   0.0);
     (609394.1, 4202427.7,   40.0,   40.0,   0.0);   (609409.1,
4202427.7,   40.0,   40.0,   0.0);
     (609424.1, 4202427.7,   40.0,   40.0,   0.0);   (609439.1,
4202427.7,   40.0,   40.0,   0.0);
     (609454.1, 4202427.7,   40.0,   40.0,   0.0);   (609469.1,
4202427.7,   40.0,   40.0,   0.0);
     (609484.1, 4202427.7,   40.0,   40.0,   0.0);   (609499.1,
4202427.7,   40.0,   40.0,   0.0);

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

     (609514.1, 4202427.7,   40.0,   40.0,   0.0);   (609529.1,
4202427.7,   40.0,   40.0,   0.0);
     (609544.1, 4202427.7,   39.8,   39.8,   0.0);   (609559.1,
4202427.7,   39.5,   39.5,   0.0);
     (609574.1, 4202427.7,   39.3,   39.3,   0.0);   (609589.1,
4202427.7,   39.1,   39.1,   0.0);
     (609604.1, 4202427.7,   39.0,   39.0,   0.0);   (609619.1,
4202427.7,   39.0,   39.0,   0.0);
     (609634.1, 4202427.7,   39.0,   39.0,   0.0);   (609649.1,
4202427.7,   39.0,   39.0,   0.0);
     (609664.1, 4202427.7,   39.0,   39.0,   0.0);   (609679.1,
4202427.7,   39.0,   39.0,   0.0);
     (609694.1, 4202427.7,   39.0,   39.0,   0.0);   (609709.1,
4202427.7,   39.0,   39.0,   0.0);
     (609724.1, 4202427.7,   39.0,   39.0,   0.0);   (609439.1,
4202472.7,   40.0,   40.0,   0.0);
     (609454.1, 4202472.7,   40.0,   40.0,   0.0);   (609469.1,
4202472.7,   40.0,   40.0,   0.0);
     (609484.1, 4202472.7,   40.0,   40.0,   0.0);   (609499.1,
4202472.7,   40.0,   40.0,   0.0);
     (609514.1, 4202472.7,   40.0,   40.0,   0.0);   (609529.1,
4202472.7,   40.0,   40.0,   0.0);
     (609544.1, 4202472.7,   40.0,   40.0,   0.0);   (609559.1,
4202472.7,   40.0,   40.0,   0.0);
     (609574.1, 4202472.7,   40.0,   40.0,   0.0);   (609589.1,

```
4202472.7,      39.9,      39.9,       0.0);
     ( 609604.1, 4202472.7,      39.6,      39.6,       0.0);         ( 609619.1,
4202472.7,      39.1,      39.1,       0.0);
     ( 609634.1, 4202472.7,      39.0,      39.0,       0.0);         ( 609649.1,
4202472.7,      39.0,      39.0,       0.0);
     ( 609664.1, 4202472.7,      39.0,      39.0,       0.0);         ( 609679.1,
4202472.7,      39.0,      39.0,       0.0);
     ( 609694.1, 4202472.7,      39.0,      39.0,       0.0);         ( 609319.1,
4202487.7,      41.4,      41.4,       0.0);
     ( 609334.1, 4202487.7,      41.4,      41.4,       0.0);         ( 609349.1,
4202487.7,      41.4,      41.4,       0.0);
     ( 609364.1, 4202487.7,      41.3,      41.3,       0.0);         ( 609394.1,
4202487.7,      40.8,      40.8,       0.0);
     ( 609409.1, 4202487.7,      40.5,      40.5,       0.0);         ( 609424.1,
4202487.7,      40.4,      40.4,       0.0);
     ( 609439.1, 4202487.7,      40.4,      40.4,       0.0);         ( 609454.1,
4202487.7,      40.3,      40.3,       0.0);
     ( 609469.1, 4202487.7,      40.1,      40.1,       0.0);         ( 609484.1,
4202487.7,      40.0,      40.0,       0.0);
     ( 609499.1, 4202487.7,      40.0,      40.0,       0.0);         ( 609514.1,
4202487.7,      40.0,      40.0,       0.0);
     ( 609529.1, 4202487.7,      40.0,      40.0,       0.0);         ( 609544.1,
4202487.7,      40.0,      40.0,       0.0);
     ( 609559.1, 4202487.7,      40.0,      40.0,       0.0);         ( 609574.1,
4202487.7,      40.0,      40.0,       0.0);
     ( 609589.1, 4202487.7,      40.0,      40.0,       0.0);         ( 609604.1,
4202487.7,      39.8,      39.8,       0.0);
     ( 609619.1, 4202487.7,      39.5,      39.5,       0.0);         ( 609634.1,
4202487.7,      39.4,      39.4,       0.0);
     ( 609649.1, 4202487.7,      39.4,      39.4,       0.0);         ( 609664.1,
4202487.7,      39.3,      39.3,       0.0);
     ( 609679.1, 4202487.7,      39.1,      39.1,       0.0);         ( 609184.1,
4202502.7,      41.9,      41.9,       0.0);
     ( 609199.1, 4202502.7,      41.9,      41.9,       0.0);         ( 609214.1,
4202502.7,      41.9,      41.9,       0.0);
     ( 609229.1, 4202502.7,      42.0,      42.0,       0.0);         ( 609244.1,
4202502.7,      42.0,      42.0,       0.0);
     ( 609259.1, 4202502.7,      42.0,      42.0,       0.0);         ( 609274.1,
4202502.7,      42.0,      42.0,       0.0);
     ( 609289.1, 4202502.7,      41.9,      41.9,       0.0);         ( 609304.1,
4202502.7,      41.9,      41.9,       0.0);
     ( 609319.1, 4202502.7,      41.9,      41.9,       0.0);         ( 609334.1,
4202502.7,      41.9,      41.9,       0.0);
     ( 609349.1, 4202502.7,      41.9,      41.9,       0.0);         ( 609364.1,
4202502.7,      41.6,      41.6,       0.0);
     ( 609394.1, 4202502.7,      41.0,      41.0,       0.0);         ( 609409.1,
4202502.7,      40.9,      40.9,       0.0);
     ( 609424.1, 4202502.7,      40.9,      40.9,       0.0);         ( 609439.1,
4202502.7,      40.9,      40.9,       0.0);
     ( 609454.1, 4202502.7,      40.6,      40.6,       0.0);         ( 609469.1,
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4202502.7, 40.1, 40.1, 0.0);
     (609484.1, 4202502.7, 40.0, 40.0, 0.0); (609499.1,
4202502.7, 40.0, 40.0, 0.0);
     (609514.1, 4202502.7, 40.0, 40.0, 0.0); (609529.1,
4202502.7, 40.0, 40.0, 0.0);
     (609544.1, 4202502.7, 40.0, 40.0, 0.0); (609559.1,
4202502.7, 40.0, 40.0, 0.0);
     (609574.1, 4202502.7, 40.0, 40.0, 0.0); (609589.1,
4202502.7, 40.0, 40.0, 0.0);
     (609604.1, 4202502.7, 40.0, 40.0, 0.0); (609619.1,
4202502.7, 39.9, 39.9, 0.0);
     (609634.1, 4202502.7, 39.9, 39.9, 0.0); (609649.1,
4202502.7, 39.9, 39.9, 0.0);
     (609664.1, 4202502.7, 39.6, 39.6, 0.0); (609064.1,
4202517.7, 42.0, 42.0, 0.0);

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

     (609079.1, 4202517.7, 42.0, 42.0, 0.0); (609094.1,
4202517.7, 42.0, 42.0, 0.0);
     (609109.1, 4202517.7, 42.0, 42.0, 0.0); (609124.1,
4202517.7, 42.0, 42.0, 0.0);
     (609139.1, 4202517.7, 42.0, 42.0, 0.0); (609154.1,
4202517.7, 42.0, 42.0, 0.0);
     (609169.1, 4202517.7, 42.0, 42.0, 0.0); (609184.1,
4202517.7, 42.1, 42.1, 0.0);
     (609199.1, 4202517.7, 42.3, 42.3, 0.0); (609214.1,
4202517.7, 42.4, 42.4, 0.0);
     (609229.1, 4202517.7, 42.4, 42.4, 0.0); (609244.1,
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     (609259.1, 4202517.7, 42.4, 42.4, 0.0); (609274.1,
4202517.7, 42.4, 42.4, 0.0);
     (609289.1, 4202517.7, 42.4, 42.4, 0.0); (609304.1,
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     (609439.1, 4202517.7, 41.0, 41.0, 0.0); (609454.1,

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     ( 609559.1, 4202517.7,      40.0,      40.0,       0.0);         ( 609574.1,
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     ( 609589.1, 4202517.7,      40.0,      40.0,       0.0);         ( 609604.1,
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     ( 609619.1, 4202517.7,      40.0,      40.0,       0.0);         ( 609634.1,
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     ( 609649.1, 4202517.7,      40.0,      40.0,       0.0);         ( 609079.1,
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     ( 609124.1, 4202532.7,      42.0,      42.0,       0.0);         ( 609139.1,
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     ( 609154.1, 4202532.7,      42.0,      42.0,       0.0);         ( 609169.1,
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     ( 609184.1, 4202532.7,      42.3,      42.3,       0.0);         ( 609199.1,
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     ( 609214.1, 4202532.7,      42.9,      42.9,       0.0);         ( 609229.1,
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     ( 609244.1, 4202532.7,      42.9,      42.9,       0.0);         ( 609259.1,
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     ( 609274.1, 4202532.7,      42.9,      42.9,       0.0);         ( 609289.1,
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     ( 609304.1, 4202532.7,      42.9,      42.9,       0.0);         ( 609319.1,
4202532.7,      42.9,      42.9,       0.0);
     ( 609334.1, 4202532.7,      42.6,      42.6,       0.0);         ( 609349.1,
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     ( 609364.1, 4202532.7,      42.0,      42.0,       0.0);         ( 609409.1,
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     ( 609424.1, 4202532.7,      41.0,      41.0,       0.0);         ( 609439.1,
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     ( 609454.1, 4202532.7,      40.7,      40.7,       0.0);         ( 609469.1,
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     ( 609484.1, 4202532.7,      40.0,      40.0,       0.0);         ( 609499.1,
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     ( 609514.1, 4202532.7,      40.0,      40.0,       0.0);         ( 609529.1,
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     ( 609544.1, 4202532.7,      40.0,      40.0,       0.0);         ( 609559.1,
4202532.7,      40.0,      40.0,       0.0);
     ( 609574.1, 4202532.7,      40.0,      40.0,       0.0);         ( 609589.1,
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     ( 609604.1, 4202532.7,      40.0,      40.0,       0.0);         ( 609619.1,
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     ( 609154.1, 4202547.7,      42.0,      42.0,       0.0);         ( 609169.1,
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     ( 609184.1, 4202547.7,      42.3,      42.3,       0.0);         ( 609199.1,
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     ( 609214.1, 4202547.7,      43.0,      43.0,       0.0);         ( 609229.1,
4202547.7,      43.0,      43.0,       0.0);
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     ( 609274.1, 4202547.7,      43.0,      43.0,       0.0);         ( 609289.1,
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     ( 609304.1, 4202547.7,      43.0,      43.0,       0.0);         ( 609319.1,
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     ( 609334.1, 4202547.7,      42.8,      42.8,       0.0);         ( 609349.1,
4202547.7,      42.5,      42.5,       0.0);
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*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

```
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     ( 609424.1, 4202547.7,      41.3,      41.3,       0.0);         ( 609439.1,
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     ( 609454.1, 4202547.7,      40.7,      40.7,       0.0);         ( 609469.1,
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     ( 609484.1, 4202547.7,      40.0,      40.0,       0.0);         ( 609499.1,
4202547.7,      40.0,      40.0,       0.0);
     ( 609514.1, 4202547.7,      40.0,      40.0,       0.0);         ( 609529.1,
4202547.7,      40.0,      40.0,       0.0);
     ( 609544.1, 4202547.7,      40.0,      40.0,       0.0);         ( 609559.1,
4202547.7,      40.0,      40.0,       0.0);
     ( 609574.1, 4202547.7,      40.0,      40.0,       0.0);         ( 609589.1,
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     ( 609109.1, 4202562.7,      42.0,      42.0,       0.0);         ( 609124.1,
4202562.7,      42.0,      42.0,       0.0);
     ( 609139.1, 4202562.7,      42.0,      42.0,       0.0);         ( 609154.1,
4202562.7,      42.0,      42.0,       0.0);
     ( 609169.1, 4202562.7,      42.0,      42.0,       0.0);         ( 609184.1,
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     ( 609199.1, 4202562.7,      42.8,      42.8,       0.0);         ( 609214.1,
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     ( 609229.1, 4202562.7,      43.0,      43.0,       0.0);         ( 609244.1,
4202562.7,      43.0,      43.0,       0.0);
     ( 609259.1, 4202562.7,      43.0,      43.0,       0.0);         ( 609274.1,
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     ( 609289.1, 4202562.7,      43.0,      43.0,       0.0);         ( 609304.1,
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     ( 609319.1, 4202562.7,      43.0,      43.0,       0.0);         ( 609334.1,
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     ( 609349.1, 4202562.7,      42.9,      42.9,       0.0);         ( 609364.1,
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     ( 609409.1, 4202562.7,      41.9,      41.9,       0.0);         ( 609424.1,
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     ( 609529.1, 4202562.7,      40.0,      40.0,       0.0);         ( 609544.1,
4202562.7,      40.0,      40.0,       0.0);
     ( 609559.1, 4202562.7,      40.0,      40.0,       0.0);         ( 609574.1,
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     ( 609124.1, 4202577.7,      42.0,      42.0,       0.0);         ( 609139.1,
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     ( 609154.1, 4202577.7,      42.1,      42.1,       0.0);         ( 609169.1,
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     ( 609184.1, 4202577.7,      42.6,      42.6,       0.0);         ( 609199.1,
4202577.7,      42.9,      42.9,       0.0);
     ( 609214.1, 4202577.7,      43.0,      43.0,       0.0);         ( 609229.1,
4202577.7,      43.0,      43.0,       0.0);
     ( 609244.1, 4202577.7,      43.0,      43.0,       0.0);         ( 609259.1,
4202577.7,      43.0,      43.0,       0.0);
     ( 609274.1, 4202577.7,      43.0,      43.0,       0.0);         ( 609289.1,
4202577.7,      43.0,      43.0,       0.0);
     ( 609304.1, 4202577.7,      43.0,      43.0,       0.0);         ( 609319.1,
4202577.7,      43.0,      43.0,       0.0);
     ( 609334.1, 4202577.7,      43.0,      43.0,       0.0);         ( 609349.1,
4202577.7,      43.0,      43.0,       0.0);
     ( 609364.1, 4202577.7,      42.8,      42.8,       0.0);         ( 609409.1,
4202577.7,      42.1,      42.1,       0.0);
     ( 609424.1, 4202577.7,      41.7,      41.7,       0.0);         ( 609439.1,
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     ( 609454.1, 4202577.7,      40.7,      40.7,       0.0);         ( 609469.1,
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     ( 609484.1, 4202577.7,      40.0,      40.0,       0.0);         ( 609499.1,
4202577.7,      40.0,      40.0,       0.0);
     ( 609514.1, 4202577.7,      40.0,      40.0,       0.0);         ( 609529.1,
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     ( 609544.1, 4202577.7,      40.0,      40.0,       0.0);         ( 609139.1,
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     (609184.1, 4202592.7,   42.9,   42.9,   0.0);   (609199.1,
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4202592.7,   43.0,   43.0,   0.0);
     (609244.1, 4202592.7,   43.0,   43.0,   0.0);   (609259.1,
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     (609274.1, 4202592.7,   43.0,   43.0,   0.0);   (609289.1,
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     (609304.1, 4202592.7,   43.0,   43.0,   0.0);   (609319.1,
4202592.7,   43.0,   43.0,   0.0);
     (609334.1, 4202592.7,   43.0,   43.0,   0.0);   (609349.1,
4202592.7,   43.0,   43.0,   0.0);
     (609364.1, 4202592.7,   43.0,   43.0,   0.0);   (609409.1,
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     (609424.1, 4202592.7,   41.7,   41.7,   0.0);   (609439.1,
4202592.7,   41.2,   41.2,   0.0);

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

     (609454.1, 4202592.7,   40.7,   40.7,   0.0);   (609469.1,
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     (609514.1, 4202592.7,   40.0,   40.0,   0.0);   (609529.1,
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     (609169.1, 4202607.7,   42.8,   42.8,   0.0);   (609184.1,
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     (609199.1, 4202607.7,   43.0,   43.0,   0.0);   (609214.1,
4202607.7,   43.0,   43.0,   0.0);
     (609229.1, 4202607.7,   43.0,   43.0,   0.0);   (609244.1,
4202607.7,   43.0,   43.0,   0.0);
     (609259.1, 4202607.7,   43.0,   43.0,   0.0);   (609274.1,
4202607.7,   43.0,   43.0,   0.0);
     (609289.1, 4202607.7,   43.0,   43.0,   0.0);   (609304.1,
4202607.7,   43.0,   43.0,   0.0);
     (609319.1, 4202607.7,   43.0,   43.0,   0.0);   (609334.1,
4202607.7,   43.0,   43.0,   0.0);
     (609349.1, 4202607.7,   43.0,   43.0,   0.0);   (609364.1,

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4202607.7,      43.0,      43.0,       0.0);
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     ( 609439.1, 4202607.7,      41.1,      41.1,       0.0);         ( 609454.1,
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     ( 609469.1, 4202607.7,      40.2,      40.2,       0.0);         ( 609484.1,
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     ( 609499.1, 4202607.7,      40.0,      40.0,       0.0);         ( 609199.1,
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     ( 609214.1, 4202622.7,      43.0,      43.0,       0.0);         ( 609229.1,
4202622.7,      43.0,      43.0,       0.0);
     ( 609244.1, 4202622.7,      43.0,      43.0,       0.0);         ( 609259.1,
4202622.7,      43.0,      43.0,       0.0);
     ( 609274.1, 4202622.7,      43.0,      43.0,       0.0);         ( 609289.1,
4202622.7,      43.0,      43.0,       0.0);
     ( 609304.1, 4202622.7,      43.0,      43.0,       0.0);         ( 609319.1,
4202622.7,      43.0,      43.0,       0.0);
     ( 609334.1, 4202622.7,      43.0,      43.0,       0.0);         ( 609349.1,
4202622.7,      43.0,      43.0,       0.0);
     ( 609364.1, 4202622.7,      43.0,      43.0,       0.0);         ( 609409.1,
4202622.7,      41.4,      41.4,       0.0);
     ( 609424.1, 4202622.7,      41.1,      41.1,       0.0);         ( 609439.1,
4202622.7,      41.0,      41.0,       0.0);
     ( 609454.1, 4202622.7,      40.7,      40.7,       0.0);         ( 609469.1,
4202622.7,      40.2,      40.2,       0.0);
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                        ***       11:32:22

                                  PAGE  23
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                          *** 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
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1 1 1 1 1 1 1   1 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,

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

   Surface file: C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.SFC
                 Met Version: 14134
   Profile file: C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.PFL

   Surface format: FREE

   Profile format: FREE

   Surface station no.:   23285   Upper air station no.:   23230
                 Name: UNKNOWN   Name: OAKLAND/WSO_AP
                 Year: 2009   Year: 2009

 First 24 hours of scalar data
 YR MO DY JDY HR   H0   U*   W* DT/DZ ZICNV ZIMCH M-O LEN   Z0 BOWEN ALBEDO REF WS   WD   HT REF TA   HT
- -
 09 01 01   1 01 -12.6 0.221 -9.000 -9.000 -999. 250.   77.5 0.11   0.90   1.00   2.86   51.   10.0 279.2   2.0
 09 01 01   1 02 -23.5 0.413 -9.000 -9.000 -999. 637.   269.8 0.11   0.90   1.00   4.86   48.   10.0 279.2   2.0
 09 01 01   1 03 -11.1 0.195 -9.000 -9.000 -999. 254.   59.8 0.07   0.90   1.00   2.86   94.   10.0 278.8   2.0
 09 01 01   1 04   -9.5 0.166 -9.000 -9.000 -999. 164.   43.7 0.11   0.90

```
1.00    2.36   53.   10.0  278.1    2.0
 09 01 01   1 05  -11.1  0.195 -9.000 -9.000 -999.  206.     59.6  0.07   0.90
1.00    2.86   63.   10.0  278.1    2.0
 09 01 01   1 06   -8.2  0.143 -9.000 -9.000 -999.  131.     32.3  0.07   0.90
1.00    2.36   72.   10.0  278.1    2.0
 09 01 01   1 07   -8.2  0.143 -9.000 -9.000 -999.  130.     32.3  0.07   0.90
1.00    2.36   75.   10.0  278.1    2.0
 09 01 01   1 08   -4.1  0.078 -9.000 -9.000 -999.   53.     10.3  0.11   0.90
0.75    1.76   13.   10.0  277.5    2.0
 09 01 01   1 09   -6.3  0.246 -9.000 -9.000 -999.  292.    211.6  0.12   0.90
0.40    2.86  347.   10.0  278.1    2.0
 09 01 01   1 10    6.6  0.303  0.261  0.016   96.  401.   -378.3  0.11   0.90
0.27    3.36   51.   10.0  278.8    2.0
 09 01 01   1 11   15.4  0.317  0.422  0.017  176.  429.   -186.8  0.07   0.90
0.23    3.86   94.   10.0  279.9    2.0
 09 01 01   1 12   47.5  0.448  0.742  0.017  309.  720.   -170.5  0.11   0.90
0.22    4.86   56.   10.0  280.9    2.0
 09 01 01   1 13   49.0  0.405  0.820  0.014  403.  621.   -122.0  0.07   0.90
0.21    4.86   63.   10.0  281.4    2.0
 09 01 01   1 14   42.7  0.405  0.809  0.014  444.  619.   -139.5  0.11   0.90
0.22    4.36   59.   10.0  282.0    2.0
 09 01 01   1 15   60.8  0.372  0.922  0.014  463.  545.    -75.6  0.07   0.90
0.25    4.36   72.   10.0  281.4    2.0
 09 01 01   1 16   14.1  0.309  0.569  0.016  467.  414.   -187.5  0.11   0.90
0.34    3.36   54.   10.0  282.0    2.0
 09 01 01   1 17  -30.4  0.311 -9.000 -9.000 -999.  417.     89.1  0.07   0.90
0.58    4.36   61.   10.0  280.4    2.0
 09 01 01   1 18  -27.0  0.239 -9.000 -9.000 -999.  282.     45.2  0.11   0.90
1.00    3.36   47.   10.0  279.9    2.0
 09 01 01   1 19  -14.9  0.131 -9.000 -9.000 -999.  120.     13.7  0.07   0.90
1.00    2.86   64.   10.0  279.2    2.0
 09 01 01   1 20   -5.8  0.078 -9.000 -9.000 -999.   53.      7.3  0.11   0.90
1.00    1.76   47.   10.0  278.8    2.0
 09 01 01   1 21 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.10   0.90
1.00    0.00    0.   10.0  277.5    2.0
 09 01 01   1 22   -4.9  0.070 -9.000 -9.000 -999.   44.      6.2  0.07   0.90
1.00    1.76   82.   10.0  276.4    2.0
 09 01 01   1 23 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.10   0.90
1.00    0.00    0.   10.0  277.0    2.0
 09 01 01   1 24 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.10   0.90
1.00    0.00    0.   10.0  277.0    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 09 01 01 01   10.0 1   51.    2.86   279.3   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
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*** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5 YEARS FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   PAREA4   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609304.09	4201857.70	0.00016	609319.09	4201857.70	0.00016
609334.09	4201857.70	0.00016	609349.09	4201857.70	0.00016
609364.09	4201857.70	0.00017	609379.09	4201857.70	0.00018
609394.09	4201857.70	0.00020	609259.09	4201872.70	0.00020
609304.09	4201872.70	0.00017	609319.09	4201872.70	0.00017
609334.09	4201872.70	0.00017	609349.09	4201872.70	0.00018
609364.09	4201872.70	0.00019	609379.09	4201872.70	0.00020
609394.09	4201872.70	0.00022	609409.09	4201872.70	0.00025
609424.09	4201872.70	0.00028	609439.09	4201872.70	0.00031
609454.09	4201872.70	0.00035	609199.09	4201887.70	0.00030
609214.09	4201887.70	0.00027	609229.09	4201887.70	0.00025
609244.09	4201887.70	0.00023	609259.09	4201887.70	0.00022
609274.09	4201887.70	0.00020	609304.09	4201887.70	0.00019
609319.09	4201887.70	0.00019	609334.09	4201887.70	0.00019
609349.09	4201887.70	0.00020	609364.09	4201887.70	0.00021

609379.09 4201887.70 0.00022 609394.09
4201887.70 0.00025
609409.09 4201887.70 0.00027 609424.09
4201887.70 0.00031
609439.09 4201887.70 0.00035 609454.09
4201887.70 0.00040
609469.09 4201887.70 0.00045 609484.09
4201887.70 0.00051
609499.09 4201887.70 0.00057 609169.09
4201902.70 0.00040
609184.09 4201902.70 0.00037 609199.09
4201902.70 0.00034
609214.09 4201902.70 0.00031 609229.09
4201902.70 0.00028
609244.09 4201902.70 0.00026 609259.09
4201902.70 0.00024
609274.09 4201902.70 0.00023 609319.09
4201902.70 0.00021
609334.09 4201902.70 0.00021 609349.09
4201902.70 0.00021
609364.09 4201902.70 0.00023 609379.09
4201902.70 0.00025
609394.09 4201902.70 0.00028 609409.09
4201902.70 0.00031
609424.09 4201902.70 0.00035 609439.09
4201902.70 0.00040
609454.09 4201902.70 0.00046 609469.09
4201902.70 0.00052
609484.09 4201902.70 0.00058 609499.09
4201902.70 0.00065
609514.09 4201902.70 0.00072 609529.09
4201902.70 0.00079
609139.09 4201917.70 0.00053 609154.09
4201917.70 0.00049
609169.09 4201917.70 0.00045 609184.09
4201917.70 0.00042
609199.09 4201917.70 0.00038 609214.09
4201917.70 0.00035
609229.09 4201917.70 0.00032 609244.09
4201917.70 0.00029
609259.09 4201917.70 0.00027 609274.09
4201917.70 0.00025
609289.09 4201917.70 0.00024 609319.09
4201917.70 0.00023
609334.09 4201917.70 0.00023 609349.09
4201917.70 0.00024
609364.09 4201917.70 0.00025 609379.09
4201917.70 0.00028
609394.09 4201917.70 0.00031 609409.09
4201917.70 0.00035

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609424.09	4201917.70	0.00040	609439.09	4201917.70	0.00046
609454.09	4201917.70	0.00053	609469.09	4201917.70	0.00060
609484.09	4201917.70	0.00067	609499.09	4201917.70	0.00075
609514.09	4201917.70	0.00083	609529.09	4201917.70	0.00091
609544.09	4201917.70	0.00098	609109.09	4201932.70	0.00067
609124.09	4201932.70	0.00064	609139.09	4201932.70	0.00060
609154.09	4201932.70	0.00056	609169.09	4201932.70	0.00052
609184.09	4201932.70	0.00048	609199.09	4201932.70	0.00044
609214.09	4201932.70	0.00040	609229.09	4201932.70	0.00036
609244.09	4201932.70	0.00033	609259.09	4201932.70	0.00030
609274.09	4201932.70	0.00028	609289.09	4201932.70	0.00026
609334.09	4201932.70	0.00025	609349.09	4201932.70	0.00026
609364.09	4201932.70	0.00028	609379.09	4201932.70	0.00031
609394.09	4201932.70	0.00035	609409.09	4201932.70	0.00040

609424.09 4201932.70 0.00046 609439.09
4201932.70 0.00053
609454.09 4201932.70 0.00061 609469.09
4201932.70 0.00069
609484.09 4201932.70 0.00078 609499.09
4201932.70 0.00087
609514.09 4201932.70 0.00096 609529.09
4201932.70 0.00104
609544.09 4201932.70 0.00112 609559.09
4201932.70 0.00119
609079.09 4201947.70 0.00083 609094.09
4201947.70 0.00080
609109.09 4201947.70 0.00076 609124.09
4201947.70 0.00072
609139.09 4201947.70 0.00068 609154.09
4201947.70 0.00064
609169.09 4201947.70 0.00060 609184.09
4201947.70 0.00055
609199.09 4201947.70 0.00050 609214.09
4201947.70 0.00045
609229.09 4201947.70 0.00041 609244.09
4201947.70 0.00037
609259.09 4201947.70 0.00034 609274.09
4201947.70 0.00031
609289.09 4201947.70 0.00029 609304.09
4201947.70 0.00028
609334.09 4201947.70 0.00028 609349.09
4201947.70 0.00029
609364.09 4201947.70 0.00032 609379.09
4201947.70 0.00035
609394.09 4201947.70 0.00040 609409.09
4201947.70 0.00046
609424.09 4201947.70 0.00054 609439.09
4201947.70 0.00062
609454.09 4201947.70 0.00071 609469.09
4201947.70 0.00081
609484.09 4201947.70 0.00091 609499.09
4201947.70 0.00101
609514.09 4201947.70 0.00111 609529.09
4201947.70 0.00120
609544.09 4201947.70 0.00128 609559.09
4201947.70 0.00135
609574.09 4201947.70 0.00141 609064.09
4201962.70 0.00096
609079.09 4201962.70 0.00093 609094.09
4201962.70 0.00090
609109.09 4201962.70 0.00086 609124.09
4201962.70 0.00083
609139.09 4201962.70 0.00079 609154.09
4201962.70 0.00074

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5
YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_2.5 IN MICROGRAMS/M**3
**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609199.09	4201962.70	0.00058	609214.09	4201962.70	0.00053
609229.09	4201962.70	0.00048	609244.09	4201962.70	0.00043
609259.09	4201962.70	0.00039	609274.09	4201962.70	0.00036
609289.09	4201962.70	0.00033	609304.09	4201962.70	0.00031
609349.09	4201962.70	0.00033	609364.09	4201962.70	0.00036
609379.09	4201962.70	0.00041	609394.09	4201962.70	0.00047
609409.09	4201962.70	0.00054	609424.09	4201962.70	0.00063
609439.09	4201962.70	0.00073	609454.09	4201962.70	0.00084
609469.09	4201962.70	0.00096	609484.09	4201962.70	0.00107
609499.09	4201962.70	0.00118	609514.09	4201962.70	0.00129
609529.09	4201962.70	0.00138	609544.09	4201962.70	0.00147
609559.09	4201962.70	0.00153	609574.09	4201962.70	0.00159
609589.09	4201962.70	0.00163	609604.09	4201962.70	0.00166

609049.09 4201977.70 0.00109 609064.09 4201977.70 0.00107
609079.09 4201977.70 0.00105 609094.09 4201977.70 0.00102
609109.09 4201977.70 0.00099 609124.09 4201977.70 0.00095
609139.09 4201977.70 0.00091 609154.09 4201977.70 0.00086
609169.09 4201977.70 0.00080 609184.09 4201977.70 0.00074
609199.09 4201977.70 0.00068 609214.09 4201977.70 0.00062
609229.09 4201977.70 0.00055 609244.09 4201977.70 0.00050
609259.09 4201977.70 0.00045 609274.09 4201977.70 0.00041
609289.09 4201977.70 0.00038 609304.09 4201977.70 0.00036
609319.09 4201977.70 0.00035 609349.09 4201977.70 0.00037
609364.09 4201977.70 0.00041 609379.09 4201977.70 0.00047
609394.09 4201977.70 0.00055 609409.09 4201977.70 0.00064
609424.09 4201977.70 0.00075 609439.09 4201977.70 0.00087
609454.09 4201977.70 0.00100 609469.09 4201977.70 0.00113
609484.09 4201977.70 0.00127 609499.09 4201977.70 0.00139
609514.09 4201977.70 0.00150 609529.09 4201977.70 0.00160
609544.09 4201977.70 0.00168 609559.09 4201977.70 0.00175
609574.09 4201977.70 0.00179 609589.09 4201977.70 0.00183
609604.09 4201977.70 0.00184 609619.09 4201977.70 0.00185
609049.09 4201992.70 0.00120 609064.09 4201992.70 0.00119
609079.09 4201992.70 0.00118 609094.09 4201992.70 0.00116
609109.09 4201992.70 0.00113 609124.09 4201992.70 0.00109
609139.09 4201992.70 0.00105 609154.09 4201992.70 0.00100
609169.09 4201992.70 0.00093 609184.09 4201992.70 0.00087
609199.09 4201992.70 0.00080 609214.09 4201992.70 0.00073

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609229.09	4201992.70	0.00065	609244.09	4201992.70	0.00058
609259.09	4201992.70	0.00052	609274.09	4201992.70	0.00047
609289.09	4201992.70	0.00043	609304.09	4201992.70	0.00040
609319.09	4201992.70	0.00039	609364.09	4201992.70	0.00048
609379.09	4201992.70	0.00055	609394.09	4201992.70	0.00065
609409.09	4201992.70	0.00076	609424.09	4201992.70	0.00090
609439.09	4201992.70	0.00105	609454.09	4201992.70	0.00120
609469.09	4201992.70	0.00136	609484.09	4201992.70	0.00151
609499.09	4201992.70	0.00164	609514.09	4201992.70	0.00176
609529.09	4201992.70	0.00186	609544.09	4201992.70	0.00193
609559.09	4201992.70	0.00199	609574.09	4201992.70	0.00202
609589.09	4201992.70	0.00204	609604.09	4201992.70	0.00204
609619.09	4201992.70	0.00203	609634.09	4201992.70	0.00200
609034.09	4202007.70	0.00134	609049.09	4202007.70	0.00134

609064.09 4202007.70 0.00134 609079.09
4202007.70 0.00133
609094.09 4202007.70 0.00131 609109.09
4202007.70 0.00129
609124.09 4202007.70 0.00126 609139.09
4202007.70 0.00122
609154.09 4202007.70 0.00117 609169.09
4202007.70 0.00110
609184.09 4202007.70 0.00103 609199.09
4202007.70 0.00095
609214.09 4202007.70 0.00087 609229.09
4202007.70 0.00078
609244.09 4202007.70 0.00069 609259.09
4202007.70 0.00062
609274.09 4202007.70 0.00055 609289.09
4202007.70 0.00050
609304.09 4202007.70 0.00047 609319.09
4202007.70 0.00045
609334.09 4202007.70 0.00046 609379.09
4202007.70 0.00065
609394.09 4202007.70 0.00078 609409.09
4202007.70 0.00092
609424.09 4202007.70 0.00109 609439.09
4202007.70 0.00127
609454.09 4202007.70 0.00145 609469.09
4202007.70 0.00163
609484.09 4202007.70 0.00180 609499.09
4202007.70 0.00194
609514.09 4202007.70 0.00206 609529.09
4202007.70 0.00215
609544.09 4202007.70 0.00222 609559.09
4202007.70 0.00226
609574.09 4202007.70 0.00228 609589.09
4202007.70 0.00227
609604.09 4202007.70 0.00225 609619.09
4202007.70 0.00222
609634.09 4202007.70 0.00217 609649.09
4202007.70 0.00212
609034.09 4202022.70 0.00147 609049.09
4202022.70 0.00148
609064.09 4202022.70 0.00149 609079.09
4202022.70 0.00150
609094.09 4202022.70 0.00149 609109.09
4202022.70 0.00147
609124.09 4202022.70 0.00145 609139.09
4202022.70 0.00142
609154.09 4202022.70 0.00137 609169.09
4202022.70 0.00130
609184.09 4202022.70 0.00122 609199.09
4202022.70 0.00114

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609214.09	4202022.70	0.00104	609229.09	4202022.70	0.00094
609244.09	4202022.70	0.00083	609259.09	4202022.70	0.00074
609274.09	4202022.70	0.00065	609289.09	4202022.70	0.00059
609304.09	4202022.70	0.00054	609319.09	4202022.70	0.00053
609334.09	4202022.70	0.00054	609349.09	4202022.70	0.00058
609379.09	4202022.70	0.00079	609394.09	4202022.70	0.00095
609409.09	4202022.70	0.00113	609424.09	4202022.70	0.00134
609439.09	4202022.70	0.00156	609454.09	4202022.70	0.00177
609469.09	4202022.70	0.00197	609484.09	4202022.70	0.00215
609499.09	4202022.70	0.00230	609514.09	4202022.70	0.00241
609529.09	4202022.70	0.00249	609544.09	4202022.70	0.00254
609559.09	4202022.70	0.00255	609574.09	4202022.70	0.00255
609589.09	4202022.70	0.00252	609604.09	4202022.70	0.00247
609619.09	4202022.70	0.00242	609634.09	4202022.70	0.00235

609649.09 4202022.70 0.00228 609664.09
4202022.70 0.00220
609019.09 4202037.70 0.00157 609034.09
4202037.70 0.00161
609049.09 4202037.70 0.00163 609064.09
4202037.70 0.00166
609079.09 4202037.70 0.00169 609094.09
4202037.70 0.00170
609109.09 4202037.70 0.00169 609124.09
4202037.70 0.00168
609139.09 4202037.70 0.00166 609154.09
4202037.70 0.00161
609169.09 4202037.70 0.00155 609184.09
4202037.70 0.00147
609199.09 4202037.70 0.00138 609214.09
4202037.70 0.00127
609229.09 4202037.70 0.00114 609244.09
4202037.70 0.00102
609259.09 4202037.70 0.00090 609274.09
4202037.70 0.00079
609289.09 4202037.70 0.00070 609304.09
4202037.70 0.00064
609319.09 4202037.70 0.00062 609334.09
4202037.70 0.00063
609349.09 4202037.70 0.00069 609394.09
4202037.70 0.00117
609409.09 4202037.70 0.00141 609424.09
4202037.70 0.00167
609439.09 4202037.70 0.00193 609454.09
4202037.70 0.00218
609469.09 4202037.70 0.00240 609484.09
4202037.70 0.00258
609499.09 4202037.70 0.00272 609514.09
4202037.70 0.00282
609529.09 4202037.70 0.00287 609544.09
4202037.70 0.00289
609559.09 4202037.70 0.00288 609574.09
4202037.70 0.00284
609589.09 4202037.70 0.00278 609604.09
4202037.70 0.00270
609619.09 4202037.70 0.00262 609634.09
4202037.70 0.00253
609649.09 4202037.70 0.00243 609664.09
4202037.70 0.00233
609679.09 4202037.70 0.00223 609019.09
4202052.70 0.00170
609034.09 4202052.70 0.00175 609049.09
4202052.70 0.00179
609064.09 4202052.70 0.00184 609079.09
4202052.70 0.00189

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609214.09	4202052.70	0.00155	609229.09	4202052.70	0.00141
609244.09	4202052.70	0.00126	609259.09	4202052.70	0.00111
609274.09	4202052.70	0.00097	609289.09	4202052.70	0.00086
609304.09	4202052.70	0.00078	609319.09	4202052.70	0.00074
609334.09	4202052.70	0.00076	609349.09	4202052.70	0.00084
609364.09	4202052.70	0.00099	609394.09	4202052.70	0.00148
609409.09	4202052.70	0.00179	609424.09	4202052.70	0.00211
609439.09	4202052.70	0.00242	609454.09	4202052.70	0.00270
609469.09	4202052.70	0.00293	609484.09	4202052.70	0.00310
609499.09	4202052.70	0.00322	609514.09	4202052.70	0.00329

609529.09 4202052.70 0.00330 609544.09
4202052.70 0.00328
609559.09 4202052.70 0.00322 609574.09
4202052.70 0.00314
609589.09 4202052.70 0.00305 609604.09
4202052.70 0.00294
609619.09 4202052.70 0.00282 609634.09
4202052.70 0.00270
609649.09 4202052.70 0.00258 609664.09
4202052.70 0.00246
609679.09 4202052.70 0.00234 609694.09
4202052.70 0.00222
609004.09 4202067.70 0.00174 609019.09
4202067.70 0.00182
609034.09 4202067.70 0.00189 609049.09
4202067.70 0.00196
609064.09 4202067.70 0.00203 609079.09
4202067.70 0.00210
609094.09 4202067.70 0.00216 609109.09
4202067.70 0.00221
609124.09 4202067.70 0.00224 609139.09
4202067.70 0.00226
609154.09 4202067.70 0.00226 609169.09
4202067.70 0.00222
609184.09 4202067.70 0.00216 609199.09
4202067.70 0.00206
609214.09 4202067.70 0.00193 609229.09
4202067.70 0.00178
609244.09 4202067.70 0.00160 609259.09
4202067.70 0.00141
609274.09 4202067.70 0.00123 609289.09
4202067.70 0.00107
609304.09 4202067.70 0.00096 609319.09
4202067.70 0.00091
609334.09 4202067.70 0.00094 609349.09
4202067.70 0.00105
609364.09 4202067.70 0.00126 609409.09
4202067.70 0.00230
609424.09 4202067.70 0.00269 609439.09
4202067.70 0.00306
609454.09 4202067.70 0.00336 609469.09
4202067.70 0.00359
609484.09 4202067.70 0.00374 609499.09
4202067.70 0.00381
609514.09 4202067.70 0.00383 609529.09
4202067.70 0.00379
609544.09 4202067.70 0.00371 609559.09
4202067.70 0.00360
609574.09 4202067.70 0.00346 609589.09
4202067.70 0.00332

```
         609604.09    4202067.70        0.00317                      609619.09
4202067.70        0.00302
         609634.09    4202067.70        0.00286                      609649.09
4202067.70        0.00272
         609664.09    4202067.70        0.00257                      609679.09
4202067.70        0.00244
         609694.09    4202067.70        0.00231                      609709.09
4202067.70        0.00218
         609004.09    4202082.70        0.00184                      609019.09
4202082.70        0.00193
```



```
                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         609034.09    4202082.70        0.00202                      609049.09
4202082.70        0.00212
         609064.09    4202082.70        0.00222                      609079.09
4202082.70        0.00232
         609094.09    4202082.70        0.00241                      609109.09
4202082.70        0.00249
         609124.09    4202082.70        0.00257                      609139.09
4202082.70        0.00263
         609154.09    4202082.70        0.00266                      609169.09
4202082.70        0.00266
         609184.09    4202082.70        0.00262                      609199.09
4202082.70        0.00254
         609214.09    4202082.70        0.00242                      609229.09
4202082.70        0.00226
         609244.09    4202082.70        0.00206                      609259.09
4202082.70        0.00183
         609274.09    4202082.70        0.00159                      609289.09
4202082.70        0.00138
```

609304.09 4202082.70 0.00122 609319.09 4202082.70 0.00115
609334.09 4202082.70 0.00118 609349.09 4202082.70 0.00135
609364.09 4202082.70 0.00164 609409.09 4202082.70 0.00301
609424.09 4202082.70 0.00349 609439.09 4202082.70 0.00389
609454.09 4202082.70 0.00420 609469.09 4202082.70 0.00439
609484.09 4202082.70 0.00449 609499.09 4202082.70 0.00449
609514.09 4202082.70 0.00443 609529.09 4202082.70 0.00431
609544.09 4202082.70 0.00415 609559.09 4202082.70 0.00398
609574.09 4202082.70 0.00378 609589.09 4202082.70 0.00359
609604.09 4202082.70 0.00339 609619.09 4202082.70 0.00320
609634.09 4202082.70 0.00302 609649.09 4202082.70 0.00284
609664.09 4202082.70 0.00268 609679.09 4202082.70 0.00252
609694.09 4202082.70 0.00238 609709.09 4202082.70 0.00224
609004.09 4202097.70 0.00192 609019.09 4202097.70 0.00203
609034.09 4202097.70 0.00215 609049.09 4202097.70 0.00228
609064.09 4202097.70 0.00241 609079.09 4202097.70 0.00254
609094.09 4202097.70 0.00267 609109.09 4202097.70 0.00279
609124.09 4202097.70 0.00292 609139.09 4202097.70 0.00303
609154.09 4202097.70 0.00312 609169.09 4202097.70 0.00317
609184.09 4202097.70 0.00318 609199.09 4202097.70 0.00315
609214.09 4202097.70 0.00306 609229.09 4202097.70 0.00291
609244.09 4202097.70 0.00268 609259.09 4202097.70 0.00241
609274.09 4202097.70 0.00211 609289.09 4202097.70 0.00182
609304.09 4202097.70 0.00160 609319.09 4202097.70 0.00149
609334.09 4202097.70 0.00155 609349.09 4202097.70 0.00179

```
         609364.09    4202097.70        0.00221                      609409.09
4202097.70        0.00402
         609424.09    4202097.70        0.00457                      609439.09
4202097.70        0.00499
         609454.09    4202097.70        0.00525                      609469.09
4202097.70        0.00537
         609484.09    4202097.70        0.00536                      609499.09
4202097.70        0.00525
         609514.09    4202097.70        0.00508                      609529.09
4202097.70        0.00486
         609544.09    4202097.70        0.00461                      609559.09
4202097.70        0.00435
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:32:22

                                   PAGE  32
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                           ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         609574.09    4202097.70        0.00410                      609589.09
4202097.70        0.00384
         609604.09    4202097.70        0.00360                      609619.09
4202097.70        0.00337
         609634.09    4202097.70        0.00316                      609649.09
4202097.70        0.00296
         609664.09    4202097.70        0.00277                      609679.09
4202097.70        0.00260
         609694.09    4202097.70        0.00244                      609709.09
4202097.70        0.00229
         609724.09    4202097.70        0.00216                      608989.09
4202112.70        0.00187
         609004.09    4202112.70        0.00199                      609019.09
4202112.70        0.00213
         609034.09    4202112.70        0.00227                      609049.09
4202112.70        0.00242
```

609064.09 4202112.70 0.00258 609079.09
4202112.70 0.00275
609094.09 4202112.70 0.00292 609109.09
4202112.70 0.00310
609124.09 4202112.70 0.00328 609139.09
4202112.70 0.00345
609154.09 4202112.70 0.00361 609169.09
4202112.70 0.00374
609184.09 4202112.70 0.00385 609199.09
4202112.70 0.00391
609214.09 4202112.70 0.00389 609229.09
4202112.70 0.00377
609244.09 4202112.70 0.00355 609259.09
4202112.70 0.00324
609274.09 4202112.70 0.00287 609289.09
4202112.70 0.00249
609304.09 4202112.70 0.00218 609319.09
4202112.70 0.00203
609334.09 4202112.70 0.00212 609349.09
4202112.70 0.00249
609364.09 4202112.70 0.00310 609379.09
4202112.70 0.00387
609409.09 4202112.70 0.00545 609424.09
4202112.70 0.00605
609439.09 4202112.70 0.00642 609454.09
4202112.70 0.00656
609469.09 4202112.70 0.00653 609484.09
4202112.70 0.00635
609499.09 4202112.70 0.00608 609514.09
4202112.70 0.00576
609529.09 4202112.70 0.00541 609544.09
4202112.70 0.00506
609559.09 4202112.70 0.00472 609574.09
4202112.70 0.00439
609589.09 4202112.70 0.00408 609604.09
4202112.70 0.00379
609619.09 4202112.70 0.00352 609634.09
4202112.70 0.00328
609649.09 4202112.70 0.00305 609664.09
4202112.70 0.00285
609679.09 4202112.70 0.00266 609694.09
4202112.70 0.00249
609709.09 4202112.70 0.00233 609724.09
4202112.70 0.00218
608989.09 4202127.70 0.00191 609004.09
4202127.70 0.00205
609019.09 4202127.70 0.00219 609034.09
4202127.70 0.00235
609049.09 4202127.70 0.00252 609064.09
4202127.70 0.00271

609079.09 4202127.70 0.00292 609094.09 4202127.70 0.00314
609109.09 4202127.70 0.00337 609124.09 4202127.70 0.00362
609139.09 4202127.70 0.00387 609154.09 4202127.70 0.00413
609169.09 4202127.70 0.00438 609184.09 4202127.70 0.00462
609199.09 4202127.70 0.00481 609214.09 4202127.70 0.00492
609229.09 4202127.70 0.00491 609244.09 4202127.70 0.00477
609259.09 4202127.70 0.00446 609274.09 4202127.70 0.00403

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609289.09	4202127.70	0.00353	609304.09	4202127.70	0.00311
609319.09	4202127.70	0.00292	609334.09	4202127.70	0.00309
609349.09	4202127.70	0.00366	609364.09	4202127.70	0.00454
609379.09	4202127.70	0.00559	609409.09	4202127.70	0.00752
609424.09	4202127.70	0.00807	609439.09	4202127.70	0.00826
609454.09	4202127.70	0.00816	609469.09	4202127.70	0.00786
609484.09	4202127.70	0.00744	609499.09	4202127.70	0.00695

609514.09 4202127.70 0.00645 609529.09
4202127.70 0.00596
609544.09 4202127.70 0.00549 609559.09
4202127.70 0.00505
609574.09 4202127.70 0.00465 609589.09
4202127.70 0.00428
609604.09 4202127.70 0.00395 609619.09
4202127.70 0.00364
609634.09 4202127.70 0.00337 609649.09
4202127.70 0.00312
609664.09 4202127.70 0.00290 609679.09
4202127.70 0.00270
609694.09 4202127.70 0.00252 609709.09
4202127.70 0.00235
609724.09 4202127.70 0.00220 608974.09
4202142.70 0.00180
608989.09 4202142.70 0.00193 609004.09
4202142.70 0.00207
609019.09 4202142.70 0.00222 609034.09
4202142.70 0.00240
609049.09 4202142.70 0.00259 609064.09
4202142.70 0.00281
609079.09 4202142.70 0.00305 609094.09
4202142.70 0.00331
609109.09 4202142.70 0.00360 609124.09
4202142.70 0.00391
609139.09 4202142.70 0.00425 609154.09
4202142.70 0.00463
609169.09 4202142.70 0.00504 609184.09
4202142.70 0.00544
609199.09 4202142.70 0.00582 609214.09
4202142.70 0.00615
609229.09 4202142.70 0.00637 609244.09
4202142.70 0.00644
609259.09 4202142.70 0.00626 609274.09
4202142.70 0.00584
609289.09 4202142.70 0.00523 609304.09
4202142.70 0.00469
609319.09 4202142.70 0.00452 609334.09
4202142.70 0.00490
609349.09 4202142.70 0.00576 609364.09
4202142.70 0.00699
609379.09 4202142.70 0.00838 609409.09
4202142.70 0.01055
609424.09 4202142.70 0.01082 609439.09
4202142.70 0.01058
609454.09 4202142.70 0.01003 609469.09
4202142.70 0.00933
609484.09 4202142.70 0.00857 609499.09
4202142.70 0.00782

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         609514.09    4202142.70        0.00711                       609529.09
4202142.70        0.00646
         609544.09    4202142.70        0.00587                       609559.09
4202142.70        0.00534
         609574.09    4202142.70        0.00487                       609589.09
4202142.70        0.00444
         609604.09    4202142.70        0.00407                       609619.09
4202142.70        0.00373
         609634.09    4202142.70        0.00344                       609649.09
4202142.70        0.00317
         609664.09    4202142.70        0.00293                       609679.09
4202142.70        0.00272
         609694.09    4202142.70        0.00253                       609709.09
4202142.70        0.00236
         609724.09    4202142.70        0.00220                       608974.09
4202157.70        0.00178
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:32:22

                                  PAGE  34
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         608989.09    4202157.70        0.00191                       609004.09
4202157.70        0.00206
         609019.09    4202157.70        0.00222                       609034.09
4202157.70        0.00240
         609049.09    4202157.70        0.00261                       609064.09
4202157.70        0.00285
         609079.09    4202157.70        0.00311                       609094.09
4202157.70        0.00341
         609109.09    4202157.70        0.00375                       609124.09
4202157.70        0.00413
         609139.09    4202157.70        0.00456                       609154.09
4202157.70        0.00505
```

609169.09 4202157.70 0.00562 609184.09 4202157.70 0.00622
609199.09 4202157.70 0.00685 609214.09 4202157.70 0.00751
609229.09 4202157.70 0.00813 609244.09 4202157.70 0.00864
609259.09 4202157.70 0.00889 609274.09 4202157.70 0.00871
609289.09 4202157.70 0.00810 609304.09 4202157.70 0.00755
609319.09 4202157.70 0.00772 609334.09 4202157.70 0.00861
609349.09 4202157.70 0.00987 609364.09 4202157.70 0.01139
609379.09 4202157.70 0.01308 609409.09 4202157.70 0.01489
609424.09 4202157.70 0.01438 609439.09 4202157.70 0.01334
609454.09 4202157.70 0.01209 609469.09 4202157.70 0.01084
609484.09 4202157.70 0.00967 609499.09 4202157.70 0.00863
609514.09 4202157.70 0.00770 609529.09 4202157.70 0.00688
609544.09 4202157.70 0.00618 609559.09 4202157.70 0.00556
609574.09 4202157.70 0.00502 609589.09 4202157.70 0.00456
609604.09 4202157.70 0.00415 609619.09 4202157.70 0.00379
609634.09 4202157.70 0.00347 609649.09 4202157.70 0.00319
609664.09 4202157.70 0.00294 609679.09 4202157.70 0.00272
609694.09 4202157.70 0.00253 609709.09 4202157.70 0.00235
609724.09 4202157.70 0.00219 608959.09 4202172.70 0.00160
608974.09 4202172.70 0.00172 608989.09 4202172.70 0.00186
609004.09 4202172.70 0.00201 609019.09 4202172.70 0.00217
609034.09 4202172.70 0.00236 609049.09 4202172.70 0.00258
609064.09 4202172.70 0.00282 609079.09 4202172.70 0.00310
609094.09 4202172.70 0.00343 609109.09 4202172.70 0.00380
609124.09 4202172.70 0.00423 609139.09 4202172.70 0.00472

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         609154.09    4202172.70        0.00532                      609169.09
4202172.70        0.00603
         609184.09    4202172.70        0.00683                      609199.09
4202172.70        0.00774
         609214.09    4202172.70        0.00878                      609229.09
4202172.70        0.00996
         609244.09    4202172.70        0.01124                      609259.09
4202172.70        0.01247
         609274.09    4202172.70        0.01327                      609289.09
4202172.70        0.01309
         609304.09    4202172.70        0.01312                      609319.09
4202172.70        0.01490
         609334.09    4202172.70        0.01701                      609349.09
4202172.70        0.01866
         609364.09    4202172.70        0.01997                      609379.09
4202172.70        0.02151
         609409.09    4202172.70        0.02090                      609424.09
4202172.70        0.01865
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:32:22

                                  PAGE  35
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         609439.09    4202172.70        0.01634                      609454.09
4202172.70        0.01415
         609469.09    4202172.70        0.01225                      609484.09
4202172.70        0.01064
         609499.09    4202172.70        0.00929                      609514.09
4202172.70        0.00815
         609529.09    4202172.70        0.00720                      609544.09
4202172.70        0.00639
         609559.09    4202172.70        0.00570                      609574.09
4202172.70        0.00511
```

609589.09 4202172.70 0.00461 609604.09
4202172.70 0.00418
609619.09 4202172.70 0.00380 609634.09
4202172.70 0.00347
609649.09 4202172.70 0.00318 609664.09
4202172.70 0.00293
609679.09 4202172.70 0.00270 609694.09
4202172.70 0.00251
609709.09 4202172.70 0.00233 609724.09
4202172.70 0.00217
608959.09 4202187.70 0.00152 608974.09
4202187.70 0.00164
608989.09 4202187.70 0.00177 609004.09
4202187.70 0.00191
609019.09 4202187.70 0.00208 609034.09
4202187.70 0.00226
609049.09 4202187.70 0.00247 609064.09
4202187.70 0.00272
609079.09 4202187.70 0.00300 609094.09
4202187.70 0.00333
609109.09 4202187.70 0.00372 609124.09
4202187.70 0.00417
609139.09 4202187.70 0.00471 609154.09
4202187.70 0.00537
609169.09 4202187.70 0.00618 609184.09
4202187.70 0.00713
609199.09 4202187.70 0.00826 609214.09
4202187.70 0.00965
609229.09 4202187.70 0.01136 609244.09
4202187.70 0.01349
609259.09 4202187.70 0.01617 609274.09
4202187.70 0.01930
609409.09 4202187.70 0.02826 609424.09
4202187.70 0.02302
609439.09 4202187.70 0.01902 609454.09
4202187.70 0.01586
609469.09 4202187.70 0.01336 609484.09
4202187.70 0.01135
609499.09 4202187.70 0.00974 609514.09
4202187.70 0.00843
609529.09 4202187.70 0.00736 609544.09
4202187.70 0.00648
609559.09 4202187.70 0.00575 609574.09
4202187.70 0.00513
609589.09 4202187.70 0.00460 609604.09
4202187.70 0.00416
609619.09 4202187.70 0.00377 609634.09
4202187.70 0.00343
609649.09 4202187.70 0.00314 609664.09
4202187.70 0.00289

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         609679.09    4202187.70        0.00267                      609694.09
4202187.70        0.00247
         609709.09    4202187.70        0.00229                      609724.09
4202187.70        0.00213
         608959.09    4202202.70        0.00141                      608974.09
4202202.70        0.00152
         608989.09    4202202.70        0.00164                      609004.09
4202202.70        0.00178
         609019.09    4202202.70        0.00194                      609034.09
4202202.70        0.00211
         609049.09    4202202.70        0.00231                      609064.09
4202202.70        0.00254
         609079.09    4202202.70        0.00281                      609094.09
4202202.70        0.00313
         609109.09    4202202.70        0.00351                      609124.09
4202202.70        0.00395
         609139.09    4202202.70        0.00449                      609154.09
4202202.70        0.00516
         609169.09    4202202.70        0.00600                      609184.09
4202202.70        0.00701
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:32:22

                                  PAGE  36
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)        CONC                         X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         609199.09    4202202.70        0.00825                      609214.09
4202202.70        0.00983
         609229.09    4202202.70        0.01185                      609244.09
4202202.70        0.01449
         609259.09    4202202.70        0.01800                      609274.09
4202202.70        0.02242
         609409.09    4202202.70        0.03429                      609424.09
4202202.70        0.02633
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4202202.70 0.01693
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4202202.70 0.01171
609499.09 4202202.70 0.00992 609514.09
4202202.70 0.00850
609529.09 4202202.70 0.00737 609544.09
4202202.70 0.00645
609559.09 4202202.70 0.00569 609574.09
4202202.70 0.00506
609589.09 4202202.70 0.00453 609604.09
4202202.70 0.00408
609619.09 4202202.70 0.00370 609634.09
4202202.70 0.00336
609649.09 4202202.70 0.00307 609664.09
4202202.70 0.00282
609679.09 4202202.70 0.00261 609694.09
4202202.70 0.00241
609709.09 4202202.70 0.00224 609724.09
4202202.70 0.00208
608959.09 4202217.70 0.00128 608974.09
4202217.70 0.00138
608989.09 4202217.70 0.00149 609004.09
4202217.70 0.00161
609019.09 4202217.70 0.00175 609034.09
4202217.70 0.00191
609049.09 4202217.70 0.00209 609064.09
4202217.70 0.00230
609079.09 4202217.70 0.00255 609094.09
4202217.70 0.00283
609109.09 4202217.70 0.00318 609124.09
4202217.70 0.00358
609139.09 4202217.70 0.00408 609154.09
4202217.70 0.00471
609169.09 4202217.70 0.00550 609184.09
4202217.70 0.00648
609199.09 4202217.70 0.00771 609214.09
4202217.70 0.00929
609229.09 4202217.70 0.01137 609244.09
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609259.09 4202217.70 0.01789 609274.09
4202217.70 0.02263
609484.09 4202217.70 0.01164 609499.09
4202217.70 0.00980
609514.09 4202217.70 0.00836 609529.09
4202217.70 0.00721
609544.09 4202217.70 0.00629 609559.09
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4202217.70 0.00440

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         609664.09    4202217.70        0.00274                      609679.09
4202217.70        0.00253
         609694.09    4202217.70        0.00234                      609709.09
4202217.70        0.00217
         609724.09    4202217.70        0.00202                      608959.09
4202232.70        0.00113
         608974.09    4202232.70        0.00122                      608989.09
4202232.70        0.00131
         609004.09    4202232.70        0.00142                      609019.09
4202232.70        0.00154
         609034.09    4202232.70        0.00168                      609049.09
4202232.70        0.00184
         609064.09    4202232.70        0.00202                      609079.09
4202232.70        0.00222
         609094.09    4202232.70        0.00246                      609109.09
4202232.70        0.00276
         609124.09    4202232.70        0.00311                      609139.09
4202232.70        0.00353
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:32:22

                                  PAGE  37
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

                                       *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                     ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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4202232.70        0.00477
         609184.09    4202232.70        0.00562                      609199.09
4202232.70        0.00672
         609214.09    4202232.70        0.00818                      609229.09
4202232.70        0.01015
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4202232.70 0.02811
609439.09 4202232.70 0.02137 609454.09
4202232.70 0.01677
609469.09 4202232.70 0.01352 609484.09
4202232.70 0.01118
609499.09 4202232.70 0.00941 609514.09
4202232.70 0.00801
609529.09 4202232.70 0.00691 609544.09
4202232.70 0.00603
609559.09 4202232.70 0.00531 609574.09
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609589.09 4202232.70 0.00422 609604.09
4202232.70 0.00380
609619.09 4202232.70 0.00344 609634.09
4202232.70 0.00313
609649.09 4202232.70 0.00286 609664.09
4202232.70 0.00263
609679.09 4202232.70 0.00243 609694.09
4202232.70 0.00225
609709.09 4202232.70 0.00209 609724.09
4202232.70 0.00195
608959.09 4202247.70 0.00099 608974.09
4202247.70 0.00106
608989.09 4202247.70 0.00114 609004.09
4202247.70 0.00122
609019.09 4202247.70 0.00132 609034.09
4202247.70 0.00143
609049.09 4202247.70 0.00156 609064.09
4202247.70 0.00171
609079.09 4202247.70 0.00187 609094.09
4202247.70 0.00206
609109.09 4202247.70 0.00229 609124.09
4202247.70 0.00257
609139.09 4202247.70 0.00291 609154.09
4202247.70 0.00333
609169.09 4202247.70 0.00387 609184.09
4202247.70 0.00456
609199.09 4202247.70 0.00546 609214.09
4202247.70 0.00667
609229.09 4202247.70 0.00835 609244.09
4202247.70 0.01078
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4202247.70 0.01261

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         609544.09    4202247.70        0.00567                      609559.09
4202247.70        0.00501
         609574.09    4202247.70        0.00446                      609589.09
4202247.70        0.00400
         609604.09    4202247.70        0.00361                      609619.09
4202247.70        0.00327
         609634.09    4202247.70        0.00298                      609649.09
4202247.70        0.00273
         609664.09    4202247.70        0.00252                      609679.09
4202247.70        0.00233
         609694.09    4202247.70        0.00216                      609709.09
4202247.70        0.00201
         609724.09    4202247.70        0.00188                      608959.09
4202262.70        0.00084
         608974.09    4202262.70        0.00090                      608989.09
4202262.70        0.00096
         609004.09    4202262.70        0.00103                      609019.09
4202262.70        0.00111
         609034.09    4202262.70        0.00119                      609049.09
4202262.70        0.00129
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:32:22

                                  PAGE  38
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         609064.09    4202262.70        0.00140                      609079.09
4202262.70        0.00152
         609094.09    4202262.70        0.00167                      609109.09
4202262.70        0.00184
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609124.09 4202262.70 0.00204 609139.09 4202262.70 0.00229
609154.09 4202262.70 0.00258 609169.09 4202262.70 0.00296
609184.09 4202262.70 0.00345 609199.09 4202262.70 0.00410
609214.09 4202262.70 0.00497 609229.09 4202262.70 0.00619
609244.09 4202262.70 0.00802 609259.09 4202262.70 0.01092
609274.09 4202262.70 0.01539 609424.09 4202262.70 0.02352
609439.09 4202262.70 0.01787 609454.09 4202262.70 0.01408
609469.09 4202262.70 0.01142 609484.09 4202262.70 0.00947
609499.09 4202262.70 0.00801 609514.09 4202262.70 0.00687
609529.09 4202262.70 0.00597 609544.09 4202262.70 0.00525
609559.09 4202262.70 0.00467 609574.09 4202262.70 0.00417
609589.09 4202262.70 0.00375 609604.09 4202262.70 0.00339
609619.09 4202262.70 0.00308 609634.09 4202262.70 0.00282
609649.09 4202262.70 0.00259 609664.09 4202262.70 0.00239
609679.09 4202262.70 0.00221 609694.09 4202262.70 0.00206
609709.09 4202262.70 0.00192 609724.09 4202262.70 0.00179
609424.09 4202277.70 0.01950 609439.09 4202277.70 0.01523
609454.09 4202277.70 0.01225 609469.09 4202277.70 0.01009
609484.09 4202277.70 0.00846 609499.09 4202277.70 0.00722
609514.09 4202277.70 0.00624 609529.09 4202277.70 0.00546
609544.09 4202277.70 0.00483 609559.09 4202277.70 0.00431
609574.09 4202277.70 0.00386 609589.09 4202277.70 0.00349
609604.09 4202277.70 0.00317 609619.09 4202277.70 0.00289
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609664.09 4202277.70 0.00226 609679.09 4202277.70 0.00209

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4202277.70        0.00182
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         609424.09    4202322.70        0.00974                      609439.09
4202322.70        0.00860
         609454.09    4202322.70        0.00755                      609469.09
4202322.70        0.00663
         609484.09    4202322.70        0.00584                      609499.09
4202322.70        0.00517
         609514.09    4202322.70        0.00459                      609529.09
4202322.70        0.00411
         609544.09    4202322.70        0.00369                      609559.09
4202322.70        0.00334
         609574.09    4202322.70        0.00304                      609589.09
4202322.70        0.00277
         609604.09    4202322.70        0.00255                      609619.09
4202322.70        0.00235
         609634.09    4202322.70        0.00217                      609649.09
4202322.70        0.00201
         609664.09    4202322.70        0.00188                      609679.09
4202322.70        0.00175
         609694.09    4202322.70        0.00164                      609409.09
4202337.70        0.00843
         609424.09    4202337.70        0.00786                      609439.09
4202337.70        0.00717
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:32:22

                                  PAGE  39
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                   INCLUDING SOURCE(S):     PAREA4      ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                         X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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         609454.09    4202337.70        0.00647                      609469.09
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4202337.70 0.00464
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609544.09 4202337.70 0.00340 609559.09
4202337.70 0.00309
609574.09 4202337.70 0.00282 609589.09
4202337.70 0.00258
609604.09 4202337.70 0.00238 609619.09
4202337.70 0.00220
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609664.09 4202337.70 0.00176 609679.09
4202337.70 0.00165
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609454.09 4202352.70 0.00555 609469.09
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609514.09 4202352.70 0.00380 609529.09
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609574.09 4202352.70 0.00263 609589.09
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609694.09 4202352.70 0.00146 609709.09
4202352.70 0.00138
609724.09 4202352.70 0.00131 609409.09
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609424.09 4202367.70 0.00529 609439.09
4202367.70 0.00507
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4202367.70 0.00378
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4202367.70 0.00268

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4202367.70        0.00227
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         609634.09    4202367.70        0.00181                      609649.09
4202367.70        0.00168
         609664.09    4202367.70        0.00158                      609679.09
4202367.70        0.00148
         609694.09    4202367.70        0.00139                      609709.09
4202367.70        0.00131
         609724.09    4202367.70        0.00124                      609394.09
4202382.70        0.00435
         609409.09    4202382.70        0.00444                      609424.09
4202382.70        0.00441
         609439.09    4202382.70        0.00430                      609454.09
4202382.70        0.00412
         609469.09    4202382.70        0.00390                      609484.09
4202382.70        0.00365
         609499.09    4202382.70        0.00341                      609514.09
4202382.70        0.00316
         609529.09    4202382.70        0.00293                      609544.09
4202382.70        0.00271
         609559.09    4202382.70        0.00250                      609574.09
4202382.70        0.00231
         609589.09    4202382.70        0.00213                      609604.09
4202382.70        0.00198
         609619.09    4202382.70        0.00184                      609634.09
4202382.70        0.00172
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:32:22

                                   PAGE  40
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                    INCLUDING SOURCE(S):     PAREA4      ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                              ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                         X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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609544.09 4202397.70 0.00251 609559.09
4202397.70 0.00233
609574.09 4202397.70 0.00217 609589.09
4202397.70 0.00201
609604.09 4202397.70 0.00188 609619.09
4202397.70 0.00175
609634.09 4202397.70 0.00164 609649.09
4202397.70 0.00153
609664.09 4202397.70 0.00144 609679.09
4202397.70 0.00135
609694.09 4202397.70 0.00127 609709.09
4202397.70 0.00120
609724.09 4202397.70 0.00114 609394.09
4202412.70 0.00301
609409.09 4202412.70 0.00312 609424.09
4202412.70 0.00316
609439.09 4202412.70 0.00315 609454.09
4202412.70 0.00310
609469.09 4202412.70 0.00301 609484.09
4202412.70 0.00289
609499.09 4202412.70 0.00276 609514.09
4202412.70 0.00262
609529.09 4202412.70 0.00247 609544.09
4202412.70 0.00232
609559.09 4202412.70 0.00217 609574.09
4202412.70 0.00203
609589.09 4202412.70 0.00190 609604.09
4202412.70 0.00178
609619.09 4202412.70 0.00167 609634.09
4202412.70 0.00156
609649.09 4202412.70 0.00147 609664.09
4202412.70 0.00138
609679.09 4202412.70 0.00130 609694.09
4202412.70 0.00122

```
         609709.09    4202412.70        0.00115                      609724.09
4202412.70        0.00109
         609394.09    4202427.70        0.00256                      609409.09
4202427.70        0.00266
         609424.09    4202427.70        0.00272                      609439.09
4202427.70        0.00273
         609454.09    4202427.70        0.00271                      609469.09
4202427.70        0.00265
         609484.09    4202427.70        0.00257                      609499.09
4202427.70        0.00248
         609514.09    4202427.70        0.00238                      609529.09
4202427.70        0.00226
         609544.09    4202427.70        0.00214                      609559.09
4202427.70        0.00202
         609574.09    4202427.70        0.00191                      609589.09
4202427.70        0.00179
         609604.09    4202427.70        0.00169                      609619.09
4202427.70        0.00159
         609634.09    4202427.70        0.00149                      609649.09
4202427.70        0.00141
         609664.09    4202427.70        0.00132                      609679.09
4202427.70        0.00125
         609694.09    4202427.70        0.00118                      609709.09
4202427.70        0.00111
         609724.09    4202427.70        0.00105                      609439.09
4202472.70        0.00185
         609454.09    4202472.70        0.00187                      609469.09
4202472.70        0.00187
         609484.09    4202472.70        0.00185                      609499.09
4202472.70        0.00182
♠ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:32:22

                                  PAGE  41
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                        X-COORD (M)
Y-COORD (M)        CONC
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 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         609514.09    4202472.70        0.00178                      609529.09
4202472.70        0.00173
         609544.09    4202472.70        0.00168                      609559.09
4202472.70        0.00162
         609574.09    4202472.70        0.00156                      609589.09
4202472.70        0.00149
         609604.09    4202472.70        0.00143                      609619.09
4202472.70        0.00136
         609634.09    4202472.70        0.00130                      609649.09
4202472.70        0.00123
         609664.09    4202472.70        0.00117                      609679.09
4202472.70        0.00112
         609694.09    4202472.70        0.00106                      609319.09
4202487.70        0.00099
         609334.09    4202487.70        0.00110                      609349.09
4202487.70        0.00121
         609364.09    4202487.70        0.00132                      609394.09
4202487.70        0.00150
         609409.09    4202487.70        0.00157                      609424.09
4202487.70        0.00162
         609439.09    4202487.70        0.00166                      609454.09
4202487.70        0.00167
         609469.09    4202487.70        0.00168                      609484.09
4202487.70        0.00167
         609499.09    4202487.70        0.00165                      609514.09
4202487.70        0.00162
         609529.09    4202487.70        0.00158                      609544.09
4202487.70        0.00154
         609559.09    4202487.70        0.00150                      609574.09
4202487.70        0.00145
         609589.09    4202487.70        0.00140                      609604.09
4202487.70        0.00134
         609619.09    4202487.70        0.00129                      609634.09
4202487.70        0.00123
         609649.09    4202487.70        0.00118                      609664.09
4202487.70        0.00113
         609679.09    4202487.70        0.00107                      609184.09
4202502.70        0.00035
         609199.09    4202502.70        0.00038                      609214.09
4202502.70        0.00041
         609229.09    4202502.70        0.00046                      609244.09
4202502.70        0.00051
         609259.09    4202502.70        0.00057                      609274.09
4202502.70        0.00064
         609289.09    4202502.70        0.00072                      609304.09
4202502.70        0.00080
         609319.09    4202502.70        0.00090                      609334.09
4202502.70        0.00099
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         609349.09    4202502.70        0.00109                     609364.09
4202502.70        0.00118
         609394.09    4202502.70        0.00134                     609409.09
4202502.70        0.00140
         609424.09    4202502.70        0.00145                     609439.09
4202502.70        0.00149
         609454.09    4202502.70        0.00151                     609469.09
4202502.70        0.00151
         609484.09    4202502.70        0.00151                     609499.09
4202502.70        0.00150
         609514.09    4202502.70        0.00148                     609529.09
4202502.70        0.00145
         609544.09    4202502.70        0.00142                     609559.09
4202502.70        0.00139
         609574.09    4202502.70        0.00135                     609589.09
4202502.70        0.00131
         609604.09    4202502.70        0.00126                     609619.09
4202502.70        0.00122
         609634.09    4202502.70        0.00117                     609649.09
4202502.70        0.00113
         609664.09    4202502.70        0.00108                     609064.09
4202517.70        0.00019
         609079.09    4202517.70        0.00020                     609094.09
4202517.70        0.00021
         609109.09    4202517.70        0.00023                     609124.09
4202517.70        0.00024
         609139.09    4202517.70        0.00026                     609154.09
4202517.70        0.00028
         609169.09    4202517.70        0.00030                     609184.09
4202517.70        0.00033
         609199.09    4202517.70        0.00036                     609214.09
4202517.70        0.00039
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:32:22

                                  PAGE  42
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **
```

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609229.09	4202517.70	0.00043	609244.09	4202517.70	0.00047
609259.09	4202517.70	0.00053	609274.09	4202517.70	0.00059
609289.09	4202517.70	0.00066	609304.09	4202517.70	0.00073
609319.09	4202517.70	0.00081	609334.09	4202517.70	0.00090
609349.09	4202517.70	0.00098	609364.09	4202517.70	0.00106
609409.09	4202517.70	0.00126	609424.09	4202517.70	0.00131
609439.09	4202517.70	0.00134	609454.09	4202517.70	0.00136
609469.09	4202517.70	0.00137	609484.09	4202517.70	0.00137
609499.09	4202517.70	0.00136	609514.09	4202517.70	0.00135
609529.09	4202517.70	0.00133	609544.09	4202517.70	0.00131
609559.09	4202517.70	0.00128	609574.09	4202517.70	0.00125
609589.09	4202517.70	0.00122	609604.09	4202517.70	0.00118
609619.09	4202517.70	0.00115	609634.09	4202517.70	0.00111
609649.09	4202517.70	0.00107	609079.09	4202532.70	0.00019
609094.09	4202532.70	0.00020	609109.09	4202532.70	0.00022
609124.09	4202532.70	0.00023	609139.09	4202532.70	0.00025
609154.09	4202532.70	0.00027	609169.09	4202532.70	0.00029
609184.09	4202532.70	0.00031	609199.09	4202532.70	0.00034
609214.09	4202532.70	0.00037	609229.09	4202532.70	0.00040
609244.09	4202532.70	0.00044	609259.09	4202532.70	0.00049
609274.09	4202532.70	0.00055	609289.09	4202532.70	0.00061
609304.09	4202532.70	0.00067	609319.09	4202532.70	0.00074
609334.09	4202532.70	0.00082	609349.09	4202532.70	0.00089

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         609364.09    4202532.70        0.00096                      609409.09
4202532.70        0.00114
         609424.09    4202532.70        0.00118                      609439.09
4202532.70        0.00121
         609454.09    4202532.70        0.00123                      609469.09
4202532.70        0.00124
         609484.09    4202532.70        0.00125                      609499.09
4202532.70        0.00125
         609514.09    4202532.70        0.00124                      609529.09
4202532.70        0.00123
         609544.09    4202532.70        0.00121                      609559.09
4202532.70        0.00119
         609574.09    4202532.70        0.00116                      609589.09
4202532.70        0.00114
         609604.09    4202532.70        0.00111                      609619.09
4202532.70        0.00108
         609094.09    4202547.70        0.00020                      609109.09
4202547.70        0.00021
         609124.09    4202547.70        0.00023                      609139.09
4202547.70        0.00024
         609154.09    4202547.70        0.00026                      609169.09
4202547.70        0.00028
         609184.09    4202547.70        0.00030                      609199.09
4202547.70        0.00032
         609214.09    4202547.70        0.00035                      609229.09
4202547.70        0.00038
         609244.09    4202547.70        0.00042                      609259.09
4202547.70        0.00046
         609274.09    4202547.70        0.00051                      609289.09
4202547.70        0.00056
         609304.09    4202547.70        0.00062                      609319.09
4202547.70        0.00068
         609334.09    4202547.70        0.00075                      609349.09
4202547.70        0.00081
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:32:22

                                  PAGE  43
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF PM_2.5   IN MICROGRAMS/M**3
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**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609364.09	4202547.70	0.00087	609409.09	4202547.70	0.00103
609424.09	4202547.70	0.00107	609439.09	4202547.70	0.00110
609454.09	4202547.70	0.00112	609469.09	4202547.70	0.00114
609484.09	4202547.70	0.00114	609499.09	4202547.70	0.00114
609514.09	4202547.70	0.00114	609529.09	4202547.70	0.00113
609544.09	4202547.70	0.00112	609559.09	4202547.70	0.00110
609574.09	4202547.70	0.00108	609589.09	4202547.70	0.00106
609109.09	4202562.70	0.00020	609124.09	4202562.70	0.00022
609139.09	4202562.70	0.00023	609154.09	4202562.70	0.00025
609169.09	4202562.70	0.00026	609184.09	4202562.70	0.00028
609199.09	4202562.70	0.00031	609214.09	4202562.70	0.00033
609229.09	4202562.70	0.00036	609244.09	4202562.70	0.00040
609259.09	4202562.70	0.00043	609274.09	4202562.70	0.00048
609289.09	4202562.70	0.00053	609304.09	4202562.70	0.00058
609319.09	4202562.70	0.00063	609334.09	4202562.70	0.00068
609349.09	4202562.70	0.00074	609364.09	4202562.70	0.00079
609409.09	4202562.70	0.00094	609424.09	4202562.70	0.00098
609439.09	4202562.70	0.00101	609454.09	4202562.70	0.00103
609469.09	4202562.70	0.00104	609484.09	4202562.70	0.00105
609499.09	4202562.70	0.00105	609514.09	4202562.70	0.00105
609529.09	4202562.70	0.00105	609544.09	4202562.70	0.00104
609559.09	4202562.70	0.00103	609574.09	4202562.70	0.00101

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         609124.09    4202577.70        0.00021                      609139.09
4202577.70        0.00022
         609154.09    4202577.70        0.00024                      609169.09
4202577.70        0.00025
         609184.09    4202577.70        0.00027                      609199.09
4202577.70        0.00029
         609214.09    4202577.70        0.00031                      609229.09
4202577.70        0.00034
         609244.09    4202577.70        0.00037                      609259.09
4202577.70        0.00041
         609274.09    4202577.70        0.00045                      609289.09
4202577.70        0.00049
         609304.09    4202577.70        0.00054                      609319.09
4202577.70        0.00058
         609334.09    4202577.70        0.00063                      609349.09
4202577.70        0.00068
         609364.09    4202577.70        0.00073                      609409.09
4202577.70        0.00086
         609424.09    4202577.70        0.00089                      609439.09
4202577.70        0.00092
         609454.09    4202577.70        0.00094                      609469.09
4202577.70        0.00096
         609484.09    4202577.70        0.00097                      609499.09
4202577.70        0.00097
         609514.09    4202577.70        0.00097                      609529.09
4202577.70        0.00097
         609544.09    4202577.70        0.00096                      609139.09
4202592.70        0.00021
         609154.09    4202592.70        0.00023                      609169.09
4202592.70        0.00024
         609184.09    4202592.70        0.00026                      609199.09
4202592.70        0.00028
         609214.09    4202592.70        0.00030                      609229.09
4202592.70        0.00032
         609244.09    4202592.70        0.00035                      609259.09
4202592.70        0.00039
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:32:22

                                  PAGE  44
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***
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** CONC OF PM_2.5 IN MICROGRAMS/M**3
**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609274.09	4202592.70	0.00042	609289.09	4202592.70	0.00046
609304.09	4202592.70	0.00050	609319.09	4202592.70	0.00054
609334.09	4202592.70	0.00059	609349.09	4202592.70	0.00063
609364.09	4202592.70	0.00067	609409.09	4202592.70	0.00079
609424.09	4202592.70	0.00082	609439.09	4202592.70	0.00085
609454.09	4202592.70	0.00087	609469.09	4202592.70	0.00088
609484.09	4202592.70	0.00089	609499.09	4202592.70	0.00090
609514.09	4202592.70	0.00090	609529.09	4202592.70	0.00090
609169.09	4202607.70	0.00023	609184.09	4202607.70	0.00025
609199.09	4202607.70	0.00026	609214.09	4202607.70	0.00029
609229.09	4202607.70	0.00031	609244.09	4202607.70	0.00034
609259.09	4202607.70	0.00037	609274.09	4202607.70	0.00040
609289.09	4202607.70	0.00043	609304.09	4202607.70	0.00047
609319.09	4202607.70	0.00051	609334.09	4202607.70	0.00054
609349.09	4202607.70	0.00058	609364.09	4202607.70	0.00062
609409.09	4202607.70	0.00073	609424.09	4202607.70	0.00076
609439.09	4202607.70	0.00078	609454.09	4202607.70	0.00080
609469.09	4202607.70	0.00082	609484.09	4202607.70	0.00083
609499.09	4202607.70	0.00083	609199.09	4202622.70	0.00025
609214.09	4202622.70	0.00027	609229.09	4202622.70	0.00029
609244.09	4202622.70	0.00032	609259.09	4202622.70	0.00035

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         609274.09    4202622.70        0.00038                       609289.09
4202622.70        0.00041
         609304.09    4202622.70        0.00044                       609319.09
4202622.70        0.00047
         609334.09    4202622.70        0.00051                       609349.09
4202622.70        0.00054
         609364.09    4202622.70        0.00058                       609409.09
4202622.70        0.00067
         609424.09    4202622.70        0.00070                       609439.09
4202622.70        0.00072
         609454.09    4202622.70        0.00074                       609469.09
4202622.70        0.00076
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:32:22

                                   PAGE  45
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
        609304.09   4201857.70        0.04673  (12020204)               609319.09
 4201857.70        0.04545  (12020204)
        609334.09   4201857.70        0.04583  (12010420)               609349.09
 4201857.70        0.04698  (09012323)
        609364.09   4201857.70        0.04690  (09012323)               609379.09
 4201857.70        0.04490  (12123104)
        609394.09   4201857.70        0.04506  (09012120)               609259.09
 4201872.70        0.04957  (10010720)
        609304.09   4201872.70        0.04916  (12020204)               609319.09
 4201872.70        0.04799  (12020204)
        609334.09   4201872.70        0.04822  (12010420)               609349.09
 4201872.70        0.04947  (09012323)
        609364.09   4201872.70        0.04922  (09012323)               609379.09
 4201872.70        0.04730  (12123104)
        609394.09   4201872.70        0.04785  (09012120)               609409.09
 4201872.70        0.04873  (09012120)
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609424.09 4201872.70 0.04720 (10021118) 609439.09 4201872.70 0.04740 (12012619)
609454.09 4201872.70 0.04618 (09122003) 609199.09 4201887.70 0.04803 (09123119)
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609139.09 4201917.70 0.04902 (10011607) 609154.09 4201917.70 0.05049 (11010301)
609169.09 4201917.70 0.05074 (12020820) 609184.09 4201917.70 0.05167 (09121706)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
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609229.09	4201917.70	0.05446	(10010301)	609244.09	4201917.70	0.05699	(09012222)
609259.09	4201917.70	0.05754	(09012222)	609274.09	4201917.70	0.05815	(10010720)
609289.09	4201917.70	0.05518	(10010720)	609319.09	4201917.70	0.05700	(12020204)
609334.09	4201917.70	0.05674	(12010420)	609349.09	4201917.70	0.05834	(09012323)
609364.09	4201917.70	0.05737	(09012323)	609379.09	4201917.70	0.05559	(12123104)
609394.09	4201917.70	0.05728	(09012120)	609409.09	4201917.70	0.05608	(09012120)
609424.09	4201917.70	0.05569	(12012619)	609439.09	4201917.70	0.05431	(12012619)
609454.09	4201917.70	0.05364	(09122003)	609469.09	4201917.70	0.05356	(12120619)
609484.09	4201917.70	0.05259	(10121002)	609499.09	4201917.70	0.05080	(10012503)
609514.09	4201917.70	0.04892	(09022304)	609529.09	4201917.70	0.04898	(09022304)
609544.09	4201917.70	0.04749	(11011324)	609109.09	4201932.70	0.04812	(10122508)
609124.09	4201932.70	0.04831	(09013019)	609139.09	4201932.70	0.05065	(10011607)
609154.09	4201932.70	0.05232	(11010301)	609169.09	4201932.70	0.05354	(11010301)

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 4201947.70        0.05276  (11011324)
       609544.09   4201947.70        0.05048  (09120624)               609559.09
 4201947.70        0.05037  (10011219)
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       609079.09   4201962.70        0.04917  (10020602)               609094.09
 4201962.70        0.05021  (10121905)
       609109.09   4201962.70        0.05220  (10121905)               609124.09
 4201962.70        0.05328  (10122508)
       609139.09   4201962.70        0.05473  (10122508)               609154.09
 4201962.70        0.05650  (10011607)
       609169.09   4201962.70        0.05895  (10011607)               609184.09
 4201962.70        0.06069  (11010301)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:32:22

                                  PAGE  47
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       609199.09   4201962.70        0.06155  (12020820)               609214.09
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 4201962.70        0.06515  (10010301)
       609259.09   4201962.70        0.06826  (09012222)               609274.09
 4201962.70        0.06893  (10010720)
       609289.09   4201962.70        0.06854  (10010720)               609304.09
 4201962.70        0.06802  (12020204)
       609349.09   4201962.70        0.06994  (09012323)               609364.09
 4201962.70        0.06775  (09012323)
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 4201962.70        0.06837  (09012120)
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_2.5 IN MICROGRAMS/M**3
**

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609289.09	4201992.70	0.07878	(10010720)	609304.09	4201992.70	0.07643	(12020204)
609319.09	4201992.70	0.07875	(12020204)	609364.09	4201992.70	0.07643	(12123104)
609379.09	4201992.70	0.07827	(09012120)	609394.09	4201992.70	0.07668	(09012120)
609409.09	4201992.70	0.07634	(12012619)	609424.09	4201992.70	0.07451	(09122003)
609439.09	4201992.70	0.07364	(12120619)	609454.09	4201992.70	0.07195	(10121002)

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609154.09 4202007.70 0.06544 (10121905) 609169.09 4202007.70 0.06768 (10122508)
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       609064.09   4202022.70        0.05349  (10011708)               609079.09
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       609094.09   4202022.70        0.05828  (09020508)               609109.09
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       609124.09   4202022.70        0.06361  (10120519)               609139.09
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       609154.09   4202022.70        0.06948  (10121905)               609169.09
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       609184.09   4202022.70        0.07356  (10122508)               609199.09
 4202022.70        0.07759  (10011607)
       609214.09   4202022.70        0.08065  (11010301)               609229.09
 4202022.70        0.08208  (12020820)
       609244.09   4202022.70        0.08504  (09123119)               609259.09
 4202022.70        0.08646  (10010301)
       609274.09   4202022.70        0.08951  (09012222)               609289.09
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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:32:22

                                  PAGE  49
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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       609334.09   4202022.70        0.09001  (12010420)               609349.09
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       609379.09   4202022.70        0.09078  (09012120)               609394.09
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609529.09 4202037.70 0.06952 (09010206) 609544.09 4202037.70 0.06440 (13022722)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609214.09	4202052.70	0.09064	(10011607)	609229.09	4202052.70	0.09506	(11010301)
609244.09	4202052.70	0.09715	(12020820)	609259.09	4202052.70	0.10069	(09123119)
609274.09	4202052.70	0.10182	(10010301)	609289.09	4202052.70	0.10585	(09012222)

609304.09 4202052.70 0.10599 (10010720) 609319.09 4202052.70 0.10687 (12020204)
609334.09 4202052.70 0.10583 (12010420) 609349.09 4202052.70 0.10778 (09012323)
609364.09 4202052.70 0.10502 (09012120) 609394.09 4202052.70 0.10388 (12012619)
609409.09 4202052.70 0.10191 (12120619) 609424.09 4202052.70 0.09960 (10121002)
609439.09 4202052.70 0.09447 (09022304) 609454.09 4202052.70 0.09259 (11011324)
609469.09 4202052.70 0.08709 (09120624) 609484.09 4202052.70 0.08521 (10011219)
609499.09 4202052.70 0.08050 (11123024) 609514.09 4202052.70 0.07646 (09010206)
609529.09 4202052.70 0.07065 (13012505) 609544.09 4202052.70 0.06971 (13012505)
609559.09 4202052.70 0.06618 (13012505) 609574.09 4202052.70 0.06195 (09122007)
609589.09 4202052.70 0.06019 (09122007) 609604.09 4202052.70 0.05763 (10120324)
609619.09 4202052.70 0.05418 (10120324) 609634.09 4202052.70 0.05200 (12022704)
609649.09 4202052.70 0.04925 (12022704) 609664.09 4202052.70 0.04694 (10121903)
609679.09 4202052.70 0.04438 (10121903) 609694.09 4202052.70 0.04147 (10121903)
609004.09 4202067.70 0.05751 (10020504) 609019.09 4202067.70 0.06019 (10020504)
609034.09 4202067.70 0.06199 (10020504) 609049.09 4202067.70 0.06268 (10020504)
609064.09 4202067.70 0.06421 (10011620) 609079.09 4202067.70 0.06442 (10011620)
609094.09 4202067.70 0.06514 (10011203) 609109.09 4202067.70 0.06856 (10011203)
609124.09 4202067.70 0.07215 (10011708) 609139.09 4202067.70 0.07603 (10020603)
609154.09 4202067.70 0.08006 (09020508) 609169.09 4202067.70 0.08497 (10121405)
609184.09 4202067.70 0.08883 (10020602) 609199.09 4202067.70 0.09346 (10121905)
609214.09 4202067.70 0.09685 (10122508) 609229.09 4202067.70 0.10198 (10011607)
609244.09 4202067.70 0.10542 (11010301) 609259.09 4202067.70 0.10912 (09123119)
609274.09 4202067.70 0.11174 (10010301) 609289.09 4202067.70 0.11565 (09012222)
609304.09 4202067.70 0.11641 (10010720) 609319.09 4202067.70 0.11638 (12020204)
609334.09 4202067.70 0.11550 (12010420) 609349.09 4202067.70 0.11725 (09012323)

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       609364.09   4202067.70        0.11545  (09012120)               609409.09
 4202067.70        0.11074  (12120619)
       609424.09   4202067.70        0.10671  (10121002)               609439.09
 4202067.70        0.10350  (09022304)
       609454.09   4202067.70        0.09788  (09120624)               609469.09
 4202067.70        0.09496  (10011219)
       609484.09   4202067.70        0.08922  (11123024)               609499.09
 4202067.70        0.08475  (09010206)
       609514.09   4202067.70        0.07837  (13012505)               609529.09
 4202067.70        0.07676  (13012505)
       609544.09   4202067.70        0.07214  (13012505)               609559.09
 4202067.70        0.06826  (09122007)
       609574.09   4202067.70        0.06557  (10120324)               609589.09
 4202067.70        0.06217  (10120324)
       609604.09   4202067.70        0.05872  (12022704)               609619.09
 4202067.70        0.05577  (12022704)
       609634.09   4202067.70        0.05276  (10121903)               609649.09
 4202067.70        0.04984  (10121903)
       609664.09   4202067.70        0.04647  (10121903)               609679.09
 4202067.70        0.04364  (11011122)
       609694.09   4202067.70        0.04176  (11011122)               609709.09
 4202067.70        0.03961  (11011122)
       609004.09   4202082.70        0.05662  (10021222)               609019.09
 4202082.70        0.05995  (10020504)
↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:32:22

                                  PAGE  51
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                  **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       609034.09   4202082.70        0.06398  (10020504)               609049.09
 4202082.70        0.06726  (10020504)
       609064.09   4202082.70        0.06950  (10020504)               609079.09
 4202082.70        0.07068  (10011620)
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609094.09 4202082.70 0.07208 (10011620) 609109.09 4202082.70 0.07154 (10011620)
609124.09 4202082.70 0.07534 (10011203) 609139.09 4202082.70 0.07942 (10011708)
609154.09 4202082.70 0.08441 (10020603) 609169.09 4202082.70 0.08908 (09020508)
609184.09 4202082.70 0.09454 (10121405) 609199.09 4202082.70 0.09909 (10121905)
609214.09 4202082.70 0.10434 (10121905) 609229.09 4202082.70 0.10884 (09121818)
609244.09 4202082.70 0.11554 (11010301) 609259.09 4202082.70 0.11880 (12020820)
609274.09 4202082.70 0.12268 (09123119) 609289.09 4202082.70 0.12636 (09012222)
609304.09 4202082.70 0.12814 (10010720) 609319.09 4202082.70 0.12733 (12020204)
609334.09 4202082.70 0.12669 (12010420) 609349.09 4202082.70 0.12813 (09012323)
609364.09 4202082.70 0.12715 (09012120) 609409.09 4202082.70 0.12077 (10121002)
609424.09 4202082.70 0.11517 (09022304) 609439.09 4202082.70 0.11130 (11011324)
609454.09 4202082.70 0.10631 (10011219) 609469.09 4202082.70 0.09969 (10011219)
609484.09 4202082.70 0.09467 (09010206) 609499.09 4202082.70 0.08758 (13012505)
609514.09 4202082.70 0.08503 (13012505) 609529.09 4202082.70 0.07899 (13012505)
609544.09 4202082.70 0.07539 (09122007) 609559.09 4202082.70 0.07179 (10120324)
609574.09 4202082.70 0.06699 (10120324) 609589.09 4202082.70 0.06373 (12022704)
609604.09 4202082.70 0.05986 (10121903) 609619.09 4202082.70 0.05650 (10121903)
609634.09 4202082.70 0.05255 (10121903) 609649.09 4202082.70 0.04897 (11011122)
609664.09 4202082.70 0.04664 (11011122) 609679.09 4202082.70 0.04402 (11011122)
609694.09 4202082.70 0.04185 (12121308) 609709.09 4202082.70 0.04044 (12121308)
609004.09 4202097.70 0.05735 (10021223) 609019.09 4202097.70 0.05975 (10021222)
609034.09 4202097.70 0.06315 (10021222) 609049.09 4202097.70 0.06744 (10020504)
609064.09 4202097.70 0.07237 (10020504) 609079.09 4202097.70 0.07632 (10020504)
609094.09 4202097.70 0.07892 (10020504) 609109.09 4202097.70 0.08046 (10011620)
609124.09 4202097.70 0.08182 (10011620) 609139.09 4202097.70 0.08311 (10011203)

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       609154.09   4202097.70        0.08773  (10011203)               609169.09
 4202097.70        0.09380  (10020603)
       609184.09   4202097.70        0.09968  (09020508)               609199.09
 4202097.70        0.10643  (10121405)
       609214.09   4202097.70        0.11285  (10121905)               609229.09
 4202097.70        0.11887  (10122508)
       609244.09   4202097.70        0.12491  (10011607)               609259.09
 4202097.70        0.13040  (11010301)
       609274.09   4202097.70        0.13547  (09123119)               609289.09
 4202097.70        0.13741  (09012222)
       609304.09   4202097.70        0.14095  (10010720)               609319.09
 4202097.70        0.13997  (12020204)
       609334.09   4202097.70        0.13975  (12010420)               609349.09
 4202097.70        0.14075  (09012323)
       609364.09   4202097.70        0.14038  (09012120)               609409.09
 4202097.70        0.13170  (10121002)
       609424.09   4202097.70        0.12690  (09022304)               609439.09
 4202097.70        0.11960  (10011219)
       609454.09   4202097.70        0.11378  (10011219)               609469.09
 4202097.70        0.10678  (11123024)
       609484.09   4202097.70        0.09871  (13012505)               609499.09
 4202097.70        0.09481  (13012505)
       609514.09   4202097.70        0.08704  (09122007)               609529.09
 4202097.70        0.08344  (09122007)
       609544.09   4202097.70        0.07857  (10120324)               609559.09
 4202097.70        0.07358  (12022704)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:32:22

                                   PAGE  52
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       609574.09   4202097.70        0.06886  (12123118)               609589.09
 4202097.70        0.06476  (10121903)
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609604.09 4202097.70 0.06006 (10121903) 609619.09 4202097.70 0.05550 (11011122)
609634.09 4202097.70 0.05259 (11011122) 609649.09 4202097.70 0.04932 (11011122)
609664.09 4202097.70 0.04707 (12121308) 609679.09 4202097.70 0.04518 (12121308)
609694.09 4202097.70 0.04345 (11011323) 609709.09 4202097.70 0.04190 (11011323)
609724.09 4202097.70 0.04020 (11011323) 608989.09 4202112.70 0.05611 (13012320)
609004.09 4202112.70 0.05895 (10122201) 609019.09 4202112.70 0.06171 (10122201)
609034.09 4202112.70 0.06447 (10021223) 609049.09 4202112.70 0.06706 (10021222)
609064.09 4202112.70 0.07147 (10021222) 609079.09 4202112.70 0.07680 (10020504)
609094.09 4202112.70 0.08282 (10020504) 609109.09 4202112.70 0.08765 (10020504)
609124.09 4202112.70 0.09081 (10020504) 609139.09 4202112.70 0.09285 (10011620)
609154.09 4202112.70 0.09369 (10011620) 609169.09 4202112.70 0.09823 (10011203)
609184.09 4202112.70 0.10522 (10020603) 609199.09 4202112.70 0.11319 (09020508)
609214.09 4202112.70 0.12156 (10121405) 609229.09 4202112.70 0.12965 (10121905)
609244.09 4202112.70 0.13615 (10122508) 609259.09 4202112.70 0.14370 (11010301)
609274.09 4202112.70 0.14879 (13121217) 609289.09 4202112.70 0.15303 (10010301)
609304.09 4202112.70 0.15625 (09012222) 609319.09 4202112.70 0.15483 (12020204)
609334.09 4202112.70 0.15513 (12010420) 609349.09 4202112.70 0.15558 (09012323)
609364.09 4202112.70 0.15558 (09012120) 609379.09 4202112.70 0.15337 (12012619)
609409.09 4202112.70 0.14469 (09022304) 609424.09 4202112.70 0.13728 (11011324)
609439.09 4202112.70 0.13115 (10011219) 609454.09 4202112.70 0.12201 (11123024)
609469.09 4202112.70 0.11244 (13012505) 609484.09 4202112.70 0.10658 (13012505)
609499.09 4202112.70 0.09842 (09122007) 609514.09 4202112.70 0.09305 (10120324)
609529.09 4202112.70 0.08599 (12022704) 609544.09 4202112.70 0.08067 (12022704)
609559.09 4202112.70 0.07522 (10121903) 609574.09 4202112.70 0.06952 (10121903)
609589.09 4202112.70 0.06367 (11011122) 609604.09 4202112.70 0.05994 (11011122)

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       609619.09   4202112.70        0.05581  (11011122)               609634.09
 4202112.70        0.05340  (12121308)
       609649.09   4202112.70        0.05100  (12022118)               609664.09
 4202112.70        0.04900  (11011323)
       609679.09   4202112.70        0.04686  (11011323)               609694.09
 4202112.70        0.04458  (11011323)
       609709.09   4202112.70        0.04231  (12013024)               609724.09
 4202112.70        0.04053  (12013024)
       608989.09   4202127.70        0.05713  (10020824)               609004.09
 4202127.70        0.05982  (10020824)
       609019.09   4202127.70        0.06284  (13012320)               609034.09
 4202127.70        0.06567  (10122201)
       609049.09   4202127.70        0.06953  (10122201)               609064.09
 4202127.70        0.07296  (10021223)
       609079.09   4202127.70        0.07658  (10021223)               609094.09
 4202127.70        0.08148  (10021222)
       609109.09   4202127.70        0.08826  (10020504)               609124.09
 4202127.70        0.09576  (10020504)
       609139.09   4202127.70        0.10179  (10020504)               609154.09
 4202127.70        0.10587  (10020504)
       609169.09   4202127.70        0.10851  (10011620)               609184.09
 4202127.70        0.11112  (10011203)
       609199.09   4202127.70        0.11975  (10011708)               609214.09
 4202127.70        0.12956  (09020508)
       609229.09   4202127.70        0.14009  (10121405)               609244.09
 4202127.70        0.15037  (10121905)
       609259.09   4202127.70        0.15808  (09121818)               609274.09
 4202127.70        0.16624  (11010301)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:32:22

                                  PAGE  53
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                   INCLUDING SOURCE(S):     PAREA4      ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                         ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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609289.09 4202127.70 0.17203 (09123119) 609304.09
4202127.70 0.17479 (09012222)
609319.09 4202127.70 0.17271 (10010720) 609334.09
4202127.70 0.17351 (12010420)
609349.09 4202127.70 0.17332 (09012323) 609364.09
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609454.09 4202127.70 0.12977 (13012505) 609469.09
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609484.09 4202127.70 0.11187 (09122007) 609499.09
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609514.09 4202127.70 0.09604 (12022704) 609529.09
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609544.09 4202127.70 0.08173 (10121903) 609559.09
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609604.09 4202127.70 0.06119 (12022118) 609619.09
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609664.09 4202127.70 0.04968 (12013024) 609679.09
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609109.09 4202142.70 0.08832 (10021223) 609124.09
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609139.09 4202142.70 0.10281 (10020504) 609154.09
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609169.09 4202142.70 0.12125 (10020504) 609184.09
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4202142.70 0.16435 (10121405)
609259.09 4202142.70 0.17724 (10121905) 609274.09
4202142.70 0.18788 (09121818)

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 4202142.70        0.19693  (09012222)
       609319.09   4202142.70        0.19627  (12123120)               609334.09
 4202142.70        0.19631  (13022419)
       609349.09   4202142.70        0.19497  (09012323)               609364.09
 4202142.70        0.19680  (10021118)
       609379.09   4202142.70        0.19544  (12120619)               609409.09
 4202142.70        0.18063  (10011219)
       609424.09   4202142.70        0.16721  (11123024)               609439.09
 4202142.70        0.15233  (13012505)
       609454.09   4202142.70        0.13890  (13012505)               609469.09
 4202142.70        0.12823  (10120324)
       609484.09   4202142.70        0.11678  (12022704)               609499.09
 4202142.70        0.10707  (12123118)
       609514.09   4202142.70        0.09793  (10121903)               609529.09
 4202142.70        0.08786  (11011122)
       609544.09   4202142.70        0.08119  (11011122)               609559.09
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       609574.09   4202142.70        0.07131  (12022118)               609589.09
 4202142.70        0.06757  (11011323)
       609604.09   4202142.70        0.06360  (11011323)               609619.09
 4202142.70        0.05953  (12013024)
       609634.09   4202142.70        0.05631  (12013024)               609649.09
 4202142.70        0.05350  (10121022)
       609664.09   4202142.70        0.05094  (10121022)               609679.09
 4202142.70        0.04836  (10121022)
       609694.09   4202142.70        0.04579  (10121022)               609709.09
 4202142.70        0.04349  (13012506)
       609724.09   4202142.70        0.04129  (13012506)               608974.09
 4202157.70        0.05596  (12012005)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:32:22

                                  PAGE  54
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
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 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        608989.09   4202157.70        0.05877  (12012005)                609004.09
 4202157.70        0.06153  (10010205)
        609019.09   4202157.70        0.06456  (10010205)                609034.09
 4202157.70        0.06778  (09123103)
        609049.09   4202157.70        0.07138  (09123103)                609064.09
 4202157.70        0.07521  (13010602)
        609079.09   4202157.70        0.07983  (10020824)                609094.09
 4202157.70        0.08493  (12120523)
        609109.09   4202157.70        0.09044  (13012320)                609124.09
 4202157.70        0.09645  (10122201)
        609139.09   4202157.70        0.10296  (10122201)                609154.09
 4202157.70        0.11020  (10021223)
        609169.09   4202157.70        0.12294  (10020504)                609184.09
 4202157.70        0.13618  (10020504)
        609199.09   4202157.70        0.14762  (10020504)                609214.09
 4202157.70        0.15610  (10020504)
        609229.09   4202157.70        0.16049  (10011203)                609244.09
 4202157.70        0.17794  (10020603)
        609259.09   4202157.70        0.19789  (10121405)                609274.09
 4202157.70        0.21490  (11020623)
        609289.09   4202157.70        0.22542  (12020820)                609304.09
 4202157.70        0.22631  (13122120)
        609319.09   4202157.70        0.22569  (12123120)                609334.09
 4202157.70        0.22455  (13022419)
        609349.09   4202157.70        0.22234  (10021118)                609364.09
 4202157.70        0.22552  (10021118)
        609379.09   4202157.70        0.22548  (10121002)                609409.09
 4202157.70        0.20130  (11123024)
        609424.09   4202157.70        0.18198  (13012505)                609439.09
 4202157.70        0.16329  (09122007)
        609454.09   4202157.70        0.14798  (10120324)                609469.09
 4202157.70        0.13325  (12123118)
        609484.09   4202157.70        0.12032  (10121903)                609499.09
 4202157.70        0.10675  (10121903)
        609514.09   4202157.70        0.09711  (11011122)                609529.09
 4202157.70        0.09032  (12022118)
        609544.09   4202157.70        0.08460  (11011323)                609559.09
 4202157.70        0.07898  (11011323)
        609574.09   4202157.70        0.07326  (11011323)                609589.09
 4202157.70        0.06862  (12013024)
        609604.09   4202157.70        0.06483  (10121022)                609619.09
 4202157.70        0.06113  (10121022)
        609634.09   4202157.70        0.05746  (10121022)                609649.09
 4202157.70        0.05406  (13012506)
        609664.09   4202157.70        0.05093  (13012506)                609679.09
 4202157.70        0.04790  (13012506)
        609694.09   4202157.70        0.04574  (09010202)                609709.09
 4202157.70        0.04365  (09010202)
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       609724.09   4202157.70        0.04162  (09010202)               608959.09
 4202172.70        0.05405  (12012524)
       608974.09   4202172.70        0.05660  (12012524)               608989.09
 4202172.70        0.05922  (12012524)
       609004.09   4202172.70        0.06208  (10120218)               609019.09
 4202172.70        0.06510  (12011923)
       609034.09   4202172.70        0.06857  (12011923)               609049.09
 4202172.70        0.07249  (12012005)
       609064.09   4202172.70        0.07661  (12012005)               609079.09
 4202172.70        0.08125  (10010205)
       609094.09   4202172.70        0.08616  (09123103)               609109.09
 4202172.70        0.09147  (09123103)
       609124.09   4202172.70        0.09772  (13010602)               609139.09
 4202172.70        0.10504  (12120523)
       609154.09   4202172.70        0.11340  (13012320)               609169.09
 4202172.70        0.12329  (10122201)
       609184.09   4202172.70        0.13369  (10021223)               609199.09
 4202172.70        0.14957  (10020504)
       609214.09   4202172.70        0.16826  (10020504)               609229.09
 4202172.70        0.18638  (10020504)
       609244.09   4202172.70        0.20228  (10020504)               609259.09
 4202172.70        0.21635  (10020603)
       609274.09   4202172.70        0.24681  (10121405)               609289.09
 4202172.70        0.26603  (09121818)
       609304.09   4202172.70        0.26318  (09123119)               609319.09
 4202172.70        0.25947  (12123120)
       609334.09   4202172.70        0.25699  (12041921)               609349.09
 4202172.70        0.25760  (10021118)
       609364.09   4202172.70        0.26016  (12010523)               609379.09
 4202172.70        0.26312  (11120403)
       609409.09   4202172.70        0.22061  (13012505)               609424.09
 4202172.70        0.19450  (10120324)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:32:22

                                   PAGE  55
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **
```

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609439.09	4202172.70	0.17279	(12123118)	609454.09	4202172.70	0.15294	(10121903)
609469.09	4202172.70	0.13343	(10121903)	609484.09	4202172.70	0.11999	(12022118)
609499.09	4202172.70	0.11047	(12022118)	609514.09	4202172.70	0.10182	(11011323)
609529.09	4202172.70	0.09328	(11011323)	609544.09	4202172.70	0.08649	(10121022)
609559.09	4202172.70	0.08074	(10121022)	609574.09	4202172.70	0.07514	(10121022)
609589.09	4202172.70	0.06982	(13012506)	609604.09	4202172.70	0.06510	(13012506)
609619.09	4202172.70	0.06081	(09010202)	609634.09	4202172.70	0.05749	(09010202)
609649.09	4202172.70	0.05431	(09010202)	609664.09	4202172.70	0.05128	(09010202)
609679.09	4202172.70	0.04841	(09010202)	609694.09	4202172.70	0.04568	(09010202)
609709.09	4202172.70	0.04311	(09010202)	609724.09	4202172.70	0.04110	(11120401)
608959.09	4202187.70	0.05407	(09021723)	608974.09	4202187.70	0.05672	(11121204)
608989.09	4202187.70	0.05950	(11121204)	609004.09	4202187.70	0.06250	(09122008)
609019.09	4202187.70	0.06575	(09122008)	609034.09	4202187.70	0.06940	(12012524)
609049.09	4202187.70	0.07332	(12012524)	609064.09	4202187.70	0.07749	(12012524)
609079.09	4202187.70	0.08207	(10120218)	609094.09	4202187.70	0.08716	(12011923)
609109.09	4202187.70	0.09293	(12012005)	609124.09	4202187.70	0.09944	(12012005)
609139.09	4202187.70	0.10656	(10010205)	609154.09	4202187.70	0.11495	(09123103)
609169.09	4202187.70	0.12493	(10120918)	609184.09	4202187.70	0.13636	(12120523)
609199.09	4202187.70	0.14895	(13012320)	609214.09	4202187.70	0.16414	(10122201)
609229.09	4202187.70	0.18738	(10020504)	609244.09	4202187.70	0.21653	(10020504)
609259.09	4202187.70	0.24976	(10020504)	609274.09	4202187.70	0.28426	(10020504)
609409.09	4202187.70	0.23349	(10020321)	609424.09	4202187.70	0.19972	(12123118)
609439.09	4202187.70	0.17235	(10021519)	609454.09	4202187.70	0.15401	(12022118)

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       609469.09   4202187.70        0.13836  (11011323)               609484.09
 4202187.70        0.12438  (12013024)
       609499.09   4202187.70        0.11371  (10121022)               609514.09
 4202187.70        0.10414  (10121022)
       609529.09   4202187.70        0.09522  (10121022)               609544.09
 4202187.70        0.08739  (13012506)
       609559.09   4202187.70        0.08077  (09010202)               609574.09
 4202187.70        0.07526  (09010202)
       609589.09   4202187.70        0.07012  (09010202)               609604.09
 4202187.70        0.06532  (09010202)
       609619.09   4202187.70        0.06087  (09010202)               609634.09
 4202187.70        0.05705  (11120401)
       609649.09   4202187.70        0.05384  (11120401)               609664.09
 4202187.70        0.05110  (11021923)
       609679.09   4202187.70        0.04869  (11021923)               609694.09
 4202187.70        0.04641  (11021923)
       609709.09   4202187.70        0.04425  (11021923)               609724.09
 4202187.70        0.04223  (11021923)
       608959.09   4202202.70        0.05446  (09020523)               608974.09
 4202202.70        0.05720  (09020523)
       608989.09   4202202.70        0.06011  (09020523)               609004.09
 4202202.70        0.06321  (09020523)
       609019.09   4202202.70        0.06650  (09020523)               609034.09
 4202202.70        0.06993  (09020523)
       609049.09   4202202.70        0.07366  (09021723)               609064.09
 4202202.70        0.07785  (09021723)
       609079.09   4202202.70        0.08252  (11121204)               609094.09
 4202202.70        0.08777  (11121204)
       609109.09   4202202.70        0.09366  (09122008)               609124.09
 4202202.70        0.10037  (12012524)
       609139.09   4202202.70        0.10778  (12012524)               609154.09
 4202202.70        0.11639  (10120218)
       609169.09   4202202.70        0.12657  (10120218)               609184.09
 4202202.70        0.13764  (12012005)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:32:22

                                   PAGE  56
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
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**

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609199.09	4202202.70	0.15034	(10010205)	609214.09	4202202.70	0.16569	(10120918)
609229.09	4202202.70	0.18441	(10120918)	609244.09	4202202.70	0.20679	(10120918)
609259.09	4202202.70	0.24564	(10020504)	609274.09	4202202.70	0.28892	(10020504)
609409.09	4202202.70	0.23017	(12022118)	609424.09	4202202.70	0.19930	(12022118)
609439.09	4202202.70	0.17439	(10021418)	609454.09	4202202.70	0.15613	(10121022)
609469.09	4202202.70	0.14026	(10121022)	609484.09	4202202.70	0.12584	(10021219)
609499.09	4202202.70	0.11425	(09010202)	609514.09	4202202.70	0.10417	(09010202)
609529.09	4202202.70	0.09511	(09010202)	609544.09	4202202.70	0.08726	(11120401)
609559.09	4202202.70	0.08092	(11021923)	609574.09	4202202.70	0.07561	(11021923)
609589.09	4202202.70	0.07076	(11021923)	609604.09	4202202.70	0.06635	(11021923)
609619.09	4202202.70	0.06230	(11021923)	609634.09	4202202.70	0.05853	(11021923)
609649.09	4202202.70	0.05504	(12121606)	609664.09	4202202.70	0.05211	(12121606)
609679.09	4202202.70	0.04945	(12121606)	609694.09	4202202.70	0.04692	(12121606)
609709.09	4202202.70	0.04456	(12121606)	609724.09	4202202.70	0.04252	(12013101)
608959.09	4202217.70	0.05496	(12120423)	608974.09	4202217.70	0.05773	(12120423)
608989.09	4202217.70	0.06071	(12120423)	609004.09	4202217.70	0.06391	(12120423)
609019.09	4202217.70	0.06738	(12120423)	609034.09	4202217.70	0.07106	(12120423)
609049.09	4202217.70	0.07500	(12120423)	609064.09	4202217.70	0.07928	(12120423)
609079.09	4202217.70	0.08392	(12120423)	609094.09	4202217.70	0.08911	(12120423)
609109.09	4202217.70	0.09484	(12120423)	609124.09	4202217.70	0.10117	(12120423)
609139.09	4202217.70	0.10849	(10120920)	609154.09	4202217.70	0.11730	(10120920)
609169.09	4202217.70	0.12749	(10120920)	609184.09	4202217.70	0.13850	(10120920)

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       609199.09   4202217.70        0.15087  (10120920)               609214.09
 4202217.70        0.16589  (13122019)
       609229.09   4202217.70        0.18397  (12011119)               609244.09
 4202217.70        0.20640  (12011119)
       609259.09   4202217.70        0.23378  (11121921)               609274.09
 4202217.70        0.27708  (10020504)
       609484.09   4202217.70        0.12688  (11011518)               609499.09
 4202217.70        0.11532  (11021923)
       609514.09   4202217.70        0.10540  (12121606)               609529.09
 4202217.70        0.09675  (12121606)
       609544.09   4202217.70        0.08925  (12013101)               609559.09
 4202217.70        0.08280  (12013101)
       609574.09   4202217.70        0.07707  (12013101)               609589.09
 4202217.70        0.07195  (12013101)
       609604.09   4202217.70        0.06730  (12013101)               609619.09
 4202217.70        0.06309  (12013101)
       609634.09   4202217.70        0.05926  (12013101)               609649.09
 4202217.70        0.05578  (12013101)
       609664.09   4202217.70        0.05271  (12013101)               609679.09
 4202217.70        0.04994  (12013101)
       609694.09   4202217.70        0.04735  (12013101)               609709.09
 4202217.70        0.04496  (12013101)
       609724.09   4202217.70        0.04280  (12013101)               608959.09
 4202232.70        0.05399  (10013006)
       608974.09   4202232.70        0.05668  (10013006)               608989.09
 4202232.70        0.05960  (10013006)
       609004.09   4202232.70        0.06275  (10013006)               609019.09
 4202232.70        0.06617  (10013006)
       609034.09   4202232.70        0.06991  (10013006)               609049.09
 4202232.70        0.07399  (10013006)
       609064.09   4202232.70        0.07832  (10013006)               609079.09
 4202232.70        0.08294  (10013006)
       609094.09   4202232.70        0.08821  (10013006)               609109.09
 4202232.70        0.09415  (10013006)
       609124.09   4202232.70        0.10075  (10013006)               609139.09
 4202232.70        0.10811  (10121319)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:32:22

                                  PAGE  57
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

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

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609154.09	4202232.70	0.11708	(10121319)	609169.09	4202232.70	0.12750	(10121319)
609184.09	4202232.70	0.13891	(12120423)	609199.09	4202232.70	0.15171	(12120423)
609214.09	4202232.70	0.16653	(12120423)	609229.09	4202232.70	0.18418	(12012707)
609244.09	4202232.70	0.20590	(12012707)	609259.09	4202232.70	0.23266	(11020419)
609274.09	4202232.70	0.26020	(12042123)	609424.09	4202232.70	0.19668	(10010104)
609439.09	4202232.70	0.17367	(10010104)	609454.09	4202232.70	0.15509	(12013101)
609469.09	4202232.70	0.13956	(12013101)	609484.09	4202232.70	0.12671	(12013101)
609499.09	4202232.70	0.11555	(12013101)	609514.09	4202232.70	0.10541	(12013101)
609529.09	4202232.70	0.09646	(12013101)	609544.09	4202232.70	0.08866	(12121805)
609559.09	4202232.70	0.08203	(12121805)	609574.09	4202232.70	0.07619	(12121805)
609589.09	4202232.70	0.07100	(12121805)	609604.09	4202232.70	0.06628	(12121805)
609619.09	4202232.70	0.06201	(12121805)	609634.09	4202232.70	0.05826	(12121805)
609649.09	4202232.70	0.05491	(12121805)	609664.09	4202232.70	0.05189	(12121805)
609679.09	4202232.70	0.04915	(12121805)	609694.09	4202232.70	0.04664	(12121805)
609709.09	4202232.70	0.04434	(12121805)	609724.09	4202232.70	0.04233	(12121805)
608959.09	4202247.70	0.05479	(10021206)	608974.09	4202247.70	0.05749	(10021206)
608989.09	4202247.70	0.06041	(10021206)	609004.09	4202247.70	0.06357	(10021206)
609019.09	4202247.70	0.06700	(10021206)	609034.09	4202247.70	0.07075	(10021206)
609049.09	4202247.70	0.07484	(10021206)	609064.09	4202247.70	0.07916	(10021206)
609079.09	4202247.70	0.08373	(10021206)	609094.09	4202247.70	0.08895	(10021206)
609109.09	4202247.70	0.09485	(10021206)	609124.09	4202247.70	0.10140	(10021206)

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       609139.09   4202247.70        0.10868  (10021206)               609154.09
 4202247.70        0.11720  (10021206)
       609169.09   4202247.70        0.12704  (10021206)               609184.09
 4202247.70        0.13825  (12012004)
       609199.09   4202247.70        0.15133  (13121719)               609214.09
 4202247.70        0.16642  (13121719)
       609229.09   4202247.70        0.18440  (13022822)               609244.09
 4202247.70        0.20625  (13022822)
       609259.09   4202247.70        0.23297  (13022822)               609274.09
 4202247.70        0.26108  (12020821)
       609424.09   4202247.70        0.19552  (10012718)               609439.09
 4202247.70        0.17230  (10011408)
       609454.09   4202247.70        0.15372  (10011408)               609469.09
 4202247.70        0.13796  (10011408)
       609484.09   4202247.70        0.12484  (10011408)               609499.09
 4202247.70        0.11348  (10011408)
       609514.09   4202247.70        0.10324  (10011408)               609529.09
 4202247.70        0.09466  (12121805)
       609544.09   4202247.70        0.08740  (12121805)               609559.09
 4202247.70        0.08102  (12121805)
       609574.09   4202247.70        0.07532  (12121805)               609589.09
 4202247.70        0.07024  (12121805)
       609604.09   4202247.70        0.06559  (12121805)               609619.09
 4202247.70        0.06138  (12121805)
       609634.09   4202247.70        0.05770  (12121805)               609649.09
 4202247.70        0.05442  (12121805)
       609664.09   4202247.70        0.05145  (12121805)               609679.09
 4202247.70        0.04874  (12121805)
       609694.09   4202247.70        0.04626  (12121805)               609709.09
 4202247.70        0.04399  (12121805)
       609724.09   4202247.70        0.04203  (12121805)               608959.09
 4202262.70        0.05468  (12012004)
       608974.09   4202262.70        0.05737  (12012004)               608989.09
 4202262.70        0.06027  (12012004)
       609004.09   4202262.70        0.06337  (12012004)               609019.09
 4202262.70        0.06672  (12012004)
       609034.09   4202262.70        0.07034  (12012004)               609049.09
 4202262.70        0.07427  (12012004)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
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                                  PAGE  58
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,
```

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609064.09	4202262.70	0.07853	(09020604)	609079.09	4202262.70	0.08324	(09020604)
609094.09	4202262.70	0.08855	(09020604)	609109.09	4202262.70	0.09449	(09020604)
609124.09	4202262.70	0.10116	(11123006)	609139.09	4202262.70	0.10859	(11123006)
609154.09	4202262.70	0.11682	(11123006)	609169.09	4202262.70	0.12603	(11123006)
609184.09	4202262.70	0.13706	(11123006)	609199.09	4202262.70	0.15041	(09011224)
609214.09	4202262.70	0.16601	(09011224)	609229.09	4202262.70	0.18429	(12020821)
609244.09	4202262.70	0.20713	(12020821)	609259.09	4202262.70	0.23482	(12020821)
609274.09	4202262.70	0.26663	(13121619)	609424.09	4202262.70	0.19586	(13120704)
609439.09	4202262.70	0.17199	(10012718)	609454.09	4202262.70	0.15340	(10012718)
609469.09	4202262.70	0.13787	(10012718)	609484.09	4202262.70	0.12466	(10012718)
609499.09	4202262.70	0.11323	(10012718)	609514.09	4202262.70	0.10344	(10011408)
609529.09	4202262.70	0.09534	(10011408)	609544.09	4202262.70	0.08840	(10011408)
609559.09	4202262.70	0.08220	(10011408)	609574.09	4202262.70	0.07645	(10011408)
609589.09	4202262.70	0.07122	(10011408)	609604.09	4202262.70	0.06640	(10011408)
609619.09	4202262.70	0.06199	(10011408)	609634.09	4202262.70	0.05810	(10011408)
609649.09	4202262.70	0.05462	(10011408)	609664.09	4202262.70	0.05144	(10011408)
609679.09	4202262.70	0.04854	(10011408)	609694.09	4202262.70	0.04587	(10011408)
609709.09	4202262.70	0.04343	(10011408)	609724.09	4202262.70	0.04127	(10011408)
609424.09	4202277.70	0.19515	(10010102)	609439.09	4202277.70	0.17052	(13012303)
609454.09	4202277.70	0.15157	(11121823)	609469.09	4202277.70	0.13638	(11121823)

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       609484.09   4202277.70        0.12287  (11121823)               609499.09
 4202277.70        0.11097  (13120704)
       609514.09   4202277.70        0.10084  (13120704)               609529.09
 4202277.70        0.09251  (10012718)
       609544.09   4202277.70        0.08611  (10012718)               609559.09
 4202277.70        0.08028  (10012718)
       609574.09   4202277.70        0.07483  (10012718)               609589.09
 4202277.70        0.06980  (10012718)
       609604.09   4202277.70        0.06513  (10012718)               609619.09
 4202277.70        0.06096  (10011408)
       609634.09   4202277.70        0.05762  (10011408)               609649.09
 4202277.70        0.05456  (10011408)
       609664.09   4202277.70        0.05173  (10011408)               609679.09
 4202277.70        0.04910  (10011408)
       609694.09   4202277.70        0.04666  (10011408)               609709.09
 4202277.70        0.04439  (10011408)
       609724.09   4202277.70        0.04234  (10011408)               609409.09
 4202322.70        0.20197  (12120506)
       609424.09   4202322.70        0.18535  (09022423)               609439.09
 4202322.70        0.16881  (09122922)
       609454.09   4202322.70        0.15424  (10122817)               609469.09
 4202322.70        0.14099  (11123023)
       609484.09   4202322.70        0.12720  (11123023)               609499.09
 4202322.70        0.11173  (11123023)
       609514.09   4202322.70        0.09673  (12020722)               609529.09
 4202322.70        0.08940  (09012121)
       609544.09   4202322.70        0.08238  (11010118)               609559.09
 4202322.70        0.07563  (11010118)
       609574.09   4202322.70        0.07034  (13012303)               609589.09
 4202322.70        0.06602  (11121823)
       609604.09   4202322.70        0.06286  (11121823)               609619.09
 4202322.70        0.05961  (11121823)
       609634.09   4202322.70        0.05635  (11121823)               609649.09
 4202322.70        0.05310  (11121823)
       609664.09   4202322.70        0.04993  (11121823)               609679.09
 4202322.70        0.04690  (09010806)
       609694.09   4202322.70        0.04439  (13120704)               609409.09
 4202337.70        0.18097  (11010201)
       609424.09   4202337.70        0.16942  (10012518)               609439.09
 4202337.70        0.15805  (09022423)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:32:22

                                  PAGE  59
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
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INCLUDING SOURCE(S): PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609454.09	4202337.70	0.14589	(09021721)	609469.09	4202337.70	0.13456	(10122817)
609484.09	4202337.70	0.12453	(10122817)	609499.09	4202337.70	0.11574	(11123023)
609514.09	4202337.70	0.10472	(11123023)	609529.09	4202337.70	0.09235	(11123023)
609544.09	4202337.70	0.08090	(12020722)	609559.09	4202337.70	0.07557	(09012121)
609574.09	4202337.70	0.07034	(11010118)	609589.09	4202337.70	0.06546	(11010118)
609604.09	4202337.70	0.06069	(13012303)	609619.09	4202337.70	0.05714	(13012303)
609634.09	4202337.70	0.05397	(11121823)	609649.09	4202337.70	0.05179	(11121823)
609664.09	4202337.70	0.04954	(11121823)	609679.09	4202337.70	0.04725	(11121823)
609694.09	4202337.70	0.04494	(11121823)	609709.09	4202337.70	0.04264	(11121823)
609724.09	4202337.70	0.04044	(11121823)	609409.09	4202352.70	0.16430	(12120608)
609424.09	4202352.70	0.15730	(12120506)	609439.09	4202352.70	0.14564	(10012518)
609454.09	4202352.70	0.13716	(09022423)	609469.09	4202352.70	0.12788	(09021721)
609484.09	4202352.70	0.11876	(09122922)	609499.09	4202352.70	0.11191	(10122817)
609514.09	4202352.70	0.10432	(11123023)	609529.09	4202352.70	0.09704	(11123023)
609544.09	4202352.70	0.08784	(11123023)	609559.09	4202352.70	0.07767	(11123023)
609574.09	4202352.70	0.06897	(12020722)	609589.09	4202352.70	0.06492	(09012121)
609604.09	4202352.70	0.06105	(09012121)	609619.09	4202352.70	0.05728	(11010118)
609634.09	4202352.70	0.05339	(11010118)	609649.09	4202352.70	0.05009	(13012303)
609664.09	4202352.70	0.04741	(13012303)	609679.09	4202352.70	0.04505	(11121823)

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       609694.09   4202352.70        0.04357  (11121823)                609709.09
 4202352.70        0.04199  (11121823)
       609724.09   4202352.70        0.04050  (11121823)                609409.09
 4202367.70        0.14923  (12120608)
       609424.09   4202367.70        0.14214  (10021424)                609439.09
 4202367.70        0.13767  (12120506)
       609454.09   4202367.70        0.12701  (10012518)                609469.09
 4202367.70        0.12069  (09022423)
       609484.09   4202367.70        0.11314  (09021721)                609499.09
 4202367.70        0.10671  (09122922)
       609514.09   4202367.70        0.10043  (10122817)                609529.09
 4202367.70        0.09418  (10122817)
       609544.09   4202367.70        0.08908  (11123023)                609559.09
 4202367.70        0.08262  (11123023)
       609574.09   4202367.70        0.07469  (11123023)                609589.09
 4202367.70        0.06607  (11123023)
       609604.09   4202367.70        0.05956  (12020722)                609619.09
 4202367.70        0.05650  (12020722)
       609634.09   4202367.70        0.05344  (09012121)                609649.09
 4202367.70        0.05035  (11010118)
       609664.09   4202367.70        0.04743  (11010118)                609679.09
 4202367.70        0.04443  (11010118)
       609694.09   4202367.70        0.04240  (13012303)                609709.09
 4202367.70        0.04034  (13012303)
       609724.09   4202367.70        0.03865  (11121823)                609394.09
 4202382.70        0.13905  (12021206)
       609409.09   4202382.70        0.13688  (12021724)                609424.09
 4202382.70        0.13258  (12120608)
       609439.09   4202382.70        0.12594  (13020722)                609454.09
 4202382.70        0.12130  (12120506)
       609469.09   4202382.70        0.11204  (10012518)                609484.09
 4202382.70        0.10737  (09022423)
       609499.09   4202382.70        0.10125  (09022423)                609514.09
 4202382.70        0.09631  (09122922)
       609529.09   4202382.70        0.09010  (10122817)                609544.09
 4202382.70        0.08631  (10122817)
       609559.09   4202382.70        0.08120  (11123023)                609574.09
 4202382.70        0.07678  (11123023)
       609589.09   4202382.70        0.07073  (11123023)                609604.09
 4202382.70        0.06397  (11123023)
       609619.09   4202382.70        0.05683  (11123023)                609634.09
 4202382.70        0.05208  (12020722)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:32:22

                                  PAGE  60
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN
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*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609649.09	4202382.70	0.04971	(12020722)	609664.09	4202382.70	0.04731	(09012121)
609679.09	4202382.70	0.04486	(11010118)	609694.09	4202382.70	0.04262	(11010118)
609709.09	4202382.70	0.04025	(11010118)	609724.09	4202382.70	0.03827	(13012303)
609394.09	4202397.70	0.12718	(11022222)	609409.09	4202397.70	0.12586	(10020523)
609424.09	4202397.70	0.12170	(10022423)	609439.09	4202397.70	0.11618	(12120608)
609454.09	4202397.70	0.11266	(09022424)	609469.09	4202397.70	0.10757	(12120506)
609484.09	4202397.70	0.09993	(13011002)	609499.09	4202397.70	0.09638	(09022423)
609514.09	4202397.70	0.09171	(09022423)	609529.09	4202397.70	0.08727	(09122922)
609544.09	4202397.70	0.08188	(09122922)	609559.09	4202397.70	0.07868	(10122817)
609574.09	4202397.70	0.07414	(10122817)	609589.09	4202397.70	0.07066	(11123023)
609604.09	4202397.70	0.06664	(11123023)	609619.09	4202397.70	0.06154	(11123023)
609634.09	4202397.70	0.05574	(11123023)	609649.09	4202397.70	0.04963	(11123023)
609664.09	4202397.70	0.04620	(12020722)	609679.09	4202397.70	0.04434	(12020722)
609694.09	4202397.70	0.04236	(09012121)	609709.09	4202397.70	0.04040	(09012121)
609724.09	4202397.70	0.03865	(11010118)	609394.09	4202412.70	0.11768	(09022220)
609409.09	4202412.70	0.11560	(12021206)	609424.09	4202412.70	0.11342	(12021724)
609439.09	4202412.70	0.11020	(12120608)	609454.09	4202412.70	0.10439	(13020722)
609469.09	4202412.70	0.10191	(12120506)	609484.09	4202412.70	0.09594	(12120506)

609499.09 4202412.70 0.09009 (13011002) 609514.09
4202412.70 0.08719 (09022423)
609529.09 4202412.70 0.08358 (09022423) 609544.09
4202412.70 0.07943 (09021721)
609559.09 4202412.70 0.07510 (09122922) 609574.09
4202412.70 0.07149 (10122817)
609589.09 4202412.70 0.06868 (10122817) 609604.09
4202412.70 0.06506 (12121607)
609619.09 4202412.70 0.06247 (11123023) 609634.09
4202412.70 0.05873 (11123023)
609649.09 4202412.70 0.05415 (11123023) 609664.09
4202412.70 0.04907 (11123023)
609679.09 4202412.70 0.04377 (11123023) 609694.09
4202412.70 0.04137 (12020722)
609709.09 4202412.70 0.03988 (12020722) 609724.09
4202412.70 0.03823 (09012121)
609394.09 4202427.70 0.10981 (09022220) 609409.09
4202427.70 0.10659 (12021206)
609424.09 4202427.70 0.10545 (09022307) 609439.09
4202427.70 0.10208 (10022423)
609454.09 4202427.70 0.09858 (12120608) 609469.09
4202427.70 0.09480 (13020722)
609484.09 4202427.70 0.09251 (12120506) 609499.09
4202427.70 0.08635 (10012518)
609514.09 4202427.70 0.08179 (13011002) 609529.09
4202427.70 0.07939 (09022423)
609544.09 4202427.70 0.07645 (09022423) 609559.09
4202427.70 0.07275 (09021721)
609574.09 4202427.70 0.06949 (09122922) 609589.09
4202427.70 0.06534 (10122817)
609604.09 4202427.70 0.06372 (10122817) 609619.09
4202427.70 0.06048 (10122817)
609634.09 4202427.70 0.05821 (11123023) 609649.09
4202427.70 0.05563 (11123023)
609664.09 4202427.70 0.05213 (11123023) 609679.09
4202427.70 0.04801 (11123023)
609694.09 4202427.70 0.04353 (11123023) 609709.09
4202427.70 0.03891 (11123023)
609724.09 4202427.70 0.03733 (12020722) 609439.09
4202472.70 0.08444 (10020523)
609454.09 4202472.70 0.08263 (12021724) 609469.09
4202472.70 0.08060 (12120608)
609484.09 4202472.70 0.07666 (12120608) 609499.09
4202472.70 0.07487 (13020722)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609514.09	4202472.70	0.07326	(12120506)	609529.09	4202472.70	0.07031	(12120506)
609544.09	4202472.70	0.06643	(10012518)	609559.09	4202472.70	0.06327	(13011002)
609574.09	4202472.70	0.06183	(09022423)	609589.09	4202472.70	0.06051	(09022423)
609604.09	4202472.70	0.05739	(09021721)	609619.09	4202472.70	0.05559	(09021721)
609634.09	4202472.70	0.05339	(09122922)	609649.09	4202472.70	0.05057	(10122817)
609664.09	4202472.70	0.04988	(10122817)	609679.09	4202472.70	0.04807	(10122817)
609694.09	4202472.70	0.04605	(12121607)	609319.09	4202487.70	0.09092	(10012801)
609334.09	4202487.70	0.09237	(10120908)	609349.09	4202487.70	0.08701	(10121108)
609364.09	4202487.70	0.08568	(11020103)	609394.09	4202487.70	0.08354	(10121808)
609409.09	4202487.70	0.08287	(09022220)	609424.09	4202487.70	0.08000	(11022222)
609439.09	4202487.70	0.07941	(12021206)	609454.09	4202487.70	0.07821	(09022307)
609469.09	4202487.70	0.07592	(10022423)	609484.09	4202487.70	0.07430	(12120608)
609499.09	4202487.70	0.07030	(10021424)	609514.09	4202487.70	0.06904	(11010201)
609529.09	4202487.70	0.06792	(12120506)	609544.09	4202487.70	0.06451	(12120506)
609559.09	4202487.70	0.06138	(10012518)	609574.09	4202487.70	0.05861	(13011002)
609589.09	4202487.70	0.05740	(09022423)	609604.09	4202487.70	0.05632	(09022423)
609619.09	4202487.70	0.05329	(09022423)	609634.09	4202487.70	0.05213	(09021721)

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       609649.09   4202487.70        0.05033  (09122922)               609664.09
 4202487.70        0.04752  (10020522)
       609679.09   4202487.70        0.04666  (10122817)               609184.09
 4202502.70        0.07476  (10010218)
       609199.09   4202502.70        0.07600  (10010218)               609214.09
 4202502.70        0.07614  (11011921)
       609229.09   4202502.70        0.07964  (12122821)               609244.09
 4202502.70        0.08182  (10121308)
       609259.09   4202502.70        0.08298  (09121604)               609274.09
 4202502.70        0.08455  (11123003)
       609289.09   4202502.70        0.08433  (09011124)               609304.09
 4202502.70        0.08572  (11012907)
       609319.09   4202502.70        0.08565  (10012801)               609334.09
 4202502.70        0.08688  (10120908)
       609349.09   4202502.70        0.08173  (10121108)               609364.09
 4202502.70        0.08045  (09120508)
       609394.09   4202502.70        0.07931  (10121808)               609409.09
 4202502.70        0.07796  (09022220)
       609424.09   4202502.70        0.07567  (10020719)               609439.09
 4202502.70        0.07487  (12021206)
       609454.09   4202502.70        0.07400  (10020523)               609469.09
 4202502.70        0.07221  (12021724)
       609484.09   4202502.70        0.07035  (12120608)               609499.09
 4202502.70        0.06790  (12120608)
       609514.09   4202502.70        0.06538  (13020722)               609529.09
 4202502.70        0.06407  (11010201)
       609544.09   4202502.70        0.06302  (12120506)               609559.09
 4202502.70        0.05939  (10122303)
       609574.09   4202502.70        0.05690  (10012518)               609589.09
 4202502.70        0.05450  (13011002)
       609604.09   4202502.70        0.05346  (09022423)               609619.09
 4202502.70        0.05267  (09022423)
       609634.09   4202502.70        0.05019  (09022423)               609649.09
 4202502.70        0.04903  (09021721)
       609664.09   4202502.70        0.04741  (09122922)               609064.09
 4202517.70        0.05547  (09122817)
       609079.09   4202517.70        0.05660  (13012924)               609094.09
 4202517.70        0.05821  (13012924)
       609109.09   4202517.70        0.06161  (09021623)               609124.09
 4202517.70        0.06320  (12122304)
       609139.09   4202517.70        0.06561  (12122304)               609154.09
 4202517.70        0.06752  (11021706)
       609169.09   4202517.70        0.06967  (09012124)               609184.09
 4202517.70        0.07153  (10010218)
       609199.09   4202517.70        0.07103  (13120920)               609214.09
 4202517.70        0.07334  (11011921)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:32:22
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609229.09	4202517.70	0.07588	(10121308)	609244.09	4202517.70	0.07770	(10122619)
609259.09	4202517.70	0.07793	(10010508)	609274.09	4202517.70	0.07975	(11123003)
609289.09	4202517.70	0.07940	(09022320)	609304.09	4202517.70	0.08075	(11012907)
609319.09	4202517.70	0.08082	(10012801)	609334.09	4202517.70	0.08189	(10120908)
609349.09	4202517.70	0.07698	(10121108)	609364.09	4202517.70	0.07587	(09120508)
609409.09	4202517.70	0.07316	(11122819)	609424.09	4202517.70	0.07212	(09022220)
609439.09	4202517.70	0.06977	(11022222)	609454.09	4202517.70	0.06950	(10020523)
609469.09	4202517.70	0.06853	(09022307)	609484.09	4202517.70	0.06677	(10022423)
609499.09	4202517.70	0.06558	(12120608)	609514.09	4202517.70	0.06190	(10021424)
609529.09	4202517.70	0.06113	(13020722)	609544.09	4202517.70	0.05983	(09022424)
609559.09	4202517.70	0.05855	(12120506)	609574.09	4202517.70	0.05504	(10122303)
609589.09	4202517.70	0.05292	(10012518)	609604.09	4202517.70	0.05085	(13011002)
609619.09	4202517.70	0.04996	(09022423)	609634.09	4202517.70	0.04940	(09022423)
609649.09	4202517.70	0.04728	(09022423)	609079.09	4202532.70	0.05460	(13012924)
609094.09	4202532.70	0.05750	(09021623)	609109.09	4202532.70	0.05914	(11121408)
609124.09	4202532.70	0.06144	(12122304)	609139.09	4202532.70	0.06262	(11021706)

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       609154.09   4202532.70        0.06463  (09012124)               609169.09
 4202532.70        0.06654  (10010218)
       609184.09   4202532.70        0.06706  (10010218)               609199.09
 4202532.70        0.06714  (13120920)
       609214.09   4202532.70        0.07008  (12122821)               609229.09
 4202532.70        0.07239  (10121308)
       609244.09   4202532.70        0.07348  (10122619)               609259.09
 4202532.70        0.07378  (10010508)
       609274.09   4202532.70        0.07502  (11123003)               609289.09
 4202532.70        0.07550  (09022320)
       609304.09   4202532.70        0.07611  (11012907)               609319.09
 4202532.70        0.07637  (10012801)
       609334.09   4202532.70        0.07735  (10120908)               609349.09
 4202532.70        0.07268  (10120908)
       609364.09   4202532.70        0.07165  (09120508)               609409.09
 4202532.70        0.06916  (11122819)
       609424.09   4202532.70        0.06873  (09022220)               609439.09
 4202532.70        0.06643  (11022222)
       609454.09   4202532.70        0.06606  (12021206)               609469.09
 4202532.70        0.06504  (10020523)
       609484.09   4202532.70        0.06372  (10022423)               609499.09
 4202532.70        0.06204  (12120608)
       609514.09   4202532.70        0.06062  (12120608)               609529.09
 4202532.70        0.05771  (10021424)
       609544.09   4202532.70        0.05703  (13020722)               609559.09
 4202532.70        0.05604  (12120506)
       609574.09   4202532.70        0.05448  (12120506)               609589.09
 4202532.70        0.05141  (10012518)
       609604.09   4202532.70        0.04936  (10012518)               609619.09
 4202532.70        0.04760  (13011002)
       609094.09   4202547.70        0.05544  (11121408)               609109.09
 4202547.70        0.05745  (12122304)
       609124.09   4202547.70        0.05844  (11122707)               609139.09
 4202547.70        0.06034  (11021706)
       609154.09   4202547.70        0.06211  (09012124)               609169.09
 4202547.70        0.06367  (10010218)
       609184.09   4202547.70        0.06309  (13120920)               609199.09
 4202547.70        0.06477  (11011921)
       609214.09   4202547.70        0.06676  (12122821)               609229.09
 4202547.70        0.06850  (10121308)
       609244.09   4202547.70        0.06964  (09121604)               609259.09
 4202547.70        0.07034  (11123003)
       609274.09   4202547.70        0.07065  (09011124)               609289.09
 4202547.70        0.07187  (09022320)
       609304.09   4202547.70        0.07186  (11012907)               609319.09
 4202547.70        0.07237  (10012801)
       609334.09   4202547.70        0.07322  (10120908)               609349.09
 4202547.70        0.06880  (10120908)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     PAREA4      ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        609364.09   4202547.70        0.06775  (09120508)                609409.09
 4202547.70        0.06519  (11122819)
        609424.09   4202547.70        0.06518  (09022220)                609439.09
 4202547.70        0.06307  (10020719)
        609454.09   4202547.70        0.06220  (12021206)                609469.09
 4202547.70        0.06162  (10020523)
        609484.09   4202547.70        0.06072  (12021724)                609499.09
 4202547.70        0.05937  (10022423)
        609514.09   4202547.70        0.05839  (12120608)                609529.09
 4202547.70        0.05567  (12120608)
        609544.09   4202547.70        0.05422  (13020722)                609559.09
 4202547.70        0.05338  (11010201)
        609574.09   4202547.70        0.05267  (12120506)                609589.09
 4202547.70        0.05075  (12120506)
        609109.09   4202562.70        0.05500  (12122304)                609124.09
 4202562.70        0.05661  (11021706)
        609139.09   4202562.70        0.05823  (09012124)                609154.09
 4202562.70        0.05972  (10010218)
        609169.09   4202562.70        0.05979  (10010218)                609184.09
 4202562.70        0.06002  (13120920)
        609199.09   4202562.70        0.06223  (12122821)                609214.09
 4202562.70        0.06435  (10121308)
        609229.09   4202562.70        0.06560  (10122619)                609244.09
 4202562.70        0.06579  (09121604)
        609259.09   4202562.70        0.06727  (11123003)                609274.09
 4202562.70        0.06716  (09011124)
        609289.09   4202562.70        0.06842  (09022320)                609304.09
 4202562.70        0.06793  (11012907)
        609319.09   4202562.70        0.06870  (10012801)                609334.09
 4202562.70        0.06944  (10120908)
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609349.09 4202562.70 0.06524 (10120908) 609364.09 4202562.70 0.06415 (09120508)
609409.09 4202562.70 0.06226 (10121808) 609424.09 4202562.70 0.06155 (09022220)
609439.09 4202562.70 0.06030 (09022220) 609454.09 4202562.70 0.05864 (11022222)
609469.09 4202562.70 0.05861 (12021206) 609484.09 4202562.70 0.05785 (09022307)
609499.09 4202562.70 0.05684 (10022423) 609514.09 4202562.70 0.05521 (12120608)
609529.09 4202562.70 0.05450 (12120608) 609544.09 4202562.70 0.05168 (10021424)
609559.09 4202562.70 0.05118 (13020722) 609574.09 4202562.70 0.05013 (09022424)
609124.09 4202577.70 0.05423 (09012124) 609139.09 4202577.70 0.05572 (09012124)
609154.09 4202577.70 0.05711 (10010218) 609169.09 4202577.70 0.05654 (13120920)
609184.09 4202577.70 0.05776 (11011921) 609199.09 4202577.70 0.05987 (12122821)
609214.09 4202577.70 0.06164 (10121308) 609229.09 4202577.70 0.06254 (10122619)
609244.09 4202577.70 0.06268 (10010508) 609259.09 4202577.70 0.06413 (11123003)
609274.09 4202577.70 0.06375 (09011124) 609289.09 4202577.70 0.06513 (09022320)
609304.09 4202577.70 0.06426 (11012907) 609319.09 4202577.70 0.06533 (12012604)
609334.09 4202577.70 0.06600 (10120908) 609349.09 4202577.70 0.06202 (10120908)
609364.09 4202577.70 0.06084 (11012906) 609409.09 4202577.70 0.05964 (10121808)
609424.09 4202577.70 0.05833 (11122819) 609439.09 4202577.70 0.05796 (09022220)
609454.09 4202577.70 0.05611 (11022222) 609469.09 4202577.70 0.05574 (12021206)
609484.09 4202577.70 0.05519 (10020523) 609499.09 4202577.70 0.05440 (12021724)
609514.09 4202577.70 0.05326 (10022423) 609529.09 4202577.70 0.05238 (12120608)
609544.09 4202577.70 0.05053 (12120608) 609139.09 4202592.70 0.05397 (10010218)
609154.09 4202592.70 0.05369 (10010218) 609169.09 4202592.70 0.05400 (13120920)
609184.09 4202592.70 0.05582 (11011921) 609199.09 4202592.70 0.05740 (10121308)
609214.09 4202592.70 0.05856 (10121308) 609229.09 4202592.70 0.05960 (09121604)
609244.09 4202592.70 0.05979 (10010508) 609259.09 4202592.70 0.06098 (11123003)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): PAREA4 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609274.09	4202592.70	0.06046	(09011124)	609289.09	4202592.70	0.06200	(09022320)
609304.09	4202592.70	0.06083	(11012907)	609319.09	4202592.70	0.06230	(12012604)
609334.09	4202592.70	0.06283	(10120908)	609349.09	4202592.70	0.05908	(10120908)
609364.09	4202592.70	0.05790	(11012906)	609409.09	4202592.70	0.05704	(10121808)
609424.09	4202592.70	0.05559	(11122819)	609439.09	4202592.70	0.05544	(09022220)
609454.09	4202592.70	0.05356	(10020719)	609469.09	4202592.70	0.05257	(12021206)
609484.09	4202592.70	0.05244	(12021206)	609499.09	4202592.70	0.05202	(09022307)
609514.09	4202592.70	0.05113	(10022423)	609529.09	4202592.70	0.04950	(12120608)
609169.09	4202607.70	0.05182	(11011921)	609184.09	4202607.70	0.05392	(12122821)
609199.09	4202607.70	0.05554	(10121308)	609214.09	4202607.70	0.05643	(10122619)
609229.09	4202607.70	0.05675	(09121604)	609244.09	4202607.70	0.05736	(11123003)
609259.09	4202607.70	0.05785	(11123003)	609274.09	4202607.70	0.05767	(09022320)
609289.09	4202607.70	0.05902	(09022320)	609304.09	4202607.70	0.05763	(11012907)
609319.09	4202607.70	0.05949	(12012604)	609334.09	4202607.70	0.05991	(10120908)

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       609349.09   4202607.70        0.05637  (10120908)                609364.09
 4202607.70        0.05519  (11012906)
       609409.09   4202607.70        0.05450  (10121808)                609424.09
 4202607.70        0.05286  (11122819)
       609439.09   4202607.70        0.05283  (09022220)                609454.09
 4202607.70        0.05129  (09022220)
       609469.09   4202607.70        0.05017  (11022222)                609484.09
 4202607.70        0.05030  (12021206)
       609499.09   4202607.70        0.04982  (10020523)                609199.09
 4202622.70        0.05330  (10121308)
       609214.09   4202622.70        0.05408  (10122619)                609229.09
 4202622.70        0.05397  (10010508)
       609244.09   4202622.70        0.05524  (11123003)                609259.09
 4202622.70        0.05500  (09011124)
       609274.09   4202622.70        0.05554  (09022320)                609289.09
 4202622.70        0.05639  (11012907)
       609304.09   4202622.70        0.05509  (12022721)                609319.09
 4202622.70        0.05687  (12012604)
       609334.09   4202622.70        0.05721  (10120908)                609349.09
 4202622.70        0.05387  (10120908)
       609364.09   4202622.70        0.05266  (11012906)                609409.09
 4202622.70        0.05201  (10121808)
       609424.09   4202622.70        0.05045  (10121808)                609439.09
 4202622.70        0.05016  (09022220)
       609454.09   4202622.70        0.04963  (09022220)                609469.09
 4202622.70        0.04820  (11022222)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/28/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:32:22

                                   PAGE  65
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                   *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   5 YEARS ***


                                    ** CONC OF PM_2.5   IN MICROGRAMS/M**3
              **


                         NETWORK
GROUP ID                       AVERAGE CONC                RECEPTOR  (XR, YR,
ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - -

ALL       1ST HIGHEST VALUE IS       0.03429 AT (  609409.09,  4202202.70,
40.02,    40.02,    0.00)  DC
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```
          2ND HIGHEST VALUE IS       0.02826 AT (  609409.09,  4202187.70,
40.10,    40.10,    0.00)  DC
          3RD HIGHEST VALUE IS       0.02811 AT (  609424.09,  4202232.70,
40.00,    40.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.02656 AT (  609424.09,  4202247.70,
40.00,    40.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.02633 AT (  609424.09,  4202202.70,
40.03,    40.03,    0.00)  DC
          6TH HIGHEST VALUE IS       0.02352 AT (  609424.09,  4202262.70,
40.00,    40.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.02302 AT (  609424.09,  4202187.70,
40.21,    40.21,    0.00)  DC
          8TH HIGHEST VALUE IS       0.02263 AT (  609274.09,  4202217.70,
41.00,    41.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.02242 AT (  609274.09,  4202202.70,
41.00,    41.00,    0.00)  DC
         10TH HIGHEST VALUE IS       0.02161 AT (  609274.09,  4202232.70,
41.00,    41.00,    0.00)  DC


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



```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                                *** THE SUMMARY OF HIGHEST  1-HR
RESULTS ***


                                   ** CONC OF PM_2.5   IN MICROGRAMS/M**3
              **

                                                      DATE
                                        NETWORK
GROUP ID                           AVERAGE CONC     (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS       0.28892  ON 10020504: AT (  609274.09,
4202202.70,    41.00,    41.00,    0.00)  DC
```

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

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

A Total of   0 Fatal Error Message(s)
A Total of   1 Warning Message(s)
A Total of   15235 Informational Message(s)

A Total of   43872 Hours Were Processed

A Total of   13448 Calm Hours Identified

A Total of   1787 Missing Hours Identified (4.07 Percent)

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

   ********   WARNING MESSAGES   ********
MX W481   43873   MAIN: Data Remaining After End of Year. Number of Hours=
       48

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

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 10/22/2021
** File: C:\Lakes\AERMOD View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel
   MODELOPT DFAULT CONC
   AVERTIME 1 ANNUAL
   URBANOPT 111502 Antioch
   POLLUTID BENZENE
   RUNORNOT RUN
   ERRORFIL 5200LoneTree_OnsiteFuel.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION STCK1        POINT      609351.670  4202274.230       40.050
** DESCRSRC USTs
   LOCATION VOL2         VOLUME     609354.650  4202250.260       40.500
** Source Parameters **
   SRCPARAM STCK1           0.0002     3.660     0.000   1.00000     0.050

   SRCPARAM VOL2            0.0003     1.000     8.140     5.000
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
```

```
**
RE STARTING
   INCLUDED 5200LoneTree_OnsiteFuel.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.SFC"
   PROFFILE "C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.PFL"
   SURFDATA 23285 2009
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 125.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST 5200LONETREE_ONSITEFUEL.AD\01H1GALL.PLT 31
   PLOTFILE ANNUAL ALL 5200LONETREE_ONSITEFUEL.AD\AN00GALL.PLT 32
   SUMMFILE 5200LoneTree_OnsiteFuel.sum
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     10
** ZONEINX  0
**
```

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 10/22/2021
** File: C:\Lakes\AERMOD View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel
   MODELOPT DFAULT CONC
   AVERTIME 1 ANNUAL
   URBANOPT 111502 Antioch
   POLLUTID BENZENE
   RUNORNOT RUN
   ERRORFIL 5200LoneTree_OnsiteFuel.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION STCK1        POINT      609351.670  4202274.230       40.050
** DESCRSRC USTs
   LOCATION VOL2         VOLUME     609354.650  4202250.260       40.500
** Source Parameters **
   SRCPARAM STCK1           0.0002     3.660     0.000   1.00000     0.050
   SRCPARAM VOL2            0.0003     1.000     8.140     5.000
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
```

```
RE STARTING
   INCLUDED 5200LoneTree_OnsiteFuel.rou
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE "C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.SFC"
   PROFFILE "C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.PFL"
   SURFDATA 23285 2009
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 125.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST 5200LONETREE_ONSITEFUEL.AD\01H1GALL.PLT 31
   PLOTFILE ANNUAL ALL 5200LONETREE_ONSITEFUEL.AD\AN00GALL.PLT 32
   SUMMFILE 5200LoneTree_OnsiteFuel.sum
OU FINISHED

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

 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:10:05

                                  PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                          ***     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 URBAN Dispersion Algorithm for the SBL for     2 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =    111502.0 ;  Urban Roughness Length =  1.000 m

 **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.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        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:  BENZENE

 **Model Calculates  1 Short Term Average(s) of:   1-HR
     and Calculates ANNUAL Averages

 **This Run Includes:      2 Source(s);       1 Source Group(s); and    1574
Receptor(s)

                with:      1 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:      1 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:  14134

 **Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor
         Model Outputs Tables of Highest Short Term Values by Receptor (RECTABLE
Keyword)
```

Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

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

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 125.00 ; Decay Coef. = 0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ;
Emission Rate Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.7 MB of RAM.

**Input Runstream File: aermod.inp

**Output Print File: aermod.out

**Detailed Error/Message File: 5200LoneTree_OnsiteFuel.err

**File for Summary of Results: 5200LoneTree_OnsiteFuel.sum

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** POINT SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	STACK HEIGHT (METERS)	STACK TEMP. (DEG.K)	STACK EXIT VEL. (M/SEC)	STACK DIAMETER (METERS)	BLDG EXISTS	URBAN SOURCE	CAP/ HOR VARY BY	EMIS RATE SCALAR
STCK1	0	0.20000E-03	609351.7	4202274.2	40.0	3.66	-0.00	1.00	0.05	NO	YES	NO	

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** 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 BY
VOL2	0	0.30000E-03	609354.7	4202250.3	40.5	1.00	8.14	5.00	YES	

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
ALL	STCK1 , VOL2 ,

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** SOURCE IDs DEFINED AS URBAN SOURCES ***

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

(609304.1, 4201857.7, 44.0, 66.0, 0.0); (609319.1, 4201857.7, 43.7, 66.0, 0.0);
(609334.1, 4201857.7, 43.9, 66.0, 0.0); (609349.1, 4201857.7, 44.4, 66.0, 0.0);
(609364.1, 4201857.7, 44.6, 44.6, 0.0); (609379.1, 4201857.7, 44.6, 44.6, 0.0);
(609394.1, 4201857.7, 44.6, 44.6, 0.0); (609259.1, 4201872.7, 43.2, 66.0, 0.0);
(609304.1, 4201872.7, 43.2, 66.0, 0.0); (609319.1, 4201872.7, 43.1, 66.0, 0.0);
(609334.1, 4201872.7, 43.4, 66.0, 0.0); (609349.1, 4201872.7, 43.9, 43.9, 0.0);
(609364.1, 4201872.7, 44.1, 44.1, 0.0); (609379.1, 4201872.7, 44.1, 44.1, 0.0);
(609394.1, 4201872.7, 44.1, 44.1, 0.0); (609409.1, 4201872.7, 44.1, 44.1, 0.0);
(609424.1, 4201872.7, 44.1, 44.1, 0.0); (609439.1, 4201872.7, 44.1, 44.1, 0.0);
(609454.1, 4201872.7, 44.1, 44.1, 0.0); (609199.1, 4201887.7, 42.1, 76.0, 0.0);
(609214.1, 4201887.7, 42.2, 66.0, 0.0); (609229.1, 4201887.7, 42.2, 66.0, 0.0);
(609244.1, 4201887.7, 42.3, 66.0, 0.0); (609259.1, 4201887.7, 42.5, 66.0, 0.0);
(609274.1, 4201887.7, 42.6, 66.0, 0.0); (609304.1, 4201887.7, 42.6, 66.0, 0.0);
(609319.1, 4201887.7, 42.6, 66.0, 0.0); (609334.1, 4201887.7, 42.9, 42.9, 0.0);
(609349.1, 4201887.7, 43.4, 43.4, 0.0); (609364.1, 4201887.7, 43.6, 43.6, 0.0);
(609379.1, 4201887.7, 43.6, 43.6, 0.0); (609394.1, 4201887.7, 43.7, 43.7, 0.0);

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     ( 609409.1, 4201887.7,      43.9,      43.9,       0.0);         ( 609424.1,
4201887.7,      44.0,      44.0,       0.0);
     ( 609439.1, 4201887.7,      44.0,      44.0,       0.0);         ( 609454.1,
4201887.7,      43.9,      43.9,       0.0);
     ( 609469.1, 4201887.7,      43.7,      43.7,       0.0);         ( 609484.1,
4201887.7,      43.6,      43.6,       0.0);
     ( 609499.1, 4201887.7,      43.6,      43.6,       0.0);         ( 609169.1,
4201902.7,      41.1,      77.0,       0.0);
     ( 609184.1, 4201902.7,      41.1,      77.0,       0.0);         ( 609199.1,
4201902.7,      41.2,      77.0,       0.0);
     ( 609214.1, 4201902.7,      41.2,      76.0,       0.0);         ( 609229.1,
4201902.7,      41.2,      66.0,       0.0);
     ( 609244.1, 4201902.7,      41.5,      66.0,       0.0);         ( 609259.1,
4201902.7,      42.0,      66.0,       0.0);
     ( 609274.1, 4201902.7,      42.1,      66.0,       0.0);         ( 609319.1,
4201902.7,      42.1,      42.1,       0.0);
     ( 609334.1, 4201902.7,      42.4,      42.4,       0.0);         ( 609349.1,
4201902.7,      42.9,      42.9,       0.0);
     ( 609364.1, 4201902.7,      43.1,      43.1,       0.0);         ( 609379.1,
4201902.7,      43.1,      43.1,       0.0);
     ( 609394.1, 4201902.7,      43.4,      43.4,       0.0);         ( 609409.1,
4201902.7,      43.9,      43.9,       0.0);
     ( 609424.1, 4201902.7,      44.0,      44.0,       0.0);         ( 609439.1,
4201902.7,      44.0,      44.0,       0.0);
     ( 609454.1, 4201902.7,      43.7,      43.7,       0.0);         ( 609469.1,
4201902.7,      43.2,      43.2,       0.0);
     ( 609484.1, 4201902.7,      43.1,      43.1,       0.0);         ( 609499.1,
4201902.7,      43.1,      43.1,       0.0);
     ( 609514.1, 4201902.7,      43.1,      43.1,       0.0);         ( 609529.1,
4201902.7,      43.1,      43.1,       0.0);
     ( 609139.1, 4201917.7,      40.1,      77.0,       0.0);         ( 609154.1,
4201917.7,      40.3,      77.0,       0.0);
     ( 609169.1, 4201917.7,      40.5,      77.0,       0.0);         ( 609184.1,
4201917.7,      40.6,      77.0,       0.0);
     ( 609199.1, 4201917.7,      40.6,      77.0,       0.0);         ( 609214.1,
4201917.7,      40.6,      76.0,       0.0);
     ( 609229.1, 4201917.7,      40.6,      66.0,       0.0);         ( 609244.1,
4201917.7,      40.9,      66.0,       0.0);
     ( 609259.1, 4201917.7,      41.4,      66.0,       0.0);         ( 609274.1,
4201917.7,      41.6,      66.0,       0.0);
     ( 609289.1, 4201917.7,      41.6,      41.6,       0.0);         ( 609319.1,
4201917.7,      41.6,      41.6,       0.0);
     ( 609334.1, 4201917.7,      41.9,      41.9,       0.0);         ( 609349.1,
4201917.7,      42.4,      42.4,       0.0);
     ( 609364.1, 4201917.7,      42.6,      42.6,       0.0);         ( 609379.1,
4201917.7,      42.6,      42.6,       0.0);
     ( 609394.1, 4201917.7,      42.9,      42.9,       0.0);         ( 609409.1,
4201917.7,      43.4,      43.4,       0.0);
     ( 609424.1, 4201917.7,      43.6,      43.6,       0.0);         ( 609439.1,
4201917.7,      43.6,      43.6,       0.0);
```

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

(609124.1, 4201932.7, 39.1, 77.0, 0.0); (609139.1, 4201932.7, 39.2, 77.0, 0.0);
(609154.1, 4201932.7, 39.5, 77.0, 0.0); (609169.1, 4201932.7, 40.0, 77.0, 0.0);
(609184.1, 4201932.7, 40.1, 77.0, 0.0); (609199.1, 4201932.7, 40.1, 77.0, 0.0);
(609214.1, 4201932.7, 40.1, 76.0, 0.0); (609229.1, 4201932.7, 40.1, 76.0, 0.0);
(609244.1, 4201932.7, 40.4, 66.0, 0.0); (609259.1, 4201932.7, 40.9, 40.9, 0.0);
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(609334.1, 4201932.7, 41.4, 41.4, 0.0); (609349.1, 4201932.7, 41.9, 41.9, 0.0);
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(609394.1, 4201932.7, 42.4, 42.4, 0.0); (609409.1, 4201932.7, 42.9, 42.9, 0.0);
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(609514.1, 4201932.7, 43.0, 43.0, 0.0); (609529.1, 4201932.7, 43.0, 43.0, 0.0);
(609544.1, 4201932.7, 43.0, 43.0, 0.0); (609559.1, 4201932.7, 43.0, 43.0, 0.0);
(609079.1, 4201947.7, 39.7, 77.0, 0.0); (609094.1, 4201947.7, 39.3, 77.0, 0.0);

```
     ( 609109.1, 4201947.7,      38.8,      77.0,       0.0);         ( 609124.1,
4201947.7,      38.7,      77.0,       0.0);
     ( 609139.1, 4201947.7,      38.9,      77.0,       0.0);         ( 609154.1,
4201947.7,      39.3,      77.0,       0.0);
     ( 609169.1, 4201947.7,      39.8,      77.0,       0.0);         ( 609184.1,
4201947.7,      40.0,      77.0,       0.0);
     ( 609199.1, 4201947.7,      40.0,      77.0,       0.0);         ( 609214.1,
4201947.7,      40.0,      76.0,       0.0);
     ( 609229.1, 4201947.7,      40.0,      76.0,       0.0);         ( 609244.1,
4201947.7,      40.2,      40.2,       0.0);
     ( 609259.1, 4201947.7,      40.5,      40.5,       0.0);         ( 609274.1,
4201947.7,      40.7,      40.7,       0.0);
     ( 609289.1, 4201947.7,      40.9,      40.9,       0.0);         ( 609304.1,
4201947.7,      41.0,      41.0,       0.0);
     ( 609334.1, 4201947.7,      41.2,      41.2,       0.0);         ( 609349.1,
4201947.7,      41.5,      41.5,       0.0);
     ( 609364.1, 4201947.7,      41.7,      41.7,       0.0);         ( 609379.1,
4201947.7,      41.9,      41.9,       0.0);
     ( 609394.1, 4201947.7,      42.2,      42.2,       0.0);         ( 609409.1,
4201947.7,      42.5,      42.5,       0.0);
     ( 609424.1, 4201947.7,      42.7,      42.7,       0.0);         ( 609439.1,
4201947.7,      42.9,      42.9,       0.0);
     ( 609454.1, 4201947.7,      43.0,      43.0,       0.0);         ( 609469.1,
4201947.7,      43.0,      43.0,       0.0);
     ( 609484.1, 4201947.7,      43.0,      43.0,       0.0);         ( 609499.1,
4201947.7,      43.0,      43.0,       0.0);
     ( 609514.1, 4201947.7,      43.0,      43.0,       0.0);         ( 609529.1,
4201947.7,      43.0,      43.0,       0.0);
     ( 609544.1, 4201947.7,      43.0,      43.0,       0.0);         ( 609559.1,
4201947.7,      43.0,      43.0,       0.0);
     ( 609574.1, 4201947.7,      43.0,      43.0,       0.0);         ( 609064.1,
4201962.7,      39.2,      77.0,       0.0);
     ( 609079.1, 4201962.7,      39.1,      77.0,       0.0);         ( 609094.1,
4201962.7,      38.8,      77.0,       0.0);
     ( 609109.1, 4201962.7,      38.3,      77.0,       0.0);         ( 609124.1,
4201962.7,      38.4,      77.0,       0.0);
     ( 609139.1, 4201962.7,      38.9,      77.0,       0.0);         ( 609154.1,
4201962.7,      39.3,      77.0,       0.0);
     ( 609169.1, 4201962.7,      39.8,      77.0,       0.0);         ( 609184.1,
4201962.7,      40.0,      77.0,       0.0);
     ( 609199.1, 4201962.7,      40.0,      77.0,       0.0);         ( 609214.1,
4201962.7,      40.0,      76.0,       0.0);
     ( 609229.1, 4201962.7,      40.0,      76.0,       0.0);         ( 609244.1,
4201962.7,      40.0,      40.0,       0.0);
     ( 609259.1, 4201962.7,      40.1,      40.1,       0.0);         ( 609274.1,
4201962.7,      40.4,      40.4,       0.0);
     ( 609289.1, 4201962.7,      40.9,      40.9,       0.0);         ( 609304.1,
4201962.7,      41.0,      41.0,       0.0);
     ( 609349.1, 4201962.7,      41.1,      41.1,       0.0);         ( 609364.1,
4201962.7,      41.4,      41.4,       0.0);
```

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

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(609559.1, 4201962.7, 43.0, 43.0, 0.0); (609574.1, 4201962.7, 43.0, 43.0, 0.0);
(609589.1, 4201962.7, 43.0, 43.0, 0.0); (609604.1, 4201962.7, 42.7, 42.7, 0.0);
(609049.1, 4201977.7, 39.0, 77.0, 0.0); (609064.1, 4201977.7, 38.6, 77.0, 0.0);
(609079.1, 4201977.7, 38.6, 77.0, 0.0); (609094.1, 4201977.7, 38.4, 77.0, 0.0);
(609109.1, 4201977.7, 38.1, 77.0, 0.0); (609124.1, 4201977.7, 38.3, 77.0, 0.0);
(609139.1, 4201977.7, 38.8, 77.0, 0.0); (609154.1, 4201977.7, 39.2, 77.0, 0.0);
(609169.1, 4201977.7, 39.5, 77.0, 0.0); (609184.1, 4201977.7, 39.7, 77.0, 0.0);
(609199.1, 4201977.7, 39.9, 77.0, 0.0); (609214.1, 4201977.7, 40.0, 76.0, 0.0);
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     ( 609454.1, 4201977.7,      42.6,      42.6,       0.0);         ( 609469.1,
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     ( 609484.1, 4201977.7,      42.6,      42.6,       0.0);         ( 609499.1,
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     ( 609544.1, 4201977.7,      42.6,      42.6,       0.0);         ( 609559.1,
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     ( 609079.1, 4201992.7,      38.1,      77.0,       0.0);         ( 609094.1,
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     ( 609109.1, 4201992.7,      38.0,      77.0,       0.0);         ( 609124.1,
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     ( 609139.1, 4201992.7,      38.8,      77.0,       0.0);         ( 609154.1,
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     ( 609169.1, 4201992.7,      39.1,      77.0,       0.0);         ( 609184.1,
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     ( 609199.1, 4201992.7,      39.9,      77.0,       0.0);         ( 609214.1,
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     ( 609259.1, 4201992.7,      40.0,      40.0,       0.0);         ( 609274.1,
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     ( 609319.1, 4201992.7,      40.9,      40.9,       0.0);         ( 609364.1,
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     ( 609409.1, 4201992.7,      41.9,      41.9,       0.0);         ( 609424.1,
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     ( 609499.1, 4201992.7,      42.1,      42.1,       0.0);         ( 609514.1,
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     ( 609529.1, 4201992.7,      42.1,      42.1,       0.0);         ( 609544.1,
4201992.7,      42.1,      42.1,       0.0);
     ( 609559.1, 4201992.7,      42.1,      42.1,       0.0);         ( 609574.1,
4201992.7,      42.1,      42.1,       0.0);
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     ( 609619.1, 4201992.7,      42.0,      42.0,       0.0);         ( 609634.1,
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     ( 609094.1, 4202007.7,      38.0,      77.0,       0.0);         ( 609109.1,
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     ( 609124.1, 4202007.7,      38.3,      77.0,       0.0);         ( 609139.1,
4202007.7,      38.8,      77.0,       0.0);
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

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     ( 609184.1, 4202007.7,      39.3,      77.0,       0.0);         ( 609199.1,
4202007.7,      39.8,      77.0,       0.0);
     ( 609214.1, 4202007.7,      40.0,      76.0,       0.0);         ( 609229.1,
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     ( 609244.1, 4202007.7,      40.0,      40.0,       0.0);         ( 609259.1,
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     ( 609274.1, 4202007.7,      40.0,      40.0,       0.0);         ( 609289.1,
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     ( 609304.1, 4202007.7,      40.3,      40.3,       0.0);         ( 609319.1,
4202007.7,      40.8,      40.8,       0.0);
     ( 609334.1, 4202007.7,      41.0,      41.0,       0.0);         ( 609379.1,
4202007.7,      41.0,      41.0,       0.0);
     ( 609394.1, 4202007.7,      41.2,      41.2,       0.0);         ( 609409.1,
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     ( 609424.1, 4202007.7,      41.7,      41.7,       0.0);         ( 609439.1,
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     ( 609454.1, 4202007.7,      42.0,      42.0,       0.0);         ( 609469.1,
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     ( 609484.1, 4202007.7,      42.0,      42.0,       0.0);         ( 609499.1,
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     ( 609514.1, 4202007.7,      42.0,      42.0,       0.0);         ( 609529.1,
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     ( 609604.1, 4202007.7,      42.0,      42.0,       0.0);         ( 609619.1,
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     ( 609634.1, 4202007.7,      42.0,      42.0,       0.0);         ( 609649.1,
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     ( 609094.1, 4202022.7,      38.0,      77.0,       0.0);         ( 609109.1,
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     ( 609124.1, 4202022.7,      38.3,      77.0,       0.0);         ( 609139.1,
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     ( 609154.1, 4202022.7,      39.0,      77.0,       0.0);         ( 609169.1,
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     ( 609184.1, 4202022.7,      39.3,      77.0,       0.0);         ( 609199.1,
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     ( 609244.1, 4202022.7,      40.0,      40.0,       0.0);         ( 609259.1,
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     ( 609274.1, 4202022.7,      40.0,      40.0,       0.0);         ( 609289.1,
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     ( 609304.1, 4202022.7,      40.3,      40.3,       0.0);         ( 609319.1,
4202022.7,      40.8,      40.8,       0.0);
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     ( 609379.1, 4202022.7,      41.0,      41.0,       0.0);         ( 609394.1,
4202022.7,      41.0,      41.0,       0.0);
     ( 609409.1, 4202022.7,      41.1,      41.1,       0.0);         ( 609424.1,
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     ( 609439.1, 4202022.7,      41.9,      41.9,       0.0);         ( 609454.1,
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     ( 609469.1, 4202022.7,      42.0,      42.0,       0.0);         ( 609484.1,
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     ( 609529.1, 4202022.7,      42.0,      42.0,       0.0);         ( 609544.1,
4202022.7,      42.0,      42.0,       0.0);
     ( 609559.1, 4202022.7,      42.0,      42.0,       0.0);         ( 609574.1,
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     ( 609589.1, 4202022.7,      42.0,      42.0,       0.0);         ( 609604.1,
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     ( 609649.1, 4202022.7,      42.0,      42.0,       0.0);         ( 609664.1,
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     ( 609109.1, 4202037.7,      38.4,      77.0,       0.0);         ( 609124.1,
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     ( 609139.1, 4202037.7,      38.9,      77.0,       0.0);         ( 609154.1,
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     ( 609169.1, 4202037.7,      39.3,      77.0,       0.0);         ( 609184.1,
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     ( 609199.1, 4202037.7,      39.9,      77.0,       0.0);         ( 609214.1,
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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
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                                  PAGE  10
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

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     ( 609319.1, 4202037.7,      40.8,      40.8,       0.0);         ( 609334.1,
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     ( 609349.1, 4202037.7,      41.0,      41.0,       0.0);         ( 609394.1,
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     ( 609409.1, 4202037.7,      41.0,      41.0,       0.0);         ( 609424.1,
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     ( 609439.1, 4202037.7,      41.5,      41.5,       0.0);         ( 609454.1,
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     ( 609469.1, 4202037.7,      41.9,      41.9,       0.0);         ( 609484.1,
4202037.7,      42.0,      42.0,       0.0);
     ( 609499.1, 4202037.7,      42.0,      42.0,       0.0);         ( 609514.1,
4202037.7,      42.0,      42.0,       0.0);
     ( 609529.1, 4202037.7,      42.0,      42.0,       0.0);         ( 609544.1,
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     ( 609559.1, 4202037.7,      42.0,      42.0,       0.0);         ( 609574.1,
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     ( 609619.1, 4202037.7,      42.0,      42.0,       0.0);         ( 609634.1,
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     ( 609094.1, 4202052.7,      38.9,      77.0,       0.0);         ( 609109.1,
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     ( 609124.1, 4202052.7,      38.9,      77.0,       0.0);         ( 609139.1,
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     ( 609154.1, 4202052.7,      39.3,      77.0,       0.0);         ( 609169.1,
4202052.7,      39.8,      77.0,       0.0);
     ( 609184.1, 4202052.7,      39.9,      77.0,       0.0);         ( 609199.1,
4202052.7,      40.0,      76.0,       0.0);
     ( 609214.1, 4202052.7,      40.0,      40.0,       0.0);         ( 609229.1,
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     ( 609274.1, 4202052.7,      40.0,      40.0,       0.0);         ( 609289.1,
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     ( 609304.1, 4202052.7,      40.3,      40.3,       0.0);         ( 609319.1,
4202052.7,      40.8,      40.8,       0.0);
     ( 609334.1, 4202052.7,      41.0,      41.0,       0.0);         ( 609349.1,
4202052.7,      41.0,      41.0,       0.0);
     ( 609364.1, 4202052.7,      41.0,      41.0,       0.0);         ( 609394.1,
4202052.7,      41.0,      41.0,       0.0);
     ( 609409.1, 4202052.7,      41.0,      41.0,       0.0);         ( 609424.1,
4202052.7,      41.0,      41.0,       0.0);
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     ( 609469.1, 4202052.7,      41.9,      41.9,       0.0);         ( 609484.1,
4202052.7,      42.0,      42.0,       0.0);
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     ( 609529.1, 4202052.7,      42.0,      42.0,       0.0);         ( 609544.1,
4202052.7,      42.0,      42.0,       0.0);
     ( 609559.1, 4202052.7,      42.0,      42.0,       0.0);         ( 609574.1,
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     ( 609589.1, 4202052.7,      42.0,      42.0,       0.0);         ( 609604.1,
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     ( 609184.1, 4202067.7,      40.0,      77.0,       0.0);         ( 609199.1,
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     ( 609214.1, 4202067.7,      40.1,      40.1,       0.0);         ( 609229.1,
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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

     ( 609274.1, 4202067.7,      40.4,      40.4,       0.0);         ( 609289.1,
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     ( 609154.1, 4202082.7,      39.9,      77.0,       0.0);         ( 609169.1,
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     ( 609364.1, 4202082.7,      41.0,      41.0,       0.0);         ( 609409.1,
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     ( 609454.1, 4202082.7,      41.0,      41.0,       0.0);         ( 609469.1,
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     ( 609214.1, 4202097.7,      40.6,      40.6,       0.0);         ( 609229.1,
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↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:10:05

                                   PAGE  12
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

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     ( 609304.1, 4202097.7,      41.0,      41.0,       0.0);         ( 609319.1,
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     ( 609334.1, 4202097.7,      41.0,      41.0,       0.0);         ( 609349.1,
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     ( 609364.1, 4202097.7,      41.0,      41.0,       0.0);         ( 609409.1,
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     ( 609424.1, 4202097.7,      41.0,      41.0,       0.0);         ( 609439.1,
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     ( 609454.1, 4202097.7,      41.0,      41.0,       0.0);         ( 609469.1,
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     ( 609124.1, 4202112.7,      39.9,      77.0,       0.0);         ( 609139.1,
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     ( 609214.1, 4202112.7,      40.9,      40.9,       0.0);         ( 609229.1,
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     ( 609244.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609259.1,
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     ( 609274.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609289.1,
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     ( 609304.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609319.1,
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     ( 609334.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609349.1,
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     ( 609469.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609484.1,
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     ( 609499.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609514.1,
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     ( 609709.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609724.1,
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     ( 609019.1, 4202127.7,      40.1,      77.0,       0.0);         ( 609034.1,
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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                        ***       11:10:05

                                  PAGE  13
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

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     ( 609199.1, 4202127.7,      40.9,      40.9,       0.0);         ( 609214.1,
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     ( 609229.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609244.1,
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     ( 609259.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609274.1,
4202127.7,      41.0,      41.0,       0.0);
     ( 609289.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609304.1,
4202127.7,      41.0,      41.0,       0.0);
     ( 609319.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609334.1,
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     ( 609349.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609364.1,
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     ( 609379.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609409.1,
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     ( 609544.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609559.1,
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     ( 609574.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609589.1,
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     ( 609634.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609649.1,
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     ( 609664.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609679.1,
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     ( 609724.1, 4202127.7,      41.0,      41.0,       0.0);         ( 608974.1,
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     ( 609109.1, 4202142.7,      40.0,      77.0,       0.0);         ( 609124.1,
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     ( 609139.1, 4202142.7,      40.0,      77.0,       0.0);         ( 609154.1,
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     ( 609169.1, 4202142.7,      40.8,      40.8,       0.0);         ( 609184.1,
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     ( 609229.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609244.1,
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(609544.1, 4202142.7, 41.0, 41.0, 0.0); (609559.1, 4202142.7, 41.0, 41.0, 0.0);
(609574.1, 4202142.7, 41.0, 41.0, 0.0); (609589.1, 4202142.7, 41.0, 41.0, 0.0);
(609604.1, 4202142.7, 41.0, 41.0, 0.0); (609619.1, 4202142.7, 41.0, 41.0, 0.0);
(609634.1, 4202142.7, 41.0, 41.0, 0.0); (609649.1, 4202142.7, 41.0, 41.0, 0.0);
(609664.1, 4202142.7, 41.0, 41.0, 0.0); (609679.1, 4202142.7, 41.0, 41.0, 0.0);
(609694.1, 4202142.7, 41.0, 41.0, 0.0); (609709.1, 4202142.7, 41.0, 41.0, 0.0);
(609724.1, 4202142.7, 41.0, 41.0, 0.0); (608974.1, 4202157.7, 41.0, 77.0, 0.0);

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(608989.1, 4202157.7, 41.0, 77.0, 0.0); (609004.1, 4202157.7, 40.7, 77.0, 0.0);
(609019.1, 4202157.7, 40.2, 77.0, 0.0); (609034.1, 4202157.7, 40.0, 77.0, 0.0);
(609049.1, 4202157.7, 40.0, 77.0, 0.0); (609064.1, 4202157.7, 40.0, 77.0, 0.0);
(609079.1, 4202157.7, 40.0, 77.0, 0.0); (609094.1, 4202157.7, 40.0, 77.0, 0.0);
(609109.1, 4202157.7, 40.0, 77.0, 0.0); (609124.1, 4202157.7, 40.0, 77.0, 0.0);
(609139.1, 4202157.7, 40.0, 77.0, 0.0); (609154.1, 4202157.7, 40.3, 40.3, 0.0);
(609169.1, 4202157.7, 40.8, 40.8, 0.0); (609184.1, 4202157.7, 41.0, 41.0, 0.0);
(609199.1, 4202157.7, 41.0, 41.0, 0.0); (609214.1, 4202157.7, 41.0, 41.0, 0.0);

```
     ( 609229.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609244.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609259.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609274.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609289.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609304.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609319.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609334.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609349.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609364.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609379.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609409.1,
4202157.7,      40.7,      40.7,       0.0);
     ( 609424.1, 4202157.7,      40.7,      40.7,       0.0);         ( 609439.1,
4202157.7,      40.9,      40.9,       0.0);
     ( 609454.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609469.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609484.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609499.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609514.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609529.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609544.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609559.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609574.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609589.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609604.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609619.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609634.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609649.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609664.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609679.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609694.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609709.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609724.1, 4202157.7,      41.0,      41.0,       0.0);         ( 608959.1,
4202172.7,      41.2,      77.0,       0.0);
     ( 608974.1, 4202172.7,      41.0,      77.0,       0.0);         ( 608989.1,
4202172.7,      41.0,      77.0,       0.0);
     ( 609004.1, 4202172.7,      40.7,      77.0,       0.0);         ( 609019.1,
4202172.7,      40.2,      77.0,       0.0);
     ( 609034.1, 4202172.7,      40.0,      77.0,       0.0);         ( 609049.1,
4202172.7,      40.0,      77.0,       0.0);
     ( 609064.1, 4202172.7,      40.0,      77.0,       0.0);         ( 609079.1,
4202172.7,      40.0,      77.0,       0.0);
     ( 609094.1, 4202172.7,      40.0,      77.0,       0.0);         ( 609109.1,
4202172.7,      40.0,      77.0,       0.0);
     ( 609124.1, 4202172.7,      40.0,      77.0,       0.0);         ( 609139.1,
4202172.7,      40.0,      40.0,       0.0);
     ( 609154.1, 4202172.7,      40.3,      40.3,       0.0);         ( 609169.1,
4202172.7,      40.8,      40.8,       0.0);
     ( 609184.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609199.1,
4202172.7,      41.0,      41.0,       0.0);
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(609214.1, 4202172.7, 41.0, 41.0, 0.0); (609229.1, 4202172.7, 41.0, 41.0, 0.0);
(609244.1, 4202172.7, 41.0, 41.0, 0.0); (609259.1, 4202172.7, 41.0, 41.0, 0.0);
(609274.1, 4202172.7, 41.0, 41.0, 0.0); (609289.1, 4202172.7, 41.0, 41.0, 0.0);
(609304.1, 4202172.7, 41.0, 41.0, 0.0); (609319.1, 4202172.7, 41.0, 41.0, 0.0);
(609334.1, 4202172.7, 41.0, 41.0, 0.0); (609349.1, 4202172.7, 41.0, 41.0, 0.0);
(609364.1, 4202172.7, 41.0, 41.0, 0.0); (609379.1, 4202172.7, 41.0, 41.0, 0.0);
(609409.1, 4202172.7, 40.2, 40.2, 0.0); (609424.1, 4202172.7, 40.4, 40.4, 0.0);
(609439.1, 4202172.7, 40.9, 40.9, 0.0); (609454.1, 4202172.7, 41.0, 41.0, 0.0);
(609469.1, 4202172.7, 41.0, 41.0, 0.0); (609484.1, 4202172.7, 41.0, 41.0, 0.0);
(609499.1, 4202172.7, 41.0, 41.0, 0.0); (609514.1, 4202172.7, 41.0, 41.0, 0.0);
(609529.1, 4202172.7, 41.0, 41.0, 0.0); (609544.1, 4202172.7, 41.0, 41.0, 0.0);
(609559.1, 4202172.7, 41.0, 41.0, 0.0); (609574.1, 4202172.7, 41.0, 41.0, 0.0);

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(609589.1, 4202172.7, 41.0, 41.0, 0.0); (609604.1, 4202172.7, 41.0, 41.0, 0.0);
(609619.1, 4202172.7, 41.0, 41.0, 0.0); (609634.1, 4202172.7, 41.0, 41.0, 0.0);
(609649.1, 4202172.7, 41.0, 41.0, 0.0); (609664.1, 4202172.7, 41.0, 41.0, 0.0);
(609679.1, 4202172.7, 41.0, 41.0, 0.0); (609694.1, 4202172.7, 41.0, 41.0, 0.0);
(609709.1, 4202172.7, 41.0, 41.0, 0.0); (609724.1, 4202172.7, 41.0, 41.0, 0.0);
(608959.1, 4202187.7, 41.5, 77.0, 0.0); (608974.1, 4202187.7, 41.3, 77.0, 0.0);
(608989.1, 4202187.7, 41.1, 77.0, 0.0); (609004.1, 4202187.7, 40.8, 77.0, 0.0);

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     ( 609019.1, 4202187.7,      40.5,      77.0,       0.0);         ( 609034.1,
4202187.7,      40.3,      77.0,       0.0);
     ( 609049.1, 4202187.7,      40.1,      77.0,       0.0);         ( 609064.1,
4202187.7,      40.0,      77.0,       0.0);
     ( 609079.1, 4202187.7,      40.0,      77.0,       0.0);         ( 609094.1,
4202187.7,      40.0,      77.0,       0.0);
     ( 609109.1, 4202187.7,      40.0,      77.0,       0.0);         ( 609124.1,
4202187.7,      40.0,      40.0,       0.0);
     ( 609139.1, 4202187.7,      40.0,      40.0,       0.0);         ( 609154.1,
4202187.7,      40.3,      40.3,       0.0);
     ( 609169.1, 4202187.7,      40.8,      40.8,       0.0);         ( 609184.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609199.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609214.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609229.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609244.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609259.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609274.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609409.1, 4202187.7,      40.1,      40.1,       0.0);         ( 609424.1,
4202187.7,      40.2,      40.2,       0.0);
     ( 609439.1, 4202187.7,      40.5,      40.5,       0.0);         ( 609454.1,
4202187.7,      40.7,      40.7,       0.0);
     ( 609469.1, 4202187.7,      40.9,      40.9,       0.0);         ( 609484.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609499.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609514.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609529.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609544.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609559.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609574.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609589.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609604.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609619.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609634.1,
4202187.7,      40.9,      40.9,       0.0);
     ( 609649.1, 4202187.7,      40.7,      40.7,       0.0);         ( 609664.1,
4202187.7,      40.7,      40.7,       0.0);
     ( 609679.1, 4202187.7,      40.9,      40.9,       0.0);         ( 609694.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609709.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609724.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 608959.1, 4202202.7,      41.9,      77.0,       0.0);         ( 608974.1,
4202202.7,      41.6,      77.0,       0.0);
     ( 608989.1, 4202202.7,      41.1,      77.0,       0.0);         ( 609004.1,
4202202.7,      41.0,      77.0,       0.0);
     ( 609019.1, 4202202.7,      40.9,      77.0,       0.0);         ( 609034.1,
4202202.7,      40.6,      77.0,       0.0);
     ( 609049.1, 4202202.7,      40.1,      77.0,       0.0);         ( 609064.1,
4202202.7,      40.0,      77.0,       0.0);
     ( 609079.1, 4202202.7,      40.0,      77.0,       0.0);         ( 609094.1,
4202202.7,      40.0,      77.0,       0.0);
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     ( 609109.1, 4202202.7,      40.0,      40.0,       0.0);         ( 609124.1,
4202202.7,      40.0,      40.0,       0.0);
     ( 609139.1, 4202202.7,      40.0,      40.0,       0.0);         ( 609154.1,
4202202.7,      40.3,      40.3,       0.0);
     ( 609169.1, 4202202.7,      40.8,      40.8,       0.0);         ( 609184.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609199.1, 4202202.7,      41.0,      41.0,       0.0);         ( 609214.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609229.1, 4202202.7,      41.0,      41.0,       0.0);         ( 609244.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609259.1, 4202202.7,      41.0,      41.0,       0.0);         ( 609274.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609409.1, 4202202.7,      40.0,      40.0,       0.0);         ( 609424.1,
4202202.7,      40.0,      40.0,       0.0);
     ( 609439.1, 4202202.7,      40.1,      40.1,       0.0);         ( 609454.1,
4202202.7,      40.4,      40.4,       0.0);
     ( 609469.1, 4202202.7,      40.9,      40.9,       0.0);         ( 609484.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609499.1, 4202202.7,      41.0,      41.0,       0.0);         ( 609514.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609529.1, 4202202.7,      41.0,      41.0,       0.0);         ( 609544.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609559.1, 4202202.7,      41.0,      41.0,       0.0);         ( 609574.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609589.1, 4202202.7,      41.0,      41.0,       0.0);         ( 609604.1,
4202202.7,      41.0,      41.0,       0.0);
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                          ***        11:10:05

                                    PAGE  16
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

     ( 609619.1, 4202202.7,      41.0,      41.0,       0.0);         ( 609634.1,
4202202.7,      40.7,      40.7,       0.0);
     ( 609649.1, 4202202.7,      40.2,      40.2,       0.0);         ( 609664.1,
4202202.7,      40.4,      40.4,       0.0);
     ( 609679.1, 4202202.7,      40.9,      40.9,       0.0);         ( 609694.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 609709.1, 4202202.7,      41.0,      41.0,       0.0);         ( 609724.1,
4202202.7,      41.0,      41.0,       0.0);
     ( 608959.1, 4202217.7,      42.0,      77.0,       0.0);         ( 608974.1,
4202217.7,      41.7,      77.0,       0.0);
     ( 608989.1, 4202217.7,      41.2,      77.0,       0.0);         ( 609004.1,
4202217.7,      41.0,      77.0,       0.0);
```

```
     ( 609019.1, 4202217.7,      41.0,      77.0,       0.0);         ( 609034.1,
4202217.7,      40.8,      77.0,       0.0);
     ( 609049.1, 4202217.7,      40.5,      77.0,       0.0);         ( 609064.1,
4202217.7,      40.3,      77.0,       0.0);
     ( 609079.1, 4202217.7,      40.1,      77.0,       0.0);         ( 609094.1,
4202217.7,      40.0,      40.0,       0.0);
     ( 609109.1, 4202217.7,      40.0,      40.0,       0.0);         ( 609124.1,
4202217.7,      40.0,      40.0,       0.0);
     ( 609139.1, 4202217.7,      40.0,      40.0,       0.0);         ( 609154.1,
4202217.7,      40.3,      40.3,       0.0);
     ( 609169.1, 4202217.7,      40.8,      40.8,       0.0);         ( 609184.1,
4202217.7,      41.0,      41.0,       0.0);
     ( 609199.1, 4202217.7,      41.0,      41.0,       0.0);         ( 609214.1,
4202217.7,      41.0,      41.0,       0.0);
     ( 609229.1, 4202217.7,      41.0,      41.0,       0.0);         ( 609244.1,
4202217.7,      41.0,      41.0,       0.0);
     ( 609259.1, 4202217.7,      41.0,      41.0,       0.0);         ( 609274.1,
4202217.7,      41.0,      41.0,       0.0);
     ( 609484.1, 4202217.7,      40.7,      40.7,       0.0);         ( 609499.1,
4202217.7,      40.9,      40.9,       0.0);
     ( 609514.1, 4202217.7,      41.0,      41.0,       0.0);         ( 609529.1,
4202217.7,      41.0,      41.0,       0.0);
     ( 609544.1, 4202217.7,      41.0,      41.0,       0.0);         ( 609559.1,
4202217.7,      41.0,      41.0,       0.0);
     ( 609574.1, 4202217.7,      41.0,      41.0,       0.0);         ( 609589.1,
4202217.7,      41.0,      41.0,       0.0);
     ( 609604.1, 4202217.7,      40.9,      40.9,       0.0);         ( 609619.1,
4202217.7,      40.7,      40.7,       0.0);
     ( 609634.1, 4202217.7,      40.4,      40.4,       0.0);         ( 609649.1,
4202217.7,      40.1,      40.1,       0.0);
     ( 609664.1, 4202217.7,      40.2,      40.2,       0.0);         ( 609679.1,
4202217.7,      40.5,      40.5,       0.0);
     ( 609694.1, 4202217.7,      40.6,      40.6,       0.0);         ( 609709.1,
4202217.7,      40.6,      40.6,       0.0);
     ( 609724.1, 4202217.7,      41.0,      41.0,       0.0);         ( 608959.1,
4202232.7,      42.0,      77.0,       0.0);
     ( 608974.1, 4202232.7,      41.7,      77.0,       0.0);         ( 608989.1,
4202232.7,      41.2,      77.0,       0.0);
     ( 609004.1, 4202232.7,      41.0,      77.0,       0.0);         ( 609019.1,
4202232.7,      41.0,      77.0,       0.0);
     ( 609034.1, 4202232.7,      41.0,      77.0,       0.0);         ( 609049.1,
4202232.7,      40.9,      40.9,       0.0);
     ( 609064.1, 4202232.7,      40.6,      40.6,       0.0);         ( 609079.1,
4202232.7,      40.1,      40.1,       0.0);
     ( 609094.1, 4202232.7,      40.0,      40.0,       0.0);         ( 609109.1,
4202232.7,      40.0,      40.0,       0.0);
     ( 609124.1, 4202232.7,      40.0,      40.0,       0.0);         ( 609139.1,
4202232.7,      40.0,      40.0,       0.0);
     ( 609154.1, 4202232.7,      40.3,      40.3,       0.0);         ( 609169.1,
4202232.7,      40.8,      40.8,       0.0);
```

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     ( 609184.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609199.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609214.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609229.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609244.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609259.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609274.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609424.1,
4202232.7,      40.0,      40.0,       0.0);
     ( 609439.1, 4202232.7,      40.0,      40.0,       0.0);         ( 609454.1,
4202232.7,      40.0,      40.0,       0.0);
     ( 609469.1, 4202232.7,      40.1,      40.1,       0.0);         ( 609484.1,
4202232.7,      40.4,      40.4,       0.0);
     ( 609499.1, 4202232.7,      40.9,      40.9,       0.0);         ( 609514.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609529.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609544.1,
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     ( 609559.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609574.1,
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     ( 609589.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609604.1,
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     ( 609619.1, 4202232.7,      40.2,      40.2,       0.0);         ( 609634.1,
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     ( 609649.1, 4202232.7,      40.0,      40.0,       0.0);         ( 609664.1,
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     ( 609679.1, 4202232.7,      40.1,      40.1,       0.0);         ( 609694.1,
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     ( 609709.1, 4202232.7,      40.1,      41.0,       0.0);         ( 609724.1,
4202232.7,      41.0,      41.0,       0.0);
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                        ***       11:10:05

                                  PAGE  17
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

     ( 608959.1, 4202247.7,      42.0,      77.0,       0.0);         ( 608974.1,
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     ( 608989.1, 4202247.7,      41.2,      77.0,       0.0);         ( 609004.1,
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     ( 609019.1, 4202247.7,      41.0,      77.0,       0.0);         ( 609034.1,
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     ( 609049.1, 4202247.7,      41.0,      41.0,       0.0);         ( 609064.1,
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     ( 609079.1, 4202247.7,      40.2,      40.2,       0.0);         ( 609094.1,
4202247.7,      40.0,      40.0,       0.0);
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     ( 609139.1, 4202247.7,      40.0,      40.0,       0.0);         ( 609154.1,
4202247.7,      40.2,      40.2,       0.0);
     ( 609169.1, 4202247.7,      40.5,      40.5,       0.0);         ( 609184.1,
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     ( 609229.1, 4202247.7,      41.0,      41.0,       0.0);         ( 609244.1,
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     ( 609259.1, 4202247.7,      41.0,      41.0,       0.0);         ( 609274.1,
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     ( 609424.1, 4202247.7,      40.0,      40.0,       0.0);         ( 609439.1,
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     ( 609454.1, 4202247.7,      40.0,      40.0,       0.0);         ( 609469.1,
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     ( 609124.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609139.1,
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     ( 609154.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609169.1,
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     ( 609439.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609454.1,
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     ( 609679.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609694.1,
4202262.7,      40.0,      40.0,       0.0);
     ( 609709.1, 4202262.7,      40.0,      41.0,       0.0);         ( 609724.1,
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     ( 609424.1, 4202277.7,      40.0,      40.0,       0.0);         ( 609439.1,
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     ( 609454.1, 4202277.7,      40.0,      40.0,       0.0);         ( 609469.1,
4202277.7,      40.0,      40.0,       0.0);
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:10:05

                                   PAGE  18
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

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     ( 609544.1, 4202277.7,      40.2,      40.2,       0.0);         ( 609559.1,
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     ( 609664.1, 4202277.7,      40.0,      40.0,       0.0);         ( 609679.1,
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     ( 609694.1, 4202277.7,      40.0,      40.0,       0.0);         ( 609709.1,
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     ( 609724.1, 4202277.7,      40.4,      40.4,       0.0);         ( 609409.1,
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     ( 609574.1, 4202322.7,      40.0,      40.0,       0.0);         ( 609589.1,
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     ( 609604.1, 4202322.7,      40.0,      40.0,       0.0);         ( 609619.1,
4202322.7,      40.0,      40.0,       0.0);
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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:10:05

                                   PAGE  19
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

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4202397.7,      39.0,      39.0,       0.0);
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     ( 609724.1, 4202397.7,      39.6,      39.6,       0.0);         ( 609394.1,
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     ( 609409.1, 4202412.7,      40.0,      40.0,       0.0);         ( 609424.1,
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     ( 609439.1, 4202412.7,      40.0,      40.0,       0.0);         ( 609454.1,
4202412.7,      40.0,      40.0,       0.0);
     ( 609469.1, 4202412.7,      40.0,      40.0,       0.0);         ( 609484.1,
4202412.7,      40.0,      40.0,       0.0);
     ( 609499.1, 4202412.7,      40.0,      40.0,       0.0);         ( 609514.1,
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     ( 609529.1, 4202412.7,      40.0,      40.0,       0.0);         ( 609544.1,
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     ( 609559.1, 4202412.7,      39.2,      39.2,       0.0);         ( 609574.1,
4202412.7,      39.1,      39.1,       0.0);
     ( 609589.1, 4202412.7,      39.0,      39.0,       0.0);         ( 609604.1,
4202412.7,      39.0,      39.0,       0.0);
     ( 609619.1, 4202412.7,      39.0,      39.0,       0.0);         ( 609634.1,
4202412.7,      39.0,      39.0,       0.0);
     ( 609649.1, 4202412.7,      39.0,      39.0,       0.0);         ( 609664.1,
4202412.7,      39.0,      39.0,       0.0);
     ( 609679.1, 4202412.7,      39.0,      39.0,       0.0);         ( 609694.1,
4202412.7,      39.0,      39.0,       0.0);
     ( 609709.1, 4202412.7,      39.0,      39.0,       0.0);         ( 609724.1,
4202412.7,      39.1,      39.1,       0.0);
     ( 609394.1, 4202427.7,      40.0,      40.0,       0.0);         ( 609409.1,
4202427.7,      40.0,      40.0,       0.0);
     ( 609424.1, 4202427.7,      40.0,      40.0,       0.0);         ( 609439.1,
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     ( 609454.1, 4202427.7,      40.0,      40.0,       0.0);         ( 609469.1,
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     ( 609484.1, 4202427.7,      40.0,      40.0,       0.0);         ( 609499.1,
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↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:10:05

                                   PAGE  20
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

     ( 609514.1, 4202427.7,      40.0,      40.0,       0.0);         ( 609529.1,
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     ( 609544.1, 4202427.7,      39.8,      39.8,       0.0);         ( 609559.1,
4202427.7,      39.5,      39.5,       0.0);
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     ( 609604.1, 4202427.7,      39.0,      39.0,       0.0);         ( 609619.1,
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     ( 609634.1, 4202427.7,      39.0,      39.0,       0.0);         ( 609649.1,
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     ( 609664.1, 4202427.7,      39.0,      39.0,       0.0);         ( 609679.1,
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     ( 609694.1, 4202427.7,      39.0,      39.0,       0.0);         ( 609709.1,
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     ( 609724.1, 4202427.7,      39.0,      39.0,       0.0);         ( 609439.1,
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     ( 609484.1, 4202472.7,      40.0,      40.0,       0.0);         ( 609499.1,
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     ( 609514.1, 4202472.7,      40.0,      40.0,       0.0);         ( 609529.1,
4202472.7,      40.0,      40.0,       0.0);
     ( 609544.1, 4202472.7,      40.0,      40.0,       0.0);         ( 609559.1,
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     ( 609574.1, 4202472.7,      40.0,      40.0,       0.0);         ( 609589.1,
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     ( 609634.1, 4202472.7,      39.0,      39.0,       0.0);         ( 609649.1,
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     ( 609664.1, 4202472.7,      39.0,      39.0,       0.0);         ( 609679.1,
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     ( 609694.1, 4202472.7,      39.0,      39.0,       0.0);         ( 609319.1,
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     ( 609334.1, 4202487.7,      41.4,      41.4,       0.0);         ( 609349.1,
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     ( 609409.1, 4202487.7,      40.5,      40.5,       0.0);         ( 609424.1,
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     ( 609499.1, 4202487.7,      40.0,      40.0,       0.0);         ( 609514.1,
4202487.7,      40.0,      40.0,       0.0);
     ( 609529.1, 4202487.7,      40.0,      40.0,       0.0);         ( 609544.1,
4202487.7,      40.0,      40.0,       0.0);
     ( 609559.1, 4202487.7,      40.0,      40.0,       0.0);         ( 609574.1,
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     ( 609619.1, 4202487.7,      39.5,      39.5,       0.0);         ( 609634.1,
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     ( 609259.1, 4202502.7,      42.0,      42.0,       0.0);         ( 609274.1,
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     ( 609319.1, 4202502.7,      41.9,      41.9,       0.0);         ( 609334.1,
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     ( 609349.1, 4202502.7,      41.9,      41.9,       0.0);         ( 609364.1,
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     ( 609394.1, 4202502.7,      41.0,      41.0,       0.0);         ( 609409.1,
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     ( 609424.1, 4202502.7,      40.9,      40.9,       0.0);         ( 609439.1,
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     ( 609574.1, 4202502.7,      40.0,      40.0,       0.0);         ( 609589.1,
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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                         ***       11:10:05

                                   PAGE  21
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

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4202517.7,      42.0,      42.0,       0.0);
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4202517.7,      42.0,      42.0,       0.0);
     ( 609139.1, 4202517.7,      42.0,      42.0,       0.0);         ( 609154.1,
4202517.7,      42.0,      42.0,       0.0);
     ( 609169.1, 4202517.7,      42.0,      42.0,       0.0);         ( 609184.1,
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     ( 609199.1, 4202517.7,      42.3,      42.3,       0.0);         ( 609214.1,
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     ( 609229.1, 4202517.7,      42.4,      42.4,       0.0);         ( 609244.1,
4202517.7,      42.4,      42.4,       0.0);
     ( 609259.1, 4202517.7,      42.4,      42.4,       0.0);         ( 609274.1,
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     ( 609289.1, 4202517.7,      42.4,      42.4,       0.0);         ( 609304.1,
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     ( 609319.1, 4202517.7,      42.4,      42.4,       0.0);         ( 609334.1,
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     ( 609349.1, 4202517.7,      42.1,      42.1,       0.0);         ( 609364.1,
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     ( 609409.1, 4202517.7,      41.1,      41.1,       0.0);         ( 609424.1,
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     ( 609529.1, 4202517.7,      40.0,      40.0,       0.0);         ( 609544.1,
4202517.7,      40.0,      40.0,       0.0);
     ( 609559.1, 4202517.7,      40.0,      40.0,       0.0);         ( 609574.1,
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     ( 609589.1, 4202517.7,      40.0,      40.0,       0.0);         ( 609604.1,
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     ( 609094.1, 4202532.7,      42.0,      42.0,       0.0);         ( 609109.1,
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     ( 609244.1, 4202532.7,      42.9,      42.9,       0.0);         ( 609259.1,
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     ( 609274.1, 4202532.7,      42.9,      42.9,       0.0);         ( 609289.1,
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4202532.7,      42.1,      42.1,       0.0);
     ( 609364.1, 4202532.7,      42.0,      42.0,       0.0);         ( 609409.1,
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     ( 609424.1, 4202532.7,      41.0,      41.0,       0.0);         ( 609439.1,
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     ( 609514.1, 4202532.7,      40.0,      40.0,       0.0);         ( 609529.1,
4202532.7,      40.0,      40.0,       0.0);
     ( 609544.1, 4202532.7,      40.0,      40.0,       0.0);         ( 609559.1,
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     ( 609574.1, 4202532.7,      40.0,      40.0,       0.0);         ( 609589.1,
4202532.7,      40.0,      40.0,       0.0);
     ( 609604.1, 4202532.7,      40.0,      40.0,       0.0);         ( 609619.1,
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     ( 609124.1, 4202547.7,      42.0,      42.0,       0.0);         ( 609139.1,
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     ( 609154.1, 4202547.7,      42.0,      42.0,       0.0);         ( 609169.1,
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     ( 609184.1, 4202547.7,      42.3,      42.3,       0.0);         ( 609199.1,
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     ( 609214.1, 4202547.7,      43.0,      43.0,       0.0);         ( 609229.1,
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     ( 609244.1, 4202547.7,      43.0,      43.0,       0.0);         ( 609259.1,
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     ( 609274.1, 4202547.7,      43.0,      43.0,       0.0);         ( 609289.1,
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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                        ***       11:10:05

                                  PAGE  22
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                    *** DISCRETE CARTESIAN RECEPTORS ***
                                  (X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
                                               (METERS)
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     ( 609424.1, 4202547.7,      41.3,      41.3,       0.0);         ( 609439.1,
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     ( 609514.1, 4202547.7,      40.0,      40.0,       0.0);         ( 609529.1,
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     ( 609544.1, 4202547.7,      40.0,      40.0,       0.0);         ( 609559.1,
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     ( 609574.1, 4202547.7,      40.0,      40.0,       0.0);         ( 609589.1,
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     ( 609139.1, 4202562.7,      42.0,      42.0,       0.0);         ( 609154.1,
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     ( 609169.1, 4202562.7,      42.0,      42.0,       0.0);         ( 609184.1,
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     ( 609199.1, 4202562.7,      42.8,      42.8,       0.0);         ( 609214.1,
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     ( 609229.1, 4202562.7,      43.0,      43.0,       0.0);         ( 609244.1,
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     ( 609319.1, 4202562.7,      43.0,      43.0,       0.0);         ( 609334.1,
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     ( 609469.1, 4202562.7,      40.2,      40.2,       0.0);         ( 609484.1,
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     ( 609499.1, 4202562.7,      40.0,      40.0,       0.0);         ( 609514.1,
4202562.7,      40.0,      40.0,       0.0);
     ( 609529.1, 4202562.7,      40.0,      40.0,       0.0);         ( 609544.1,
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     ( 609559.1, 4202562.7,      40.0,      40.0,       0.0);         ( 609574.1,
4202562.7,      40.0,      40.0,       0.0);
     ( 609124.1, 4202577.7,      42.0,      42.0,       0.0);         ( 609139.1,
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     ( 609154.1, 4202577.7,      42.1,      42.1,       0.0);         ( 609169.1,
4202577.7,      42.3,      42.3,       0.0);
     ( 609184.1, 4202577.7,      42.6,      42.6,       0.0);         ( 609199.1,
4202577.7,      42.9,      42.9,       0.0);
```

```
     ( 609214.1, 4202577.7,      43.0,      43.0,       0.0);         ( 609229.1,
4202577.7,      43.0,      43.0,       0.0);
     ( 609244.1, 4202577.7,      43.0,      43.0,       0.0);         ( 609259.1,
4202577.7,      43.0,      43.0,       0.0);
     ( 609274.1, 4202577.7,      43.0,      43.0,       0.0);         ( 609289.1,
4202577.7,      43.0,      43.0,       0.0);
     ( 609304.1, 4202577.7,      43.0,      43.0,       0.0);         ( 609319.1,
4202577.7,      43.0,      43.0,       0.0);
     ( 609334.1, 4202577.7,      43.0,      43.0,       0.0);         ( 609349.1,
4202577.7,      43.0,      43.0,       0.0);
     ( 609364.1, 4202577.7,      42.8,      42.8,       0.0);         ( 609409.1,
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     ( 609424.1, 4202577.7,      41.7,      41.7,       0.0);         ( 609439.1,
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     ( 609454.1, 4202577.7,      40.7,      40.7,       0.0);         ( 609469.1,
4202577.7,      40.2,      40.2,       0.0);
     ( 609484.1, 4202577.7,      40.0,      40.0,       0.0);         ( 609499.1,
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     ( 609514.1, 4202577.7,      40.0,      40.0,       0.0);         ( 609529.1,
4202577.7,      40.0,      40.0,       0.0);
     ( 609544.1, 4202577.7,      40.0,      40.0,       0.0);         ( 609139.1,
4202592.7,      42.0,      42.0,       0.0);
     ( 609154.1, 4202592.7,      42.3,      42.3,       0.0);         ( 609169.1,
4202592.7,      42.8,      42.8,       0.0);
     ( 609184.1, 4202592.7,      42.9,      42.9,       0.0);         ( 609199.1,
4202592.7,      43.0,      43.0,       0.0);
     ( 609214.1, 4202592.7,      43.0,      43.0,       0.0);         ( 609229.1,
4202592.7,      43.0,      43.0,       0.0);
     ( 609244.1, 4202592.7,      43.0,      43.0,       0.0);         ( 609259.1,
4202592.7,      43.0,      43.0,       0.0);
     ( 609274.1, 4202592.7,      43.0,      43.0,       0.0);         ( 609289.1,
4202592.7,      43.0,      43.0,       0.0);
     ( 609304.1, 4202592.7,      43.0,      43.0,       0.0);         ( 609319.1,
4202592.7,      43.0,      43.0,       0.0);
     ( 609334.1, 4202592.7,      43.0,      43.0,       0.0);         ( 609349.1,
4202592.7,      43.0,      43.0,       0.0);
     ( 609364.1, 4202592.7,      43.0,      43.0,       0.0);         ( 609409.1,
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     ( 609424.1, 4202592.7,      41.7,      41.7,       0.0);         ( 609439.1,
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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:10:05

                                   PAGE  23
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

(METERS)

(609454.1, 4202592.7, 40.7, 40.7, 0.0); (609469.1, 4202592.7, 40.2, 40.2, 0.0);
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(609514.1, 4202592.7, 40.0, 40.0, 0.0); (609529.1, 4202592.7, 40.0, 40.0, 0.0);
(609169.1, 4202607.7, 42.8, 42.8, 0.0); (609184.1, 4202607.7, 43.0, 43.0, 0.0);
(609199.1, 4202607.7, 43.0, 43.0, 0.0); (609214.1, 4202607.7, 43.0, 43.0, 0.0);
(609229.1, 4202607.7, 43.0, 43.0, 0.0); (609244.1, 4202607.7, 43.0, 43.0, 0.0);
(609259.1, 4202607.7, 43.0, 43.0, 0.0); (609274.1, 4202607.7, 43.0, 43.0, 0.0);
(609289.1, 4202607.7, 43.0, 43.0, 0.0); (609304.1, 4202607.7, 43.0, 43.0, 0.0);
(609319.1, 4202607.7, 43.0, 43.0, 0.0); (609334.1, 4202607.7, 43.0, 43.0, 0.0);
(609349.1, 4202607.7, 43.0, 43.0, 0.0); (609364.1, 4202607.7, 43.0, 43.0, 0.0);
(609409.1, 4202607.7, 41.8, 41.8, 0.0); (609424.1, 4202607.7, 41.4, 41.4, 0.0);
(609439.1, 4202607.7, 41.1, 41.1, 0.0); (609454.1, 4202607.7, 40.7, 40.7, 0.0);
(609469.1, 4202607.7, 40.2, 40.2, 0.0); (609484.1, 4202607.7, 40.0, 40.0, 0.0);
(609499.1, 4202607.7, 40.0, 40.0, 0.0); (609199.1, 4202622.7, 43.0, 43.0, 0.0);
(609214.1, 4202622.7, 43.0, 43.0, 0.0); (609229.1, 4202622.7, 43.0, 43.0, 0.0);
(609244.1, 4202622.7, 43.0, 43.0, 0.0); (609259.1, 4202622.7, 43.0, 43.0, 0.0);
(609274.1, 4202622.7, 43.0, 43.0, 0.0); (609289.1, 4202622.7, 43.0, 43.0, 0.0);
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(609334.1, 4202622.7, 43.0, 43.0, 0.0); (609349.1, 4202622.7, 43.0, 43.0, 0.0);
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(609454.1, 4202622.7, 40.7, 40.7, 0.0); (609469.1, 4202622.7, 40.2, 40.2, 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
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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\kheck\Desktop\Met Data\Livermore_2009-2014\724927.SFC
Met Version: 14134
Profile file: C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 23285 Upper air station no.: 23230
Name: UNKNOWN Name: OAKLAND/WSO_AP
Year: 2009 Year: 2009

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
09	01	01	1	01	-12.6	0.221	-9.000	-9.000	-999.	250.	77.5	0.11	0.90	1.00	2.86	51.	10.0	279.2	2.0
09	01	01	1	02	-23.5	0.413	-9.000	-9.000	-999.	637.	269.8	0.11	0.90	1.00	4.86	48.	10.0	279.2	2.0
09	01	01	1	03	-11.1	0.195	-9.000	-9.000	-999.	254.	59.8	0.07	0.90	1.00	2.86	94.	10.0	278.8	2.0
09	01	01	1	04	-9.5	0.166	-9.000	-9.000	-999.	164.	43.7	0.11	0.90	1.00	2.36	53.	10.0	278.1	2.0
09	01	01	1	05	-11.1	0.195	-9.000	-9.000	-999.	206.	59.6	0.07	0.90	1.00	2.86	63.	10.0	278.1	2.0
09	01	01	1	06	-8.2	0.143	-9.000	-9.000	-999.	131.	32.3	0.07	0.90	1.00	2.36	72.	10.0	278.1	2.0
09	01	01	1	07	-8.2	0.143	-9.000	-9.000	-999.	130.	32.3	0.07	0.90	1.00	2.36	75.	10.0	278.1	2.0
09	01	01	1	08	-4.1	0.078	-9.000	-9.000	-999.	53.	10.3	0.11	0.90	0.75	1.76	13.	10.0	277.5	2.0
09	01	01	1	09	-6.3	0.246	-9.000	-9.000	-999.	292.	211.6	0.12	0.90	0.40	2.86	347.	10.0	278.1	2.0
09	01	01	1	10	6.6	0.303	0.261	0.016	96.	401.	-378.3	0.11	0.90	0.27	3.36	51.	10.0	278.8	2.0
09	01	01	1	11	15.4	0.317	0.422	0.017	176.	429.	-186.8	0.07	0.90	0.23	3.86	94.	10.0	279.9	2.0
09	01	01	1	12	47.5	0.448	0.742	0.017	309.	720.	-170.5	0.11	0.90	0.22	4.86	56.	10.0	280.9	2.0
09	01	01	1	13	49.0	0.405	0.820	0.014	403.	621.	-122.0	0.07	0.90	0.21	4.86	63.	10.0	281.4	2.0
09	01	01	1	14	42.7	0.405	0.809	0.014	444.	619.	-139.5	0.11	0.90	0.22	4.36	59.	10.0	282.0	2.0
09	01	01	1	15	60.8	0.372	0.922	0.014	463.	545.	-75.6	0.07	0.90	0.25	4.36	72.	10.0	281.4	2.0
09	01	01	1	16	14.1	0.309	0.569	0.016	467.	414.	-187.5	0.11	0.90	0.34	3.36	54.	10.0	282.0	2.0
09	01	01	1	17	-30.4	0.311	-9.000	-9.000	-999.	417.	89.1	0.07	0.90	0.58	4.36	61.	10.0	280.4	2.0
09	01	01	1	18	-27.0	0.239	-9.000	-9.000	-999.	282.	45.2	0.11	0.90	1.00	3.36	47.	10.0	279.9	2.0

```
 09 01 01   1 19  -14.9  0.131 -9.000 -9.000 -999.  120.     13.7  0.07   0.90
1.00    2.86   64.   10.0  279.2    2.0
 09 01 01   1 20   -5.8  0.078 -9.000 -9.000 -999.   53.      7.3  0.11   0.90
1.00    1.76   47.   10.0  278.8    2.0
 09 01 01   1 21 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.10   0.90
1.00    0.00    0.   10.0  277.5    2.0
 09 01 01   1 22   -4.9  0.070 -9.000 -9.000 -999.   44.      6.2  0.07   0.90
1.00    1.76   82.   10.0  276.4    2.0
 09 01 01   1 23 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.10   0.90
1.00    0.00    0.   10.0  277.0    2.0
 09 01 01   1 24 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.10   0.90
1.00    0.00    0.   10.0  277.0    2.0


 First hour of profile data
 YR MO DY HR HEIGHT F  WDIR    WSPD AMB_TMP sigmaA  sigmaW  sigmaV
 09 01 01 01   10.0 1   51.    2.86   279.3   99.0  -99.00  -99.00

 F indicates top of profile (=1) or below (=0)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:10:05

                                  PAGE  26
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     STCK1       , VOL2
 ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         609304.09    4201857.70        0.00106                     609319.09
4201857.70        0.00106
         609334.09    4201857.70        0.00106                     609349.09
4201857.70        0.00106
         609364.09    4201857.70        0.00106                     609379.09
4201857.70        0.00107
         609394.09    4201857.70        0.00107                     609259.09
4201872.70        0.00115
```

609304.09 4201872.70 0.00114 609319.09 4201872.70 0.00114
609334.09 4201872.70 0.00114 609349.09 4201872.70 0.00114
609364.09 4201872.70 0.00114 609379.09 4201872.70 0.00114
609394.09 4201872.70 0.00115 609409.09 4201872.70 0.00115
609424.09 4201872.70 0.00116 609439.09 4201872.70 0.00118
609454.09 4201872.70 0.00120 609199.09 4201887.70 0.00129
609214.09 4201887.70 0.00127 609229.09 4201887.70 0.00125
609244.09 4201887.70 0.00124 609259.09 4201887.70 0.00123
609274.09 4201887.70 0.00123 609304.09 4201887.70 0.00122
609319.09 4201887.70 0.00122 609334.09 4201887.70 0.00122
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609379.09 4201887.70 0.00123 609394.09 4201887.70 0.00123
609409.09 4201887.70 0.00124 609424.09 4201887.70 0.00125
609439.09 4201887.70 0.00127 609454.09 4201887.70 0.00129
609469.09 4201887.70 0.00132 609484.09 4201887.70 0.00136
609499.09 4201887.70 0.00140 609169.09 4201902.70 0.00146
609184.09 4201902.70 0.00143 609199.09 4201902.70 0.00140
609214.09 4201902.70 0.00138 609229.09 4201902.70 0.00136
609244.09 4201902.70 0.00134 609259.09 4201902.70 0.00133
609274.09 4201902.70 0.00132 609319.09 4201902.70 0.00132
609334.09 4201902.70 0.00132 609349.09 4201902.70 0.00131
609364.09 4201902.70 0.00132 609379.09 4201902.70 0.00132
609394.09 4201902.70 0.00133 609409.09 4201902.70 0.00133
609424.09 4201902.70 0.00135 609439.09 4201902.70 0.00137
609454.09 4201902.70 0.00140 609469.09 4201902.70 0.00143

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         609484.09    4201902.70        0.00148                      609499.09
4201902.70        0.00153
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4201902.70        0.00166
         609139.09    4201917.70        0.00165                      609154.09
4201917.70        0.00162
         609169.09    4201917.70        0.00159                      609184.09
4201917.70        0.00156
         609199.09    4201917.70        0.00153                      609214.09
4201917.70        0.00150
         609229.09    4201917.70        0.00148                      609244.09
4201917.70        0.00146
         609259.09    4201917.70        0.00144                      609274.09
4201917.70        0.00143
         609289.09    4201917.70        0.00143                      609319.09
4201917.70        0.00142
         609334.09    4201917.70        0.00142                      609349.09
4201917.70        0.00142
         609364.09    4201917.70        0.00142                      609379.09
4201917.70        0.00143
         609394.09    4201917.70        0.00143                      609409.09
4201917.70        0.00144
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:10:05

                                  PAGE  27
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                   INCLUDING SOURCE(S):     STCK1       , VOL2
 ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

       X-COORD (M)   Y-COORD (M)        CONC                         X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         609424.09    4201917.70        0.00146                      609439.09
4201917.70        0.00149
         609454.09    4201917.70        0.00152                      609469.09
4201917.70        0.00157
         609484.09    4201917.70        0.00162                      609499.09
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4201917.70 0.00168
609514.09 4201917.70 0.00176 609529.09
4201917.70 0.00184
609544.09 4201917.70 0.00193 609109.09
4201932.70 0.00187
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609154.09 4201932.70 0.00177 609169.09
4201932.70 0.00174
609184.09 4201932.70 0.00170 609199.09
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4201932.70 0.00155
609394.09 4201932.70 0.00156 609409.09
4201932.70 0.00157
609424.09 4201932.70 0.00159 609439.09
4201932.70 0.00162
609454.09 4201932.70 0.00166 609469.09
4201932.70 0.00172
609484.09 4201932.70 0.00178 609499.09
4201932.70 0.00186
609514.09 4201932.70 0.00195 609529.09
4201932.70 0.00204
609544.09 4201932.70 0.00214 609559.09
4201932.70 0.00224
609079.09 4201947.70 0.00212 609094.09
4201947.70 0.00209
609109.09 4201947.70 0.00205 609124.09
4201947.70 0.00202
609139.09 4201947.70 0.00198 609154.09
4201947.70 0.00195
609169.09 4201947.70 0.00191 609184.09
4201947.70 0.00187
609199.09 4201947.70 0.00183 609214.09
4201947.70 0.00179
609229.09 4201947.70 0.00176 609244.09
4201947.70 0.00173
609259.09 4201947.70 0.00171 609274.09
4201947.70 0.00169
609289.09 4201947.70 0.00169 609304.09
4201947.70 0.00168
609334.09 4201947.70 0.00168 609349.09

4201947.70   0.00168
         609364.09   4201947.70   0.00168   609379.09
4201947.70   0.00169
         609394.09   4201947.70   0.00170   609409.09
4201947.70   0.00171
         609424.09   4201947.70   0.00174   609439.09
4201947.70   0.00178
         609454.09   4201947.70   0.00183   609469.09
4201947.70   0.00189
         609484.09   4201947.70   0.00198   609499.09
4201947.70   0.00207
         609514.09   4201947.70   0.00217   609529.09
4201947.70   0.00229
         609544.09   4201947.70   0.00240   609559.09
4201947.70   0.00251
         609574.09   4201947.70   0.00261   609064.09
4201962.70   0.00234
         609079.09   4201962.70   0.00233   609094.09
4201962.70   0.00230
         609109.09   4201962.70   0.00226   609124.09
4201962.70   0.00223
         609139.09   4201962.70   0.00219   609154.09
4201962.70   0.00215
         609169.09   4201962.70   0.00211   609184.09
4201962.70   0.00207

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   STCK1   , VOL2
 ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         609199.09   4201962.70   0.00202   609214.09
4201962.70   0.00198

609229.09 4201962.70 0.00193 609244.09
4201962.70 0.00190
609259.09 4201962.70 0.00187 609274.09
4201962.70 0.00185
609289.09 4201962.70 0.00184 609304.09
4201962.70 0.00183
609349.09 4201962.70 0.00183 609364.09
4201962.70 0.00184
609379.09 4201962.70 0.00184 609394.09
4201962.70 0.00185
609409.09 4201962.70 0.00188 609424.09
4201962.70 0.00191
609439.09 4201962.70 0.00196 609454.09
4201962.70 0.00202
609469.09 4201962.70 0.00210 609484.09
4201962.70 0.00220
609499.09 4201962.70 0.00232 609514.09
4201962.70 0.00244
609529.09 4201962.70 0.00257 609544.09
4201962.70 0.00270
609559.09 4201962.70 0.00282 609574.09
4201962.70 0.00293
609589.09 4201962.70 0.00302 609604.09
4201962.70 0.00310
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4201977.70 0.00257
609079.09 4201977.70 0.00256 609094.09
4201977.70 0.00253
609109.09 4201977.70 0.00250 609124.09
4201977.70 0.00247
609139.09 4201977.70 0.00243 609154.09
4201977.70 0.00239
609169.09 4201977.70 0.00234 609184.09
4201977.70 0.00229
609199.09 4201977.70 0.00224 609214.09
4201977.70 0.00219
609229.09 4201977.70 0.00214 609244.09
4201977.70 0.00210
609259.09 4201977.70 0.00206 609274.09
4201977.70 0.00204
609289.09 4201977.70 0.00202 609304.09
4201977.70 0.00201
609319.09 4201977.70 0.00201 609349.09
4201977.70 0.00201
609364.09 4201977.70 0.00201 609379.09
4201977.70 0.00202
609394.09 4201977.70 0.00204 609409.09
4201977.70 0.00207
609424.09 4201977.70 0.00211 609439.09
4201977.70 0.00217

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         609454.09    4201977.70        0.00226                      609469.09
4201977.70        0.00236
         609484.09    4201977.70        0.00249                      609499.09
4201977.70        0.00262
         609514.09    4201977.70        0.00277                      609529.09
4201977.70        0.00292
         609544.09    4201977.70        0.00306                      609559.09
4201977.70        0.00319
         609574.09    4201977.70        0.00330                      609589.09
4201977.70        0.00339
         609604.09    4201977.70        0.00346                      609619.09
4201977.70        0.00351
         609049.09    4201992.70        0.00281                      609064.09
4201992.70        0.00281
         609079.09    4201992.70        0.00281                      609094.09
4201992.70        0.00280
         609109.09    4201992.70        0.00278                      609124.09
4201992.70        0.00275
         609139.09    4201992.70        0.00272                      609154.09
4201992.70        0.00267
         609169.09    4201992.70        0.00262                      609184.09
4201992.70        0.00256
         609199.09    4201992.70        0.00250                      609214.09
4201992.70        0.00244
         609229.09    4201992.70        0.00239                      609244.09
4201992.70        0.00233
         609259.09    4201992.70        0.00229                      609274.09
4201992.70        0.00225
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:10:05

                                   PAGE  29
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                    INCLUDING SOURCE(S):     STCK1       , VOL2
 ,

                                         *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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- - - - - - - - - - - - - - - - - - - - - - - -
         609289.09    4201992.70        0.00223                      609304.09
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         609319.09    4201992.70        0.00221                      609364.09
4201992.70        0.00222
         609379.09    4201992.70        0.00224                      609394.09
4201992.70        0.00226
         609409.09    4201992.70        0.00229                      609424.09
4201992.70        0.00235
         609439.09    4201992.70        0.00243                      609454.09
4201992.70        0.00254
         609469.09    4201992.70        0.00267                      609484.09
4201992.70        0.00283
         609499.09    4201992.70        0.00299                      609514.09
4201992.70        0.00317
         609529.09    4201992.70        0.00333                      609544.09
4201992.70        0.00348
         609559.09    4201992.70        0.00361                      609574.09
4201992.70        0.00372
         609589.09    4201992.70        0.00380                      609604.09
4201992.70        0.00386
         609619.09    4201992.70        0.00388                      609634.09
4201992.70        0.00388
         609034.09    4202007.70        0.00307                      609049.09
4202007.70        0.00308
         609064.09    4202007.70        0.00310                      609079.09
4202007.70        0.00311
         609094.09    4202007.70        0.00310                      609109.09
4202007.70        0.00309
         609124.09    4202007.70        0.00307                      609139.09
4202007.70        0.00305
         609154.09    4202007.70        0.00300                      609169.09
4202007.70        0.00294
         609184.09    4202007.70        0.00288                      609199.09
4202007.70        0.00282
         609214.09    4202007.70        0.00275                      609229.09
4202007.70        0.00268
         609244.09    4202007.70        0.00261                      609259.09
4202007.70        0.00255
         609274.09    4202007.70        0.00251                      609289.09
4202007.70        0.00248
         609304.09    4202007.70        0.00246                      609319.09
4202007.70        0.00245
         609334.09    4202007.70        0.00245                      609379.09
4202007.70        0.00249
         609394.09    4202007.70        0.00252                      609409.09
4202007.70        0.00256
         609424.09    4202007.70        0.00264                      609439.09
4202007.70        0.00274
         609454.09    4202007.70        0.00288                      609469.09
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4202007.70        0.00305
         609484.09    4202007.70        0.00324                     609499.09
4202007.70        0.00344
         609514.09    4202007.70        0.00364                     609529.09
4202007.70        0.00382
         609544.09    4202007.70        0.00397                     609559.09
4202007.70        0.00410
         609574.09    4202007.70        0.00420                     609589.09
4202007.70        0.00426
         609604.09    4202007.70        0.00429                     609619.09
4202007.70        0.00429
         609634.09    4202007.70        0.00426                     609649.09
4202007.70        0.00420
         609034.09    4202022.70        0.00335                     609049.09
4202022.70        0.00338
         609064.09    4202022.70        0.00341                     609079.09
4202022.70        0.00344
         609094.09    4202022.70        0.00345                     609109.09
4202022.70        0.00345
         609124.09    4202022.70        0.00344                     609139.09
4202022.70        0.00343
         609154.09    4202022.70        0.00339                     609169.09
4202022.70        0.00333
         609184.09    4202022.70        0.00326                     609199.09
4202022.70        0.00319
         609214.09    4202022.70        0.00311                     609229.09
4202022.70        0.00303
         609244.09    4202022.70        0.00295                     609259.09
4202022.70        0.00287
         609274.09    4202022.70        0.00281                     609289.09
4202022.70        0.00277
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:10:05

                                  PAGE  30
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                   INCLUDING SOURCE(S):     STCK1       , VOL2
 ,

                                            *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609304.09	4202022.70	0.00275	609319.09	4202022.70	0.00274
609334.09	4202022.70	0.00273	609349.09	4202022.70	0.00274
609379.09	4202022.70	0.00278	609394.09	4202022.70	0.00282
609409.09	4202022.70	0.00289	609424.09	4202022.70	0.00299
609439.09	4202022.70	0.00313	609454.09	4202022.70	0.00330
609469.09	4202022.70	0.00352	609484.09	4202022.70	0.00375
609499.09	4202022.70	0.00398	609514.09	4202022.70	0.00420
609529.09	4202022.70	0.00439	609544.09	4202022.70	0.00455
609559.09	4202022.70	0.00466	609574.09	4202022.70	0.00474
609589.09	4202022.70	0.00477	609604.09	4202022.70	0.00476
609619.09	4202022.70	0.00472	609634.09	4202022.70	0.00465
609649.09	4202022.70	0.00456	609664.09	4202022.70	0.00445
609019.09	4202037.70	0.00358	609034.09	4202037.70	0.00365
609049.09	4202037.70	0.00371	609064.09	4202037.70	0.00377
609079.09	4202037.70	0.00381	609094.09	4202037.70	0.00385
609109.09	4202037.70	0.00387	609124.09	4202037.70	0.00388
609139.09	4202037.70	0.00387	609154.09	4202037.70	0.00384
609169.09	4202037.70	0.00379	609184.09	4202037.70	0.00373
609199.09	4202037.70	0.00365	609214.09	4202037.70	0.00355
609229.09	4202037.70	0.00345	609244.09	4202037.70	0.00336
609259.09	4202037.70	0.00326	609274.09	4202037.70	0.00319
609289.09	4202037.70	0.00313	609304.09	4202037.70	0.00310
609319.09	4202037.70	0.00308	609334.09	4202037.70	0.00307

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         609349.09    4202037.70        0.00308                      609394.09
4202037.70        0.00319
         609409.09    4202037.70        0.00329                      609424.09
4202037.70        0.00343
         609439.09    4202037.70        0.00361                      609454.09
4202037.70        0.00384
         609469.09    4202037.70        0.00410                      609484.09
4202037.70        0.00438
         609499.09    4202037.70        0.00465                      609514.09
4202037.70        0.00488
         609529.09    4202037.70        0.00507                      609544.09
4202037.70        0.00521
         609559.09    4202037.70        0.00530                      609574.09
4202037.70        0.00534
         609589.09    4202037.70        0.00532                      609604.09
4202037.70        0.00527
         609619.09    4202037.70        0.00518                      609634.09
4202037.70        0.00506
         609649.09    4202037.70        0.00492                      609664.09
4202037.70        0.00477
         609679.09    4202037.70        0.00460                      609019.09
4202052.70        0.00386
         609034.09    4202052.70        0.00396                      609049.09
4202052.70        0.00405
         609064.09    4202052.70        0.00415                      609079.09
4202052.70        0.00423
         609094.09    4202052.70        0.00430                      609109.09
4202052.70        0.00434
         609124.09    4202052.70        0.00437                      609139.09
4202052.70        0.00438
         609154.09    4202052.70        0.00438                      609169.09
4202052.70        0.00435
         609184.09    4202052.70        0.00429                      609199.09
4202052.70        0.00420
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:10:05

                                  PAGE  31
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     STCK1       , VOL2
 ,

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609214.09	4202052.70	0.00410	609229.09	4202052.70	0.00398
609244.09	4202052.70	0.00386	609259.09	4202052.70	0.00375
609274.09	4202052.70	0.00365	609289.09	4202052.70	0.00357
609304.09	4202052.70	0.00352	609319.09	4202052.70	0.00349
609334.09	4202052.70	0.00348	609349.09	4202052.70	0.00349
609364.09	4202052.70	0.00351	609394.09	4202052.70	0.00364
609409.09	4202052.70	0.00378	609424.09	4202052.70	0.00398
609439.09	4202052.70	0.00424	609454.09	4202052.70	0.00453
609469.09	4202052.70	0.00484	609484.09	4202052.70	0.00517
609499.09	4202052.70	0.00546	609514.09	4202052.70	0.00570
609529.09	4202052.70	0.00588	609544.09	4202052.70	0.00598
609559.09	4202052.70	0.00602	609574.09	4202052.70	0.00600
609589.09	4202052.70	0.00593	609604.09	4202052.70	0.00581
609619.09	4202052.70	0.00565	609634.09	4202052.70	0.00548
609649.09	4202052.70	0.00528	609664.09	4202052.70	0.00508
609679.09	4202052.70	0.00487	609694.09	4202052.70	0.00466
609004.09	4202067.70	0.00396	609019.09	4202067.70	0.00412
609034.09	4202067.70	0.00427	609049.09	4202067.70	0.00441
609064.09	4202067.70	0.00455	609079.09	4202067.70	0.00468
609094.09	4202067.70	0.00479	609109.09	4202067.70	0.00487
609124.09	4202067.70	0.00494	609139.09	4202067.70	0.00498
609154.09	4202067.70	0.00501	609169.09		

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4202067.70        0.00500
         609184.09    4202067.70        0.00496                      609199.09
4202067.70        0.00488
         609214.09    4202067.70        0.00477                      609229.09
4202067.70        0.00464
         609244.09    4202067.70        0.00450                      609259.09
4202067.70        0.00436
         609274.09    4202067.70        0.00423                      609289.09
4202067.70        0.00412
         609304.09    4202067.70        0.00404                      609319.09
4202067.70        0.00400
         609334.09    4202067.70        0.00399                      609349.09
4202067.70        0.00399
         609364.09    4202067.70        0.00402                      609409.09
4202067.70        0.00441
         609424.09    4202067.70        0.00468                      609439.09
4202067.70        0.00503
         609454.09    4202067.70        0.00542                      609469.09
4202067.70        0.00581
         609484.09    4202067.70        0.00617                      609499.09
4202067.70        0.00648
         609514.09    4202067.70        0.00670                      609529.09
4202067.70        0.00683
         609544.09    4202067.70        0.00687                      609559.09
4202067.70        0.00683
         609574.09    4202067.70        0.00672                      609589.09
4202067.70        0.00656
         609604.09    4202067.70        0.00636                      609619.09
4202067.70        0.00614
         609634.09    4202067.70        0.00589                      609649.09
4202067.70        0.00563
         609664.09    4202067.70        0.00538                      609679.09
4202067.70        0.00512
         609694.09    4202067.70        0.00487                      609709.09
4202067.70        0.00464
         609004.09    4202082.70        0.00415                      609019.09
4202082.70        0.00435
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:10:05

                                   PAGE  32
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                    INCLUDING SOURCE(S):     STCK1       , VOL2
 ,
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*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
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609064.09	4202082.70	0.00495	609079.09	4202082.70	0.00514
609094.09	4202082.70	0.00530	609109.09	4202082.70	0.00545
609124.09	4202082.70	0.00557	609139.09	4202082.70	0.00568
609154.09	4202082.70	0.00574	609169.09	4202082.70	0.00577
609184.09	4202082.70	0.00576	609199.09	4202082.70	0.00571
609214.09	4202082.70	0.00561	609229.09	4202082.70	0.00548
609244.09	4202082.70	0.00531	609259.09	4202082.70	0.00513
609274.09	4202082.70	0.00496	609289.09	4202082.70	0.00481
609304.09	4202082.70	0.00470	609319.09	4202082.70	0.00464
609334.09	4202082.70	0.00462	609349.09	4202082.70	0.00462
609364.09	4202082.70	0.00467	609409.09	4202082.70	0.00522
609424.09	4202082.70	0.00561	609439.09	4202082.70	0.00608
609454.09	4202082.70	0.00658	609469.09	4202082.70	0.00705
609484.09	4202082.70	0.00744	609499.09	4202082.70	0.00772
609514.09	4202082.70	0.00788	609529.09	4202082.70	0.00792
609544.09	4202082.70	0.00786	609559.09	4202082.70	0.00771
609574.09	4202082.70	0.00749	609589.09	4202082.70	0.00722
609604.09	4202082.70	0.00692	609619.09	4202082.70	0.00661
609634.09	4202082.70	0.00629	609649.09	4202082.70	0.00597

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         609664.09    4202082.70        0.00566                      609679.09
4202082.70        0.00536
         609694.09    4202082.70        0.00507                      609709.09
4202082.70        0.00480
         609004.09    4202097.70        0.00431                      609019.09
4202097.70        0.00456
         609034.09    4202097.70        0.00481                      609049.09
4202097.70        0.00507
         609064.09    4202097.70        0.00534                      609079.09
4202097.70        0.00559
         609094.09    4202097.70        0.00584                      609109.09
4202097.70        0.00607
         609124.09    4202097.70        0.00628                      609139.09
4202097.70        0.00645
         609154.09    4202097.70        0.00659                      609169.09
4202097.70        0.00668
         609184.09    4202097.70        0.00673                      609199.09
4202097.70        0.00673
         609214.09    4202097.70        0.00666                      609229.09
4202097.70        0.00653
         609244.09    4202097.70        0.00635                      609259.09
4202097.70        0.00614
         609274.09    4202097.70        0.00591                      609289.09
4202097.70        0.00571
         609304.09    4202097.70        0.00555                      609319.09
4202097.70        0.00546
         609334.09    4202097.70        0.00542                      609349.09
4202097.70        0.00543
         609364.09    4202097.70        0.00549                      609409.09
4202097.70        0.00631
         609424.09    4202097.70        0.00686                      609439.09
4202097.70        0.00749
         609454.09    4202097.70        0.00810                      609469.09
4202097.70        0.00862
         609484.09    4202097.70        0.00899                      609499.09
4202097.70        0.00920
         609514.09    4202097.70        0.00924                      609529.09
4202097.70        0.00913
         609544.09    4202097.70        0.00892                      609559.09
4202097.70        0.00862
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:10:05

                                  PAGE  33
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
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INCLUDING SOURCE(S): STCK1 , VOL2
,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609574.09	4202097.70	0.00826	609589.09	4202097.70	0.00787
609604.09	4202097.70	0.00746	609619.09	4202097.70	0.00706
609634.09	4202097.70	0.00666	609649.09	4202097.70	0.00628
609664.09	4202097.70	0.00592	609679.09	4202097.70	0.00558
609694.09	4202097.70	0.00525	609709.09	4202097.70	0.00495
609724.09	4202097.70	0.00468	608989.09	4202112.70	0.00421
609004.09	4202112.70	0.00446	609019.09	4202112.70	0.00474
609034.09	4202112.70	0.00503	609049.09	4202112.70	0.00535
609064.09	4202112.70	0.00568	609079.09	4202112.70	0.00601
609094.09	4202112.70	0.00635	609109.09	4202112.70	0.00669
609124.09	4202112.70	0.00701	609139.09	4202112.70	0.00729
609154.09	4202112.70	0.00754	609169.09	4202112.70	0.00774
609184.09	4202112.70	0.00788	609199.09	4202112.70	0.00796
609214.09	4202112.70	0.00796	609229.09	4202112.70	0.00788
609244.09	4202112.70	0.00771	609259.09	4202112.70	0.00748
609274.09	4202112.70	0.00720	609289.09	4202112.70	0.00692
609304.09	4202112.70	0.00669	609319.09	4202112.70	0.00654
609334.09	4202112.70	0.00647	609349.09	4202112.70	0.00648
609364.09	4202112.70	0.00656	609379.09		

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4202112.70        0.00678
         609409.09    4202112.70        0.00781                        609424.09
4202112.70        0.00859
         609439.09    4202112.70        0.00940                        609454.09
4202112.70        0.01011
         609469.09    4202112.70        0.01062                        609484.09
4202112.70        0.01089
         609499.09    4202112.70        0.01093                        609514.09
4202112.70        0.01077
         609529.09    4202112.70        0.01045                        609544.09
4202112.70        0.01003
         609559.09    4202112.70        0.00955                        609574.09
4202112.70        0.00903
         609589.09    4202112.70        0.00850                        609604.09
4202112.70        0.00798
         609619.09    4202112.70        0.00748                        609634.09
4202112.70        0.00701
         609649.09    4202112.70        0.00657                        609664.09
4202112.70        0.00615
         609679.09    4202112.70        0.00577                        609694.09
4202112.70        0.00542
         609709.09    4202112.70        0.00509                        609724.09
4202112.70        0.00479
         608989.09    4202127.70        0.00433                        609004.09
4202127.70        0.00460
         609019.09    4202127.70        0.00490                        609034.09
4202127.70        0.00523
         609049.09    4202127.70        0.00558                        609064.09
4202127.70        0.00596
         609079.09    4202127.70        0.00637                        609094.09
4202127.70        0.00680
         609109.09    4202127.70        0.00725                        609124.09
4202127.70        0.00771
         609139.09    4202127.70        0.00815                        609154.09
4202127.70        0.00856
         609169.09    4202127.70        0.00893                        609184.09
4202127.70        0.00923
         609199.09    4202127.70        0.00945                        609214.09
4202127.70        0.00958
         609229.09    4202127.70        0.00960                        609244.09
4202127.70        0.00950
         609259.09    4202127.70        0.00928                        609274.09
4202127.70        0.00895
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:10:05

                                  PAGE  34
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN
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*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , VOL2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609289.09	4202127.70	0.00858	609304.09	4202127.70	0.00824
609319.09	4202127.70	0.00800	609334.09	4202127.70	0.00788
609349.09	4202127.70	0.00788	609364.09	4202127.70	0.00801
609379.09	4202127.70	0.00836	609409.09	4202127.70	0.00996
609424.09	4202127.70	0.01104	609439.09	4202127.70	0.01204
609454.09	4202127.70	0.01276	609469.09	4202127.70	0.01313
609484.09	4202127.70	0.01316	609499.09	4202127.70	0.01290
609514.09	4202127.70	0.01244	609529.09	4202127.70	0.01184
609544.09	4202127.70	0.01116	609559.09	4202127.70	0.01046
609574.09	4202127.70	0.00976	609589.09	4202127.70	0.00909
609604.09	4202127.70	0.00846	609619.09	4202127.70	0.00787
609634.09	4202127.70	0.00732	609649.09	4202127.70	0.00682
609664.09	4202127.70	0.00636	609679.09	4202127.70	0.00594
609694.09	4202127.70	0.00555	609709.09	4202127.70	0.00520
609724.09	4202127.70	0.00488	608974.09	4202142.70	0.00419
608989.09	4202142.70	0.00445	609004.09	4202142.70	0.00474
609019.09	4202142.70	0.00506	609034.09	4202142.70	0.00540

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         609049.09    4202142.70        0.00579                    609064.09
4202142.70        0.00621
         609079.09    4202142.70        0.00668                    609094.09
4202142.70        0.00719
         609109.09    4202142.70        0.00775                    609124.09
4202142.70        0.00833
         609139.09    4202142.70        0.00895                    609154.09
4202142.70        0.00958
         609169.09    4202142.70        0.01018                    609184.09
4202142.70        0.01073
         609199.09    4202142.70        0.01120                    609214.09
4202142.70        0.01157
         609229.09    4202142.70        0.01179                    609244.09
4202142.70        0.01185
         609259.09    4202142.70        0.01173                    609274.09
4202142.70        0.01141
         609289.09    4202142.70        0.01095                    609304.09
4202142.70        0.01045
         609319.09    4202142.70        0.01005                    609334.09
4202142.70        0.00984
         609349.09    4202142.70        0.00983                    609364.09
4202142.70        0.01004
         609379.09    4202142.70        0.01062                    609409.09
4202142.70        0.01314
         609424.09    4202142.70        0.01458                    609439.09
4202142.70        0.01566
         609454.09    4202142.70        0.01620                    609469.09
4202142.70        0.01620
         609484.09    4202142.70        0.01578                    609499.09
4202142.70        0.01507
         609514.09    4202142.70        0.01419                    609529.09
4202142.70        0.01323
         609544.09    4202142.70        0.01226                    609559.09
4202142.70        0.01132
         609574.09    4202142.70        0.01044                    609589.09
4202142.70        0.00963
         609604.09    4202142.70        0.00888                    609619.09
4202142.70        0.00821
         609634.09    4202142.70        0.00759                    609649.09
4202142.70        0.00703
         609664.09    4202142.70        0.00653                    609679.09
4202142.70        0.00607
         609694.09    4202142.70        0.00566                    609709.09
4202142.70        0.00528
         609724.09    4202142.70        0.00494                    608974.09
4202157.70        0.00427
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                        ***       11:10:05
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , VOL2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
608989.09	4202157.70	0.00455	609004.09	4202157.70	0.00486
609019.09	4202157.70	0.00520	609034.09	4202157.70	0.00557
609049.09	4202157.70	0.00598	609064.09	4202157.70	0.00645
609079.09	4202157.70	0.00696	609094.09	4202157.70	0.00753
609109.09	4202157.70	0.00817	609124.09	4202157.70	0.00888
609139.09	4202157.70	0.00966	609154.09	4202157.70	0.01050
609169.09	4202157.70	0.01138	609184.09	4202157.70	0.01227
609199.09	4202157.70	0.01312	609214.09	4202157.70	0.01389
609229.09	4202157.70	0.01451	609244.09	4202157.70	0.01492
609259.09	4202157.70	0.01506	609274.09	4202157.70	0.01490
609289.09	4202157.70	0.01442	609304.09	4202157.70	0.01375
609319.09	4202157.70	0.01310	609334.09	4202157.70	0.01270
609349.09	4202157.70	0.01263	609364.09	4202157.70	0.01300
609379.09	4202157.70	0.01406	609409.09	4202157.70	0.01805
609424.09	4202157.70	0.01974	609439.09	4202157.70	0.02056
609454.09	4202157.70	0.02051	609469.09		

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4202157.70        0.01980
         609484.09    4202157.70        0.01867                    609499.09
4202157.70        0.01732
         609514.09    4202157.70        0.01592                    609529.09
4202157.70        0.01456
         609544.09    4202157.70        0.01328                    609559.09
4202157.70        0.01211
         609574.09    4202157.70        0.01105                    609589.09
4202157.70        0.01009
         609604.09    4202157.70        0.00924                    609619.09
4202157.70        0.00848
         609634.09    4202157.70        0.00780                    609649.09
4202157.70        0.00720
         609664.09    4202157.70        0.00666                    609679.09
4202157.70        0.00617
         609694.09    4202157.70        0.00573                    609709.09
4202157.70        0.00534
         609724.09    4202157.70        0.00498                    608959.09
4202172.70        0.00403
         608974.09    4202172.70        0.00431                    608989.09
4202172.70        0.00460
         609004.09    4202172.70        0.00493                    609019.09
4202172.70        0.00529
         609034.09    4202172.70        0.00569                    609049.09
4202172.70        0.00614
         609064.09    4202172.70        0.00664                    609079.09
4202172.70        0.00720
         609094.09    4202172.70        0.00783                    609109.09
4202172.70        0.00855
         609124.09    4202172.70        0.00935                    609139.09
4202172.70        0.01027
         609154.09    4202172.70        0.01130                    609169.09
4202172.70        0.01245
         609184.09    4202172.70        0.01370                    609199.09
4202172.70        0.01503
         609214.09    4202172.70        0.01639                    609229.09
4202172.70        0.01768
         609244.09    4202172.70        0.01878                    609259.09
4202172.70        0.01956
         609274.09    4202172.70        0.01989                    609289.09
4202172.70        0.01967
         609304.09    4202172.70        0.01892                    609319.09
4202172.70        0.01790
         609334.09    4202172.70        0.01712                    609349.09
4202172.70        0.01693
         609364.09    4202172.70        0.01761                    609379.09
4202172.70        0.01968
         609409.09    4202172.70        0.02570                    609424.09
4202172.70        0.02712
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     STCK1       , VOL2
 ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

       X-COORD (M)   Y-COORD (M)        CONC                           X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -
         609439.09    4202172.70        0.02695                          609454.09
4202172.70        0.02566
         609469.09    4202172.70        0.02376                          609484.09
4202172.70        0.02163
         609499.09    4202172.70        0.01952                          609514.09
4202172.70        0.01755
         609529.09    4202172.70        0.01576                          609544.09
4202172.70        0.01417
         609559.09    4202172.70        0.01277                          609574.09
4202172.70        0.01154
         609589.09    4202172.70        0.01046                          609604.09
4202172.70        0.00952
         609619.09    4202172.70        0.00869                          609634.09
4202172.70        0.00796
         609649.09    4202172.70        0.00731                          609664.09
4202172.70        0.00674
         609679.09    4202172.70        0.00623                          609694.09
4202172.70        0.00577
         609709.09    4202172.70        0.00537                          609724.09
4202172.70        0.00500
         608959.09    4202187.70        0.00397                          608974.09
4202187.70        0.00425
         608989.09    4202187.70        0.00457                          609004.09
4202187.70        0.00491
         609019.09    4202187.70        0.00530                          609034.09
4202187.70        0.00572
         609049.09    4202187.70        0.00620                          609064.09
4202187.70        0.00674
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609079.09 4202187.70 0.00735 609094.09
4202187.70 0.00804
609109.09 4202187.70 0.00882 609124.09
4202187.70 0.00973
609139.09 4202187.70 0.01076 609154.09
4202187.70 0.01197
609169.09 4202187.70 0.01335 609184.09
4202187.70 0.01493
609199.09 4202187.70 0.01674 609214.09
4202187.70 0.01877
609229.09 4202187.70 0.02097 609244.09
4202187.70 0.02320
609259.09 4202187.70 0.02527 609274.09
4202187.70 0.02688
609409.09 4202187.70 0.03761 609424.09
4202187.70 0.03722
609439.09 4202187.70 0.03474 609454.09
4202187.70 0.03132
609469.09 4202187.70 0.02776 609484.09
4202187.70 0.02445
609499.09 4202187.70 0.02150 609514.09
4202187.70 0.01894
609529.09 4202187.70 0.01675 609544.09
4202187.70 0.01487
609559.09 4202187.70 0.01327 609574.09
4202187.70 0.01190
609589.09 4202187.70 0.01072 609604.09
4202187.70 0.00970
609619.09 4202187.70 0.00881 609634.09
4202187.70 0.00804
609649.09 4202187.70 0.00736 609664.09
4202187.70 0.00677
609679.09 4202187.70 0.00624 609694.09
4202187.70 0.00577
609709.09 4202187.70 0.00536 609724.09
4202187.70 0.00498
608959.09 4202202.70 0.00382 608974.09
4202202.70 0.00410
608989.09 4202202.70 0.00442 609004.09
4202202.70 0.00477
609019.09 4202202.70 0.00516 609034.09
4202202.70 0.00560
609049.09 4202202.70 0.00609 609064.09
4202202.70 0.00665
609079.09 4202202.70 0.00730 609094.09
4202202.70 0.00803
609109.09 4202202.70 0.00888 609124.09
4202202.70 0.00987
609139.09 4202202.70 0.01102 609154.09
4202202.70 0.01238

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5
YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , VOL2
,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609199.09	4202202.70	0.01810	609214.09	4202202.70	0.02077
609229.09	4202202.70	0.02393	609244.09	4202202.70	0.02759
609259.09	4202202.70	0.03164	609274.09	4202202.70	0.03580
609409.09	4202202.70	0.05523	609424.09	4202202.70	0.04982
609439.09	4202202.70	0.04317	609454.09	4202202.70	0.03685
609469.09	4202202.70	0.03138	609484.09	4202202.70	0.02683
609499.09	4202202.70	0.02308	609514.09	4202202.70	0.01999
609529.09	4202202.70	0.01745	609544.09	4202202.70	0.01534
609559.09	4202202.70	0.01358	609574.09	4202202.70	0.01210
609589.09	4202202.70	0.01084	609604.09	4202202.70	0.00977
609619.09	4202202.70	0.00884	609634.09	4202202.70	0.00804
609649.09	4202202.70	0.00735	609664.09	4202202.70	0.00674
609679.09	4202202.70	0.00621	609694.09		

4202202.70 0.00574
609709.09 4202202.70 0.00532 609724.09
4202202.70 0.00494
608959.09 4202217.70 0.00358 608974.09
4202217.70 0.00385
608989.09 4202217.70 0.00416 609004.09
4202217.70 0.00449
609019.09 4202217.70 0.00487 609034.09
4202217.70 0.00530
609049.09 4202217.70 0.00579 609064.09
4202217.70 0.00635
609079.09 4202217.70 0.00699 609094.09
4202217.70 0.00773
609109.09 4202217.70 0.00860 609124.09
4202217.70 0.00961
609139.09 4202217.70 0.01082 609154.09
4202217.70 0.01227
609169.09 4202217.70 0.01400 609184.09
4202217.70 0.01611
609199.09 4202217.70 0.01871 609214.09
4202217.70 0.02193
609229.09 4202217.70 0.02595 609244.09
4202217.70 0.03099
609259.09 4202217.70 0.03730 609274.09
4202217.70 0.04505
609484.09 4202217.70 0.02845 609499.09
4202217.70 0.02406
609514.09 4202217.70 0.02058 609529.09
4202217.70 0.01779
609544.09 4202217.70 0.01552 609559.09
4202217.70 0.01366
609574.09 4202217.70 0.01211 609589.09
4202217.70 0.01081
609604.09 4202217.70 0.00971 609619.09
4202217.70 0.00877
609634.09 4202217.70 0.00796 609649.09
4202217.70 0.00727
609664.09 4202217.70 0.00666 609679.09
4202217.70 0.00612
609694.09 4202217.70 0.00565 609709.09
4202217.70 0.00524
609724.09 4202217.70 0.00487 608959.09
4202232.70 0.00329
608974.09 4202232.70 0.00354 608989.09
4202232.70 0.00381
609004.09 4202232.70 0.00412 609019.09
4202232.70 0.00447
609034.09 4202232.70 0.00486 609049.09
4202232.70 0.00531
609064.09 4202232.70 0.00583 609079.09

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5
YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , VOL2
,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609154.09	4202232.70	0.01147	609169.09	4202232.70	0.01318
609184.09	4202232.70	0.01530	609199.09	4202232.70	0.01799
609214.09	4202232.70	0.02142	609229.09	4202232.70	0.02589
609244.09	4202232.70	0.03182	609259.09	4202232.70	0.03982
609274.09	4202232.70	0.05081	609424.09	4202232.70	0.07371
609439.09	4202232.70	0.05610	609454.09	4202232.70	0.04397
609469.09	4202232.70	0.03534	609484.09	4202232.70	0.02903
609499.09	4202232.70	0.02429	609514.09	4202232.70	0.02061
609529.09	4202232.70	0.01771	609544.09	4202232.70	0.01538
609559.09	4202232.70	0.01349	609574.09	4202232.70	0.01193
609589.09	4202232.70	0.01063	609604.09	4202232.70	0.00954

609619.09 4202232.70 0.00860 609634.09
4202232.70 0.00781
609649.09 4202232.70 0.00712 609664.09
4202232.70 0.00652
609679.09 4202232.70 0.00600 609694.09
4202232.70 0.00553
609709.09 4202232.70 0.00513 609724.09
4202232.70 0.00476
608959.09 4202247.70 0.00298 608974.09
4202247.70 0.00319
608989.09 4202247.70 0.00344 609004.09
4202247.70 0.00371
609019.09 4202247.70 0.00401 609034.09
4202247.70 0.00435
609049.09 4202247.70 0.00474 609064.09
4202247.70 0.00519
609079.09 4202247.70 0.00571 609094.09
4202247.70 0.00632
609109.09 4202247.70 0.00702 609124.09
4202247.70 0.00787
609139.09 4202247.70 0.00888 609154.09
4202247.70 0.01011
609169.09 4202247.70 0.01162 609184.09
4202247.70 0.01350
609199.09 4202247.70 0.01588 609214.09
4202247.70 0.01899
609229.09 4202247.70 0.02312 609244.09
4202247.70 0.02878
609259.09 4202247.70 0.03676 609274.09
4202247.70 0.04842
609424.09 4202247.70 0.07724 609439.09
4202247.70 0.05706
609454.09 4202247.70 0.04391 609469.09
4202247.70 0.03490
609484.09 4202247.70 0.02847 609499.09
4202247.70 0.02369
609514.09 4202247.70 0.02004 609529.09
4202247.70 0.01719
609544.09 4202247.70 0.01492 609559.09
4202247.70 0.01308
609574.09 4202247.70 0.01157 609589.09
4202247.70 0.01031
609604.09 4202247.70 0.00925 609619.09
4202247.70 0.00834
609634.09 4202247.70 0.00757 609649.09
4202247.70 0.00691
609664.09 4202247.70 0.00633 609679.09
4202247.70 0.00583
609694.09 4202247.70 0.00538 609709.09
4202247.70 0.00498

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5
YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , VOL2
,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609064.09	4202262.70	0.00454	609079.09	4202262.70	0.00497
609094.09	4202262.70	0.00546	609109.09	4202262.70	0.00605
609124.09	4202262.70	0.00673	609139.09	4202262.70	0.00755
609154.09	4202262.70	0.00854	609169.09	4202262.70	0.00975
609184.09	4202262.70	0.01125	609199.09	4202262.70	0.01313
609214.09	4202262.70	0.01558	609229.09	4202262.70	0.01882
609244.09	4202262.70	0.02327	609259.09	4202262.70	0.02961
609274.09	4202262.70	0.03908	609424.09	4202262.70	0.07285
609439.09	4202262.70	0.05368	609454.09	4202262.70	0.04132
609469.09	4202262.70	0.03289	609484.09		

4202262.70 0.02686
609499.09 4202262.70 0.02240 609514.09
4202262.70 0.01899
609529.09 4202262.70 0.01632 609544.09
4202262.70 0.01419
609559.09 4202262.70 0.01247 609574.09
4202262.70 0.01105
609589.09 4202262.70 0.00986 609604.09
4202262.70 0.00886
609619.09 4202262.70 0.00801 609634.09
4202262.70 0.00728
609649.09 4202262.70 0.00665 609664.09
4202262.70 0.00610
609679.09 4202262.70 0.00562 609694.09
4202262.70 0.00520
609709.09 4202262.70 0.00482 609724.09
4202262.70 0.00449
609424.09 4202277.70 0.06383 609439.09
4202277.70 0.04779
609454.09 4202277.70 0.03722 609469.09
4202277.70 0.02990
609484.09 4202277.70 0.02461 609499.09
4202277.70 0.02066
609514.09 4202277.70 0.01761 609529.09
4202277.70 0.01521
609544.09 4202277.70 0.01329 609559.09
4202277.70 0.01172
609574.09 4202277.70 0.01042 609589.09
4202277.70 0.00933
609604.09 4202277.70 0.00841 609619.09
4202277.70 0.00762
609634.09 4202277.70 0.00694 609649.09
4202277.70 0.00635
609664.09 4202277.70 0.00584 609679.09
4202277.70 0.00539
609694.09 4202277.70 0.00499 609709.09
4202277.70 0.00463
609724.09 4202277.70 0.00432 609409.09
4202322.70 0.04396
609424.09 4202322.70 0.03708 609439.09
4202322.70 0.03100
609454.09 4202322.70 0.02591 609469.09
4202322.70 0.02176
609484.09 4202322.70 0.01843 609499.09
4202322.70 0.01577
609514.09 4202322.70 0.01366 609529.09
4202322.70 0.01195
609544.09 4202322.70 0.01057 609559.09
4202322.70 0.00943
609574.09 4202322.70 0.00847 609589.09

4202322.70   0.00767
         609604.09   4202322.70   0.00698   609619.09
4202322.70   0.00638
         609634.09   4202322.70   0.00586   609649.09
4202322.70   0.00541
         609664.09   4202322.70   0.00501   609679.09
4202322.70   0.00465
         609694.09   4202322.70   0.00433   609409.09
4202337.70   0.03411
         609424.09   4202337.70   0.03026   609439.09
4202337.70   0.02635

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   STCK1   , VOL2
 ,

                                       *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         609454.09   4202337.70   0.02276   609469.09
4202337.70   0.01960
         609484.09   4202337.70   0.01690   609499.09
4202337.70   0.01463
         609514.09   4202337.70   0.01274   609529.09
4202337.70   0.01119
         609544.09   4202337.70   0.00991   609559.09
4202337.70   0.00885
         609574.09   4202337.70   0.00796   609589.09
4202337.70   0.00721
         609604.09   4202337.70   0.00657   609619.09
4202337.70   0.00602
         609634.09   4202337.70   0.00554   609649.09
4202337.70   0.00511
         609664.09   4202337.70   0.00474   609679.09
4202337.70   0.00441

609694.09 4202337.70 0.00412 609709.09
4202337.70 0.00385
609724.09 4202337.70 0.00362 609409.09
4202352.70 0.02666
609424.09 4202352.70 0.02461 609439.09
4202352.70 0.02221
609454.09 4202352.70 0.01978 609469.09
4202352.70 0.01749
609484.09 4202352.70 0.01541 609499.09
4202352.70 0.01355
609514.09 4202352.70 0.01194 609529.09
4202352.70 0.01055
609544.09 4202352.70 0.00938 609559.09
4202352.70 0.00838
609574.09 4202352.70 0.00754 609589.09
4202352.70 0.00683
609604.09 4202352.70 0.00623 609619.09
4202352.70 0.00571
609634.09 4202352.70 0.00525 609649.09
4202352.70 0.00485
609664.09 4202352.70 0.00450 609679.09
4202352.70 0.00420
609694.09 4202352.70 0.00392 609709.09
4202352.70 0.00367
609724.09 4202352.70 0.00346 609409.09
4202367.70 0.02117
609424.09 4202367.70 0.02011 609439.09
4202367.70 0.01867
609454.09 4202367.70 0.01707 609469.09
4202367.70 0.01545
609484.09 4202367.70 0.01390 609499.09
4202367.70 0.01246
609514.09 4202367.70 0.01114 609529.09
4202367.70 0.00996
609544.09 4202367.70 0.00891 609559.09
4202367.70 0.00800
609574.09 4202367.70 0.00721 609589.09
4202367.70 0.00653
609604.09 4202367.70 0.00595 609619.09
4202367.70 0.00545
609634.09 4202367.70 0.00501 609649.09
4202367.70 0.00463
609664.09 4202367.70 0.00430 609679.09
4202367.70 0.00401
609694.09 4202367.70 0.00375 609709.09
4202367.70 0.00351
609724.09 4202367.70 0.00331 609394.09
4202382.70 0.01713
609409.09 4202382.70 0.01711 609424.09
4202382.70 0.01658

```
         609439.09    4202382.70        0.01573                      609454.09
4202382.70        0.01469
         609469.09    4202382.70        0.01357                      609484.09
4202382.70        0.01244
         609499.09    4202382.70        0.01135                      609514.09
4202382.70        0.01031
         609529.09    4202382.70        0.00934                      609544.09
4202382.70        0.00845
         609559.09    4202382.70        0.00764                      609574.09
4202382.70        0.00691
         609589.09    4202382.70        0.00627                      609604.09
4202382.70        0.00572
         609619.09    4202382.70        0.00524                      609634.09
4202382.70        0.00482
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:10:05

                                  PAGE  41
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     STCK1       , VOL2
 ,

                                       *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         609649.09    4202382.70        0.00445                      609664.09
4202382.70        0.00413
         609679.09    4202382.70        0.00385                      609694.09
4202382.70        0.00360
         609709.09    4202382.70        0.00338                      609724.09
4202382.70        0.00318
         609394.09    4202397.70        0.01393                      609409.09
4202397.70        0.01407
         609424.09    4202397.70        0.01384                      609439.09
4202397.70        0.01334
         609454.09    4202397.70        0.01267                      609469.09
4202397.70        0.01190
         609484.09    4202397.70        0.01108                      609499.09
```

4202397.70 0.01026
609514.09 4202397.70 0.00946 609529.09
4202397.70 0.00869
609544.09 4202397.70 0.00795 609559.09
4202397.70 0.00726
609574.09 4202397.70 0.00662 609589.09
4202397.70 0.00604
609604.09 4202397.70 0.00552 609619.09
4202397.70 0.00507
609634.09 4202397.70 0.00467 609649.09
4202397.70 0.00431
609664.09 4202397.70 0.00400 609679.09
4202397.70 0.00372
609694.09 4202397.70 0.00348 609709.09
4202397.70 0.00326
609724.09 4202397.70 0.00307 609394.09
4202412.70 0.01154
609409.09 4202412.70 0.01176 609424.09
4202412.70 0.01169
609439.09 4202412.70 0.01140 609454.09
4202412.70 0.01097
609469.09 4202412.70 0.01044 609484.09
4202412.70 0.00985
609499.09 4202412.70 0.00924 609514.09
4202412.70 0.00862
609529.09 4202412.70 0.00802 609544.09
4202412.70 0.00742
609559.09 4202412.70 0.00684 609574.09
4202412.70 0.00630
609589.09 4202412.70 0.00580 609604.09
4202412.70 0.00534
609619.09 4202412.70 0.00492 609634.09
4202412.70 0.00454
609649.09 4202412.70 0.00420 609664.09
4202412.70 0.00389
609679.09 4202412.70 0.00362 609694.09
4202412.70 0.00338
609709.09 4202412.70 0.00316 609724.09
4202412.70 0.00297
609394.09 4202427.70 0.00972 609409.09
4202427.70 0.00996
609424.09 4202427.70 0.00999 609439.09
4202427.70 0.00983
609454.09 4202427.70 0.00955 609469.09
4202427.70 0.00919
609484.09 4202427.70 0.00877 609499.09
4202427.70 0.00831
609514.09 4202427.70 0.00784 609529.09
4202427.70 0.00736
609544.09 4202427.70 0.00689 609559.09

4202427.70   0.00642
         609574.09   4202427.70   0.00597   609589.09
4202427.70   0.00554
         609604.09   4202427.70   0.00514   609619.09
4202427.70   0.00476
         609634.09   4202427.70   0.00441   609649.09
4202427.70   0.00409
         609664.09   4202427.70   0.00380   609679.09
4202427.70   0.00354
         609694.09   4202427.70   0.00330   609709.09
4202427.70   0.00309
         609724.09   4202427.70   0.00290   609439.09
4202472.70   0.00663
         609454.09   4202472.70   0.00657   609469.09
4202472.70   0.00645
         609484.09   4202472.70   0.00628   609499.09
4202472.70   0.00609

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   STCK1   , VOL2
 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         609514.09   4202472.70   0.00588   609529.09
4202472.70   0.00565
         609544.09   4202472.70   0.00541   609559.09
4202472.70   0.00516
         609574.09   4202472.70   0.00492   609589.09
4202472.70   0.00468
         609604.09   4202472.70   0.00443   609619.09
4202472.70   0.00419
         609634.09   4202472.70   0.00396   609649.09
4202472.70   0.00373

609664.09 4202472.70 0.00351 609679.09 4202472.70 0.00330
609694.09 4202472.70 0.00310 609319.09 4202487.70 0.00405
609334.09 4202487.70 0.00436 609349.09 4202487.70 0.00467
609364.09 4202487.70 0.00498 609394.09 4202487.70 0.00553
609409.09 4202487.70 0.00573 609424.09 4202487.70 0.00585
609439.09 4202487.70 0.00590 609454.09 4202487.70 0.00587
609469.09 4202487.70 0.00579 609484.09 4202487.70 0.00567
609499.09 4202487.70 0.00552 609514.09 4202487.70 0.00536
609529.09 4202487.70 0.00518 609544.09 4202487.70 0.00498
609559.09 4202487.70 0.00478 609574.09 4202487.70 0.00458
609589.09 4202487.70 0.00438 609604.09 4202487.70 0.00418
609619.09 4202487.70 0.00398 609634.09 4202487.70 0.00378
609649.09 4202487.70 0.00359 609664.09 4202487.70 0.00340
609679.09 4202487.70 0.00321 609184.09 4202502.70 0.00206
609199.09 4202502.70 0.00219 609214.09 4202502.70 0.00232
609229.09 4202502.70 0.00245 609244.09 4202502.70 0.00259
609259.09 4202502.70 0.00275 609274.09 4202502.70 0.00294
609289.09 4202502.70 0.00316 609304.09 4202502.70 0.00340
609319.09 4202502.70 0.00365 609334.09 4202502.70 0.00391
609349.09 4202502.70 0.00417 609364.09 4202502.70 0.00444
609394.09 4202502.70 0.00491 609409.09 4202502.70 0.00509
609424.09 4202502.70 0.00521 609439.09 4202502.70 0.00527
609454.09 4202502.70 0.00527 609469.09 4202502.70 0.00522
609484.09 4202502.70 0.00513 609499.09 4202502.70 0.00502
609514.09 4202502.70 0.00489 609529.09 4202502.70 0.00475

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         609544.09    4202502.70        0.00460                      609559.09
4202502.70        0.00443
         609574.09    4202502.70        0.00427                      609589.09
4202502.70        0.00410
         609604.09    4202502.70        0.00393                      609619.09
4202502.70        0.00376
         609634.09    4202502.70        0.00360                      609649.09
4202502.70        0.00343
         609664.09    4202502.70        0.00327                      609064.09
4202517.70        0.00124
         609079.09    4202517.70        0.00131                      609094.09
4202517.70        0.00137
         609109.09    4202517.70        0.00145                      609124.09
4202517.70        0.00153
         609139.09    4202517.70        0.00162                      609154.09
4202517.70        0.00172
         609169.09    4202517.70        0.00183                      609184.09
4202517.70        0.00193
         609199.09    4202517.70        0.00204                      609214.09
4202517.70        0.00215
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:10:05

                                  PAGE  43
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                   INCLUDING SOURCE(S):     STCK1       , VOL2
 ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         609229.09    4202517.70        0.00226                      609244.09
4202517.70        0.00239
         609259.09    4202517.70        0.00253                      609274.09
4202517.70        0.00270
         609289.09    4202517.70        0.00289                      609304.09
4202517.70        0.00309
         609319.09    4202517.70        0.00331                      609334.09
```

4202517.70 0.00353
609349.09 4202517.70 0.00376 609364.09
4202517.70 0.00398
609409.09 4202517.70 0.00456 609424.09
4202517.70 0.00468
609439.09 4202517.70 0.00474 609454.09
4202517.70 0.00476
609469.09 4202517.70 0.00473 609484.09
4202517.70 0.00467
609499.09 4202517.70 0.00458 609514.09
4202517.70 0.00448
609529.09 4202517.70 0.00437 609544.09
4202517.70 0.00425
609559.09 4202517.70 0.00411 609574.09
4202517.70 0.00397
609589.09 4202517.70 0.00383 609604.09
4202517.70 0.00369
609619.09 4202517.70 0.00355 609634.09
4202517.70 0.00341
609649.09 4202517.70 0.00327 609079.09
4202532.70 0.00125
609094.09 4202532.70 0.00131 609109.09
4202532.70 0.00138
609124.09 4202532.70 0.00146 609139.09
4202532.70 0.00154
609154.09 4202532.70 0.00163 609169.09
4202532.70 0.00173
609184.09 4202532.70 0.00182 609199.09
4202532.70 0.00190
609214.09 4202532.70 0.00200 609229.09
4202532.70 0.00210
609244.09 4202532.70 0.00221 609259.09
4202532.70 0.00234
609274.09 4202532.70 0.00249 609289.09
4202532.70 0.00265
609304.09 4202532.70 0.00283 609319.09
4202532.70 0.00301
609334.09 4202532.70 0.00321 609349.09
4202532.70 0.00341
609364.09 4202532.70 0.00360 609409.09
4202532.70 0.00410
609424.09 4202532.70 0.00422 609439.09
4202532.70 0.00429
609454.09 4202532.70 0.00432 609469.09
4202532.70 0.00431
609484.09 4202532.70 0.00426 609499.09
4202532.70 0.00420
609514.09 4202532.70 0.00412 609529.09
4202532.70 0.00403
609544.09 4202532.70 0.00393 609559.09

```
4202532.70        0.00382
         609574.09    4202532.70        0.00370                       609589.09
4202532.70        0.00359
         609604.09    4202532.70        0.00347                       609619.09
4202532.70        0.00334
         609094.09    4202547.70        0.00125                       609109.09
4202547.70        0.00132
         609124.09    4202547.70        0.00139                       609139.09
4202547.70        0.00147
         609154.09    4202547.70        0.00155                       609169.09
4202547.70        0.00163
         609184.09    4202547.70        0.00171                       609199.09
4202547.70        0.00178
         609214.09    4202547.70        0.00186                       609229.09
4202547.70        0.00195
         609244.09    4202547.70        0.00206                       609259.09
4202547.70        0.00217
         609274.09    4202547.70        0.00231                       609289.09
4202547.70        0.00245
         609304.09    4202547.70        0.00260                       609319.09
4202547.70        0.00276
         609334.09    4202547.70        0.00293                       609349.09
4202547.70        0.00310
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:10:05

                                   PAGE  44
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     STCK1       , VOL2
 ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

       X-COORD (M)   Y-COORD (M)        CONC                        X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         609364.09    4202547.70        0.00326                       609409.09
4202547.70        0.00371
         609424.09    4202547.70        0.00382                       609439.09
4202547.70        0.00390
```

609454.09 4202547.70 0.00393 609469.09 4202547.70 0.00394
609484.09 4202547.70 0.00391 609499.09 4202547.70 0.00386
609514.09 4202547.70 0.00379 609529.09 4202547.70 0.00372
609544.09 4202547.70 0.00364 609559.09 4202547.70 0.00355
609574.09 4202547.70 0.00346 609589.09 4202547.70 0.00336
609109.09 4202562.70 0.00126 609124.09 4202562.70 0.00133
609139.09 4202562.70 0.00140 609154.09 4202562.70 0.00147
609169.09 4202562.70 0.00154 609184.09 4202562.70 0.00161
609199.09 4202562.70 0.00167 609214.09 4202562.70 0.00174
609229.09 4202562.70 0.00183 609244.09 4202562.70 0.00192
609259.09 4202562.70 0.00203 609274.09 4202562.70 0.00215
609289.09 4202562.70 0.00227 609304.09 4202562.70 0.00241
609319.09 4202562.70 0.00255 609334.09 4202562.70 0.00269
609349.09 4202562.70 0.00283 609364.09 4202562.70 0.00298
609409.09 4202562.70 0.00338 609424.09 4202562.70 0.00348
609439.09 4202562.70 0.00355 609454.09 4202562.70 0.00360
609469.09 4202562.70 0.00361 609484.09 4202562.70 0.00359
609499.09 4202562.70 0.00356 609514.09 4202562.70 0.00351
609529.09 4202562.70 0.00345 609544.09 4202562.70 0.00338
609559.09 4202562.70 0.00331 609574.09 4202562.70 0.00323
609124.09 4202577.70 0.00127 609139.09 4202577.70 0.00133
609154.09 4202577.70 0.00139 609169.09 4202577.70 0.00145
609184.09 4202577.70 0.00151 609199.09 4202577.70 0.00157
609214.09 4202577.70 0.00164 609229.09 4202577.70 0.00171
609244.09 4202577.70 0.00180 609259.09 4202577.70 0.00190

```
         609274.09    4202577.70        0.00200                      609289.09
4202577.70        0.00212
         609304.09    4202577.70        0.00224                      609319.09
4202577.70        0.00236
         609334.09    4202577.70        0.00248                      609349.09
4202577.70        0.00260
         609364.09    4202577.70        0.00273                      609409.09
4202577.70        0.00309
         609424.09    4202577.70        0.00318                      609439.09
4202577.70        0.00326
         609454.09    4202577.70        0.00330                      609469.09
4202577.70        0.00332
         609484.09    4202577.70        0.00331                      609499.09
4202577.70        0.00329
         609514.09    4202577.70        0.00325                      609529.09
4202577.70        0.00320
         609544.09    4202577.70        0.00314                      609139.09
4202592.70        0.00127
         609154.09    4202592.70        0.00132                      609169.09
4202592.70        0.00137
         609184.09    4202592.70        0.00142                      609199.09
4202592.70        0.00148
         609214.09    4202592.70        0.00154                      609229.09
4202592.70        0.00161
         609244.09    4202592.70        0.00169                      609259.09
4202592.70        0.00178
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:10:05

                                  PAGE  45
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                   INCLUDING SOURCE(S):     STCK1       , VOL2
 ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

       X-COORD (M)   Y-COORD (M)        CONC                      X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         609274.09    4202592.70        0.00187                      609289.09
```

4202592.70 0.00198
609304.09 4202592.70 0.00208 609319.09
4202592.70 0.00219
609334.09 4202592.70 0.00230 609349.09
4202592.70 0.00241
609364.09 4202592.70 0.00251 609409.09
4202592.70 0.00283
609424.09 4202592.70 0.00292 609439.09
4202592.70 0.00299
609454.09 4202592.70 0.00304 609469.09
4202592.70 0.00306
609484.09 4202592.70 0.00306 609499.09
4202592.70 0.00305
609514.09 4202592.70 0.00302 609529.09
4202592.70 0.00298
609169.09 4202607.70 0.00130 609184.09
4202607.70 0.00134
609199.09 4202607.70 0.00139 609214.09
4202607.70 0.00145
609229.09 4202607.70 0.00152 609244.09
4202607.70 0.00159
609259.09 4202607.70 0.00167 609274.09
4202607.70 0.00176
609289.09 4202607.70 0.00185 609304.09
4202607.70 0.00194
609319.09 4202607.70 0.00204 609334.09
4202607.70 0.00213
609349.09 4202607.70 0.00223 609364.09
4202607.70 0.00233
609409.09 4202607.70 0.00261 609424.09
4202607.70 0.00270
609439.09 4202607.70 0.00276 609454.09
4202607.70 0.00281
609469.09 4202607.70 0.00284 609484.09
4202607.70 0.00284
609499.09 4202607.70 0.00283 609199.09
4202622.70 0.00132
609214.09 4202622.70 0.00137 609229.09
4202622.70 0.00143
609244.09 4202622.70 0.00150 609259.09
4202622.70 0.00158
609274.09 4202622.70 0.00165 609289.09
4202622.70 0.00173
609304.09 4202622.70 0.00182 609319.09
4202622.70 0.00190
609334.09 4202622.70 0.00199 609349.09
4202622.70 0.00207
609364.09 4202622.70 0.00216 609409.09
4202622.70 0.00242
609424.09 4202622.70 0.00250 609439.09

```
4202622.70        0.00256
         609454.09    4202622.70        0.00260                      609469.09
4202622.70        0.00263
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                        ***       11:10:05

                                   PAGE  46
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     STCK1       , VOL2
 ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)             X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        609304.09   4201857.70        0.10226  (12020204)               609319.09
 4201857.70        0.10898  (12020204)
        609334.09   4201857.70        0.10515  (13022419)               609349.09
 4201857.70        0.10354  (13122024)
        609364.09   4201857.70        0.11096  (09012323)               609379.09
 4201857.70        0.11359  (09012323)
        609394.09   4201857.70        0.10353  (09012323)               609259.09
 4201872.70        0.11979  (09012222)
        609304.09   4201872.70        0.10635  (12020204)               609319.09
 4201872.70        0.11479  (12020204)
        609334.09   4201872.70        0.11119  (13022419)               609349.09
 4201872.70        0.10916  (13122024)
        609364.09   4201872.70        0.11734  (09012323)               609379.09
 4201872.70        0.11951  (09012323)
        609394.09   4201872.70        0.10770  (09012323)               609409.09
 4201872.70        0.10824  (09012120)
        609424.09   4201872.70        0.11747  (09012120)               609439.09
 4201872.70        0.11344  (09012120)
        609454.09   4201872.70        0.11117  (12012619)               609199.09
 4201887.70        0.11346  (09123119)
        609214.09   4201887.70        0.11292  (10010301)               609229.09
 4201887.70        0.11423  (10010301)
        609244.09   4201887.70        0.12150  (09012222)               609259.09
 4201887.70        0.12746  (09012222)
```

609274.09 4201887.70 0.12790 (10010720) 609304.09 4201887.70 0.11047 (12020204)
609319.09 4201887.70 0.12099 (12020204) 609334.09 4201887.70 0.11777 (13022419)
609349.09 4201887.70 0.11530 (13122024) 609364.09 4201887.70 0.12433 (09012323)
609379.09 4201887.70 0.12590 (09012323) 609394.09 4201887.70 0.11300 (12123104)
609409.09 4201887.70 0.11675 (09012120) 609424.09 4201887.70 0.12425 (09012120)
609439.09 4201887.70 0.11699 (09012120) 609454.09 4201887.70 0.11867 (12012619)
609469.09 4201887.70 0.11503 (12012619) 609484.09 4201887.70 0.11559 (09122003)
609499.09 4201887.70 0.11575 (12120619) 609169.09 4201902.70 0.11117 (11010301)
609184.09 4201902.70 0.11402 (13121217) 609199.09 4201902.70 0.11814 (09123119)
609214.09 4201902.70 0.11918 (09123119) 609229.09 4201902.70 0.12190 (10010301)
609244.09 4201902.70 0.12393 (09012222) 609259.09 4201902.70 0.13473 (09012222)
609274.09 4201902.70 0.13405 (10010720) 609319.09 4201902.70 0.12762 (12020204)
609334.09 4201902.70 0.12495 (13022419) 609349.09 4201902.70 0.12204 (13122024)
609364.09 4201902.70 0.13199 (09012323) 609379.09 4201902.70 0.13281 (09012323)
609394.09 4201902.70 0.11999 (12123104) 609409.09 4201902.70 0.12588 (09012120)
609424.09 4201902.70 0.13106 (09012120) 609439.09 4201902.70 0.12087 (10021118)
609454.09 4201902.70 0.12584 (12012619) 609469.09 4201902.70 0.12298 (09122003)
609484.09 4201902.70 0.11999 (12120619) 609499.09 4201902.70 0.12163 (12120619)
609514.09 4201902.70 0.11922 (10121002) 609529.09 4201902.70 0.11484 (10012503)
609139.09 4201917.70 0.11650 (10011607) 609154.09 4201917.70 0.12008 (11010301)
609169.09 4201917.70 0.12184 (11010301) 609184.09 4201917.70 0.11965 (12020820)
609199.09 4201917.70 0.12070 (09123119) 609214.09 4201917.70 0.12752 (09123119)
609229.09 4201917.70 0.12841 (10010301) 609244.09 4201917.70 0.12586 (10010301)
609259.09 4201917.70 0.14131 (09012222) 609274.09 4201917.70 0.14085 (09010108)
609289.09 4201917.70 0.14282 (10010720) 609319.09 4201917.70 0.13472 (12020204)

       609424.09   4201917.70   0.13800 (09012120)   609439.09
 4201917.70   0.12992 (12012619)
       609454.09   4201917.70   0.13247 (12012619)   609469.09
 4201917.70   0.13081 (09122003)
       609484.09   4201917.70   0.12958 (12120619)   609499.09
 4201917.70   0.12558 (12120619)
       609514.09   4201917.70   0.12527 (10121002)   609529.09
 4201917.70   0.11760 (10012503)
       609544.09   4201917.70   0.11565 (09022304)   609109.09
 4201932.70   0.11458 (10122508)
       609124.09   4201932.70   0.11514 (10122508)   609139.09
 4201932.70   0.11725 (11022122)
       609154.09   4201932.70   0.12538 (10011607)   609169.09
 4201932.70   0.12979 (11010301)
       609184.09   4201932.70   0.12619 (11010301)   609199.09
 4201932.70   0.12851 (13121217)
       609214.09   4201932.70   0.13403 (09123119)   609229.09
 4201932.70   0.13328 (10010301)
       609244.09   4201932.70   0.13657 (10010301)   609259.09
 4201932.70   0.14687 (09012222)
       609274.09   4201932.70   0.15113 (09012222)   609289.09

4201932.70 0.15291 (10010720)
609334.09 4201932.70 0.14222 (12020204) 609349.09
4201932.70 0.13765 (13122024)
609364.09 4201932.70 0.14977 (09012323) 609379.09
4201932.70 0.14841 (09012323)
609394.09 4201932.70 0.13565 (12123104) 609409.09
4201932.70 0.14643 (09012120)
609424.09 4201932.70 0.14480 (09012120) 609439.09
4201932.70 0.14075 (12012619)
609454.09 4201932.70 0.13821 (12012619) 609469.09
4201932.70 0.13746 (09122003)
609484.09 4201932.70 0.13782 (12120619) 609499.09
4201932.70 0.13424 (10121002)
609514.09 4201932.70 0.12945 (10012503) 609529.09
4201932.70 0.11936 (09022304)
609544.09 4201932.70 0.12440 (09022304) 609559.09
4201932.70 0.12070 (11011324)
609079.09 4201947.70 0.11204 (09010524) 609094.09
4201947.70 0.11755 (10121905)
609109.09 4201947.70 0.11842 (10121905) 609124.09
4201947.70 0.12287 (10122508)
609139.09 4201947.70 0.12339 (11020922) 609154.09
4201947.70 0.12912 (10011607)
609169.09 4201947.70 0.13402 (11010301) 609184.09
4201947.70 0.13838 (11010301)
609199.09 4201947.70 0.13542 (12020820) 609214.09
4201947.70 0.13807 (09123119)
609229.09 4201947.70 0.14414 (09123119) 609244.09
4201947.70 0.14633 (10010301)
609259.09 4201947.70 0.15103 (09012222) 609274.09
4201947.70 0.16209 (09012222)
609289.09 4201947.70 0.16307 (10010720) 609304.09
4201947.70 0.15218 (10010720)
609334.09 4201947.70 0.15238 (12020204) 609349.09
4201947.70 0.14672 (13122024)
609364.09 4201947.70 0.16010 (09012323) 609379.09
4201947.70 0.15713 (09012323)
609394.09 4201947.70 0.14427 (12123104) 609409.09
4201947.70 0.15762 (09012120)
609424.09 4201947.70 0.15114 (09012120) 609439.09
4201947.70 0.15132 (12012619)
609454.09 4201947.70 0.14771 (09122003) 609469.09
4201947.70 0.14545 (12120619)
609484.09 4201947.70 0.14400 (12120619) 609499.09
4201947.70 0.14217 (10121002)
609514.09 4201947.70 0.13285 (10012503) 609529.09
4201947.70 0.13189 (09022304)
609544.09 4201947.70 0.13035 (11011324) 609559.09
4201947.70 0.12345 (09120624)
609574.09 4201947.70 0.11737 (10022822) 609064.09

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , VOL2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609199.09	4201962.70	0.14480	(11010301)	609214.09	4201962.70	0.14643	(13121217)
609229.09	4201962.70	0.15352	(09123119)	609244.09	4201962.70	0.15447	(10010301)
609259.09	4201962.70	0.15330	(09012222)	609274.09	4201962.70	0.17244	(09012222)
609289.09	4201962.70	0.17311	(10010720)	609304.09	4201962.70	0.16680	(10010720)
609349.09	4201962.70	0.15683	(13122024)	609364.09	4201962.70	0.17161	(09012323)
609379.09	4201962.70	0.16662	(09012323)	609394.09	4201962.70	0.15459	(09012120)
609409.09	4201962.70	0.16931	(09012120)	609424.09	4201962.70	0.15682	(09012120)
609439.09	4201962.70	0.16130	(12012619)	609454.09	4201962.70	0.15828	(09122003)
609469.09	4201962.70	0.15727	(12120619)	609484.09	4201962.70	0.15264	(10121002)

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4201977.70 0.12593 (10020602)
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609229.09 4201977.70 0.15993 (09123119) 609244.09
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4201977.70 0.17706 (09012323)
609394.09 4201977.70 0.17029 (09012120) 609409.09
4201977.70 0.18124 (09012120)
609424.09 4201977.70 0.17014 (12012619) 609439.09
4201977.70 0.17031 (12012619)
609454.09 4201977.70 0.16736 (09122003) 609469.09
4201977.70 0.16703 (12120619)
609484.09 4201977.70 0.16350 (10121002) 609499.09
4201977.70 0.15199 (10012503)
609514.09 4201977.70 0.15206 (09022304) 609529.09
4201977.70 0.14834 (11011324)
609544.09 4201977.70 0.13984 (09120624) 609559.09
4201977.70 0.13614 (10011219)
609574.09 4201977.70 0.13428 (10011219) 609589.09
4201977.70 0.12401 (11123024)
609604.09 4201977.70 0.12350 (11123024) 609619.09
4201977.70 0.11736 (09010206)
609049.09 4201992.70 0.11618 (10020603) 609064.09
4201992.70 0.12142 (09020508)
609079.09 4201992.70 0.12448 (09123118) 609094.09
4201992.70 0.13091 (10120519)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , VOL2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609289.09	4201992.70	0.19865	(09012222)	609304.09	4201992.70	0.19945	(10010720)
609319.09	4201992.70	0.17788	(12020204)	609364.09	4201992.70	0.19902	(09012323)
609379.09	4201992.70	0.18848	(09012323)	609394.09	4201992.70	0.18769	(09012120)
609409.09	4201992.70	0.19326	(09012120)	609424.09	4201992.70	0.18636	(12012619)
609439.09	4201992.70	0.18267	(09122003)	609454.09	4201992.70	0.18127	(12120619)
609469.09	4201992.70	0.17607	(10121002)	609484.09	4201992.70	0.17073	(10012503)
609499.09	4201992.70	0.16102	(09022304)	609514.09	4201992.70	0.16197	(09022304)
609529.09	4201992.70	0.15271	(09120624)	609544.09			

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       609559.09   4201992.70        0.14623  (10011219)                609574.09
4201992.70        0.13447  (10011219)
       609589.09   4201992.70        0.13356  (11123024)                609604.09
4201992.70        0.12680  (09010206)
       609619.09   4201992.70        0.12010  (13020419)                609634.09
4201992.70        0.11310  (13012505)
       609034.09   4202007.70        0.11311  (10011708)                609049.09
4202007.70        0.12006  (10011708)
       609064.09   4202007.70        0.12485  (10020603)                609079.09
4202007.70        0.13053  (09020508)
       609094.09   4202007.70        0.13430  (09123118)                609109.09
4202007.70        0.14139  (10120519)
       609124.09   4202007.70        0.14712  (10020602)                609139.09
4202007.70        0.15206  (10121905)
       609154.09   4202007.70        0.15881  (10121905)                609169.09
4202007.70        0.16378  (10122508)
       609184.09   4202007.70        0.16512  (11020922)                609199.09
4202007.70        0.17737  (10011607)
       609214.09   4202007.70        0.18468  (11010301)                609229.09
4202007.70        0.18047  (12020820)
       609244.09   4202007.70        0.18794  (09123119)                609259.09
4202007.70        0.19079  (10010301)
       609274.09   4202007.70        0.19392  (09012222)                609289.09
4202007.70        0.21565  (09012222)
       609304.09   4202007.70        0.21711  (10010720)                609319.09
4202007.70        0.19124  (10010720)
       609334.09   4202007.70        0.20600  (12020204)                609379.09
4202007.70        0.20089  (09012323)
       609394.09   4202007.70        0.20684  (09012120)                609409.09
4202007.70        0.20514  (09012120)
       609424.09   4202007.70        0.20238  (12012619)                609439.09
4202007.70        0.19785  (09122003)
       609454.09   4202007.70        0.19614  (12120619)                609469.09
4202007.70        0.19087  (10121002)
       609484.09   4202007.70        0.17643  (10012503)                609499.09
4202007.70        0.17739  (09022304)
       609514.09   4202007.70        0.16976  (11011324)                609529.09
4202007.70        0.15816  (09120624)
       609544.09   4202007.70        0.15923  (10011219)                609559.09
4202007.70        0.14855  (10011219)
       609574.09   4202007.70        0.14495  (11123024)                609589.09
4202007.70        0.13759  (09010206)
       609604.09   4202007.70        0.12975  (13020419)                609619.09
4202007.70        0.12287  (13012505)
       609634.09   4202007.70        0.12305  (13012505)                609649.09
4202007.70        0.11672  (13012505)
       609034.09   4202022.70        0.11967  (10011203)                609049.09
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       609064.09   4202022.70        0.12867  (10011708)                609079.09
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       609094.09   4202022.70        0.14085  (09020508)               609109.09
 4202022.70        0.14556  (09123118)
       609124.09   4202022.70        0.15379  (10120519)               609139.09
 4202022.70        0.16055  (10020602)
       609154.09   4202022.70        0.16705  (10121905)               609169.09
 4202022.70        0.17195  (10121905)
       609184.09   4202022.70        0.17895  (10122508)               609199.09
 4202022.70        0.18197  (10011607)
       609214.09   4202022.70        0.19406  (10011607)               609229.09
 4202022.70        0.19872  (11010301)
       609244.09   4202022.70        0.19848  (13121217)               609259.09
 4202022.70        0.20884  (09123119)
       609274.09   4202022.70        0.21136  (10010301)               609289.09
 4202022.70        0.23171  (09012222)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:10:05

                                  PAGE  50
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                   INCLUDING SOURCE(S):     STCK1       , VOL2
 ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       609304.09   4202022.70        0.23527  (10010720)               609319.09
 4202022.70        0.21557  (10010720)
       609334.09   4202022.70        0.22375  (12020204)               609349.09
 4202022.70        0.21199  (13122024)
       609379.09   4202022.70        0.21444  (09012323)               609394.09
 4202022.70        0.22779  (09012120)
       609409.09   4202022.70        0.21628  (09012120)               609424.09
 4202022.70        0.21725  (12012619)
       609439.09   4202022.70        0.21040  (09122003)               609454.09
 4202022.70        0.20692  (12120619)
       609469.09   4202022.70        0.20052  (10012503)               609484.09
 4202022.70        0.19090  (09022304)
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4202022.70 0.12484 (13012505)
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609049.09 4202037.70 0.12759 (10011203) 609064.09
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609079.09 4202037.70 0.13844 (10011708) 609094.09
4202037.70 0.14612 (10020603)
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4202037.70 0.15913 (09123118)
609139.09 4202037.70 0.16837 (10120519) 609154.09
4202037.70 0.17587 (10020602)
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4202037.70 0.20637 (10011607)
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609589.09 4202037.70 0.14690 (13012505) 609604.09
4202037.70 0.14454 (13012505)

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       609679.09   4202037.70        0.11319  (10120324)               609019.09
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       609034.09   4202052.70        0.14205  (10011620)               609049.09
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       609064.09   4202052.70        0.13611  (10011622)               609079.09
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       609094.09   4202052.70        0.14918  (10011708)               609109.09
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       609124.09   4202052.70        0.16676  (09020508)               609139.09
 4202052.70        0.17460  (09123118)
       609154.09   4202052.70        0.18521  (10120519)               609169.09
 4202052.70        0.19402  (10020602)
       609184.09   4202052.70        0.20485  (10121905)               609199.09
 4202052.70        0.21054  (10122508)
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                    INCLUDING SOURCE(S):     STCK1       , VOL2
 ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       609214.09   4202052.70        0.21419  (11020922)               609229.09
 4202052.70        0.23153  (10011607)
       609244.09   4202052.70        0.23908  (11010301)               609259.09
 4202052.70        0.23771  (13121217)
       609274.09   4202052.70        0.24887  (09123119)               609289.09
 4202052.70        0.25588  (09012222)
       609304.09   4202052.70        0.27888  (09012222)               609319.09
 4202052.70        0.27410  (10010720)
       609334.09   4202052.70        0.26659  (12020204)               609349.09
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       609409.09   4202052.70        0.26336  (12012619)                609424.09
4202052.70        0.25738  (09122003)
       609439.09   4202052.70        0.25207  (12120619)                609454.09
4202052.70        0.24094  (10121002)
       609469.09   4202052.70        0.23048  (09022304)                609484.09
4202052.70        0.22228  (11011324)
       609499.09   4202052.70        0.20465  (10011219)                609514.09
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       609529.09   4202052.70        0.19009  (11123024)                609544.09
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       609559.09   4202052.70        0.16838  (13020419)                609574.09
4202052.70        0.16184  (13012505)
       609589.09   4202052.70        0.15747  (13012505)                609604.09
4202052.70        0.14357  (11021321)
       609619.09   4202052.70        0.13950  (09122007)                609634.09
4202052.70        0.13537  (09122007)
       609649.09   4202052.70        0.12945  (10120324)                609664.09
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       609679.09   4202052.70        0.11554  (12022704)                609694.09
4202052.70        0.11002  (10121903)
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       609064.09   4202067.70        0.15440  (10011620)                609079.09
4202067.70        0.14890  (10011622)
       609094.09   4202067.70        0.15763  (10011203)                609109.09
4202067.70        0.16293  (10011203)
       609124.09   4202067.70        0.17397  (10011708)                609139.09
4202067.70        0.18246  (09020508)
       609154.09   4202067.70        0.19292  (09123118)                609169.09
4202067.70        0.20522  (10120519)
       609184.09   4202067.70        0.21499  (10020602)                609199.09
4202067.70        0.22799  (10121905)
       609214.09   4202067.70        0.23598  (10122508)                609229.09
4202067.70        0.24154  (10011607)
       609244.09   4202067.70        0.26135  (11010301)                609259.09
4202067.70        0.25897  (12020820)
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4202067.70        0.28007  (10010301)
       609304.09   4202067.70        0.30865  (09012222)                609319.09
4202067.70        0.30846  (10010720)
       609334.09   4202067.70        0.29250  (12020204)                609349.09
4202067.70        0.27963  (13022419)
       609364.09   4202067.70        0.31020  (09012323)                609409.09
4202067.70        0.28969  (12012619)
       609424.09   4202067.70        0.28147  (12120619)                609439.09
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , VOL2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609034.09	4202082.70	0.16184	(10122204)	609049.09	4202082.70	0.16862	(10011620)
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609094.09	4202082.70	0.16786	(10011620)	609109.09	4202082.70	0.17050	(10011203)

609124.09 4202082.70 0.18102 (10011203) 609139.09 4202082.70 0.19159 (10011708)
609154.09 4202082.70 0.20279 (10020603) 609169.09 4202082.70 0.21461 (09020508)
609184.09 4202082.70 0.22861 (10120519) 609199.09 4202082.70 0.23969 (10020602)
609214.09 4202082.70 0.25504 (10121905) 609229.09 4202082.70 0.26438 (10122508)
609244.09 4202082.70 0.28005 (10011607) 609259.09 4202082.70 0.29475 (11010301)
609274.09 4202082.70 0.29238 (13121217) 609289.09 4202082.70 0.30763 (10010301)
609304.09 4202082.70 0.33631 (09012222) 609319.09 4202082.70 0.34581 (10010720)
609334.09 4202082.70 0.32202 (12020204) 609349.09 4202082.70 0.31326 (13022419)
609364.09 4202082.70 0.34472 (09012323) 609409.09 4202082.70 0.31638 (09122003)
609424.09 4202082.70 0.31372 (12120619) 609439.09 4202082.70 0.29737 (10121002)
609454.09 4202082.70 0.28483 (09022304) 609469.09 4202082.70 0.26502 (09120624)
609484.09 4202082.70 0.25664 (10011219) 609499.09 4202082.70 0.23487 (10011219)
609514.09 4202082.70 0.22544 (11123024) 609529.09 4202082.70 0.20712 (13020419)
609544.09 4202082.70 0.20026 (13012505) 609559.09 4202082.70 0.18932 (13012505)
609574.09 4202082.70 0.17274 (09122007) 609589.09 4202082.70 0.16955 (09122007)
609604.09 4202082.70 0.16102 (10120324) 609619.09 4202082.70 0.14769 (12022704)
609634.09 4202082.70 0.14109 (12022704) 609649.09 4202082.70 0.13438 (10121903)
609664.09 4202082.70 0.12653 (10121903) 609679.09 4202082.70 0.11607 (10121903)
609694.09 4202082.70 0.10419 (10121903) 609709.09 4202082.70 0.09867 (11011122)
609004.09 4202097.70 0.14790 (10021222) 609019.09 4202097.70 0.15663 (10021222)
609034.09 4202097.70 0.16152 (10021222) 609049.09 4202097.70 0.17313 (10122204)
609064.09 4202097.70 0.18339 (10122204) 609079.09 4202097.70 0.19304 (10011620)
609094.09 4202097.70 0.20082 (10011620) 609109.09 4202097.70 0.19748 (10011620)
609124.09 4202097.70 0.18790 (10011622) 609139.09 4202097.70 0.20113 (10011203)
609154.09 4202097.70 0.21100 (10011708) 609169.09 4202097.70 0.22640 (10020603)

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       609184.09   4202097.70        0.24073  (09020508)               609199.09
 4202097.70        0.25701  (10120519)
       609214.09   4202097.70        0.26964  (10020602)               609229.09
 4202097.70        0.28638  (10121905)
       609244.09   4202097.70        0.29506  (10122508)               609259.09
 4202097.70        0.32016  (10011607)
       609274.09   4202097.70        0.32297  (12020820)               609289.09
 4202097.70        0.34469  (09123119)
       609304.09   4202097.70        0.35895  (09012222)               609319.09
 4202097.70        0.38517  (10010720)
       609334.09   4202097.70        0.35569  (12020204)               609349.09
 4202097.70        0.35398  (13022419)
       609364.09   4202097.70        0.38585  (09012323)               609409.09
 4202097.70        0.35456  (09122003)
       609424.09   4202097.70        0.34451  (10121002)               609439.09
 4202097.70        0.31412  (09022304)
       609454.09   4202097.70        0.31012  (11011324)               609469.09
 4202097.70        0.28790  (10011219)
       609484.09   4202097.70        0.27127  (10011219)               609499.09
 4202097.70        0.25548  (11123024)
       609514.09   4202097.70        0.23234  (13020419)               609529.09
 4202097.70        0.22499  (13012505)
       609544.09   4202097.70        0.20875  (13012505)               609559.09
 4202097.70        0.19501  (09122007)
↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:10:05

                                  PAGE  53
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     STCK1       , VOL2
 ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       609574.09   4202097.70        0.18750  (10120324)               609589.09
 4202097.70        0.17433  (10120324)
       609604.09   4202097.70        0.16285  (12022704)               609619.09
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       609664.09   4202097.70        0.11870  (10121903)                609679.09
4202097.70        0.11108  (11011122)
       609694.09   4202097.70        0.10415  (11011122)                609709.09
4202097.70        0.09715  (09020423)
       609724.09   4202097.70        0.09496  (09020423)                608989.09
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       609004.09   4202112.70        0.15226  (10021223)                609019.09
4202112.70        0.15779  (10021223)
       609034.09   4202112.70        0.16560  (10021222)                609049.09
4202112.70        0.17730  (10021222)
       609064.09   4202112.70        0.18420  (10021222)                609079.09
4202112.70        0.19827  (10122204)
       609094.09   4202112.70        0.21014  (10122204)                609109.09
4202112.70        0.22323  (10011620)
       609124.09   4202112.70        0.22928  (10011620)                609139.09
4202112.70        0.21990  (10011620)
       609154.09   4202112.70        0.22239  (10011203)                609169.09
4202112.70        0.23391  (10011203)
       609184.09   4202112.70        0.25425  (10020603)                609199.09
4202112.70        0.27237  (09020508)
       609214.09   4202112.70        0.29166  (10120519)                609229.09
4202112.70        0.30787  (10121905)
       609244.09   4202112.70        0.32676  (10122508)                609259.09
4202112.70        0.34262  (10011607)
       609274.09   4202112.70        0.37406  (11010301)                609289.09
4202112.70        0.37638  (09123119)
       609304.09   4202112.70        0.39622  (10010301)                609319.09
4202112.70        0.43445  (09012222)
       609334.09   4202112.70        0.40454  (10010720)                609349.09
4202112.70        0.40401  (13022419)
       609364.09   4202112.70        0.43540  (09012323)                609379.09
4202112.70        0.42859  (09012120)
       609409.09   4202112.70        0.40131  (12120619)                609424.09
4202112.70        0.37997  (10121002)
       609439.09   4202112.70        0.36108  (09022304)                609454.09
4202112.70        0.32776  (09120624)
       609469.09   4202112.70        0.31589  (10011219)                609484.09
4202112.70        0.29259  (11123024)
       609499.09   4202112.70        0.26320  (13020419)                609514.09
4202112.70        0.25482  (13012505)
       609529.09   4202112.70        0.23111  (13012505)                609544.09
4202112.70        0.22040  (09122007)
       609559.09   4202112.70        0.20821  (10120324)                609574.09
4202112.70        0.18942  (12022704)
       609589.09   4202112.70        0.17762  (12022704)                609604.09
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       609619.09   4202112.70        0.15396  (10121903)                609634.09
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       609709.09   4202112.70        0.10236  (09020423)                609724.09
 4202112.70        0.09906  (11011323)
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       609019.09   4202127.70        0.16522  (10122201)                609034.09
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       609049.09   4202127.70        0.18021  (10021223)                609064.09
 4202127.70        0.18701  (10021222)
       609079.09   4202127.70        0.20265  (10021222)                609094.09
 4202127.70        0.21238  (10021222)
       609109.09   4202127.70        0.22972  (10122204)                609124.09
 4202127.70        0.24346  (10122204)
       609139.09   4202127.70        0.26057  (10011620)                609154.09
 4202127.70        0.26275  (10011620)
       609169.09   4202127.70        0.24767  (10011622)                609184.09
 4202127.70        0.26732  (10011203)
       609199.09   4202127.70        0.28719  (10011708)                609214.09
 4202127.70        0.31100  (09020508)
       609229.09   4202127.70        0.33496  (10120519)                609244.09
 4202127.70        0.35928  (10121905)
       609259.09   4202127.70        0.38256  (10122508)                609274.09
 4202127.70        0.41086  (10011607)
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:10:05

                                   PAGE  54
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     STCK1       , VOL2
 ,

                                             *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
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609289.09 4202127.70 0.42020 (11010301) 609304.09
4202127.70 0.44694 (09123119)
609319.09 4202127.70 0.49583 (09012222) 609334.09
4202127.70 0.48293 (10010720)
609349.09 4202127.70 0.46652 (13022419) 609364.09
4202127.70 0.49580 (09012323)
609379.09 4202127.70 0.49213 (09012120) 609409.09
4202127.70 0.44751 (12120619)
609424.09 4202127.70 0.41459 (09022304) 609439.09
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609079.09 4202142.70 0.20731 (10021223) 609094.09
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609109.09 4202142.70 0.23450 (10021222) 609124.09
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609139.09 4202142.70 0.27035 (10122204) 609154.09
4202142.70 0.28855 (10011620)
609169.09 4202142.70 0.30804 (10011620) 609184.09
4202142.70 0.30187 (10011620)
609199.09 4202142.70 0.30485 (10011203) 609214.09
4202142.70 0.32881 (10011708)
609229.09 4202142.70 0.35924 (09020508) 609244.09
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609259.09 4202142.70 0.42469 (10121905) 609274.09
4202142.70 0.44863 (10122508)

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 4202142.70        0.57719  (10010720)
       609349.09   4202142.70        0.54644  (12020204)               609364.09
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       609379.09   4202142.70        0.56157  (09012120)               609409.09
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       609424.09   4202142.70        0.47519  (11011324)               609439.09
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       609514.09   4202142.70        0.28445  (10120324)               609529.09
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       609544.09   4202142.70        0.23710  (10121903)               609559.09
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       609634.09   4202142.70        0.13993  (11011323)               609649.09
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       609664.09   4202142.70        0.12775  (11011323)               609679.09
 4202142.70        0.11964  (11011323)
       609694.09   4202142.70        0.11322  (12013024)               609709.09
 4202142.70        0.10727  (12012321)
       609724.09   4202142.70        0.10296  (10121022)               608974.09
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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:10:05

                                   PAGE  55
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     STCK1       , VOL2
 ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
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Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
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 4202157.70        0.16111  (09123103)
        609019.09   4202157.70        0.16898  (10122106)                 609034.09
 4202157.70        0.17892  (13010602)
        609049.09   4202157.70        0.19002  (12120523)                 609064.09
 4202157.70        0.20136  (13012320)
        609079.09   4202157.70        0.21421  (13012320)                 609094.09
 4202157.70        0.22791  (10122201)
        609109.09   4202157.70        0.24323  (10122201)                 609124.09
 4202157.70        0.25576  (10021223)
        609139.09   4202157.70        0.27548  (10021222)                 609154.09
 4202157.70        0.29630  (10021222)
        609169.09   4202157.70        0.32478  (10122204)                 609184.09
 4202157.70        0.35091  (10011620)
        609199.09   4202157.70        0.36824  (10011620)                 609214.09
 4202157.70        0.34705  (10011622)
        609229.09   4202157.70        0.37849  (10011708)                 609244.09
 4202157.70        0.42041  (09020508)
        609259.09   4202157.70        0.46346  (10121405)                 609274.09
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        609289.09   4202157.70        0.54136  (10011607)                 609304.09
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        609379.09   4202157.70        0.65060  (12012619)                 609409.09
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        609454.09   4202157.70        0.41441  (13020419)                 609469.09
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        609484.09   4202157.70        0.35561  (09122007)                 609499.09
 4202157.70        0.32348  (10120324)
        609514.09   4202157.70        0.29049  (12022704)                 609529.09
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        609544.09   4202157.70        0.23204  (10121903)                 609559.09
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 4202157.70        0.17444  (09020423)
        609604.09   4202157.70        0.16584  (11011323)                 609619.09
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        609634.09   4202157.70        0.14590  (11011323)                 609649.09
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        609664.09   4202157.70        0.12869  (12012321)                 609679.09
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        609694.09   4202157.70        0.11670  (10121022)                 609709.09
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       609004.09   4202172.70        0.16414  (12012005)               609019.09
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       609034.09   4202172.70        0.18261  (10010205)               609049.09
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       609094.09   4202172.70        0.23237  (12120523)               609109.09
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       609124.09   4202172.70        0.26664  (13012320)               609139.09
 4202172.70        0.28821  (10122201)
       609154.09   4202172.70        0.30720  (10021223)               609169.09
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       609184.09   4202172.70        0.36106  (10021222)               609199.09
 4202172.70        0.39938  (10122204)
       609214.09   4202172.70        0.43645  (10011620)               609229.09
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       609244.09   4202172.70        0.45137  (10011203)               609259.09
 4202172.70        0.50080  (10020603)
       609274.09   4202172.70        0.56182  (10121405)               609289.09
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       609304.09   4202172.70        0.68480  (10011607)               609319.09
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       609334.09   4202172.70        0.81865  (09012222)               609349.09
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       609364.09   4202172.70        0.78161  (09012323)               609379.09
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       609409.09   4202172.70        0.65581  (11011324)               609424.09
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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:10:05

                                   PAGE  56
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                   INCLUDING SOURCE(S):     STCK1       , VOL2
 ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS
***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609439.09	4202172.70	0.50644	(13012505)	609454.09	4202172.70	0.46563	(13012505)
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609499.09	4202172.70	0.33642	(10121903)	609514.09	4202172.70	0.29066	(10121903)
609529.09	4202172.70	0.24928	(11011122)	609544.09	4202172.70	0.22501	(12121308)
609559.09	4202172.70	0.21096	(11011323)	609574.09	4202172.70	0.19883	(11011323)
609589.09	4202172.70	0.18360	(11011323)	609604.09	4202172.70	0.16983	(12013024)
609619.09	4202172.70	0.15896	(10121022)	609634.09	4202172.70	0.15029	(10121022)
609649.09	4202172.70	0.14081	(10121022)	609664.09	4202172.70	0.13113	(13012506)
609679.09	4202172.70	0.12283	(13012506)	609694.09	4202172.70	0.11452	(13012506)
609709.09	4202172.70	0.10828	(11121423)	609724.09	4202172.70	0.10325	(09010202)
608959.09	4202187.70	0.14249	(12012524)	608974.09	4202187.70	0.15002	(12012524)
608989.09	4202187.70	0.15748	(12012524)	609004.09	4202187.70	0.16500	(09121618)
609019.09	4202187.70	0.17412	(09121618)	609034.09	4202187.70	0.18487	(12011923)
609049.09	4202187.70	0.19570	(12011923)	609064.09	4202187.70	0.20880	(12012005)
609079.09	4202187.70	0.22212	(10010205)	609094.09	4202187.70	0.23708	(10010205)
609109.09	4202187.70	0.25364	(09123103)	609124.09	4202187.70	0.27078	(10122106)
609139.09	4202187.70	0.29338	(12120523)	609154.09	4202187.70	0.31896	(13012320)
609169.09	4202187.70	0.34494	(13012320)	609184.09	4202187.70	0.37868	(10122201)
609199.09	4202187.70	0.40515	(10021223)	609214.09	4202187.70	0.45270	(10021222)
609229.09	4202187.70	0.50649	(10122204)	609244.09	4202187.70	0.55675	(10011620)
609259.09	4202187.70	0.54126	(10011203)	609274.09	4202187.70	0.61314	(10020603)
609409.09	4202187.70	0.75713	(10011219)	609424.09	4202187.70	0.63875	(13012505)

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       609439.09   4202187.70        0.56171  (09122007)               609454.09
 4202187.70        0.50462  (10120324)
       609469.09   4202187.70        0.44132  (10121903)               609484.09
 4202187.70        0.37807  (10121903)
       609499.09   4202187.70        0.31503  (11011122)               609514.09
 4202187.70        0.28318  (12121308)
       609529.09   4202187.70        0.26380  (11011323)               609544.09
 4202187.70        0.24117  (11011323)
       609559.09   4202187.70        0.21937  (12013024)               609574.09
 4202187.70        0.20362  (10121022)
       609589.09   4202187.70        0.18931  (10121022)               609604.09
 4202187.70        0.17425  (10121022)
       609619.09   4202187.70        0.16077  (13012506)               609634.09
 4202187.70        0.14800  (13012506)
       609649.09   4202187.70        0.13881  (09010202)               609664.09
 4202187.70        0.13102  (09010202)
       609679.09   4202187.70        0.12325  (09010202)               609694.09
 4202187.70        0.11566  (09010202)
       609709.09   4202187.70        0.10834  (09010202)               609724.09
 4202187.70        0.10154  (10021019)
       608959.09   4202202.70        0.14258  (09021723)               608974.09
 4202202.70        0.14992  (11121204)
       608989.09   4202202.70        0.15796  (11121204)               609004.09
 4202202.70        0.16617  (11121204)
       609019.09   4202202.70        0.17614  (09122008)               609034.09
 4202202.70        0.18651  (09122008)
       609049.09   4202202.70        0.19890  (12012524)               609064.09
 4202202.70        0.21178  (12012524)
       609079.09   4202202.70        0.22466  (12012524)               609094.09
 4202202.70        0.23982  (09121618)
       609109.09   4202202.70        0.25826  (12011923)               609124.09
 4202202.70        0.27849  (12012005)
       609139.09   4202202.70        0.30060  (10010205)               609154.09
 4202202.70        0.32603  (10010205)
       609169.09   4202202.70        0.35393  (09123103)               609184.09
 4202202.70        0.38764  (13010602)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:10:05

                                   PAGE  57
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     STCK1       , VOL2
 ,

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609199.09	4202202.70	0.42869	(13012320)	609214.09	4202202.70	0.47438	(10122201)
609229.09	4202202.70	0.52281	(10021223)	609244.09	4202202.70	0.58815	(10021222)
609259.09	4202202.70	0.66717	(10122204)	609274.09	4202202.70	0.72815	(10011620)
609409.09	4202202.70	0.83248	(13012505)	609424.09	4202202.70	0.71878	(09122007)
609439.09	4202202.70	0.60904	(12022704)	609454.09	4202202.70	0.51800	(10121903)
609469.09	4202202.70	0.41583	(11011122)	609484.09	4202202.70	0.37316	(11011323)
609499.09	4202202.70	0.33690	(11011323)	609514.09	4202202.70	0.29939	(12013024)
609529.09	4202202.70	0.27362	(10121022)	609544.09	4202202.70	0.24815	(10121022)
609559.09	4202202.70	0.22395	(13012506)	609574.09	4202202.70	0.20227	(13012506)
609589.09	4202202.70	0.18755	(09010202)	609604.09	4202202.70	0.17384	(09010202)
609619.09	4202202.70	0.16061	(09010202)	609634.09	4202202.70	0.14810	(09010202)
609649.09	4202202.70	0.13703	(10021019)	609664.09	4202202.70	0.12843	(10021019)
609679.09	4202202.70	0.12028	(10021019)	609694.09	4202202.70	0.11468	(11021923)
609709.09	4202202.70	0.10948	(11021923)	609724.09	4202202.70	0.10446	(11021923)
608959.09	4202217.70	0.14348	(09020523)	608974.09	4202217.70	0.15143	(09020523)
608989.09	4202217.70	0.15992	(09020523)	609004.09	4202217.70	0.16886	(09020523)
609019.09	4202217.70	0.17831	(09020523)	609034.09	4202217.70	0.18830	(09020523)
609049.09	4202217.70	0.20011	(09021723)	609064.09	4202217.70	0.21286	(09021723)
609079.09	4202217.70	0.22650	(11121204)	609094.09	4202217.70	0.24283	(11121204)
609109.09	4202217.70	0.26069	(09122008)	609124.09	4202217.70	0.28155	(09122008)
609139.09	4202217.70	0.30644	(12012524)	609154.09			

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 4202217.70        0.33290  (12012524)
       609169.09   4202217.70        0.36205  (09121618)               609184.09
 4202217.70        0.39801  (12011923)
       609199.09   4202217.70        0.43998  (12012005)               609214.09
 4202217.70        0.48796  (09123103)
       609229.09   4202217.70        0.54314  (13010602)               609244.09
 4202217.70        0.61578  (13012320)
       609259.09   4202217.70        0.69978  (10122201)               609274.09
 4202217.70        0.79688  (10021222)
       609484.09   4202217.70        0.39397  (10121022)               609499.09
 4202217.70        0.34400  (13012506)
       609514.09   4202217.70        0.30222  (09010202)               609529.09
 4202217.70        0.27328  (09010202)
       609544.09   4202217.70        0.24600  (09010202)               609559.09
 4202217.70        0.22097  (09010202)
       609574.09   4202217.70        0.19991  (10021019)               609589.09
 4202217.70        0.18563  (11021923)
       609604.09   4202217.70        0.17378  (11021923)               609619.09
 4202217.70        0.16265  (11021923)
       609634.09   4202217.70        0.15226  (11021923)               609649.09
 4202217.70        0.14257  (11021923)
       609664.09   4202217.70        0.13367  (11021923)               609679.09
 4202217.70        0.12587  (12121606)
       609694.09   4202217.70        0.11884  (12121606)               609709.09
 4202217.70        0.11232  (12121606)
       609724.09   4202217.70        0.10625  (12121606)               608959.09
 4202232.70        0.14551  (12120423)
       608974.09   4202232.70        0.15354  (12120423)               608989.09
 4202232.70        0.16225  (12120423)
       609004.09   4202232.70        0.17162  (12120423)               609019.09
 4202232.70        0.18178  (12120423)
       609034.09   4202232.70        0.19283  (12120423)               609049.09
 4202232.70        0.20487  (12120423)
       609064.09   4202232.70        0.21803  (12120423)               609079.09
 4202232.70        0.23223  (12120423)
       609094.09   4202232.70        0.24774  (12120423)               609109.09
 4202232.70        0.26476  (12120423)
       609124.09   4202232.70        0.28517  (09020523)               609139.09
 4202232.70        0.30984  (09020523)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:10:05

                                  PAGE  58
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                 INCLUDING SOURCE(S):     STCK1       , VOL2
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*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609154.09	4202232.70	0.33741	(09020523)	609169.09	4202232.70	0.36794	(09021723)
609184.09	4202232.70	0.40421	(09021723)	609199.09	4202232.70	0.44672	(11121204)
609214.09	4202232.70	0.49796	(09122008)	609229.09	4202232.70	0.56130	(12012524)
609244.09	4202232.70	0.63188	(09121618)	609259.09	4202232.70	0.72059	(12012005)
609274.09	4202232.70	0.82451	(09123103)	609424.09	4202232.70	0.74982	(10121022)
609439.09	4202232.70	0.62621	(10121022)	609454.09	4202232.70	0.52335	(09010202)
609469.09	4202232.70	0.44873	(09010202)	609484.09	4202232.70	0.38414	(09010202)
609499.09	4202232.70	0.34337	(11021923)	609514.09	4202232.70	0.30840	(11021923)
609529.09	4202232.70	0.27771	(11021923)	609544.09	4202232.70	0.25132	(12121606)
609559.09	4202232.70	0.22912	(12121606)	609574.09	4202232.70	0.20954	(12121606)
609589.09	4202232.70	0.19295	(12013101)	609604.09	4202232.70	0.17923	(12013101)
609619.09	4202232.70	0.16684	(12013101)	609634.09	4202232.70	0.15570	(12013101)
609649.09	4202232.70	0.14566	(12013101)	609664.09	4202232.70	0.13659	(12013101)
609679.09	4202232.70	0.12838	(12013101)	609694.09	4202232.70	0.12088	(12013101)
609709.09	4202232.70	0.11405	(12013101)	609724.09	4202232.70	0.10781	(12013101)
608959.09	4202247.70	0.14168	(10013006)	608974.09	4202247.70	0.14930	(10013006)
608989.09	4202247.70	0.15762	(10013006)	609004.09	4202247.70	0.16667	(10013006)
609019.09	4202247.70	0.17659	(10013006)	609034.09	4202247.70	0.18751	(10013006)
609049.09	4202247.70	0.19959	(10013006)	609064.09	4202247.70	0.21306	(10013006)

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       609079.09   4202247.70        0.22794  (10013006)               609094.09
 4202247.70        0.24458  (10013006)
       609109.09   4202247.70        0.26342  (10013006)               609124.09
 4202247.70        0.28472  (10013006)
       609139.09   4202247.70        0.30894  (10013006)               609154.09
 4202247.70        0.33707  (10121319)
       609169.09   4202247.70        0.37046  (10121319)               609184.09
 4202247.70        0.40892  (10121319)
       609199.09   4202247.70        0.45415  (12120423)               609214.09
 4202247.70        0.50905  (12120423)
       609229.09   4202247.70        0.57388  (12120423)               609244.09
 4202247.70        0.65035  (12120423)
       609259.09   4202247.70        0.74009  (12120423)               609274.09
 4202247.70        0.84417  (12120423)
       609424.09   4202247.70        0.75462  (12013101)               609439.09
 4202247.70        0.63404  (12013101)
       609454.09   4202247.70        0.53875  (12013101)               609469.09
 4202247.70        0.46306  (12013101)
       609484.09   4202247.70        0.40276  (12013101)               609499.09
 4202247.70        0.35364  (12013101)
       609514.09   4202247.70        0.31307  (12013101)               609529.09
 4202247.70        0.27940  (12013101)
       609544.09   4202247.70        0.25112  (12013101)               609559.09
 4202247.70        0.22713  (12013101)
       609574.09   4202247.70        0.20664  (12013101)               609589.09
 4202247.70        0.18909  (13120318)
       609604.09   4202247.70        0.17442  (13120318)               609619.09
 4202247.70        0.16160  (11122517)
       609634.09   4202247.70        0.15034  (11122517)               609649.09
 4202247.70        0.14039  (11122517)
       609664.09   4202247.70        0.13150  (11122517)               609679.09
 4202247.70        0.12350  (11122517)
       609694.09   4202247.70        0.11629  (11122517)               609709.09
 4202247.70        0.10976  (11122517)
       609724.09   4202247.70        0.10391  (12121805)               608959.09
 4202262.70        0.14416  (10021206)
       608974.09   4202262.70        0.15188  (10021206)               608989.09
 4202262.70        0.16032  (10021206)
       609004.09   4202262.70        0.16948  (10021206)               609019.09
 4202262.70        0.17952  (10021206)
       609034.09   4202262.70        0.19057  (10021206)               609049.09
 4202262.70        0.20279  (10021206)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:10:05

                                  PAGE  59
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN
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*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , VOL2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609064.09	4202262.70	0.21640	(10021206)	609079.09	4202262.70	0.23142	(10021206)
609094.09	4202262.70	0.24821	(10021206)	609109.09	4202262.70	0.26721	(10021206)
609124.09	4202262.70	0.28869	(10021206)	609139.09	4202262.70	0.31310	(10021206)
609154.09	4202262.70	0.34109	(10021206)	609169.09	4202262.70	0.37334	(10021206)
609184.09	4202262.70	0.41098	(10021206)	609199.09	4202262.70	0.45446	(10021206)
609214.09	4202262.70	0.50579	(12012004)	609229.09	4202262.70	0.57030	(12012004)
609244.09	4202262.70	0.64668	(12012004)	609259.09	4202262.70	0.73671	(12012004)
609274.09	4202262.70	0.84354	(09020604)	609424.09	4202262.70	0.74314	(10011408)
609439.09	4202262.70	0.62271	(10011408)	609454.09	4202262.70	0.52614	(10011408)
609469.09	4202262.70	0.44908	(10011408)	609484.09	4202262.70	0.38734	(10011408)
609499.09	4202262.70	0.34009	(13120321)	609514.09	4202262.70	0.30387	(13120321)
609529.09	4202262.70	0.27347	(13120321)	609544.09	4202262.70	0.24793	(13120321)
609559.09	4202262.70	0.22585	(13120321)	609574.09	4202262.70	0.20683	(13120321)
609589.09	4202262.70	0.19035	(11021322)	609604.09	4202262.70	0.17622	(11021322)
609619.09	4202262.70	0.16364	(11021322)	609634.09	4202262.70	0.15250	(11021322)
609649.09	4202262.70	0.14264	(11021322)	609664.09	4202262.70	0.13381	(11021322)
609679.09	4202262.70	0.12586	(11021322)	609694.09	4202262.70	0.11868	(11021322)
609709.09	4202262.70	0.11217	(11021322)	609724.09			

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 4202262.70        0.10630  (11021322)
       609424.09   4202277.70        0.71842  (11121823)               609439.09
 4202277.70        0.60766  (11121823)
       609454.09   4202277.70        0.50595  (09010806)               609469.09
 4202277.70        0.43406  (13022001)
       609484.09   4202277.70        0.38276  (10122719)               609499.09
 4202277.70        0.34012  (10122719)
       609514.09   4202277.70        0.30262  (10122719)               609529.09
 4202277.70        0.27416  (10011408)
       609544.09   4202277.70        0.24993  (10011408)               609559.09
 4202277.70        0.22845  (10011408)
       609574.09   4202277.70        0.20932  (10011408)               609589.09
 4202277.70        0.19235  (10011408)
       609604.09   4202277.70        0.17724  (10011408)               609619.09
 4202277.70        0.16371  (10011408)
       609634.09   4202277.70        0.15163  (10011408)               609649.09
 4202277.70        0.14083  (10011408)
       609664.09   4202277.70        0.13151  (10010603)               609679.09
 4202277.70        0.12331  (10010603)
       609694.09   4202277.70        0.11585  (10010603)               609709.09
 4202277.70        0.10905  (10010603)
       609724.09   4202277.70        0.10310  (13120321)               609409.09
 4202322.70        0.86907  (12120506)
       609424.09   4202322.70        0.76499  (09022423)               609439.09
 4202322.70        0.66888  (09122922)
       609454.09   4202322.70        0.59526  (10122817)               609469.09
 4202322.70        0.52397  (11123023)
       609484.09   4202322.70        0.41467  (11123023)               609499.09
 4202322.70        0.32245  (12020722)
       609514.09   4202322.70        0.28838  (09012121)               609529.09
 4202322.70        0.25567  (11010118)
       609544.09   4202322.70        0.22498  (12021821)               609559.09
 4202322.70        0.21031  (11121823)
       609574.09   4202322.70        0.19868  (11121823)               609589.09
 4202322.70        0.18540  (11121823)
       609604.09   4202322.70        0.17130  (11121823)               609619.09
 4202322.70        0.15704  (11121823)
       609634.09   4202322.70        0.14474  (09010806)               609649.09
 4202322.70        0.13738  (13022001)
       609664.09   4202322.70        0.12999  (13022001)               609679.09
 4202322.70        0.12261  (13022001)
       609694.09   4202322.70        0.11535  (13022001)               609409.09
 4202337.70        0.79029  (13020722)
       609424.09   4202337.70        0.69531  (10012518)               609439.09
 4202337.70        0.62653  (09022423)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                       ***       11:10:05
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , VOL2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609454.09	4202337.70	0.56125	(09122922)	609469.09	4202337.70	0.50815	(10122817)
609484.09	4202337.70	0.45725	(11123023)	609499.09	4202337.70	0.39814	(11123023)
609514.09	4202337.70	0.31564	(11123023)	609529.09	4202337.70	0.25485	(12020722)
609544.09	4202337.70	0.23266	(09012121)	609559.09	4202337.70	0.21078	(11010118)
609574.09	4202337.70	0.18985	(12021821)	609589.09	4202337.70	0.17010	(12021821)
609604.09	4202337.70	0.16176	(11121823)	609619.09	4202337.70	0.15500	(11121823)
609634.09	4202337.70	0.14690	(11121823)	609649.09	4202337.70	0.13798	(11121823)
609664.09	4202337.70	0.12873	(11121823)	609679.09	4202337.70	0.11957	(09010806)
609694.09	4202337.70	0.11178	(09010806)	609709.09	4202337.70	0.10698	(13022001)
609724.09	4202337.70	0.10255	(13022001)	609409.09	4202352.70	0.71913	(12120608)
609424.09	4202352.70	0.64184	(09022424)	609439.09	4202352.70	0.56935	(10012518)
609454.09	4202352.70	0.52166	(09022423)	609469.09	4202352.70	0.47457	(09021721)
609484.09	4202352.70	0.42734	(10122817)	609499.09	4202352.70	0.39523	(10122817)
609514.09	4202352.70	0.36271	(11123023)	609529.09	4202352.70	0.31149	(11123023)
609544.09	4202352.70	0.24819	(11123023)	609559.09	4202352.70	0.20783	(12020722)
609574.09	4202352.70	0.19239	(09012121)	609589.09	4202352.70	0.17685	(11010118)

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       609604.09   4202352.70        0.16183  (12021821)               609619.09
 4202352.70        0.14836  (12021821)
       609634.09   4202352.70        0.13393  (12021821)               609649.09
 4202352.70        0.12906  (11121823)
       609664.09   4202352.70        0.12485  (11121823)               609679.09
 4202352.70        0.11975  (11121823)
       609694.09   4202352.70        0.11397  (11121823)               609709.09
 4202352.70        0.10774  (11121823)
       609724.09   4202352.70        0.10153  (11121823)               609409.09
 4202367.70        0.63493  (10022423)
       609424.09   4202367.70        0.56719  (12120608)               609439.09
 4202367.70        0.53886  (12120506)
       609454.09   4202367.70        0.47542  (10012518)               609469.09
 4202367.70        0.44169  (09022423)
       609484.09   4202367.70        0.40624  (09021721)               609499.09
 4202367.70        0.37148  (09122922)
       609514.09   4202367.70        0.34994  (10122817)               609529.09
 4202367.70        0.32007  (11123023)
       609544.09   4202367.70        0.29321  (11123023)               609559.09
 4202367.70        0.24989  (11123023)
       609574.09   4202367.70        0.20023  (11123023)               609589.09
 4202367.70        0.17345  (12020722)
       609604.09   4202367.70        0.16209  (09012121)               609619.09
 4202367.70        0.15102  (09012121)
       609634.09   4202367.70        0.14004  (11010118)               609649.09
 4202367.70        0.12951  (12021821)
       609664.09   4202367.70        0.11923  (12021821)               609679.09
 4202367.70        0.10860  (12021821)
       609694.09   4202367.70        0.10626  (11121823)               609709.09
 4202367.70        0.10360  (11121823)
       609724.09   4202367.70        0.10049  (11121823)               609394.09
 4202382.70        0.58734  (09022220)
       609409.09   4202382.70        0.56020  (09022307)               609424.09
 4202382.70        0.52790  (12120608)
       609439.09   4202382.70        0.47862  (13020722)               609454.09
 4202382.70        0.45658  (12120506)
       609469.09   4202382.70        0.40354  (10012518)               609484.09
 4202382.70        0.37966  (09022423)
       609499.09   4202382.70        0.35065  (09021721)               609514.09
 4202382.70        0.32976  (09122922)
       609529.09   4202382.70        0.30648  (10122817)               609544.09
 4202382.70        0.28498  (10122817)
       609559.09   4202382.70        0.26753  (11123023)               609574.09
 4202382.70        0.24075  (11123023)
       609589.09   4202382.70        0.20389  (11123023)               609604.09
 4202382.70        0.16448  (11123023)
       609619.09   4202382.70        0.14746  (12020722)               609634.09
 4202382.70        0.13933  (12020722)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
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*** THE   1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   STCK1   , VOL2
,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609649.09	4202382.70	0.13094	(09012121)	609664.09	4202382.70	0.12249	(11010118)
609679.09	4202382.70	0.11429	(12021821)	609694.09	4202382.70	0.10685	(12021821)
609709.09	4202382.70	0.09883	(12021821)	609724.09	4202382.70	0.09137	(13012303)
609394.09	4202397.70	0.52926	(09022220)	609409.09	4202397.70	0.49763	(12021206)
609424.09	4202397.70	0.47557	(12021724)	609439.09	4202397.70	0.44570	(12120608)
609454.09	4202397.70	0.41112	(13020722)	609469.09	4202397.70	0.38976	(12120506)
609484.09	4202397.70	0.34729	(10012518)	609499.09	4202397.70	0.33064	(09022423)
609514.09	4202397.70	0.30877	(09022423)	609529.09	4202397.70	0.29299	(09122922)
609544.09	4202397.70	0.26686	(10122817)	609559.09	4202397.70	0.25859	(10122817)
609574.09	4202397.70	0.23857	(12121607)	609589.09	4202397.70	0.22474	(11123023)
609604.09	4202397.70	0.20028	(11123023)	609619.09	4202397.70	0.16987	(11123023)
609634.09	4202397.70	0.13807	(11123023)	609649.09	4202397.70	0.12766	(12020722)
609664.09	4202397.70	0.12167	(12020722)	609679.09	4202397.70	0.11509	(09012121)
609694.09	4202397.70	0.10825	(11010118)	609709.09	4202397.70	0.10191	(11010118)
609724.09	4202397.70	0.09635	(12021821)	609394.09			

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4202412.70        0.46282  (09022220)
       609409.09   4202412.70        0.42713  (12021206)               609424.09
4202412.70        0.42942  (09022307)
       609439.09   4202412.70        0.40442  (12120608)               609454.09
4202412.70        0.36593  (12120608)
       609469.09   4202412.70        0.35922  (09022424)               609484.09
4202412.70        0.33508  (12120506)
       609499.09   4202412.70        0.30242  (10012518)               609514.09
4202412.70        0.29121  (09022423)
       609529.09   4202412.70        0.27639  (09022423)               609544.09
4202412.70        0.26075  (09021721)
       609559.09   4202412.70        0.24002  (09122922)               609574.09
4202412.70        0.23205  (10122817)
       609589.09   4202412.70        0.21660  (10122817)               609604.09
4202412.70        0.20610  (11123023)
       609619.09   4202412.70        0.19160  (11123023)               609634.09
4202412.70        0.16961  (11123023)
       609649.09   4202412.70        0.14387  (11123023)               609664.09
4202412.70        0.11768  (11123023)
       609679.09   4202412.70        0.11200  (12020722)               609694.09
4202412.70        0.10749  (12020722)
       609709.09   4202412.70        0.10213  (09012121)               609724.09
4202412.70        0.09673  (09012121)
       609394.09   4202427.70        0.40651  (10121808)               609409.09
4202427.70        0.39605  (09022220)
       609424.09   4202427.70        0.38706  (12021206)               609439.09
4202427.70        0.37370  (12021724)
       609454.09   4202427.70        0.35767  (12120608)               609469.09
4202427.70        0.32724  (13020722)
       609484.09   4202427.70        0.31888  (12120506)               609499.09
4202427.70        0.29005  (12120506)
       609514.09   4202427.70        0.26604  (10012518)               609529.09
4202427.70        0.25898  (09022423)
       609544.09   4202427.70        0.24878  (09022423)               609559.09
4202427.70        0.23510  (09021721)
       609574.09   4202427.70        0.22058  (09122922)               609589.09
4202427.70        0.20790  (10122817)
       609604.09   4202427.70        0.20066  (10122817)               609619.09
4202427.70        0.18745  (12121607)
       609634.09   4202427.70        0.17954  (11123023)               609649.09
4202427.70        0.16494  (11123023)
       609664.09   4202427.70        0.14530  (11123023)               609679.09
4202427.70        0.12338  (11123023)
       609694.09   4202427.70        0.10213  (10032505)               609709.09
4202427.70        0.09933  (12020722)
       609724.09   4202427.70        0.09587  (12020722)               609439.09
4202472.70        0.28793  (12021206)
       609454.09   4202472.70        0.28243  (09022307)               609469.09
4202472.70        0.26929  (10022423)
       609484.09   4202472.70        0.26040  (12120608)               609499.09
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , VOL2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609514.09	4202472.70	0.23726	(09022424)	609529.09	4202472.70	0.22903	(12120506)
609544.09	4202472.70	0.21172	(10012518)	609559.09	4202472.70	0.19226	(13011002)
609574.09	4202472.70	0.19078	(09022423)	609589.09	4202472.70	0.18842	(09022423)
609604.09	4202472.70	0.17652	(09021721)	609619.09	4202472.70	0.17079	(09122922)
609634.09	4202472.70	0.16074	(09122922)	609649.09	4202472.70	0.15334	(10122817)
609664.09	4202472.70	0.15111	(10122817)	609679.09	4202472.70	0.14193	(10122817)
609694.09	4202472.70	0.13691	(11123023)	609319.09	4202487.70	0.33303	(09022320)
609334.09	4202487.70	0.32062	(10012801)	609349.09	4202487.70	0.34147	(10120908)
609364.09	4202487.70	0.30238	(10121108)	609394.09	4202487.70	0.28822	(10011724)
609409.09	4202487.70	0.27229	(11122819)	609424.09	4202487.70	0.27610	(09022220)
609439.09	4202487.70	0.25881	(12021206)	609454.09	4202487.70	0.25879	(10020523)
609469.09	4202487.70	0.25379	(12021724)	609484.09	4202487.70	0.24518	(12120608)
609499.09	4202487.70	0.22644	(12120608)	609514.09	4202487.70	0.22206	(13020722)

609529.09 4202487.70 0.21651 (12120506) 609544.09
4202487.70 0.20585 (12120506)
609559.09 4202487.70 0.19266 (10012518) 609574.09
4202487.70 0.17554 (13011002)
609589.09 4202487.70 0.17449 (09022423) 609604.09
4202487.70 0.17332 (09022423)
609619.09 4202487.70 0.16144 (09021721) 609634.09
4202487.70 0.15799 (09021721)
609649.09 4202487.70 0.15087 (09122922) 609664.09
4202487.70 0.13944 (10122817)
609679.09 4202487.70 0.14012 (10122817) 609184.09
4202502.70 0.23260 (11122707)
609199.09 4202502.70 0.24236 (09012124) 609214.09
4202502.70 0.25550 (10010218)
609229.09 4202502.70 0.24946 (10010218) 609244.09
4202502.70 0.25777 (11011921)
609259.09 4202502.70 0.27942 (10121308) 609274.09
4202502.70 0.29116 (10122619)
609289.09 4202502.70 0.29260 (10010508) 609304.09
4202502.70 0.29434 (11123003)
609319.09 4202502.70 0.30773 (09022320) 609334.09
4202502.70 0.29800 (10012801)
609349.09 4202502.70 0.31398 (10120908) 609364.09
4202502.70 0.27840 (10121108)
609394.09 4202502.70 0.26754 (10011724) 609409.09
4202502.70 0.25713 (10121808)
609424.09 4202502.70 0.25767 (09022220) 609439.09
4202502.70 0.23853 (12122101)
609454.09 4202502.70 0.24225 (12021206) 609469.09
4202502.70 0.23798 (09022307)
609484.09 4202502.70 0.22847 (10022423) 609499.09
4202502.70 0.22323 (12120608)
609514.09 4202502.70 0.20045 (10021424) 609529.09
4202502.70 0.20237 (13020722)
609544.09 4202502.70 0.19941 (12120506) 609559.09
4202502.70 0.18547 (12120506)
609574.09 4202502.70 0.17610 (10012518) 609589.09
4202502.70 0.16110 (13011002)
609604.09 4202502.70 0.16036 (09022423) 609619.09
4202502.70 0.16022 (09022423)
609634.09 4202502.70 0.14897 (09022423) 609649.09
4202502.70 0.14712 (09021721)
609664.09 4202502.70 0.14132 (09122922) 609064.09
4202517.70 0.16370 (12012006)
609079.09 4202517.70 0.17087 (12012006) 609094.09
4202517.70 0.17551 (09122817)
609109.09 4202517.70 0.17432 (13122319) 609124.09
4202517.70 0.18012 (13012924)
609139.09 4202517.70 0.19834 (09021623) 609154.09
4202517.70 0.20410 (11121408)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , VOL2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609229.09	4202517.70	0.23135	(13120920)	609244.09	4202517.70	0.24861	(12122821)
609259.09	4202517.70	0.26427	(10121308)	609274.09	4202517.70	0.26956	(09121604)
609289.09	4202517.70	0.27355	(11123003)	609304.09	4202517.70	0.26938	(09011124)
609319.09	4202517.70	0.28387	(09022320)	609334.09	4202517.70	0.27771	(10012801)
609349.09	4202517.70	0.29029	(10120908)	609364.09	4202517.70	0.25746	(10121108)
609409.09	4202517.70	0.24310	(10121808)	609424.09	4202517.70	0.23701	(09022220)
609439.09	4202517.70	0.22416	(09022220)	609454.09	4202517.70	0.22351	(12021206)
609469.09	4202517.70	0.22029	(10020523)	609484.09	4202517.70	0.21616	(12021724)
609499.09	4202517.70	0.20833	(12120608)	609514.09	4202517.70	0.19913	(12120608)
609529.09	4202517.70	0.18843	(13020722)	609544.09	4202517.70	0.18592	(11010201)
609559.09	4202517.70	0.18349	(12120506)	609574.09	4202517.70	0.16806	(10122303)
609589.09	4202517.70	0.16161	(10012518)	609604.09			

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4202517.70        0.14853  (13011002)
       609619.09   4202517.70        0.14808  (09022423)                609634.09
4202517.70        0.14864  (09022423)
       609649.09   4202517.70        0.13951  (09022423)                609079.09
4202532.70        0.16299  (09122817)
       609094.09   4202532.70        0.16190  (13122319)                609109.09
4202532.70        0.16719  (13012924)
       609124.09   4202532.70        0.18211  (09021623)                609139.09
4202532.70        0.18918  (11121408)
       609154.09   4202532.70        0.19763  (12122304)                609169.09
4202532.70        0.20352  (11021706)
       609184.09   4202532.70        0.21249  (09012124)                609199.09
4202532.70        0.22066  (10010218)
       609214.09   4202532.70        0.21211  (10010218)                609229.09
4202532.70        0.21795  (11011921)
       609244.09   4202532.70        0.23439  (12122821)                609259.09
4202532.70        0.24446  (10122619)
       609274.09   4202532.70        0.24858  (09121604)                609289.09
4202532.70        0.25735  (11123003)
       609304.09   4202532.70        0.24839  (09011124)                609319.09
4202532.70        0.26239  (11012907)
       609334.09   4202532.70        0.25942  (10012801)                609349.09
4202532.70        0.26956  (10120908)
       609364.09   4202532.70        0.23900  (10121108)                609409.09
4202532.70        0.22824  (10121808)
       609424.09   4202532.70        0.21561  (09022220)                609439.09
4202532.70        0.21633  (09022220)
       609454.09   4202532.70        0.20197  (12122101)                609469.09
4202532.70        0.20625  (12021206)
       609484.09   4202532.70        0.20401  (09022307)                609499.09
4202532.70        0.19711  (10022423)
       609514.09   4202532.70        0.19343  (12120608)                609529.09
4202532.70        0.17492  (12120608)
       609544.09   4202532.70        0.17591  (13020722)                609559.09
4202532.70        0.17213  (09022424)
       609574.09   4202532.70        0.16881  (12120506)                609589.09
4202532.70        0.15533  (10012518)
       609604.09   4202532.70        0.14886  (10012518)                609619.09
4202532.70        0.13752  (13011002)
       609094.09   4202547.70        0.15562  (13012924)                609109.09
4202547.70        0.16745  (09021623)
       609124.09   4202547.70        0.17510  (11121408)                609139.09
4202547.70        0.18239  (12122304)
       609154.09   4202547.70        0.18699  (11122707)                609169.09
4202547.70        0.19392  (11021706)
       609184.09   4202547.70        0.20058  (09012124)                609199.09
4202547.70        0.20567  (10010218)
       609214.09   4202547.70        0.19979  (13120920)                609229.09
4202547.70        0.21145  (12122821)
       609244.09   4202547.70        0.22565  (10121308)                609259.09
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*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , VOL2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609364.09	4202547.70	0.22257	(10121108)	609409.09	4202547.70	0.21307	(10121808)
609424.09	4202547.70	0.20006	(11122819)	609439.09	4202547.70	0.20546	(09022220)
609454.09	4202547.70	0.19159	(12122101)	609469.09	4202547.70	0.19437	(12021206)
609484.09	4202547.70	0.19028	(10020523)	609499.09	4202547.70	0.18717	(12021724)
609514.09	4202547.70	0.17951	(12120608)	609529.09	4202547.70	0.17608	(12120608)
609544.09	4202547.70	0.16027	(10021424)	609559.09	4202547.70	0.16311	(13020722)
609574.09	4202547.70	0.15976	(09022424)	609589.09	4202547.70	0.15535	(12120506)
609109.09	4202562.70	0.16282	(09021623)	609124.09	4202562.70	0.16769	(12122304)
609139.09	4202562.70	0.17187	(12122304)	609154.09	4202562.70	0.18069	(11021706)
609169.09	4202562.70	0.18745	(09012124)	609184.09	4202562.70	0.19349	(10010218)

609199.09 4202562.70 0.18378 (10010218) 609214.09 4202562.70 0.18748 (11011921)
609229.09 4202562.70 0.20367 (12122821) 609244.09 4202562.70 0.21373 (10121308)
609259.09 4202562.70 0.21740 (09121604) 609274.09 4202562.70 0.21809 (10010508)
609289.09 4202562.70 0.22218 (11123003) 609304.09 4202562.70 0.22358 (09022320)
609319.09 4202562.70 0.22837 (11012907) 609334.09 4202562.70 0.22810 (10012801)
609349.09 4202562.70 0.23443 (10120908) 609364.09 4202562.70 0.20788 (10121108)
609409.09 4202562.70 0.19807 (10121808) 609424.09 4202562.70 0.18871 (10121808)
609439.09 4202562.70 0.19263 (09022220) 609454.09 4202562.70 0.17994 (09022220)
609469.09 4202562.70 0.17906 (12021206) 609484.09 4202562.70 0.17764 (12021206)
609499.09 4202562.70 0.17754 (09022307) 609514.09 4202562.70 0.17242 (10022423)
609529.09 4202562.70 0.16927 (12120608) 609544.09 4202562.70 0.15784 (12120608)
609559.09 4202562.70 0.15230 (13020722) 609574.09 4202562.70 0.15121 (11010201)
609124.09 4202577.70 0.16195 (12122304) 609139.09 4202577.70 0.16648 (11021706)
609154.09 4202577.70 0.17198 (09012124) 609169.09 4202577.70 0.17727 (10010218)
609184.09 4202577.70 0.17989 (10010218) 609199.09 4202577.70 0.17528 (13120920)
609214.09 4202577.70 0.18294 (11011921) 609229.09 4202577.70 0.19376 (10121308)
609244.09 4202577.70 0.20024 (10122619) 609259.09 4202577.70 0.20412 (09121604)
609274.09 4202577.70 0.20691 (11123003) 609289.09 4202577.70 0.20435 (11123003)
609304.09 4202577.70 0.21270 (09022320) 609319.09 4202577.70 0.21313 (11012907)
609334.09 4202577.70 0.21468 (10012801) 609349.09 4202577.70 0.21988 (10120908)
609364.09 4202577.70 0.19526 (10120908) 609409.09 4202577.70 0.18575 (10011724)
609424.09 4202577.70 0.18162 (10121808) 609439.09 4202577.70 0.17875 (09022220)
609454.09 4202577.70 0.17543 (09022220) 609469.09 4202577.70 0.16625 (12122101)
609484.09 4202577.70 0.17023 (12021206) 609499.09 4202577.70 0.16732 (09022307)
609514.09 4202577.70 0.16425 (12021724) 609529.09 4202577.70 0.15652 (12120608)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): STCK1 , VOL2 ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

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

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609544.09	4202577.70	0.15663	(12120608)	609139.09	4202592.70	0.16017	(11021706)
609154.09	4202592.70	0.16596	(09012124)	609169.09	4202592.70	0.17093	(10010218)
609184.09	4202592.70	0.16171	(13120920)	609199.09	4202592.70	0.16331	(11011921)
609214.09	4202592.70	0.17831	(12122821)	609229.09	4202592.70	0.18761	(10121308)
609244.09	4202592.70	0.19168	(10122619)	609259.09	4202592.70	0.19002	(10010508)
609274.09	4202592.70	0.19764	(11123003)	609289.09	4202592.70	0.19189	(09011124)
609304.09	4202592.70	0.20182	(09022320)	609319.09	4202592.70	0.19898	(11012907)
609334.09	4202592.70	0.20246	(10012801)	609349.09	4202592.70	0.20687	(10120908)
609364.09	4202592.70	0.18422	(10120908)	609409.09	4202592.70	0.17594	(10011724)
609424.09	4202592.70	0.17371	(10121808)	609439.09	4202592.70	0.16472	(11122819)
609454.09	4202592.70	0.16870	(09022220)	609469.09	4202592.70	0.15839	(12122101)
609484.09	4202592.70	0.15969	(12021206)	609499.09	4202592.70	0.15712	(10020523)
609514.09	4202592.70	0.15637	(09022307)	609529.09	4202592.70	0.15255	(10022423)
609169.09	4202607.70	0.15881	(10010218)	609184.09			

```
 4202607.70        0.15542  (13120920)
       609199.09   4202607.70        0.16101  (11011921)               609214.09
 4202607.70        0.17007  (12122821)
       609229.09   4202607.70        0.17785  (10121308)               609244.09
 4202607.70        0.18059  (09121604)
       609259.09   4202607.70        0.18146  (10010508)               609274.09
 4202607.70        0.18719  (11123003)
       609289.09   4202607.70        0.18050  (09011124)               609304.09
 4202607.70        0.19112  (09022320)
       609319.09   4202607.70        0.18589  (11012907)               609334.09
 4202607.70        0.19127  (10012801)
       609349.09   4202607.70        0.19512  (10120908)               609364.09
 4202607.70        0.17429  (10120908)
       609409.09   4202607.70        0.16641  (10011724)               609424.09
 4202607.70        0.16534  (10121808)
       609439.09   4202607.70        0.15554  (11122819)               609454.09
 4202607.70        0.16039  (09022220)
       609469.09   4202607.70        0.14908  (09020906)               609484.09
 4202607.70        0.14715  (12021206)
       609499.09   4202607.70        0.15016  (12021206)               609199.09
 4202622.70        0.15718  (12122821)
       609214.09   4202622.70        0.16474  (10121308)               609229.09
 4202622.70        0.16820  (10122619)
       609244.09   4202622.70        0.17157  (09121604)               609259.09
 4202622.70        0.17149  (10010508)
       609274.09   4202622.70        0.17605  (11123003)               609289.09
 4202622.70        0.16958  (12122303)
       609304.09   4202622.70        0.18071  (09022320)               609319.09
 4202622.70        0.17378  (11012907)
       609334.09   4202622.70        0.18101  (10012801)               609349.09
 4202622.70        0.18446  (10120908)
       609364.09   4202622.70        0.16525  (10120908)               609409.09
 4202622.70        0.15712  (10011724)
       609424.09   4202622.70        0.15672  (10121808)               609439.09
 4202622.70        0.14596  (11122819)
       609454.09   4202622.70        0.15106  (09022220)               609469.09
 4202622.70        0.14587  (09022220)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:10:05

                                  PAGE  66
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                  *** THE SUMMARY OF MAXIMUM ANNUAL RESULTS
AVERAGED OVER   5 YEARS ***


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

```
               **


                         NETWORK
GROUP ID                       AVERAGE CONC                RECEPTOR  (XR, YR,
ZELEV, ZHILL, ZFLAG)  OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -

ALL       1ST HIGHEST VALUE IS       0.07724 AT (  609424.09,  4202247.70,
40.00,    40.00,    0.00)  DC
          2ND HIGHEST VALUE IS       0.07371 AT (  609424.09,  4202232.70,
40.00,    40.00,    0.00)  DC
          3RD HIGHEST VALUE IS       0.07285 AT (  609424.09,  4202262.70,
40.00,    40.00,    0.00)  DC
          4TH HIGHEST VALUE IS       0.06383 AT (  609424.09,  4202277.70,
40.00,    40.00,    0.00)  DC
          5TH HIGHEST VALUE IS       0.05706 AT (  609439.09,  4202247.70,
40.00,    40.00,    0.00)  DC
          6TH HIGHEST VALUE IS       0.05610 AT (  609439.09,  4202232.70,
40.00,    40.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.05523 AT (  609409.09,  4202202.70,
40.02,    40.02,    0.00)  DC
          8TH HIGHEST VALUE IS       0.05368 AT (  609439.09,  4202262.70,
40.00,    40.00,    0.00)  DC
          9TH HIGHEST VALUE IS       0.05081 AT (  609274.09,  4202232.70,
41.00,    41.00,    0.00)  DC
         10TH HIGHEST VALUE IS       0.04982 AT (  609424.09,  4202202.70,
40.03,    40.03,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                        ***       11:10:05

                                   PAGE  67
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                                ***  THE SUMMARY OF HIGHEST  1-HR
RESULTS ***


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

```
                                                        DATE
                                        NETWORK
GROUP ID                          AVERAGE CONC     (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS       0.86907  ON 12120506: AT (  609409.09,
4202322.70,    40.00,    40.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_OnsiteFuel\5200LoneTree_OnsiteFuel ***        10/22/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:10:05

                                  PAGE  68
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

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

 A Total of            0 Fatal Error Message(s)
 A Total of            1 Warning Message(s)
 A Total of        15235 Informational Message(s)

 A Total of        43872 Hours Were Processed

 A Total of        13448 Calm Hours Identified

 A Total of         1787 Missing Hours Identified (  4.07 Percent)


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


    ********   WARNING MESSAGES   ********
 MX W481   43873         MAIN: Data Remaining After End of Year. Number of Hours=
        48

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

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 10/25/2021
** File: C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckOperation.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\5200LoneTree_TruckOperation\5200LoneTree_TruckO
   MODELOPT DFAULT CONC
   AVERTIME 1 ANNUAL
   URBANOPT 111535 Antioch
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL 5200LoneTree_TruckOperation.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 = VOL1
** DESCRSRC Lone Tree Way
** PREFIX
** Length of Side = 25.00
** Configuration = Adjacent
** Emission Rate = 9.55E-06
** Vertical Dimension = 10.00
** SZINIT = 4.65
** Nodes = 2
** 608956.300, 4202295.080, 41.95, 3.10, 11.63
** 609731.300, 4202300.550, 40.00, 3.10, 11.63
** ------------------------------------------------------------------
```

```
   LOCATION L0000001     VOLUME   608968.800 4202295.168 41.83
   LOCATION L0000002     VOLUME   608993.799 4202295.345 41.00
   LOCATION L0000003     VOLUME   609018.798 4202295.521 41.00
   LOCATION L0000004     VOLUME   609043.798 4202295.698 41.00
   LOCATION L0000005     VOLUME   609068.797 4202295.874 40.50
   LOCATION L0000006     VOLUME   609093.797 4202296.050 40.01
   LOCATION L0000007     VOLUME   609118.796 4202296.227 40.00
   LOCATION L0000008     VOLUME   609143.795 4202296.403 40.00
   LOCATION L0000009     VOLUME   609168.795 4202296.580 40.00
   LOCATION L0000010     VOLUME   609193.794 4202296.756 40.00
   LOCATION L0000011     VOLUME   609218.793 4202296.933 40.48
   LOCATION L0000012     VOLUME   609243.793 4202297.109 40.97
   LOCATION L0000013     VOLUME   609268.792 4202297.286 40.99
   LOCATION L0000014     VOLUME   609293.792 4202297.462 40.94
   LOCATION L0000015     VOLUME   609318.791 4202297.638 40.16
   LOCATION L0000016     VOLUME   609343.790 4202297.815 40.00
   LOCATION L0000017     VOLUME   609368.790 4202297.991 40.00
   LOCATION L0000018     VOLUME   609393.789 4202298.168 40.00
   LOCATION L0000019     VOLUME   609418.788 4202298.344 40.00
   LOCATION L0000020     VOLUME   609443.788 4202298.521 40.00
   LOCATION L0000021     VOLUME   609468.787 4202298.697 40.00
   LOCATION L0000022     VOLUME   609493.787 4202298.874 40.00
   LOCATION L0000023     VOLUME   609518.786 4202299.050 40.00
   LOCATION L0000024     VOLUME   609543.785 4202299.227 40.00
   LOCATION L0000025     VOLUME   609568.785 4202299.403 40.00
   LOCATION L0000026     VOLUME   609593.784 4202299.579 40.00
   LOCATION L0000027     VOLUME   609618.783 4202299.756 40.00
   LOCATION L0000028     VOLUME   609643.783 4202299.932 40.00
   LOCATION L0000029     VOLUME   609668.782 4202300.109 40.00
   LOCATION L0000030     VOLUME   609693.782 4202300.285 40.00
   LOCATION L0000031     VOLUME   609718.781 4202300.462 40.00
** End of LINE VOLUME Source ID = VOL1
   LOCATION PAREA1       AREAPOLY   609291.519  4202284.834       41.000
** Source Parameters **
** LINE VOLUME Source ID = VOL1
   SRCPARAM L0000001     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000002     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000003     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000004     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000005     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000006     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000007     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000008     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000009     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000010     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000011     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000012     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000013     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000014     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000015     0.0000003081      3.10     11.63      4.65
```

```
   SRCPARAM L0000016     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000017     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000018     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000019     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000020     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000021     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000022     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000023     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000024     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000025     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000026     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000027     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000028     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000029     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000030     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000031     0.0000003081      3.10     11.63      4.65
** ------------------------------------------------------------------
   SRCPARAM PAREA1       2.3865E-09     3.100         4
   AREAVERT PAREA1       609291.519 4202284.834 609290.887 4202193.865
   AREAVERT PAREA1       609384.067 4202191.339 609382.488 4202285.782
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**********************************
** AERMOD Receptor Pathway
**********************************
**
**
RE STARTING
   INCLUDED 5200LoneTree_TruckOperation.rou
RE FINISHED
**
**********************************
** AERMOD Meteorology Pathway
**********************************
**
**
ME STARTING
   SURFFILE "C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.SFC"
   PROFFILE "C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.PFL"
   SURFDATA 23285 2009
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 125.0 METERS
ME FINISHED
**
**********************************
** AERMOD Output Pathway
**********************************
**
```

```
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST 5200LONETREE_TRUCKOPERATION.AD\01H1GALL.PLT 31
   PLOTFILE ANNUAL ALL 5200LONETREE_TRUCKOPERATION.AD\AN00GALL.PLT 32
   SUMMFILE 5200LoneTree_TruckOperation.sum
OU FINISHED
**
************************************
** Project Parameters
************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     10
** ZONEINX  0
**
```

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 10.0.0
** Lakes Environmental Software Inc.
** Date: 10/25/2021
** File: C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckOperation.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Lakes\AERMOD View\5200LoneTree_TruckOperation\5200LoneTree_TruckO
   MODELOPT DFAULT CONC
   AVERTIME 1 ANNUAL
   URBANOPT 111535 Antioch
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL 5200LoneTree_TruckOperation.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 = VOL1
** DESCRSRC Lone Tree Way
** PREFIX
** Length of Side = 25.00
** Configuration = Adjacent
** Emission Rate = 9.55E-06
** Vertical Dimension = 10.00
** SZINIT = 4.65
** Nodes = 2
** 608956.300, 4202295.080, 41.95, 3.10, 11.63
** 609731.300, 4202300.550, 40.00, 3.10, 11.63
** ------------------------------------------------------------------
```

```
   LOCATION L0000001     VOLUME   608968.800 4202295.168 41.83
   LOCATION L0000002     VOLUME   608993.799 4202295.345 41.00
   LOCATION L0000003     VOLUME   609018.798 4202295.521 41.00
   LOCATION L0000004     VOLUME   609043.798 4202295.698 41.00
   LOCATION L0000005     VOLUME   609068.797 4202295.874 40.50
   LOCATION L0000006     VOLUME   609093.797 4202296.050 40.01
   LOCATION L0000007     VOLUME   609118.796 4202296.227 40.00
   LOCATION L0000008     VOLUME   609143.795 4202296.403 40.00
   LOCATION L0000009     VOLUME   609168.795 4202296.580 40.00
   LOCATION L0000010     VOLUME   609193.794 4202296.756 40.00
   LOCATION L0000011     VOLUME   609218.793 4202296.933 40.48
   LOCATION L0000012     VOLUME   609243.793 4202297.109 40.97
   LOCATION L0000013     VOLUME   609268.792 4202297.286 40.99
   LOCATION L0000014     VOLUME   609293.792 4202297.462 40.94
   LOCATION L0000015     VOLUME   609318.791 4202297.638 40.16
   LOCATION L0000016     VOLUME   609343.790 4202297.815 40.00
   LOCATION L0000017     VOLUME   609368.790 4202297.991 40.00
   LOCATION L0000018     VOLUME   609393.789 4202298.168 40.00
   LOCATION L0000019     VOLUME   609418.788 4202298.344 40.00
   LOCATION L0000020     VOLUME   609443.788 4202298.521 40.00
   LOCATION L0000021     VOLUME   609468.787 4202298.697 40.00
   LOCATION L0000022     VOLUME   609493.787 4202298.874 40.00
   LOCATION L0000023     VOLUME   609518.786 4202299.050 40.00
   LOCATION L0000024     VOLUME   609543.785 4202299.227 40.00
   LOCATION L0000025     VOLUME   609568.785 4202299.403 40.00
   LOCATION L0000026     VOLUME   609593.784 4202299.579 40.00
   LOCATION L0000027     VOLUME   609618.783 4202299.756 40.00
   LOCATION L0000028     VOLUME   609643.783 4202299.932 40.00
   LOCATION L0000029     VOLUME   609668.782 4202300.109 40.00
   LOCATION L0000030     VOLUME   609693.782 4202300.285 40.00
   LOCATION L0000031     VOLUME   609718.781 4202300.462 40.00
** End of LINE VOLUME Source ID = VOL1
   LOCATION PAREA1       AREAPOLY   609291.519  4202284.834       41.000
** Source Parameters **
** LINE VOLUME Source ID = VOL1
   SRCPARAM L0000001     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000002     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000003     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000004     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000005     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000006     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000007     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000008     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000009     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000010     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000011     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000012     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000013     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000014     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000015     0.0000003081      3.10     11.63      4.65
```

```
   SRCPARAM L0000016     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000017     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000018     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000019     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000020     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000021     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000022     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000023     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000024     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000025     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000026     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000027     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000028     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000029     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000030     0.0000003081      3.10     11.63      4.65
   SRCPARAM L0000031     0.0000003081      3.10     11.63      4.65
** ------------------------------------------------------------------
   SRCPARAM PAREA1       2.3865E-09     3.100         4
   AREAVERT PAREA1       609291.519 4202284.834 609290.887 4202193.865
   AREAVERT PAREA1       609384.067 4202191.339 609382.488 4202285.782
   URBANSRC ALL
   SRCGROUP ALL
SO FINISHED
**
**********************************
** AERMOD Receptor Pathway
**********************************
**
**
RE STARTING
   INCLUDED 5200LoneTree_TruckOperation.rou
RE FINISHED
**
**********************************
** AERMOD Meteorology Pathway
**********************************
**
**
ME STARTING
   SURFFILE "C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.SFC"
   PROFFILE "C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.PFL"
   SURFDATA 23285 2009
   UAIRDATA 23230 2009 OAKLAND/WSO_AP
   PROFBASE 125.0 METERS
ME FINISHED
**
**********************************
** AERMOD Output Pathway
**********************************
**
```

```
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST 5200LONETREE_TRUCKOPERATION.AD\01H1GALL.PLT 31
   PLOTFILE ANNUAL ALL 5200LONETREE_TRUCKOPERATION.AD\AN00GALL.PLT 32
   SUMMFILE 5200LoneTree_TruckOperation.sum
OU FINISHED

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

 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
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                                  PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                          ***     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 URBAN Dispersion Algorithm for the SBL for    32 Source(s),
   for Total of    1 Urban Area(s):
   Urban Population =    111535.0 ;  Urban Roughness Length =  1.000 m

 **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.
        6. Urban Roughness Length of 1.0 Meter Assumed.

 **Other Options Specified:
        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_2.5

 **Model Calculates  1 Short Term Average(s) of:   1-HR
     and Calculates ANNUAL Averages

 **This Run Includes:     32 Source(s);       1 Source Group(s); and    1576
Receptor(s)

                with:      0 POINT(s), including
                           0 POINTCAP(s) and      0 POINTHOR(s)
                 and:     31 VOLUME source(s)
                 and:      1 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:  14134

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

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

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   125.00 ;  Decay
Coef. =    0.000     ;  Rot. Angle =     0.0
                  Emission Units = GRAMS/SEC                                ;
Emission Rate Unit Factor =   0.10000E+07
                  Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.7 MB of RAM.

 **Input Runstream File:          aermod.inp
```

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE BY	EMISSION RATE VARY BY
L0000001	0	0.30810E-06	608968.8	4202295.2	41.8	3.10	11.63	4.65	YES	
L0000002	0	0.30810E-06	608993.8	4202295.3	41.0	3.10	11.63	4.65	YES	
L0000003	0	0.30810E-06	609018.8	4202295.5	41.0	3.10	11.63	4.65	YES	
L0000004	0	0.30810E-06	609043.8	4202295.7	41.0	3.10	11.63	4.65	YES	
L0000005	0	0.30810E-06	609068.8	4202295.9	40.5	3.10	11.63	4.65	YES	
L0000006	0	0.30810E-06	609093.8	4202296.0	40.0	3.10	11.63	4.65	YES	
L0000007	0	0.30810E-06	609118.8	4202296.2	40.0	3.10	11.63	4.65	YES	
L0000008	0	0.30810E-06	609143.8	4202296.4	40.0	3.10	11.63	4.65	YES	
L0000009	0	0.30810E-06	609168.8	4202296.6	40.0	3.10	11.63	4.65	YES	
L0000010	0	0.30810E-06	609193.8	4202296.8	40.0	3.10	11.63	4.65	YES	
L0000011	0	0.30810E-06	609218.8	4202296.9	40.5	3.10	11.63	4.65	YES	
L0000012	0	0.30810E-06	609243.8	4202297.1	41.0	3.10	11.63			

```
4.65     YES
 L0000013         0   0.30810E-06  609268.8 4202297.3    41.0     3.10    11.63
4.65     YES
 L0000014         0   0.30810E-06  609293.8 4202297.5    40.9     3.10    11.63
4.65     YES
 L0000015         0   0.30810E-06  609318.8 4202297.6    40.2     3.10    11.63
4.65     YES
 L0000016         0   0.30810E-06  609343.8 4202297.8    40.0     3.10    11.63
4.65     YES
 L0000017         0   0.30810E-06  609368.8 4202298.0    40.0     3.10    11.63
4.65     YES
 L0000018         0   0.30810E-06  609393.8 4202298.2    40.0     3.10    11.63
4.65     YES
 L0000019         0   0.30810E-06  609418.8 4202298.3    40.0     3.10    11.63
4.65     YES
 L0000020         0   0.30810E-06  609443.8 4202298.5    40.0     3.10    11.63
4.65     YES
 L0000021         0   0.30810E-06  609468.8 4202298.7    40.0     3.10    11.63
4.65     YES
 L0000022         0   0.30810E-06  609493.8 4202298.9    40.0     3.10    11.63
4.65     YES
 L0000023         0   0.30810E-06  609518.8 4202299.0    40.0     3.10    11.63
4.65     YES
 L0000024         0   0.30810E-06  609543.8 4202299.2    40.0     3.10    11.63
4.65     YES
 L0000025         0   0.30810E-06  609568.8 4202299.4    40.0     3.10    11.63
4.65     YES
 L0000026         0   0.30810E-06  609593.8 4202299.6    40.0     3.10    11.63
4.65     YES
 L0000027         0   0.30810E-06  609618.8 4202299.8    40.0     3.10    11.63
4.65     YES
 L0000028         0   0.30810E-06  609643.8 4202299.9    40.0     3.10    11.63
4.65     YES
 L0000029         0   0.30810E-06  609668.8 4202300.1    40.0     3.10    11.63
4.65     YES
 L0000030         0   0.30810E-06  609693.8 4202300.3    40.0     3.10    11.63
4.65     YES
 L0000031         0   0.30810E-06  609718.8 4202300.5    40.0     3.10    11.63
4.65     YES
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                                *** AREAPOLY SOURCE DATA ***
```

```
              NUMBER EMISSION RATE   LOCATION OF AREA  BASE     RELEASE  NUMBER
  INIT.   URBAN  EMISSION RATE
   SOURCE       PART.  (GRAMS/SEC       X        Y      ELEV.    HEIGHT  OF VERTS.
   SZ     SOURCE  SCALAR VARY
     ID         CATS.   /METER**2)   (METERS) (METERS) (METERS) (METERS)
(METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - -

 PAREA1           0   0.23865E-08  609291.5 4202284.8    41.0     3.10       4
   0.00     YES
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                          *** SOURCE IDs DEFINING SOURCE GROUPS
***

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


  ALL        L0000001    , L0000002    , L0000003    , L0000004    , L0000005    ,
L0000006    , L0000007    , L0000008    ,

             L0000009    , L0000010    , L0000011    , L0000012    , L0000013    ,
L0000014    , L0000015    , L0000016    ,

             L0000017    , L0000018    , L0000019    , L0000020    , L0000021    ,
L0000022    , L0000023    , L0000024    ,

             L0000025    , L0000026    , L0000027    , L0000028    , L0000029    ,
L0000030    , L0000031    , PAREA1      ,
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN


                                          *** SOURCE IDs DEFINED AS URBAN SOURCES
***
```

URBAN ID	URBAN POP	SOURCE IDs
1	111535.	L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 ,
1		L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 ,
1		L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 ,
1		L0000025 , L0000026 , L0000027 , L0000028 , L0000029 , L0000030 , L0000031 , PAREA1 ,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(609304.1, 4201857.7, 44.0, 66.0, 0.0); (609319.1, 4201857.7, 43.7, 66.0, 0.0);
(609334.1, 4201857.7, 43.9, 66.0, 0.0); (609349.1, 4201857.7, 44.4, 66.0, 0.0);
(609364.1, 4201857.7, 44.6, 44.6, 0.0); (609379.1, 4201857.7, 44.6, 44.6, 0.0);
(609394.1, 4201857.7, 44.6, 44.6, 0.0); (609259.1, 4201872.7, 43.2, 66.0, 0.0);
(609304.1, 4201872.7, 43.2, 66.0, 0.0); (609319.1, 4201872.7, 43.1, 66.0, 0.0);
(609334.1, 4201872.7, 43.4, 66.0, 0.0); (609349.1, 4201872.7, 43.9, 43.9, 0.0);
(609364.1, 4201872.7, 44.1, 44.1, 0.0); (609379.1, 4201872.7, 44.1, 44.1, 0.0);
(609394.1, 4201872.7, 44.1, 44.1, 0.0); (609409.1, 4201872.7, 44.1, 44.1, 0.0);
(609424.1, 4201872.7, 44.1, 44.1, 0.0); (609439.1, 4201872.7, 44.1, 44.1, 0.0);
(609454.1, 4201872.7, 44.1, 44.1, 0.0); (609199.1, 4201887.7, 42.1, 76.0, 0.0);
(609214.1, 4201887.7, 42.2, 66.0, 0.0); (609229.1, 4201887.7, 42.2, 66.0, 0.0);

```
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     ( 609274.1, 4201887.7,      42.6,      66.0,       0.0);         ( 609304.1,
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     ( 609319.1, 4201887.7,      42.6,      66.0,       0.0);         ( 609334.1,
4201887.7,      42.9,      42.9,       0.0);
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     ( 609379.1, 4201887.7,      43.6,      43.6,       0.0);         ( 609394.1,
4201887.7,      43.7,      43.7,       0.0);
     ( 609409.1, 4201887.7,      43.9,      43.9,       0.0);         ( 609424.1,
4201887.7,      44.0,      44.0,       0.0);
     ( 609439.1, 4201887.7,      44.0,      44.0,       0.0);         ( 609454.1,
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     ( 609469.1, 4201887.7,      43.7,      43.7,       0.0);         ( 609484.1,
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     ( 609499.1, 4201887.7,      43.6,      43.6,       0.0);         ( 609169.1,
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4201902.7,      42.0,      66.0,       0.0);
     ( 609274.1, 4201902.7,      42.1,      66.0,       0.0);         ( 609319.1,
4201902.7,      42.1,      42.1,       0.0);
     ( 609334.1, 4201902.7,      42.4,      42.4,       0.0);         ( 609349.1,
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     ( 609364.1, 4201902.7,      43.1,      43.1,       0.0);         ( 609379.1,
4201902.7,      43.1,      43.1,       0.0);
     ( 609394.1, 4201902.7,      43.4,      43.4,       0.0);         ( 609409.1,
4201902.7,      43.9,      43.9,       0.0);
     ( 609424.1, 4201902.7,      44.0,      44.0,       0.0);         ( 609439.1,
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     ( 609454.1, 4201902.7,      43.7,      43.7,       0.0);         ( 609469.1,
4201902.7,      43.2,      43.2,       0.0);
     ( 609484.1, 4201902.7,      43.1,      43.1,       0.0);         ( 609499.1,
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     ( 609514.1, 4201902.7,      43.1,      43.1,       0.0);         ( 609529.1,
4201902.7,      43.1,      43.1,       0.0);
     ( 609139.1, 4201917.7,      40.1,      77.0,       0.0);         ( 609154.1,
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     ( 609169.1, 4201917.7,      40.5,      77.0,       0.0);         ( 609184.1,
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4201917.7,      40.6,      76.0,       0.0);
     ( 609229.1, 4201917.7,      40.6,      66.0,       0.0);         ( 609244.1,
4201917.7,      40.9,      66.0,       0.0);
     ( 609259.1, 4201917.7,      41.4,      66.0,       0.0);         ( 609274.1,
4201917.7,      41.6,      66.0,       0.0);
```

```
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     ( 609364.1, 4201917.7,      42.6,      42.6,       0.0);         ( 609379.1,
4201917.7,      42.6,      42.6,       0.0);
     ( 609394.1, 4201917.7,      42.9,      42.9,       0.0);         ( 609409.1,
4201917.7,      43.4,      43.4,       0.0);
     ( 609424.1, 4201917.7,      43.6,      43.6,       0.0);         ( 609439.1,
4201917.7,      43.6,      43.6,       0.0);
     ( 609454.1, 4201917.7,      43.4,      43.4,       0.0);         ( 609469.1,
4201917.7,      43.1,      43.1,       0.0);
     ( 609484.1, 4201917.7,      43.0,      43.0,       0.0);         ( 609499.1,
4201917.7,      43.0,      43.0,       0.0);
     ( 609514.1, 4201917.7,      43.0,      43.0,       0.0);         ( 609529.1,
4201917.7,      43.0,      43.0,       0.0);
     ( 609544.1, 4201917.7,      43.0,      43.0,       0.0);         ( 609109.1,
4201932.7,      39.3,      77.0,       0.0);
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                        ***       11:05:39

                                  PAGE   7
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

     ( 609124.1, 4201932.7,      39.1,      77.0,       0.0);         ( 609139.1,
4201932.7,      39.2,      77.0,       0.0);
     ( 609154.1, 4201932.7,      39.5,      77.0,       0.0);         ( 609169.1,
4201932.7,      40.0,      77.0,       0.0);
     ( 609184.1, 4201932.7,      40.1,      77.0,       0.0);         ( 609199.1,
4201932.7,      40.1,      77.0,       0.0);
     ( 609214.1, 4201932.7,      40.1,      76.0,       0.0);         ( 609229.1,
4201932.7,      40.1,      76.0,       0.0);
     ( 609244.1, 4201932.7,      40.4,      66.0,       0.0);         ( 609259.1,
4201932.7,      40.9,      40.9,       0.0);
     ( 609274.1, 4201932.7,      41.1,      41.1,       0.0);         ( 609289.1,
4201932.7,      41.1,      41.1,       0.0);
     ( 609334.1, 4201932.7,      41.4,      41.4,       0.0);         ( 609349.1,
4201932.7,      41.9,      41.9,       0.0);
     ( 609364.1, 4201932.7,      42.1,      42.1,       0.0);         ( 609379.1,
4201932.7,      42.1,      42.1,       0.0);
     ( 609394.1, 4201932.7,      42.4,      42.4,       0.0);         ( 609409.1,
4201932.7,      42.9,      42.9,       0.0);
     ( 609424.1, 4201932.7,      43.1,      43.1,       0.0);         ( 609439.1,
4201932.7,      43.1,      43.1,       0.0);
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     ( 609454.1, 4201932.7,      43.1,      43.1,       0.0);         ( 609469.1,
4201932.7,      43.0,      43.0,       0.0);
     ( 609484.1, 4201932.7,      43.0,      43.0,       0.0);         ( 609499.1,
4201932.7,      43.0,      43.0,       0.0);
     ( 609514.1, 4201932.7,      43.0,      43.0,       0.0);         ( 609529.1,
4201932.7,      43.0,      43.0,       0.0);
     ( 609544.1, 4201932.7,      43.0,      43.0,       0.0);         ( 609559.1,
4201932.7,      43.0,      43.0,       0.0);
     ( 609079.1, 4201947.7,      39.7,      77.0,       0.0);         ( 609094.1,
4201947.7,      39.3,      77.0,       0.0);
     ( 609109.1, 4201947.7,      38.8,      77.0,       0.0);         ( 609124.1,
4201947.7,      38.7,      77.0,       0.0);
     ( 609139.1, 4201947.7,      38.9,      77.0,       0.0);         ( 609154.1,
4201947.7,      39.3,      77.0,       0.0);
     ( 609169.1, 4201947.7,      39.8,      77.0,       0.0);         ( 609184.1,
4201947.7,      40.0,      77.0,       0.0);
     ( 609199.1, 4201947.7,      40.0,      77.0,       0.0);         ( 609214.1,
4201947.7,      40.0,      76.0,       0.0);
     ( 609229.1, 4201947.7,      40.0,      76.0,       0.0);         ( 609244.1,
4201947.7,      40.2,      40.2,       0.0);
     ( 609259.1, 4201947.7,      40.5,      40.5,       0.0);         ( 609274.1,
4201947.7,      40.7,      40.7,       0.0);
     ( 609289.1, 4201947.7,      40.9,      40.9,       0.0);         ( 609304.1,
4201947.7,      41.0,      41.0,       0.0);
     ( 609334.1, 4201947.7,      41.2,      41.2,       0.0);         ( 609349.1,
4201947.7,      41.5,      41.5,       0.0);
     ( 609364.1, 4201947.7,      41.7,      41.7,       0.0);         ( 609379.1,
4201947.7,      41.9,      41.9,       0.0);
     ( 609394.1, 4201947.7,      42.2,      42.2,       0.0);         ( 609409.1,
4201947.7,      42.5,      42.5,       0.0);
     ( 609424.1, 4201947.7,      42.7,      42.7,       0.0);         ( 609439.1,
4201947.7,      42.9,      42.9,       0.0);
     ( 609454.1, 4201947.7,      43.0,      43.0,       0.0);         ( 609469.1,
4201947.7,      43.0,      43.0,       0.0);
     ( 609484.1, 4201947.7,      43.0,      43.0,       0.0);         ( 609499.1,
4201947.7,      43.0,      43.0,       0.0);
     ( 609514.1, 4201947.7,      43.0,      43.0,       0.0);         ( 609529.1,
4201947.7,      43.0,      43.0,       0.0);
     ( 609544.1, 4201947.7,      43.0,      43.0,       0.0);         ( 609559.1,
4201947.7,      43.0,      43.0,       0.0);
     ( 609574.1, 4201947.7,      43.0,      43.0,       0.0);         ( 609064.1,
4201962.7,      39.2,      77.0,       0.0);
     ( 609079.1, 4201962.7,      39.1,      77.0,       0.0);         ( 609094.1,
4201962.7,      38.8,      77.0,       0.0);
     ( 609109.1, 4201962.7,      38.3,      77.0,       0.0);         ( 609124.1,
4201962.7,      38.4,      77.0,       0.0);
     ( 609139.1, 4201962.7,      38.9,      77.0,       0.0);         ( 609154.1,
4201962.7,      39.3,      77.0,       0.0);
     ( 609169.1, 4201962.7,      39.8,      77.0,       0.0);         ( 609184.1,
4201962.7,      40.0,      77.0,       0.0);
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     ( 609199.1, 4201962.7,      40.0,      77.0,       0.0);         ( 609214.1,
4201962.7,      40.0,      76.0,       0.0);
     ( 609229.1, 4201962.7,      40.0,      76.0,       0.0);         ( 609244.1,
4201962.7,      40.0,      40.0,       0.0);
     ( 609259.1, 4201962.7,      40.1,      40.1,       0.0);         ( 609274.1,
4201962.7,      40.4,      40.4,       0.0);
     ( 609289.1, 4201962.7,      40.9,      40.9,       0.0);         ( 609304.1,
4201962.7,      41.0,      41.0,       0.0);
     ( 609349.1, 4201962.7,      41.1,      41.1,       0.0);         ( 609364.1,
4201962.7,      41.4,      41.4,       0.0);
     ( 609379.1, 4201962.7,      41.9,      41.9,       0.0);         ( 609394.1,
4201962.7,      42.0,      42.0,       0.0);
     ( 609409.1, 4201962.7,      42.1,      42.1,       0.0);         ( 609424.1,
4201962.7,      42.4,      42.4,       0.0);
     ( 609439.1, 4201962.7,      42.9,      42.9,       0.0);         ( 609454.1,
4201962.7,      43.0,      43.0,       0.0);
     ( 609469.1, 4201962.7,      43.0,      43.0,       0.0);         ( 609484.1,
4201962.7,      43.0,      43.0,       0.0);
     ( 609499.1, 4201962.7,      43.0,      43.0,       0.0);         ( 609514.1,
4201962.7,      43.0,      43.0,       0.0);
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE   8
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

     ( 609529.1, 4201962.7,      43.0,      43.0,       0.0);         ( 609544.1,
4201962.7,      43.0,      43.0,       0.0);
     ( 609559.1, 4201962.7,      43.0,      43.0,       0.0);         ( 609574.1,
4201962.7,      43.0,      43.0,       0.0);
     ( 609589.1, 4201962.7,      43.0,      43.0,       0.0);         ( 609604.1,
4201962.7,      42.7,      42.7,       0.0);
     ( 609049.1, 4201977.7,      39.0,      77.0,       0.0);         ( 609064.1,
4201977.7,      38.6,      77.0,       0.0);
     ( 609079.1, 4201977.7,      38.6,      77.0,       0.0);         ( 609094.1,
4201977.7,      38.4,      77.0,       0.0);
     ( 609109.1, 4201977.7,      38.1,      77.0,       0.0);         ( 609124.1,
4201977.7,      38.3,      77.0,       0.0);
     ( 609139.1, 4201977.7,      38.8,      77.0,       0.0);         ( 609154.1,
4201977.7,      39.2,      77.0,       0.0);
     ( 609169.1, 4201977.7,      39.5,      77.0,       0.0);         ( 609184.1,
4201977.7,      39.7,      77.0,       0.0);
     ( 609199.1, 4201977.7,      39.9,      77.0,       0.0);         ( 609214.1,
4201977.7,      40.0,      76.0,       0.0);
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     ( 609259.1, 4201977.7,      40.0,      40.0,       0.0);         ( 609274.1,
4201977.7,      40.2,      40.2,       0.0);
     ( 609289.1, 4201977.7,      40.5,      40.5,       0.0);         ( 609304.1,
4201977.7,      40.7,      40.7,       0.0);
     ( 609319.1, 4201977.7,      40.9,      40.9,       0.0);         ( 609349.1,
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     ( 609364.1, 4201977.7,      41.2,      41.2,       0.0);         ( 609379.1,
4201977.7,      41.5,      41.5,       0.0);
     ( 609394.1, 4201977.7,      41.7,      41.7,       0.0);         ( 609409.1,
4201977.7,      41.9,      41.9,       0.0);
     ( 609424.1, 4201977.7,      42.2,      42.2,       0.0);         ( 609439.1,
4201977.7,      42.5,      42.5,       0.0);
     ( 609454.1, 4201977.7,      42.6,      42.6,       0.0);         ( 609469.1,
4201977.7,      42.6,      42.6,       0.0);
     ( 609484.1, 4201977.7,      42.6,      42.6,       0.0);         ( 609499.1,
4201977.7,      42.6,      42.6,       0.0);
     ( 609514.1, 4201977.7,      42.6,      42.6,       0.0);         ( 609529.1,
4201977.7,      42.6,      42.6,       0.0);
     ( 609544.1, 4201977.7,      42.6,      42.6,       0.0);         ( 609559.1,
4201977.7,      42.6,      42.6,       0.0);
     ( 609574.1, 4201977.7,      42.6,      42.6,       0.0);         ( 609589.1,
4201977.7,      42.6,      42.6,       0.0);
     ( 609604.1, 4201977.7,      42.4,      42.4,       0.0);         ( 609619.1,
4201977.7,      42.1,      42.1,       0.0);
     ( 609049.1, 4201992.7,      38.4,      77.0,       0.0);         ( 609064.1,
4201992.7,      38.1,      77.0,       0.0);
     ( 609079.1, 4201992.7,      38.1,      77.0,       0.0);         ( 609094.1,
4201992.7,      38.1,      77.0,       0.0);
     ( 609109.1, 4201992.7,      38.0,      77.0,       0.0);         ( 609124.1,
4201992.7,      38.3,      77.0,       0.0);
     ( 609139.1, 4201992.7,      38.8,      77.0,       0.0);         ( 609154.1,
4201992.7,      39.0,      77.0,       0.0);
     ( 609169.1, 4201992.7,      39.1,      77.0,       0.0);         ( 609184.1,
4201992.7,      39.4,      77.0,       0.0);
     ( 609199.1, 4201992.7,      39.9,      77.0,       0.0);         ( 609214.1,
4201992.7,      40.0,      76.0,       0.0);
     ( 609229.1, 4201992.7,      40.0,      40.0,       0.0);         ( 609244.1,
4201992.7,      40.0,      40.0,       0.0);
     ( 609259.1, 4201992.7,      40.0,      40.0,       0.0);         ( 609274.1,
4201992.7,      40.0,      40.0,       0.0);
     ( 609289.1, 4201992.7,      40.1,      40.1,       0.0);         ( 609304.1,
4201992.7,      40.4,      40.4,       0.0);
     ( 609319.1, 4201992.7,      40.9,      40.9,       0.0);         ( 609364.1,
4201992.7,      41.0,      41.0,       0.0);
     ( 609379.1, 4201992.7,      41.1,      41.1,       0.0);         ( 609394.1,
4201992.7,      41.4,      41.4,       0.0);
     ( 609409.1, 4201992.7,      41.9,      41.9,       0.0);         ( 609424.1,
4201992.7,      42.0,      42.0,       0.0);
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(609469.1, 4201992.7, 42.1, 42.1, 0.0); (609484.1, 4201992.7, 42.1, 42.1, 0.0);
(609499.1, 4201992.7, 42.1, 42.1, 0.0); (609514.1, 4201992.7, 42.1, 42.1, 0.0);
(609529.1, 4201992.7, 42.1, 42.1, 0.0); (609544.1, 4201992.7, 42.1, 42.1, 0.0);
(609559.1, 4201992.7, 42.1, 42.1, 0.0); (609574.1, 4201992.7, 42.1, 42.1, 0.0);
(609589.1, 4201992.7, 42.1, 42.1, 0.0); (609604.1, 4201992.7, 42.1, 42.1, 0.0);
(609619.1, 4201992.7, 42.0, 42.0, 0.0); (609634.1, 4201992.7, 42.0, 42.0, 0.0);
(609034.1, 4202007.7, 39.1, 77.0, 0.0); (609049.1, 4202007.7, 38.2, 77.0, 0.0);
(609064.1, 4202007.7, 38.0, 77.0, 0.0); (609079.1, 4202007.7, 38.0, 77.0, 0.0);
(609094.1, 4202007.7, 38.0, 77.0, 0.0); (609109.1, 4202007.7, 38.0, 77.0, 0.0);
(609124.1, 4202007.7, 38.3, 77.0, 0.0); (609139.1, 4202007.7, 38.8, 77.0, 0.0);

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(609154.1, 4202007.7, 39.0, 77.0, 0.0); (609169.1, 4202007.7, 39.0, 77.0, 0.0);
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(609244.1, 4202007.7, 40.0, 40.0, 0.0); (609259.1, 4202007.7, 40.0, 40.0, 0.0);
(609274.1, 4202007.7, 40.0, 40.0, 0.0); (609289.1, 4202007.7, 40.0, 40.0, 0.0);
(609304.1, 4202007.7, 40.3, 40.3, 0.0); (609319.1, 4202007.7, 40.8, 40.8, 0.0);
(609334.1, 4202007.7, 41.0, 41.0, 0.0); (609379.1, 4202007.7, 41.0, 41.0, 0.0);
(609394.1, 4202007.7, 41.2, 41.2, 0.0); (609409.1, 4202007.7, 41.5, 41.5, 0.0);

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     ( 609424.1, 4202007.7,      41.7,      41.7,       0.0);         ( 609439.1,
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     ( 609454.1, 4202007.7,      42.0,      42.0,       0.0);         ( 609469.1,
4202007.7,      42.0,      42.0,       0.0);
     ( 609484.1, 4202007.7,      42.0,      42.0,       0.0);         ( 609499.1,
4202007.7,      42.0,      42.0,       0.0);
     ( 609514.1, 4202007.7,      42.0,      42.0,       0.0);         ( 609529.1,
4202007.7,      42.0,      42.0,       0.0);
     ( 609544.1, 4202007.7,      42.0,      42.0,       0.0);         ( 609559.1,
4202007.7,      42.0,      42.0,       0.0);
     ( 609574.1, 4202007.7,      42.0,      42.0,       0.0);         ( 609589.1,
4202007.7,      42.0,      42.0,       0.0);
     ( 609604.1, 4202007.7,      42.0,      42.0,       0.0);         ( 609619.1,
4202007.7,      42.0,      42.0,       0.0);
     ( 609634.1, 4202007.7,      42.0,      42.0,       0.0);         ( 609649.1,
4202007.7,      42.0,      42.0,       0.0);
     ( 609034.1, 4202022.7,      38.7,      77.0,       0.0);         ( 609049.1,
4202022.7,      38.2,      77.0,       0.0);
     ( 609064.1, 4202022.7,      38.0,      77.0,       0.0);         ( 609079.1,
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     ( 609094.1, 4202022.7,      38.0,      77.0,       0.0);         ( 609109.1,
4202022.7,      38.0,      77.0,       0.0);
     ( 609124.1, 4202022.7,      38.3,      77.0,       0.0);         ( 609139.1,
4202022.7,      38.8,      77.0,       0.0);
     ( 609154.1, 4202022.7,      39.0,      77.0,       0.0);         ( 609169.1,
4202022.7,      39.0,      77.0,       0.0);
     ( 609184.1, 4202022.7,      39.3,      77.0,       0.0);         ( 609199.1,
4202022.7,      39.8,      77.0,       0.0);
     ( 609214.1, 4202022.7,      40.0,      76.0,       0.0);         ( 609229.1,
4202022.7,      40.0,      40.0,       0.0);
     ( 609244.1, 4202022.7,      40.0,      40.0,       0.0);         ( 609259.1,
4202022.7,      40.0,      40.0,       0.0);
     ( 609274.1, 4202022.7,      40.0,      40.0,       0.0);         ( 609289.1,
4202022.7,      40.0,      40.0,       0.0);
     ( 609304.1, 4202022.7,      40.3,      40.3,       0.0);         ( 609319.1,
4202022.7,      40.8,      40.8,       0.0);
     ( 609334.1, 4202022.7,      41.0,      41.0,       0.0);         ( 609349.1,
4202022.7,      41.0,      41.0,       0.0);
     ( 609379.1, 4202022.7,      41.0,      41.0,       0.0);         ( 609394.1,
4202022.7,      41.0,      41.0,       0.0);
     ( 609409.1, 4202022.7,      41.1,      41.1,       0.0);         ( 609424.1,
4202022.7,      41.4,      41.4,       0.0);
     ( 609439.1, 4202022.7,      41.9,      41.9,       0.0);         ( 609454.1,
4202022.7,      42.0,      42.0,       0.0);
     ( 609469.1, 4202022.7,      42.0,      42.0,       0.0);         ( 609484.1,
4202022.7,      42.0,      42.0,       0.0);
     ( 609499.1, 4202022.7,      42.0,      42.0,       0.0);         ( 609514.1,
4202022.7,      42.0,      42.0,       0.0);
     ( 609529.1, 4202022.7,      42.0,      42.0,       0.0);         ( 609544.1,
4202022.7,      42.0,      42.0,       0.0);
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(609589.1, 4202022.7, 42.0, 42.0, 0.0); (609604.1, 4202022.7, 42.0, 42.0, 0.0);
(609619.1, 4202022.7, 42.0, 42.0, 0.0); (609634.1, 4202022.7, 42.0, 42.0, 0.0);
(609649.1, 4202022.7, 42.0, 42.0, 0.0); (609664.1, 4202022.7, 42.0, 42.0, 0.0);
(609019.1, 4202037.7, 39.2, 77.0, 0.0); (609034.1, 4202037.7, 38.7, 77.0, 0.0);
(609049.1, 4202037.7, 38.2, 77.0, 0.0); (609064.1, 4202037.7, 38.1, 77.0, 0.0);
(609079.1, 4202037.7, 38.3, 77.0, 0.0); (609094.1, 4202037.7, 38.4, 77.0, 0.0);
(609109.1, 4202037.7, 38.4, 77.0, 0.0); (609124.1, 4202037.7, 38.6, 77.0, 0.0);
(609139.1, 4202037.7, 38.9, 77.0, 0.0); (609154.1, 4202037.7, 39.1, 77.0, 0.0);
(609169.1, 4202037.7, 39.3, 77.0, 0.0); (609184.1, 4202037.7, 39.6, 77.0, 0.0);
(609199.1, 4202037.7, 39.9, 77.0, 0.0); (609214.1, 4202037.7, 40.0, 40.0, 0.0);
(609229.1, 4202037.7, 40.0, 40.0, 0.0); (609244.1, 4202037.7, 40.0, 40.0, 0.0);

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(609259.1, 4202037.7, 40.0, 40.0, 0.0); (609274.1, 4202037.7, 40.0, 40.0, 0.0);
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(609319.1, 4202037.7, 40.8, 40.8, 0.0); (609334.1, 4202037.7, 41.0, 41.0, 0.0);
(609349.1, 4202037.7, 41.0, 41.0, 0.0); (609394.1, 4202037.7, 41.0, 41.0, 0.0);
(609409.1, 4202037.7, 41.0, 41.0, 0.0); (609424.1, 4202037.7, 41.2, 41.2, 0.0);
(609439.1, 4202037.7, 41.5, 41.5, 0.0); (609454.1, 4202037.7, 41.7, 41.7, 0.0);
(609469.1, 4202037.7, 41.9, 41.9, 0.0); (609484.1, 4202037.7, 42.0, 42.0, 0.0);

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4202037.7,      42.0,      42.0,       0.0);
     ( 609529.1, 4202037.7,      42.0,      42.0,       0.0);         ( 609544.1,
4202037.7,      42.0,      42.0,       0.0);
     ( 609559.1, 4202037.7,      42.0,      42.0,       0.0);         ( 609574.1,
4202037.7,      42.0,      42.0,       0.0);
     ( 609589.1, 4202037.7,      42.0,      42.0,       0.0);         ( 609604.1,
4202037.7,      42.0,      42.0,       0.0);
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     ( 609649.1, 4202037.7,      41.7,      41.7,       0.0);         ( 609664.1,
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     ( 609679.1, 4202037.7,      41.6,      41.6,       0.0);         ( 609019.1,
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     ( 609034.1, 4202052.7,      38.7,      77.0,       0.0);         ( 609049.1,
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     ( 609064.1, 4202052.7,      38.3,      77.0,       0.0);         ( 609079.1,
4202052.7,      38.8,      77.0,       0.0);
     ( 609094.1, 4202052.7,      38.9,      77.0,       0.0);         ( 609109.1,
4202052.7,      38.9,      77.0,       0.0);
     ( 609124.1, 4202052.7,      38.9,      77.0,       0.0);         ( 609139.1,
4202052.7,      39.0,      77.0,       0.0);
     ( 609154.1, 4202052.7,      39.3,      77.0,       0.0);         ( 609169.1,
4202052.7,      39.8,      77.0,       0.0);
     ( 609184.1, 4202052.7,      39.9,      77.0,       0.0);         ( 609199.1,
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     ( 609214.1, 4202052.7,      40.0,      40.0,       0.0);         ( 609229.1,
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     ( 609244.1, 4202052.7,      40.0,      40.0,       0.0);         ( 609259.1,
4202052.7,      40.0,      40.0,       0.0);
     ( 609274.1, 4202052.7,      40.0,      40.0,       0.0);         ( 609289.1,
4202052.7,      40.0,      40.0,       0.0);
     ( 609304.1, 4202052.7,      40.3,      40.3,       0.0);         ( 609319.1,
4202052.7,      40.8,      40.8,       0.0);
     ( 609334.1, 4202052.7,      41.0,      41.0,       0.0);         ( 609349.1,
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     ( 609364.1, 4202052.7,      41.0,      41.0,       0.0);         ( 609394.1,
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     ( 609409.1, 4202052.7,      41.0,      41.0,       0.0);         ( 609424.1,
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     ( 609439.1, 4202052.7,      41.1,      41.1,       0.0);         ( 609454.1,
4202052.7,      41.4,      41.4,       0.0);
     ( 609469.1, 4202052.7,      41.9,      41.9,       0.0);         ( 609484.1,
4202052.7,      42.0,      42.0,       0.0);
     ( 609499.1, 4202052.7,      42.0,      42.0,       0.0);         ( 609514.1,
4202052.7,      42.0,      42.0,       0.0);
     ( 609529.1, 4202052.7,      42.0,      42.0,       0.0);         ( 609544.1,
4202052.7,      42.0,      42.0,       0.0);
     ( 609559.1, 4202052.7,      42.0,      42.0,       0.0);         ( 609574.1,
4202052.7,      42.0,      42.0,       0.0);
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     ( 609619.1, 4202052.7,      42.0,      42.0,       0.0);         ( 609634.1,
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4202052.7,      41.4,      41.4,       0.0);
     ( 609004.1, 4202067.7,      39.7,      77.0,       0.0);         ( 609019.1,
4202067.7,      39.2,      77.0,       0.0);
     ( 609034.1, 4202067.7,      38.8,      77.0,       0.0);         ( 609049.1,
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     ( 609064.1, 4202067.7,      38.6,      77.0,       0.0);         ( 609079.1,
4202067.7,      38.9,      77.0,       0.0);
     ( 609094.1, 4202067.7,      39.0,      77.0,       0.0);         ( 609109.1,
4202067.7,      39.0,      77.0,       0.0);
     ( 609124.1, 4202067.7,      39.1,      77.0,       0.0);         ( 609139.1,
4202067.7,      39.3,      77.0,       0.0);
     ( 609154.1, 4202067.7,      39.6,      77.0,       0.0);         ( 609169.1,
4202067.7,      39.9,      77.0,       0.0);
     ( 609184.1, 4202067.7,      40.0,      77.0,       0.0);         ( 609199.1,
4202067.7,      40.0,      40.0,       0.0);
     ( 609214.1, 4202067.7,      40.1,      40.1,       0.0);         ( 609229.1,
4202067.7,      40.3,      40.3,       0.0);
     ( 609244.1, 4202067.7,      40.4,      40.4,       0.0);         ( 609259.1,
4202067.7,      40.4,      40.4,       0.0);
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                         ***        11:05:39

                                   PAGE  11
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

     ( 609274.1, 4202067.7,      40.4,      40.4,       0.0);         ( 609289.1,
4202067.7,      40.4,      40.4,       0.0);
     ( 609304.1, 4202067.7,      40.6,      40.6,       0.0);         ( 609319.1,
4202067.7,      40.9,      40.9,       0.0);
     ( 609334.1, 4202067.7,      41.0,      41.0,       0.0);         ( 609349.1,
4202067.7,      41.0,      41.0,       0.0);
     ( 609364.1, 4202067.7,      41.0,      41.0,       0.0);         ( 609409.1,
4202067.7,      41.0,      41.0,       0.0);
     ( 609424.1, 4202067.7,      41.0,      41.0,       0.0);         ( 609439.1,
4202067.7,      41.0,      41.0,       0.0);
     ( 609454.1, 4202067.7,      41.2,      41.2,       0.0);         ( 609469.1,
4202067.7,      41.5,      41.5,       0.0);
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4202067.7,      41.6,      41.6,       0.0);
     ( 609514.1, 4202067.7,      41.6,      41.6,       0.0);         ( 609529.1,
4202067.7,      41.6,      41.6,       0.0);
     ( 609544.1, 4202067.7,      41.6,      41.6,       0.0);         ( 609559.1,
4202067.7,      41.6,      41.6,       0.0);
     ( 609574.1, 4202067.7,      41.6,      41.6,       0.0);         ( 609589.1,
4202067.7,      41.6,      41.6,       0.0);
     ( 609604.1, 4202067.7,      41.6,      41.6,       0.0);         ( 609619.1,
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     ( 609634.1, 4202067.7,      41.4,      41.4,       0.0);         ( 609649.1,
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     ( 609664.1, 4202067.7,      41.0,      41.0,       0.0);         ( 609679.1,
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     ( 609694.1, 4202067.7,      41.2,      41.2,       0.0);         ( 609709.1,
4202067.7,      41.5,      41.5,       0.0);
     ( 609004.1, 4202082.7,      39.7,      77.0,       0.0);         ( 609019.1,
4202082.7,      39.2,      77.0,       0.0);
     ( 609034.1, 4202082.7,      39.0,      77.0,       0.0);         ( 609049.1,
4202082.7,      38.9,      77.0,       0.0);
     ( 609064.1, 4202082.7,      38.9,      77.0,       0.0);         ( 609079.1,
4202082.7,      39.0,      77.0,       0.0);
     ( 609094.1, 4202082.7,      39.0,      77.0,       0.0);         ( 609109.1,
4202082.7,      39.0,      77.0,       0.0);
     ( 609124.1, 4202082.7,      39.3,      77.0,       0.0);         ( 609139.1,
4202082.7,      39.8,      77.0,       0.0);
     ( 609154.1, 4202082.7,      39.9,      77.0,       0.0);         ( 609169.1,
4202082.7,      40.0,      77.0,       0.0);
     ( 609184.1, 4202082.7,      40.0,      76.0,       0.0);         ( 609199.1,
4202082.7,      40.0,      40.0,       0.0);
     ( 609214.1, 4202082.7,      40.3,      40.3,       0.0);         ( 609229.1,
4202082.7,      40.8,      40.8,       0.0);
     ( 609244.1, 4202082.7,      40.9,      40.9,       0.0);         ( 609259.1,
4202082.7,      40.9,      40.9,       0.0);
     ( 609274.1, 4202082.7,      40.9,      40.9,       0.0);         ( 609289.1,
4202082.7,      40.9,      40.9,       0.0);
     ( 609304.1, 4202082.7,      40.9,      40.9,       0.0);         ( 609319.1,
4202082.7,      41.0,      41.0,       0.0);
     ( 609334.1, 4202082.7,      41.0,      41.0,       0.0);         ( 609349.1,
4202082.7,      41.0,      41.0,       0.0);
     ( 609364.1, 4202082.7,      41.0,      41.0,       0.0);         ( 609409.1,
4202082.7,      41.0,      41.0,       0.0);
     ( 609424.1, 4202082.7,      41.0,      41.0,       0.0);         ( 609439.1,
4202082.7,      41.0,      41.0,       0.0);
     ( 609454.1, 4202082.7,      41.0,      41.0,       0.0);         ( 609469.1,
4202082.7,      41.1,      41.1,       0.0);
     ( 609484.1, 4202082.7,      41.1,      41.1,       0.0);         ( 609499.1,
4202082.7,      41.1,      41.1,       0.0);
     ( 609514.1, 4202082.7,      41.1,      41.1,       0.0);         ( 609529.1,
4202082.7,      41.1,      41.1,       0.0);
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     ( 609574.1, 4202082.7,      41.1,      41.1,       0.0);         ( 609589.1,
4202082.7,      41.1,      41.1,       0.0);
     ( 609604.1, 4202082.7,      41.1,      41.1,       0.0);         ( 609619.1,
4202082.7,      41.1,      41.1,       0.0);
     ( 609634.1, 4202082.7,      41.1,      41.1,       0.0);         ( 609649.1,
4202082.7,      41.0,      41.0,       0.0);
     ( 609664.1, 4202082.7,      41.0,      41.0,       0.0);         ( 609679.1,
4202082.7,      41.0,      41.0,       0.0);
     ( 609694.1, 4202082.7,      41.0,      41.0,       0.0);         ( 609709.1,
4202082.7,      41.1,      41.1,       0.0);
     ( 609004.1, 4202097.7,      39.8,      77.0,       0.0);         ( 609019.1,
4202097.7,      39.5,      77.0,       0.0);
     ( 609034.1, 4202097.7,      39.4,      77.0,       0.0);         ( 609049.1,
4202097.7,      39.4,      77.0,       0.0);
     ( 609064.1, 4202097.7,      39.4,      77.0,       0.0);         ( 609079.1,
4202097.7,      39.4,      77.0,       0.0);
     ( 609094.1, 4202097.7,      39.4,      77.0,       0.0);         ( 609109.1,
4202097.7,      39.4,      77.0,       0.0);
     ( 609124.1, 4202097.7,      39.6,      77.0,       0.0);         ( 609139.1,
4202097.7,      39.9,      77.0,       0.0);
     ( 609154.1, 4202097.7,      40.0,      77.0,       0.0);         ( 609169.1,
4202097.7,      40.0,      77.0,       0.0);
     ( 609184.1, 4202097.7,      40.1,      40.1,       0.0);         ( 609199.1,
4202097.7,      40.3,      40.3,       0.0);
     ( 609214.1, 4202097.7,      40.6,      40.6,       0.0);         ( 609229.1,
4202097.7,      40.9,      40.9,       0.0);
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  12
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

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     ( 609274.1, 4202097.7,      41.0,      41.0,       0.0);         ( 609289.1,
4202097.7,      41.0,      41.0,       0.0);
     ( 609304.1, 4202097.7,      41.0,      41.0,       0.0);         ( 609319.1,
4202097.7,      41.0,      41.0,       0.0);
     ( 609334.1, 4202097.7,      41.0,      41.0,       0.0);         ( 609349.1,
4202097.7,      41.0,      41.0,       0.0);
     ( 609364.1, 4202097.7,      41.0,      41.0,       0.0);         ( 609409.1,
4202097.7,      41.0,      41.0,       0.0);
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     ( 609454.1, 4202097.7,      41.0,      41.0,       0.0);         ( 609469.1,
4202097.7,      41.0,      41.0,       0.0);
     ( 609484.1, 4202097.7,      41.0,      41.0,       0.0);         ( 609499.1,
4202097.7,      41.0,      41.0,       0.0);
     ( 609514.1, 4202097.7,      41.0,      41.0,       0.0);         ( 609529.1,
4202097.7,      41.0,      41.0,       0.0);
     ( 609544.1, 4202097.7,      41.0,      41.0,       0.0);         ( 609559.1,
4202097.7,      41.0,      41.0,       0.0);
     ( 609574.1, 4202097.7,      41.0,      41.0,       0.0);         ( 609589.1,
4202097.7,      41.0,      41.0,       0.0);
     ( 609604.1, 4202097.7,      41.0,      41.0,       0.0);         ( 609619.1,
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     ( 609634.1, 4202097.7,      41.0,      41.0,       0.0);         ( 609649.1,
4202097.7,      41.0,      41.0,       0.0);
     ( 609664.1, 4202097.7,      41.0,      41.0,       0.0);         ( 609679.1,
4202097.7,      41.0,      41.0,       0.0);
     ( 609694.1, 4202097.7,      41.0,      41.0,       0.0);         ( 609709.1,
4202097.7,      41.0,      41.0,       0.0);
     ( 609724.1, 4202097.7,      41.0,      41.0,       0.0);         ( 608989.1,
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     ( 609004.1, 4202112.7,      40.0,      77.0,       0.0);         ( 609019.1,
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     ( 609064.1, 4202112.7,      39.9,      77.0,       0.0);         ( 609079.1,
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     ( 609094.1, 4202112.7,      39.9,      77.0,       0.0);         ( 609109.1,
4202112.7,      39.9,      77.0,       0.0);
     ( 609124.1, 4202112.7,      39.9,      77.0,       0.0);         ( 609139.1,
4202112.7,      40.0,      77.0,       0.0);
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     ( 609184.1, 4202112.7,      40.3,      40.3,       0.0);         ( 609199.1,
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     ( 609214.1, 4202112.7,      40.9,      40.9,       0.0);         ( 609229.1,
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     ( 609244.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609259.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609274.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609289.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609304.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609319.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609334.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609349.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609364.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609379.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609409.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609424.1,
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     ( 609469.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609484.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609499.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609514.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609529.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609544.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609559.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609574.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609589.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609604.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609619.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609634.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609649.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609664.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609679.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609694.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 609709.1, 4202112.7,      41.0,      41.0,       0.0);         ( 609724.1,
4202112.7,      41.0,      41.0,       0.0);
     ( 608989.1, 4202127.7,      40.5,      77.0,       0.0);         ( 609004.1,
4202127.7,      40.3,      77.0,       0.0);
     ( 609019.1, 4202127.7,      40.1,      77.0,       0.0);         ( 609034.1,
4202127.7,      40.0,      77.0,       0.0);
     ( 609049.1, 4202127.7,      40.0,      77.0,       0.0);         ( 609064.1,
4202127.7,      40.0,      77.0,       0.0);
     ( 609079.1, 4202127.7,      40.0,      77.0,       0.0);         ( 609094.1,
4202127.7,      40.0,      77.0,       0.0);
     ( 609109.1, 4202127.7,      40.0,      77.0,       0.0);         ( 609124.1,
4202127.7,      40.0,      77.0,       0.0);
↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:05:39

                                   PAGE  13
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

     ( 609139.1, 4202127.7,      40.0,      77.0,       0.0);         ( 609154.1,
4202127.7,      40.1,      77.0,       0.0);
     ( 609169.1, 4202127.7,      40.3,      40.3,       0.0);         ( 609184.1,
4202127.7,      40.6,      40.6,       0.0);
     ( 609199.1, 4202127.7,      40.9,      40.9,       0.0);         ( 609214.1,
4202127.7,      41.0,      41.0,       0.0);
     ( 609229.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609244.1,
4202127.7,      41.0,      41.0,       0.0);
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     ( 609259.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609274.1,
4202127.7,      41.0,      41.0,       0.0);
     ( 609289.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609304.1,
4202127.7,      41.0,      41.0,       0.0);
     ( 609319.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609334.1,
4202127.7,      41.0,      41.0,       0.0);
     ( 609349.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609364.1,
4202127.7,      41.0,      41.0,       0.0);
     ( 609379.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609409.1,
4202127.7,      41.0,      41.0,       0.0);
     ( 609424.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609439.1,
4202127.7,      41.0,      41.0,       0.0);
     ( 609454.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609469.1,
4202127.7,      41.0,      41.0,       0.0);
     ( 609484.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609499.1,
4202127.7,      41.0,      41.0,       0.0);
     ( 609514.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609529.1,
4202127.7,      41.0,      41.0,       0.0);
     ( 609544.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609559.1,
4202127.7,      41.0,      41.0,       0.0);
     ( 609574.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609589.1,
4202127.7,      41.0,      41.0,       0.0);
     ( 609604.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609619.1,
4202127.7,      41.0,      41.0,       0.0);
     ( 609634.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609649.1,
4202127.7,      41.0,      41.0,       0.0);
     ( 609664.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609679.1,
4202127.7,      41.0,      41.0,       0.0);
     ( 609694.1, 4202127.7,      41.0,      41.0,       0.0);         ( 609709.1,
4202127.7,      41.0,      41.0,       0.0);
     ( 609724.1, 4202127.7,      41.0,      41.0,       0.0);         ( 608974.1,
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     ( 608989.1, 4202142.7,      40.9,      77.0,       0.0);         ( 609004.1,
4202142.7,      40.6,      77.0,       0.0);
     ( 609019.1, 4202142.7,      40.1,      77.0,       0.0);         ( 609034.1,
4202142.7,      40.0,      77.0,       0.0);
     ( 609049.1, 4202142.7,      40.0,      77.0,       0.0);         ( 609064.1,
4202142.7,      40.0,      77.0,       0.0);
     ( 609079.1, 4202142.7,      40.0,      77.0,       0.0);         ( 609094.1,
4202142.7,      40.0,      77.0,       0.0);
     ( 609109.1, 4202142.7,      40.0,      77.0,       0.0);         ( 609124.1,
4202142.7,      40.0,      77.0,       0.0);
     ( 609139.1, 4202142.7,      40.0,      77.0,       0.0);         ( 609154.1,
4202142.7,      40.3,      40.3,       0.0);
     ( 609169.1, 4202142.7,      40.8,      40.8,       0.0);         ( 609184.1,
4202142.7,      40.9,      40.9,       0.0);
     ( 609199.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609214.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609229.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609244.1,
4202142.7,      41.0,      41.0,       0.0);
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     ( 609259.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609274.1,
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     ( 609289.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609304.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609319.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609334.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609349.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609364.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609379.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609409.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609424.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609439.1,
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     ( 609454.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609469.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609484.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609499.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609514.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609529.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609544.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609559.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609574.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609589.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609604.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609619.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609634.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609649.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609664.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609679.1,
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     ( 609694.1, 4202142.7,      41.0,      41.0,       0.0);         ( 609709.1,
4202142.7,      41.0,      41.0,       0.0);
     ( 609724.1, 4202142.7,      41.0,      41.0,       0.0);         ( 608974.1,
4202157.7,      41.0,      77.0,       0.0);
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:05:39

                                   PAGE  14
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

     ( 608989.1, 4202157.7,      41.0,      77.0,       0.0);         ( 609004.1,
4202157.7,      40.7,      77.0,       0.0);
     ( 609019.1, 4202157.7,      40.2,      77.0,       0.0);         ( 609034.1,
4202157.7,      40.0,      77.0,       0.0);
     ( 609049.1, 4202157.7,      40.0,      77.0,       0.0);         ( 609064.1,
4202157.7,      40.0,      77.0,       0.0);
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     ( 609109.1, 4202157.7,      40.0,      77.0,       0.0);         ( 609124.1,
4202157.7,      40.0,      77.0,       0.0);
     ( 609139.1, 4202157.7,      40.0,      77.0,       0.0);         ( 609154.1,
4202157.7,      40.3,      40.3,       0.0);
     ( 609169.1, 4202157.7,      40.8,      40.8,       0.0);         ( 609184.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609199.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609214.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609229.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609244.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609259.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609274.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609289.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609304.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609319.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609334.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609349.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609364.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609379.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609409.1,
4202157.7,      40.7,      40.7,       0.0);
     ( 609424.1, 4202157.7,      40.7,      40.7,       0.0);         ( 609439.1,
4202157.7,      40.9,      40.9,       0.0);
     ( 609454.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609469.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609484.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609499.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609514.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609529.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609544.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609559.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609574.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609589.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609604.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609619.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609634.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609649.1,
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     ( 609664.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609679.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609694.1, 4202157.7,      41.0,      41.0,       0.0);         ( 609709.1,
4202157.7,      41.0,      41.0,       0.0);
     ( 609724.1, 4202157.7,      41.0,      41.0,       0.0);         ( 608959.1,
4202172.7,      41.2,      77.0,       0.0);
     ( 608974.1, 4202172.7,      41.0,      77.0,       0.0);         ( 608989.1,
4202172.7,      41.0,      77.0,       0.0);
     ( 609004.1, 4202172.7,      40.7,      77.0,       0.0);         ( 609019.1,
4202172.7,      40.2,      77.0,       0.0);
     ( 609034.1, 4202172.7,      40.0,      77.0,       0.0);         ( 609049.1,
4202172.7,      40.0,      77.0,       0.0);
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     ( 609094.1, 4202172.7,      40.0,      77.0,       0.0);         ( 609109.1,
4202172.7,      40.0,      77.0,       0.0);
     ( 609124.1, 4202172.7,      40.0,      77.0,       0.0);         ( 609139.1,
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     ( 609154.1, 4202172.7,      40.3,      40.3,       0.0);         ( 609169.1,
4202172.7,      40.8,      40.8,       0.0);
     ( 609184.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609199.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609214.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609229.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609244.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609259.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609274.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609289.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609304.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609319.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609334.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609349.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609364.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609379.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609424.1, 4202172.7,      40.4,      40.4,       0.0);         ( 609439.1,
4202172.7,      40.9,      40.9,       0.0);
     ( 609454.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609469.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609484.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609499.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609514.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609529.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609544.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609559.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609574.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609589.1,
4202172.7,      41.0,      41.0,       0.0);
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                        ***       11:05:39

                                  PAGE  15
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

     ( 609604.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609619.1,
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     ( 609634.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609649.1,
4202172.7,      41.0,      41.0,       0.0);
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     ( 609664.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609679.1,
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     ( 609694.1, 4202172.7,      41.0,      41.0,       0.0);         ( 609709.1,
4202172.7,      41.0,      41.0,       0.0);
     ( 609724.1, 4202172.7,      41.0,      41.0,       0.0);         ( 608959.1,
4202187.7,      41.5,      77.0,       0.0);
     ( 608974.1, 4202187.7,      41.3,      77.0,       0.0);         ( 608989.1,
4202187.7,      41.1,      77.0,       0.0);
     ( 609004.1, 4202187.7,      40.8,      77.0,       0.0);         ( 609019.1,
4202187.7,      40.5,      77.0,       0.0);
     ( 609034.1, 4202187.7,      40.3,      77.0,       0.0);         ( 609049.1,
4202187.7,      40.1,      77.0,       0.0);
     ( 609064.1, 4202187.7,      40.0,      77.0,       0.0);         ( 609079.1,
4202187.7,      40.0,      77.0,       0.0);
     ( 609094.1, 4202187.7,      40.0,      77.0,       0.0);         ( 609109.1,
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     ( 609124.1, 4202187.7,      40.0,      40.0,       0.0);         ( 609139.1,
4202187.7,      40.0,      40.0,       0.0);
     ( 609154.1, 4202187.7,      40.3,      40.3,       0.0);         ( 609169.1,
4202187.7,      40.8,      40.8,       0.0);
     ( 609184.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609199.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609214.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609229.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609244.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609259.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609274.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609424.1,
4202187.7,      40.2,      40.2,       0.0);
     ( 609439.1, 4202187.7,      40.5,      40.5,       0.0);         ( 609454.1,
4202187.7,      40.7,      40.7,       0.0);
     ( 609469.1, 4202187.7,      40.9,      40.9,       0.0);         ( 609484.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609499.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609514.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609529.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609544.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609559.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609574.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609589.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609604.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609619.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609634.1,
4202187.7,      40.9,      40.9,       0.0);
     ( 609649.1, 4202187.7,      40.7,      40.7,       0.0);         ( 609664.1,
4202187.7,      40.7,      40.7,       0.0);
     ( 609679.1, 4202187.7,      40.9,      40.9,       0.0);         ( 609694.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 609709.1, 4202187.7,      41.0,      41.0,       0.0);         ( 609724.1,
4202187.7,      41.0,      41.0,       0.0);
     ( 608959.1, 4202202.7,      41.9,      77.0,       0.0);         ( 608974.1,
4202202.7,      41.6,      77.0,       0.0);
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(609139.1, 4202202.7, 40.0, 40.0, 0.0); (609154.1, 4202202.7, 40.3, 40.3, 0.0);
(609169.1, 4202202.7, 40.8, 40.8, 0.0); (609184.1, 4202202.7, 41.0, 41.0, 0.0);
(609199.1, 4202202.7, 41.0, 41.0, 0.0); (609214.1, 4202202.7, 41.0, 41.0, 0.0);
(609229.1, 4202202.7, 41.0, 41.0, 0.0); (609244.1, 4202202.7, 41.0, 41.0, 0.0);
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(609424.1, 4202202.7, 40.0, 40.0, 0.0); (609439.1, 4202202.7, 40.1, 40.1, 0.0);
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(609574.1, 4202202.7, 41.0, 41.0, 0.0); (609589.1, 4202202.7, 41.0, 41.0, 0.0);
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(609634.1, 4202202.7, 40.7, 40.7, 0.0); (609649.1, 4202202.7, 40.2, 40.2, 0.0);

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(609664.1, 4202202.7, 40.4, 40.4, 0.0); (609679.1, 4202202.7, 40.9, 40.9, 0.0);

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     ( 609724.1, 4202202.7,      41.0,      41.0,       0.0);         ( 608959.1,
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     ( 608974.1, 4202217.7,      41.7,      77.0,       0.0);         ( 608989.1,
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     ( 609004.1, 4202217.7,      41.0,      77.0,       0.0);         ( 609019.1,
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     ( 609034.1, 4202217.7,      40.8,      77.0,       0.0);         ( 609049.1,
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     ( 609064.1, 4202217.7,      40.3,      77.0,       0.0);         ( 609079.1,
4202217.7,      40.1,      77.0,       0.0);
     ( 609094.1, 4202217.7,      40.0,      40.0,       0.0);         ( 609109.1,
4202217.7,      40.0,      40.0,       0.0);
     ( 609124.1, 4202217.7,      40.0,      40.0,       0.0);         ( 609139.1,
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     ( 609154.1, 4202217.7,      40.3,      40.3,       0.0);         ( 609169.1,
4202217.7,      40.8,      40.8,       0.0);
     ( 609184.1, 4202217.7,      41.0,      41.0,       0.0);         ( 609199.1,
4202217.7,      41.0,      41.0,       0.0);
     ( 609214.1, 4202217.7,      41.0,      41.0,       0.0);         ( 609229.1,
4202217.7,      41.0,      41.0,       0.0);
     ( 609244.1, 4202217.7,      41.0,      41.0,       0.0);         ( 609259.1,
4202217.7,      41.0,      41.0,       0.0);
     ( 609274.1, 4202217.7,      41.0,      41.0,       0.0);         ( 609424.1,
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     ( 609439.1, 4202217.7,      40.0,      40.0,       0.0);         ( 609454.1,
4202217.7,      40.2,      40.2,       0.0);
     ( 609469.1, 4202217.7,      40.5,      40.5,       0.0);         ( 609484.1,
4202217.7,      40.7,      40.7,       0.0);
     ( 609499.1, 4202217.7,      40.9,      40.9,       0.0);         ( 609514.1,
4202217.7,      41.0,      41.0,       0.0);
     ( 609529.1, 4202217.7,      41.0,      41.0,       0.0);         ( 609544.1,
4202217.7,      41.0,      41.0,       0.0);
     ( 609559.1, 4202217.7,      41.0,      41.0,       0.0);         ( 609574.1,
4202217.7,      41.0,      41.0,       0.0);
     ( 609589.1, 4202217.7,      41.0,      41.0,       0.0);         ( 609604.1,
4202217.7,      40.9,      40.9,       0.0);
     ( 609619.1, 4202217.7,      40.7,      40.7,       0.0);         ( 609634.1,
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     ( 609649.1, 4202217.7,      40.1,      40.1,       0.0);         ( 609664.1,
4202217.7,      40.2,      40.2,       0.0);
     ( 609679.1, 4202217.7,      40.5,      40.5,       0.0);         ( 609694.1,
4202217.7,      40.6,      40.6,       0.0);
     ( 609709.1, 4202217.7,      40.6,      40.6,       0.0);         ( 609724.1,
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     ( 608959.1, 4202232.7,      42.0,      77.0,       0.0);         ( 608974.1,
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     ( 608989.1, 4202232.7,      41.2,      77.0,       0.0);         ( 609004.1,
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     ( 609049.1, 4202232.7,      40.9,      40.9,       0.0);         ( 609064.1,
4202232.7,      40.6,      40.6,       0.0);
     ( 609079.1, 4202232.7,      40.1,      40.1,       0.0);         ( 609094.1,
4202232.7,      40.0,      40.0,       0.0);
     ( 609109.1, 4202232.7,      40.0,      40.0,       0.0);         ( 609124.1,
4202232.7,      40.0,      40.0,       0.0);
     ( 609139.1, 4202232.7,      40.0,      40.0,       0.0);         ( 609154.1,
4202232.7,      40.3,      40.3,       0.0);
     ( 609169.1, 4202232.7,      40.8,      40.8,       0.0);         ( 609184.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609199.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609214.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609229.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609244.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609259.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609274.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609424.1, 4202232.7,      40.0,      40.0,       0.0);         ( 609439.1,
4202232.7,      40.0,      40.0,       0.0);
     ( 609454.1, 4202232.7,      40.0,      40.0,       0.0);         ( 609469.1,
4202232.7,      40.1,      40.1,       0.0);
     ( 609484.1, 4202232.7,      40.4,      40.4,       0.0);         ( 609499.1,
4202232.7,      40.9,      40.9,       0.0);
     ( 609514.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609529.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609544.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609559.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609574.1, 4202232.7,      41.0,      41.0,       0.0);         ( 609589.1,
4202232.7,      41.0,      41.0,       0.0);
     ( 609604.1, 4202232.7,      40.7,      40.7,       0.0);         ( 609619.1,
4202232.7,      40.2,      40.2,       0.0);
     ( 609634.1, 4202232.7,      40.1,      40.1,       0.0);         ( 609649.1,
4202232.7,      40.0,      40.0,       0.0);
     ( 609664.1, 4202232.7,      40.0,      40.0,       0.0);         ( 609679.1,
4202232.7,      40.1,      40.1,       0.0);
     ( 609694.1, 4202232.7,      40.1,      40.1,       0.0);         ( 609709.1,
4202232.7,      40.1,      41.0,       0.0);
↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                        ***       11:05:39

                                  PAGE  17
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

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

```
     ( 609724.1, 4202232.7,      41.0,      41.0,       0.0);         ( 608959.1,
4202247.7,      42.0,      77.0,       0.0);
     ( 608974.1, 4202247.7,      41.7,      77.0,       0.0);         ( 608989.1,
4202247.7,      41.2,      77.0,       0.0);
     ( 609004.1, 4202247.7,      41.0,      77.0,       0.0);         ( 609019.1,
4202247.7,      41.0,      77.0,       0.0);
     ( 609034.1, 4202247.7,      41.0,      41.0,       0.0);         ( 609049.1,
4202247.7,      41.0,      41.0,       0.0);
     ( 609064.1, 4202247.7,      40.7,      40.7,       0.0);         ( 609079.1,
4202247.7,      40.2,      40.2,       0.0);
     ( 609094.1, 4202247.7,      40.0,      40.0,       0.0);         ( 609109.1,
4202247.7,      40.0,      40.0,       0.0);
     ( 609124.1, 4202247.7,      40.0,      40.0,       0.0);         ( 609139.1,
4202247.7,      40.0,      40.0,       0.0);
     ( 609154.1, 4202247.7,      40.2,      40.2,       0.0);         ( 609169.1,
4202247.7,      40.5,      40.5,       0.0);
     ( 609184.1, 4202247.7,      40.7,      40.7,       0.0);         ( 609199.1,
4202247.7,      40.9,      40.9,       0.0);
     ( 609214.1, 4202247.7,      41.0,      41.0,       0.0);         ( 609229.1,
4202247.7,      41.0,      41.0,       0.0);
     ( 609244.1, 4202247.7,      41.0,      41.0,       0.0);         ( 609259.1,
4202247.7,      41.0,      41.0,       0.0);
     ( 609274.1, 4202247.7,      41.0,      41.0,       0.0);         ( 609424.1,
4202247.7,      40.0,      40.0,       0.0);
     ( 609439.1, 4202247.7,      40.0,      40.0,       0.0);         ( 609454.1,
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     ( 609469.1, 4202247.7,      40.0,      40.0,       0.0);         ( 609484.1,
4202247.7,      40.2,      40.2,       0.0);
     ( 609499.1, 4202247.7,      40.5,      40.5,       0.0);         ( 609514.1,
4202247.7,      40.6,      40.6,       0.0);
     ( 609529.1, 4202247.7,      40.6,      40.6,       0.0);         ( 609544.1,
4202247.7,      40.7,      40.7,       0.0);
     ( 609559.1, 4202247.7,      40.9,      40.9,       0.0);         ( 609574.1,
4202247.7,      41.0,      41.0,       0.0);
     ( 609589.1, 4202247.7,      41.0,      41.0,       0.0);         ( 609604.1,
4202247.7,      40.7,      40.7,       0.0);
     ( 609619.1, 4202247.7,      40.2,      40.2,       0.0);         ( 609634.1,
4202247.7,      40.0,      40.0,       0.0);
     ( 609649.1, 4202247.7,      40.0,      40.0,       0.0);         ( 609664.1,
4202247.7,      40.0,      40.0,       0.0);
     ( 609679.1, 4202247.7,      40.0,      40.0,       0.0);         ( 609694.1,
4202247.7,      40.0,      40.0,       0.0);
     ( 609709.1, 4202247.7,      40.0,      40.0,       0.0);         ( 609724.1,
4202247.7,      40.9,      40.9,       0.0);
     ( 608959.1, 4202262.7,      42.0,      77.0,       0.0);         ( 608974.1,
4202262.7,      41.7,      77.0,       0.0);
     ( 608989.1, 4202262.7,      41.2,      77.0,       0.0);         ( 609004.1,
4202262.7,      41.0,      41.0,       0.0);
     ( 609019.1, 4202262.7,      41.0,      41.0,       0.0);         ( 609034.1,
4202262.7,      41.0,      41.0,       0.0);
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     ( 609079.1, 4202262.7,      40.2,      40.2,       0.0);         ( 609094.1,
4202262.7,      40.0,      40.0,       0.0);
     ( 609109.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609124.1,
4202262.7,      40.0,      40.0,       0.0);
     ( 609139.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609154.1,
4202262.7,      40.0,      40.0,       0.0);
     ( 609169.1, 4202262.7,      40.1,      40.1,       0.0);         ( 609184.1,
4202262.7,      40.4,      40.4,       0.0);
     ( 609199.1, 4202262.7,      40.9,      40.9,       0.0);         ( 609214.1,
4202262.7,      41.0,      41.0,       0.0);
     ( 609229.1, 4202262.7,      41.0,      41.0,       0.0);         ( 609244.1,
4202262.7,      41.0,      41.0,       0.0);
     ( 609259.1, 4202262.7,      41.0,      41.0,       0.0);         ( 609274.1,
4202262.7,      41.0,      41.0,       0.0);
     ( 609424.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609439.1,
4202262.7,      40.0,      40.0,       0.0);
     ( 609454.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609469.1,
4202262.7,      40.0,      40.0,       0.0);
     ( 609484.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609499.1,
4202262.7,      40.1,      40.1,       0.0);
     ( 609514.1, 4202262.7,      40.1,      40.1,       0.0);         ( 609529.1,
4202262.7,      40.1,      40.1,       0.0);
     ( 609544.1, 4202262.7,      40.4,      40.4,       0.0);         ( 609559.1,
4202262.7,      40.9,      40.9,       0.0);
     ( 609574.1, 4202262.7,      41.0,      41.0,       0.0);         ( 609589.1,
4202262.7,      41.0,      41.0,       0.0);
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     ( 609664.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609679.1,
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     ( 609694.1, 4202262.7,      40.0,      40.0,       0.0);         ( 609709.1,
4202262.7,      40.0,      41.0,       0.0);
     ( 609724.1, 4202262.7,      40.7,      40.7,       0.0);         ( 609424.1,
4202277.7,      40.0,      40.0,       0.0);
     ( 609439.1, 4202277.7,      40.0,      40.0,       0.0);         ( 609454.1,
4202277.7,      40.0,      40.0,       0.0);
```


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

(METERS)

```
     ( 609469.1, 4202277.7,      40.0,      40.0,       0.0);         ( 609484.1,
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4202277.7,      40.0,      40.0,       0.0);
     ( 609529.1, 4202277.7,      40.0,      40.0,       0.0);         ( 609544.1,
4202277.7,      40.2,      40.2,       0.0);
     ( 609559.1, 4202277.7,      40.5,      40.5,       0.0);         ( 609574.1,
4202277.7,      40.6,      40.6,       0.0);
     ( 609589.1, 4202277.7,      40.6,      40.6,       0.0);         ( 609604.1,
4202277.7,      40.4,      40.4,       0.0);
     ( 609619.1, 4202277.7,      40.1,      40.1,       0.0);         ( 609634.1,
4202277.7,      40.0,      40.0,       0.0);
     ( 609649.1, 4202277.7,      40.0,      40.0,       0.0);         ( 609664.1,
4202277.7,      40.0,      40.0,       0.0);
     ( 609679.1, 4202277.7,      40.0,      40.0,       0.0);         ( 609694.1,
4202277.7,      40.0,      40.0,       0.0);
     ( 609709.1, 4202277.7,      40.0,      40.0,       0.0);         ( 609724.1,
4202277.7,      40.4,      40.4,       0.0);
     ( 609409.1, 4202322.7,      40.0,      40.0,       0.0);         ( 609424.1,
4202322.7,      40.0,      40.0,       0.0);
     ( 609439.1, 4202322.7,      40.0,      40.0,       0.0);         ( 609454.1,
4202322.7,      40.0,      40.0,       0.0);
     ( 609469.1, 4202322.7,      40.0,      40.0,       0.0);         ( 609484.1,
4202322.7,      40.0,      40.0,       0.0);
     ( 609499.1, 4202322.7,      40.0,      40.0,       0.0);         ( 609514.1,
4202322.7,      40.0,      40.0,       0.0);
     ( 609529.1, 4202322.7,      40.0,      40.0,       0.0);         ( 609544.1,
4202322.7,      40.0,      40.0,       0.0);
     ( 609559.1, 4202322.7,      40.0,      40.0,       0.0);         ( 609574.1,
4202322.7,      40.0,      40.0,       0.0);
     ( 609589.1, 4202322.7,      40.0,      40.0,       0.0);         ( 609604.1,
4202322.7,      40.0,      40.0,       0.0);
     ( 609619.1, 4202322.7,      40.0,      40.0,       0.0);         ( 609634.1,
4202322.7,      40.0,      40.0,       0.0);
     ( 609649.1, 4202322.7,      40.0,      40.0,       0.0);         ( 609664.1,
4202322.7,      40.0,      40.0,       0.0);
     ( 609679.1, 4202322.7,      40.0,      40.0,       0.0);         ( 609694.1,
4202322.7,      40.0,      40.0,       0.0);
     ( 609409.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609424.1,
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     ( 609439.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609454.1,
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     ( 609469.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609484.1,
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     ( 609499.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609514.1,
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     ( 609529.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609544.1,
4202337.7,      40.0,      40.0,       0.0);
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     ( 609559.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609574.1,
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     ( 609589.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609604.1,
4202337.7,      40.0,      40.0,       0.0);
     ( 609619.1, 4202337.7,      40.0,      40.0,       0.0);         ( 609634.1,
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     ( 609649.1, 4202337.7,      39.7,      39.7,       0.0);         ( 609664.1,
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     ( 609679.1, 4202337.7,      39.6,      39.6,       0.0);         ( 609694.1,
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     ( 609709.1, 4202337.7,      39.6,      39.6,       0.0);         ( 609724.1,
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     ( 609409.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609424.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609439.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609454.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609469.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609484.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609499.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609514.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609529.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609544.1,
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     ( 609559.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609574.1,
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     ( 609589.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609604.1,
4202352.7,      40.0,      40.0,       0.0);
     ( 609619.1, 4202352.7,      40.0,      40.0,       0.0);         ( 609634.1,
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     ( 609649.1, 4202352.7,      39.2,      39.2,       0.0);         ( 609664.1,
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4202352.7,      39.1,      39.1,       0.0);
     ( 609709.1, 4202352.7,      39.1,      40.0,       0.0);         ( 609724.1,
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     ( 609409.1, 4202367.7,      40.0,      40.0,       0.0);         ( 609424.1,
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     ( 609439.1, 4202367.7,      40.0,      40.0,       0.0);         ( 609454.1,
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     ( 609469.1, 4202367.7,      40.0,      40.0,       0.0);         ( 609484.1,
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     ( 609499.1, 4202367.7,      40.0,      40.0,       0.0);         ( 609514.1,
4202367.7,      40.0,      40.0,       0.0);
↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:05:39

                                   PAGE  19
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN
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*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

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(609544.1, 4202382.7, 40.0, 40.0, 0.0); (609559.1, 4202382.7, 40.0, 40.0, 0.0);
(609574.1, 4202382.7, 39.7, 39.7, 0.0); (609589.1, 4202382.7, 39.2, 39.2, 0.0);
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(609694.1, 4202382.7, 39.0, 39.0, 0.0); (609709.1, 4202382.7, 39.0, 40.0, 0.0);
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     ( 609619.1, 4202397.7,      39.0,      39.0,       0.0);         ( 609634.1,
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     ( 609424.1, 4202412.7,      40.0,      40.0,       0.0);         ( 609439.1,
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     ( 609454.1, 4202412.7,      40.0,      40.0,       0.0);         ( 609469.1,
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     ( 609484.1, 4202412.7,      40.0,      40.0,       0.0);         ( 609499.1,
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     ( 609604.1, 4202412.7,      39.0,      39.0,       0.0);         ( 609619.1,
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     ( 609634.1, 4202412.7,      39.0,      39.0,       0.0);         ( 609649.1,
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     ( 609694.1, 4202412.7,      39.0,      39.0,       0.0);         ( 609709.1,
4202412.7,      39.0,      39.0,       0.0);
     ( 609724.1, 4202412.7,      39.1,      39.1,       0.0);         ( 609394.1,
4202427.7,      40.0,      40.0,       0.0);
     ( 609409.1, 4202427.7,      40.0,      40.0,       0.0);         ( 609424.1,
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     ( 609439.1, 4202427.7,      40.0,      40.0,       0.0);         ( 609454.1,
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     ( 609469.1, 4202427.7,      40.0,      40.0,       0.0);         ( 609484.1,
4202427.7,      40.0,      40.0,       0.0);
↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***       10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***       11:05:39

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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

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(609589.1, 4202427.7, 39.1, 39.1, 0.0); (609604.1, 4202427.7, 39.0, 39.0, 0.0);
(609619.1, 4202427.7, 39.0, 39.0, 0.0); (609634.1, 4202427.7, 39.0, 39.0, 0.0);
(609649.1, 4202427.7, 39.0, 39.0, 0.0); (609664.1, 4202427.7, 39.0, 39.0, 0.0);
(609679.1, 4202427.7, 39.0, 39.0, 0.0); (609694.1, 4202427.7, 39.0, 39.0, 0.0);
(609709.1, 4202427.7, 39.0, 39.0, 0.0); (609724.1, 4202427.7, 39.0, 39.0, 0.0);
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(609469.1, 4202472.7, 40.0, 40.0, 0.0); (609484.1, 4202472.7, 40.0, 40.0, 0.0);
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(609529.1, 4202472.7, 40.0, 40.0, 0.0); (609544.1, 4202472.7, 40.0, 40.0, 0.0);
(609559.1, 4202472.7, 40.0, 40.0, 0.0); (609574.1, 4202472.7, 40.0, 40.0, 0.0);
(609589.1, 4202472.7, 39.9, 39.9, 0.0); (609604.1, 4202472.7, 39.6, 39.6, 0.0);
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(609649.1, 4202472.7, 39.0, 39.0, 0.0); (609664.1, 4202472.7, 39.0, 39.0, 0.0);
(609679.1, 4202472.7, 39.0, 39.0, 0.0); (609694.1, 4202472.7, 39.0, 39.0, 0.0);
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(609349.1, 4202487.7, 41.4, 41.4, 0.0); (609364.1, 4202487.7, 41.3, 41.3, 0.0);
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(609424.1, 4202487.7, 40.4, 40.4, 0.0); (609439.1, 4202487.7, 40.4, 40.4, 0.0);
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     ( 609544.1, 4202487.7,      40.0,      40.0,       0.0);         ( 609559.1,
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     ( 609574.1, 4202487.7,      40.0,      40.0,       0.0);         ( 609589.1,
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     ( 609604.1, 4202487.7,      39.8,      39.8,       0.0);         ( 609619.1,
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     ( 609634.1, 4202487.7,      39.4,      39.4,       0.0);         ( 609649.1,
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     ( 609664.1, 4202487.7,      39.3,      39.3,       0.0);         ( 609679.1,
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     ( 609214.1, 4202502.7,      41.9,      41.9,       0.0);         ( 609229.1,
4202502.7,      42.0,      42.0,       0.0);
     ( 609244.1, 4202502.7,      42.0,      42.0,       0.0);         ( 609259.1,
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     ( 609274.1, 4202502.7,      42.0,      42.0,       0.0);         ( 609289.1,
4202502.7,      41.9,      41.9,       0.0);
     ( 609304.1, 4202502.7,      41.9,      41.9,       0.0);         ( 609319.1,
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     ( 609334.1, 4202502.7,      41.9,      41.9,       0.0);         ( 609349.1,
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     ( 609364.1, 4202502.7,      41.6,      41.6,       0.0);         ( 609394.1,
4202502.7,      41.0,      41.0,       0.0);
     ( 609409.1, 4202502.7,      40.9,      40.9,       0.0);         ( 609424.1,
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     ( 609439.1, 4202502.7,      40.9,      40.9,       0.0);         ( 609454.1,
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     ( 609469.1, 4202502.7,      40.1,      40.1,       0.0);         ( 609484.1,
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     ( 609499.1, 4202502.7,      40.0,      40.0,       0.0);         ( 609514.1,
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     ( 609529.1, 4202502.7,      40.0,      40.0,       0.0);         ( 609544.1,
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     ( 609619.1, 4202502.7,      39.9,      39.9,       0.0);         ( 609634.1,
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 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:05:39
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

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(609154.1, 4202517.7, 42.0, 42.0, 0.0); (609169.1, 4202517.7, 42.0, 42.0, 0.0);
(609184.1, 4202517.7, 42.1, 42.1, 0.0); (609199.1, 4202517.7, 42.3, 42.3, 0.0);
(609214.1, 4202517.7, 42.4, 42.4, 0.0); (609229.1, 4202517.7, 42.4, 42.4, 0.0);
(609244.1, 4202517.7, 42.4, 42.4, 0.0); (609259.1, 4202517.7, 42.4, 42.4, 0.0);
(609274.1, 4202517.7, 42.4, 42.4, 0.0); (609289.1, 4202517.7, 42.4, 42.4, 0.0);
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(609634.1, 4202517.7, 40.0, 40.0, 0.0); (609649.1, 4202517.7, 40.0, 40.0, 0.0);
(609079.1, 4202532.7, 42.0, 42.0, 0.0); (609094.1, 4202532.7, 42.0, 42.0, 0.0);
(609109.1, 4202532.7, 42.0, 42.0, 0.0); (609124.1, 4202532.7, 42.0, 42.0, 0.0);

```
     ( 609139.1, 4202532.7,      42.0,      42.0,       0.0);         ( 609154.1,
4202532.7,      42.0,      42.0,       0.0);
     ( 609169.1, 4202532.7,      42.0,      42.0,       0.0);         ( 609184.1,
4202532.7,      42.3,      42.3,       0.0);
     ( 609199.1, 4202532.7,      42.8,      42.8,       0.0);         ( 609214.1,
4202532.7,      42.9,      42.9,       0.0);
     ( 609229.1, 4202532.7,      42.9,      42.9,       0.0);         ( 609244.1,
4202532.7,      42.9,      42.9,       0.0);
     ( 609259.1, 4202532.7,      42.9,      42.9,       0.0);         ( 609274.1,
4202532.7,      42.9,      42.9,       0.0);
     ( 609289.1, 4202532.7,      42.9,      42.9,       0.0);         ( 609304.1,
4202532.7,      42.9,      42.9,       0.0);
     ( 609319.1, 4202532.7,      42.9,      42.9,       0.0);         ( 609334.1,
4202532.7,      42.6,      42.6,       0.0);
     ( 609349.1, 4202532.7,      42.1,      42.1,       0.0);         ( 609364.1,
4202532.7,      42.0,      42.0,       0.0);
     ( 609409.1, 4202532.7,      41.1,      41.1,       0.0);         ( 609424.1,
4202532.7,      41.0,      41.0,       0.0);
     ( 609439.1, 4202532.7,      41.0,      41.0,       0.0);         ( 609454.1,
4202532.7,      40.7,      40.7,       0.0);
     ( 609469.1, 4202532.7,      40.2,      40.2,       0.0);         ( 609484.1,
4202532.7,      40.0,      40.0,       0.0);
     ( 609499.1, 4202532.7,      40.0,      40.0,       0.0);         ( 609514.1,
4202532.7,      40.0,      40.0,       0.0);
     ( 609529.1, 4202532.7,      40.0,      40.0,       0.0);         ( 609544.1,
4202532.7,      40.0,      40.0,       0.0);
     ( 609559.1, 4202532.7,      40.0,      40.0,       0.0);         ( 609574.1,
4202532.7,      40.0,      40.0,       0.0);
     ( 609589.1, 4202532.7,      40.0,      40.0,       0.0);         ( 609604.1,
4202532.7,      40.0,      40.0,       0.0);
     ( 609619.1, 4202532.7,      40.0,      40.0,       0.0);         ( 609094.1,
4202547.7,      42.0,      42.0,       0.0);
     ( 609109.1, 4202547.7,      42.0,      42.0,       0.0);         ( 609124.1,
4202547.7,      42.0,      42.0,       0.0);
     ( 609139.1, 4202547.7,      42.0,      42.0,       0.0);         ( 609154.1,
4202547.7,      42.0,      42.0,       0.0);
     ( 609169.1, 4202547.7,      42.0,      42.0,       0.0);         ( 609184.1,
4202547.7,      42.3,      42.3,       0.0);
     ( 609199.1, 4202547.7,      42.8,      42.8,       0.0);         ( 609214.1,
4202547.7,      43.0,      43.0,       0.0);
     ( 609229.1, 4202547.7,      43.0,      43.0,       0.0);         ( 609244.1,
4202547.7,      43.0,      43.0,       0.0);
     ( 609259.1, 4202547.7,      43.0,      43.0,       0.0);         ( 609274.1,
4202547.7,      43.0,      43.0,       0.0);
     ( 609289.1, 4202547.7,      43.0,      43.0,       0.0);         ( 609304.1,
4202547.7,      43.0,      43.0,       0.0);
     ( 609319.1, 4202547.7,      43.0,      43.0,       0.0);         ( 609334.1,
4202547.7,      42.8,      42.8,       0.0);
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(609349.1, 4202547.7, 42.5, 42.5, 0.0); (609364.1, 4202547.7, 42.3, 42.3, 0.0);
(609409.1, 4202547.7, 41.5, 41.5, 0.0); (609424.1, 4202547.7, 41.3, 41.3, 0.0);
(609439.1, 4202547.7, 41.1, 41.1, 0.0); (609454.1, 4202547.7, 40.7, 40.7, 0.0);
(609469.1, 4202547.7, 40.2, 40.2, 0.0); (609484.1, 4202547.7, 40.0, 40.0, 0.0);
(609499.1, 4202547.7, 40.0, 40.0, 0.0); (609514.1, 4202547.7, 40.0, 40.0, 0.0);
(609529.1, 4202547.7, 40.0, 40.0, 0.0); (609544.1, 4202547.7, 40.0, 40.0, 0.0);
(609559.1, 4202547.7, 40.0, 40.0, 0.0); (609574.1, 4202547.7, 40.0, 40.0, 0.0);
(609589.1, 4202547.7, 40.0, 40.0, 0.0); (609109.1, 4202562.7, 42.0, 42.0, 0.0);
(609124.1, 4202562.7, 42.0, 42.0, 0.0); (609139.1, 4202562.7, 42.0, 42.0, 0.0);
(609154.1, 4202562.7, 42.0, 42.0, 0.0); (609169.1, 4202562.7, 42.0, 42.0, 0.0);
(609184.1, 4202562.7, 42.3, 42.3, 0.0); (609199.1, 4202562.7, 42.8, 42.8, 0.0);
(609214.1, 4202562.7, 43.0, 43.0, 0.0); (609229.1, 4202562.7, 43.0, 43.0, 0.0);
(609244.1, 4202562.7, 43.0, 43.0, 0.0); (609259.1, 4202562.7, 43.0, 43.0, 0.0);
(609274.1, 4202562.7, 43.0, 43.0, 0.0); (609289.1, 4202562.7, 43.0, 43.0, 0.0);
(609304.1, 4202562.7, 43.0, 43.0, 0.0); (609319.1, 4202562.7, 43.0, 43.0, 0.0);
(609334.1, 4202562.7, 43.0, 43.0, 0.0); (609349.1, 4202562.7, 42.9, 42.9, 0.0);
(609364.1, 4202562.7, 42.6, 42.6, 0.0); (609409.1, 4202562.7, 41.9, 41.9, 0.0);
(609424.1, 4202562.7, 41.6, 41.6, 0.0); (609439.1, 4202562.7, 41.1, 41.1, 0.0);
(609454.1, 4202562.7, 40.7, 40.7, 0.0); (609469.1, 4202562.7, 40.2, 40.2, 0.0);
(609484.1, 4202562.7, 40.0, 40.0, 0.0); (609499.1, 4202562.7, 40.0, 40.0, 0.0);

```
     ( 609514.1, 4202562.7,      40.0,      40.0,       0.0);         ( 609529.1,
4202562.7,      40.0,      40.0,       0.0);
     ( 609544.1, 4202562.7,      40.0,      40.0,       0.0);         ( 609559.1,
4202562.7,      40.0,      40.0,       0.0);
     ( 609574.1, 4202562.7,      40.0,      40.0,       0.0);         ( 609124.1,
4202577.7,      42.0,      42.0,       0.0);
     ( 609139.1, 4202577.7,      42.0,      42.0,       0.0);         ( 609154.1,
4202577.7,      42.1,      42.1,       0.0);
     ( 609169.1, 4202577.7,      42.3,      42.3,       0.0);         ( 609184.1,
4202577.7,      42.6,      42.6,       0.0);
     ( 609199.1, 4202577.7,      42.9,      42.9,       0.0);         ( 609214.1,
4202577.7,      43.0,      43.0,       0.0);
     ( 609229.1, 4202577.7,      43.0,      43.0,       0.0);         ( 609244.1,
4202577.7,      43.0,      43.0,       0.0);
     ( 609259.1, 4202577.7,      43.0,      43.0,       0.0);         ( 609274.1,
4202577.7,      43.0,      43.0,       0.0);
     ( 609289.1, 4202577.7,      43.0,      43.0,       0.0);         ( 609304.1,
4202577.7,      43.0,      43.0,       0.0);
     ( 609319.1, 4202577.7,      43.0,      43.0,       0.0);         ( 609334.1,
4202577.7,      43.0,      43.0,       0.0);
     ( 609349.1, 4202577.7,      43.0,      43.0,       0.0);         ( 609364.1,
4202577.7,      42.8,      42.8,       0.0);
     ( 609409.1, 4202577.7,      42.1,      42.1,       0.0);         ( 609424.1,
4202577.7,      41.7,      41.7,       0.0);
     ( 609439.1, 4202577.7,      41.2,      41.2,       0.0);         ( 609454.1,
4202577.7,      40.7,      40.7,       0.0);
     ( 609469.1, 4202577.7,      40.2,      40.2,       0.0);         ( 609484.1,
4202577.7,      40.0,      40.0,       0.0);
     ( 609499.1, 4202577.7,      40.0,      40.0,       0.0);         ( 609514.1,
4202577.7,      40.0,      40.0,       0.0);
     ( 609529.1, 4202577.7,      40.0,      40.0,       0.0);         ( 609544.1,
4202577.7,      40.0,      40.0,       0.0);
     ( 609139.1, 4202592.7,      42.0,      42.0,       0.0);         ( 609154.1,
4202592.7,      42.3,      42.3,       0.0);
     ( 609169.1, 4202592.7,      42.8,      42.8,       0.0);         ( 609184.1,
4202592.7,      42.9,      42.9,       0.0);
     ( 609199.1, 4202592.7,      43.0,      43.0,       0.0);         ( 609214.1,
4202592.7,      43.0,      43.0,       0.0);
     ( 609229.1, 4202592.7,      43.0,      43.0,       0.0);         ( 609244.1,
4202592.7,      43.0,      43.0,       0.0);
     ( 609259.1, 4202592.7,      43.0,      43.0,       0.0);         ( 609274.1,
4202592.7,      43.0,      43.0,       0.0);
     ( 609289.1, 4202592.7,      43.0,      43.0,       0.0);         ( 609304.1,
4202592.7,      43.0,      43.0,       0.0);
     ( 609319.1, 4202592.7,      43.0,      43.0,       0.0);         ( 609334.1,
4202592.7,      43.0,      43.0,       0.0);
     ( 609349.1, 4202592.7,      43.0,      43.0,       0.0);         ( 609364.1,
4202592.7,      43.0,      43.0,       0.0);
     ( 609409.1, 4202592.7,      42.1,      42.1,       0.0);         ( 609424.1,
4202592.7,      41.7,      41.7,       0.0);
```

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

(609439.1, 4202592.7, 41.2, 41.2, 0.0); (609454.1, 4202592.7, 40.7, 40.7, 0.0);
(609469.1, 4202592.7, 40.2, 40.2, 0.0); (609484.1, 4202592.7, 40.0, 40.0, 0.0);
(609499.1, 4202592.7, 40.0, 40.0, 0.0); (609514.1, 4202592.7, 40.0, 40.0, 0.0);
(609529.1, 4202592.7, 40.0, 40.0, 0.0); (609169.1, 4202607.7, 42.8, 42.8, 0.0);
(609184.1, 4202607.7, 43.0, 43.0, 0.0); (609199.1, 4202607.7, 43.0, 43.0, 0.0);
(609214.1, 4202607.7, 43.0, 43.0, 0.0); (609229.1, 4202607.7, 43.0, 43.0, 0.0);
(609244.1, 4202607.7, 43.0, 43.0, 0.0); (609259.1, 4202607.7, 43.0, 43.0, 0.0);
(609274.1, 4202607.7, 43.0, 43.0, 0.0); (609289.1, 4202607.7, 43.0, 43.0, 0.0);
(609304.1, 4202607.7, 43.0, 43.0, 0.0); (609319.1, 4202607.7, 43.0, 43.0, 0.0);
(609334.1, 4202607.7, 43.0, 43.0, 0.0); (609349.1, 4202607.7, 43.0, 43.0, 0.0);
(609364.1, 4202607.7, 43.0, 43.0, 0.0); (609409.1, 4202607.7, 41.8, 41.8, 0.0);
(609424.1, 4202607.7, 41.4, 41.4, 0.0); (609439.1, 4202607.7, 41.1, 41.1, 0.0);
(609454.1, 4202607.7, 40.7, 40.7, 0.0); (609469.1, 4202607.7, 40.2, 40.2, 0.0);
(609484.1, 4202607.7, 40.0, 40.0, 0.0); (609499.1, 4202607.7, 40.0, 40.0, 0.0);
(609199.1, 4202622.7, 43.0, 43.0, 0.0); (609214.1, 4202622.7, 43.0, 43.0, 0.0);
(609229.1, 4202622.7, 43.0, 43.0, 0.0); (609244.1, 4202622.7, 43.0, 43.0, 0.0);
(609259.1, 4202622.7, 43.0, 43.0, 0.0); (609274.1, 4202622.7, 43.0, 43.0, 0.0);
(609289.1, 4202622.7, 43.0, 43.0, 0.0); (609304.1, 4202622.7, 43.0, 43.0, 0.0);
(609319.1, 4202622.7, 43.0, 43.0, 0.0); (609334.1, 4202622.7, 43.0, 43.0, 0.0);

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

SOURCE ID	- - RECEPTOR LOCATION - - XR (METERS)	YR (METERS)	DISTANCE (METERS)
L0000019	609424.1	4202277.7	-3.69
L0000019	609424.1	4202322.7	-0.08
L0000020	609439.1	4202277.7	-3.66
L0000020	609454.1	4202277.7	-1.77
L0000020	609439.1	4202322.7	-0.37
L0000021	609454.1	4202277.7	0.63
L0000021	609469.1	4202277.7	-4.01
L0000021	609484.1	4202277.7	0.98
L0000021	609469.1	4202322.7	-1.00
L0000022	609484.1	4202277.7	-1.72
L0000022	609499.1	4202277.7	

-3.18			
	L0000022	609484.1	4202322.7
0.72			
	L0000022	609499.1	4202322.7
-0.60			
	L0000023	609514.1	4202277.7
-3.14			
	L0000023	609529.1	4202277.7
-1.30			
	L0000023	609514.1	4202322.7
-0.89			
	L0000023	609529.1	4202322.7
0.79			
	L0000024	609544.1	4202277.7
-3.48			
	L0000024	609544.1	4202322.7
-1.53			
	L0000025	609559.1	4202277.7
-1.23			
	L0000025	609574.1	4202277.7
-2.66			
	L0000025	609559.1	4202322.7
0.23			
	L0000025	609574.1	4202322.7
-1.11			
	L0000026	609589.1	4202277.7
-2.63			
	L0000026	609604.1	4202277.7
-0.82			
	L0000026	609589.1	4202322.7
-1.41			
	L0000026	609604.1	4202322.7
0.31			
	L0000027	609619.1	4202277.7
-2.95			
	L0000027	609619.1	4202322.7
-2.06			
	L0000028	609634.1	4202277.7
-0.75			
	L0000028	609649.1	4202277.7
-2.15			
	L0000028	609634.1	4202322.7
-0.26			
	L0000028	609649.1	4202322.7
-1.63			
	L0000029	609664.1	4202277.7
-2.11			
	L0000029	609679.1	4202277.7
-0.34			
	L0000029	609664.1	4202322.7

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

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

                                          *** 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
```

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

*** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES ***

(METERS/SEC)

1.54, 3.09, 5.14, 8.23, 10.80,

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

Surface file: C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.SFC
Met Version: 14134
Profile file: C:\Users\kheck\Desktop\Met Data\Livermore_2009-2014\724927.PFL

Surface format: FREE

Profile format: FREE

Surface station no.: 23285 Upper air station no.: 23230
Name: UNKNOWN Name: OAKLAND/WSO_AP
Year: 2009 Year: 2009

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT

```
 09 01 01   1 01  -12.6  0.221 -9.000 -9.000 -999.  250.     77.5  0.11   0.90
1.00    2.86   51.   10.0  279.2    2.0
 09 01 01   1 02  -23.5  0.413 -9.000 -9.000 -999.  637.    269.8  0.11   0.90
1.00    4.86   48.   10.0  279.2    2.0
 09 01 01   1 03  -11.1  0.195 -9.000 -9.000 -999.  254.     59.8  0.07   0.90
1.00    2.86   94.   10.0  278.8    2.0
 09 01 01   1 04   -9.5  0.166 -9.000 -9.000 -999.  164.     43.7  0.11   0.90
1.00    2.36   53.   10.0  278.1    2.0
 09 01 01   1 05  -11.1  0.195 -9.000 -9.000 -999.  206.     59.6  0.07   0.90
1.00    2.86   63.   10.0  278.1    2.0
 09 01 01   1 06   -8.2  0.143 -9.000 -9.000 -999.  131.     32.3  0.07   0.90
1.00    2.36   72.   10.0  278.1    2.0
 09 01 01   1 07   -8.2  0.143 -9.000 -9.000 -999.  130.     32.3  0.07   0.90
1.00    2.36   75.   10.0  278.1    2.0
 09 01 01   1 08   -4.1  0.078 -9.000 -9.000 -999.   53.     10.3  0.11   0.90
0.75    1.76   13.   10.0  277.5    2.0
 09 01 01   1 09   -6.3  0.246 -9.000 -9.000 -999.  292.    211.6  0.12   0.90
0.40    2.86  347.   10.0  278.1    2.0
 09 01 01   1 10    6.6  0.303  0.261  0.016   96.  401.   -378.3  0.11   0.90
0.27    3.36   51.   10.0  278.8    2.0
 09 01 01   1 11   15.4  0.317  0.422  0.017  176.  429.   -186.8  0.07   0.90
0.23    3.86   94.   10.0  279.9    2.0
 09 01 01   1 12   47.5  0.448  0.742  0.017  309.  720.   -170.5  0.11   0.90
0.22    4.86   56.   10.0  280.9    2.0
 09 01 01   1 13   49.0  0.405  0.820  0.014  403.  621.   -122.0  0.07   0.90
0.21    4.86   63.   10.0  281.4    2.0
 09 01 01   1 14   42.7  0.405  0.809  0.014  444.  619.   -139.5  0.11   0.90
0.22    4.36   59.   10.0  282.0    2.0
 09 01 01   1 15   60.8  0.372  0.922  0.014  463.  545.    -75.6  0.07   0.90
0.25    4.36   72.   10.0  281.4    2.0
 09 01 01   1 16   14.1  0.309  0.569  0.016  467.  414.   -187.5  0.11   0.90
0.34    3.36   54.   10.0  282.0    2.0
 09 01 01   1 17  -30.4  0.311 -9.000 -9.000 -999.  417.     89.1  0.07   0.90
0.58    4.36   61.   10.0  280.4    2.0
 09 01 01   1 18  -27.0  0.239 -9.000 -9.000 -999.  282.     45.2  0.11   0.90
1.00    3.36   47.   10.0  279.9    2.0
 09 01 01   1 19  -14.9  0.131 -9.000 -9.000 -999.  120.     13.7  0.07   0.90
1.00    2.86   64.   10.0  279.2    2.0
 09 01 01   1 20   -5.8  0.078 -9.000 -9.000 -999.   53.      7.3  0.11   0.90
1.00    1.76   47.   10.0  278.8    2.0
 09 01 01   1 21 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.10   0.90
1.00    0.00    0.   10.0  277.5    2.0
 09 01 01   1 22   -4.9  0.070 -9.000 -9.000 -999.   44.      6.2  0.07   0.90
1.00    1.76   82.   10.0  276.4    2.0
 09 01 01   1 23 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.10   0.90
1.00    0.00    0.   10.0  277.0    2.0
 09 01 01   1 24 -999.0 -9.000 -9.000 -9.000 -999. -999. -99999.0  0.10   0.90
1.00    0.00    0.   10.0  277.0    2.0
```

*** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5 YEARS FOR SOURCE GROUP: ALL   ***
INCLUDING SOURCE(S):   L0000001   , L0000002
, L0000003   , L0000004   , L0000005   ,
L0000006   , L0000007   , L0000008   , L0000009   , L0000010
, L0000011   , L0000012   , L0000013   ,
L0000014   , L0000015   , L0000016   , L0000017   , L0000018
, L0000019   , L0000020   , L0000021   ,
L0000022   , L0000023   , L0000024   , L0000025   , L0000026
, L0000027   , L0000028   , . . .   ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5   IN MICROGRAMS/M**3
**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609304.09	4201857.70	0.00004	609319.09	4201857.70	0.00004
609334.09	4201857.70	0.00004	609349.09	4201857.70	0.00004
609364.09	4201857.70	0.00004	609379.09	4201857.70	0.00004
609394.09	4201857.70	0.00004	609259.09	4201872.70	0.00004
609304.09	4201872.70	0.00004	609319.09	4201872.70	0.00004
609334.09	4201872.70	0.00004	609349.09	4201872.70	0.00004
609364.09	4201872.70	0.00004	609379.09	4201872.70	0.00005
609394.09	4201872.70	0.00005	609409.09	4201872.70	0.00005

609424.09 4201872.70 0.00005 609439.09 4201872.70 0.00006
609454.09 4201872.70 0.00006 609199.09 4201887.70 0.00006
609214.09 4201887.70 0.00005 609229.09 4201887.70 0.00005
609244.09 4201887.70 0.00005 609259.09 4201887.70 0.00005
609274.09 4201887.70 0.00005 609304.09 4201887.70 0.00005
609319.09 4201887.70 0.00005 609334.09 4201887.70 0.00005
609349.09 4201887.70 0.00005 609364.09 4201887.70 0.00005
609379.09 4201887.70 0.00005 609394.09 4201887.70 0.00005
609409.09 4201887.70 0.00006 609424.09 4201887.70 0.00006
609439.09 4201887.70 0.00006 609454.09 4201887.70 0.00007
609469.09 4201887.70 0.00008 609484.09 4201887.70 0.00008
609499.09 4201887.70 0.00009 609169.09 4201902.70 0.00007
609184.09 4201902.70 0.00007 609199.09 4201902.70 0.00006
609214.09 4201902.70 0.00006 609229.09 4201902.70 0.00006
609244.09 4201902.70 0.00005 609259.09 4201902.70 0.00005
609274.09 4201902.70 0.00005 609319.09 4201902.70 0.00005
609334.09 4201902.70 0.00005 609349.09 4201902.70 0.00005
609364.09 4201902.70 0.00005 609379.09 4201902.70 0.00005
609394.09 4201902.70 0.00006 609409.09 4201902.70 0.00006
609424.09 4201902.70 0.00007 609439.09 4201902.70 0.00007
609454.09 4201902.70 0.00008 609469.09 4201902.70 0.00009
609484.09 4201902.70 0.00009 609499.09 4201902.70 0.00010
609514.09 4201902.70 0.00011 609529.09 4201902.70 0.00012
609139.09 4201917.70 0.00009 609154.09 4201917.70 0.00008
609169.09 4201917.70 0.00008 609184.09 4201917.70 0.00007

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609199.09	4201917.70	0.00007	609214.09	4201917.70	0.00007
609229.09	4201917.70	0.00006	609244.09	4201917.70	0.00006
609259.09	4201917.70	0.00006	609274.09	4201917.70	0.00006
609289.09	4201917.70	0.00005	609319.09	4201917.70	0.00005
609334.09	4201917.70	0.00005	609349.09	4201917.70	0.00006
609364.09	4201917.70	0.00006	609379.09	4201917.70	0.00006
609394.09	4201917.70	0.00006	609409.09	4201917.70	0.00007
609424.09	4201917.70	0.00007	609439.09	4201917.70	0.00008
609454.09	4201917.70	0.00009	609469.09	4201917.70	0.00010
609484.09	4201917.70	0.00011	609499.09	4201917.70	0.00011
609514.09	4201917.70	0.00012	609529.09		

4201917.70 0.00013
609544.09 4201917.70 0.00014 609109.09
4201932.70 0.00010
609124.09 4201932.70 0.00010 609139.09
4201932.70 0.00010
609154.09 4201932.70 0.00009 609169.09
4201932.70 0.00009
609184.09 4201932.70 0.00008 609199.09
4201932.70 0.00008
609214.09 4201932.70 0.00007 609229.09
4201932.70 0.00007
609244.09 4201932.70 0.00007 609259.09
4201932.70 0.00006
609274.09 4201932.70 0.00006 609289.09
4201932.70 0.00006
609334.09 4201932.70 0.00006 609349.09
4201932.70 0.00006
609364.09 4201932.70 0.00006 609379.09
4201932.70 0.00007
609394.09 4201932.70 0.00007 609409.09
4201932.70 0.00008
609424.09 4201932.70 0.00008 609439.09
4201932.70 0.00009
609454.09 4201932.70 0.00010 609469.09
4201932.70 0.00011
609484.09 4201932.70 0.00012 609499.09
4201932.70 0.00013
609514.09 4201932.70 0.00014 609529.09
4201932.70 0.00015
609544.09 4201932.70 0.00016 609559.09
4201932.70 0.00017
609079.09 4201947.70 0.00012 609094.09
4201947.70 0.00012
609109.09 4201947.70 0.00012 609124.09
4201947.70 0.00011
609139.09 4201947.70 0.00011 609154.09
4201947.70 0.00010
609169.09 4201947.70 0.00010 609184.09
4201947.70 0.00009
609199.09 4201947.70 0.00009 609214.09
4201947.70 0.00008
609229.09 4201947.70 0.00008 609244.09
4201947.70 0.00007
609259.09 4201947.70 0.00007 609274.09
4201947.70 0.00007
609289.09 4201947.70 0.00007 609304.09
4201947.70 0.00006
609334.09 4201947.70 0.00006 609349.09
4201947.70 0.00007
609364.09 4201947.70 0.00007 609379.09

4201947.70   0.00007
         609394.09   4201947.70   0.00008   609409.09
4201947.70   0.00009
         609424.09   4201947.70   0.00009   609439.09
4201947.70   0.00010
         609454.09   4201947.70   0.00011   609469.09
4201947.70   0.00013
         609484.09   4201947.70   0.00014   609499.09
4201947.70   0.00015
         609514.09   4201947.70   0.00016   609529.09
4201947.70   0.00017
         609544.09   4201947.70   0.00018   609559.09
4201947.70   0.00019
         609574.09   4201947.70   0.00019   609064.09
4201962.70   0.00014
         609079.09   4201962.70   0.00014   609094.09
4201962.70   0.00013
         609109.09   4201962.70   0.00013   609124.09
4201962.70   0.00013
         609139.09   4201962.70   0.00012   609154.09
4201962.70   0.00012
         609169.09   4201962.70   0.00011   609184.09
4201962.70   0.00011

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   L0000001   , L0000002
 , L0000003   , L0000004   , L0000005   ,
                   L0000006   , L0000007   , L0000008   , L0000009   , L0000010
 , L0000011   , L0000012   , L0000013   ,
                   L0000014   , L0000015   , L0000016   , L0000017   , L0000018
 , L0000019   , L0000020   , L0000021   ,
                   L0000022   , L0000023   , L0000024   , L0000025   , L0000026
 , L0000027   , L0000028   , . . .   ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                             ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

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

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 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - 
- - - - - - - - - - - - - - - - - - - - - - - - 
         609199.09    4201962.70        0.00010                      609214.09
4201962.70        0.00009
         609229.09    4201962.70        0.00009                      609244.09
4201962.70        0.00008
         609259.09    4201962.70        0.00008                      609274.09
4201962.70        0.00008
         609289.09    4201962.70        0.00007                      609304.09
4201962.70        0.00007
         609349.09    4201962.70        0.00007                      609364.09
4201962.70        0.00008
         609379.09    4201962.70        0.00008                      609394.09
4201962.70        0.00009
         609409.09    4201962.70        0.00010                      609424.09
4201962.70        0.00011
         609439.09    4201962.70        0.00012                      609454.09
4201962.70        0.00013
         609469.09    4201962.70        0.00015                      609484.09
4201962.70        0.00016
         609499.09    4201962.70        0.00017                      609514.09
4201962.70        0.00018
         609529.09    4201962.70        0.00019                      609544.09
4201962.70        0.00020
         609559.09    4201962.70        0.00021                      609574.09
4201962.70        0.00022
         609589.09    4201962.70        0.00022                      609604.09
4201962.70        0.00023
         609049.09    4201977.70        0.00016                      609064.09
4201977.70        0.00016
         609079.09    4201977.70        0.00015                      609094.09
4201977.70        0.00015
         609109.09    4201977.70        0.00015                      609124.09
4201977.70        0.00014
         609139.09    4201977.70        0.00014                      609154.09
4201977.70        0.00013
         609169.09    4201977.70        0.00013                      609184.09
4201977.70        0.00012
         609199.09    4201977.70        0.00011                      609214.09
4201977.70        0.00011
         609229.09    4201977.70        0.00010                      609244.09
4201977.70        0.00009
         609259.09    4201977.70        0.00009                      609274.09
4201977.70        0.00008
         609289.09    4201977.70        0.00008                      609304.09
4201977.70        0.00008
         609319.09    4201977.70        0.00008                      609349.09
4201977.70        0.00008
         609364.09    4201977.70        0.00009                      609379.09
4201977.70        0.00009
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         609394.09    4201977.70        0.00010                     609409.09
4201977.70        0.00011
         609424.09    4201977.70        0.00012                     609439.09
4201977.70        0.00014
         609454.09    4201977.70        0.00015                     609469.09
4201977.70        0.00017
         609484.09    4201977.70        0.00018                     609499.09
4201977.70        0.00020
         609514.09    4201977.70        0.00021                     609529.09
4201977.70        0.00022
         609544.09    4201977.70        0.00023                     609559.09
4201977.70        0.00024
         609574.09    4201977.70        0.00024                     609589.09
4201977.70        0.00025
         609604.09    4201977.70        0.00025                     609619.09
4201977.70        0.00025
         609049.09    4201992.70        0.00017                     609064.09
4201992.70        0.00017
         609079.09    4201992.70        0.00017                     609094.09
4201992.70        0.00017
         609109.09    4201992.70        0.00017                     609124.09
4201992.70        0.00016
         609139.09    4201992.70        0.00016                     609154.09
4201992.70        0.00015
         609169.09    4201992.70        0.00015                     609184.09
4201992.70        0.00014
         609199.09    4201992.70        0.00013                     609214.09
4201992.70        0.00012
         609229.09    4201992.70        0.00012                     609244.09
4201992.70        0.00011
         609259.09    4201992.70        0.00010                     609274.09
4201992.70        0.00010
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  31
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                   L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                   L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                   L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,
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*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609289.09	4201992.70	0.00009	609304.09	4201992.70	0.00009
609319.09	4201992.70	0.00009	609364.09	4201992.70	0.00010
609379.09	4201992.70	0.00011	609394.09	4201992.70	0.00012
609409.09	4201992.70	0.00013	609424.09	4201992.70	0.00014
609439.09	4201992.70	0.00016	609454.09	4201992.70	0.00018
609469.09	4201992.70	0.00020	609484.09	4201992.70	0.00021
609499.09	4201992.70	0.00023	609514.09	4201992.70	0.00024
609529.09	4201992.70	0.00025	609544.09	4201992.70	0.00026
609559.09	4201992.70	0.00027	609574.09	4201992.70	0.00027
609589.09	4201992.70	0.00028	609604.09	4201992.70	0.00028
609619.09	4201992.70	0.00027	609634.09	4201992.70	0.00027
609034.09	4202007.70	0.00019	609049.09	4202007.70	0.00019
609064.09	4202007.70	0.00019	609079.09	4202007.70	0.00019
609094.09	4202007.70	0.00019	609109.09	4202007.70	0.00019
609124.09	4202007.70	0.00018	609139.09	4202007.70	0.00018
609154.09	4202007.70	0.00017	609169.09	4202007.70	0.00017
609184.09	4202007.70	0.00016	609199.09	4202007.70	0.00015
609214.09	4202007.70	0.00014	609229.09	4202007.70	0.00013
609244.09	4202007.70	0.00012	609259.09	4202007.70	0.00012
609274.09	4202007.70	0.00011	609289.09		

4202007.70   0.00010
         609304.09   4202007.70   0.00010   609319.09
4202007.70   0.00010
         609334.09   4202007.70   0.00010   609379.09
4202007.70   0.00012
         609394.09   4202007.70   0.00013   609409.09
4202007.70   0.00015
         609424.09   4202007.70   0.00017   609439.09
4202007.70   0.00019
         609454.09   4202007.70   0.00021   609469.09
4202007.70   0.00023
         609484.09   4202007.70   0.00025   609499.09
4202007.70   0.00027
         609514.09   4202007.70   0.00028   609529.09
4202007.70   0.00029
         609544.09   4202007.70   0.00030   609559.09
4202007.70   0.00030
         609574.09   4202007.70   0.00031   609589.09
4202007.70   0.00031
         609604.09   4202007.70   0.00030   609619.09
4202007.70   0.00030
         609634.09   4202007.70   0.00029   609649.09
4202007.70   0.00029
         609034.09   4202022.70   0.00021   609049.09
4202022.70   0.00021
         609064.09   4202022.70   0.00021   609079.09
4202022.70   0.00021
         609094.09   4202022.70   0.00021   609109.09
4202022.70   0.00021
         609124.09   4202022.70   0.00021   609139.09
4202022.70   0.00021
         609154.09   4202022.70   0.00020   609169.09
4202022.70   0.00019
         609184.09   4202022.70   0.00019   609199.09
4202022.70   0.00018
         609214.09   4202022.70   0.00017   609229.09
4202022.70   0.00016
         609244.09   4202022.70   0.00014   609259.09
4202022.70   0.00013
         609274.09   4202022.70   0.00013   609289.09
4202022.70   0.00012

YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002
, L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010
, L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018
, L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026
, L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_2.5 IN MICROGRAMS/M**3
**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609304.09	4202022.70	0.00011	609319.09	4202022.70	0.00011
609334.09	4202022.70	0.00011	609349.09	4202022.70	0.00012
609379.09	4202022.70	0.00014	609394.09	4202022.70	0.00016
609409.09	4202022.70	0.00018	609424.09	4202022.70	0.00020
609439.09	4202022.70	0.00023	609454.09	4202022.70	0.00025
609469.09	4202022.70	0.00027	609484.09	4202022.70	0.00030
609499.09	4202022.70	0.00031	609514.09	4202022.70	0.00032
609529.09	4202022.70	0.00033	609544.09	4202022.70	0.00034
609559.09	4202022.70	0.00034	609574.09	4202022.70	0.00034
609589.09	4202022.70	0.00034	609604.09	4202022.70	0.00033
609619.09	4202022.70	0.00033	609634.09	4202022.70	0.00032
609649.09	4202022.70	0.00031	609664.09	4202022.70	0.00030
609019.09	4202037.70	0.00022	609034.09	4202037.70	0.00023
609049.09	4202037.70	0.00023	609064.09	4202037.70	0.00024
609079.09	4202037.70	0.00024	609094.09	4202037.70	0.00024

609109.09 4202037.70 0.00024 609124.09 4202037.70 0.00024
609139.09 4202037.70 0.00024 609154.09 4202037.70 0.00023
609169.09 4202037.70 0.00023 609184.09 4202037.70 0.00022
609199.09 4202037.70 0.00021 609214.09 4202037.70 0.00020
609229.09 4202037.70 0.00018 609244.09 4202037.70 0.00017
609259.09 4202037.70 0.00016 609274.09 4202037.70 0.00015
609289.09 4202037.70 0.00014 609304.09 4202037.70 0.00013
609319.09 4202037.70 0.00013 609334.09 4202037.70 0.00013
609349.09 4202037.70 0.00014 609394.09 4202037.70 0.00019
609409.09 4202037.70 0.00022 609424.09 4202037.70 0.00025
609439.09 4202037.70 0.00028 609454.09 4202037.70 0.00030
609469.09 4202037.70 0.00033 609484.09 4202037.70 0.00035
609499.09 4202037.70 0.00036 609514.09 4202037.70 0.00038
609529.09 4202037.70 0.00038 609544.09 4202037.70 0.00038
609559.09 4202037.70 0.00038 609574.09 4202037.70 0.00038
609589.09 4202037.70 0.00037 609604.09 4202037.70 0.00036
609619.09 4202037.70 0.00035 609634.09 4202037.70 0.00034
609649.09 4202037.70 0.00033 609664.09 4202037.70 0.00032
609679.09 4202037.70 0.00031 609019.09 4202052.70 0.00024
609034.09 4202052.70 0.00025 609049.09 4202052.70 0.00025
609064.09 4202052.70 0.00026 609079.09 4202052.70 0.00027
609094.09 4202052.70 0.00027 609109.09 4202052.70 0.00027
609124.09 4202052.70 0.00027 609139.09 4202052.70 0.00027
609154.09 4202052.70 0.00027 609169.09 4202052.70 0.00027
609184.09 4202052.70 0.00026 609199.09 4202052.70 0.00025

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609214.09	4202052.70	0.00024	609229.09	4202052.70	0.00022
609244.09	4202052.70	0.00020	609259.09	4202052.70	0.00019
609274.09	4202052.70	0.00017	609289.09	4202052.70	0.00016
609304.09	4202052.70	0.00015	609319.09	4202052.70	0.00015
609334.09	4202052.70	0.00015	609349.09	4202052.70	0.00016
609364.09	4202052.70	0.00018	609394.09	4202052.70	0.00023
609409.09	4202052.70	0.00026	609424.09	4202052.70	0.00030
609439.09	4202052.70	0.00034	609454.09	4202052.70	0.00037
609469.09	4202052.70	0.00039	609484.09	4202052.70	0.00041
609499.09	4202052.70	0.00043	609514.09	4202052.70	0.00043
609529.09	4202052.70	0.00044	609544.09		

```
4202052.70        0.00043
         609559.09    4202052.70        0.00043                   609574.09
4202052.70        0.00042
         609589.09    4202052.70        0.00041                   609604.09
4202052.70        0.00039
         609619.09    4202052.70        0.00038                   609634.09
4202052.70        0.00037
         609649.09    4202052.70        0.00035                   609664.09
4202052.70        0.00034
         609679.09    4202052.70        0.00033                   609694.09
4202052.70        0.00031
         609004.09    4202067.70        0.00025                   609019.09
4202067.70        0.00026
         609034.09    4202067.70        0.00027                   609049.09
4202067.70        0.00028
         609064.09    4202067.70        0.00029                   609079.09
4202067.70        0.00029
         609094.09    4202067.70        0.00030                   609109.09
4202067.70        0.00031
         609124.09    4202067.70        0.00031                   609139.09
4202067.70        0.00032
         609154.09    4202067.70        0.00032                   609169.09
4202067.70        0.00031
         609184.09    4202067.70        0.00031                   609199.09
4202067.70        0.00030
         609214.09    4202067.70        0.00028                   609229.09
4202067.70        0.00027
         609244.09    4202067.70        0.00025                   609259.09
4202067.70        0.00023
         609274.09    4202067.70        0.00021                   609289.09
4202067.70        0.00019
         609304.09    4202067.70        0.00018                   609319.09
4202067.70        0.00017
         609334.09    4202067.70        0.00018                   609349.09
4202067.70        0.00019
         609364.09    4202067.70        0.00021                   609409.09
4202067.70        0.00033
         609424.09    4202067.70        0.00037                   609439.09
4202067.70        0.00041
         609454.09    4202067.70        0.00045                   609469.09
4202067.70        0.00047
         609484.09    4202067.70        0.00049                   609499.09
4202067.70        0.00050
         609514.09    4202067.70        0.00050                   609529.09
4202067.70        0.00050
         609544.09    4202067.70        0.00049                   609559.09
4202067.70        0.00048
         609574.09    4202067.70        0.00046                   609589.09
4202067.70        0.00044
         609604.09    4202067.70        0.00043                   609619.09
```

4202067.70   0.00041
         609634.09   4202067.70   0.00039   609649.09
4202067.70   0.00037
         609664.09   4202067.70   0.00036   609679.09
4202067.70   0.00034
         609694.09   4202067.70   0.00033   609709.09
4202067.70   0.00031
         609004.09   4202082.70   0.00027   609019.09
4202082.70   0.00028

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   L0000001   , L0000002
 , L0000003   , L0000004   , L0000005   ,
                   L0000006   , L0000007   , L0000008   , L0000009   , L0000010
 , L0000011   , L0000012   , L0000013   ,
                   L0000014   , L0000015   , L0000016   , L0000017   , L0000018
 , L0000019   , L0000020   , L0000021   ,
                   L0000022   , L0000023   , L0000024   , L0000025   , L0000026
 , L0000027   , L0000028   , . . .   ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         609034.09   4202082.70   0.00029   609049.09
4202082.70   0.00030
         609064.09   4202082.70   0.00031   609079.09
4202082.70   0.00032
         609094.09   4202082.70   0.00034   609109.09
4202082.70   0.00035
         609124.09   4202082.70   0.00036   609139.09
4202082.70   0.00037
         609154.09   4202082.70   0.00037   609169.09
4202082.70   0.00037
         609184.09   4202082.70   0.00037   609199.09
4202082.70   0.00036

609214.09 4202082.70 0.00035 609229.09
4202082.70 0.00033
609244.09 4202082.70 0.00031 609259.09
4202082.70 0.00028
609274.09 4202082.70 0.00026 609289.09
4202082.70 0.00023
609304.09 4202082.70 0.00022 609319.09
4202082.70 0.00021
609334.09 4202082.70 0.00021 609349.09
4202082.70 0.00023
609364.09 4202082.70 0.00026 609409.09
4202082.70 0.00042
609424.09 4202082.70 0.00047 609439.09
4202082.70 0.00052
609454.09 4202082.70 0.00055 609469.09
4202082.70 0.00057
609484.09 4202082.70 0.00059 609499.09
4202082.70 0.00059
609514.09 4202082.70 0.00058 609529.09
4202082.70 0.00057
609544.09 4202082.70 0.00055 609559.09
4202082.70 0.00053
609574.09 4202082.70 0.00050 609589.09
4202082.70 0.00048
609604.09 4202082.70 0.00046 609619.09
4202082.70 0.00044
609634.09 4202082.70 0.00041 609649.09
4202082.70 0.00039
609664.09 4202082.70 0.00037 609679.09
4202082.70 0.00036
609694.09 4202082.70 0.00034 609709.09
4202082.70 0.00032
609004.09 4202097.70 0.00028 609019.09
4202097.70 0.00029
609034.09 4202097.70 0.00031 609049.09
4202097.70 0.00032
609064.09 4202097.70 0.00034 609079.09
4202097.70 0.00036
609094.09 4202097.70 0.00037 609109.09
4202097.70 0.00039
609124.09 4202097.70 0.00040 609139.09
4202097.70 0.00042
609154.09 4202097.70 0.00043 609169.09
4202097.70 0.00044
609184.09 4202097.70 0.00044 609199.09
4202097.70 0.00044
609214.09 4202097.70 0.00043 609229.09
4202097.70 0.00041
609244.09 4202097.70 0.00039 609259.09
4202097.70 0.00036

```
         609274.09    4202097.70        0.00033                      609289.09
4202097.70        0.00029
         609304.09    4202097.70        0.00027                      609319.09
4202097.70        0.00026
         609334.09    4202097.70        0.00026                      609349.09
4202097.70        0.00029
         609364.09    4202097.70        0.00033                      609409.09
4202097.70        0.00054
         609424.09    4202097.70        0.00060                      609439.09
4202097.70        0.00065
         609454.09    4202097.70        0.00068                      609469.09
4202097.70        0.00069
         609484.09    4202097.70        0.00069                      609499.09
4202097.70        0.00068
         609514.09    4202097.70        0.00066                      609529.09
4202097.70        0.00064
         609544.09    4202097.70        0.00061                      609559.09
4202097.70        0.00058
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  35
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                   L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                   L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                   L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                               *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - -
         609574.09    4202097.70        0.00055                      609589.09
4202097.70        0.00052
         609604.09    4202097.70        0.00049                      609619.09
```

4202097.70 0.00046
609634.09 4202097.70 0.00044 609649.09
4202097.70 0.00041
609664.09 4202097.70 0.00039 609679.09
4202097.70 0.00037
609694.09 4202097.70 0.00035 609709.09
4202097.70 0.00033
609724.09 4202097.70 0.00032 608989.09
4202112.70 0.00028
609004.09 4202112.70 0.00030 609019.09
4202112.70 0.00031
609034.09 4202112.70 0.00033 609049.09
4202112.70 0.00035
609064.09 4202112.70 0.00037 609079.09
4202112.70 0.00039
609094.09 4202112.70 0.00041 609109.09
4202112.70 0.00043
609124.09 4202112.70 0.00045 609139.09
4202112.70 0.00048
609154.09 4202112.70 0.00049 609169.09
4202112.70 0.00051
609184.09 4202112.70 0.00053 609199.09
4202112.70 0.00053
609214.09 4202112.70 0.00053 609229.09
4202112.70 0.00052
609244.09 4202112.70 0.00050 609259.09
4202112.70 0.00046
609274.09 4202112.70 0.00042 609289.09
4202112.70 0.00038
609304.09 4202112.70 0.00034 609319.09
4202112.70 0.00033
609334.09 4202112.70 0.00033 609349.09
4202112.70 0.00037
609364.09 4202112.70 0.00044 609379.09
4202112.70 0.00053
609409.09 4202112.70 0.00071 609424.09
4202112.70 0.00078
609439.09 4202112.70 0.00082 609454.09
4202112.70 0.00084
609469.09 4202112.70 0.00084 609484.09
4202112.70 0.00082
609499.09 4202112.70 0.00079 609514.09
4202112.70 0.00075
609529.09 4202112.70 0.00071 609544.09
4202112.70 0.00067
609559.09 4202112.70 0.00063 609574.09
4202112.70 0.00059
609589.09 4202112.70 0.00055 609604.09
4202112.70 0.00052
609619.09 4202112.70 0.00049 609634.09

```
4202112.70        0.00046
         609649.09    4202112.70        0.00043                        609664.09
4202112.70        0.00041
         609679.09    4202112.70        0.00038                        609694.09
4202112.70        0.00036
         609709.09    4202112.70        0.00034                        609724.09
4202112.70        0.00033
         608989.09    4202127.70        0.00029                        609004.09
4202127.70        0.00031
         609019.09    4202127.70        0.00033                        609034.09
4202127.70        0.00035
         609049.09    4202127.70        0.00037                        609064.09
4202127.70        0.00039
         609079.09    4202127.70        0.00042                        609094.09
4202127.70        0.00044
         609109.09    4202127.70        0.00047                        609124.09
4202127.70        0.00050
         609139.09    4202127.70        0.00053                        609154.09
4202127.70        0.00057
         609169.09    4202127.70        0.00060                        609184.09
4202127.70        0.00062
         609199.09    4202127.70        0.00065                        609214.09
4202127.70        0.00066
         609229.09    4202127.70        0.00066                        609244.09
4202127.70        0.00064
         609259.09    4202127.70        0.00061                        609274.09
4202127.70        0.00056
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  36
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                  INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                   L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                   L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                   L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                             ** CONC OF PM_2.5   IN MICROGRAMS/M**3
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**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609289.09	4202127.70	0.00051	609304.09	4202127.70	0.00046
609319.09	4202127.70	0.00044	609334.09	4202127.70	0.00045
609349.09	4202127.70	0.00051	609364.09	4202127.70	0.00061
609379.09	4202127.70	0.00073	609409.09	4202127.70	0.00095
609424.09	4202127.70	0.00102	609439.09	4202127.70	0.00104
609454.09	4202127.70	0.00103	609469.09	4202127.70	0.00100
609484.09	4202127.70	0.00095	609499.09	4202127.70	0.00090
609514.09	4202127.70	0.00084	609529.09	4202127.70	0.00078
609544.09	4202127.70	0.00073	609559.09	4202127.70	0.00068
609574.09	4202127.70	0.00063	609589.09	4202127.70	0.00059
609604.09	4202127.70	0.00055	609619.09	4202127.70	0.00051
609634.09	4202127.70	0.00048	609649.09	4202127.70	0.00045
609664.09	4202127.70	0.00042	609679.09	4202127.70	0.00040
609694.09	4202127.70	0.00038	609709.09	4202127.70	0.00035
609724.09	4202127.70	0.00034	608974.09	4202142.70	0.00029
608989.09	4202142.70	0.00030	609004.09	4202142.70	0.00032
609019.09	4202142.70	0.00034	609034.09	4202142.70	0.00036
609049.09	4202142.70	0.00039	609064.09	4202142.70	0.00041
609079.09	4202142.70	0.00044	609094.09	4202142.70	0.00048
609109.09	4202142.70	0.00051	609124.09	4202142.70	0.00055
609139.09	4202142.70	0.00059	609154.09	4202142.70	0.00064
609169.09	4202142.70	0.00068	609184.09	4202142.70	0.00073

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         609199.09    4202142.70        0.00077                      609214.09
4202142.70        0.00081
         609229.09    4202142.70        0.00084                      609244.09
4202142.70        0.00084
         609259.09    4202142.70        0.00083                      609274.09
4202142.70        0.00078
         609289.09    4202142.70        0.00071                      609304.09
4202142.70        0.00065
         609319.09    4202142.70        0.00063                      609334.09
4202142.70        0.00066
         609349.09    4202142.70        0.00076                      609364.09
4202142.70        0.00089
         609379.09    4202142.70        0.00105                      609409.09
4202142.70        0.00131
         609424.09    4202142.70        0.00135                      609439.09
4202142.70        0.00132
         609454.09    4202142.70        0.00126                      609469.09
4202142.70        0.00119
         609484.09    4202142.70        0.00110                      609499.09
4202142.70        0.00101
         609514.09    4202142.70        0.00093                      609529.09
4202142.70        0.00086
         609544.09    4202142.70        0.00079                      609559.09
4202142.70        0.00072
         609574.09    4202142.70        0.00067                      609589.09
4202142.70        0.00062
         609604.09    4202142.70        0.00057                      609619.09
4202142.70        0.00053
         609634.09    4202142.70        0.00050                      609649.09
4202142.70        0.00046
         609664.09    4202142.70        0.00044                      609679.09
4202142.70        0.00041
         609694.09    4202142.70        0.00039                      609709.09
4202142.70        0.00036
         609724.09    4202142.70        0.00035                      608974.09
4202157.70        0.00029
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  37
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                   INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                   L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
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```
                L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                  **

       X-COORD (M)   Y-COORD (M)        CONC                       X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         608989.09    4202157.70        0.00031                      609004.09
4202157.70        0.00033
         609019.09    4202157.70        0.00035                      609034.09
4202157.70        0.00037
         609049.09    4202157.70        0.00040                      609064.09
4202157.70        0.00043
         609079.09    4202157.70        0.00046                      609094.09
4202157.70        0.00050
         609109.09    4202157.70        0.00054                      609124.09
4202157.70        0.00059
         609139.09    4202157.70        0.00064                      609154.09
4202157.70        0.00070
         609169.09    4202157.70        0.00077                      609184.09
4202157.70        0.00084
         609199.09    4202157.70        0.00091                      609214.09
4202157.70        0.00098
         609229.09    4202157.70        0.00105                      609244.09
4202157.70        0.00111
         609259.09    4202157.70        0.00113                      609274.09
4202157.70        0.00111
         609289.09    4202157.70        0.00105                      609304.09
4202157.70        0.00098
         609319.09    4202157.70        0.00099                      609334.09
4202157.70        0.00108
         609349.09    4202157.70        0.00122                      609364.09
4202157.70        0.00139
         609379.09    4202157.70        0.00159                      609409.09
4202157.70        0.00182
         609424.09    4202157.70        0.00177                      609439.09
4202157.70        0.00166
         609454.09    4202157.70        0.00152                      609469.09
4202157.70        0.00138
         609484.09    4202157.70        0.00124                      609499.09
4202157.70        0.00112
         609514.09    4202157.70        0.00102                      609529.09
```

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4202157.70        0.00092
         609544.09    4202157.70        0.00084                    609559.09
4202157.70        0.00076
         609574.09    4202157.70        0.00070                    609589.09
4202157.70        0.00064
         609604.09    4202157.70        0.00060                    609619.09
4202157.70        0.00055
         609634.09    4202157.70        0.00051                    609649.09
4202157.70        0.00048
         609664.09    4202157.70        0.00045                    609679.09
4202157.70        0.00042
         609694.09    4202157.70        0.00040                    609709.09
4202157.70        0.00037
         609724.09    4202157.70        0.00035                    608959.09
4202172.70        0.00028
         608974.09    4202172.70        0.00030                    608989.09
4202172.70        0.00032
         609004.09    4202172.70        0.00034                    609019.09
4202172.70        0.00036
         609034.09    4202172.70        0.00038                    609049.09
4202172.70        0.00041
         609064.09    4202172.70        0.00044                    609079.09
4202172.70        0.00048
         609094.09    4202172.70        0.00052                    609109.09
4202172.70        0.00057
         609124.09    4202172.70        0.00062                    609139.09
4202172.70        0.00068
         609154.09    4202172.70        0.00075                    609169.09
4202172.70        0.00084
         609184.09    4202172.70        0.00093                    609199.09
4202172.70        0.00103
         609214.09    4202172.70        0.00115                    609229.09
4202172.70        0.00128
         609244.09    4202172.70        0.00142                    609259.09
4202172.70        0.00155
         609274.09    4202172.70        0.00163                    609289.09
4202172.70        0.00161
         609304.09    4202172.70        0.00160                    609319.09
4202172.70        0.00177
         609334.09    4202172.70        0.00200                    609349.09
4202172.70        0.00219
         609364.09    4202172.70        0.00236                    609379.09
4202172.70        0.00255
         609424.09    4202172.70        0.00229                    609439.09
4202172.70        0.00203
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***       11:05:39
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609454.09	4202172.70	0.00178	609469.09	4202172.70	0.00156
609484.09	4202172.70	0.00138	609499.09	4202172.70	0.00122
609514.09	4202172.70	0.00109	609529.09	4202172.70	0.00098
609544.09	4202172.70	0.00088	609559.09	4202172.70	0.00080
609574.09	4202172.70	0.00073	609589.09	4202172.70	0.00067
609604.09	4202172.70	0.00062	609619.09	4202172.70	0.00057
609634.09	4202172.70	0.00053	609649.09	4202172.70	0.00049
609664.09	4202172.70	0.00046	609679.09	4202172.70	0.00043
609694.09	4202172.70	0.00041	609709.09	4202172.70	0.00038
609724.09	4202172.70	0.00036	608959.09	4202187.70	0.00028
608974.09	4202187.70	0.00030	608989.09	4202187.70	0.00032
609004.09	4202187.70	0.00034	609019.09	4202187.70	0.00036
609034.09	4202187.70	0.00039	609049.09	4202187.70	0.00042

609064.09 4202187.70 0.00045 609079.09 4202187.70 0.00049
609094.09 4202187.70 0.00054 609109.09 4202187.70 0.00058
609124.09 4202187.70 0.00064 609139.09 4202187.70 0.00071
609154.09 4202187.70 0.00078 609169.09 4202187.70 0.00088
609184.09 4202187.70 0.00099 609199.09 4202187.70 0.00112
609214.09 4202187.70 0.00128 609229.09 4202187.70 0.00147
609244.09 4202187.70 0.00171 609259.09 4202187.70 0.00201
609274.09 4202187.70 0.00234 609424.09 4202187.70 0.00283
609439.09 4202187.70 0.00237 609454.09 4202187.70 0.00201
609469.09 4202187.70 0.00172 609484.09 4202187.70 0.00149
609499.09 4202187.70 0.00130 609514.09 4202187.70 0.00115
609529.09 4202187.70 0.00102 609544.09 4202187.70 0.00092
609559.09 4202187.70 0.00083 609574.09 4202187.70 0.00075
609589.09 4202187.70 0.00069 609604.09 4202187.70 0.00063
609619.09 4202187.70 0.00059 609634.09 4202187.70 0.00054
609649.09 4202187.70 0.00051 609664.09 4202187.70 0.00047
609679.09 4202187.70 0.00044 609694.09 4202187.70 0.00042
609709.09 4202187.70 0.00039 609724.09 4202187.70 0.00037
608959.09 4202202.70 0.00029 608974.09 4202202.70 0.00030
608989.09 4202202.70 0.00032 609004.09 4202202.70 0.00035
609019.09 4202202.70 0.00037 609034.09 4202202.70 0.00040
609049.09 4202202.70 0.00043 609064.09 4202202.70 0.00046
609079.09 4202202.70 0.00050 609094.09 4202202.70 0.00054
609109.09 4202202.70 0.00059 609124.09 4202202.70 0.00065
609139.09 4202202.70 0.00071 609154.09 4202202.70 0.00079

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609229.09	4202202.70	0.00157	609244.09	4202202.70	0.00187
609259.09	4202202.70	0.00228	609274.09	4202202.70	0.00279
609424.09	4202202.70	0.00326	609439.09	4202202.70	0.00262
609454.09	4202202.70	0.00217	609469.09	4202202.70	0.00183
609484.09	4202202.70	0.00156	609499.09	4202202.70	0.00135
609514.09	4202202.70	0.00119	609529.09	4202202.70	0.00105
609544.09	4202202.70	0.00094	609559.09	4202202.70	0.00085
609574.09	4202202.70	0.00078	609589.09	4202202.70	0.00071
609604.09	4202202.70	0.00065	609619.09		

4202202.70 0.00061
609634.09 4202202.70 0.00056 609649.09
4202202.70 0.00052
609664.09 4202202.70 0.00049 609679.09
4202202.70 0.00046
609694.09 4202202.70 0.00043 609709.09
4202202.70 0.00041
609724.09 4202202.70 0.00038 608959.09
4202217.70 0.00029
608974.09 4202217.70 0.00031 608989.09
4202217.70 0.00033
609004.09 4202217.70 0.00036 609019.09
4202217.70 0.00038
609034.09 4202217.70 0.00041 609049.09
4202217.70 0.00044
609064.09 4202217.70 0.00047 609079.09
4202217.70 0.00051
609094.09 4202217.70 0.00055 609109.09
4202217.70 0.00060
609124.09 4202217.70 0.00065 609139.09
4202217.70 0.00071
609154.09 4202217.70 0.00079 609169.09
4202217.70 0.00088
609184.09 4202217.70 0.00099 609199.09
4202217.70 0.00114
609214.09 4202217.70 0.00132 609229.09
4202217.70 0.00156
609244.09 4202217.70 0.00188 609259.09
4202217.70 0.00231
609274.09 4202217.70 0.00286 609424.09
4202217.70 0.00351
609439.09 4202217.70 0.00276 609454.09
4202217.70 0.00225
609469.09 4202217.70 0.00188 609484.09
4202217.70 0.00160
609499.09 4202217.70 0.00138 609514.09
4202217.70 0.00121
609529.09 4202217.70 0.00108 609544.09
4202217.70 0.00097
609559.09 4202217.70 0.00088 609574.09
4202217.70 0.00080
609589.09 4202217.70 0.00073 609604.09
4202217.70 0.00068
609619.09 4202217.70 0.00063 609634.09
4202217.70 0.00058
609649.09 4202217.70 0.00055 609664.09
4202217.70 0.00051
609679.09 4202217.70 0.00048 609694.09
4202217.70 0.00045
609709.09 4202217.70 0.00042 609724.09

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4202217.70        0.00040
         608959.09    4202232.70        0.00030                       608974.09
4202232.70        0.00032
         608989.09    4202232.70        0.00035                       609004.09
4202232.70        0.00037
         609019.09    4202232.70        0.00040                       609034.09
4202232.70        0.00043
         609049.09    4202232.70        0.00047                       609064.09
4202232.70        0.00050
         609079.09    4202232.70        0.00053                       609094.09
4202232.70        0.00056
         609109.09    4202232.70        0.00061                       609124.09
4202232.70        0.00065
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  40
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                   INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                   L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                   L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                   L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                           ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                          X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
         609139.09    4202232.70        0.00070                       609154.09
4202232.70        0.00077
         609169.09    4202232.70        0.00085                       609184.09
4202232.70        0.00095
         609199.09    4202232.70        0.00108                       609214.09
4202232.70        0.00125
         609229.09    4202232.70        0.00148                       609244.09
4202232.70        0.00179
```

609259.09 4202232.70 0.00222 609274.09
4202232.70 0.00280
609424.09 4202232.70 0.00357 609439.09
4202232.70 0.00279
609454.09 4202232.70 0.00225 609469.09
4202232.70 0.00187
609484.09 4202232.70 0.00160 609499.09
4202232.70 0.00139
609514.09 4202232.70 0.00123 609529.09
4202232.70 0.00110
609544.09 4202232.70 0.00099 609559.09
4202232.70 0.00090
609574.09 4202232.70 0.00083 609589.09
4202232.70 0.00077
609604.09 4202232.70 0.00071 609619.09
4202232.70 0.00066
609634.09 4202232.70 0.00062 609649.09
4202232.70 0.00058
609664.09 4202232.70 0.00054 609679.09
4202232.70 0.00051
609694.09 4202232.70 0.00048 609709.09
4202232.70 0.00045
609724.09 4202232.70 0.00042 608959.09
4202247.70 0.00032
608974.09 4202247.70 0.00035 608989.09
4202247.70 0.00038
609004.09 4202247.70 0.00042 609019.09
4202247.70 0.00045
609034.09 4202247.70 0.00048 609049.09
4202247.70 0.00052
609064.09 4202247.70 0.00054 609079.09
4202247.70 0.00057
609094.09 4202247.70 0.00060 609109.09
4202247.70 0.00064
609124.09 4202247.70 0.00067 609139.09
4202247.70 0.00072
609154.09 4202247.70 0.00077 609169.09
4202247.70 0.00084
609184.09 4202247.70 0.00092 609199.09
4202247.70 0.00102
609214.09 4202247.70 0.00116 609229.09
4202247.70 0.00135
609244.09 4202247.70 0.00163 609259.09
4202247.70 0.00204
609274.09 4202247.70 0.00261 609424.09
4202247.70 0.00348
609439.09 4202247.70 0.00272 609454.09
4202247.70 0.00221
609469.09 4202247.70 0.00185 609484.09
4202247.70 0.00159

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         609499.09    4202247.70        0.00140                      609514.09
4202247.70        0.00125
         609529.09    4202247.70        0.00113                      609544.09
4202247.70        0.00103
         609559.09    4202247.70        0.00095                      609574.09
4202247.70        0.00088
         609589.09    4202247.70        0.00082                      609604.09
4202247.70        0.00077
         609619.09    4202247.70        0.00072                      609634.09
4202247.70        0.00068
         609649.09    4202247.70        0.00064                      609664.09
4202247.70        0.00060
         609679.09    4202247.70        0.00056                      609694.09
4202247.70        0.00052
         609709.09    4202247.70        0.00049                      609724.09
4202247.70        0.00046
         608959.09    4202262.70        0.00037                      608974.09
4202262.70        0.00042
         608989.09    4202262.70        0.00047                      609004.09
4202262.70        0.00052
         609019.09    4202262.70        0.00056                      609034.09
4202262.70        0.00059
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  41
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                    INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                   L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                   L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                   L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                           ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)        CONC                         X-COORD (M)
Y-COORD (M)        CONC
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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- - - - - - - - - - - - - - - - - - - - - - - -
         609049.09    4202262.70        0.00062                      609064.09
4202262.70        0.00065
         609079.09    4202262.70        0.00067                      609094.09
4202262.70        0.00069
         609109.09    4202262.70        0.00072                      609124.09
4202262.70        0.00075
         609139.09    4202262.70        0.00078                      609154.09
4202262.70        0.00082
         609169.09    4202262.70        0.00087                      609184.09
4202262.70        0.00093
         609199.09    4202262.70        0.00100                      609214.09
4202262.70        0.00110
         609229.09    4202262.70        0.00124                      609244.09
4202262.70        0.00145
         609259.09    4202262.70        0.00177                      609274.09
4202262.70        0.00228
         609424.09    4202262.70        0.00325                      609439.09
4202262.70        0.00259
         609454.09    4202262.70        0.00215                      609469.09
4202262.70        0.00184
         609484.09    4202262.70        0.00161                      609499.09
4202262.70        0.00144
         609514.09    4202262.70        0.00130                      609529.09
4202262.70        0.00120
         609544.09    4202262.70        0.00111                      609559.09
4202262.70        0.00103
         609574.09    4202262.70        0.00097                      609589.09
4202262.70        0.00091
         609604.09    4202262.70        0.00087                      609619.09
4202262.70        0.00082
         609634.09    4202262.70        0.00078                      609649.09
4202262.70        0.00074
         609664.09    4202262.70        0.00070                      609679.09
4202262.70        0.00065
         609694.09    4202262.70        0.00061                      609709.09
4202262.70        0.00057
         609724.09    4202262.70        0.00052                      609424.09
4202277.70        0.00286
         609439.09    4202277.70        0.00238                      609454.09
4202277.70        0.00190
         609469.09    4202277.70        0.00177                      609484.09
4202277.70        0.00145
         609499.09    4202277.70        0.00142                      609514.09
4202277.70        0.00132
         609529.09    4202277.70        0.00121                      609544.09
4202277.70        0.00114
         609559.09    4202277.70        0.00110                      609574.09
4202277.70        0.00101
         609589.09    4202277.70        0.00098                      609604.09
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4202277.70        0.00092
         609619.09    4202277.70        0.00088                      609634.09
4202277.70        0.00086
         609649.09    4202277.70        0.00080                      609664.09
4202277.70        0.00077
         609679.09    4202277.70        0.00071                      609694.09
4202277.70        0.00066
         609709.09    4202277.70        0.00062                      609724.09
4202277.70        0.00052
         609409.09    4202322.70        0.00177                      609424.09
4202322.70        0.00153
         609439.09    4202322.70        0.00142                      609454.09
4202322.70        0.00140
         609469.09    4202322.70        0.00118                      609484.09
4202322.70        0.00112
         609499.09    4202322.70        0.00100                      609514.09
4202322.70        0.00096
         609529.09    4202322.70        0.00088                      609544.09
4202322.70        0.00084
         609559.09    4202322.70        0.00083                      609574.09
4202322.70        0.00075
         609589.09    4202322.70        0.00074                      609604.09
4202322.70        0.00069
         609619.09    4202322.70        0.00067                      609634.09
4202322.70        0.00068
         609649.09    4202322.70        0.00062                      609664.09
4202322.70        0.00061
         609679.09    4202322.70        0.00057                      609694.09
4202322.70        0.00055
         609409.09    4202337.70        0.00133                      609424.09
4202337.70        0.00126
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  42
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                    INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                   L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                   L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                   L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,
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*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609439.09	4202337.70	0.00119	609454.09	4202337.70	0.00111
609469.09	4202337.70	0.00103	609484.09	4202337.70	0.00096
609499.09	4202337.70	0.00090	609514.09	4202337.70	0.00084
609529.09	4202337.70	0.00079	609544.09	4202337.70	0.00075
609559.09	4202337.70	0.00072	609574.09	4202337.70	0.00068
609589.09	4202337.70	0.00065	609604.09	4202337.70	0.00063
609619.09	4202337.70	0.00060	609634.09	4202337.70	0.00058
609649.09	4202337.70	0.00056	609664.09	4202337.70	0.00054
609679.09	4202337.70	0.00052	609694.09	4202337.70	0.00050
609709.09	4202337.70	0.00047	609724.09	4202337.70	0.00044
609409.09	4202352.70	0.00104	609424.09	4202352.70	0.00101
609439.09	4202352.70	0.00097	609454.09	4202352.70	0.00091
609469.09	4202352.70	0.00086	609484.09	4202352.70	0.00081
609499.09	4202352.70	0.00076	609514.09	4202352.70	0.00071
609529.09	4202352.70	0.00067	609544.09	4202352.70	0.00064
609559.09	4202352.70	0.00060	609574.09	4202352.70	0.00058
609589.09	4202352.70	0.00055	609604.09	4202352.70	0.00053
609619.09	4202352.70	0.00051	609634.09	4202352.70	0.00048
609649.09	4202352.70	0.00046	609664.09	4202352.70	0.00044
609679.09	4202352.70	0.00043	609694.09	4202352.70	0.00041

```
         609709.09    4202352.70        0.00039                      609724.09
4202352.70        0.00037
         609409.09    4202367.70        0.00084                      609424.09
4202367.70        0.00083
         609439.09    4202367.70        0.00081                      609454.09
4202367.70        0.00077
         609469.09    4202367.70        0.00073                      609484.09
4202367.70        0.00070
         609499.09    4202367.70        0.00066                      609514.09
4202367.70        0.00062
         609529.09    4202367.70        0.00059                      609544.09
4202367.70        0.00056
         609559.09    4202367.70        0.00053                      609574.09
4202367.70        0.00050
         609589.09    4202367.70        0.00048                      609604.09
4202367.70        0.00046
         609619.09    4202367.70        0.00044                      609634.09
4202367.70        0.00042
         609649.09    4202367.70        0.00040                      609664.09
4202367.70        0.00038
         609679.09    4202367.70        0.00037                      609694.09
4202367.70        0.00035
         609709.09    4202367.70        0.00034                      609724.09
4202367.70        0.00032
         609394.09    4202382.70        0.00068                      609409.09
4202382.70        0.00069
         609424.09    4202382.70        0.00069                      609439.09
4202382.70        0.00068
         609454.09    4202382.70        0.00066                      609469.09
4202382.70        0.00063
         609484.09    4202382.70        0.00061                      609499.09
4202382.70        0.00058
         609514.09    4202382.70        0.00055                      609529.09
4202382.70        0.00052
         609544.09    4202382.70        0.00050                      609559.09
4202382.70        0.00047
         609574.09    4202382.70        0.00045                      609589.09
4202382.70        0.00043
         609604.09    4202382.70        0.00041                      609619.09
4202382.70        0.00039
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  43
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
```

INCLUDING SOURCE(S): L0000001 , L0000002
, L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010
, L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018
, L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026
, L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS
***

** CONC OF PM_2.5 IN MICROGRAMS/M**3
**

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609634.09	4202382.70	0.00037	609649.09	4202382.70	0.00036
609664.09	4202382.70	0.00034	609679.09	4202382.70	0.00033
609694.09	4202382.70	0.00031	609709.09	4202382.70	0.00030
609724.09	4202382.70	0.00029	609394.09	4202397.70	0.00057
609409.09	4202397.70	0.00058	609424.09	4202397.70	0.00059
609439.09	4202397.70	0.00058	609454.09	4202397.70	0.00057
609469.09	4202397.70	0.00055	609484.09	4202397.70	0.00053
609499.09	4202397.70	0.00051	609514.09	4202397.70	0.00049
609529.09	4202397.70	0.00047	609544.09	4202397.70	0.00045
609559.09	4202397.70	0.00043	609574.09	4202397.70	0.00041
609589.09	4202397.70	0.00039	609604.09	4202397.70	0.00037
609619.09	4202397.70	0.00035	609634.09	4202397.70	0.00034
609649.09	4202397.70	0.00032	609664.09	4202397.70	0.00031
609679.09	4202397.70	0.00030	609694.09	4202397.70	0.00028
609709.09	4202397.70	0.00027	609724.09	4202397.70	0.00026
609394.09	4202412.70	0.00048	609409.09		

```
4202412.70        0.00050
         609424.09    4202412.70        0.00050                   609439.09
4202412.70        0.00050
         609454.09    4202412.70        0.00049                   609469.09
4202412.70        0.00048
         609484.09    4202412.70        0.00047                   609499.09
4202412.70        0.00046
         609514.09    4202412.70        0.00044                   609529.09
4202412.70        0.00042
         609544.09    4202412.70        0.00040                   609559.09
4202412.70        0.00039
         609574.09    4202412.70        0.00037                   609589.09
4202412.70        0.00035
         609604.09    4202412.70        0.00034                   609619.09
4202412.70        0.00032
         609634.09    4202412.70        0.00031                   609649.09
4202412.70        0.00030
         609664.09    4202412.70        0.00029                   609679.09
4202412.70        0.00027
         609694.09    4202412.70        0.00026                   609709.09
4202412.70        0.00025
         609724.09    4202412.70        0.00024                   609394.09
4202427.70        0.00042
         609409.09    4202427.70        0.00043                   609424.09
4202427.70        0.00043
         609439.09    4202427.70        0.00044                   609454.09
4202427.70        0.00043
         609469.09    4202427.70        0.00043                   609484.09
4202427.70        0.00042
         609499.09    4202427.70        0.00041                   609514.09
4202427.70        0.00040
         609529.09    4202427.70        0.00038                   609544.09
4202427.70        0.00037
         609559.09    4202427.70        0.00035                   609574.09
4202427.70        0.00034
         609589.09    4202427.70        0.00033                   609604.09
4202427.70        0.00031
         609619.09    4202427.70        0.00030                   609634.09
4202427.70        0.00029
         609649.09    4202427.70        0.00028                   609664.09
4202427.70        0.00026
         609679.09    4202427.70        0.00025                   609694.09
4202427.70        0.00024
         609709.09    4202427.70        0.00023                   609724.09
4202427.70        0.00022
         609439.09    4202472.70        0.00030                   609454.09
4202472.70        0.00030
         609469.09    4202472.70        0.00030                   609484.09
4202472.70        0.00030
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
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 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                  INCLUDING SOURCE(S):   L0000001   , L0000002
 , L0000003   , L0000004   , L0000005   ,
                  L0000006   , L0000007   , L0000008   , L0000009   , L0000010
 , L0000011   , L0000012   , L0000013   ,
                  L0000014   , L0000015   , L0000016   , L0000017   , L0000018
 , L0000019   , L0000020   , L0000021   ,
                  L0000022   , L0000023   , L0000024   , L0000025   , L0000026
 , L0000027   , L0000028   , . . .   ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                             ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         609499.09   4202472.70   0.00030   609514.09
4202472.70   0.00029
         609529.09   4202472.70   0.00029   609544.09
4202472.70   0.00028
         609559.09   4202472.70   0.00027   609574.09
4202472.70   0.00027
         609589.09   4202472.70   0.00026   609604.09
4202472.70   0.00025
         609619.09   4202472.70   0.00024   609634.09
4202472.70   0.00023
         609649.09   4202472.70   0.00023   609664.09
4202472.70   0.00022
         609679.09   4202472.70   0.00021   609694.09
4202472.70   0.00020
         609319.09   4202487.70   0.00019   609334.09
4202487.70   0.00020
         609349.09   4202487.70   0.00022   609364.09
4202487.70   0.00023
         609394.09   4202487.70   0.00025   609409.09
4202487.70   0.00026
         609424.09   4202487.70   0.00027   609439.09
4202487.70   0.00027

609454.09 4202487.70 0.00027 609469.09 4202487.70 0.00027
609484.09 4202487.70 0.00027 609499.09 4202487.70 0.00027
609514.09 4202487.70 0.00027 609529.09 4202487.70 0.00026
609544.09 4202487.70 0.00026 609559.09 4202487.70 0.00025
609574.09 4202487.70 0.00025 609589.09 4202487.70 0.00024
609604.09 4202487.70 0.00023 609619.09 4202487.70 0.00023
609634.09 4202487.70 0.00022 609649.09 4202487.70 0.00021
609664.09 4202487.70 0.00021 609679.09 4202487.70 0.00020
609184.09 4202502.70 0.00010 609199.09 4202502.70 0.00011
609214.09 4202502.70 0.00011 609229.09 4202502.70 0.00012
609244.09 4202502.70 0.00012 609259.09 4202502.70 0.00013
609274.09 4202502.70 0.00014 609289.09 4202502.70 0.00015
609304.09 4202502.70 0.00016 609319.09 4202502.70 0.00017
609334.09 4202502.70 0.00018 609349.09 4202502.70 0.00020
609364.09 4202502.70 0.00021 609394.09 4202502.70 0.00023
609409.09 4202502.70 0.00024 609424.09 4202502.70 0.00024
609439.09 4202502.70 0.00025 609454.09 4202502.70 0.00025
609469.09 4202502.70 0.00025 609484.09 4202502.70 0.00025
609499.09 4202502.70 0.00025 609514.09 4202502.70 0.00024
609529.09 4202502.70 0.00024 609544.09 4202502.70 0.00024
609559.09 4202502.70 0.00023 609574.09 4202502.70 0.00023
609589.09 4202502.70 0.00022 609604.09 4202502.70 0.00022
609619.09 4202502.70 0.00021 609634.09 4202502.70 0.00021
609649.09 4202502.70 0.00020 609664.09 4202502.70 0.00019
609064.09 4202517.70 0.00006 609079.09 4202517.70 0.00007

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609214.09	4202517.70	0.00010	609229.09	4202517.70	0.00011
609244.09	4202517.70	0.00011	609259.09	4202517.70	0.00012
609274.09	4202517.70	0.00013	609289.09	4202517.70	0.00014
609304.09	4202517.70	0.00015	609319.09	4202517.70	0.00016
609334.09	4202517.70	0.00017	609349.09	4202517.70	0.00018
609364.09	4202517.70	0.00019	609409.09	4202517.70	0.00021
609424.09	4202517.70	0.00022	609439.09		

4202517.70 0.00022
609454.09 4202517.70 0.00023 609469.09
4202517.70 0.00023
609484.09 4202517.70 0.00023 609499.09
4202517.70 0.00023
609514.09 4202517.70 0.00022 609529.09
4202517.70 0.00022
609544.09 4202517.70 0.00022 609559.09
4202517.70 0.00022
609574.09 4202517.70 0.00021 609589.09
4202517.70 0.00021
609604.09 4202517.70 0.00020 609619.09
4202517.70 0.00020
609634.09 4202517.70 0.00019 609649.09
4202517.70 0.00019
609079.09 4202532.70 0.00006 609094.09
4202532.70 0.00007
609109.09 4202532.70 0.00007 609124.09
4202532.70 0.00007
609139.09 4202532.70 0.00008 609154.09
4202532.70 0.00008
609169.09 4202532.70 0.00008 609184.09
4202532.70 0.00009
609199.09 4202532.70 0.00009 609214.09
4202532.70 0.00010
609229.09 4202532.70 0.00010 609244.09
4202532.70 0.00011
609259.09 4202532.70 0.00011 609274.09
4202532.70 0.00012
609289.09 4202532.70 0.00013 609304.09
4202532.70 0.00014
609319.09 4202532.70 0.00014 609334.09
4202532.70 0.00015
609349.09 4202532.70 0.00016 609364.09
4202532.70 0.00017
609409.09 4202532.70 0.00019 609424.09
4202532.70 0.00020
609439.09 4202532.70 0.00020 609454.09
4202532.70 0.00021
609469.09 4202532.70 0.00021 609484.09
4202532.70 0.00021
609499.09 4202532.70 0.00021 609514.09
4202532.70 0.00021
609529.09 4202532.70 0.00020 609544.09
4202532.70 0.00020
609559.09 4202532.70 0.00020 609574.09
4202532.70 0.00020
609589.09 4202532.70 0.00019 609604.09
4202532.70 0.00019
609619.09 4202532.70 0.00019 609094.09

4202547.70   0.00006
         609109.09   4202547.70   0.00006   609124.09
4202547.70   0.00007
         609139.09   4202547.70   0.00007   609154.09
4202547.70   0.00007
         609169.09   4202547.70   0.00008   609184.09
4202547.70   0.00008
         609199.09   4202547.70   0.00008   609214.09
4202547.70   0.00009
         609229.09   4202547.70   0.00009   609244.09
4202547.70   0.00010
         609259.09   4202547.70   0.00011   609274.09
4202547.70   0.00011
         609289.09   4202547.70   0.00012   609304.09
4202547.70   0.00013
         609319.09   4202547.70   0.00013   609334.09
4202547.70   0.00014

 *** MODELOPTs: RegDFAULT CONC ELEV URBAN

                   *** THE ANNUAL AVERAGE CONCENTRATION   VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL   ***
                                   INCLUDING SOURCE(S):   L0000001   , L0000002
 , L0000003   , L0000004   , L0000005   ,
                   L0000006   , L0000007   , L0000008   , L0000009   , L0000010
 , L0000011   , L0000012   , L0000013   ,
                   L0000014   , L0000015   , L0000016   , L0000017   , L0000018
 , L0000019   , L0000020   , L0000021   ,
                   L0000022   , L0000023   , L0000024   , L0000025   , L0000026
 , L0000027   , L0000028   , . . .   ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                             ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

       X-COORD (M)   Y-COORD (M)   CONC   X-COORD (M)
Y-COORD (M)   CONC
 -
- -
         609349.09   4202547.70   0.00015   609364.09
4202547.70   0.00016
         609409.09   4202547.70   0.00018   609424.09
4202547.70   0.00018

609439.09 4202547.70 0.00019 609454.09
4202547.70 0.00019
609469.09 4202547.70 0.00019 609484.09
4202547.70 0.00019
609499.09 4202547.70 0.00019 609514.09
4202547.70 0.00019
609529.09 4202547.70 0.00019 609544.09
4202547.70 0.00019
609559.09 4202547.70 0.00019 609574.09
4202547.70 0.00018
609589.09 4202547.70 0.00018 609109.09
4202562.70 0.00006
609124.09 4202562.70 0.00006 609139.09
4202562.70 0.00007
609154.09 4202562.70 0.00007 609169.09
4202562.70 0.00007
609184.09 4202562.70 0.00008 609199.09
4202562.70 0.00008
609214.09 4202562.70 0.00008 609229.09
4202562.70 0.00009
609244.09 4202562.70 0.00009 609259.09
4202562.70 0.00010
609274.09 4202562.70 0.00010 609289.09
4202562.70 0.00011
609304.09 4202562.70 0.00012 609319.09
4202562.70 0.00012
609334.09 4202562.70 0.00013 609349.09
4202562.70 0.00014
609364.09 4202562.70 0.00014 609409.09
4202562.70 0.00016
609424.09 4202562.70 0.00017 609439.09
4202562.70 0.00017
609454.09 4202562.70 0.00017 609469.09
4202562.70 0.00017
609484.09 4202562.70 0.00018 609499.09
4202562.70 0.00018
609514.09 4202562.70 0.00018 609529.09
4202562.70 0.00018
609544.09 4202562.70 0.00017 609559.09
4202562.70 0.00017
609574.09 4202562.70 0.00017 609124.09
4202577.70 0.00006
609139.09 4202577.70 0.00006 609154.09
4202577.70 0.00007
609169.09 4202577.70 0.00007 609184.09
4202577.70 0.00007
609199.09 4202577.70 0.00007 609214.09
4202577.70 0.00008
609229.09 4202577.70 0.00008 609244.09
4202577.70 0.00009

```
         609259.09    4202577.70        0.00009                      609274.09
4202577.70        0.00010
         609289.09    4202577.70        0.00010                      609304.09
4202577.70        0.00011
         609319.09    4202577.70        0.00011                      609334.09
4202577.70        0.00012
         609349.09    4202577.70        0.00013                      609364.09
4202577.70        0.00013
         609409.09    4202577.70        0.00015                      609424.09
4202577.70        0.00015
         609439.09    4202577.70        0.00016                      609454.09
4202577.70        0.00016
         609469.09    4202577.70        0.00016                      609484.09
4202577.70        0.00016
         609499.09    4202577.70        0.00016                      609514.09
4202577.70        0.00016
         609529.09    4202577.70        0.00016                      609544.09
4202577.70        0.00016
         609139.09    4202592.70        0.00006                      609154.09
4202592.70        0.00006
         609169.09    4202592.70        0.00006                      609184.09
4202592.70        0.00007
         609199.09    4202592.70        0.00007                      609214.09
4202592.70        0.00007
         609229.09    4202592.70        0.00008                      609244.09
4202592.70        0.00008
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  47
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                  *** THE ANNUAL AVERAGE CONCENTRATION    VALUES AVERAGED OVER   5
YEARS FOR SOURCE GROUP: ALL      ***
                                   INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                   L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                   L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                   L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                           ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **
```

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
609259.09	4202592.70	0.00009	609274.09	4202592.70	0.00009
609289.09	4202592.70	0.00010	609304.09	4202592.70	0.00010
609319.09	4202592.70	0.00011	609334.09	4202592.70	0.00011
609349.09	4202592.70	0.00012	609364.09	4202592.70	0.00012
609409.09	4202592.70	0.00014	609424.09	4202592.70	0.00014
609439.09	4202592.70	0.00015	609454.09	4202592.70	0.00015
609469.09	4202592.70	0.00015	609484.09	4202592.70	0.00015
609499.09	4202592.70	0.00015	609514.09	4202592.70	0.00015
609529.09	4202592.70	0.00015	609169.09	4202607.70	0.00006
609184.09	4202607.70	0.00006	609199.09	4202607.70	0.00007
609214.09	4202607.70	0.00007	609229.09	4202607.70	0.00007
609244.09	4202607.70	0.00008	609259.09	4202607.70	0.00008
609274.09	4202607.70	0.00009	609289.09	4202607.70	0.00009
609304.09	4202607.70	0.00009	609319.09	4202607.70	0.00010
609334.09	4202607.70	0.00010	609349.09	4202607.70	0.00011
609364.09	4202607.70	0.00011	609409.09	4202607.70	0.00013
609424.09	4202607.70	0.00013	609439.09	4202607.70	0.00013
609454.09	4202607.70	0.00014	609469.09	4202607.70	0.00014
609484.09	4202607.70	0.00014	609499.09	4202607.70	0.00014
609199.09	4202622.70	0.00006	609214.09	4202622.70	0.00007
609229.09	4202622.70	0.00007	609244.09	4202622.70	0.00007
609259.09	4202622.70	0.00008	609274.09	4202622.70	0.00008
609289.09	4202622.70	0.00008	609304.09		

```
4202622.70        0.00009
         609319.09    4202622.70        0.00009                        609334.09
4202622.70        0.00010
         609349.09    4202622.70        0.00010                        609364.09
4202622.70        0.00011
         609409.09    4202622.70        0.00012                        609424.09
4202622.70        0.00012
         609439.09    4202622.70        0.00013                        609454.09
4202622.70        0.00013
         609469.09    4202622.70        0.00013                        609408.39
4202173.48        0.00259
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                   PAGE  48
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                     ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - -
        609304.09   4201857.70        0.00564  (12020204)               609319.09
 4201857.70        0.00551  (12020204)
        609334.09   4201857.70        0.00553  (12010420)               609349.09
 4201857.70        0.00567  (09012323)
        609364.09   4201857.70        0.00568  (09012323)               609379.09
 4201857.70        0.00543  (12123104)
        609394.09   4201857.70        0.00545  (09012120)               609259.09
 4201872.70        0.00599  (10010720)
        609304.09   4201872.70        0.00593  (12020204)               609319.09
 4201872.70        0.00581  (12020204)
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609334.09 4201872.70 0.00581 (12010420) 609349.09 4201872.70 0.00597 (09012323)
609364.09 4201872.70 0.00596 (09012323) 609379.09 4201872.70 0.00571 (12123104)
609394.09 4201872.70 0.00578 (09012120) 609409.09 4201872.70 0.00590 (09012120)
609424.09 4201872.70 0.00572 (10021118) 609439.09 4201872.70 0.00574 (12012619)
609454.09 4201872.70 0.00560 (09122003) 609199.09 4201887.70 0.00583 (09123119)
609214.09 4201887.70 0.00593 (10010301) 609229.09 4201887.70 0.00602 (09012222)
609244.09 4201887.70 0.00626 (09012222) 609259.09 4201887.70 0.00627 (10010720)
609274.09 4201887.70 0.00623 (10010720) 609304.09 4201887.70 0.00623 (12020204)
609319.09 4201887.70 0.00613 (12020204) 609334.09 4201887.70 0.00612 (12010420)
609349.09 4201887.70 0.00629 (09012323) 609364.09 4201887.70 0.00625 (09012323)
609379.09 4201887.70 0.00602 (12123104) 609394.09 4201887.70 0.00613 (09012120)
609409.09 4201887.70 0.00618 (09012120) 609424.09 4201887.70 0.00598 (10021118)
609439.09 4201887.70 0.00603 (12012619) 609454.09 4201887.70 0.00591 (09122003)
609469.09 4201887.70 0.00584 (12120619) 609484.09 4201887.70 0.00580 (12120619)
609499.09 4201887.70 0.00572 (10121002) 609169.09 4201902.70 0.00590 (12020820)
609184.09 4201902.70 0.00599 (09123119) 609199.09 4201902.70 0.00617 (09123119)
609214.09 4201902.70 0.00623 (10010301) 609229.09 4201902.70 0.00620 (09012222)
609244.09 4201902.70 0.00656 (09012222) 609259.09 4201902.70 0.00656 (10010720)
609274.09 4201902.70 0.00661 (10010720) 609319.09 4201902.70 0.00648 (12020204)
609334.09 4201902.70 0.00645 (12010420) 609349.09 4201902.70 0.00663 (09012323)
609364.09 4201902.70 0.00658 (09012323) 609379.09 4201902.70 0.00634 (12123104)
609394.09 4201902.70 0.00650 (09012120) 609409.09 4201902.70 0.00647 (09012120)
609424.09 4201902.70 0.00632 (12012619) 609439.09 4201902.70 0.00631 (12012619)
609454.09 4201902.70 0.00621 (09122003) 609469.09 4201902.70 0.00618 (12120619)
609484.09 4201902.70 0.00603 (10121002) 609499.09 4201902.70 0.00597 (10121002)

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       609514.09   4201902.70        0.00572  (10012503)               609529.09
 4201902.70        0.00567  (09022304)
       609139.09   4201917.70        0.00597  (10011607)               609154.09
 4201917.70        0.00613  (11010301)
       609169.09   4201917.70        0.00615  (12020820)               609184.09
 4201917.70        0.00626  (09121706)
       609199.09   4201917.70        0.00646  (09123119)               609214.09
 4201917.70        0.00650  (10010301)
       609229.09   4201917.70        0.00658  (10010301)               609244.09
 4201917.70        0.00686  (09012222)
       609259.09   4201917.70        0.00694  (09012222)               609274.09
 4201917.70        0.00700  (10010720)
       609289.09   4201917.70        0.00668  (10010720)               609319.09
 4201917.70        0.00687  (12020204)
       609334.09   4201917.70        0.00681  (12010420)               609349.09
 4201917.70        0.00701  (09012323)
       609364.09   4201917.70        0.00692  (09012323)               609379.09
 4201917.70        0.00669  (12123104)
       609394.09   4201917.70        0.00689  (09012120)               609409.09
 4201917.70        0.00678  (09012120)
↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                   PAGE  49
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                        *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                      ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                  **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       609424.09   4201917.70        0.00672  (12012619)               609439.09
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4201917.70 0.00658 (12012619)
609454.09 4201917.70 0.00650 (09122003) 609469.09
4201917.70 0.00649 (12120619)
609484.09 4201917.70 0.00638 (10121002) 609499.09
4201917.70 0.00618 (10012503)
609514.09 4201917.70 0.00595 (09022304) 609529.09
4201917.70 0.00598 (09022304)
609544.09 4201917.70 0.00582 (11011324) 609109.09
4201932.70 0.00588 (10122508)
609124.09 4201932.70 0.00589 (09013019) 609139.09
4201932.70 0.00616 (10011607)
609154.09 4201932.70 0.00635 (11010301) 609169.09
4201932.70 0.00650 (11010301)
609184.09 4201932.70 0.00657 (12020820) 609199.09
4201932.70 0.00671 (09123119)
609214.09 4201932.70 0.00686 (09123119) 609229.09
4201932.70 0.00696 (10010301)
609244.09 4201932.70 0.00712 (09012222) 609259.09
4201932.70 0.00736 (09012222)
609274.09 4201932.70 0.00741 (10010720) 609289.09
4201932.70 0.00716 (10010720)
609334.09 4201932.70 0.00721 (12010420) 609349.09
4201932.70 0.00742 (09012323)
609364.09 4201932.70 0.00730 (09012323) 609379.09
4201932.70 0.00707 (12123104)
609394.09 4201932.70 0.00731 (09012120) 609409.09
4201932.70 0.00710 (10021118)
609424.09 4201932.70 0.00712 (12012619) 609439.09
4201932.70 0.00697 (09122003)
609454.09 4201932.70 0.00690 (12120619) 609469.09
4201932.70 0.00677 (12120619)
609484.09 4201932.70 0.00669 (10121002) 609499.09
4201932.70 0.00638 (10012503)
609514.09 4201932.70 0.00636 (09022304) 609529.09
4201932.70 0.00624 (11011324)
609544.09 4201932.70 0.00599 (09120624) 609559.09
4201932.70 0.00580 (10011219)
609079.09 4201947.70 0.00579 (09010524) 609094.09
4201947.70 0.00602 (10121905)
609109.09 4201947.70 0.00606 (12021405) 609124.09
4201947.70 0.00625 (10122508)
609139.09 4201947.70 0.00632 (09013019) 609154.09
4201947.70 0.00663 (10011607)
609169.09 4201947.70 0.00685 (11010301) 609184.09
4201947.70 0.00688 (12020820)
609199.09 4201947.70 0.00701 (09121706) 609214.09
4201947.70 0.00726 (09123119)
609229.09 4201947.70 0.00733 (10010301) 609244.09
4201947.70 0.00738 (09012222)
609259.09 4201947.70 0.00777 (09012222) 609274.09

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 4201947.70        0.00782  (10010720)
       609289.09   4201947.70        0.00768  (10010720)                609304.09
 4201947.70        0.00768  (12020204)
       609334.09   4201947.70        0.00764  (12010420)                609349.09
 4201947.70        0.00787  (09012323)
       609364.09   4201947.70        0.00771  (09012323)                609379.09
 4201947.70        0.00753  (09012120)
       609394.09   4201947.70        0.00775  (09012120)                609409.09
 4201947.70        0.00750  (10021118)
       609424.09   4201947.70        0.00752  (12012619)                609439.09
 4201947.70        0.00737  (09122003)
       609454.09   4201947.70        0.00732  (12120619)                609469.09
 4201947.70        0.00717  (10121002)
       609484.09   4201947.70        0.00695  (10012503)                609499.09
 4201947.70        0.00672  (09022304)
       609514.09   4201947.70        0.00669  (09022304)                609529.09
 4201947.70        0.00645  (11011324)
       609544.09   4201947.70        0.00619  (09120624)                609559.09
 4201947.70        0.00617  (10011219)
       609574.09   4201947.70        0.00597  (10011219)                609064.09
 4201962.70        0.00588  (10120519)
       609079.09   4201962.70        0.00604  (10020602)                609094.09
 4201962.70        0.00616  (10121905)
       609109.09   4201962.70        0.00638  (10121905)                609124.09
 4201962.70        0.00649  (10122508)
       609139.09   4201962.70        0.00666  (10122508)                609154.09
 4201962.70        0.00685  (10011607)
       609169.09   4201962.70        0.00713  (10011607)                609184.09
 4201962.70        0.00733  (11010301)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:05:39

                                   PAGE  50
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                                *** DISCRETE CARTESIAN RECEPTOR POINTS
***
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** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609199.09	4201962.70	0.00742	(12020820)	609214.09	4201962.70	0.00761	(09123119)
609229.09	4201962.70	0.00772	(09123119)	609244.09	4201962.70	0.00783	(10010301)
609259.09	4201962.70	0.00817	(09012222)	609274.09	4201962.70	0.00825	(10010720)
609289.09	4201962.70	0.00823	(10010720)	609304.09	4201962.70	0.00812	(12020204)
609349.09	4201962.70	0.00837	(09012323)	609364.09	4201962.70	0.00815	(09012323)
609379.09	4201962.70	0.00808	(09012120)	609394.09	4201962.70	0.00821	(09012120)
609409.09	4201962.70	0.00801	(12012619)	609424.09	4201962.70	0.00791	(12012619)
609439.09	4201962.70	0.00775	(12120619)	609454.09	4201962.70	0.00770	(12120619)
609469.09	4201962.70	0.00756	(10121002)	609484.09	4201962.70	0.00720	(10012503)
609499.09	4201962.70	0.00718	(09022304)	609514.09	4201962.70	0.00699	(11011324)
609529.09	4201962.70	0.00669	(09120624)	609544.09	4201962.70	0.00659	(10011219)
609559.09	4201962.70	0.00642	(10011219)	609574.09	4201962.70	0.00613	(11123024)
609589.09	4201962.70	0.00600	(11123024)	609604.09	4201962.70	0.00576	(09010206)
609049.09	4201977.70	0.00587	(09020508)	609064.09	4201977.70	0.00600	(09123118)
609079.09	4201977.70	0.00625	(10120519)	609094.09	4201977.70	0.00643	(10020602)
609109.09	4201977.70	0.00658	(10121905)	609124.09	4201977.70	0.00684	(10121905)
609139.09	4201977.70	0.00702	(10122508)	609154.09	4201977.70	0.00712	(10122508)
609169.09	4201977.70	0.00746	(10011607)	609184.09	4201977.70	0.00772	(11010301)
609199.09	4201977.70	0.00779	(12020820)	609214.09	4201977.70	0.00796	(09121706)
609229.09	4201977.70	0.00824	(09123119)	609244.09	4201977.70	0.00835	(10010301)
609259.09	4201977.70	0.00859	(09012222)	609274.09	4201977.70	0.00875	(09012222)

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       609289.09   4201977.70        0.00881  (10010720)               609304.09
 4201977.70        0.00859  (12020204)
       609319.09   4201977.70        0.00879  (12020204)               609349.09
 4201977.70        0.00892  (09012323)
       609364.09   4201977.70        0.00864  (09012323)               609379.09
 4201977.70        0.00869  (09012120)
       609394.09   4201977.70        0.00870  (09012120)               609409.09
 4201977.70        0.00857  (12012619)
       609424.09   4201977.70        0.00840  (09122003)               609439.09
 4201977.70        0.00832  (12120619)
       609454.09   4201977.70        0.00815  (10121002)               609469.09
 4201977.70        0.00790  (10012503)
       609484.09   4201977.70        0.00767  (09022304)               609499.09
 4201977.70        0.00756  (11011324)
       609514.09   4201977.70        0.00724  (09120624)               609529.09
 4201977.70        0.00705  (10011219)
       609544.09   4201977.70        0.00693  (10011219)               609559.09
 4201977.70        0.00656  (11123024)
       609574.09   4201977.70        0.00645  (11123024)               609589.09
 4201977.70        0.00617  (09010206)
       609604.09   4201977.70        0.00580  (13022722)               609619.09
 4201977.70        0.00574  (13012505)
       609049.09   4201992.70        0.00604  (10020603)               609064.09
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       609079.09   4201992.70        0.00640  (09123118)               609094.09
 4201992.70        0.00667  (10120519)
       609109.09   4201992.70        0.00688  (10020602)               609124.09
 4201992.70        0.00711  (10121905)
       609139.09   4201992.70        0.00737  (10121905)               609154.09
 4201992.70        0.00758  (10122508)
       609169.09   4201992.70        0.00769  (09013019)               609184.09
 4201992.70        0.00808  (10011607)
       609199.09   4201992.70        0.00835  (11010301)               609214.09
 4201992.70        0.00847  (12020820)
       609229.09   4201992.70        0.00873  (09123119)               609244.09
 4201992.70        0.00885  (10010301)
       609259.09   4201992.70        0.00899  (09012222)               609274.09
 4201992.70        0.00936  (09012222)
↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                        ***        11:05:39

                                   PAGE  51
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                               *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
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                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                  **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
        609289.09   4201992.70        0.00941  (10010720)               609304.09
 4201992.70        0.00909  (12020204)
        609319.09   4201992.70        0.00940  (12020204)               609364.09
 4201992.70        0.00918  (09012323)
        609379.09   4201992.70        0.00934  (09012120)               609394.09
 4201992.70        0.00921  (09012120)
        609409.09   4201992.70        0.00915  (12012619)               609424.09
 4201992.70        0.00895  (09122003)
        609439.09   4201992.70        0.00886  (12120619)               609454.09
 4201992.70        0.00867  (10121002)
        609469.09   4201992.70        0.00823  (10012503)               609484.09
 4201992.70        0.00820  (09022304)
        609499.09   4201992.70        0.00790  (11011324)               609514.09
 4201992.70        0.00754  (10011219)
        609529.09   4201992.70        0.00749  (10011219)               609544.09
 4201992.70        0.00710  (10011219)
        609559.09   4201992.70        0.00694  (11123024)               609574.09
 4201992.70        0.00665  (09010206)
        609589.09   4201992.70        0.00622  (13022722)               609604.09
 4201992.70        0.00617  (13012505)
        609619.09   4201992.70        0.00605  (13012505)               609634.09
 4201992.70        0.00578  (13012505)
        609034.09   4202007.70        0.00600  (10011203)               609049.09
 4202007.70        0.00622  (10011708)
        609064.09   4202007.70        0.00644  (10020603)               609079.09
 4202007.70        0.00667  (09020508)
        609094.09   4202007.70        0.00687  (09123118)               609109.09
 4202007.70        0.00716  (10120519)
        609124.09   4202007.70        0.00743  (10020602)               609139.09
 4202007.70        0.00773  (10121905)
        609154.09   4202007.70        0.00794  (10121905)               609169.09
 4202007.70        0.00818  (10122508)
        609184.09   4202007.70        0.00843  (10011607)               609199.09
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 4202007.70        0.00882  (11010301)
       609214.09   4202007.70        0.00897  (11010301)                609229.09
 4202007.70        0.00915  (09121706)
       609244.09   4202007.70        0.00947  (09123119)                609259.09
 4202007.70        0.00957  (10010301)
       609274.09   4202007.70        0.00999  (09012222)                609289.09
 4202007.70        0.01007  (10010720)
       609304.09   4202007.70        0.00971  (10010720)                609319.09
 4202007.70        0.01008  (12020204)
       609334.09   4202007.70        0.00993  (12010420)                609379.09
 4202007.70        0.01005  (09012120)
       609394.09   4202007.70        0.00980  (10021118)                609409.09
 4202007.70        0.00974  (12012619)
       609424.09   4202007.70        0.00956  (12120619)                609439.09
 4202007.70        0.00938  (10121002)
       609454.09   4202007.70        0.00911  (10121002)                609469.09
 4202007.70        0.00886  (09022304)
       609484.09   4202007.70        0.00866  (11011324)                609499.09
 4202007.70        0.00824  (09120624)
       609514.09   4202007.70        0.00812  (10011219)                609529.09
 4202007.70        0.00775  (10011219)
       609544.09   4202007.70        0.00751  (11123024)                609559.09
 4202007.70        0.00718  (09010206)
       609574.09   4202007.70        0.00671  (13022722)                609589.09
 4202007.70        0.00665  (13012505)
       609604.09   4202007.70        0.00649  (13012505)                609619.09
 4202007.70        0.00616  (13012505)
       609634.09   4202007.70        0.00588  (09122007)                609649.09
 4202007.70        0.00578  (09122007)
       609034.09   4202022.70        0.00622  (10011203)                609049.09
 4202022.70        0.00641  (10011203)
       609064.09   4202022.70        0.00663  (10011708)                609079.09
 4202022.70        0.00691  (10020603)
       609094.09   4202022.70        0.00716  (09020508)                609109.09
 4202022.70        0.00740  (09123118)
       609124.09   4202022.70        0.00776  (10120519)                609139.09
 4202022.70        0.00808  (10020602)
       609154.09   4202022.70        0.00842  (10121905)                609169.09
 4202022.70        0.00860  (10122508)
       609184.09   4202022.70        0.00887  (10122508)                609199.09
 4202022.70        0.00931  (10011607)
       609214.09   4202022.70        0.00966  (11010301)                609229.09
 4202022.70        0.00981  (12020820)
       609244.09   4202022.70        0.01014  (09123119)                609259.09
 4202022.70        0.01030  (10010301)
       609274.09   4202022.70        0.01064  (09012222)                609289.09
 4202022.70        0.01078  (10010720)
↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609304.09	4202022.70	0.01059	(10010720)	609319.09	4202022.70	0.01084	(12020204)
609334.09	4202022.70	0.01068	(12010420)	609349.09	4202022.70	0.01097	(09012323)
609379.09	4202022.70	0.01082	(09012120)	609394.09	4202022.70	0.01058	(12012619)
609409.09	4202022.70	0.01040	(09122003)	609424.09	4202022.70	0.01031	(12120619)
609439.09	4202022.70	0.01008	(10121002)	609454.09	4202022.70	0.00953	(10012503)
609469.09	4202022.70	0.00948	(09022304)	609484.09	4202022.70	0.00903	(09120624)
609499.09	4202022.70	0.00881	(10011219)	609514.09	4202022.70	0.00849	(10011219)
609529.09	4202022.70	0.00815	(11123024)	609544.09	4202022.70	0.00779	(09010206)
609559.09	4202022.70	0.00726	(13022722)	609574.09	4202022.70	0.00720	(13012505)
609589.09	4202022.70	0.00698	(13012505)	609604.09	4202022.70	0.00657	(13012505)
609619.09	4202022.70	0.00636	(09122007)	609634.09	4202022.70	0.00619	(09122007)
609649.09	4202022.70	0.00598	(10120324)	609664.09	4202022.70	0.00569	(10120324)

609019.09 4202037.70 0.00669 (10011620) 609034.09
4202037.70 0.00660 (10011620)
609049.09 4202037.70 0.00659 (10011203) 609064.09
4202037.70 0.00689 (10011203)
609079.09 4202037.70 0.00711 (10011708) 609094.09
4202037.70 0.00746 (10020603)
609109.09 4202037.70 0.00775 (09020508) 609124.09
4202037.70 0.00806 (09123118)
609139.09 4202037.70 0.00847 (10120519) 609154.09
4202037.70 0.00881 (10020602)
609169.09 4202037.70 0.00921 (10121905) 609184.09
4202037.70 0.00949 (10122508)
609199.09 4202037.70 0.00972 (09013019) 609214.09
4202037.70 0.01022 (10011607)
609229.09 4202037.70 0.01048 (11010301) 609244.09
4202037.70 0.01074 (09123119)
609259.09 4202037.70 0.01100 (10010301) 609274.09
4202037.70 0.01129 (09012222)
609289.09 4202037.70 0.01157 (09012222) 609304.09
4202037.70 0.01154 (10010720)
609319.09 4202037.70 0.01169 (12020204) 609334.09
4202037.70 0.01154 (12010420)
609349.09 4202037.70 0.01183 (09012323) 609394.09
4202037.70 0.01146 (12012619)
609409.09 4202037.70 0.01120 (09122003) 609424.09
4202037.70 0.01102 (12120619)
609439.09 4202037.70 0.01069 (10121002) 609454.09
4202037.70 0.01039 (09022304)
609469.09 4202037.70 0.01002 (11011324) 609484.09
4202037.70 0.00959 (10011219)
609499.09 4202037.70 0.00934 (10011219) 609514.09
4202037.70 0.00889 (11123024)
609529.09 4202037.70 0.00849 (09010206) 609544.09
4202037.70 0.00790 (13022722)
609559.09 4202037.70 0.00782 (13012505) 609574.09
4202037.70 0.00753 (13012505)
609589.09 4202037.70 0.00704 (13012505) 609604.09
4202037.70 0.00688 (09122007)
609619.09 4202037.70 0.00666 (10120324) 609634.09
4202037.70 0.00638 (10120324)
609649.09 4202037.70 0.00606 (12022704) 609664.09
4202037.70 0.00585 (12022704)
609679.09 4202037.70 0.00557 (10121903) 609019.09
4202052.70 0.00712 (10020504)
609034.09 4202052.70 0.00725 (10011620) 609049.09
4202052.70 0.00725 (10011620)
609064.09 4202052.70 0.00713 (10011620) 609079.09
4202052.70 0.00746 (10011203)
609094.09 4202052.70 0.00772 (10011203) 609109.09
4202052.70 0.00810 (10011708)

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609124.09	4202052.70	0.00844	(09020508)	609139.09	4202052.70	0.00881	(09123118)
609154.09	4202052.70	0.00928	(10121405)	609169.09	4202052.70	0.00969	(10020602)
609184.09	4202052.70	0.01016	(10121905)	609199.09	4202052.70	0.01048	(10122508)
609214.09	4202052.70	0.01083	(10011607)	609229.09	4202052.70	0.01133	(11010301)
609244.09	4202052.70	0.01156	(12020820)	609259.09	4202052.70	0.01196	(09123119)
609274.09	4202052.70	0.01209	(10010301)	609289.09	4202052.70	0.01256	(09012222)
609304.09	4202052.70	0.01259	(10010720)	609319.09	4202052.70	0.01265	(12020204)
609334.09	4202052.70	0.01251	(12010420)	609349.09	4202052.70	0.01280	(09012323)
609364.09	4202052.70	0.01244	(09012120)	609394.09	4202052.70	0.01239	(12012619)
609409.09	4202052.70	0.01215	(12120619)	609424.09	4202052.70	0.01192	(10121002)
609439.09	4202052.70	0.01130	(09022304)	609454.09			

4202052.70 0.01114 (11011324)
609469.09 4202052.70 0.01052 (09120624) 609484.09
4202052.70 0.01031 (10011219)
609499.09 4202052.70 0.00976 (11123024) 609514.09
4202052.70 0.00932 (09010206)
609529.09 4202052.70 0.00864 (13022722) 609544.09
4202052.70 0.00854 (13012505)
609559.09 4202052.70 0.00816 (13012505) 609574.09
4202052.70 0.00765 (09122007)
609589.09 4202052.70 0.00746 (09122007) 609604.09
4202052.70 0.00718 (10120324)
609619.09 4202052.70 0.00679 (10120324) 609634.09
4202052.70 0.00652 (12022704)
609649.09 4202052.70 0.00622 (12022704) 609664.09
4202052.70 0.00595 (10121903)
609679.09 4202052.70 0.00566 (10121903) 609694.09
4202052.70 0.00534 (10121903)
609004.09 4202067.70 0.00726 (10020504) 609019.09
4202067.70 0.00756 (10020504)
609034.09 4202067.70 0.00775 (10020504) 609049.09
4202067.70 0.00783 (10011620)
609064.09 4202067.70 0.00800 (10011620) 609079.09
4202067.70 0.00801 (10011620)
609094.09 4202067.70 0.00805 (10011203) 609109.09
4202067.70 0.00843 (10011203)
609124.09 4202067.70 0.00883 (10011708) 609139.09
4202067.70 0.00927 (10020603)
609154.09 4202067.70 0.00972 (09020508) 609169.09
4202067.70 0.01026 (10121405)
609184.09 4202067.70 0.01069 (10020602) 609199.09
4202067.70 0.01121 (10121905)
609214.09 4202067.70 0.01157 (10122508) 609229.09
4202067.70 0.01214 (10011607)
609244.09 4202067.70 0.01253 (11010301) 609259.09
4202067.70 0.01292 (09123119)
609274.09 4202067.70 0.01322 (10010301) 609289.09
4202067.70 0.01367 (09012222)
609304.09 4202067.70 0.01379 (10010720) 609319.09
4202067.70 0.01374 (12020204)
609334.09 4202067.70 0.01363 (12010420) 609349.09
4202067.70 0.01391 (09012323)
609364.09 4202067.70 0.01366 (09012120) 609409.09
4202067.70 0.01322 (12120619)
609424.09 4202067.70 0.01279 (10121002) 609439.09
4202067.70 0.01240 (09022304)
609454.09 4202067.70 0.01177 (09120624) 609469.09
4202067.70 0.01145 (10011219)
609484.09 4202067.70 0.01078 (11123024) 609499.09
4202067.70 0.01030 (09010206)
609514.09 4202067.70 0.00954 (13012505) 609529.09

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 4202067.70        0.00938  (13012505)
       609544.09   4202067.70        0.00888  (13012505)                609559.09
 4202067.70        0.00841  (09122007)
       609574.09   4202067.70        0.00811  (10120324)                609589.09
 4202067.70        0.00774  (10120324)
       609604.09   4202067.70        0.00732  (12022704)                609619.09
 4202067.70        0.00699  (12022704)
       609634.09   4202067.70        0.00665  (10121903)                609649.09
 4202067.70        0.00632  (10121903)
       609664.09   4202067.70        0.00594  (10121903)                609679.09
 4202067.70        0.00554  (11011122)
       609694.09   4202067.70        0.00533  (11011122)                609709.09
 4202067.70        0.00509  (11011122)
       609004.09   4202082.70        0.00718  (10021222)                609019.09
 4202082.70        0.00758  (10020504)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  54
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                 INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                  **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       609034.09   4202082.70        0.00804  (10020504)                609049.09
 4202082.70        0.00840  (10020504)
       609064.09   4202082.70        0.00865  (10020504)                609079.09
 4202082.70        0.00879  (10011620)
       609094.09   4202082.70        0.00893  (10011620)                609109.09
 4202082.70        0.00885  (10011620)
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609124.09 4202082.70 0.00924 (10011203) 609139.09 4202082.70 0.00969 (10011708)
609154.09 4202082.70 0.01025 (10020603) 609169.09 4202082.70 0.01077 (09020508)
609184.09 4202082.70 0.01138 (10121405) 609199.09 4202082.70 0.01188 (10121905)
609214.09 4202082.70 0.01247 (10121905) 609229.09 4202082.70 0.01294 (09013019)
609244.09 4202082.70 0.01369 (11010301) 609259.09 4202082.70 0.01405 (12020820)
609274.09 4202082.70 0.01450 (09123119) 609289.09 4202082.70 0.01489 (09012222)
609304.09 4202082.70 0.01513 (10010720) 609319.09 4202082.70 0.01500 (12020204)
609334.09 4202082.70 0.01493 (12010420) 609349.09 4202082.70 0.01518 (09012323)
609364.09 4202082.70 0.01504 (09012120) 609409.09 4202082.70 0.01439 (10121002)
609424.09 4202082.70 0.01373 (09022304) 609439.09 4202082.70 0.01336 (11011324)
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609484.09 4202082.70 0.01147 (11123024) 609499.09 4202082.70 0.01063 (13012505)
609514.09 4202082.70 0.01037 (13012505) 609529.09 4202082.70 0.00970 (13012505)
609544.09 4202082.70 0.00927 (09122007) 609559.09 4202082.70 0.00887 (10120324)
609574.09 4202082.70 0.00833 (10120324) 609589.09 4202082.70 0.00794 (12022704)
609604.09 4202082.70 0.00750 (10121903) 609619.09 4202082.70 0.00712 (10121903)
609634.09 4202082.70 0.00668 (10121903) 609649.09 4202082.70 0.00619 (10121903)
609664.09 4202082.70 0.00593 (11011122) 609679.09 4202082.70 0.00563 (11011122)
609694.09 4202082.70 0.00532 (12121308) 609709.09 4202082.70 0.00517 (12121308)
609004.09 4202097.70 0.00729 (10021223) 609019.09 4202097.70 0.00760 (10021222)
609034.09 4202097.70 0.00798 (10021222) 609049.09 4202097.70 0.00848 (10020504)
609064.09 4202097.70 0.00904 (10020504) 609079.09 4202097.70 0.00948 (10020504)
609094.09 4202097.70 0.00977 (10020504) 609109.09 4202097.70 0.00994 (10011620)
609124.09 4202097.70 0.01008 (10011620) 609139.09 4202097.70 0.01017 (10011203)
609154.09 4202097.70 0.01068 (10011203) 609169.09 4202097.70 0.01136 (10020603)

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       609184.09   4202097.70        0.01201  (09020508)                609199.09
 4202097.70        0.01276  (10121405)
       609214.09   4202097.70        0.01347  (10121905)                609229.09
 4202097.70        0.01412  (10122508)
       609244.09   4202097.70        0.01478  (10011607)                609259.09
 4202097.70        0.01540  (11010301)
       609274.09   4202097.70        0.01595  (09123119)                609289.09
 4202097.70        0.01616  (10010301)
       609304.09   4202097.70        0.01658  (10010720)                609319.09
 4202097.70        0.01645  (12020204)
       609334.09   4202097.70        0.01644  (12010420)                609349.09
 4202097.70        0.01666  (09012323)
       609364.09   4202097.70        0.01660  (09012120)                609409.09
 4202097.70        0.01572  (10121002)
       609424.09   4202097.70        0.01517  (09022304)                609439.09
 4202097.70        0.01430  (10011219)
       609454.09   4202097.70        0.01372  (10011219)                609469.09
 4202097.70        0.01291  (11123024)
       609484.09   4202097.70        0.01194  (13012505)                609499.09
 4202097.70        0.01154  (13012505)
       609514.09   4202097.70        0.01066  (13012505)                609529.09
 4202097.70        0.01024  (09122007)
       609544.09   4202097.70        0.00970  (10120324)                609559.09
 4202097.70        0.00911  (12022704)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  55
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                 INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
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Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
        609574.09   4202097.70        0.00858  (12022704)                 609589.09
 4202097.70        0.00811  (10121903)
        609604.09   4202097.70        0.00758  (10121903)                 609619.09
 4202097.70        0.00700  (10121903)
        609634.09   4202097.70        0.00665  (11011122)                 609649.09
 4202097.70        0.00629  (11011122)
        609664.09   4202097.70        0.00596  (12121308)                 609679.09
 4202097.70        0.00576  (12121308)
        609694.09   4202097.70        0.00553  (11011323)                 609709.09
 4202097.70        0.00537  (11011323)
        609724.09   4202097.70        0.00518  (11011323)                 608989.09
 4202112.70        0.00719  (10122201)
        609004.09   4202112.70        0.00754  (10122201)                 609019.09
 4202112.70        0.00784  (10122201)
        609034.09   4202112.70        0.00816  (10021223)                 609049.09
 4202112.70        0.00849  (10021222)
        609064.09   4202112.70        0.00899  (10021222)                 609079.09
 4202112.70        0.00961  (10020504)
        609094.09   4202112.70        0.01029  (10020504)                 609109.09
 4202112.70        0.01083  (10020504)
        609124.09   4202112.70        0.01117  (10020504)                 609139.09
 4202112.70        0.01140  (10011620)
        609154.09   4202112.70        0.01146  (10011620)                 609169.09
 4202112.70        0.01193  (10011203)
        609184.09   4202112.70        0.01270  (10020603)                 609199.09
 4202112.70        0.01359  (09020508)
        609214.09   4202112.70        0.01451  (10121405)                 609229.09
 4202112.70        0.01540  (10121905)
        609244.09   4202112.70        0.01610  (10122508)                 609259.09
 4202112.70        0.01692  (11010301)
        609274.09   4202112.70        0.01748  (13121217)                 609289.09
 4202112.70        0.01795  (10010301)
        609304.09   4202112.70        0.01837  (09012222)                 609319.09
 4202112.70        0.01815  (12020204)
        609334.09   4202112.70        0.01825  (13022419)                 609349.09
 4202112.70        0.01839  (09012323)
        609364.09   4202112.70        0.01839  (09012120)                 609379.09
 4202112.70        0.01819  (12012619)
        609409.09   4202112.70        0.01720  (09022304)                 609424.09
 4202112.70        0.01645  (11011324)
        609439.09   4202112.70        0.01574  (10011219)                 609454.09
 4202112.70        0.01470  (11123024)
        609469.09   4202112.70        0.01357  (13012505)                 609484.09
 4202112.70        0.01295  (13012505)
        609499.09   4202112.70        0.01199  (09122007)                 609514.09
 4202112.70        0.01140  (10120324)
        609529.09   4202112.70        0.01060  (10120324)                 609544.09
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 4202112.70        0.00998  (12022704)
       609559.09   4202112.70        0.00936  (10121903)                609574.09
 4202112.70        0.00872  (10121903)
       609589.09   4202112.70        0.00801  (10121903)                609604.09
 4202112.70        0.00755  (11011122)
       609619.09   4202112.70        0.00708  (11011122)                609634.09
 4202112.70        0.00674  (12121308)
       609649.09   4202112.70        0.00646  (12121308)                609664.09
 4202112.70        0.00623  (11011323)
       609679.09   4202112.70        0.00599  (11011323)                609694.09
 4202112.70        0.00574  (11011323)
       609709.09   4202112.70        0.00547  (11011323)                609724.09
 4202112.70        0.00523  (12013024)
       608989.09   4202127.70        0.00735  (10020824)                609004.09
 4202127.70        0.00767  (13012320)
       609019.09   4202127.70        0.00801  (13012320)                609034.09
 4202127.70        0.00838  (10122201)
       609049.09   4202127.70        0.00881  (10122201)                609064.09
 4202127.70        0.00920  (10021223)
       609079.09   4202127.70        0.00960  (10021223)                609094.09
 4202127.70        0.01020  (10021222)
       609109.09   4202127.70        0.01098  (10020504)                609124.09
 4202127.70        0.01183  (10020504)
       609139.09   4202127.70        0.01250  (10020504)                609154.09
 4202127.70        0.01294  (10020504)
       609169.09   4202127.70        0.01322  (10011620)                609184.09
 4202127.70        0.01345  (10011203)
       609199.09   4202127.70        0.01441  (10011708)                609214.09
 4202127.70        0.01549  (09020508)
       609229.09   4202127.70        0.01665  (10121405)                609244.09
 4202127.70        0.01777  (10121905)
       609259.09   4202127.70        0.01857  (09121818)                609274.09
 4202127.70        0.01949  (11010301)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  56
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                 INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
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, L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609289.09	4202127.70	0.02013	(09123119)	609304.09	4202127.70	0.02047	(09012222)
609319.09	4202127.70	0.02032	(10010720)	609334.09	4202127.70	0.02042	(13022419)
609349.09	4202127.70	0.02045	(09012323)	609364.09	4202127.70	0.02050	(09012120)
609379.09	4202127.70	0.02025	(09122003)	609409.09	4202127.70	0.01925	(11011324)
609424.09	4202127.70	0.01828	(10011219)	609439.09	4202127.70	0.01699	(11123024)
609454.09	4202127.70	0.01562	(13012505)	609469.09	4202127.70	0.01467	(13012505)
609484.09	4202127.70	0.01361	(09122007)	609499.09	4202127.70	0.01273	(10120324)
609514.09	4202127.70	0.01180	(12022704)	609529.09	4202127.70	0.01098	(10121903)
609544.09	4202127.70	0.01018	(10121903)	609559.09	4202127.70	0.00929	(10121903)
609574.09	4202127.70	0.00867	(11011122)	609589.09	4202127.70	0.00807	(11011122)
609604.09	4202127.70	0.00770	(12121308)	609619.09	4202127.70	0.00736	(11011323)
609634.09	4202127.70	0.00705	(11011323)	609649.09	4202127.70	0.00672	(11011323)
609664.09	4202127.70	0.00638	(11011323)	609679.09	4202127.70	0.00607	(12013024)
609694.09	4202127.70	0.00580	(12013024)	609709.09	4202127.70	0.00557	(10121022)
609724.09	4202127.70	0.00536	(10121022)	608974.09	4202142.70	0.00715	(09123103)
608989.09	4202142.70	0.00743	(10122106)	609004.09	4202142.70	0.00776	(13010602)
609019.09	4202142.70	0.00812	(13010602)	609034.09	4202142.70	0.00853	(10020824)
609049.09	4202142.70	0.00897	(13012320)	609064.09	4202142.70	0.00942	(13012320)
609079.09	4202142.70	0.00994	(10122201)	609094.09	4202142.70	0.01048	(10122201)

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       609109.09   4202142.70        0.01103  (10021223)               609124.09
 4202142.70        0.01170  (10021222)
       609139.09   4202142.70        0.01272  (10020504)               609154.09
 4202142.70        0.01385  (10020504)
       609169.09   4202142.70        0.01479  (10020504)               609184.09
 4202142.70        0.01539  (10020504)
       609199.09   4202142.70        0.01571  (10011620)               609214.09
 4202142.70        0.01644  (10011203)
       609229.09   4202142.70        0.01788  (09020508)               609244.09
 4202142.70        0.01943  (10121405)
       609259.09   4202142.70        0.02080  (10121905)               609274.09
 4202142.70        0.02193  (09121818)
       609289.09   4202142.70        0.02271  (09123119)               609304.09
 4202142.70        0.02296  (09012222)
       609319.09   4202142.70        0.02300  (12123120)               609334.09
 4202142.70        0.02304  (13022419)
       609349.09   4202142.70        0.02297  (09012323)               609364.09
 4202142.70        0.02320  (10021118)
       609379.09   4202142.70        0.02309  (12120619)               609409.09
 4202142.70        0.02148  (10011219)
       609424.09   4202142.70        0.02001  (11123024)               609439.09
 4202142.70        0.01829  (13012505)
       609454.09   4202142.70        0.01682  (13012505)               609469.09
 4202142.70        0.01557  (10120324)
       609484.09   4202142.70        0.01425  (12022704)               609499.09
 4202142.70        0.01314  (10121903)
       609514.09   4202142.70        0.01211  (10121903)               609529.09
 4202142.70        0.01096  (10121903)
       609544.09   4202142.70        0.01012  (11011122)               609559.09
 4202142.70        0.00940  (12121308)
       609574.09   4202142.70        0.00891  (12022118)               609589.09
 4202142.70        0.00849  (11011323)
       609604.09   4202142.70        0.00804  (11011323)               609619.09
 4202142.70        0.00758  (11011323)
       609634.09   4202142.70        0.00717  (12013024)               609649.09
 4202142.70        0.00680  (12012321)
       609664.09   4202142.70        0.00651  (10121022)               609679.09
 4202142.70        0.00623  (10121022)
       609694.09   4202142.70        0.00594  (10121022)               609709.09
 4202142.70        0.00566  (10121022)
       609724.09   4202142.70        0.00540  (13012506)               608974.09
 4202157.70        0.00725  (12012005)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  57
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN
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*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
608989.09	4202157.70	0.00757	(10010205)	609004.09	4202157.70	0.00792	(10010205)
609019.09	4202157.70	0.00826	(09123103)	609034.09	4202157.70	0.00865	(09123103)
609049.09	4202157.70	0.00907	(10122106)	609064.09	4202157.70	0.00956	(13010602)
609079.09	4202157.70	0.01012	(12120523)	609094.09	4202157.70	0.01071	(13012320)
609109.09	4202157.70	0.01133	(13012320)	609124.09	4202157.70	0.01206	(10122201)
609139.09	4202157.70	0.01280	(10021223)	609154.09	4202157.70	0.01366	(10021222)
609169.09	4202157.70	0.01512	(10020504)	609184.09	4202157.70	0.01662	(10020504)
609199.09	4202157.70	0.01788	(10020504)	609214.09	4202157.70	0.01876	(10020504)
609229.09	4202157.70	0.01919	(10011203)	609244.09	4202157.70	0.02109	(10020603)
609259.09	4202157.70	0.02324	(10121405)	609274.09	4202157.70	0.02500	(11020623)
609289.09	4202157.70	0.02611	(12020820)	609304.09	4202157.70	0.02630	(13122120)
609319.09	4202157.70	0.02634	(12123120)	609334.09	4202157.70	0.02629	(13022419)
609349.09	4202157.70	0.02612	(12010420)	609364.09	4202157.70	0.02656	(10021118)
609379.09	4202157.70	0.02661	(10121002)	609409.09	4202157.70	0.02400	(11123024)
609424.09	4202157.70	0.02180	(13012505)	609439.09			

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4202157.70        0.01967  (09122007)
       609454.09   4202157.70        0.01796  (10120324)                609469.09
4202157.70        0.01624  (12022704)
       609484.09   4202157.70        0.01478  (10121903)                609499.09
4202157.70        0.01323  (10121903)
       609514.09   4202157.70        0.01203  (11011122)                609529.09
4202157.70        0.01117  (12022118)
       609544.09   4202157.70        0.01052  (11011323)                609559.09
4202157.70        0.00989  (11011323)
       609574.09   4202157.70        0.00925  (11011323)                609589.09
4202157.70        0.00866  (12013024)
       609604.09   4202157.70        0.00818  (10121022)                609619.09
4202157.70        0.00777  (10121022)
       609634.09   4202157.70        0.00736  (10121022)                609649.09
4202157.70        0.00696  (10121022)
       609664.09   4202157.70        0.00658  (13012506)                609679.09
4202157.70        0.00624  (13012506)
       609694.09   4202157.70        0.00592  (13012506)                609709.09
4202157.70        0.00564  (09010202)
       609724.09   4202157.70        0.00542  (09010202)                608959.09
4202172.70        0.00701  (12012524)
       608974.09   4202172.70        0.00731  (10120218)                608989.09
4202172.70        0.00763  (12011923)
       609004.09   4202172.70        0.00800  (12011923)                609019.09
4202172.70        0.00836  (12012005)
       609034.09   4202172.70        0.00879  (12012005)                609049.09
4202172.70        0.00924  (12012005)
       609064.09   4202172.70        0.00974  (10010205)                609079.09
4202172.70        0.01027  (09123103)
       609094.09   4202172.70        0.01086  (09123103)                609109.09
4202172.70        0.01150  (13010602)
       609124.09   4202172.70        0.01228  (12120523)                609139.09
4202172.70        0.01311  (13012320)
       609154.09   4202172.70        0.01408  (13012320)                609169.09
4202172.70        0.01525  (10122201)
       609184.09   4202172.70        0.01643  (10021223)                609199.09
4202172.70        0.01830  (10020504)
       609214.09   4202172.70        0.02042  (10020504)                609229.09
4202172.70        0.02242  (10020504)
       609244.09   4202172.70        0.02403  (10020504)                609259.09
4202172.70        0.02557  (10020603)
       609274.09   4202172.70        0.02874  (10121405)                609289.09
4202172.70        0.03071  (09121818)
       609304.09   4202172.70        0.03055  (09123119)                609319.09
4202172.70        0.03025  (12123120)
       609334.09   4202172.70        0.03007  (13022419)                609349.09
4202172.70        0.03017  (10021118)
       609364.09   4202172.70        0.03057  (10021118)                609379.09
4202172.70        0.03104  (10020207)
       609424.09   4202172.70        0.02342  (10120324)                609439.09
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609454.09	4202172.70	0.01866	(10121903)	609469.09	4202172.70	0.01642	(10121903)
609484.09	4202172.70	0.01468	(12022118)	609499.09	4202172.70	0.01360	(12022118)
609514.09	4202172.70	0.01262	(11011323)	609529.09	4202172.70	0.01165	(11011323)
609544.09	4202172.70	0.01079	(12013024)	609559.09	4202172.70	0.01011	(10121022)
609574.09	4202172.70	0.00948	(10121022)	609589.09	4202172.70	0.00887	(10121022)
609604.09	4202172.70	0.00831	(13012506)	609619.09	4202172.70	0.00780	(13012506)
609634.09	4202172.70	0.00732	(09010202)	609649.09	4202172.70	0.00696	(09010202)
609664.09	4202172.70	0.00663	(09010202)	609679.09	4202172.70	0.00630	(09010202)
609694.09	4202172.70	0.00600	(09010202)	609709.09	4202172.70	0.00571	(09010202)
609724.09	4202172.70	0.00543	(09010202)	608959.09	4202187.70	0.00705	(09122008)

608974.09 4202187.70 0.00737 (09122008) 608989.09 4202187.70 0.00771 (12012524)
609004.09 4202187.70 0.00809 (12012524) 609019.09 4202187.70 0.00848 (12012524)
609034.09 4202187.70 0.00889 (12012524) 609049.09 4202187.70 0.00932 (10120218)
609064.09 4202187.70 0.00983 (10120218) 609079.09 4202187.70 0.01039 (12011923)
609094.09 4202187.70 0.01102 (12012005) 609109.09 4202187.70 0.01172 (12012005)
609124.09 4202187.70 0.01248 (10010205) 609139.09 4202187.70 0.01331 (09123103)
609154.09 4202187.70 0.01430 (09123103) 609169.09 4202187.70 0.01550 (12120523)
609184.09 4202187.70 0.01686 (12120523) 609199.09 4202187.70 0.01832 (13012320)
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609244.09 4202187.70 0.02616 (10020504) 609259.09 4202187.70 0.02989 (10020504)
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609439.09 4202187.70 0.02095 (10021519) 609454.09 4202187.70 0.01877 (12022118)
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609499.09 4202187.70 0.01403 (10121022) 609514.09 4202187.70 0.01294 (10121022)
609529.09 4202187.70 0.01193 (10121022) 609544.09 4202187.70 0.01099 (13012506)
609559.09 4202187.70 0.01017 (13012506) 609574.09 4202187.70 0.00948 (09010202)
609589.09 4202187.70 0.00890 (09010202) 609604.09 4202187.70 0.00836 (09010202)
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609649.09 4202187.70 0.00695 (09010202) 609664.09 4202187.70 0.00657 (11120401)
609679.09 4202187.70 0.00626 (11120401) 609694.09 4202187.70 0.00597 (11021923)
609709.09 4202187.70 0.00573 (11021923) 609724.09 4202187.70 0.00550 (11021923)
608959.09 4202202.70 0.00712 (09020523) 608974.09 4202202.70 0.00743 (09021723)
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 4202202.70        0.01259  (12012524)
       609139.09   4202202.70        0.01345  (10120218)                609154.09
 4202202.70        0.01446  (12011923)
       609169.09   4202202.70        0.01570  (12012005)                609184.09
 4202202.70        0.01703  (10010205)
       609199.09   4202202.70        0.01853  (10010205)                609214.09
 4202202.70        0.02037  (10120918)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  59
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                 INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                   **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       609229.09   4202202.70        0.02252  (12120523)                609244.09
 4202202.70        0.02518  (13021421)
       609259.09   4202202.70        0.02971  (10020504)                609274.09
 4202202.70        0.03480  (10020504)
       609424.09   4202202.70        0.02423  (12022118)                609439.09
 4202202.70        0.02121  (10121022)
       609454.09   4202202.70        0.01912  (10121022)                609469.09
 4202202.70        0.01729  (10121022)
       609484.09   4202202.70        0.01559  (10021219)                609499.09
 4202202.70        0.01411  (09010202)
       609514.09   4202202.70        0.01296  (09010202)                609529.09
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609634.09 4202202.70 0.00751 (11021923) 609649.09
4202202.70 0.00711 (11021923)
609664.09 4202202.70 0.00677 (11021923) 609679.09
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4202217.70 0.00724 (12120423)
608974.09 4202217.70 0.00755 (12120423) 608989.09
4202217.70 0.00788 (12120423)
609004.09 4202217.70 0.00824 (12120423) 609019.09
4202217.70 0.00862 (12120423)
609034.09 4202217.70 0.00903 (12120423) 609049.09
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609124.09 4202217.70 0.01259 (10120920) 609139.09
4202217.70 0.01344 (09021723)
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4202217.70 0.01857 (12012524)
609214.09 4202217.70 0.02035 (10120218) 609229.09
4202217.70 0.02247 (12011119)
609244.09 4202217.70 0.02511 (10022522) 609259.09
4202217.70 0.02843 (10120918)
609274.09 4202217.70 0.03348 (10020504) 609424.09
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609439.09 4202217.70 0.02113 (12013002) 609454.09
4202217.70 0.01890 (11120401)
609469.09 4202217.70 0.01709 (11120401) 609484.09
4202217.70 0.01553 (11011518)
609499.09 4202217.70 0.01421 (11021923) 609514.09
4202217.70 0.01306 (11021923)
609529.09 4202217.70 0.01205 (11021923) 609544.09
4202217.70 0.01116 (11021923)
609559.09 4202217.70 0.01038 (12121606) 609574.09
4202217.70 0.00970 (12121606)
609589.09 4202217.70 0.00909 (12121606) 609604.09
4202217.70 0.00853 (12121606)
609619.09 4202217.70 0.00805 (12013101) 609634.09

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 4202217.70        0.00626  (12013101)
       609709.09   4202217.70        0.00599  (12013101)               609724.09
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       608959.09   4202232.70        0.00726  (10121319)               608974.09
 4202232.70        0.00756  (10121319)
       608989.09   4202232.70        0.00789  (10121319)               609004.09
 4202232.70        0.00825  (10121319)
       609019.09   4202232.70        0.00864  (10121319)               609034.09
 4202232.70        0.00906  (12120423)
       609049.09   4202232.70        0.00953  (12120423)               609064.09
 4202232.70        0.01004  (12120423)
       609079.09   4202232.70        0.01057  (12120423)               609094.09
 4202232.70        0.01118  (12120423)
       609109.09   4202232.70        0.01187  (12120423)               609124.09
 4202232.70        0.01265  (12120423)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  60
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                 INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                           *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                        ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       609139.09   4202232.70        0.01351  (12120423)               609154.09
 4202232.70        0.01454  (12120423)
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609169.09 4202232.70 0.01574 (12120423) 609184.09 4202232.70 0.01705 (12120423)
609199.09 4202232.70 0.01850 (12120423) 609214.09 4202232.70 0.02020 (12120423)
609229.09 4202232.70 0.02227 (11020419) 609244.09 4202232.70 0.02483 (13022823)
609259.09 4202232.70 0.02808 (12011119) 609274.09 4202232.70 0.03156 (13122220)
609424.09 4202232.70 0.02390 (11011518) 609439.09 4202232.70 0.02113 (11011518)
609454.09 4202232.70 0.01891 (12013101) 609469.09 4202232.70 0.01711 (12013101)
609484.09 4202232.70 0.01563 (12013101) 609499.09 4202232.70 0.01434 (12013101)
609514.09 4202232.70 0.01317 (12013101) 609529.09 4202232.70 0.01215 (12013101)
609544.09 4202232.70 0.01125 (12013101) 609559.09 4202232.70 0.01047 (12013101)
609574.09 4202232.70 0.00978 (12013101) 609589.09 4202232.70 0.00917 (12013101)
609604.09 4202232.70 0.00861 (12013101) 609619.09 4202232.70 0.00811 (12013101)
609634.09 4202232.70 0.00766 (12013101) 609649.09 4202232.70 0.00727 (12013101)
609664.09 4202232.70 0.00691 (12013101) 609679.09 4202232.70 0.00659 (12013101)
609694.09 4202232.70 0.00629 (12013101) 609709.09 4202232.70 0.00601 (12013101)
609724.09 4202232.70 0.00577 (12013101) 608959.09 4202247.70 0.00731 (10021321)
608974.09 4202247.70 0.00760 (10021321) 608989.09 4202247.70 0.00792 (10021321)
609004.09 4202247.70 0.00825 (10021321) 609019.09 4202247.70 0.00862 (10021321)
609034.09 4202247.70 0.00902 (10021321) 609049.09 4202247.70 0.00947 (10022622)
609064.09 4202247.70 0.00996 (10021206) 609079.09 4202247.70 0.01047 (10021206)
609094.09 4202247.70 0.01106 (10021206) 609109.09 4202247.70 0.01174 (10021206)
609124.09 4202247.70 0.01248 (10021206) 609139.09 4202247.70 0.01331 (10021206)
609154.09 4202247.70 0.01429 (10021206) 609169.09 4202247.70 0.01541 (10021206)
609184.09 4202247.70 0.01669 (10021206) 609199.09 4202247.70 0.01816 (10022622)
609214.09 4202247.70 0.01988 (10022622) 609229.09 4202247.70 0.02195 (10021321)
609244.09 4202247.70 0.02450 (10021321) 609259.09 4202247.70 0.02767 (11020419)

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       609439.09   4202247.70        0.02080  (10011218)               609454.09
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       609469.09   4202247.70        0.01680  (10011218)               609484.09
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       609499.09   4202247.70        0.01407  (12121805)               609514.09
 4202247.70        0.01296  (12121805)
       609529.09   4202247.70        0.01199  (12121805)               609544.09
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       609679.09   4202247.70        0.00670  (12121805)               609694.09
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       609709.09   4202247.70        0.00613  (12121805)               609724.09
 4202247.70        0.00589  (12121805)
       608959.09   4202262.70        0.00780  (10021206)               608974.09
 4202262.70        0.00808  (10021206)
       608989.09   4202262.70        0.00840  (10021206)               609004.09
 4202262.70        0.00872  (10021206)
       609019.09   4202262.70        0.00906  (10021206)               609034.09
 4202262.70        0.00944  (10021206)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  61
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                             *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
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** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609049.09	4202262.70	0.00984	(10021206)	609064.09	4202262.70	0.01027	(10021206)
609079.09	4202262.70	0.01071	(12012004)	609094.09	4202262.70	0.01125	(12012004)
609109.09	4202262.70	0.01189	(12012004)	609124.09	4202262.70	0.01257	(12012004)
609139.09	4202262.70	0.01334	(12012004)	609154.09	4202262.70	0.01423	(09020604)
609169.09	4202262.70	0.01525	(11123006)	609184.09	4202262.70	0.01653	(11123006)
609199.09	4202262.70	0.01803	(11123006)	609214.09	4202262.70	0.01970	(11123006)
609229.09	4202262.70	0.02174	(09011224)	609244.09	4202262.70	0.02426	(12020821)
609259.09	4202262.70	0.02744	(12020821)	609274.09	4202262.70	0.03104	(13121619)
609424.09	4202262.70	0.02340	(10012718)	609439.09	4202262.70	0.02075	(10012718)
609454.09	4202262.70	0.01858	(10012718)	609469.09	4202262.70	0.01676	(10012718)
609484.09	4202262.70	0.01524	(10011408)	609499.09	4202262.70	0.01403	(10011408)
609514.09	4202262.70	0.01295	(10011408)	609529.09	4202262.70	0.01202	(10011408)
609544.09	4202262.70	0.01121	(10011408)	609559.09	4202262.70	0.01049	(10011408)
609574.09	4202262.70	0.00982	(10011408)	609589.09	4202262.70	0.00921	(10011408)
609604.09	4202262.70	0.00866	(10011408)	609619.09	4202262.70	0.00819	(10011218)
609634.09	4202262.70	0.00781	(10011218)	609649.09	4202262.70	0.00747	(10011218)
609664.09	4202262.70	0.00717	(12121805)	609679.09	4202262.70	0.00688	(12121805)
609694.09	4202262.70	0.00662	(12121805)	609709.09	4202262.70	0.00637	(12121805)
609724.09	4202262.70	0.00614	(12121805)	609424.09	4202277.70	0.02324	(13012303)
609439.09	4202277.70	0.02046	(13012303)	609454.09	4202277.70	0.01822	(11121823)
609469.09	4202277.70	0.01660	(13120704)	609484.09	4202277.70	0.01494	(13120704)
609499.09	4202277.70	0.01390	(10012718)	609514.09			

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       609529.09   4202277.70        0.01209  (10012718)                609544.09
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       609589.09   4202277.70        0.00975  (10011408)                609604.09
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       609619.09   4202277.70        0.00881  (10011408)                609634.09
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       609649.09   4202277.70        0.00802  (10011408)                609664.09
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       609679.09   4202277.70        0.00734  (10011408)                609694.09
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       609709.09   4202277.70        0.00685  (10011408)                609724.09
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       609439.09   4202322.70        0.02139  (10020522)                609454.09
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       609469.09   4202322.70        0.01835  (11123023)                609484.09
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       609499.09   4202322.70        0.01481  (11123023)                609514.09
 4202322.70        0.01349  (12020722)
       609529.09   4202322.70        0.01242  (09012121)                609544.09
 4202322.70        0.01183  (11010118)
       609559.09   4202322.70        0.01126  (13012303)                609574.09
 4202322.70        0.01060  (11121823)
       609589.09   4202322.70        0.01039  (11121823)                609604.09
 4202322.70        0.00982  (11121823)
       609619.09   4202322.70        0.00959  (11121823)                609634.09
 4202322.70        0.00933  (11121823)
       609649.09   4202322.70        0.00875  (11121823)                609664.09
 4202322.70        0.00853  (09010806)
       609679.09   4202322.70        0.00798  (09010806)                609694.09
 4202322.70        0.00780  (09010806)
       609409.09   4202337.70        0.02244  (09022424)                609424.09
 4202337.70        0.02119  (10012518)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  62
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                             *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                  INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                L0000006    , L0000007    , L0000008    , L0000009    , L0000010
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 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                              *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                          ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                    **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)             X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
        609439.09   4202337.70        0.01998  (09022423)               609454.09
 4202337.70        0.01866  (09122922)
        609469.09   4202337.70        0.01745  (10122817)               609484.09
 4202337.70        0.01633  (11123023)
        609499.09   4202337.70        0.01535  (11123023)               609514.09
 4202337.70        0.01407  (11123023)
        609529.09   4202337.70        0.01264  (11123023)               609544.09
 4202337.70        0.01135  (12020722)
        609559.09   4202337.70        0.01076  (09012121)               609574.09
 4202337.70        0.01017  (11010118)
        609589.09   4202337.70        0.00961  (11010118)               609604.09
 4202337.70        0.00910  (13012303)
        609619.09   4202337.70        0.00870  (11121823)               609634.09
 4202337.70        0.00847  (11121823)
        609649.09   4202337.70        0.00820  (11121823)               609664.09
 4202337.70        0.00794  (11121823)
        609679.09   4202337.70        0.00766  (11121823)               609694.09
 4202337.70        0.00738  (11121823)
        609709.09   4202337.70        0.00710  (11121823)               609724.09
 4202337.70        0.00683  (11121823)
        609409.09   4202352.70        0.02026  (12120608)               609424.09
 4202352.70        0.01953  (12120506)
        609439.09   4202352.70        0.01822  (10012518)               609454.09
 4202352.70        0.01732  (09022423)
        609469.09   4202352.70        0.01630  (09021721)               609484.09
 4202352.70        0.01526  (09122922)
        609499.09   4202352.70        0.01455  (10122817)               609514.09
 4202352.70        0.01373  (11123023)
        609529.09   4202352.70        0.01288  (11123023)               609544.09
 4202352.70        0.01181  (11123023)
        609559.09   4202352.70        0.01064  (11123023)               609574.09
 4202352.70        0.00961  (12020722)
        609589.09   4202352.70        0.00916  (09012121)               609604.09
 4202352.70        0.00871  (09012121)
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       609619.09   4202352.70        0.00829  (11010118)               609634.09
 4202352.70        0.00782  (11010118)
       609649.09   4202352.70        0.00744  (13012303)               609664.09
 4202352.70        0.00712  (13012303)
       609679.09   4202352.70        0.00696  (11121823)               609694.09
 4202352.70        0.00678  (11121823)
       609709.09   4202352.70        0.00658  (11121823)               609724.09
 4202352.70        0.00641  (11121823)
       609409.09   4202367.70        0.01835  (12120608)               609424.09
 4202367.70        0.01757  (10021424)
       609439.09   4202367.70        0.01711  (12120506)               609454.09
 4202367.70        0.01591  (10012518)
       609469.09   4202367.70        0.01523  (09022423)               609484.09
 4202367.70        0.01440  (09021721)
       609499.09   4202367.70        0.01367  (09122922)               609514.09
 4202367.70        0.01301  (10122817)
       609529.09   4202367.70        0.01229  (10122817)               609544.09
 4202367.70        0.01174  (11123023)
       609559.09   4202367.70        0.01099  (11123023)               609574.09
 4202367.70        0.01007  (11123023)
       609589.09   4202367.70        0.00907  (11123023)               609604.09
 4202367.70        0.00828  (12020722)
       609619.09   4202367.70        0.00792  (09012121)               609634.09
 4202367.70        0.00757  (09012121)
       609649.09   4202367.70        0.00721  (11010118)               609664.09
 4202367.70        0.00687  (11010118)
       609679.09   4202367.70        0.00651  (11010118)               609694.09
 4202367.70        0.00627  (13012303)
       609709.09   4202367.70        0.00602  (13012303)               609724.09
 4202367.70        0.00592  (11121823)
       609394.09   4202382.70        0.01702  (12021206)               609409.09
 4202382.70        0.01680  (12021724)
       609424.09   4202382.70        0.01633  (12120608)               609439.09
 4202382.70        0.01559  (13020722)
       609454.09   4202382.70        0.01509  (12120506)               609469.09
 4202382.70        0.01405  (10012518)
       609484.09   4202382.70        0.01355  (09022423)               609499.09
 4202382.70        0.01285  (09022423)
       609514.09   4202382.70        0.01232  (09122922)               609529.09
 4202382.70        0.01165  (10122817)
       609544.09   4202382.70        0.01122  (10122817)               609559.09
 4202382.70        0.01067  (11123023)
       609574.09   4202382.70        0.01015  (11123023)               609589.09
 4202382.70        0.00944  (11123023)
       609604.09   4202382.70        0.00865  (11123023)               609619.09
 4202382.70        0.00782  (11123023)
 *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                        ***       11:05:39
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 , L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 , L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 , L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609634.09	4202382.70	0.00722	(12020722)	609649.09	4202382.70	0.00694	(12020722)
609664.09	4202382.70	0.00667	(09012121)	609679.09	4202382.70	0.00639	(11010118)
609694.09	4202382.70	0.00612	(11010118)	609709.09	4202382.70	0.00584	(11010118)
609724.09	4202382.70	0.00560	(13012303)	609394.09	4202397.70	0.01556	(11022222)
609409.09	4202397.70	0.01543	(10020523)	609424.09	4202397.70	0.01497	(10022423)
609439.09	4202397.70	0.01436	(12120608)	609454.09	4202397.70	0.01397	(09022424)
609469.09	4202397.70	0.01341	(12120506)	609484.09	4202397.70	0.01253	(13011002)
609499.09	4202397.70	0.01217	(09022423)	609514.09	4202397.70	0.01164	(09022423)
609529.09	4202397.70	0.01116	(09122922)	609544.09	4202397.70	0.01053	(09122922)
609559.09	4202397.70	0.01021	(10122817)	609574.09	4202397.70	0.00968	(10122817)
609589.09	4202397.70	0.00930	(11123023)	609604.09	4202397.70	0.00884	(11123023)
609619.09	4202397.70	0.00824	(11123023)	609634.09	4202397.70	0.00757	(11123023)
609649.09	4202397.70	0.00686	(11123023)	609664.09			

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4202397.70        0.00640  (12020722)
       609679.09   4202397.70        0.00618  (12020722)                609694.09
4202397.70        0.00596  (09012121)
       609709.09   4202397.70        0.00573  (09012121)                609724.09
4202397.70        0.00553  (11010118)
       609394.09   4202412.70        0.01441  (09022220)                609409.09
4202412.70        0.01416  (12021206)
       609424.09   4202412.70        0.01393  (12021724)                609439.09
4202412.70        0.01358  (12120608)
       609454.09   4202412.70        0.01292  (13020722)                609469.09
4202412.70        0.01266  (12120506)
       609484.09   4202412.70        0.01199  (12120506)                609499.09
4202412.70        0.01131  (13011002)
       609514.09   4202412.70        0.01102  (09022423)                609529.09
4202412.70        0.01061  (09022423)
       609544.09   4202412.70        0.01014  (09021721)                609559.09
4202412.70        0.00965  (09122922)
       609574.09   4202412.70        0.00927  (10122817)                609589.09
4202412.70        0.00894  (10122817)
       609604.09   4202412.70        0.00855  (11123023)                609619.09
4202412.70        0.00825  (11123023)
       609634.09   4202412.70        0.00782  (11123023)                609649.09
4202412.70        0.00729  (11123023)
       609664.09   4202412.70        0.00670  (11123023)                609679.09
4202412.70        0.00608  (11123023)
       609694.09   4202412.70        0.00574  (12020722)                609709.09
4202412.70        0.00556  (12020722)
       609724.09   4202412.70        0.00537  (09012121)                609394.09
4202427.70        0.01343  (09022220)
       609409.09   4202427.70        0.01305  (12021206)                609424.09
4202427.70        0.01294  (09022307)
       609439.09   4202427.70        0.01257  (10022423)                609454.09
4202427.70        0.01218  (12120608)
       609469.09   4202427.70        0.01175  (13020722)                609484.09
4202427.70        0.01151  (12120506)
       609499.09   4202427.70        0.01081  (10012518)                609514.09
4202427.70        0.01028  (13011002)
       609529.09   4202427.70        0.01004  (09022423)                609544.09
4202427.70        0.00970  (09022423)
       609559.09   4202427.70        0.00929  (09021721)                609574.09
4202427.70        0.00892  (09122922)
       609589.09   4202427.70        0.00848  (10122817)                609604.09
4202427.70        0.00829  (10122817)
       609619.09   4202427.70        0.00791  (10122817)                609634.09
4202427.70        0.00768  (11123023)
       609649.09   4202427.70        0.00738  (11123023)                609664.09
4202427.70        0.00697  (11123023)
       609679.09   4202427.70        0.00649  (11123023)                609694.09
4202427.70        0.00597  (11123023)
       609709.09   4202427.70        0.00544  (11123023)                609724.09
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE 1ST HIGHEST 1-HR AVERAGE CONCENTRATION VALUES FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000001 , L0000002 , L0000003 , L0000004 , L0000005 ,
L0000006 , L0000007 , L0000008 , L0000009 , L0000010 , L0000011 , L0000012 , L0000013 ,
L0000014 , L0000015 , L0000016 , L0000017 , L0000018 , L0000019 , L0000020 , L0000021 ,
L0000022 , L0000023 , L0000024 , L0000025 , L0000026 , L0000027 , L0000028 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
609499.09	4202472.70	0.00930	(13020722)	609514.09	4202472.70	0.00913	(12120506)
609529.09	4202472.70	0.00880	(12120506)	609544.09	4202472.70	0.00836	(10012518)
609559.09	4202472.70	0.00798	(13011002)	609574.09	4202472.70	0.00785	(09022423)
609589.09	4202472.70	0.00770	(09022423)	609604.09	4202472.70	0.00735	(09021721)
609619.09	4202472.70	0.00714	(09122922)	609634.09	4202472.70	0.00689	(09122922)
609649.09	4202472.70	0.00660	(10122817)	609664.09	4202472.70	0.00652	(10122817)
609679.09	4202472.70	0.00630	(10122817)	609694.09	4202472.70	0.00608	(12121607)
609319.09	4202487.70	0.01106	(10012801)	609334.09	4202487.70	0.01125	(10120908)

609349.09 4202487.70 0.01065 (10120908) 609364.09
4202487.70 0.01044 (11020103)
609394.09 4202487.70 0.01023 (10121808) 609409.09
4202487.70 0.01015 (09022220)
609424.09 4202487.70 0.00981 (11022222) 609439.09
4202487.70 0.00976 (12021206)
609454.09 4202487.70 0.00963 (09022307) 609469.09
4202487.70 0.00937 (10022423)
609484.09 4202487.70 0.00919 (12120608) 609499.09
4202487.70 0.00872 (10021424)
609514.09 4202487.70 0.00859 (11010201) 609529.09
4202487.70 0.00848 (12120506)
609544.09 4202487.70 0.00810 (12120506) 609559.09
4202487.70 0.00774 (10012518)
609574.09 4202487.70 0.00741 (13011002) 609589.09
4202487.70 0.00730 (09022423)
609604.09 4202487.70 0.00717 (09022423) 609619.09
4202487.70 0.00684 (09021721)
609634.09 4202487.70 0.00670 (09021721) 609649.09
4202487.70 0.00650 (09122922)
609664.09 4202487.70 0.00617 (09122922) 609679.09
4202487.70 0.00610 (10122817)
609184.09 4202502.70 0.00920 (09012124) 609199.09
4202502.70 0.00938 (10010218)
609214.09 4202502.70 0.00935 (13120920) 609229.09
4202502.70 0.00975 (12122821)
609244.09 4202502.70 0.01002 (10121308) 609259.09
4202502.70 0.01015 (09121604)
609274.09 4202502.70 0.01031 (11123003) 609289.09
4202502.70 0.01030 (09011124)
609304.09 4202502.70 0.01045 (09022320) 609319.09
4202502.70 0.01042 (10012801)
609334.09 4202502.70 0.01059 (10120908) 609349.09
4202502.70 0.01002 (10120908)
609364.09 4202502.70 0.00983 (09120508) 609394.09
4202502.70 0.00971 (10121808)
609409.09 4202502.70 0.00954 (09022220) 609424.09
4202502.70 0.00928 (10020719)
609439.09 4202502.70 0.00919 (12021206) 609454.09
4202502.70 0.00910 (10020523)
609469.09 4202502.70 0.00891 (12021724) 609484.09
4202502.70 0.00870 (12120608)
609499.09 4202502.70 0.00843 (12120608) 609514.09
4202502.70 0.00813 (13020722)
609529.09 4202502.70 0.00799 (09022424) 609544.09
4202502.70 0.00788 (12120506)
609559.09 4202502.70 0.00747 (12120506) 609574.09
4202502.70 0.00719 (10012518)
609589.09 4202502.70 0.00690 (13011002) 609604.09
4202502.70 0.00681 (09022423)

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       609619.09   4202502.70        0.00672  (09022423)                609634.09
 4202502.70        0.00643  (09022423)
       609649.09   4202502.70        0.00631  (09021721)                609664.09
 4202502.70        0.00613  (09122922)
       609064.09   4202517.70        0.00701  (09122817)                609079.09
 4202517.70        0.00713  (13122319)
       609094.09   4202517.70        0.00731  (13012924)                609109.09
 4202517.70        0.00769  (09021623)
       609124.09   4202517.70        0.00787  (11121408)                609139.09
 4202517.70        0.00816  (12122304)
       609154.09   4202517.70        0.00835  (11021706)                609169.09
 4202517.70        0.00860  (09012124)
       609184.09   4202517.70        0.00882  (10010218)                609199.09
 4202517.70        0.00873  (13120920)
↟ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  65
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                 INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                  **

      X-COORD (M)  Y-COORD (M)        CONC     (YYMMDDHH)              X-COORD (M)
Y-COORD (M)        CONC     (YYMMDDHH)
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
       609214.09   4202517.70        0.00899  (11011921)                609229.09
 4202517.70        0.00928  (10121308)
       609244.09   4202517.70        0.00950  (10122619)                609259.09
 4202517.70        0.00951  (10010508)
       609274.09   4202517.70        0.00974  (11123003)                609289.09
 4202517.70        0.00967  (09022320)
       609304.09   4202517.70        0.00985  (11012907)                609319.09
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4202517.70        0.00984  (10012801)
       609334.09   4202517.70        0.00999  (10120908)                609349.09
4202517.70        0.00945  (10120908)
       609364.09   4202517.70        0.00927  (09120508)                609409.09
4202517.70        0.00896  (11122819)
       609424.09   4202517.70        0.00886  (09022220)                609439.09
4202517.70        0.00858  (11022222)
       609454.09   4202517.70        0.00856  (12021206)                609469.09
4202517.70        0.00845  (09022307)
       609484.09   4202517.70        0.00825  (10022423)                609499.09
4202517.70        0.00812  (12120608)
       609514.09   4202517.70        0.00769  (10021424)                609529.09
4202517.70        0.00761  (13020722)
       609544.09   4202517.70        0.00748  (09022424)                609559.09
4202517.70        0.00734  (12120506)
       609574.09   4202517.70        0.00693  (10122303)                609589.09
4202517.70        0.00670  (10012518)
       609604.09   4202517.70        0.00645  (13011002)                609619.09
4202517.70        0.00637  (09022423)
       609634.09   4202517.70        0.00631  (09022423)                609649.09
4202517.70        0.00607  (09022423)
       609079.09   4202532.70        0.00686  (13012924)                609094.09
4202532.70        0.00719  (09021623)
       609109.09   4202532.70        0.00738  (11121408)                609124.09
4202532.70        0.00764  (12122304)
       609139.09   4202532.70        0.00776  (11122707)                609154.09
4202532.70        0.00798  (09012124)
       609169.09   4202532.70        0.00820  (10010218)                609184.09
4202532.70        0.00829  (10010218)
       609199.09   4202532.70        0.00827  (13120920)                609214.09
4202532.70        0.00859  (12122821)
       609229.09   4202532.70        0.00887  (10121308)                609244.09
4202532.70        0.00900  (10122619)
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4202532.70        0.00918  (11123003)
       609289.09   4202532.70        0.00920  (09022320)                609304.09
4202532.70        0.00930  (11012907)
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4202532.70        0.00944  (10120908)
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       609469.09   4202532.70        0.00802  (10020523)                609484.09
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View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  66
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                 INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,

                                          *** DISCRETE CARTESIAN RECEPTOR POINTS
***

                                       ** CONC OF PM_2.5   IN MICROGRAMS/M**3
                  **

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

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 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - -
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        609409.09   4202547.70        0.00799  (11122819)                609424.09
 4202547.70        0.00800  (09022220)
        609439.09   4202547.70        0.00775  (10020719)                609454.09
 4202547.70        0.00766  (12021206)
        609469.09   4202547.70        0.00760  (10020523)                609484.09
 4202547.70        0.00750  (09022307)
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        609274.09   4202562.70        0.00821  (09011124)                609289.09
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       609139.09   4202592.70        0.00668  (10010218)               609154.09
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View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  67
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                              *** THE   1ST HIGHEST  1-HR AVERAGE CONCENTRATION
VALUES FOR SOURCE GROUP:  ALL      ***
                                 INCLUDING SOURCE(S):     L0000001    , L0000002
 , L0000003    , L0000004    , L0000005    ,
                 L0000006    , L0000007    , L0000008    , L0000009    , L0000010
 , L0000011    , L0000012    , L0000013    ,
                 L0000014    , L0000015    , L0000016    , L0000017    , L0000018
 , L0000019    , L0000020    , L0000021    ,
                 L0000022    , L0000023    , L0000024    , L0000025    , L0000026
 , L0000027    , L0000028    ,  . . .      ,
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*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)	X-COORD (M)	Y-COORD (M)	CONC	(YYMMDDHH)
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609349.09	4202592.70	0.00729	(10120908)	609364.09	4202592.70	0.00710	(11012906)
609409.09	4202592.70	0.00701	(10121808)	609424.09	4202592.70	0.00683	(11122819)
609439.09	4202592.70	0.00683	(09022220)	609454.09	4202592.70	0.00660	(10020719)
609469.09	4202592.70	0.00649	(12021206)	609484.09	4202592.70	0.00649	(12021206)
609499.09	4202592.70	0.00644	(09022307)	609514.09	4202592.70	0.00634	(10022423)
609529.09	4202592.70	0.00616	(12120608)	609169.09	4202607.70	0.00639	(11011921)
609184.09	4202607.70	0.00664	(12122821)	609199.09	4202607.70	0.00683	(10121308)
609214.09	4202607.70	0.00693	(10122619)	609229.09	4202607.70	0.00698	(09121604)
609244.09	4202607.70	0.00703	(11123003)	609259.09	4202607.70	0.00711	(11123003)
609274.09	4202607.70	0.00706	(09022320)	609289.09	4202607.70	0.00724	(09022320)
609304.09	4202607.70	0.00709	(11012907)	609319.09	4202607.70	0.00727	(12012604)
609334.09	4202607.70	0.00734	(10120908)	609349.09	4202607.70	0.00696	(10120908)
609364.09	4202607.70	0.00677	(11012906)	609409.09	4202607.70	0.00670	(10121808)
609424.09	4202607.70	0.00650	(11122819)	609439.09	4202607.70	0.00651	(09022220)
609454.09	4202607.70	0.00635	(09022220)	609469.09	4202607.70	0.00620	(11022222)
609484.09	4202607.70	0.00622	(12021206)	609499.09	4202607.70	0.00617	(10020523)
609199.09	4202622.70	0.00657	(10121308)	609214.09			

*** MODELOPTs: RegDFAULT CONC ELEV URBAN

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 5 YEARS ***

** CONC OF PM_2.5 IN MICROGRAMS/M**3 **

GROUP ID	NETWORK AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	0.00357 AT (609424.09, 4202232.70, 40.00, 40.00, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.00351 AT (609424.09, 4202217.70, 40.00, 40.00, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.00348 AT (609424.09, 4202247.70, 40.00, 40.00, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.00326 AT (609424.09, 4202202.70, 40.03, 40.03, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.00325 AT (609424.09, 4202262.70, 40.00, 40.00, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.00286 AT (609274.09, 4202217.70,		

```
41.00,    41.00,    0.00)  DC
          7TH HIGHEST VALUE IS       0.00286 AT (  609424.09,  4202277.70,
40.00,    40.00,    0.00)  DC
          8TH HIGHEST VALUE IS       0.00283 AT (  609424.09,  4202187.70,
40.21,    40.21,    0.00)  DC
          9TH HIGHEST VALUE IS       0.00280 AT (  609274.09,  4202232.70,
41.00,    41.00,    0.00)  DC
         10TH HIGHEST VALUE IS       0.00279 AT (  609439.09,  4202232.70,
40.00,    40.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
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View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39

                                  PAGE  69
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  URBAN

                                                *** THE SUMMARY OF HIGHEST  1-HR
RESULTS ***


                                   ** CONC OF PM_2.5   IN MICROGRAMS/M**3
              **

                                                      DATE
                                        NETWORK
GROUP ID                           AVERAGE CONC     (YYMMDDHH)             RECEPTOR
(XR, YR, ZELEV, ZHILL, ZFLAG)    OF TYPE  GRID-ID
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - - - - - - - - - -

ALL      HIGH   1ST HIGH VALUE IS       0.03480  ON 10020504: AT (  609274.09,
4202202.70,    41.00,    41.00,    0.00)  DC


 *** RECEPTOR TYPES:  GC = GRIDCART
                      GP = GRIDPOLR
                      DC = DISCCART
                      DP = DISCPOLR
↑ *** AERMOD - VERSION 21112  ***   *** C:\Lakes\AERMOD
View\5200LoneTree_TruckOperation\5200LoneTree_TruckO ***        10/25/21
 *** AERMET - VERSION  14134 ***   ***
                       ***        11:05:39
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*** MODELOPTs: RegDFAULT CONC ELEV URBAN

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

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

A Total of   0 Fatal Error Message(s)
A Total of   1 Warning Message(s)
A Total of   15235 Informational Message(s)

A Total of   43872 Hours Were Processed

A Total of   13448 Calm Hours Identified

A Total of   1787 Missing Hours Identified (4.07 Percent)

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

   ********   WARNING MESSAGES   ********
MX W481   43873   MAIN: Data Remaining After End of Year. Number of Hours=
       48

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

Appendix B
Biological Resources Assessment

5200 Lone Tree Way Gas Station Project

Biological Resources Technical Report

July 2021

Prepared for:

The City of Antioch
Community Development Department – Planning Division
200 H Street
Antioch, CA 94509

Prepared by:

Services Inc.
1340 Treat Boulevard, Suite 300
Walnut Creek, CA 94597

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1.0 INTRODUCTION

This Biological Resources Technical Report (BRTR) has been prepared to evaluate the potential effects on sensitive biological resources that may occur for the proposed 5200 Lone Tree Way Gas Station Project (Project). The Project includes development of a new United Pacific convenience store, attached car wash, a fuel canopy with eight fuel dispensers, two underground storage tanks, and related site improvements and landscaping.

The proposed Project is located within the City of Antioch, in Contra Costa County. The Project site is bordered by Lone Tree Way, Vista Grande Drive, and single-family homes. The Assessor's Parcel Number (APN) is 056-270-059 (Figure 1). The approximate center of the Project is located at coordinates; 37°57'40.02"N, 121°45'19.41"W.

This BRTR is based on information gathered from a review of desktop resources including existing literature, data, and maps; and from a reconnaissance-level field survey of the Project area performed by Stantec Consulting Services Inc. (Stantec) biologists. The Project area for this BRTR encompasses approximately 2 acres and consists of the proposed Project footprint (Figure 1).

The overall purpose of this BRTR is to:

- Characterize the habitat and vegetation communities present;
- Evaluate the potential for special-status plant and animal species to occur.

2.0 PROJECT DESCRIPTION

The proposed Project consists of a new United Pacific convenience store of 3,200 square feet, attached car wash of 1,125 square feet, a fuel canopy with eight fuel dispensers, three underground storage tanks, and related site improvements and landscaping on an approximately 2.0-acre lot. The proposed Project proposes right-in/right-out ingress and egress from Lone Tree Way and Vista Grande Drive. The proposed Project would provide nineteen parking stalls and landscaping which will consist of drought-tolerant species, including shade canopy trees. The car wash drive lane would provide adequate stacking away from areas of ingress/egress from public right-of-way.

3.0 METHODS

The analysis presented in this BRTR includes a review of existing information about sensitive biological resources known to occur in the vicinity of the proposed Project as well as the reconnaissance-level field survey conducted to determine whether the biological resources are absent, present, and/or are likely to be present.

3.1 DEFINITIONS

3.1.1 Special-Status Species and Sensitive Communities

For the purpose of this evaluation, "special-status" plant species include plants that are: 1) listed as threatened or endangered under the California Endangered Species Act (CESA) and/or Federal Endangered Species Act (FESA); 2) proposed for federal listing as threatened or endangered; 3) State or federal candidate species; 4) designated as rare by the California Department of Fish and Wildlife (CDFW); or 5) California Rare Plant Rank (CRPR) 1A, 1B, 2A or 2B species. Special-status animal species include species that are: 1) listed as threatened or endangered under the CESA and/or FESA; 2) proposed for federal listing as threatened or endangered; 3) State and/or federal candidate species; or 4) identified by the CDFW as species of special concern or fully protected species.

Sensitive natural communities are those communities that are of highly limited distribution, and may or may not contain rare, threatened, or endangered species. The California Natural Diversity Database (CNDDB) ranks natural communities according to their rarity and endangerment in California. Habitats are considered "sensitive" if they are identified on the CDFW List of Vegetation Alliances and Associations as being highly imperiled or classified by CDFW in the CNDDB as natural communities of special concern – Ranks S1 to S3.

3.1.2 Potential to Occur

The potential for special-status species to occur within the Project area, was classified under one of five categories as described below. Only those special-status species with an occurrence potential of "Moderate" or greater are evaluated in detail as those species are most likely to occur.

- **Present:** The species is known to be present or has been recently observed in the Project area.
- **High:** The species has been observed and documented within five miles of the Project area within the last five years and suitable habitat for the species is present.
- **Moderate:** The proposed Project is located within the range of the species, there are documented occurrences within five miles of the Project area, and/or suitable habitat for the species exists in the Project area.
- **Low:** The proposed Project is located within the range of the species and low-quality (e.g., disturbed, agricultural) habitat is present.
- **Absent:** The proposed Project area is located outside of the species range and/or potential habitat to support the species is not present in the Project area.

3.2 LITERATURE AND DATABASE REVIEW

Information about habitat types and special-status species that could occur in the Project area was obtained from the following sources:

- CDFW CNDDB plant and animal records (CDFW 2021a) (Appendix A);
- California Native Plant Society (CNPS) online *Inventory of Rare and Endangered Plants* (CNPS 2021) (Appendix A);
- Calflora (2021);
- United States Fish and Wildlife Service (USFWS) list of endangered and threatened species that may occur in the Project area (USFWS 2021a) (Appendix A); and
- USFWS Designated Critical Habitat within the Project area (USFWS 2021a).

The Project area is within the *Antioch South* U.S. Geological Survey (USGS) 7.5-minute quadrangle. A CNDDB and CNPS database search for special-status species included the USGS 7.5-minute quadrangles within a 5-mile radius of the Project site. In this case, the *Antioch North*, *Antioch South*, *Jersey Island*, and *Brentwood* topographic quadrangles were queried. A 5-mile radius quadrangle search was conducted based on habitat types and migration distances for potential special-status species that could occur within the Project area. The USFWS database of endangered species was also utilized to query all federally endangered, threatened, candidate, and proposed animal and plant species, as well as designated critical habitat with known occurrences in the Project quadrangle and the adjacent quadrangles. Calflora and CNPS' Online Inventory databases were used to obtain more information on the habitat requirements of rare plants.

Other information sources consulted to determine which special-status species could potentially occur in the Project area included:

- USGS California 7.5-minute topographic quadrangles for *Antioch North*, *Antioch South*, *Jersey Island*, and *Brentwood*;
- Aerial photographs of the Project area and surrounding vicinity (Google Earth 2021);
- USFWS National Wetlands Inventory (USFWS 2021b);
- *Special Animals List* (CDFW 2021b);
- *State and Federally Listed Endangered and Threatened Animals of California* (CDFW 2021c);
- *State and Federally Listed Endangered, Threatened and Rare Plants of California* (CDFW 2021d);
- *Special Vascular Plants, Bryophytes, and Lichens List* (CDFW 2021e);
- California Wildlife Habitat Relationships System (WHRS) (CDFW 2014); and
- Other pertinent databases and literature, including *The Jepson Manual: Vascular Plants of California*, *Second Edition* (Baldwin et. al. 2012).

Based on this background research, a list of special-status species that have the potential to occur or are known to occur in the Project area and vicinity was developed. The list was refined based on a reconnaissance-level biological field survey to determine the potential for those species to occur in the Project area.

3.3 FIELD SURVEYS CONDUCTED

A biological survey for special-status species and sensitive natural communities was conducted by Stantec Biologist Scott Elder on June 25, 2021. The biological survey was performed by walking meandering transects throughout the entire Project area to characterize habitats, identify any aquatic resources that may be subject to regulatory agency jurisdiction (e.g., United States Army Corps of Engineers [USACE], Regional Water Quality Control Board (RWQCB) and CDFW), assess potential for special-status species to occur, and to record observed species. To better focus the field survey efforts on those plant and animal special-status species that may occur in the Project area, a target list of potentially occurring species was developed during the literature and database review process. Plant taxonomy for the botanical survey was determined using the Jepson Manual (Baldwin et al. 2012).

4.0 REGULATORY CONTEXT

4.1 FEDERAL REGULATORY REQUIREMENTS

4.1.1 Federal Endangered Species Act

The FESA of 1973 was established to protect and recover endangered and threatened species and the ecosystems upon which they depend. According to the FESA "endangered" indicates a species is in danger of extinction throughout all or a significant portion of its range. In addition, the FESA defines a species as "threatened" if that species is likely to become endangered within the foreseeable future. The USFWS maintains a list of endangered and threatened species. The USFWS and the National Marine Fisheries Service (NMFS) administer FESA and are responsible for consulting with other federal agencies pursuant to FESA. Consultation with the USFWS would be necessary if a proposed Project action has the potential to affect federally listed species, their habitat, as well as areas of Designated Critical Habitat (DCH). This consultation would proceed under Section 7 of the FESA if a federal action is required for the Project or it would proceed through Section 10 of the FESA if no such federal nexus were available.

4.1.2 Clean Water Act

The objective of the Clean Water Act (CWA) of 1977, as amended, is to maintain and restore the chemical, physical, and biological integrity of the nation's waters. The discharge of dredged or fill material into Waters of the US (WOTUS), including jurisdictional wetlands, is regulated under Section 404 of the CWA by the USACE via a permitting process. Surface water quality is further regulated by the United States Environmental Protection Agency (USEPA); in California this authority is delegated to the State Water Resources Control Board (SWRCB) or the RWQCB. Applicants for Section 404 permits are also required to comply with Section 401 of the CWA by obtaining Water Quality Certification (WQC) through the State.

4.1.3 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) of 1918 enacts the provisions of treaties between the United States, Great Britain, Mexico, Japan, and the Soviet Union and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. This treaty prohibits "take," which has been variously defined to include harming any migratory bird listed under the MBTA, including nests, eggs, and/or young.

4.1.4 Executive Orders

Federal agencies are required to demonstrate that their actions comply with Presidential Executive Orders established to protect the environment. Relevant Executive Orders include the following:

- **Executive Order 11990 (Wetlands):** For Projects that could affect wetlands, federal agencies are required to demonstrate that no practicable alternative exists to avoid the wetland(s) and that all practicable avoidance, mitigation, and/or preservation measures have been incorporated into a project to minimize impacts to wetlands. Federal agencies are also required to provide opportunity for early public review of any plans or proposals for new construction in wetlands.

- **Executive Order 11988 (Floodplain Management):** For projects that may be located in a floodplain, federal agencies are required to evaluate the effects of the action on the floodplain and identify practicable alternatives or measures to avoid long- and short-term adverse impacts associated with the occupancy and modification of the floodplain and to avoid incompatible development in the floodplain.
- **Executive Order 13112 (Invasive Species):** Federal agencies are required to prevent the introduction of invasive species and not authorize actions that could cause or promote the introduction or spread of invasive species. Federal agencies need to identify feasible and prudent measures to minimize the risk of harm caused by invasive species.
- **Executive Order 13186 (Migratory Birds):** Federal agencies are required to evaluate the effects of their actions on migratory birds, with emphasis on species of concern, and to minimize the take of migratory birds through development of procedures for evaluating such take and conservation efforts in coordination with the USFWS. This Executive Order further implements the MBTA and requires coordination between the USFWS and federal agencies.

4.2 CALIFORNIA REGULATORY REQUIREMENTS

4.2.1 California Endangered Species Act

The CESA prohibits “take” of plants or animals listed as endangered or threatened and protects native species of fish, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, that are threatened with extinction or experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation. “Take” is defined in Section 86 of the California Fish and Game Code (FGC) as to “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” CESA authorizes the CDFW to issue incidental take permits for state-listed species, when specific criteria are met.

4.2.2 Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne), Section 1601 to 1602 of the California FGC, authorizes the SWRCB to oversee water rights and water quality policy, and as such has established nine RWQCBs to protect and enhance water quality at the regional and local levels. In addition to preparing WQCs to designate beneficial uses of water bodies in each region, the RWQCBs issue a permit, referred to as a Waste Discharge Requirement (WDR), for activities that result in pollutant or nuisance discharges that may affect surface or groundwater, including isolated wetlands not subject to the jurisdiction of the USACE.

4.2.3 California Fish and Game Code

The California FGC has several provisions for the protection of Waters of the State (WOTS), and special-status plant, fish, and wildlife resources, including their habitat. The applicable California FGCs are as follows:

- **Sections 1600-1616 (Streambed Alteration):** The CDFW is responsible for the protection and conservation of fish and wildlife resources in California. Under Section 1602, CDFW has the authority to issue Lake or Streambed Alteration Agreements (LSAA) for construction activities that substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the CDFW as providing resources for fish or wildlife.

- **Sections 1900-1913 (Native Plant Protection Act):** The Native Plant Protection Act (NPPA) of 1977 prohibits the taking, possessing, or sale within the State of any plants that the CDFW has determined are rare, threatened, or endangered. The CDFW has the authority to enforce the provisions of this act and authorize measures to salvage native plants that may otherwise be affected by project activities, if deemed appropriate.
- **Sections 3500-3516 (Game Birds and Birds of Prey):** The CDFW protects game birds, birds of prey, migratory birds, and fully protected birds and their nests, eggs, and young from take or possession, except as otherwise provided by the code (e.g., incidental take under CESA).
- **Sections 3511, 4700, 5050, and 5515 (Fully Protected Species):** California statutes accord a "fully protected" status to specific birds, mammals, reptiles, amphibians, and fish. These species cannot be "taken," and no process exists for issuance of incidental take permits for fully protected species.

5.0 ENVIRONMENTAL SETTING

5.1 SITE CONDITIONS AND LAND USE

5.1.1 Local Setting and Existing Land Use

The Project site is a square shaped parcel that is currently developed with multiple buildings including a single-family home, multi-car garage, and an old barn. Other developed areas include paved asphalt and gravel/dirt areas with various vehicles, trailers, and storage containers placed throughout the southwest portion of the Project area.

The Project site is completely surrounded by urban development, including the following land uses:

- **North:** Lone Tree Way and commercial offices.
- **East:** Vista Grande Drive and multi-family residential apartments.
- **South and West:** Residential development including single-family homes.

5.1.2 Physical Conditions

The topography of the Project area is relatively flat, with the terrain slightly sloping south to north. The Project area occurs at elevations between 137 and 134 feet above mean sea level. Regionally, the Project area has a Mediterranean climate characterized by hot, dry summers and moderate winters, with average temperatures ranging seasonally from 73.7 to 49.4 degrees Fahrenheit (°F). Historical data used to describe the climate was collected at the Antioch Pump Plant 3, California National Oceanic and Atmospheric Administration (NOAA) Coop Station, approximately 1.5 miles north of the Project area (NOAA Regional Climate Centers 2021). Precipitation in the Project area occurs as rain. Average annual rainfall is 12.75 inches and occurs primarily from October through May. The growing season (i.e., 50 percent probability of air temperature 32ºF or higher) in the survey area is around 304 days and occurs between early February and December (NOAA Regional Climate Centers 2021).

5.2 BIOTIC HABITATS

5.2.1 Vegetation Communities

Vegetation types in the Project area were classified based on descriptions provided in *A Guide to Wildlife Habitats of California* (Mayer and Laudenslayer 1988), as well as the *California Natural Community List* (CDFW 2021f), which is adapted from the technical approach and vegetation alliance classification system described in *A Manual of California Vegetation* (Sawyer et al. 2009). The vegetation communities present in the Project area are primarily barren and ruderal with urban development. There are no aquatic vegetation communities within the Project area. Descriptions of the vegetation communities within the Project area are provided below. Representative photographs are provided in Appendix B, and a complete list of plant and wildlife species observed is provided in Appendix C.

Upland Habitat Types

Barren and Ruderal

Barren and ruderal habitat occur within a majority of the Project area. This community has a gravel/dirt substrate with opportunistic non-native and invasive ruderal forb species growing throughout. These species include prickly Russian thistle (*Salsola tragus*), prickly lettuce (*Lactuca serriola*), common sow thistle (*Sonchus oleraceus*), and foxtail barley (*Hordeum murinum*).

Urban/Developed

This land use type does not describe any specific vegetation type under Sawyer et al. (2009) but encompasses land that has been anthropogenically modified with structures and facilities, including roads and buildings. Ornamental plantings and ruderal vegetation may be present within and/or on the margins of developed areas. There are small sections within the Project area that include various landscape tree species and have been maintained by the property owner. These areas are adjacent to the existing buildings on site.

Annual Grassland

Annual grassland habitat occurs within the northeast portion of the Project area. This habitat is characterized as a moderate herbaceous layer and a limited overstory canopy. Dominant plant species within the annual grassland habitat includes foxtail barley, alkali mallow (*Malvella leprosa*), and Italian rye grass (*Festuca perennis*). This habitat is highly disturbed with vehicle tire tracks throughout the grassland. A handful of large burrows were observed within the grassland habitat; however, these burrows were full leaves and spider webs and were not actively being used.

5.2.2 Habitat Connectivity

Habitat corridors are segments of land that provide linkages for wildlife movement between different habitats while also providing cover. Corridors also function as avenues along which plants can propagate, genetic interchange can occur, populations can move in response to environmental changes and natural disasters, and populations can be replenished from other areas. Habitat corridors often consist of riparian areas along streams, rivers, or other natural features. Habitat corridors have been recognized by federal agencies, such as the USFWS, and the state as important habitats worthy of conservation. In general, movement corridors consist of areas of undisturbed land cover that connect larger, contiguous habitats. The Project site does not act as a corridor for species dispersal or provide migration habitat connectivity to adjacent habitat and is not part of any defined essential connectivity areas as identified in the California Essential Habitat Connectivity Project (Spencer et al. 2010).

5.2.3 Invasive Species

Invasive plants (i.e., noxious weeds) are undesirable, non-native plants that commonly invade disturbed sites. Most species were introduced from Europe and Asia and many are known to negatively affect native wildlife habitat and plant communities. When disturbance results in the creation of habitat openings or in the loss of intact native vegetation, invasive plants may colonize the site and spread, often out-competing native species. Once established, they are very difficult to eradicate.

All pertinent non-native plant species were reviewed to determine their status as invasive plants according to the ratings in the California Invasive Plant Inventory produced by California Invasive Plant Council (Cal-IPC) (Cal-IPC 2021). Cal-IPC categorizes non-native invasive plants into three categories of overall negative ecological impact in

California as “high”, “moderate”, and “limited”. No invasive species with a Cal-IPC rating of “high” were observed in the Project area.

5.2.4 Sensitive Natural Communities and Aquatic Habitats

Habitats are considered “sensitive” by CDFW if they are identified on the List of Vegetation Alliances and Associations as being highly imperiled or classified by CDFW in the CNDDB as natural communities of special concern – Ranks S1 to S3. No sensitive natural communities were documented in the Project area during the reconnaissance-level biological field survey. No other natural communities of concern identified by the USACE, RWQCB, and CDFW, including wetlands and other aquatic habitats, were observed within or adjacent to the Project area.

5.2.5 Special-Status Plant Species

Regionally occurring special-status plant species were identified based on a review of pertinent literature, the USFWS species list, CNDDB, and CNPS database records, and the reconnaissance-level biological field survey results. CNDDB special-status plant species occurrences within five miles of the Project area are illustrated in Figure 2. For each species, habitat requirements were assessed and compared to the habitats in the Project area and immediate vicinity to determine if potential habitat occurs in the Project area. For the purposes of this review, all regionally occurring plant species listed under the FESA, CESA and CNPS are included in Table 1, regardless of whether the Project area provides potential habitat. Based on database records, 37 special-status plants were evaluated for their potential to occur within the Project area. Of these 37 species, 17 were determined to be absent and 20 have a low potential to occur. None were found to have a high or moderate potential to occur as discussed in Table 1.

Table 1. Special-Status Plant Species with Potential to Occur in the Project area

Common Name Scientific Name	Listing Status[1] (Fed/State/CRPR)	Known Habitat and Elevation Range (Feet)	Blooming Period	Potential for Occurrence
Large-flowered fiddleneck *Amsinckia grandiflora*	FE/SE/1B.1	Cismontane woodland and valley and foothill grassland. Elev. 885-1805 ft.	Apr-May	**Low**. The Project area does not contain woodland habitat. The Project area does contain annual grassland; however, the grassland is highly disturbed and provides only marginal habitat for this species.
Mt. Diablo manzanita *Arctostaphylos auriculata*	-/-/1B.3	Chaparral in sandstone soil or cismontane woodland. Elev. 440-2135 ft.	Jan-Mar	**Absent**. The Project area does not contain chaparral or woodland habitat and this species was not observed during the reconnaissance survey.
Contra Costa manzanita *Arctostaphylos manzanita* ssp. *laevigata*	-/-/1B.2	Rocky soils in chaparral. Elev. 1410-3610 ft.	Jan-Mar	**Absent**. The Project area does not contain chaparral habitat and this species was not observed during the reconnaissance survey.
Alkali milk-vetch *Astragalus tener* var. *tener*	-/-/1B.2	Valley and foothill grassland in adobe clay soil; playas and vernal pools with alkaline soil. Elev. 0-200 ft.	Mar-Jun	**Absent.** The Project area does not contain adobe clay soils, playas or vernal pools with alkaline soils and this species was not observed during the reconnaissance survey.
Brittlescale *Atriplex depressa*	-/-/1B.2	Alkaline and clay soils in chenopod scrub, meadows and seeps, playas, valley and foothill grassland, and vernal pools. Elev. 0-1050 ft.	Apr-Oct	**Low.** The Project area does not contain chenopod scrub, meadows and seeps, playas, or vernal pools. The Project area does contain annual grassland; however, the grassland is highly disturbed and provides only marginal habitat for this species.
Big tarplant *Blepharizonia plumosa*	-/-/1B.1	Usually clay soils in valley and foothill grassland. Elev. 100-1660 ft.	July-Oct	**Low**. The Project area does contain annual grassland; however, the grassland is highly disturbed and provides only marginal habitat for this species.

Common Name Scientific Name	Listing Status[1] (Fed/State/CRPR)	Known Habitat and Elevation Range (Feet)	Blooming Period	Potential for Occurrence
Mt. Diablo fairy-lantern *Calochortus pulchellus*	-/-/1B.2	Chaparral, cismontane woodland, riparian woodland, and valley and foothill grassland. Elev. 100-2755 ft.	Apr-Jun	**Low**. The Project area does not contain chaparral or woodland. The Project area does contain annual grassland; however, the grassland is highly disturbed and provides only marginal habitat for this species.
Congdon's tarplant *Centromadia parryi* ssp. *congdonii*	-/-/1B.1	Valley and foothill grassland in alkaline soils. Elev. 0-755 ft.	May-Oct	**Low.** The Project area does contain annual grassland; however, the grassland is highly disturbed and provides only marginal habitat for this species.
Soft salty bird's-beak *Chloropyron molle* ssp. *molle*	FE/SR/1B.2	Coastal salt marshes and swamps. Elev. 0-10 ft.	Jun-Nov	**Absent.** The Project area does not contain coastal salt marshes or swamps (salt grass/pickleweed marshes) and this species was not observed during the reconnaissance survey.
Bolander's water-hemlock *Cicuta maculata* var. *bolanderi*	-/-/2B.1	Coastal fresh or brackish water marshes and swamps. Elev. 0-660 ft.	Jul-Sep	**Absent.** Project area does not contain coastal fresh or brackish marshes or swamps and this species was not observed during the reconnaissance survey.
Hoover's cryptantha *Cryptantha hooveri*	-/-/1A	Inland dunes and valley and foothill grassland in sandy soils. Elev. 30-490 ft.	Apr-May	**Low**. The Project area does not contain inland dune habitat. The Project area does contain annual grassland; however, the grassland is highly disturbed and provides only marginal habitat for this species.
Dwarf downingia *Downingia pusilla*	-/-/2B.2	Valley and foothill grassland in mesic habitats and vernal pools. Elev. 5-1460 ft.	Mar-May	**Low**. The Project area does not contain vernal pools. The Project area does contain annual grassland; however, the grassland is highly disturbed and provides only marginal habitat for this species.

Common Name Scientific Name	Listing Status[1] (Fed/State/CRPR)	Known Habitat and Elevation Range (Feet)	Blooming Period	Potential for Occurrence
Antioch Dunes buckwheat *Eriogonum nudum* var. *psychicola*	-/-/1B.1	Inland dunes. Elev. 0-65 ft.	Jul-Oct	**Absent.** Project area does not contain inland dunes and this species was not observed during the reconnaissance survey.
Mt. Diablo buckwheat *Eriogonum truncatum*	-/-/1B.1	Sandy soils in chaparral, coastal scrub, and valley and foothill grassland. Elev. 10-1150 ft.	Apr-Sep	**Low.** The Project area does not contain chaparral or coastal scrub habitat. The Project area does contain annual grassland; however, the grassland is highly disturbed and provides only marginal habitat for this species.
Jepson's coyote-thistle *Eryngium jepsonii*	-/-/1B.2	Valley and foothill grassland, vernal pools in clay soil. Elev. 10-985 ft.	Apr-Aug	**Low**. The Project area does not contain vernal pools. The Project area does contain annual grassland; however, the grassland is highly disturbed and provides only marginal habitat for this species.
Contra Costa wallflower *Erysimum capitatum* var. *angustatum*	FE/SE/1B.1	Inland dunes. Elev. 10-70 ft.	Mar-Jul	**Absent.** Project area does not contain inland dunes and this species was not observed during the reconnaissance survey.
Diamond-petaled California poppy *Eschscholzia rhombipetala*	-/-/1B.1	Valley and foothill grassland in alkaline and clay soils. Elev. 0-3200 ft.	Mar-Apr	**Low.** The Project area does contain annual grassland; however, the grassland is highly disturbed and provides only marginal habitat for this species.
San Joaquin spearscale *Extriplex joaquinana*	-/-/1B.2	Chenopod scrub, meadows and seeps, playas, and valley and foothill grassland in alkaline soil. Elev. 0-2740 ft.	Apr-Oct	**Low.** The Project area does not contain chenopod scrub or meadows and seeps. The Project area does contain annual grassland; however, the grassland is highly disturbed and provides only marginal habitat for this species.

Common Name Scientific Name	Listing Status[1] (Fed/State/CRPR)	Known Habitat and Elevation Range (Feet)	Blooming Period	Potential for Occurrence
Fragrant fritillary *Fritillaria liliacea*	-/-/1B.2	Cismontane woodland, coastal prairie, coastal scrub, valley and foothill grassland often in serpentinite soil. Elev. 10-1345 ft.	Feb-Apr	**Low**. The Project area does not contain woodland, prairie, or scrub habitat. The Project area does contain annual grassland; however, the grassland is highly disturbed and provides only marginal habitat for this species.
Diablo helianthella *Helianthella castanea*	-/-/1B.2	Usually rocky, axonal soils, often in partial shade in broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, and valley and foothill grassland. Elev. 195-4265 ft.	Mar-Jun	**Low.** The Project area does not contain forest, woodland, chaparral, or coastal scrub habitat. The Project area does contain annual grassland; however, the grassland is highly disturbed and provides only marginal habitat for this species.
Brewer's western flax *Hesperolinon breweri*	-/-/1B.2	Usually serpentinite soils in chaparral, cismontane woodland, valley and foothill grassland. Elev. 100-3100 ft.	May-Jul	**Low.** The Project area does not contain woodland or chaparral habitat. The Project area does contain annual grassland; however, the grassland is highly disturbed and provides only marginal habitat for this species.
Woolly rose-mallow *Hibiscus lasiocarpos* var. *occidentalis*	-/-/1B.2	Freshwater marshes and swamps, often in riprap on sides of levees. Elev. 0-395 ft.	Jun-Sep	**Absent.** The Project area does not contain freshwater marshes and swamps and this species was not observed during the reconnaissance survey.
Contra Costa goldfields *Lasthenia conjugens*	FE/-/1B.1	Cismontane woodland, playas in alkaline soil, mesic valley and foothill grassland, and vernal pools in mesic areas. Elev. 0-1545 ft.	Mar-Jun	**Low.** The Project area does not contain woodland or playas. The Project area does contain annual grassland; however, the grassland is highly disturbed and provides only marginal habitat for this species.
Delta tule pea *Lathyrus jepsonii* var. *jepsonii*	-/-/1B.2	Freshwater and brackish marshes and swamps. Elev. 0-20 ft.	May-Sep	**Absent.** The Project area does not contain freshwater or brackish marshes and swamps and this species was not observed during the reconnaissance survey.

Common Name Scientific Name	Listing Status[1] (Fed/State/CRPR)	Known Habitat and Elevation Range (Feet)	Blooming Period	Potential for Occurrence
Mason's lilaeopsis *Lilaeopsis masonii*	-/SR/1B.1	Wetlands, riparian, freshwater marsh, brackish marsh, and wetland riparian. Elev. 0-32 ft.	Apr-Nov	**Absent.** The Project area does not contain freshwater or brackish marshes, wetlands, or riparian wetlands and this species was not observed during the reconnaissance survey.
Delta mudwort *Limosella australis*	-/-/2B.1	Riparian scrub, freshwater or brackish marshes and swamps, usually on mud banks. Elev. 0-10 ft.	May-Aug	**Absent.** The Project area does not contain freshwater or brackish marshes or riparian scrub habitat and this species was not observed during the reconnaissance survey.
Showy golden madia *Madia radiata*	-/-/1B.1	Cismontane woodland and valley and foothill grassland. Elev. 80-3985 ft.	Mar-May	**Low.** The Project area does not contain woodland habitat. The Project area does contain annual grassland; however, the grassland is highly disturbed and provides only marginal habitat for this species.
Hall's bush-mallow *Malacothamnus hallii*	-/-/1B.2	Chaparral and coastal scrub. Elev. 30-2500 ft.	May-Oct	**Absent.** The Project area does not contain chaparral or coastal scrub habitat and this species was not observed during the reconnaissance survey.
Shining navarretia *Navarretia nigelliformis* ssp. *radians*	-/-/1B.2	Sometimes clay soils in cismontane woodland, valley and foothill grassland, and vernal pools. Elev. 210-3280 ft.	Apr-Jul	**Low.** The Project area does not contain woodland or vernal pools. The Project area does contain annual grassland; however, the grassland is highly disturbed and provides only marginal habitat for this species.
Antioch Dunes evening-primrose *Oenothera deltoides* ssp. *howellii*	FE/SE/1B.1	Inland dunes. Elev. 0-100 ft.	Mar-Sep	**Absent.** The Project area does not contain inland dunes and this species was not observed during the reconnaissance survey.

Common Name Scientific Name	Listing Status[1] (Fed/State/CRPR)	Known Habitat and Elevation Range (Feet)	Blooming Period	Potential for Occurrence
Bearded popcornflower *Plagiobothrys hystriculus*	-/-/1B.1	Often in vernal swales in mesic valley and foothill grassland and vernal pool margins. Elev. 0-900 ft.	Apr-May	**Low.** The Project area does not contain vernal pools. The Project area does contain annual grassland; however, the grassland is highly disturbed and provides only marginal habitat for this species.
Eel-grass pondweed *Potamogeton zosteriformis*	-/-/2B.2	Freshwater marshes and swamps. Elev. 0-6100 ft.	Jun-Jul	**Absent.** The Project area does not contain freshwater marshes and swamps and this species was not observed during the reconnaissance survey.
Chaparral ragwort *Senecio aphanactis*	-/-/2B.2	Sometimes in alkaline soils in chaparral, cismontane woodland, and coastal scrub. Elev. 45-2625 ft.	Jan-May	**Absent.** The Project area does not contain chaparral, woodland, or coastal scrub habitat and this species was not observed during the reconnaissance survey.
Keck's checkerbloom *Sidalcea keckii*	FE/-/1B.1	Serpentinite and clay soils in cismontane woodland and valley and foothill grassland. Elev. 245-2130 ft.	Apr-May	**Low.** The Project area does not contain woodland habitat. The Project area does contain annual grassland; however, the grassland is highly disturbed and provides only marginal habitat for this species.
Suisun Marsh aster *Symphyotrichum lentum*	-/-/1B.2	Brackish and freshwater marshes and swamps. Elev. 0-10 ft.	Apr-Nov	**Absent.** The Project area does not contain freshwater or brackish marshes or swamps and this species was not observed during the reconnaissance survey.
Caper-fruited tropidocarpum *Tropidocarpum capparideum*	-/-/1B.1	Valley and foothill grassland (alkaline hills) Elev. 0-1495 ft.	Mar-Apr	**Low.** The Project area does contain annual grassland; however, the grassland is highly disturbed and provides only marginal habitat for this species.
Oval-leaved viburnum *Viburnum ellipticum*	-/-/2B.3	Chaparral, cismontane woodland, and lower montane coniferous forest. Elev. 705-4595 ft.	May-Jun	**Absent**. The Project area does not contain chaparral, woodland, or forest habitat and this species was not observed during the biological survey.

[1]Federal and State Status Codes
- = No status, or not applicable

FE = Listed as endangered under the Federal Endangered Species Act (FESA); FT = Listed as threatened under FESA
SE = Listed as endangered under the California Endangered Species Act (CESA); SR = Listed as rare under CESA; ST = Listed as threatened under CESA

CNPS Ranking
1A = Presumed extinct in California and either rare or extinct elsewhere.
1B = Rare, threatened, or endangered in California and elsewhere.
2A = Presumed extinct in California but common elsewhere.
2B = Rare, threatened, or endangered in California but more common elsewhere.

Threat Ranks
0.1 = Seriously threatened in California (more than 80% of occurrences threatened/high degree and immediacy of threat).
0.2 = Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat).
0.3 = Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known).

5.2.6 Special-Status Animal Species

Regionally occurring special-status animal species were identified based on a review of pertinent literature, the USFWS species list, CNDDB database records, a query of the California WHRS (CDFW 2014), and the reconnaissance-level biological field survey results. CNDDB special-status animal species occurrences within five miles of the Project area are illustrated in Figure 3. For each species, habitat requirements were assessed and compared to the habitats in the Project area and immediate vicinity to determine the species' potential to occur in or near the Project area. For the purposes of this review, all regionally occurring wildlife species listed under the FESA or CESA are included in Table 2, regardless of whether the Project area provides potential habitat. The literature and database review identified 36 special-status wildlife species with suitable habitat or known to occur in or near the Project area. Based on initial assessment of wildlife habitats conducted during the biological survey, 31 of these species were determined to be absent and 5 have a low potential to occur. None of these species were determined to be present or have a high or moderate potential to occur.

Table 2. Special-Status Animal Species within Potential to Occur in the Project area

Common Name Scientific Name	Listing Status[1] (Fed/State)	Known Habitat Requirements	Potential for Occurrence
Invertebrates			
Conservancy fairy shrimp *Branchinecta conservatio*	FE/-	Endemic to the grasslands of the northern two-thirds of the Central Valley. Inhabits astatic pools located in swales formed by old, braided alluvium; filled by winter/spring rains, last until June.	**Absent.** No astatic pool habitat occurs within the Project area.
Vernal pool fairy shrimp *Branchinecta lynchi*	FT/-	Vernal pools, swales, ephemeral freshwater habitats, often grass or mud-bottomed swales, earth slump or basalt-flow depression pools in grasslands.	**Absent.** No vernal pool habitat occurs within the Project area.
Vernal pool tadpole shrimp *Lepidurus packardi*	FE/-	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass-bottomed swales of unplowed grasslands.	**Absent.** No vernal pool habitat occurs within the Project area.
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	FT/-	Occurs in riparian scrub only in the Central Valley. Requires blue elderberry (*Sambucus mexicana*) for breeding. Lays eggs in elderberries 2 to 8 inches in diameter. Often prefers “stressed” elderberries.	**Absent.** No elderberry (*Sambucus* sp.) shrubs occur within the Project area.
Lange's metalmark butterfly *Apodemia mormo langei*	FE/-	Inhabits stabilized dunes along the San Joaquin River. Endemic to Antioch Dunes, Contra Costa County. Primary host plant is *Eriogonum nudum* var *auriculatum*; feeds on nectar of other wildflowers, as well as host plant.	**Absent.** The Project area lacks this species host plant. In addition, the Project area does not provide suitable foraging habitat due to the lack of wildflowers.
Crotch bumble bee *Bombus crotchii*	-/CE	Coastal California east to the Sierra-Cascade crest and south into Mexico. Found in open grassland and scrub habitats. Food plant genera include *Antirrhinum* spp., *Phacelia* spp., *Clarkia* spp., *Dendromecon* spp., *Eschscholzia* spp., and *Eriogonum* spp.	**Absent.** The Project area does not provide suitable nesting or foraging habitat for this species.

Common Name Scientific Name	Listing Status[1] (Fed/State)	Known Habitat Requirements	Potential for Occurrence
Western bumble bee *Bombus occidentalis*	-/CE	Meadows and grasslands with abundant floral resources throughout the mountains and northern coast of California. Nests in underground cavities including old rodent burrows in open west-southwest slopes bordered by trees.	**Absent.** The Project area does not provide suitable nesting or foraging habitat for this species.
Fish			
Steelhead – Central Valley DPS *Oncorhynchus mykiss irideus*	FT/-	Populations in the Sacramento and San Joaquin rivers and their tributaries.	**Absent.** The Project area does not provide suitable aquatic habitat for this species.
Delta Smelt *Hypomesus transpacificus*	FT/SE	Sacramento-San Joaquin Delta. Seasonally in Suisun Bay, Carquinez Strait & San Pablo Bay. Seldom found at salinities > 10 parts per thousand (ppt). Most often at salinities < 2ppt.	**Absent.** The Project area does not provide suitable aquatic habitat for this species.
Longfin smelt *Spirinchus thaleichthys*	C/ST	Euryhaline, nektonic & anadromous. Found in open waters of estuaries, mostly in middle or bottom of water column. Prefer salinities of 15-30 ppt but can be found in completely freshwater to almost pure seawater.	**Absent.** The Project area does not provide suitable aquatic habitat for this species.
Sacramento perch *Archoplites interruptus*	-/SSC	Historically found in the sloughs, slow-moving rivers, and lakes of the Central Valley. Aquatic vegetation essential for young.	**Absent.** The Project area does not provide suitable aquatic habitat for this species.
Amphibians			
California tiger salamander *Ambystoma californiense*	FT/ST	Central Valley DPS federally listed as threatened. Santa Barbara County and Sonoma County DPS federally listed as endangered. Needs underground refuges, especially ground squirrel burrows, and vernal pools or other seasonal water sources for breeding.	**Absent.** The Project area does not provide suitable aquatic or terrestrial habitat for this species.

Common Name Scientific Name	Listing Status[1] (Fed/State)	Known Habitat Requirements	Potential for Occurrence
California red-legged frog *Rana draytonii*	FT/SSC	Requires perennial or near-perennial aquatic habitats, especially for breeding; often slow-moving streams, freshwater pools and ponds over 1-foot deep, often with overhanging vegetation; adjacent upland habitats are often used for temporary refuges or dispersal movements.	**Absent.** The Project area does not provide suitable aquatic or terrestrial habitat for this species.
Foothill yellow-legged frog *Rana boylii*	-/CT, SSC	Inhabits partly shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs cobble-sized substrate for egg-laying and at least 15 weeks of water to attain metamorphosis.	**Absent.** The Project area does not provide suitable aquatic or terrestrial habitat for this species.
Reptiles			
Northern California legless lizard *Anniella pulchra*	-/SSC	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.	**Absent.** The Project area does not provide suitable habitat for this species.
Alameda whipsnake *Masticophis lateralis euryxanthus*	FT/ST	Typically found in chaparral and scrub habitats but will also use adjacent grassland, oak savanna and woodland habitats. Mostly south-facing slopes and ravines, with rock outcrops, deep crevices or abundant rodent burrows, where shrubs form a vegetative mosaic with oak trees and grasses.	**Absent.** Project area is outside the range of this species for this species.
California glossy snake *Arizona elegans occidentalis*	-/SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	**Absent.** The Project area does not provide suitable habitat for this species.
Giant gartersnake *Thamnophis gigas*	FT/ST	Prefers freshwater marsh and low gradient streams. Has adapted to drainage canals and irrigation ditches. This is the most aquatic of the gartersnakes in California.	**Absent.** The Project area does not provide suitable aquatic habitat for this species.

Common Name Scientific Name	Listing Status[1] (Fed/State)	Known Habitat Requirements	Potential for Occurrence
Western pond turtle *Emys marmorata*	-/SSC	Slow water aquatic habitat with available basking sites. Hatchlings require shallow water with dense submergent or short emergent vegetation. Require an upland oviposition site near the aquatic site.	**Absent.** The Project area does not provide suitable aquatic habitat for this species.
Birds			
White-tailed kite *Elanus leucurus*	-/FP	Rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**Low.** Trees within the Project area do provide marginal nesting habitat. However, the site is surrounded by urban development with limited foraging habitat in the vicinity. No raptor nests were observed in the Project area or surrounding trees.
Swainson's hawk *Buteo swainsoni*	-/ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranchlands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	**Low.** Trees within the Project area do provide marginal nesting habitat. However, the site is surrounded by urban development with limited foraging habitat in the vicinity. No raptor nests were observed in the Project area or surrounding trees.
California Ridgway's rail *Rallus obsoletus*	FE/SE, FP	Found in salt and brackish marshes traversed by tidal sloughs in the vicinity of San Francisco Bay. Associated with abundant growths of pickleweed but feeds away from cover on invertebrates from mud-bottomed sloughs.	**Absent.** The Project area does not provide suitable nesting or foraging habitat for this species.
California black rail *Laterallus jamaicensis coturniculus*	-/ST	Freshwater marshes, wet meadows and shallow margins of saltwater marshes boarding larger bays. Requires dense vegetation for nesting habitat.	**Absent.** The Project area does not provide suitable nesting or foraging habitat for this species.
California least tern *Sternula antillarum browni*	FE/SE, FP	Nests along the coast from San Francisco Bay south to northern Baja California. Colonial breeder on bare or sparsely vegetated, flat substrates: sand beaches, alkali flats, landfills, or paved areas.	**Absent.** The Project area does not provide suitable nesting or foraging habitat for this species.

Common Name Scientific Name	Listing Status[1] (Fed/State)	Known Habitat Requirements	Potential for Occurrence
Burrowing owl *Athene cunicularia*	-/SSC	Grasslands and ruderal habitats. Uses mammal burrows or other suitable underground cavities.	**Low.** Burrows along the northern portion of the Project area provide marginal nesting habitat for this species. However, a majority of the burrows were filled in with leaves, trash, and spider webs. No signs of burrowing owl were identified.
Loggerhead shrike *Lanius ludovicianus*	-/SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub & washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	**Low.** The Project area does not provide suitable nesting habitat for this species. The Project area does provide marginal foraging habitat for this species. However, the site is highly disturbed and this species is not expected to occur.
Bank swallow *Riparia riparia*	-/ST	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	**Absent.** The Project area does not provide suitable nesting or foraging habitat for this species.
Saltmarsh common yellowthroat *Geothlypis trichas sinuosa*	-/SSC	Resides in fresh and saltwater marshes and creeks of the San Francisco Bay region. Requires thick, continuous cover down to water surface for foraging; tall grasses, tule patches, willows for nesting.	**Absent.** The Project area does not provide suitable nesting or foraging habitat for this species.
Song sparrow ("Modesto" population) *Melospiza melodia*	-/SSC	Endemic to California, where it resides only in the north-central portion of the Central Valley. Occurs in emergent freshwater marshes dominated by tules and cattails, riparian willow thickets, riparian forests of valley oak with sufficient understory of blackberry, and vegetated irrigation canals and levees. Prefers moderately dense vegetation for nesting and exposed ground or leaf litter for foraging.	**Absent.** The Project area does not provide suitable nesting or foraging habitat for this species.
Suisun song sparrow *Melospiza melodia maxillaris*	-/SSC	Resides in brackish-water marshes surrounding Suisun Bay. Inhabits cattails, tules, and other sedges, and Salicornia; also known to frequent tangles bordering sloughs.	**Absent.** The Project area does not provide suitable nesting or foraging habitat for this species.

Common Name Scientific Name	Listing Status[1] (Fed/State)	Known Habitat Requirements	Potential for Occurrence
Tricolored blackbird *Agelaius tricolor*	-/ST, SSC	Breeds near fresh water in dense emergent vegetation. Requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony.	**Absent.** The Project area does not provide suitable nesting or foraging habitat for this species.
Mammals			
Pallid bat *Antrozous pallidus*	-/SSC	Found in deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting.	**Low.** The Project area includes a large old barn that may provide marginal roosting habitat for this species. However, the site is highly disturbed and this species is not expected to occur.
Western red bat *Lasiurus blossevillii*	-/SSC	Roosts primarily in trees, 2-40 ft above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	**Absent.** The Project area does not provide suitable roosting or foraging habitat for this species.
San Joaquin kit fox *Vulpes macrotis mutica*	FE/ST	Found in annual grasslands or grassy open stages with scattered shrubby vegetation. Needs loose-textured sandy soils for burrowing, and suitable prey base.	**Absent.** The Project area does not provide suitable denning or foraging habitat for this species.
American badger *Taxidea taxus*	-/SSC	Most abundant in drier, open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	**Absent.** The Project area does provide marginal burrowing habitat along the northern portion of the Project area where existing burrows occur. However, the site is highly disturbed and surrounded by urban development and this species is not expected to occur.
Salt-marsh harvest mouse *Reithrodontomys raviventris*	FE/SE, FP	Occurs only in the saline emergent wetlands of San Francisco Bay and its tributaries. Primary habitat is pickleweed.	**Absent.** No saline emergent wetlands occur within the Project Area.

[1]Federal and State Status Codes

- = No status, or not applicable

FE = Listed as endangered under the Federal Endangered Species Act (FESA)

FT = Listed as threatened under FESA

SE = Listed as endangered under the California Endangered Species Act (CESA)

ST = Listed as threatened under CESA
SSC = Designated as a Species of Special Concern by CDFW under the California Environmental Quality Act (CEQA)
FP = Fully Protected under the California Fish and Game Code (F.G.C.)
C = Candidate for listing as either endangered or threatened under FESA
CE = Candidate for listing as endangered under CESA
CT = Candidate for listing as threatened under CESA

6.0 RESULTS: BIOLOGICAL RESOURCES AND IMPACTS

6.1 HABITATS AND NATURAL COMMUNITIES OF CONCERN

The Project area does not contain any sensitive natural communities as classified by the CDFW. In addition, no aquatic habitats were identified within or adjacent to the Project area that could be considered WOTUS and subject to the USACE and RWQCB jurisdiction under Sections 404 and 401 of the CWA, or subject to CDFW jurisdiction under Section 1600 of the California FGC.

6.1.1 Critical Habitat

The Project area is within USFWS designated critical habitat for delta smelt (*Hypomesus transpacificus*). The Project area does not provide suitable aquatic habitat for delta smelt; therefore, no impact to this species critical habitat will occur.

6.2 SPECIAL-STATUS PLANT SPECIES

There is no potential habitat in the Project area for special-status plant species with occurrences within a five-mile radius and no special-status plant species were observed during the reconnaissance-level biological survey conducted on June 25, 2021. The annual grassland habitat within the Project area is highly disturbed with vehicle tire tracks throughout the grassland. In addition, the site is dominated by non-native and invasive plant species including foxtail barley and Italian rye grass. Based on the lack of suitable habitat and no special-status plant species having a moderate or high potential to occur within the Project area, no impacts to special-status plant species are expected to occur.

6.3 SPECIAL-STATUS ANIMAL SPECIES

Although there are CNDDB occurrence records within 5 miles of the Project area for special-status wildlife species, the Project area does not provide suitable habitat (e.g., aquatic features, woodland) for potential special-status wildlife species to occur. No special-status animal species have a high or moderate potential to occur within the Project area. Five species, including white-tailed kite (*Elanus leucurus*), Swainson's hawk (*Buteo swainsoni*), burrowing owl (*Athene cunicularia*), Loggerhead shrike (*Lanius ludovicianus*), and pallid bat (*Antrozous pallidus*), have a low potential to occur in the Project area. Marginal nesting and roosting habitat for these species occurs within the Project area, however, the site is highly disturbed and surrounded by urban development with limited foraging habitat in the vicinity. The Project area does provide suitable nesting habitat for migratory birds and is discussed in detail below.

6.3.1 Migratory Nesting Birds

Trees within the Project area could provide suitable nesting habitat for migratory birds protected under the MBTA or California FGC. In addition, the old barn has a couple of boards missing on two sides, allowing for access inside the barn for potential nesting habitat. During the reconnaissance-level biological survey, whitewash was observed on structural wooden beams within the barn, however, no nesting activity was observed. The Project anticipates the

removal of all existing trees and the barn from the Project site. Removal of these features during the typical nesting season (February 1 through September 1) could have an impact to nesting migratory birds.

If tree removal occurs during the typical nesting season (February 1 through September 1), then the Project will implement avoidance and minimization measures to avoid impacts to migratory nesting birds. These measures include conducting a preconstruction nesting bird survey during the nesting season to document any nests on the Project site and implementation of protective buffers around documented nests during construction to minimize disturbance to nesting birds during construction.

7.0 REFERENCES

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Figures

APPENDIX A

USFWS, CNDDB and CNPS Database Results

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Antioch North (3812117) OR Antioch South (3712187) OR Jersey Island (3812116) OR Brentwood (3712186))
 AND Taxonomic Group IS (Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Amsinckia grandiflora large-flowered fiddleneck	PDBOR01050	Endangered	Endangered	G1	S1	1B.1
Anomobryum julaceum slender silver moss	NBMUS80010	None	None	G5?	S2	4.2
Arctostaphylos auriculata Mt. Diablo manzanita	PDERI04040	None	None	G2	S2	1B.3
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
Atriplex depressa brittlescale	PDCHE042L0	None	None	G2	S2	1B.2
Blepharizonia plumosa big tarplant	PDAST1C011	None	None	G1G2	S1S2	1B.1
Calochortus pulchellus Mt. Diablo fairy-lantern	PMLIL0D160	None	None	G2	S2	1B.2
Centromadia parryi ssp. congdonii Congdon's tarplant	PDAST4R0P1	None	None	G3T1T2	S1S2	1B.1
Chloropyron molle ssp. molle soft salty bird's-beak	PDSCR0J0D2	Endangered	Rare	G2T1	S1	1B.2
Cicuta maculata var. bolanderi Bolander's water-hemlock	PDAPI0M051	None	None	G5T4T5	S2?	2B.1
Cryptantha hooveri Hoover's cryptantha	PDBOR0A190	None	None	GH	SH	1A
Downingia pusilla dwarf downingia	PDCAM060C0	None	None	GU	S2	2B.2
Eriogonum nudum var. psychicola Antioch Dunes buckwheat	PDPGN0849Q	None	None	G5T1	S1	1B.1
Eriogonum truncatum Mt. Diablo buckwheat	PDPGN085Z0	None	None	G1	S1	1B.1
Eryngium jepsonii Jepson's coyote-thistle	PDAPI0Z130	None	None	G2	S2	1B.2
Erysimum capitatum var. angustatum Contra Costa wallflower	PDBRA16052	Endangered	Endangered	G5T1	S1	1B.1
Eschscholzia rhombipetala diamond-petaled California poppy	PDPAP0A0D0	None	None	G1	S1	1B.1
Extriplex joaquinana San Joaquin spearscale	PDCHE041F3	None	None	G2	S2	1B.2

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Fritillaria agrestis stinkbells	PMLIL0V010	None	None	G3	S3	4.2
Fritillaria liliacea fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
Helianthella castanea Diablo helianthella	PDAST4M020	None	None	G2	S2	1B.2
Hesperolinon breweri Brewer's western flax	PDLIN01030	None	None	G2	S2	1B.2
Hibiscus lasiocarpos var. occidentalis woolly rose-mallow	PDMAL0H0R3	None	None	G5T3	S3	1B.2
Lasthenia conjugens Contra Costa goldfields	PDAST5L040	Endangered	None	G1	S1	1B.1
Lathyrus jepsonii var. jepsonii Delta tule pea	PDFAB250D2	None	None	G5T2	S2	1B.2
Lilaeopsis masonii Mason's lilaeopsis	PDAPI19030	None	Rare	G2	S2	1B.1
Limosella australis Delta mudwort	PDSCR10030	None	None	G4G5	S2	2B.1
Madia radiata showy golden madia	PDAST650E0	None	None	G3	S3	1B.1
Malacothamnus hallii Hall's bush-mallow	PDMAL0Q0F0	None	None	G2	S2	1B.2
Navarretia nigelliformis ssp. radians shining navarretia	PDPLM0C0J2	None	None	G4T2	S2	1B.2
Oenothera deltoides ssp. howellii Antioch Dunes evening-primrose	PDONA0C0B4	Endangered	Endangered	G5T1	S1	1B.1
Plagiobothrys hystriculus bearded popcornflower	PDBOR0V0H0	None	None	G2	S2	1B.1
Potamogeton zosteriformis eel-grass pondweed	PMPOT03160	None	None	G5	S3	2B.2
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
Sidalcea keckii Keck's checkerbloom	PDMAL110D0	Endangered	None	G2	S2	1B.1
Symphyotrichum lentum Suisun Marsh aster	PDASTE8470	None	None	G2	S2	1B.2
Tropidocarpum capparideum caper-fruited tropidocarpum	PDBRA2R010	None	None	G1	S1	1B.1
Viburnum ellipticum oval-leaved viburnum	PDCPR07080	None	None	G4G5	S3?	2B.3

Record Count: 38

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Antioch North (3812117) OR Antioch South (3712187) OR Jersey Island (3812116) OR Brentwood (3712186))
 AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S1S2	SSC
Ambystoma californiense California tiger salamander	AAAAA01180	Threatened	Threatened	G2G3	S2S3	WL
Andrena blennospermatis Blennosperma vernal pool andrenid bee	IIHYM35030	None	None	G2	S2	
Anniella pulchra Northern California legless lizard	ARACC01020	None	None	G3	S3	SSC
Anthicus antiochensis Antioch Dunes anthicid beetle	IICOL49020	None	None	G1	S1	
Antrozous pallidus pallid bat	AMACC10010	None	None	G4	S3	SSC
Apodemia mormo langei Lange's metalmark butterfly	IILEPH7012	Endangered	None	G5T1	S1	
Archoplites interruptus Sacramento perch	AFCQB07010	None	None	G2G3	S1	SSC
Ardea herodias great blue heron	ABNGA04010	None	None	G5	S4	
Arizona elegans occidentalis California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Bombus crotchii Crotch bumble bee	IIHYM24480	None	Candidate Endangered	G3G4	S1S2	
Bombus occidentalis western bumble bee	IIHYM24250	None	Candidate Endangered	G2G3	S1	
Branchinecta conservatio Conservancy fairy shrimp	ICBRA03010	Endangered	None	G2	S2	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Branchinecta mesovallensis midvalley fairy shrimp	ICBRA03150	None	None	G2	S2S3	
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Coelus gracilis San Joaquin dune beetle	IICOL4A020	None	None	G1	S1	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Efferia antiochi Antioch efferian robberfly	IIDIP07010	None	None	G1G2	S1S2	
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eucerceris ruficeps redheaded sphecid wasp	IIHYM18010	None	None	G1G3	S1S2	
Geothlypis trichas sinuosa saltmarsh common yellowthroat	ABPBX1201A	None	None	G5T3	S3	SSC
Gonidea angulata western ridged mussel	IMBIV19010	None	None	G3	S1S2	
Helminthoglypta nickliniana bridgesi Bridges' coast range shoulderband	IMGASC2362	None	None	G3T1	S1S2	
Hygrotus curvipes curved-foot hygrotus diving beetle	IICOL38030	None	None	G1	S1	
Hypomesus transpacificus Delta smelt	AFCHB01040	Threatened	Endangered	G1	S1	
Idiostatus middlekauffi Middlekauff's shieldback katydid	IIORT31010	None	None	G1G2	S1	
Lanius ludovicianus loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
Lasiurus blossevillii western red bat	AMACC05060	None	None	G4	S3	SSC
Lasiurus cinereus hoary bat	AMACC05030	None	None	G3G4	S4	
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3G4T1	S1	FP
Lepidurus packardi vernal pool tadpole shrimp	ICBRA10010	Endangered	None	G4	S3S4	
Linderiella occidentalis California linderiella	ICBRA06010	None	None	G2G3	S2S3	
Lytta molesta molestan blister beetle	IICOL4C030	None	None	G2	S2	
Masticophis lateralis euryxanthus Alameda whipsnake	ARADB21031	Threatened	Threatened	G4T2	S2	
Melospiza melodia song sparrow ("Modesto" population)	ABPBXA3010	None	None	G5	S3?	SSC
Melospiza melodia maxillaris Suisun song sparrow	ABPBXA301K	None	None	G5T3	S3	SSC
Metapogon hurdi Hurd's metapogon robberfly	IIDIP08010	None	None	G1G2	S1S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Myrmosula pacifica Antioch multilid wasp	IIHYM15010	None	None	GH	SH	
Oncorhynchus mykiss irideus pop. 11 steelhead - Central Valley DPS	AFCHA0209K	Threatened	None	G5T2Q	S2	
Perdita scitula antiochensis Antioch andrenid bee	IIHYM01031	None	None	G1T1	S1	
Perognathus inornatus San Joaquin pocket mouse	AMAFD01060	None	None	G2G3	S2S3	
Phalacrocorax auritus double-crested cormorant	ABNFD01020	None	None	G5	S4	WL
Philanthus nasalis Antioch specid wasp	IIHYM20010	None	None	G1	S1	
Rana boylii foothill yellow-legged frog	AAABH01050	None	Endangered	G3	S3	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Reithrodontomys raviventris salt-marsh harvest mouse	AMAFF02040	Endangered	Endangered	G1G2	S1S2	FP
Riparia riparia bank swallow	ABPAU08010	None	Threatened	G5	S2	
Sphecodogastra antiochensis Antioch Dunes halcitid bee	IIHYM78010	None	None	G1	S1	
Spirinchus thaleichthys longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Thamnophis gigas giant gartersnake	ARADB36150	Threatened	Threatened	G2	S2	
Vulpes macrotis mutica San Joaquin kit fox	AMAJA03041	Endangered	Threatened	G4T2	S2	

Record Count: 54

Inventory of Rare and Endangered Plants of California

Search Results

Back Export Results

49 matches found. Click on scientific name for details

Search Criteria: Quad is one of [**3812117,3712187,3712186,3812116**]

Scientific Name | Common Name | Family | Lifeform | Blooming Period | Fed List | State List | Global Rank | State Rank | CA Rare Plant Rank | General Habitats | Micro Habitats | Lowest Elevation | Highest Elevation | CA Endemic | Date Added | Photo

Search:

▲ SCIENTIFIC NAME	COMMON NAME	BLOOMING PERIOD	FED LIST	STATE LIST	CA RARE PLANT RANK
Amsinckia grandiflora	large-flowered fiddleneck	(Mar)Apr-May	FE	CE	1B.1
Anomobryum julaceum	slender silver moss		None	None	4.2
Arctostaphylos auriculata	Mt. Diablo manzanita	Jan-Mar	None	None	1B.3
Arctostaphylos manzanita ssp. *laevigata*	Contra Costa manzanita	Jan-Mar(Apr)	None	None	1B.2
Astragalus tener var. *tener*	alkali milk-vetch	Mar-Jun	None	None	1B.2
Atriplex coronata var. *coronata*	crownscale	Mar-Oct	None	None	4.2
Atriplex depressa	brittlescale	Apr-Oct	None	None	1B.2
Blepharizonia plumosa	big tarplant	Jul-Oct	None	None	1B.1
Calandrinia breweri	Brewer's calandrinia	(Jan)Mar-Jun	None	None	4.2
Calochortus pulchellus	Mt. Diablo fairy-lantern	Apr-Jun	None	None	1B.2
Centromadia parryi ssp. *congdonii*	Congdon's tarplant	May-Oct(Nov)	None	None	1B.1
Chloropyron molle ssp. *molle*	soft salty bird's-beak	Jun-Nov	FE	CR	1B.2
Cicuta maculata var. *bolanderi*	Bolander's water-hemlock	Jul-Sep	None	None	2B.1
Convolvulus simulans	small-flowered morning-glory	Mar-Jul	None	None	4.2
Cryptantha hooveri	Hoover's cryptantha	Apr-May	None	None	1A
Downingia pusilla	dwarf downingia	Mar-May	None	None	2B.2
Eleocharis parvula	small spikerush	(Apr)Jun-Aug(Sep)	None	None	4.3
Eriogonum nudum var. *psychicola*	Antioch Dunes buckwheat	Jul-Oct	None	None	1B.1
Eriogonum truncatum	Mt. Diablo buckwheat	Apr-Sep(Nov-Dec)	None	None	1B.1
Eriophyllum jepsonii	Jepson's woolly sunflower	Apr-Jun	None	None	4.3
Eryngium jepsonii	Jepson's coyote-thistle	Apr-Aug	None	None	1B.2
Erysimum capitatum var. *angustatum*	Contra Costa wallflower	Mar-Jul	FE	CE	1B.1
Eschscholzia rhombipetala	diamond-petaled California poppy	Mar-Apr	None	None	1B.1
Extriplex joaquinana	San Joaquin spearscale	Apr-Oct	None	None	1B.2
Fritillaria agrestis	stinkbells	Mar-Jun	None	None	4.2

▲ SCIENTIFIC NAME	COMMON NAME	BLOOMING PERIOD	FED LIST	STATE LIST	CA RARE PLANT RANK
Fritillaria liliacea	fragrant fritillary	Feb-Apr	None	None	1B.2
Galium andrewsii ssp. *gatense*	phlox-leaf serpentine bedstraw	Apr-Jul	None	None	4.2
Helianthella castanea	Diablo helianthella	Mar-Jun	None	None	1B.2
Hesperevax caulescens	hogwallow starfish	Mar-Jun	None	None	4.2
Hesperolinon breweri	Brewer's western flax	May-Jul	None	None	1B.2
Hibiscus lasiocarpos var. *occidentalis*	woolly rose-mallow	Jun-Sep	None	None	1B.2
Lasthenia conjugens	Contra Costa goldfields	Mar-Jun	FE	None	1B.1
Lathyrus jepsonii var. *jepsonii*	Delta tule pea	May-Jul(Aug-Sep)	None	None	1B.2
Lilaeopsis masonii	Mason's lilaeopsis	Apr-Nov	None	CR	1B.1
Limosella australis	Delta mudwort	May-Aug	None	None	2B.1
Lupinus albifrons var. *abramsii*	Abrams' lupine	Apr-Jun	None	None	3.2
Madia radiata	showy golden madia	Mar-May	None	None	1B.1
Malacothamnus hallii	Hall's bush-mallow	(Apr)May-Sep(Oct)	None	None	1B.2
Navarretia heterandra	Tehama navarretia	Apr-Jun	None	None	4.3
Navarretia nigelliformis ssp. *radians*	shining navarretia	(Mar)Apr-Jul	None	None	1B.2
Oenothera deltoides ssp. *howellii*	Antioch Dunes evening-primrose	Mar-Sep	FE	CE	1B.1
Plagiobothrys hystriculus	bearded popcornflower	Apr-May	None	None	1B.1
Potamogeton zosteriformis	eel-grass pondweed	Jun-Jul	None	None	2B.2
Senecio aphanactis	chaparral ragwort	Jan-Apr(May)	None	None	2B.2
Senecio hydrophiloides	sweet marsh ragwort	May-Aug	None	None	4.2
Sidalcea keckii	Keck's checkerbloom	Apr-May(Jun)	FE	None	1B.1
Symphyotrichum lentum	Suisun Marsh aster	(Apr)May-Nov	None	None	1B.2
Tropidocarpum capparideum	caper-fruited tropidocarpum	Mar-Apr	None	None	1B.1
Viburnum ellipticum	oval-leaved viburnum	May-Jun	None	None	2B.3

Showing 1 to 49 of 49 entries

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
Phone: (916) 414-6600 Fax: (916) 414-6713

In Reply Refer To:
Consultation Code: 08ESMF00-2021-SLI-2152
Event Code: 08ESMF00-2021-E-06242
Project Name: 5200 Lone Tree Way Gas Station Project

June 23, 2021

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, under the jurisdiction of the U.S. Fish and Wildlife Service (Service) that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the Service under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Please follow the link below to see if your proposed project has the potential to affect other species or their habitats under the jurisdiction of the National Marine Fisheries Service:

http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to

utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

Project Summary

Consultation Code: 08ESMF00-2021-SLI-2152
Event Code: 08ESMF00-2021-E-06242
Project Name: 5200 Lone Tree Way Gas Station Project
Project Type: DEVELOPMENT
Project Description: The project proposes to build a gas station located at 5200 Lone Tree Way.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@37.96116805,-121.755386,14z

Counties: Contra Costa County, California

Endangered Species Act Species

There is a total of 14 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
San Joaquin Kit Fox *Vulpes macrotis mutica* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered

Birds

NAME	STATUS
California Clapper Rail *Rallus longirostris obsoletus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4240	Endangered
California Least Tern *Sterna antillarum browni* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/8104	Endangered

Reptiles

NAME	STATUS
Alameda Whipsnake (=striped Racer) *Masticophis lateralis euryxanthus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5524	Threatened
Giant Garter Snake *Thamnophis gigas* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog *Rana draytonii*	Threatened
There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2891	
California Tiger Salamander *Ambystoma californiense*	Threatened
Population: U.S.A. (Central CA DPS) There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2076	

Fishes

NAME	STATUS
Delta Smelt *Hypomesus transpacificus*	Threatened
There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/321	

Insects

NAME	STATUS
Valley Elderberry Longhorn Beetle *Desmocerus californicus dimorphus*	Threatened
There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7850	

Crustaceans

NAME	STATUS
Conservancy Fairy Shrimp *Branchinecta conservatio*	Endangered
There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/8246	
Vernal Pool Fairy Shrimp *Branchinecta lynchi*	Threatened
There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/498	
Vernal Pool Tadpole Shrimp *Lepidurus packardi*	Endangered
There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/2246	

Flowering Plants

NAME	STATUS
Antioch Dunes Evening-primrose *Oenothera deltoides ssp. howellii*	Endangered
There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5970	
Contra Costa Goldfields *Lasthenia conjugens*	Endangered
There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7058	

Critical habitats

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
Delta Smelt *Hypomesus transpacificus*	Final
https://ecos.fws.gov/ecp/species/321#crithab	

APPENDIX B

Representative Site Photos

Photo 1. Ruderal habitat within the southeast portion of the Project area.

Photo 2. Old barn located between ruderal and annual grassland habitat.

Photo 3. Annual grassland habitat within the northeast portion of the Project area. Multiple tire tracks observed.

Photo 4. Annual grassland north of the old barn.

Photo 5. Urban habitat with landscaped trees and asphalt driveway.

Photo 6. Missing boards on the west side of the old barn.

APPENDIX C

Observed Plant and Wildlife Species Tables

Table C1. Plant Species Observed on June 25, 2021

Scientific Name	Common Name	Native/Non-Native	Cal-IPC Level
Erigeron bonariensis	Flax-leaved horseweed	Non-native	
Festuca perennis	Italian rye grass	Non-native	Moderate
Heterotheca grandiflora	Telegraph weed	Native	
Hordeum murinum	Foxtail barley	Non-native	Moderate
Juglans hindsii	Northern California black walnut	Native	
Lactuca serriola	Prickly lettuce	Non-native	
Malvella leprosa	Alkali mallow	Native	
Platanus racemosa	California sycamore	Native	
Salsola tragus	Prickly Russian thistle	Non-native	Limited
Sonchus oleraceus	Common sow thistle	Non-native	
Vitis sp.	Grapevine sp.	Non-native	
--	Various landscape tree species	Non-native	

Table C2. Wildlife Observed on June 25, 2021

Scientific Name	Common Name
Reptiles	
Sceloporus occidentalis	Western fence lizard
Birds	
Corvus brachyrhynchos	American Crow
Mimus polyglottos	Northern Mockingbird
Passer domesticus	House Sparrow

Appendix C
Cultural Resources Report

Cultural Resources Technical Report for the 5200 Lone Tree Way United Pacific Gas Station Project

August 27, 2021

Prepared for:

City of Antioch

Prepared by:

Stantec Consulting Services Inc.

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Executive Summary

Stantec Consulting Services Inc. (Stantec) prepared this Cultural Resources Technical Report on behalf of the City of Antioch for the proposed 5200 Lone Tree Way United Pacific Gas Station Project (Project). United Pacific (Applicant) proposes to develop a new gas station that would include a convenience store and attached car wash, canopy with eight fuel dispensers, two underground storage tanks, as well as related site improvements and landscaping. The Project site is located at 5200 Lone Tree Way at the southwest corner of Lone Tree Way and Vista Grande Drive in the City of Antioch and is associated with the Assessor Parcel Number (APN) 056-270-059. The site is currently being used as a rural property and is occupied by a residence, tankhouse, two sheds, and two barns.

The purpose of this report is to analyze whether or not the proposed Project would impact historical and archaeological resources as defined by the California Environmental Quality Act (CEQA). The City of Antioch is the designated lead agency for CEQA. In accordance with relevant state guidelines for historical resources, this report identifies and documents potential historical resources on the Project site, evaluates the resources for inclusion in the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR), and assesses the Project's potential to result in a substantial adverse change in the significance of an historical resource pursuant to Title 14 California Code of Regulations Section 15064.5. In accordance with state guidelines for archaeological resources, an archaeological survey of the Project site was also conducted as part of the preparation of this report and a generic survey form prepared (see Appendix A for the Archaeological Survey Form).

As the Project would involve new construction, a study area (Study Area) was established to account for potential impacts on historical resources identified in the vicinity. The Study Area was defined as the Project site as well as all properties within a 100-foot radius from the center of the Project site.

Identification efforts included a records search at the Northwest Information Center (NWIC) of the California Historical Resources Information System (CHRIS) in Rohnert Park, California and Sacred Lands files maintained by the Native American Heritage Commission (NAHC). The records search included a review of records for the Project site and a surrounding radius of 0.25-miles. The records searches revealed two previously recorded cultural resources located 0.25-mile of the Project site. However, no NRHP or CRHR eligible or listed resources are located on the Project site or within the Study Area (see Appendix B for the Records Search Results).

An intensive pedestrian archaeological survey was performed on the Project site. No previously unrecorded prehistoric or historic archaeological resources were identified during the survey. The Project would demolish the existing six buildings on the Project site, which according to the Contra Costa County Assessor were constructed in 1926 as part of a farm property. These buildings are not currently listed under national, state, or local landmark or historic district programs and are not included as significant in any historic resource surveys of the area. As the buildings are over 50 years of age, Stantec architectural historians surveyed and evaluated the property for national and state designation. The City of Antioch does not have a local landmark designation program or maintain a local historic register. Stantec concluded that the buildings on the Project site do not appear to be individually eligible for the NRHP or CRHR nor are they contributors to a potential historic district due to a lack of significance and integrity (see Appendix C for the Department of Parks and Recreation (DPR) 523 Form Set). The recommended Status Code

for all six buildings is 6Z, ineligible for national, state, and local designation through survey evaluation. Therefore, the six buildings on the Project site are not historical resources as defined by CEQA.

The threshold for determining significant impacts on historical resources in the State CEQA Guidelines is whether the proposed project would cause a substantial adverse change, which is defined as demolition, destruction, relocation, or alteration of the resource or its immediate vicinity such that the historical resource is materially impaired. As the existing buildings on the Project site that would be removed do not meet the definition of a historical resource according to CEQA, the Project would have no direct impacts on historical resources. As noted above, there are no previously identified historical resources within the Study Area. Therefore, the Project would have no indirect impact on identified historical resources in the vicinity.

Preparer Qualifications

This report was prepared by Stantec personnel who meet the Secretary of the Interior's Standards and Guidelines for Professional Qualifications in archaeology, architectural history, and history.

Stantec Architectural Historian Emily Rinaldi authored this report. Ms. Rinaldi received a Master of Science degree in Historic Preservation from Columbia University and has over five years of experience in cultural resource management. Ms. Rinaldi qualifies as an Architectural Historian and Historian under the Secretary of the Interior's Professional Qualification Standards (as defined in 36 Code of Federal Regulations [CFR] Part 61).

Stantec Architectural Historian Rebecca Riggs contributed to this report. Ms. Riggs has a Master of Arts degree in Public History from California State University, Sacramento. Ms. Riggs qualifies as an Architectural Historian and Historian under the Secretary of the Interior's Professional Qualification Standards (as defined in 36 CFR Part 61).

Stantec Archaeologist Rudy Dinarte contributed to this report. Mr. Dinarte has a Master of Arts degree in Anthropology from Tulane University. Mr. Dinarte qualifies as an Archaeologist under the Secretary of the Interior's Professional Qualification Standards (as defined in 36 CFR Part 61).

Stantec Archaeological Technician Robley Lawson contributed to this report under the oversight of Rudy Dinarte, who qualifies as an Archaeologist under the Secretary of the Interior's Professional Qualification Standards (as defined in 36 CFR Part 61). Mr. Lawson has a Bachelor of Arts degree in Anthropology from California State University, Sacramento.

Acronyms and Abbreviations

Applicant	United Pacific
APN	Assessor Parcel Number
BERD	California Built Environment Database
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
CRHR	California Register of Historical Resources
DPR 523 Form	Department of Parks and Recreation 523 Form
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
OHP	California Office of Historic Preservation
PRC	Public Resource Code
Project	5200 Lone Tree Way United Pacific Gas Station Project
SR 4	State Route 4
SR 160	State Route 160

1.0 PROJECT LOCATION AND DESCRIPTION

The proposed Project site is located at 5200 Lone Tree Way in the City of Antioch. It is located on the southwest corner of Lone Tree Way and Vista Grande Drive. The proposed Project would be located on APN 056-270-059, located approximately 0.6 miles west of State Route 4 (SR 4).

The proposed Project consists of a new United Pacific convenience store of 3,200 square feet, attached car wash of 1,125 square feet, a fuel canopy with eight fuel dispensers, three underground storage tanks, and related site improvements and landscaping on an approximately two-acre lot. The Project proposes right-in/right-out ingress and egress from Lone Tree Way and Vista Grande Drive. The Project would provide nineteen parking stalls and landscaping which will consist of drought-tolerant species, including shade canopy trees. The car wash drive lane would provide adequate stacking away from areas of ingress/egress from the public right-of-way.

2.0 REGULATORY CONTEXT

Generally, a lead agency must consider a property a historical resource under CEQA if it is eligible for listing in the CRHR, which is modeled after the NRHP. Furthermore, a property is presumed to be historically significant if it is listed in a local register of historical resources or has been identified as historically significant in a historic resources survey (provided certain statutory criteria and requirements are satisfied) unless a preponderance of evidence demonstrates that the property is not historically or culturally significant. A lead agency may also treat a resource as historic if it meets statutory requirements and substantial evidence supports the conclusion.

2.1 NATIONAL REGISTER OF HISTORIC PLACES (NRHP)

The National Historic Preservation Act (NHPA) of 1966, as amended, authorized the creation of the NRHP. The NRHP is "an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment."[1] For a property to be considered for inclusion in the NRHP, it must typically be at least 50 years old and meet one or more of the four criteria for evaluation set forth in 36 CFR Part 60.4, as follows:

> The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of design, setting, materials, workmanship, feeling, and association and:

A. That are associated with events that have made a significant contribution to the broad patterns of our history; or

B. That are associated with the lives of persons significant in our past; or

[1] Title 36 Code of Federal Regulations (CFR) Part 60.2.

C. That embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master or that possess high artistic values or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. That have yielded, or may be likely to yield, information important in prehistory or history.

A property must also be significant within a historic context under one or more of the criteria listed above. "National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation" states that the significance of a historic property can be judged only when it is evaluated within its historic context. Historic contexts are "those patterns, themes, or trends in history by which a specific...property or site is understood and its meaning...is made clear."[2] A property must therefore represent an important aspect of the area's history or prehistory.

In addition to possessing significance, a property must possess integrity, defined by seven aspects as follows:

Location: the place where the historic property was constructed or the place where the historic event took place.

Design: the composition of elements that constitute the form, plan, space, structure, and style of a property.

Setting: the physical environment of a historic property that illustrates the character of the place.

Materials: the physical elements combined in a particular pattern or configuration.

Workmanship: the physical evidence of the crafts of a particular culture or people during any given period of history.

Feeling: the quality that a historic property has in evoking the aesthetic or historic sense of a past period of time.

Association: the direct link between a property and the event or person for which the property is significant.[3]

2.2 CALIFORNIA REGISTER OF HISTORICAL RESOURCES (CRHR)

The CRHR was established in 1992 by Assembly Bill 2881. It is an authoritative guide used by state and local agencies, private groups, and citizens to identify historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse impacts.[4] The criteria for eligibility of listing in the CRHR are based upon NRHP criteria, but are identified as 1-4 instead of A-D. To be eligible for listing in the California Register, a property generally must be at least 50 years of age and must possess significance at the local, state, or national level, under one or more of the following four criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or

[2] "National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation," U.S. Department of the Interior, National Park Service, Cultural Resources, eds. Patrick Andrus and Rebecca Shrimpton, accessed June 7, 2021, https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf, 7-8.
[3] "National Register Bulletin 15," 44.
[4] Public Resource Code (PRC) Section 5024.1(a).

2. It is associated with the lives of persons important to local, California, or national history; or

3. It embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values; or

4. It has yielded, or has the potential to yield, information important in the prehistory or history of the local area, California, or the nation.

Like the NRHP, properties eligible for listing in the CRHR may include buildings, sites, structures, objects, and historic districts. While the enabling legislation for the CRHR is less rigorous with regard to the issue of integrity, there is the expectation that properties retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance.[5]

Evaluations for the CRHR are based upon the evaluation instructions and classification system prescribed by the California Office of Historic Preservation (OHP) in its "Instructions for Recording Historical Resources," which include Status Codes for use in classifying potential historical resources. These Status Codes are used statewide in the preparation of historical resource surveys and evaluation reports. The specific Status Codes referred to in this analysis are as follows:

6Z Found ineligible for the NRHP, CRHR, or local designation through survey evaluation

The CRHR may also include properties identified during historic resource surveys. However, the survey must meet all of the following criteria:

1. The survey has been or will be included in the State Historic Resources Inventory;

2. The survey and the survey documentation were prepared in accordance with office [SOHP] procedures and requirements;

3. The resource is evaluated and determined by the office [SOHP] to have a significance rating of Category 1 to 5 on a DPR Form 523; and

4. If the survey is five or more years old at the time of its nomination for inclusion in the California Register, the survey is updated to identify historical resources that have become eligible or ineligible due to changed circumstances or further documentation and those that have been demolished or altered in a manner.[6]

2.3 CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

The State CEQA Guidelines set the standard for determining whether a proposed project will result in a "substantial adverse change" in the significance of historical resources in Title 14 CCR Section 15064.5(b), which states:

> A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

[5] "California Office of Historic Preservation Technical Assistance Series #7: How to Nominate a Resource to the California Register of Historical Resources," California Office of Historic Preservation, accessed June 7, 2021, https://ohp.parks.ca.gov/pages/1056/files/07_TAB%207%20How%20To%20Nominate%20A%20Property%20to%20California%20Register.pdf, 11.
[6] PRC Section 5024.1.

Title 14 CCR Section 15064.5(b)(1) further clarifies "substantial adverse change" as follows:

> Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.

Title 14 CCR Section 15064.5(b)(2) in turn explains that a historical resource is "materially impaired" when a project:

> Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

As such, the test for determining whether or not a proposed project will have a significant impact on an identified historical resource is whether or not the project will alter in an adverse manner the physical integrity of the historical resource such that it would no longer be eligible for listing in the NRHP or CRHR or other landmark programs such as the City of Laguna Beach Historic Register.

This analysis considers direct and indirect impacts to historical resources using the following definitions of each:

- Direct or primary impacts are caused by the project and occur at the same time and place (14 CCR Section 15358 [a][1]).
- Indirect impacts, or secondary effects, are reasonably foreseeable and caused by a project but occur at a different time or place (14 CCR Section 15358 [a][2]).

2.4 CITY OF ANTIOCH

The City of Antioch does not have a local historic preservation ordinance or landmark designation program nor does the City maintain a local historic register. However, the Antioch General Plan does include objectives and policies related to the protection of cultural resources as noted below:

Objective 10.9.1[7]

Preserve archaeological, paleontological, and historic resources within the Antioch Planning Area for the benefit and education of future residents.

Policy 10.9.2

a. Require new development to analyze, and therefore avoid or mitigate impacts to archaeological, paleontological, and historic resources. Require surveys for projects having the potential to impact archaeological, paleontological, or historic resources. If significant resources are found to be present, provide mitigation in accordance with applicable CEQA guidelines and provisions of the California Public Resources Code.

[7] LSA Associates Inc., *City of Antioch General Plan* (Antioch, CA: City of Antioch, November 24, 2003), 10-14.

b. If avoidance and/or preservation in the location of any potentially significant cultural resources is not possible, the following measures shall be initiated for each impacted site:

- A participant-observer from the appropriate Indian Band or Tribe shall be used during archaeological testing or excavation in the project site.

- Prior to issuance of a grading permit for the project, the project proponent shall develop a test-level research design detailing how the cultural resource investigation shall be executed and providing specific research questions that shall be addressed through the excavation program. In particular, the testing program shall characterize the site constituents, horizontal and vertical extent, and, if possible, period of use. The testing program shall also address the California Register and National Register eligibility of the cultural resource and make recommendations as to the suitability of the resource for listing on either Register. The research design shall be submitted to the City of Antioch for review and comment. For sites determined, through the Testing Program, to be ineligible for listing on either the California or National Register, execution of the Testing Program will suffice as mitigation of project impacts to this resource.

- After approval of the research design and prior to the issuance of a grading permit, the project proponent shall complete the excavation program as specified in the research design. The results of this excavation program shall be presented in a technical report that follows the City's outline for Archaeological Testing. The Test Level Report shall be submitted to the City for review and comment. If cultural resources that would be affected by the project are found ineligible for listing on the California or National Register, test-level investigations will have depleted the scientific value of the sites and the project can proceed.

- If the resource is identified as being potentially eligible for either the California or National Register, and project designs cannot be altered to avoid impacting the site, a Treatment Program to mitigate project effects shall be initiated. A Treatment Plan detailing the objectives of the Treatment Program shall be developed. The Treatment Plan shall contain specific, testable hypotheses relative to the sites under study and shall attempt to address the potential of the sites to address these research questions. The Treatment Plan shall be submitted to the City for review and comment.

- After approval of the Treatment Plan, the Treatment Program for affected, eligible sites shall be initiated. Typically, a Treatment Program involves excavation of a statistically representative sample of the site to preserve those resource values that qualify the site as being eligible for the California or National Register. At the conclusion of the excavation or research program, a Treatment Report shall be developed. This data recovery report shall be submitted to the City for review and comment.

c. When existing information indicates that a site proposed for development may contain paleontological resources, a paleontologist shall monitor site grading activities with the authority to halt grading to collect uncovered paleontological resources, curate any resources collected with an appropriate reposition, and file a report with the Community Development Department documenting any paleontological resources found during site grading.

d. As a standard condition of approval for new development projects, require that if unanticipated cultural or paleontological resources are encountered during grading, alteration of earth materials in the vicinity of the find be halted until a qualified expert has evaluated the find and recorded identified cultural resources. Policy

e. Preserve historic structures and ensure that alterations to historic buildings and their immediate settings are compatible with the character of the structure and the surrounding neighborhood.

3.0 METHODOLOGY

To identify historical and archaeological resources in the Study Area and assess any potential impacts the Project may have on identified resources, Stantec performed the following tasks:

- Conducted a field inspection of the Project site and vicinity, during which Stantec determined the scope of the study as well as assessed the general condition and physical integrity of the Project site and six existing buildings. Digital photographs of the Project site and building exteriors were taken during the field inspection.
- Identified a Study Area to account for potential impacts on historical resources in the vicinity. See Section 4.0 for more information.
- Reviewed existing information to determine if there are any listed or previously surveyed historical or archaeological resources within the Study Area. The following sources were consulted:
    - Requested a records search from the Northwest Information Center (NWIC) in Rohnert Park, California on June 30, 2021. The purpose of this search was to determine whether or not the Study Area contained any resources that were currently listed under national, state, or local landmark or historic district programs and whether or not it contained resources that have been previously identified or evaluated as potential historical resources. This involved a review of the California Historic Resources Inventory System (CHRIS), which includes data on properties listed and determined eligible for listing in the NRHP, listed and determined eligible for listing in the CRHR, California Registered Historical Landmarks, Points of Historical Interest, as well as properties that have been evaluated in historic resource surveys and other planning activities.
    - Consulted the California Built Environment Resource Directory (BERD), which is maintained by the California Office of Historic Preservation (OHP), to determine if the Project area or immediate vicinity contains any resources listed and determined eligible for listing in the National Register, listed and determined eligible for listing in the California Register, or that had been evaluated in historic resource surveys and other planning activities.

  The results of the above research can be found in Section 5, Environmental Setting.
- Conducted research into the history of the Project site and the surrounding area. Sources consulted include City of Antioch building permit records, newspaper archives, census data, and public records available through Ancestry.com, Sanborn Fire Insurance maps available through the Los Angeles Public Library, as well as historic aerial photographs available through the University of California, Santa Barbara. Access to materials beyond those listed above was restricted due to the ongoing COVID-19 health emergency.

- Reviewed and analyzed ordinances, statutes, regulations, bulletins, and technical materials relating to national, state, and local historic preservation designations, and assessment processes and programs to evaluate the significance and integrity of the six buildings on the Project site as potential historical resources.
- Conducted an archaeological survey of the of the Project site that met professional standards. The field survey was conducted by walking parallel, east-west transects of approximately ten to twenty meters. All areas of recent disturbance, including rodent burrows, were closely examined. Boot scrapes were employed to determine approximate gravel depth where there was 0% visibility.

3.1 NATIVE AMERICAN CONSULTATION

On June 30, 2021, Stantec sent an email with a Project description and a map depicting the Project area to the Native American Heritage Commission (NAHC) requesting a CEQA Tribal Consultation Lest (AB 52) and a review of the Sacred Lands File (SLF) for Native American cultural resources that might be affected by the Project. The NAHC responded on July 23, 2021 stating that the results of the SLF search were negative.

The NAHC provided a list of 19 Native American individuals and organizations to contact for additional information about sacred sites or Tribal Cultural Resources (TCR) in the Project vicinity:

- Irene Zwierlein (Chairperson, Amah Mutsun Tribal Band of Mission San Juan Bautista)
- Lloyd Mathiesen (Chairperson, Chicken Ranch Rancheria of Me-Wuk Indians)
- Corrina Gould (Chairperson, The Confederated Villages of Lisjan)
- Donald Duncan (Chairperson, Guidiville Indian Rancheria)
- Ann Marie Sayers (Chairperson, Indian Canyon Mutsun Band of Costanoan)
- Randy Yonamura (Ione Band of Miwok Indians)
- Rosemary Cambra (Chairperson, Muwekma Ohlone Indian Tribe of the SF Bay Area)
- Charlene Nijmeh (Chairperson, Muwekma Ohlone Indian Tribe of the SF Bay Area)
- Monica Arellano (Vice Chairwoman, Muwekma Ohlone Indian Tribe of the SF Bay Area)
- Cosme Valdez (Chairperson, Nashville Enterprise Miwok-Maidu-Nishinam Tribe)
- Katherine Erolinda Perez (Chairperson, North Valley Yokuts Tribe)
- Timothy Perez (MLD Contact, North Valley Yokuts Tribe)
- Andrew Galvan (The Ohlone Indian Tribe)
- Neil Peyron (Chairperson, Tule River Indian Tribe)
- Antonio Ruiz Jr. (Cultural Resources Officer, Wilton Rancheria)
- Jesus Tarango (Chairperson, Wilton Rancheria)

- Steven Hutchason (Tribal Heritage Preservation Officer, Wilton Rancheria)
- Dahlton Brown (Director of Administration, Wilton Rancheria)
- Kenneth Woodrow (Chairperson, Wuksache Indian Tribe/Eshom Valley Band)

The City, as Lead Agency, opted to send certified notification letters to each of the individuals and organizations identified by the NAHC on July 29, 2021. The letters contained a description of the Project and Project location, a map of the Project area, an invitation to consult on the Project, and contact information and asked for responses within 30 days. Additionally, emails were distributed with contact information and digital copies of the notifications to the individuals and organization identified by the NAHC on July 30, 2021. Follow up phone calls were made to each contact on August 13, 19 and 26, 2021.

In response to a follow-up telephone call placed on August 13, 2021, Meyo Marrufo, the Environmental Director of the Guidiville Indian Rancheria, stated that the Project was of no environmental or cultural resource concern for the tribe, but to please notify if any cultural resources were identified in the course of the project.

4.0 STUDY AREA

As the Project involves new construction, the Study Area was identified as the Project site as well as all parcels within a 100-foot radius from the center of the Project site (see **Figure 1**). This Study Area was established to account for potential impacts on historical resources in the vicinity. Parcels beyond this Study Area were not included because the Project would have no potential to directly or indirectly impact the buildings on these distant parcels or their surrounding setting. The buildings and streets immediately surrounding the Project site create a geographic and visual separation between the parcels beyond the Study Area and the Project site. The Project site therefore cannot be reasonably considered part of the environmental setting of historical resources beyond the Study Area due to this intervening space.

Figure 1: Study Area Map

5.0 ENVIRONMENTAL SETTING

The Project site is located in a highly developed area of Antioch on Lone Tree Way at Vista Grande Drive (see **Photograph 1**). Lone Tree Way is a major arterial street to the north of the Project side that provides regional access throughout southeast Antioch. It is six lanes wide with a center median and extends in an east-west direction. Vista Grande Drive is a secondary street located to the east of the Project site. It is two lanes wide with a center median and traffic travels in a north-south direction. The topography of the Project site and immediate vicinity is relatively flat. Surrounding land uses include commercial development such as restaurants, retail shops, and offices as well as residential development such as single-family and multi-family residences. Adjacent buildings are generally low scale, ranging from one to two stories.

Photograph 1: Lone Tree Way, view from the Project site looking west (Stantec, July 2021)

The Project site is bordered by Lone Tree Way on the north, Vista Grande Drive to the east, two single-family residential properties located at 5002–5003 Hollowglen to the south, and three single-family residential properties located at 5115–5123 Plumwood Way to the west. It is accessed via a driveway on Lone Tree Way. The driveway is paved with asphalt and extends south from the north property boundary to a gravel paved surface parking area at the south end of the parcel. A portion of the rear surface parking area at the southwest corner of the parcel is surrounded by a chain-link fence. A concrete block curb borders the north boundary to the east and west of the driveway. A second driveway paved with concrete is located near the south end of the parcel on Vista Grande Drive. A half-height chain link fence with a sliding gate at the secondary driveway is located along the east property boundary. Landscaping primarily consists of mature trees, shrubs, and a grassy lawn.

There are six buildings located on the Project site, a single-family residence, two barns, two sheds, and a tankhouse (see **Figure 2**). The residence is setback from the north property boundary to the west of the driveway, while the tankhouse is slightly setback from the north boundary to the east of the driveway (see **Photograph 2**). One barn, referred to for the purposes of this report as the north barn, is located immediately to the southeast of the tank house. It has been previously converted into a garage. The second barn, referred to here as the south barn, is located further to the southwest near the east property boundary (see **Photograph 3**). Two sheds are also located on the property to the south of the north barn. For additional descriptive information regarding the property, please see Appendix B for the complete set of DPR 523 Forms.

Figure 2: Map of 5200 Lone Tree Way with Project site outlined in red

Photograph 2: Project site, view looking east towards residence, tankhouse, and north barn (Stantec, July 2021)

Photograph 3: Project site, view looking southwest towards north and south barns (Stantec, July 2021)

The area of Antioch where the Project site is located was devoted to agriculture throughout the late 19th century and much of the 20th century. It was not until the 1990s and 2000s that the surrounding land was subdivided into tracts and the majority of the existing residential and commercial development constructed. The Project site was previously part of a much larger agricultural property located over 5 miles southeast from what was then the city boundaries of Antioch. The property that comprises the Project site was later annexed by the City of Antioch in 1987 as part of the Williamson/Heidorn annexation. The history of this farming community, historically referred to as Lone Tree Valley, is therefore not closely associated with any one city, but rather is generally associated with the history of east Contra Costa County and the surrounding communities of Antioch, Brentwood, and Oakley.

The following sections provide contextual information for understanding the historical setting and potential significance of the six buildings on the Project site that were evaluated for NRHP and CRHR listing as part of the preparation of this report.

5.1 EARLY HISTORY OF EAST CONTRA COSTA COUNTY, 1850–1920

The Gold Rush incited a mass migration of over 300,000 people to California between 1848 and 1854, quickly propelling the territory into statehood and transforming almost every aspect of its earlier character.[8] New immigrants soon settled throughout the state, including an influx European and European-Americans into present-day east Contra Costa County. Following California statehood, the U.S. Government began issuing federal land patents for the area. Records indicate that the U.S. Government issued over 40 patents for land surrounding the Project site between the late 1860s and 1870s.[9]

Many of the new settlers were farmers, and as a result, early growth in east Contra Costa County was in part fueled by agriculture dominated by crops such as wheat, barley, and hay. Contra Costa County and Lone Tree Valley, in particular, soon became a leading producer of barley, used primarily for animal feed as well as for making larger beer

[8] "California Gold Rush," Britannica, accessed July 15, 2021, https://www.britannica.com/topic/California-Gold-Rush.
[9] Bureau of Land Management, "Land Patent Search," *General Land Office Record*, accessed July 15, 2021, https://glorecords.blm.gov/default.aspx.

and ale.[10] By 1879, 12% of the state's barley was grown in the county. Beginning in 1859, the discovery of coal in the Black Diamond mine area south of present-day Pittsburg also fueled early growth.[11] Black Diamond soon become California's largest mining operation from which nearly four million tons of coal was removed.

Several small communities and towns were formed in east Contra Costa County during this period. One of the earliest was Antioch, founded in 1849 as Smith's Landing by twin brothers, Rev. William Wiggins Smith and Rev. Joseph Horton Smith.[12] The town was promptly renamed Antioch in 1851 after the biblical city of Antioch. The early townsite developed around a pier on the banks of the San Joaquin River near what was then known as Front Street and Main Street.[13] Besides Antioch, other towns in east Contra Costa County founded in the mid-19th century include those associated with the Black Diamond mines, such as Pittsburg, Nortonville, Somersville, Stewartville, West Hartley, and Judsonville.[14]

The completion of the San Pablo & Tulare line of the Central Pacific Railroad in 1878 and the Stockton line of the Santa Fe Railroad in 1898, brought further development to east Contra Costa County.[15] Communities, such as Brentwood, Byron, Knightsen, and Oakley, formed around stops along the railroads. Early businesses in these towns included mercantile shops, blacksmith shops, barber shops, saloons, and hotels. The arrival of the railroads also provided farmers with easier access to transportation and expanded the number of markets they could ship their crops to. This led to a diversification of the types of crops cultivated in the county to include fruit and nuts.

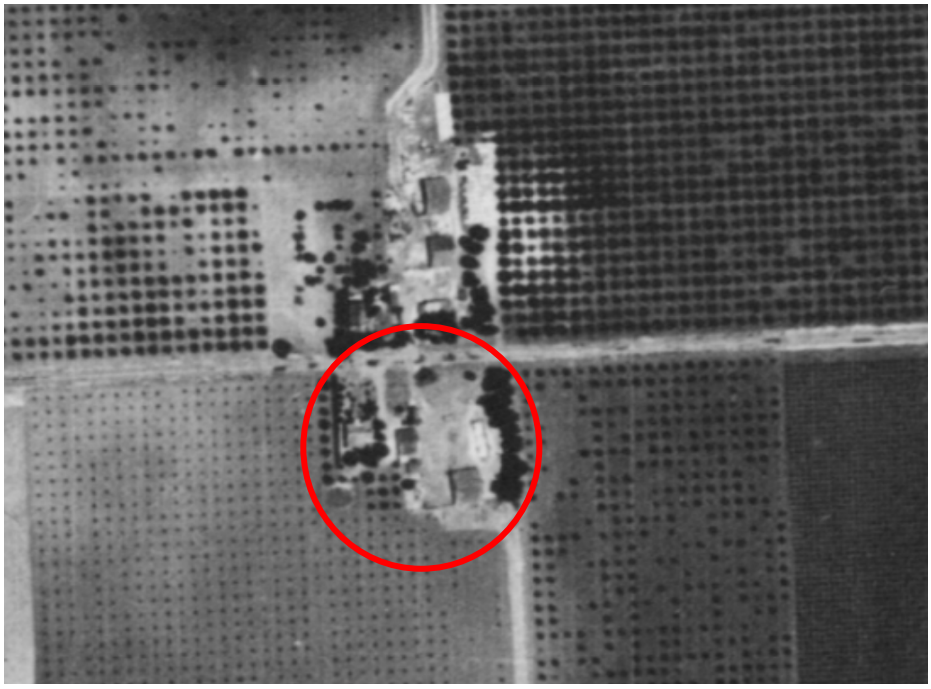
The last operating coal mines closed in east Contra Costa County in the 1900s; however, the local economy continued to diversity throughout the early 20th century.[16] Commercial sand mining soon replaced coal extraction beginning around 1910. Dairy grew to become a dominate industry in the area with Knightsen becoming the largest depot for shipping milk by the 1920s.[17] Finally, agricultural practices in the area changes with the establishment of irrigation districts that allowed for the cultivation of more water intensive crops such as almonds and grapes.

The farmers in the Lone Tree Valley had established a formal farming community and irrigation district by 1925.[18] The earliest aerial photograph of the area from 1939 shows scattered farms surrounded by uncultivated land. The parcels appear to have been formed by the United States rectangular land survey. Residences and farm buildings are typically clustered together near roadways and feature an allée or curved entry drive bordered by trees or orchards. These clusters are then surrounded by cultivated fields. Historic aerials illustrate that more of the undeveloped land was under cultivation by the mid-20th century; however, by the 1980s, some of the agricultural properties had been redeveloped with new residential, commercial, or industrial buildings. By the 1990s and 2000s, most of the agricultural properties in the area had been redeveloped, the majority with new suburban subdivisions.

[10] Janet L. Pape, "Shannon Ranch/Williamson Ranch," National Register of Historic Places Nomination Form, Antioch, California, January 29, 1987, sect. 8, pg. 2.
[11] "Black Diamond Mines Regional Preserve," East Bay Regional Park District, accessed July 15, 2021, https://www.ebparks.org/parks/black_diamond/default.htm#history.
[12] "Early Antioch," The Antioch Historical Museum, accessed July 15, 2021, https://www.antiochhistoricalmuseum.org/early-antioch.
[13] Sanborn Map Company, *Antioch*, 1884, Sheet 1.
[14] Adrian Praetzellis, "Black Diamond Mines," National Register of Historic Places Nomination Form, Antioch, California, Anthropological Studies Center, Sonoma State University, May 2, 1991, sect. 8, pg. 11.
[15] "Knightson," East Contra Costa County Historical Society, accessed July 15, 2021, https://eastcontracostahistory.org/our-communities/knightson/.
[16] Praetzellis, sect. 8, pg. 1.
[17] "Knightson," East Contra Costa County Historical Society.
[18] "Naval Day Celebration," *Mill Valley Record*, October 17, 1925.

5.2 HISTORY OF PROJECT SITE

The date of construction for the buildings on the Project site is noted by the Contra Costa County Assessor's Office as 1926. The earliest available aerial photograph for the Project site is from 1939. It shows the residence and two barns in their current locations on the property and what appears to be the tankhouse, although it is not clearly depicted in the photograph (see **Photograph 4**). The area to the south of the Project site between present-day Hillcrest Avenue and Heidorn Ranch Road were under cultivation by that date. Across Lone Tree Way, there are what appear to be a residence and two barns that are no longer extant. It is not known whether these buildings on the north side of Lone Tree Way were historically associated with the Project site. The surrounding area on the north side of Lone Tree Way between present-day Hillcrest Avenue and Heidorn Ranch Road was also under cultivation by that date.



Photograph 4: 1939 aerial photograph with Project site circled in red (UCSB)

Building permits and ownership information from the date of construction are no longer on file with either the City of Antioch or Contra Costa County; however, research indicates that the existing buildings on the Project site were likely constructed for owner Frederick H. Heidorn. Heidorn was the father of Frederick H. Heidorn, Jr., who is documented in building permit records as owning the property in the 1990s. Census data dating from the late 1920s through the 1950s, newspaper articles, and other publicly available records such as draft cards indicate that the family resided on a farm located on Lone Tree Way. The current address of 5200 Lone Tree Way is not listed on any of these documents, which is likely because the property was not historically assigned a number address. Heirdorn, Jr.'s obituary notes that he grew up on his father's farm on Lone Tree Way and later inherited it from his father when he retired.[19]

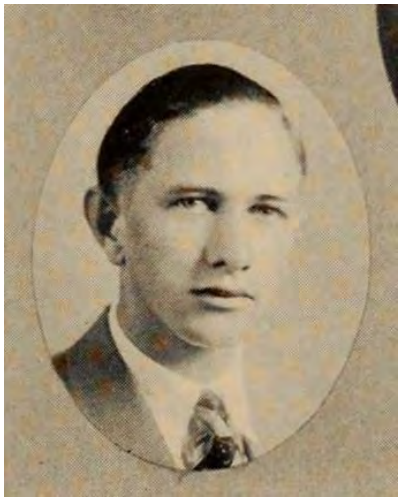
[19] "Frederick Henry Heidorn, Jr.," *Contra Costa Times*, February 28, 2007.

Frederick Heidorn, Sr. was born in east Contra Costa County in 1872 (see **Photograph 5**). He married Mary Metten Heidorn (1882–1970) and had three children Frederick, Marie, and Ralph.[20] He is listed in census and voter registration records as a farmer and is noted in several newspaper articles from the 1920s for growing barley.[21] He is also noted as a trustee of the Lone Tree School District. Frederick Heidorn, Sr. passed away in 1954.[22]

Frederick Heidorn, Sr.'s father, Henry Heidorn, Sr., was an immigrant from Hanover, Germany who arrived in the United States in 1868, and later received a land patent in 1874 for land in east Contra Costa County located at the present-day interchange of State Route (SR) 160 and SR 4.[23] He was married to Charlotte Heidorn and had four children, Fred, Louisa, Kattie, and Minnie.[24] Henry Heidorn, Sr. was likely related to Christian Heidorn, who was another immigrant from Hanover, Germany who settled in east Contra Costa County around the same time. According to the 1880 census, Henry Heidorn, Sr. was a farmer who owned a 200-acre farm with 100 acres of wheat under cultivation as well as 3 dairy cows, 10 horses, and 100 chickens.[25]

Frederick Heidorn, Sr.'s son, Frederick Heidorn, Jr., was born in 1910 on the family farm (see **Photograph 6**). He attended Lone Tree School and Liberty High School, graduating in 1928. Upon graduation, he joined his father working their family farm and grew apricots, grapes, grain, walnuts, and almonds among other crops. He later married Doris Pfeiffer (1912–1990) in 1934 and had three children, Jayne, Susan, and Carol.[26] Frederick Heidorn, Jr. was a member of 4-H, Contra Costa Farm Bureau, Delta Dance, Antioch Senior Citizens, Antioch Historical Society and East Contra Costa Historical Society. Like his father, he was also a trustee of the Lone Tree School District. Frederick Heidorn, Jr. passed away in 2007.

Photograph 5: Frederick Heidorn, Sr., undated (Ancestry.com)



Photograph 6: Frederick Heidorn, Jr., 1928 (Ancestry.com)

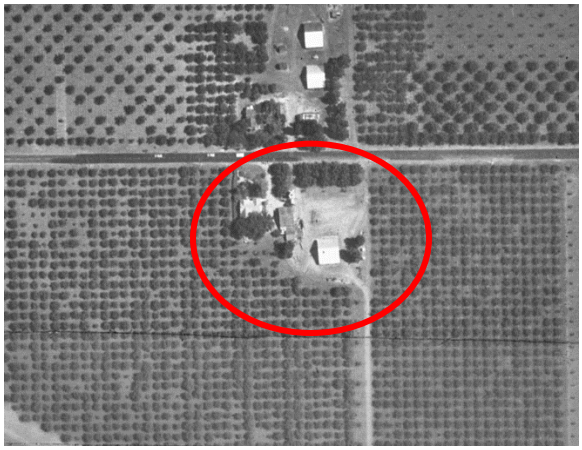
[20] "Diablo Valley Boy Dies after Operation," *Oakland Tribune*, January 5, 1926.
[21] "Mrs. Laugenour to Be Bridge Club Hostess," *Woodland Daily Democrat*, January 18, 1929.
[22] "Fred H. Heidorn, Sr." *Oakland Tribune*, March 27, 1954.
[23] Bureau of Land Management, "Land Patent Search," *General Land Office Record* entry for Henry Heidorn, Sr., Contra Costa County, CA, no. 818.
[24] United States Census Bureau, 1880, Township Five, Contra Costa County, California, 23.
[25] U.S. Census, 1880.
[26] "Frederick Henry Heidorn, Jr."

It is not known how long the Heidorn family owned the property prior to the construction of the existing buildings in 1926. As noted above, Henry Heidorn, Sr. received a land patent f in 1874 for a property located farther north near the present-day SR 160 and SR 4 interchange. Daniel A. Lewis appears to have receive a land patent that included the Project site in 1871. Because primary source documents do not use number addresses and the City nor County have any deed information related to the property on record, it is difficult to determine when the Heidorn family purchased the property on Lone Tree Way. The 1920 census notes that the Heidorn family lived at a farm on Bretwood Road, which appears to have been a former name for present-day Lone Tree Way.[27] Therefore, it is possible that the family's association with the property pre-dates 1926.

Aerial photographs show that the property changed little between 1939 and 1982 (see **Photograph 7** and **Photograph 8**). Visible alterations to the property primarily included changes to the vegetation, such as the addition of an orchard to the east of the residence along Lone Tree Way and the removal and replacement of trees. An aerial from 1993 shows that the orchard had been removed as well as many of the mature trees throughout the property. By 2002, Lone Tree Way had been widened and the surrounding subdivision, Meadow Springs Village, had been constructed.

It is likely that the Heidorn family may have owned all or the majority of the land that today comprises the Meadow Springs Village subdivision. This subdivision extends south from Lone Tree Way to Prewett Ranch Drive between Hillcrest Avenue and Heidorn Ranch Road. Heidorn Ranch Road and Heidorn Park were probably named after the family when Meadow Springs was subdivided sometime in the late 1990s and early 2000s. Because the subdivision immediately surrounds the Project site to the west and south, the family likely sold this land, while retaining ownership of the part of the property where their residence was located.

Photograph 7: 1958 aerial photograph with Project site circled in red (UCSB)



Photograph 8: 1965 aerial photograph with Project site circled in red (UCSB)

5.3 PREVIOUSLY IDENTIFIED CULTURAL RESOURCES IN THE STUDY AREA

A records search was conducted by NWIC at Sonoma State University on July 29, 2021 (NWIC file no. 20-2690). The purpose of this search was to determine the proximity of previously documented cultural resources to the Project site and to help establish a context for the potential significance of historic properties. The records search included a

[27] United States Census Bureau, 1920, Township Eight, Contra Costa County, California, 6B.

review of all recorded historic and prehistoric cultural resources situated within a 0.25-mile radius of the Project site, as well as a review of known cultural resource surveys and excavation reports. The following sources of information were consulted as part of the records search:

- National Register of Historic Places (NRHP)
- California Register of Historical Resources (CRHR)
- Built Environment Resource Directory (BERD)
- California Inventory of Historic Resources (CHRI)
- California Historical Landmarks (CHL) list
- California Points of Historical Interest (CPHI) list
- California Office of Historic Preservation (OHP) records
- Historic topographic maps
- Bureau of Land Management General Land Office plat maps, and aerial photographs

The records search identified 18 studies within 0.25 miles of the Project site. One of the previous studies were within or immediately adjacent to the Project site, and an additional 17 studies were identified within a 0.25-mile radius (see **Table 1**). A copy of the existing resource documentation is included in Appendix B.

Table 1. Previous Studies within .25-mile of Project site

Study Number	Author	Year	Title	Location
S-11826	Theodoratus Cultural Research	1980	Montezuma I & II Cultural Resources: Pacific Gas & Electric Company	Project site
S-000595	King, R. F.	1974	A Report on the Status of Generally Available Data Regarding Archaeological, Ethnographic, and Historical Resources Within a Five Mile Wide Corridor Through Portions of Colusa, Yolo, Solano, and Contra Costa Counties, California	0.25 Mile Research Buffer
S-000848	Fredrickson, David A.	1976	A Summary of Knowledge of the Central and Northern California Coastal Zone and Offshore Areas, Vol. III, Socioeconomic Conditions, Chapter 7: Historical & Archaeological Resources	0.25 Mile Research Buffer
S-001978	Aiello, Anthony V.	1960	The Islands of Contra Costa	0.25 Mile Research Buffer
S-002458	Ramiller, Neil, et al.	1981	Overview of Prehistoric Archaeology for the Northwest Region, California Archaeological Sites Survey: Del Norte, Humboldt, Mendocino, Lake, Sonoma, Napa, Marin, Contra Costa, Alameda	0.25 Mile Research Buffer

Study Number	Author	Year	Title	Location
S-005208	Greenway, Gregory and William E. Soule	1977	Sacramento-San Joaquin Delta Investigations: Cultural Resources Reconnaissance	0.25 Mile Research Buffer
S-009462	Miller, Teresa A.	1977	Identification and Recording of Prehistoric Petroglyphs in Marin and Related Bay Area Counties	0.25 Mile Research Buffer
S-009583	Mayfield, David W.	1978	Ecology of the Pre-Spanish San Francisco Bay Area	0.25 Mile Research Buffer
S-009795	Jackson, Thomas L.	1986	Late Prehistoric Obsidian Exchange in Central California	0.25 Mile Research Buffer
S-016660	Fentress, Jeffrey B.	1992	Prehistoric Rock Art of Alameda and Contra Costa Counties, California	0.25 Mile Research Buffer
S-017773	Banet, Angela M.	1992	Contract 04E634-EP, Task Order #9, Historic Map Review for CALTRANS Maintenance Facilities (letter report)	0.25 Mile Research Buffer
S-017835	Suchey, Judy M.	1975	Biological Distance of Prehistoric Central California Populations Derived from Non-Metric Traits of the Cranium	0.25 Mile Research Buffer
S-018217	Gmoser, Glenn	1996	Cultural Resource Evaluations for the Caltrans District 04 Phase 2 Seismic Retrofit Program, Status Report	0.25 Mile Research Buffer
S-020395	Gillette, Donna L.	1998	PCNs of the Coast Ranges of California: Religious Expression or the Result of Quarrying?	0.25 Mile Research Buffer
S-030204	Gillette, Donna L.	2003	The Distribution and Antiquity of the California Pecked Curvilinear Nucleated (PCN) Rock Art Tradition.	0.25 Mile Research Buffer
S-032596	Milliken, Randall, Jerome King, and Patricia Mikkelsen	2006	The Central California Ethnographic Community Distribution Model, Version 2.0, with Special Attention to the San Francisco Bay Area, Cultural Resources Inventory of Caltrans District 4 Rural Conventional Highways	0.25 Mile Research Buffer
S-033600	Meyer, Jack and Jeff Rosenthal	2007	Geoarchaeological Overview of the Nine Bay Area Counties in Caltrans District 4	0.25 Mile Research Buffer
S-049780	Byrd, Brian F., et al.	2017	San Francisco Bay-Delta Regional Context and Research Design for Native American Archaeological Resources, Caltrans District 4	0.25 Mile Research Buffer

No previously recorded cultural resources were identified within the Project site or Study Area; however, two resources were identified within 0.25 mile. **Table 2** identifies the previously recorded resources within 0.25 mile of the Project site (see the complete results in Appendix B).

Table 2. Previously Recorded Resources within 0.25 mile of the Project site

Primary Number	Trinomial	Age	Description	NRHP Eligibility
P-07-000015	CA-CCO-692H	Historic	Concrete foundations of F-12 / Lone Tree School and associated outbuildings located	7 - Unevaluated

Primary Number	Trinomial	Age	Description	NRHP Eligibility
			approximately 0.24 mile east of the Project	
P-07-000303	CA-CCO-532/H	Historic	Williamson/Shannon Homestead farm complex located approximately 0.23 mile west of the Project.	1S – Individual property listed in the National Register (NR). Listed in the California Register (CR).

6.0 EVALUATION OF IDENTIFIED RESOURCES

The records search and desktop archaeological review did not identify any prehistoric or historical archaeological resources. The Project site generally exhibits a low sensitivity for the presence of surface or subsurface cultural resources.

The intensive archaeological pedestrian survey found a possible footing/foundation, approximately 50-feet south of the barn, however, no diagnostic artifacts were identified. The footing is likely related to the historical structures at 5200 Lone Tree Way. No prehistoric resources were identified within the Project site. No previously recorded built resources were identified within the Project site or Study Area.

The six buildings on the Project site located at 5200 Lone Tree Way are not currently listed under national, state, or local landmark or historic district programs and are not included as significant in any historic resource surveys of the area. Because they are all over 50 years of age, Stantec evaluated their eligibility for listing in the NRHP and CRHR to determine if they qualify as historical resources as defined by CEQA.

6.1 5200 LONE TREE WAY

5200 Lone Tree Way is a former agricultural property located in southeast Antioch. It was evaluated for the NRHP and CRHR under Criteria A/1, B/2, C/3, and D/4 as well as under federal and state integrity requirements. Because the six buildings lack individual distinction and are united by their history and physical development, Stantec evaluated them as part of a potential historic district per the guidance outlined in "National Register Bulletin: Guidelines for Evaluating and Documenting Rural Historic Landscapes," which notes that properties "containing a number of buildings, sites, and structures–such as a ranch or farming community–are classified as historic districts."[28] The following is a summary of the property's evaluation. Please see Appendix B for the full evaluation.

The property was evaluated under Criteria A/1 within the context of the Early History of East Contra Costa County. The Heidorn family were early farmers who settled in east Contra Costa County in the 1870s; however, it could not be confirmed that the property is directly associated with Henry Heidorn Sr. nor could it be confirmed that the property is associated with Frederick H. Heidorn, Sr. prior to the 1920s. The earliest known record of the family occupying a property on Lone Tree Way is the 1920 census, which notes the family farm was located on Brentwood Road, likely the former name for Lone Tree Way. "National Register Bulletin: How to Apply the National Register Criteria for

[28] McClelland et. all, "National Register Bulletin: Guidelines for Evaluation and Documenting Rural Historic Landscapes," U.S. Department of the Interior, National Park Service, Cultural Resources, 1989, revised 1999, 2.

Evaluation" notes that "a property is not eligible if its associations are speculative."[29] Because it could not be determined that the property had a direct involvement in the early agricultural development of the area, the property does not appear to be significant under Criteria A/1.

Even if the property's association with early agricultural development is later confirmed upon further research, it still does not appear to be eligible for listing under Criteria A/1 because the property no longer reflects the period of time in which these important events took place. According to the Contra Costa County Assessor, the construction dates for the three buildings and structure on the property is 1926, which is after the end of the early period of agricultural development in east Contra Costa County between 1850 and 1920. Additionally, the property has substantially changed since 1926 and no longer retains integrity of design, materials, workmanship, feeling, or setting. Most notably, the land surrounding 5200 Lone Tree Way was previously redeveloped into a residential subdivision and no longer retains its agricultural character. As "Guidelines for Evaluating and Documenting Rural Historic Landscapes" notes, "new construction and incompatible land uses covering extensive acreage such as residential subdivisions….cause the greatest damage" to historic integrity.[30] Additionally, individual buildings, such as the residence and north barn, have been substantially altered through the removal and/or replacement of original features and materials.

The property does not appear to be significant under Criteria B/2. While the Heidorn family may have been prosperous early famers, no primary or secondary sources were found that detail their specific activities, accomplishments, or influence that distinguishes them from other early farmers in east Contra Costa County. The individual contributions or roles of Henry Heidorn Sr., Frederick H. Heidorn, Sr., and Frederick Heidorn, Jr. cannot be identified and documented as significant within the history of east Contra Costa County.

The property also does not appear to be significant under Criteria C/3. 5200 Lone Tree Way may have originally exhibited the landscape characteristics of an agricultural property from the 1920s; however, few landscape characteristics dating from this period remain extant. The property's original land uses, division of property, overall pattern of circulation, and any natural features were mostly demolished when the surrounding residential subdivision was constructed. Other features such as the original fields for cropping, orchards, treelines, and boundary demarcations were also removed. The only features that appear to remain are the six buildings and structures.

The north barn, south barn, tankhouse, and two sheds are all vernacular in their design and construction. Like other agricultural buildings constructed at this time, they feature metal or composite shingle roofing, no foundation or concrete on grade, and wood channel or clapboard siding. The design and construction of these buildings are typical for early-to-mid-20th century agricultural properties and commonly found throughout California and the western United States.

The residence does not embody the distinctive characteristics that would make it significant as an example of any one particular style. The only notable original design feature it possesses is its roof shape; otherwise, all original decorative features or ornament appear to have been previously removed. The residence is thus lacking in qualities associated with finer examples of popular architectural styles for single-family residences during this period, such as Craftsman, Period Revival, Spanish Colonial Revival, and American Colonial Revival. It does not exhibit quality craftsmanship, nor does it demonstrate any innovative, important, or outstanding design features.

[29] "National Register Bulletin 15," 12.
[30] McClelland et. all, 24.

Criteria D/4 generally applies to archaeological resources but may apply to a built resource in instances where a resource may contain important information about such topics as construction techniques or human activity. In any case, the resource must be the principal source of information. This is unlikely to be true for an agricultural property from the 1920s. Therefore, 5200 Lone Tree Way does not appear to be significant under NRHP Criteria D.

For these reasons, this evaluation finds that 5200 Lone Tree Way does not meet the criteria for listing in the NRHP or CRHR as a historic district nor do the individual buildings and structures appear eligible for listing. The property therefore does not appear to be a historical resource for the purposes of the California Environmental Quality Act (CEQA) pursuant to Title 14 California Code of Regulations (CCR) §15064.5.

7.0 REFERENCES

PRIMARY RESOURCES

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"Diablo Valley Boy Dies after Operation." *Oakland Tribune*. January 5, 1926.

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"Naval Day Celebration." *Mill Valley Record*. October 17, 1925.

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United States Census Bureau, 1920. Township Eight, Contra Costa County, California.

SECONDARY RESOURCES

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"California Gold Rush." Britannica. Accessed July 15, 2021, https://www.britannica.com/topic/California-Gold-Rush.

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August 27, 2021

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Appendix A ARCHAEOLOGICAL SURVEY FORM

Project Name: 5200 Lone Tree Way Antioch
Project Number: 185705497
Generic Survey Form

Surveyor Name/s: Rudy A. Dinarte	Date: 7/12/2021
Additional Survey Names:	
Weather: ~66º clear skies (projected high of 95º)	
Survey Location: 5200 Lone Tree Way, Antioch, CA 94531 Contra Costa County, Antioch South 7.5-Minute, CA. T1N, R2E, Section 4 Lat/Long: 37.961112, -121.755406	
Time start: 7:00 am	Time stop: 1:30 pm
Environmental Setting (% visibility, vegetation, % slope/grade): The project is located on a corner lot within a suburban area of Antioch, CA at the intersection of Lone Tree Way and Vista Grande Drive. Paved asphalt roads Lone Tree Way and Vista Grande Drive borders the northern and eastern boundary of the project area; additionally, suburban housing developments are located on the southern and western boundary of the project area. The lot has been utilized for mixed uses including housing, barns, and construction yard. As a result, only approximately 37 percent of native soils were surveyed. In the areas where the ground was not covered by gravel, structures, or asphalt, visibility was good, with approximately 70-80% visibility. Visibility was obscured by minimal grasses and weeds, and 6-8 trees. Native soils consisted of 10YR 7/2 light-gray-brown silty sand with ~20% subangular gravels throughout.	
Survey type (Reconnaissance, Intensive): Intensive pedestrian survey with 10-20 meter transects. Due to poor visibility, boot scrapes were attempted within the imported gravel yard, but I was not able to reach native soils (at least 4 inches below surface). Additionally, when present, rodent burrows and vegetation bald batches were intensively inspected for cultural resources.	
Survey size (Linear/acreage, miles, feet, meters): approximately 2 acres	
Percentage of Survey Coverage: approximately 77% of the area was accessible, however only 37% of native soils were visible.	
Survey Methods (include existing conditions, extent and agents of disturbance): **Condition:** It appears different sections of the lot have been utilized for different uses, including a house, storage/construction yard, and a barn. Due to the mixed use, visibility was limited for various reasons, including imported gravels pad, asphalt paving, four structures, and one house, in addition to various parked vehicles and modern-refuse throughout the lot. Only approximately 0.74 (~37%) acres of native soils were visible. In addition to the lot's uses, the southwest quarter, approximately 0.46 acres, was inaccessible due to fencing and mesh material blocking any visibility. A vast majority of the southern section of the lot consist of what appears to be light gray imported gravels that are at least 4 inches in depth; boot scrapes were stopped at ~4 inches.	

Disturbance: In addition to the various structures, building, asphalt road, and imported gravels, it appears multiple irrigation systems have been installed in the lot, including an irrigation system for an apparent yard immediately north of the house. The entire lot has likely been subject to multiple grading activities, and it appears multiple dirt access roads have been created in an as-needed bases by tenants. Additional disturbances include a utility vault, storm drain, telecommunications-service box, and the apparent use of sections of the lot as a modern refuse dump location.

Methods: Intensive pedestrian survey (10-20 meter transects), utilizing boot scrapes to determine approximate gravel depth due to 0% visibility. Transects were walked in a generally east to west trajectory.

Survey results: (If sites/resources observed, note access roads, staging areas, include photos, continue on separate sheet as needed)

It appears that historically the property was used as an orchard, and a working farm. The built environment has been assessed by Stantec Architectural Historian Rebecca Riggs; please see their notes for assessment.

A possible footing/foundation was observed approximately 50 feet south of barn, however no diagnostic artifacts were found.

No other cultural resources were observed.

Recommendations: Due to the historic component of the property, the minimal surface soils observed, monitoring would be recommended during ground disturbing activities to provide an opportunity to see was is below the asphalt and imported gravel.

Alternatively, a tailboard for an Archaeological Resources Awareness training, in addition to the inadvertent discovery protocol.

Communications (if with Land Owners or others):

I met with Stantec Architectural Historian Rebecca Riggs, and I was provided with a general background of the property history and built environment.

Notes: Possible footings/foundations were found approximately 50 feet south of barn; no diagnostic artifacts were observed within or near the foundation, so just a photo and general location were recorded. Approximately 600 feet of sidewalk northwest of property were surveyed for a possible turn lane associated with the project. Sidewalk was paved with landscaped green zones that included an irrigation system.	
Photos Taken: Y X / N	GIS Data Taken: Y / N X
Photos/ GIS Descriptions: Overview of survey location, disturbances, and overviews of the built environment for reference (see Rebecca Riggs's report for detailed notes and photographs of the built environment).	

Attachments:

Attachment A: Survey Coverage Map

Attachment B: Photographs

Attachment A: Survey Coverage Map

Map 1: Survey Coverage for 5200 Lone Tree Way Antioch, completed 7/12/2021

Attachment B: Photographs

Photo 1: Overview of survey area, facing east/southeast

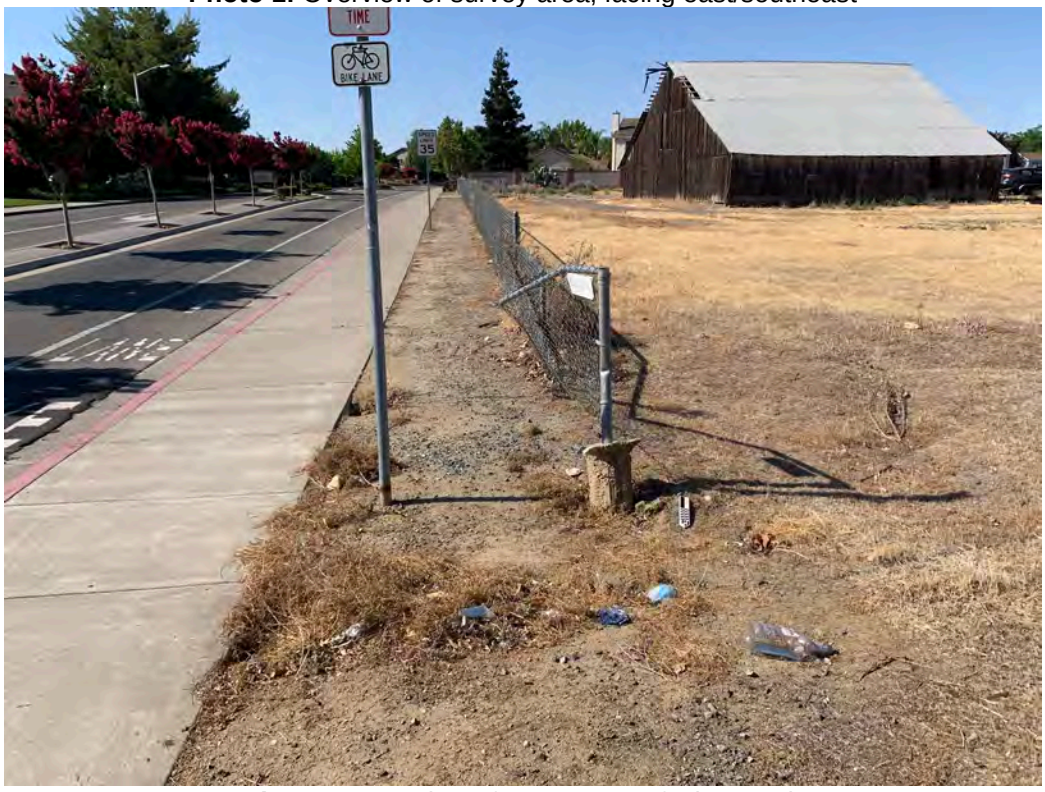


Photo 2: Overview of survey area, facing south

Photo 3: Overview of survey area, facing northwest

Photo 4: Overview of fenced off area, facing northwest

Photo 5: Overview of locked gate blocking access to southwest portion of survey area

Photo 6: Overview of utilities vault (disturbance), facing east

Photo 7: Overview of telecommunications boxes (disturbance), facing north

Photo 8: Overview of lot use for vehicle storage, facing northeast

Photo 9: Overview of modern refuse dump location (disturbance), facing northwest

Photo 10: Overview of house on property and storm drain, facing south

Photo 11: Overview of structure on property, facing southwest

Photo 12: Overview of structure on property, facing northeast

Photo 13: Overview of structure on property, facing southwest

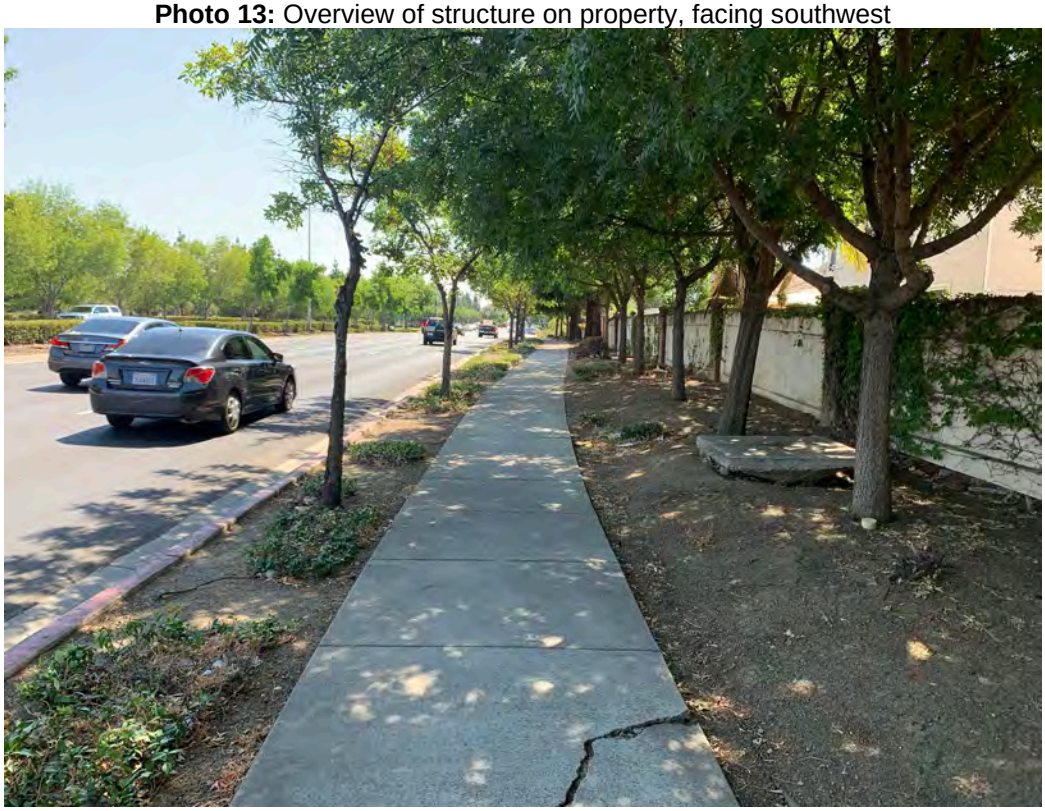


Photo 14: Overview of possible turnout lane (estimate), facing east

Photo 15: Possible structure footing/foundation remnants, facing west/southwest

Appendix B RECORDS SEARCH RESULTS

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM

ALAMEDA, COLUSA, CONTRA COSTA, DEL NORTE, HUMBOLDT, LAKE, MARIN, MENDOCINO, MONTEREY, NAPA, SAN BENITO, SAN FRANCISCO, SAN MATEO, SANTA CLATA, SANTA CRUZ, SOLANO, SONOMA, YOLO

Northwest Information Center
Sonoma State University
150 Professional Center Drive, Suite E
Rohnert Park, California 94928-3609
Tel: 707.588.8455
nwic@sonoma.edu
http://www.sonoma.edu/nwic

7/29/2021 NWIC File No.: 20-2690

Leven Kraushaar
Stantec Consulting Services Inc.
1383 North McDowell Boulevard, Suite 250
Petaluma, CA 94954

Re: Antioch Gas Station CEQA Initial Study - 185705497 200.0002c

The Northwest Information Center received your record search request for the project area referenced above, located on the Antioch South USGS 7.5' quad(s). The following reflects the results of the records search for the project area and a 0.25 mi. radius:

Resources within project area:	None listed
Resources within 0.25 mi. radius:	P-07-000015, P-07-000303
Reports within project area:	S-11826
'Other' Reports within project area:	[17] Please see attached list, page 3
Reports within 0.25 mi. radius:	S-10413, 10509, 16917, 18187, 18557, 20218, 23674, 24466, 36622, 43437, 43476, 49353

Resource Database Printout (list):		☐ enclosed	☒ not requested	☐ nothing listed
Resource Database Printout (details):		☐ enclosed	☒ not requested	☐ nothing listed
Report Database Printout (list):		☐ enclosed	☒ not requested	☐ nothing listed
Report Database Printout (details):	[Other reports only]	☒ enclosed	☐ not requested	☐ nothing listed
Resource Record Copies:		☒ enclosed	☐ not requested	☐ nothing listed
Report Copies:	[within only]	☒ enclosed	☐ not requested	☐ nothing listed
OHP Built Environment Resources Directory:		☒ enclosed	☐ not requested	☐ nothing listed
Archaeological Determinations of Eligibility:		☐ enclosed	☐ not requested	☒ nothing listed
CA Inventory of Historic Resources (1976):		☒ enclosed	☐ not requested	☐ nothing listed
Historical Maps:		☒ enclosed	☐ not requested	☐ nothing listed
Local Inventories:		☐ enclosed	☐ not requested	☒ nothing listed
GLO and/or Rancho Plat Maps:		☒ enclosed	☐ not requested	☐ nothing listed

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Requests made after initial invoicing will result in the preparation of a separate invoice.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

Annette Neal

Researcher

'Other' Report selections-in

DocCo	DocNo
S-	000595
S-	000848
S-	001978
S-	002458
S-	005208
S-	009462
S-	009583
S-	009795
S-	016660
S-	017773
S-	017835
S-	018217
S-	020395
S-	030204
S-	032596
S-	033600
S-	049780

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET

Primary # P-07-015
HRI#
Trinomial CA-CCO-692H

***Resource Name or #** Lone Tree School
***Recorded by:** C. Wills ***Date:** 12/29/1993 (Updated: S. Pappas 8/23/2013) ☐ Continuation ☒ Update

1. Impacts observed since site formation/use:
☐ Constructed trail ☐ Wildlife path ☒ Grading ☐ Recreational use by humans (campfire ring, etc.) ☐ Fire
☐ Erosion ☐ Vandalism/pothunting/artifact collection ☐ New vegetation growth ☒ Modern trash deposits
☐ Fire break ☒ Construction ☒ Vegetation removal ☐ None ☐ Other (explain):

2. Is the site location narrative accurate?
☒ Yes ☐ No (explain):

3. Is the site description narrative accurate?
☐ Yes ☒ No (explain): Site has been severely impacted since previous recording.

4. Were new photos taken? Attach photograph record and paste representative photo below.
☒ Yes ☐ No (explain):

5. Date of site revisit: 8/23/2013

6. Revisited by: S. Pappas; ECORP Consulting, Inc., 2525 Warren Drive, Rocklin, CA 55677

7. Reason for revisit (check all that apply):
☒ USACE 2-year requirement ☒ Collect GPS data/Impact Mapping ☐ Evaluation of Eligibility
☐ Change in project area conditions (fire, flood, etc.) ☐ Other (explain):

8. Report citation: 2013. Westwood, Lisa and Stephen Pappas. *Cultural Resources Inventory Report, Antioch Autozone, Contra Costa County, California*. Report on file at ECORP Consulting, Inc. Rocklin, California.

9. Were survey grade UTM coordinates gathered?
☒ Yes ☐ No (explain):

10. Remarks:
The Lone Tree School was originally recorded as seven features: an area of raised concrete platforms, foundation walls, and two sets of stairs (all identified as Feature 1); a U-shaped concrete slab; a concrete slab with sectioned-off partition and plumbing pipes (possible restroom); three raised concrete platform/ramps located west of the main foundation areas; and a former sandbox in the northeast corner of the site. Also noted were piles of broken concrete, scattered surface refuse, and a broken up asphalt driveway in the southern end of the site.

During ECORP's revisit, the site appeared to have been severely altered due to construction activities after the initial recording in 1993. The only remaining features were the U-shaped concrete slab and the possible restroom foundation. None of the raised platforms, walls or steps from Feature 1 could be found. The walls and steps may have been removed or graded, as well as the ramps in the western portion of the site. No indications of a sandbox were observed as the majority of the surface had base rock and granitic rocks imported and graded. Additionally, after review of the site sketch map, it appeared that the eastern end of the site may have been demolished from construction of apartment complexes directly east of the Project Area.

A few mounds of broken concrete were found piled on top of the bathroom foundation, but it was not clear if the piles were from recent nearby construction or from the school house. No historic artifacts were observed within the site boundaries. Overall, the site appeared to be in poor condition with further destruction caused by disturbance from surrounding construction.

S-43476

b.

Possible bathroom foundation with raised concrete pad in background, view south, 8/23/2013, Photo #006

Raised concrete pad overview, view west, 8/23/2013, Photo #011

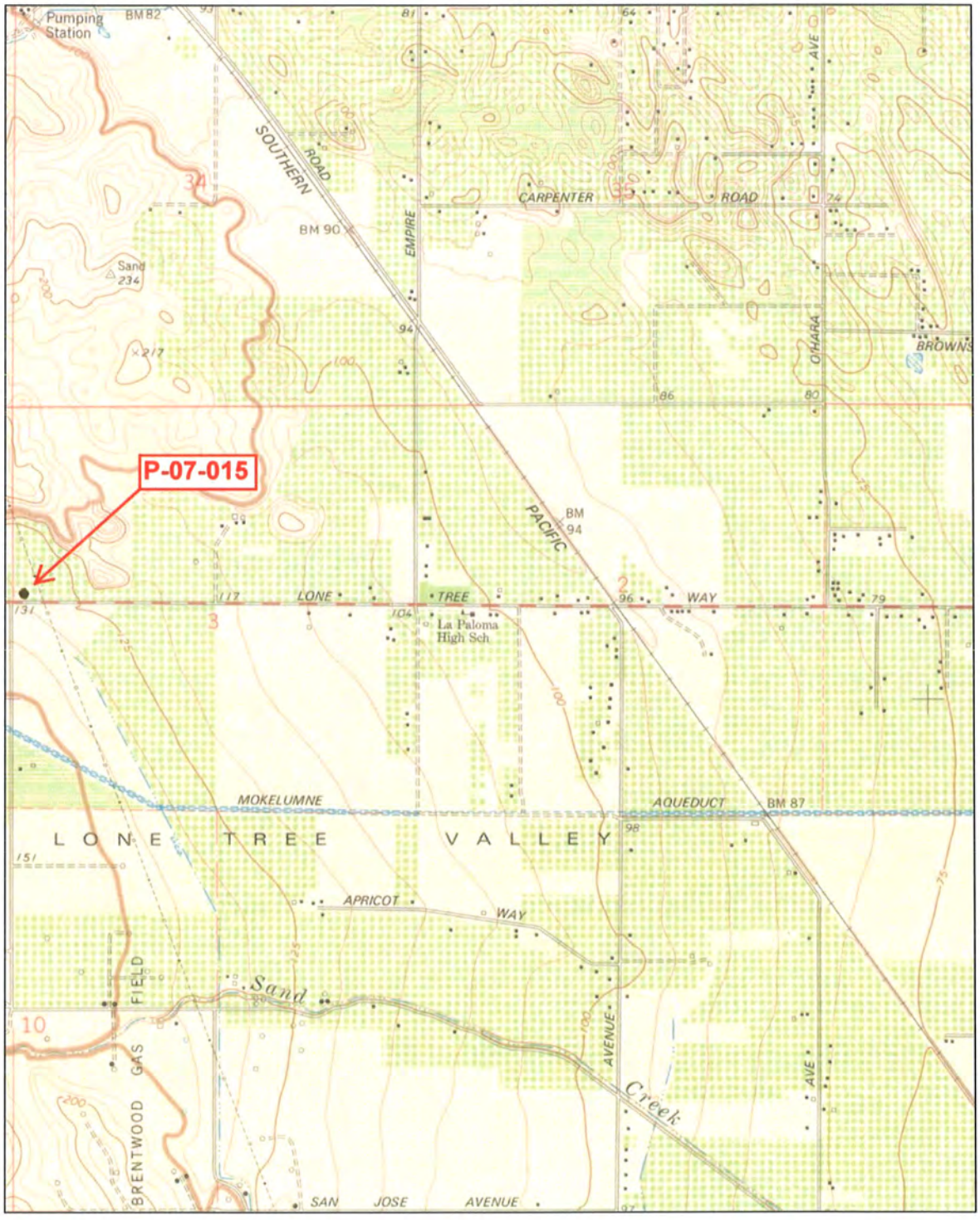
State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary # P-07-015
HRI#
Trinomial CA-CCO-692H

Page 3 **of** 3 ***Resource Name or #:** Lone Tree School

***Map Name:** Brentwood, CA ***Scale:** 7.5-minute ***Date of Map:** 1978



b.

*Required information

ARCHEOLOGICAL SITE RECORD

Primary No.: P-07-000015
Permanent Trinomial: CA-CCo-692H
Supplement? No
Other Designations: F-12

1. **County**: Contra Costa County

2. **USGS Quad**: Brentwood, Calif. 7.5'. (#4632; !978)

3. **UTM Coordinates**: Zone 10, N4202145mN/E609925mE. (609880 mE)

4. **Township** 1N **Range** 2E; NW 1/4 of SW 1/4 of SW 1/4 of NW 1/4 of Section 3, **MDBM**

5. **Map Coordinates**: 174mmS/45mmE.

6. **Elevation**: 130 feet above sea level.

7. **Location**: Exiting the City of Antioch to the south, travel on Lone Tree Way south about 5 miles to Sand Creek Road and park by the roadside. Site is located on the northeast corner of the intersection of Lone Tree Way and Sand Creek Road.

8. **Prehistoric** **Historic** XX **Protohistoric**

9. **Site Description**: The site consists of the foundation of the Lone Tree School, which appears on the 1911 USGS topographic quadrangle map of the area and was still identified on the 1954 USGS topographic map (photorevised 1968). Since it is not found on the 1873 State Geological Survey of California map, it can be concluded that it was constructed sometime between 1873 and 1911.

   The site currently consists of concrete foundation walls, concrete and asphalt walkways, a former sandbox, and piles of both modern and old debris. The wooden sandbox (still containing sand) is located to the north of the schoolhouse foundation and measures 20' 6" by 8' 6".

10. **Area**: Elliptical; 27 meters NS by 37 meters EW; 785 square meters (pacing).

11. **Depth**: N/A **Method of Determination**: N/A

12. **Features**: The site consists of the foundation of the former Lone Tree School (Feature 1).

    Feature 1 comprises a series of raised concrete platforms and concrete foundation walls. A square, "U"-shaped, concrete slab measuring 37' 7" by 14' 4" by 13" in height, with a

S-16917

6' deep indentation into the "U" on the northwestern side, is located adjacent to Lone Tree Way. Northwest of this concrete slab lies a rectangular foundation still outlined in concrete walls. This begins next to the raised, square, concrete "U", and extends for a length of 32 feet straight back away from the "U." This rectangular foundation was 39' across the northwestern end, with a height of 13 to 15" and a width of approximately 8". Two small sets of concrete stairs lead up to the foundation wall, on the northeastern and southwestern sides, and a third set of concrete stairs were constructed between the rectangular foundation and the raised platform/foundation to its northwest.

Northwest of the rectangular foundation and the third set of stairs is another well-defined area divided into three sections. Overall this area measured 11' 6" northeast-southwest by 39' northwest-southeast. Two 6'-wide sections on the northwestern side of this area are of raised (~28.5") concrete, and are divided in two by a 7.5" wide wall. These appear to have been the restrooms, since there are large plumbing pipes still present. The southeastern portion of this section is another area defined simply by a wall 8" in width and ~13" in height. To the west of this feature were three concrete ramps, perpendicular to the school house foundation. The larger of these measured 52' 6" long, was 62" wide and varied in height from 2 to 11" tall. This ramp had 2" diameter round holes along the southwestern side every 6 to 6.5'. Twelve feet south of this ramp were two additional ramps, approximately 14' long. These were abutted end to end.

13. **Artifacts**: Although there are numerous artifacts present, due to the extensive dumping in this area, it is impossible to distinguish artifacts recently dumped and ones possibly associated with the school.

14. **Non-Artifactual Constituents and Faunal Remains**: None observed.

15. **Date Recorded**: 29 December 1993.

16. **Recorded By**: Carrie D. Wills.

17. **Affiliation and Address:** William Self Associates, PO Box 2192, Orinda, CA 94563. (510) 631-0342; FAX (510) 254-3353.

18. **Human Remains**: None observed.

19. **Site Disturbance**: Almost 100% due to extensive dumping and mechanical grading; subject to future development.

ARCHEOLOGICAL SITE RECORD

Primary No.: P-07-000015
Permanent Trinomial: CA-CCo-692H
Supplement? No
Other Designations: F-12

20. **Nearest Water**: Sand Creek flows approximately 1 1/2 miles south of the site.

21. **Vegetation Community (vicinity)**: Valley Oak (Quercus lobata) and Live Oak (Quercus agrifolia), Star Thistle (Centaurea solstitialis), Wild Oats (Avena fatua), Turkey Mullein (Eremocarpus setigerus), Morning Glories (Convolvulus), Lupine (Lupinus), Wild Artichokes (Cynara scolymus), and various other native and imported vegetation.

22. **Vegetation (on-site)**: Largely barren of vegetation; one almond tree.

23. **Site Soil**: Medium-brown clay.

24. **Surrounding Soil**: Same as Item 23 above.

25. **Geology**: No visible bedrock.

26. **Landform**: Flat, alluvial plain.

27. **Slope**: 0%.

28. **Exposure**: Almost 100% to both sun and wind.

29. **Landowner**: Unknown.

30. **Remarks**: Large piles of dumped debris limited both the observation of the site's surface and artifact determination.

31. **References**: *Archeological Survey Report, Future Urban Area 2, Antioch, Contra Costa County, California* (in preparation). William Self Associates, Orinda.

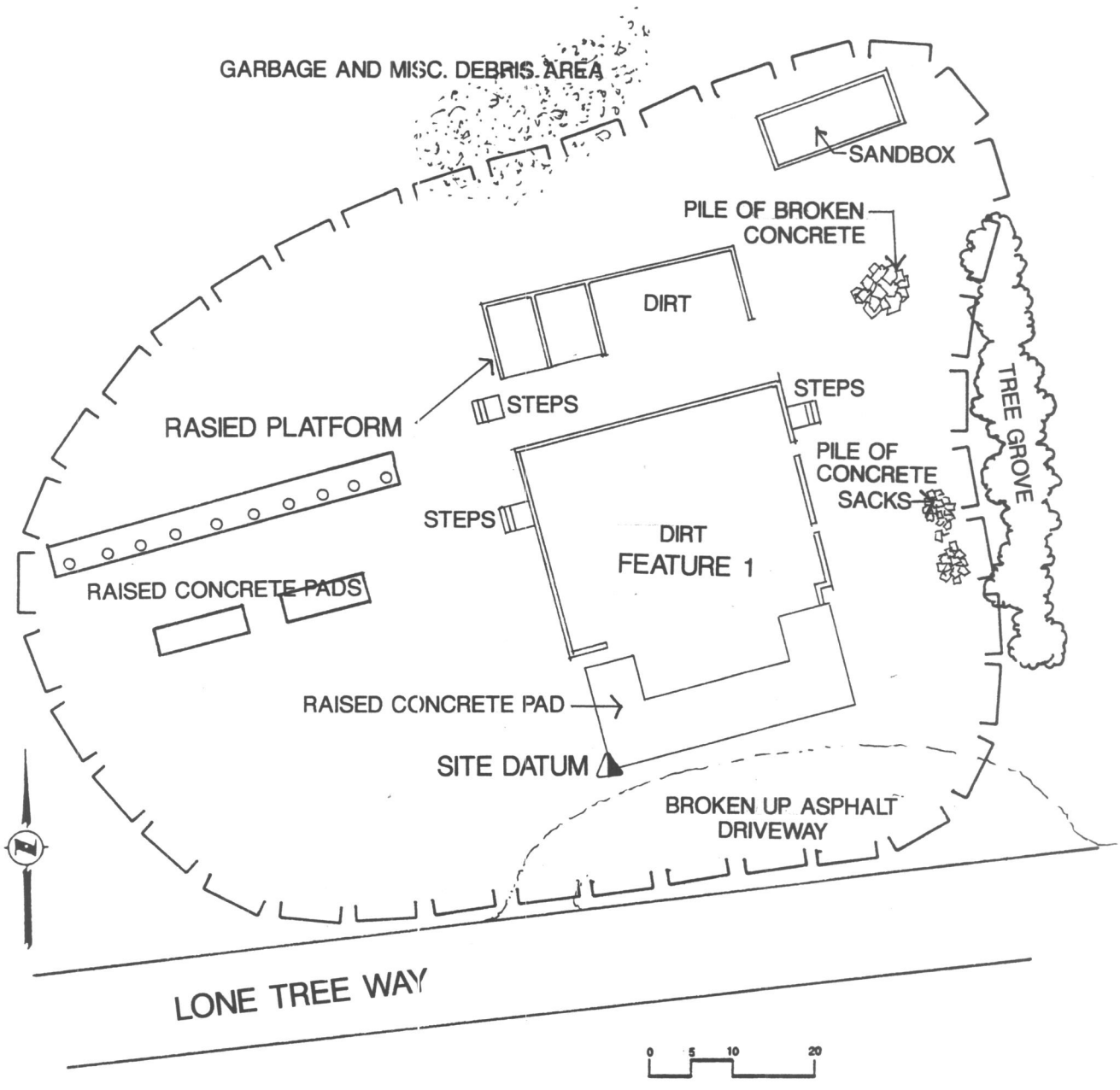
32. **Name of Project**: Antioch Future Urban Area 2.

33. **Type of Investigation**: Surface reconnaissance.

34. **Site Accession No.**: None.

35. **Curated At**: N/A.

36. **Photos**: FUA 2, Roll 1, #17-25.



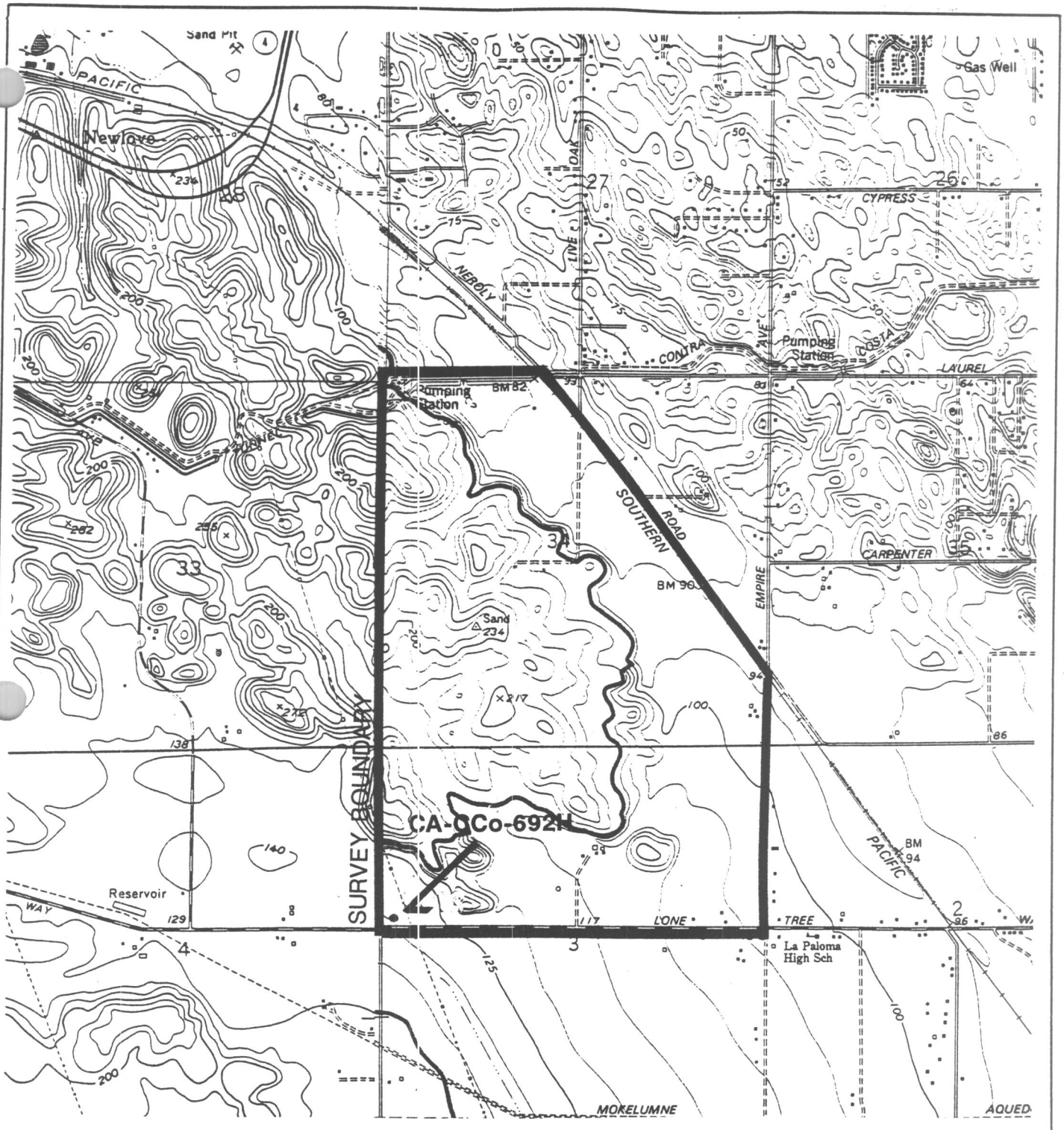
FEATURE

1. **Concrete platforms and foundation walls**

ARCHEOLOGICAL SITE MAP

FUTURE URBAN AREA 2

CA-CCo-692H



ANTIOCH SOUTH, CALIF.
N3752.5 - W12145/7.5
1953
PHOTOREVISED 1980
DMA 1659 IV NE-SERIES V895

BRENTWOOD, CALIF.
N3752.5 - W12137.5/7.5
1978
AMS 1659 I NW-SERIES V895

CALIF
QUADRANGLE LOCATION

GN MN

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 5 0 1 KILOMETER

CONTOUR INTERVAL 20 AND 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

ARCHEOLOGICAL SITE LOCATION MAP

FUTURE URBAN AREA 2

CA-CCo-692H

a.

METADATA SHEET

OHP HPD PROGRAM REFERENCE: NPS-87000003-0000

This resource is listed in the Office of Historic Preservation/Historic Properties Directory. This resource has also been assigned a Primary Number. Therefore, a copy of the National Register records has been added to the Primary File.

P-07-000303
NPS-87000003-0000

Date: May 25, 2016

NWIC Staff: *Annette Neal*

METADATA SHEET

P-07-000902

The Primary/Trinomial Number has been voided because this resource was inadvertently assigned two Primary/Trinomial Numbers. Please see the following Primary Number:

P-07-000303

Date: May 25, 2016

NWIC Staff: *Annette Neal*

b

NPS Form 10-900
(3-82)

FINAL

P-07-000303

OMB No. 1024-0018
Exp. 10-31-84

CA-CCO-532/H

United States Department of the Interior
National Park Service

National Register of Historic Places Inventory—Nomination Form

See instructions in *How to Complete National Register Forms*
Type all entries—complete applicable sections

For NPS use only
NPS-87000003-0000
received

date entered

St. HS. LNDMK 8700003

1. Name

historic Shannon Ranch/Williamson Ranch

and/or common Williamson Ranch

2. Location

street & number R.R. 1, Lone Tree Way N/A not for publication

city, town Antioch N/A vicinity of congressional district 7

state California code 06 county Contra Costa County code 013

3. Classification

Category	Ownership	Status	Present Use	
___ district	___ public	_X_ occupied	_X_ agriculture	___ museum
_X_ building(s)	_X_ private	___ unoccupied	___ commercial	___ park
___ structure	___ both	___ work in progress	___ educational	_X_ private residence
___ site	**Public Acquisition**	**Accessible**	___ entertainment	___ religious
___ object	___ in process	_X_ yes: restricted	___ government	___ scientific
	___ being considered	___ yes: unrestricted	___ industrial	___ transportation
	_X_ n/a	___ no	___ military	___ other:

4. Owner of Property

name Donald Williamson, Naomi Williamson, Shirley Williamson Perry

street & number R.R. 1, Box 1115

city, town Antioch N/A vicinity of state California

5. Location of Legal Description

courthouse, registry of deeds, etc. Contra Costa County Recorder's Office

street & number 822 Main Street

city, town Martinez state California

6. Representation in Existing Surveys

title 1. Historic Archaeological Site, CA-CCO-532H
2. Preliminary Survey of Historic Properties has this property been determined eligible? ___ yes _X_ no

date 1. April 1986
2. July 1986 ___ federal _1_ state ___ county _2_ local

depository for survey records 1. California Archaeological Inventory-Northwest Information Center
2. Antioch Historical Society/City of Antioch

city, town 1. Sonoma State Univ., 1801 Cotati Avenue, Rohnert Park California
2. City ntioch, City Hall, Antioch state California

b

Two utility right-of-way easements cross the property. Although not owners in fee simple, the two easement holders are noted below for the record:

Pacific Gas and Electric Company
77 Beale Street
San Francisco, CA 94105

East Bay Municipal Utility District
2130 Adeline Street
Oakland, CA 94607

7. Description

Condition		Check one	Check one
X excellent	___ deteriorated	___ unaltered	X original site
___ good	___ ruins	X altered	___ moved date N/A
___ fair	___ unexposed		

Describe the present and original (if known) physical appearance

The Williamson/Shannon ranch, a 398.01-acre parcel, evolved from the original 160 acres homesteaded in the late 1860s by Thomas Shannon, who planted wheat, barley, and hay. The present building complex, which contains several of the original buildings, owes much of its appearance to subsequent development by William Williamson from 1895 to 1929. The original log cabin burned c. 1894, and the present house was built in its place and completed c. 1896. Williamson added several additional buildings. The structures are essentially unaltered from their historic appearances. Integrity for the complex as a whole, including the surrounding farmland, remains high from the period of association with Williamson.

The property terrain consists of gently rolling hills surrounded by open space, bounded on the north by Lone Tree Way and by fencing on the remaining three sides. The farm land is presently in pasture with volunteer hay. An almond orchard planted in the 1860s is situated between Lone Tree Way and the tank house and granary and on the east and south sides of the house. An array of various trees, such as eucalyptus, pepper, olive, cedar, and palm trees, are located within the 6-acre complex. The house is surrounded by decorative shrubbery and enclosed with wire and wood-frame fencing.

The approximate 3,200-square-foot house is a two-story central block with a one-story wing extending to the south and sits on a masonry pier foundation. The house and roof are constructed of wood frame, with wood shiplap horizontal siding and composition roof (originally wood shingles). A 6'-7'9" wide porch with canopy wraps around the north, west, and south sides of the central block and the west side of the wing. A 30' enclosed, screened porch is located on the east side of the house. The porch is 7' wide at the wing and 5' wide along the central block. (The house is Feature A on the sketch map.)

The roof of the wing is side-gabled, and the roof of the central block is hipped with a widow's walk at its peak. A triangular dormer with a finial on top is on the north side of the hipped roof. The dormer contains a half-circle, quarter-paned window and has a patterned shingle-front side. The house has two chimneys, one on both sections, with the chimney on the wing containing a chimney pot.

Entranceways are located on the north, west, and east sides of the central block and the east and west sides of the wing, the wing containing two entrances on the west side. An entrance to the concrete wall cellar under the kitchen is located on the west porch of the wing.

The first story of the north facade contains an octagonal bay extension at the northeast corner where the side windows are double hung with two panes vertically splitting each sash. The larger center window is a single hung with window pane pattern stained glass bordering the pane of the upper sash. Single-paned, paired windows are on the north facade, west of the main entrance. The second story of the north facade has three double-hung windows, each sash with two vertically split panes. The first and second stories of the three remaining facades of the central block have two each of the same type windows. The wing has one each of the identical window on the west, south, and east facades.

Curved brackets are located at the corners at the roof line and along the frieze of the covered porches above the columns. Simplified spindles trim the covered porch and railing. A triangular pediment with decorative wood carving is over the front entry on the north side. Farm utensils are hung on the first floor exterior west side as decorative pieces.

The porches and interior floors are 1"x4" tongue and groove pine. The central block has 10' high ceilings and the wing has 9' ceilings. The doors are paneled solid redwood with doorknobs of clear glass on the interior and white porcelain on the exterior. Decorative redwood molding frames each door in the central block. The doors and molding in the central block are painted to give the appearance of wood grain. The parlor contains a coal burning fireplace with cast iron coal bin, framed in raised deco celedon-colored tile and oak. A beveled mirror framed in oak is above the oak mantel. The fireplace is in excellent condition and looks new. The kitchen walls in the wing have vertical tongue and groove 3/4"x4" wood paneling, painted white.

A cistern is located adjacent to the east side of the wing at the southeast corner. A 2' octagonal wood wall surrounds the 8'2"x8'4" cistern and a 10' high roof resting on 8 posts shelters the cistern. (Feature K on map)

The tank house is wood frame with 9" tongue and groove horizontal wood siding and situated on a concrete sill. The roof is pyramidal with the original wood shingles. The tank house is 16'6"x16'6" at the base tapering to approximately 16'x16' at an 8' high level. A 6'2"x 31" entrance way in located on the south side. A fixed window is located on each of the west, north and east sides. The original water tank is situated in the upper level supported by trussed rafters. Below the roof eaves on all sides is an approximate 2' high wood criss-cross decorative facade. The windmill, which was removed in the early 1950s, was located on the west side of the tank house. (Feature C)

The grainery is a 32'8"x24'2" simple side gabled wood frame structure with a lean-to. The structure is 12' high from ground to roof peak and rests on a mud sill. The structure has one principal room and a rearward extension, each with a separate entry. The principal room rests on a dry laid stone foundation. The east, west and south sides have random-rough redwood vertical siding. The north side has horizontal planks with exterior exposed studs on center resting on the floor joists. The extended roof on the north side is supported by four posts. The structure has no windows. An entranceway is centered on the north side of the principal room at a 3' high elevation. The height of the floor made it easier to load grain onto the wagons. The floor is wood 3/4"x6" tongue and groove. The rearward extension has a dirt floor and a 5'8"x9'9" sliding door hung on an iron round track with rollers on the east side. The south side of the structure has a corrugated tin roof and the north side has the original wood shingles. (Feature B)

The bunk house is a 12'4"x12' wood frame structure with board& batten exterior siding. It has a front-gabled roof, the original wood shingles having been replaced several years ago with corrugated tin. The structure sits on a wood sill. The wood floor of 3/4"x6" tongue and groove is 2' high from the ground. A rectangular boulder is used as a step into the 5'11"x29-3/4" entranceway on the west side. One fixed, four-pane window is centered on the east side. The structure is in poor condition with a board missing near the southeast corner and some internal fire damage to some of the rafters. (Feature D)

SEE CONTINUATION SHEET

The "old shop", cow/buggy barn and horse barn are all wood frame structures with redwood 1x10 random rough siding. All three structures sit on redwood piers, however the "old shop" originally had mud sills. Each barn has dirt floors, except for the cow/buggy barn which originally had a partial wood floor now replaced by concrete on 1/4 of the floor area. The horse barn and "old shop" have front-gabled roofs and the cow barn has a salt box roof. The original wood shingle roofs on each structure have been replaced with corrugated tin. The horse barn has two 20" square green plastic skylights on the north side.

The "old shop" is a 20'5"x22' structure, 13' to the peak. It has a sliding 8'x7'3" sliding door hung on a rectangular iron track with rollers on the east side. (Feature F)

The cow/buggy barn is 35'x40' and 20' high at the peak. It has an 11'6"x14'7" sliding door on the west side and a 7'6"x8' sliding door on the east side, both doors hung on iron tracks with rollers. A 6'2"x4'6" entranceway is also located on the west side near the southwest corner. A hay door is located on the west side near the roof peak. A small 28'x26" opening with a wood door is located on on the south side near the southwest corner. (Feature E)

The horse barn is a 56'x70'7" structure, 25' high at the peak. A 10'x16' sliding door is located on both the west and east sides near the south facade. Also, a 7'6"x6'6" sliding door is located on both the east and west sides near the north facade. The sliding doors are all hung on rectangular iron tracks with rollers. One 2'square sliding wood hatch is located on the south wall and eight 1'6" square sliding wood hatches are located on the north wall. The horse barn has the original Jackson fork for loading hay into the barn through the hay door on the west side near the roof peak. (Feature J)

The hay barn, a 31'8"x45'5" wood frame and open horizontal wood slat structure, was moved onto the property by William Williamson in the early 1920s from property he purchased north of Lone Tree Way. It is front gabled with a corrugated tin roof which is rusting. (Feature G)

A wood frame chicken house with rough wood vertical siding is located north of the "old shop". It is an approximate 6'x8' structure, front-gabled, with a corrugated tin roof. (Feature L)

A garage, 20'5"x14'5" wood frame structure with board & batten siding is located west and south of the house. It is front-gabled with a wood shingle roof. It has an approximate 18'x8' sliding door on the north side with track and post 16' to the east. (Feature H)

The grainery, "old shop", cow/buggy barn and the chicken house are the earliest built structures on the property, constructed around 1868. The bunk house was built in the 1880s and the horse barn was built in the early 1890s. The family lived in the grainery when the original cabin burned in c1894. A now-patched hole on the east wall of the grainery was cut for the stove pipe. The cow/buggy barn, originally a wagon shed in 1868, was expanded in c1894 to its present state.

Located a short distance east of the 1895 house is the site of the original privy for the homestead. This privy feature dates from c. 1868. Only a depression remains in the ground; the structure was torn down in the 1940s. Although this site has not been subject to any detailed investigation, its early association with the property suggests the possibility of historical archeological values. (Feature I)

A modern housetrailer was moved onto the property within the last 20 years. Located southwest of the house, it is occupied by the caretaker. (Feature M)

The barns are all weathered and in fair condition. The house, tank house and garage are all in excellent condition and freshly painted. Nineteenth century farm utensils, machinery and house fixtures and furniture are stored in the barns and bunk house. Plows, tillers and other machinery from the late 19th and early 20th century are lying about on the south side of the hay barn and "old shop". Some of the original fence posts are still located on the property. Several corrals are located south and west of the horse barn. The only major alterations to any of the structures on the property were the replacement of some roofing materials in 1982.

List of Features

Map letter	Feature	Construction date	Contributing/non-contrib.
A	House	c. 1895-96	Contributing
B	Grainery	c. 1868	Contributing
C	Tank house	c. 1895-96	Contributing
D	Bunk House	1880s	Contributing
E	Cow/buggy barn	c. 1868/enlarged c. 1894	Contributing
F	"Old shop"	c. 1868	Contributing
G	Hay barn	unknown/moved early 1920s	Contributing
H	Garage	early 1920s	Contributing
I	Privy feature (site)	c. 1868	Contributing
J	Horse barn	1895	Contributing
K	Cistern	c. 1895-96	Contributing
L	Hen house	c. 1868	Contributing
M	House trailer	modern	Non-contributing

Resource Count: Nine contributing buildings
Two contributing structures (tank house & cistern)
One contributing site (privy feature)
One non-contributing object (house trailer)

8. Significance

Period	Areas of Significance—Check and justify below			
___ prehistoric	___ archeology-prehistoric	___ community planning	___ landscape architecture	___ religion
___ 1400–1499	___ archeology-historic	___ conservation	___ law	___ science
___ 1500–1599	X agriculture	___ economics	___ literature	___ sculpture
___ 1600–1699	X architecture	___ education	___ military	___ social/ humanitarian
___ 1700–1799	___ art	___ engineering	___ music	
X 1800–1899	___ commerce	X exploration/settlement	___ philosophy	___ theater
___ 1900–	___ communications	___ industry	___ politics/government	___ transportation
		___ invention		___ other (specify)

Specific dates c. 1895–1929 **Builder/Architect** Unknown

Statement of Significance (in one paragraph)

The Williamson/Shannon ranch is the only 19th century farm complex in eastern Contra Costa County which has survived intact to the present. It is significant for its association with the early agricultural industry in Costra Costa County, namely wheat and barley, and their importance to the county and state. Wheat was the dominant field crop in Contra Costa County for nearly half a century until the 1890s. Contra Costa County was also a leading producer of barley in the state and in the nation. The farm has been owned and operated by descendants of Thomas Shannon for four generations through the present, a span of 117 years. The Williamson/Shannon ranch is also significant because it is one of a few working 19th century farms in Contra Costa County which evoke a feeling and association with the agriculture industry of this time period, not only by each of its separate components but as a complete complex. The buildings have retained their historical integrity, original fabric, and character of the late 1800s. The house, completed in c. 1896, is an eclectic Italianate style with free classic adaptation and spindlework representative of rural housing built between 1880-1900. While the appearance of the complex is late 19th century, the period of significance extends through the life of William Williamson who continued to develop the property until his death in 1929.

Thomas and Mary Ann Shannon, Irish immigrants, homesteaded in Lone Tree Valley near Antioch, California in 1867 and were deeded 160 acres through the Homestead Act of 1862(1). The Shannons planted wheat, barley, and hay on their land, wheat being their primary crop. Lone Tree Valley was on its way to becoming known as a wheat-growing area. Thomas Shannon applied for citizenship in 1873 and at that time he was attested to owning a house, barn, corral, orchard, well, granary, chicken house, wagon shed, and one-half mile of fencing. He also owned 2 wagons, 4 horses, 4 mules, 2 cows, 1 hog, and poultry.(2) In October 1876, the Shannons acquired an additional 240 acres bordering their parcel to the south.(3) An 1877 assessment record depicts the Shannons as owning 146 a. in wheat, 60 a. in barley, and 110 a. in hay.

Contra Costa County was a leader in the state's barley production, producing 12% of the state's barley in 1879. For over 20 years, since 1859, California produced 30% of the nation's barley. Barley was used primarily as feed to domestic animals but at times brought higher prices than wheat in markets because of its demand for use in making lager beer and ale.(4)

Wheat was the dominant field crop in Contra Costa County from the 1850s to the 1890s, and it was famed throughout foreign markets for its whiteness and strength.(5) Wheat was hauled by wagons pulled by four and eight-horse teams to ports from Antioch to Crockett and stored in warehouses until ocean-going vessels arrived to transport the wheat to markets in northwestern Europe.(6) California was a leading producer of wheat during the last half of the 19th century, and five times between 1872 and 1884 was the nation's leading producer.(7) An 1882 history of Contra Costa County claimed that "a gentleman purchased a quarter section of land for $15 per acre and seeded it in wheat....His first crop paid for the land and left him a surplus of six hundred dollars."(8)

In the midst of the peak years for wheat production in Contra Costa County, Thomas Shannon died and Mary Ann continued to operate the farm. In 1888, she sold the original 160 a. to William Williamson, her new son-in-law. During the same time, Mary Ann purchased a home in Antioch, keeping 240 a. of the farm for income. After her death in 1893, her only daughter, Elizabeth, and William Williamson inherited the 240 a.(9)

William owned and operated the farm until his death in 1929. A 1917 biographical sketch of William states that he "has been identified with agricultural pursuits of this county for many years." He is also described as "prominent among the more active, enterprising, and influential citizens of eastern Contra Costa County." William was a director of the First National Bank of Antioch from its beginnings in 1911 and a member of the Antioch school board for 26 years.(10)

The farm prospered and additional livestock was purchased in 1892 and 1893.(11) A new horse barn and a new cow/buggy barn was built by 1895 as evidenced by an insurance certificate dated August 5, 1895 by the Scottish Union National Insurance Company. It insures two barns, one for $400 and one for $100, the horse and cow barn respectively. It also insures "wagons, buggies, carriages and harness" for $100; $50 on farming implements, "not including combined harvestor, steam engine, separators or appurtenances"; and $150 on his header, "all while contained in last above described barn."

William and Elizabeth built the present house after the cabin burned in c1894. (Ashes are visible beneath the house today.) The family lived in the grainery structure while the new house was being built. The new house was constructed in two phases, the wing completed first in c1895 and the central block in c1896.(12) Presumably the tank house was built during the same time period. The garage was built by William in the early 1920s.

The farm, its open space and building complex, continue to evoke the sense of an agricultural period in the history of Contra Costa County which has long since passed. Farm implements and machinery of the late 1800s are still present about the farm and stored in the barns. The Jackson hay forks used by William are still hanging from the ceiling of the horse barn and "old shop" where William hung them. The barns are weathered and only the roofs have been replaced, occurring four years ago. The house, tank house and garage are in excellent condition and have also retained their original fabric. A few minor alterations have been made in the interior house wing. The interior wood trim, doors, etc. are all original to the house.

The grain industry in Contra Costa County in the 1800s stimulated new business growth and employment in areas such as blacksmithing, farm implement factories, lumber industry, shipping and flour mills. The effects of the grain industry also resulted in the forming of communities, building of country roads, and cutting of canals. These same forces are now having a negative impact on the farms in Contra Costa County. The Williamson/Shannon Ranch is presently threatened with the push of development and road widening in the current surge of growth in Contra Costa County.

SEE CONTINUATION SHEET

The Williamson/Shannon ranch is the only 19th century ranch complex in eastern Contra Costa County preserved completely intact and the only operating farm which has retained its historic integrity. The house possesses a uniqueness of architectural type and period, design, setting, location, materials, feeling and association in this area. Each structure is also a "museum" in itself in that each houses farming implements, machinery, furniture and other 19th century items utilized during the operation of the farm since the late 1800s. The property is a cultural resource which represents a particular, yet rapidly diminishing way of life in America, especially in this rapidly suburbanizing California county, at the expense of rapid growth and development. It is imperative that this cultural resource not be compromised by road expansion or superfluous development.

ENDNOTES:

1. CCC, RO, Book of Patents, 1875, V.2, p.256; Assessment Record, 1874, Book 1, pg. 302; Ibid. 1877, Book 10, pg. 92.

2. CCC, Clerk's Office, Decrees of Naturalization, April 22, 1874; U.S. Department of Commerce, Population Schedules, 1870, CCC, pg. 85; Ibid. 1880, CCC, pg. 41; Williamson family papers.

3. CCC, RO, Book of Deeds, Vol 35, pg. 194-195.

4. U.S. Department of Commerce, Bureau of the Census, 1883 Report on the Production of Agriculture, June 1, 1880, Vol. 3, pg. 497-498.

5. Mae Fisher Purcell, History of Contra Costa County (Berkeley: Gillick, 1940), pg. 403-404.

6. Margery S. Hellman, "Port Costa, California Wheat Center", in The California Geographer, Vol. 14, 1963, pg. 65-66; Goodan, Douglas and T. C. Shatto, "Changing Land Use in Ygnacio Valley, California", in Economic Geography, April 1948, Vol. 24, pg. 135-148.

7. Margery S. Hellman, "Port Costa, California Wheat Center", in The California Geographer, Vol. 14, 1963, pg. 65-66; U.S. Bureau of the Census, 10th Census, 1883, Report on the Production of Agriculture, June 1, 1880, Vol. 3; Ibid. 11th Census, 1895, Report on the Statistics of Agriculture in the U.S., 1890.

8. J.P. Munro-Fraser, History of Contra Costa County, California (San Francisco: W.A. Slocum, 1882), pg. 492.

9. CCC, RO, Decrees of Distribution, 1894, pg. 443.; Ibid 1907, #3053.

10. F. J. Hulaniski, The History of Contra Costa County, California (Berkeley: Elms, 1917), pg. 539-540; Antioch Ledger, January 17, 1929.

11. Assessment Record, CCC, 1892, Book 10, pg. 679; Ibid, 1893, Book 10, pg. 749.

12. Donald Williamson interviews, March 23 & 29, 1986. Family records, Leslie Williamson.

9. Major Bibliographical References

Contra Costa County Recorder's Office, Deeds, Mortgages, & Official Records: Assessment Records, Contra Costa County Historical Society; U.S. Bureau of the Census, Report on the Production of Agriculture, 1883 & 1895; Donald Williamson, Interviews, March 23 & 29, 1986, Family records and letters of Leslie Williamson, April 4, 1986; Janet Pape, "An Archaeological Survey of Williamson/Shannon Homestead, Antioch, CCC, CA" April 14, 1986.

10. Geographical Data

Acreage of nominated property 398.01

Quadrangle name Antioch South **Quadrangle scale** 1:24000

UTM References

	Zone	Easting	Northing
A	10	609020	4202070
B	10	609050	4200060
C	10	608250	4200060
D	10	608230	4202060
E			
F			
G			
H			

Verbal boundary description and justification AP#s 054-050-010, 054-050-002, 054-060-01, 054-070-01 The southwest quarter of Section 4 and northwest quarter and the north half of the southwest quarter of Section 9, Township 1 North, Range 2 East of Mount Diablo base and Meridian, CCC Deeds, 1875, Vol. 2, pg. 256; Ibid, 1878, vol. 35, pg. 194-195. Boundaries are

List all states and counties for properties overlapping state or county boundaries

state	n/a	code	county	n/a	code
state		code	county		code

11. Form Prepared By

name/title	Janet L. Pape, Cultural Resource Consultant		
organization	n/a	date	August 1, 1986
street & number	1672 Oxford Street, #14	telephone	(415) 849-4521
city or town	Berkeley	state	California 94709

12. State Historic Preservation Officer Certification

The evaluated significance of this property within the state is:

___ national ___ state ✓ local

As the designated State Historic Preservation Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service.

State Historic Preservation Officer signature Kathryn Gualtieri

title State Historic Preservation Officer date 11/26/86

For NPS use only

I hereby certify that this property is included in the National Register

date

Keeper of the National Register

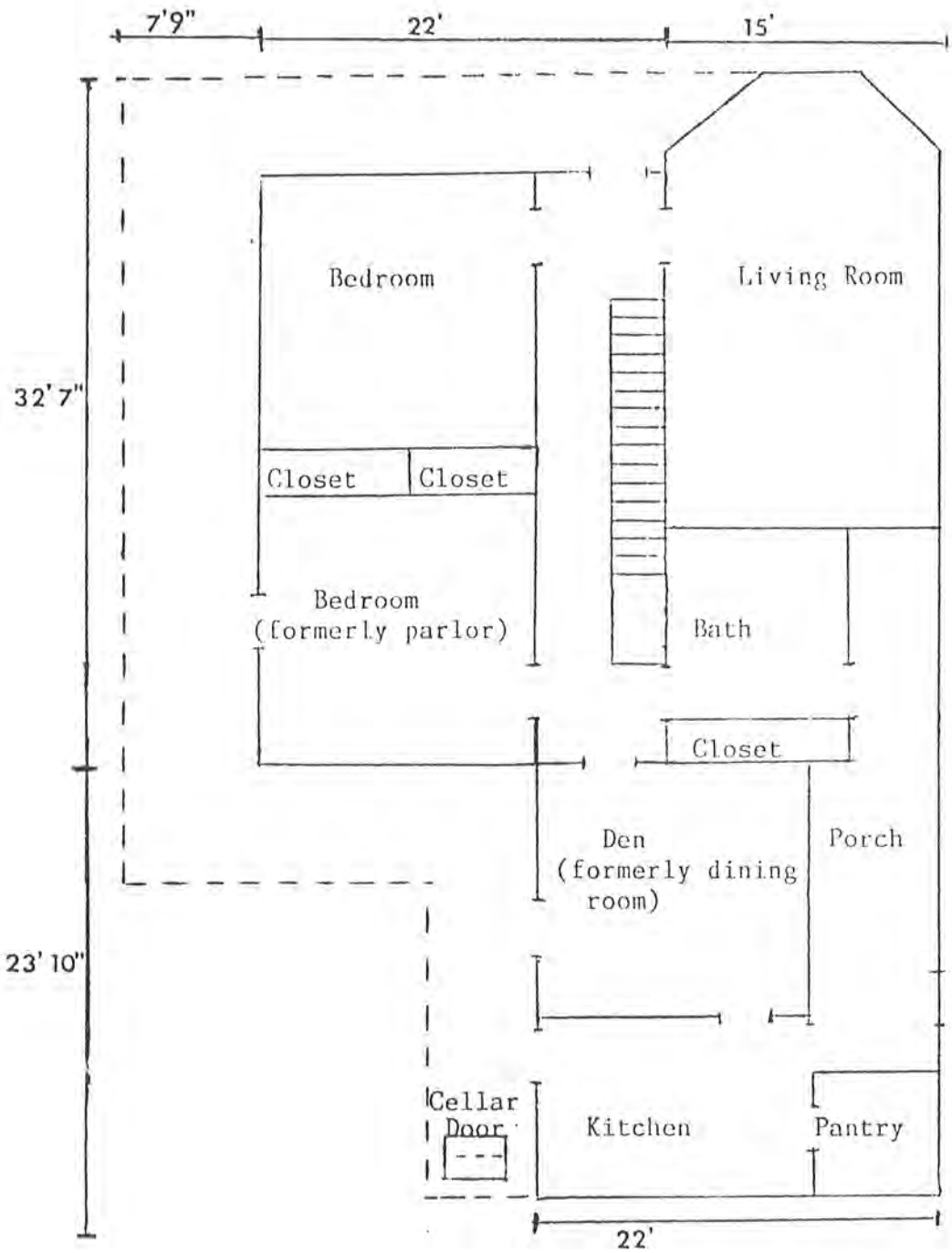
Attest: date

Chief of Registration

drawn upon the historic (and current) property lines as they had evolved by 1893; boundaries are shown on attached maps.

WILLIAMSON/SHANNON HOUSE

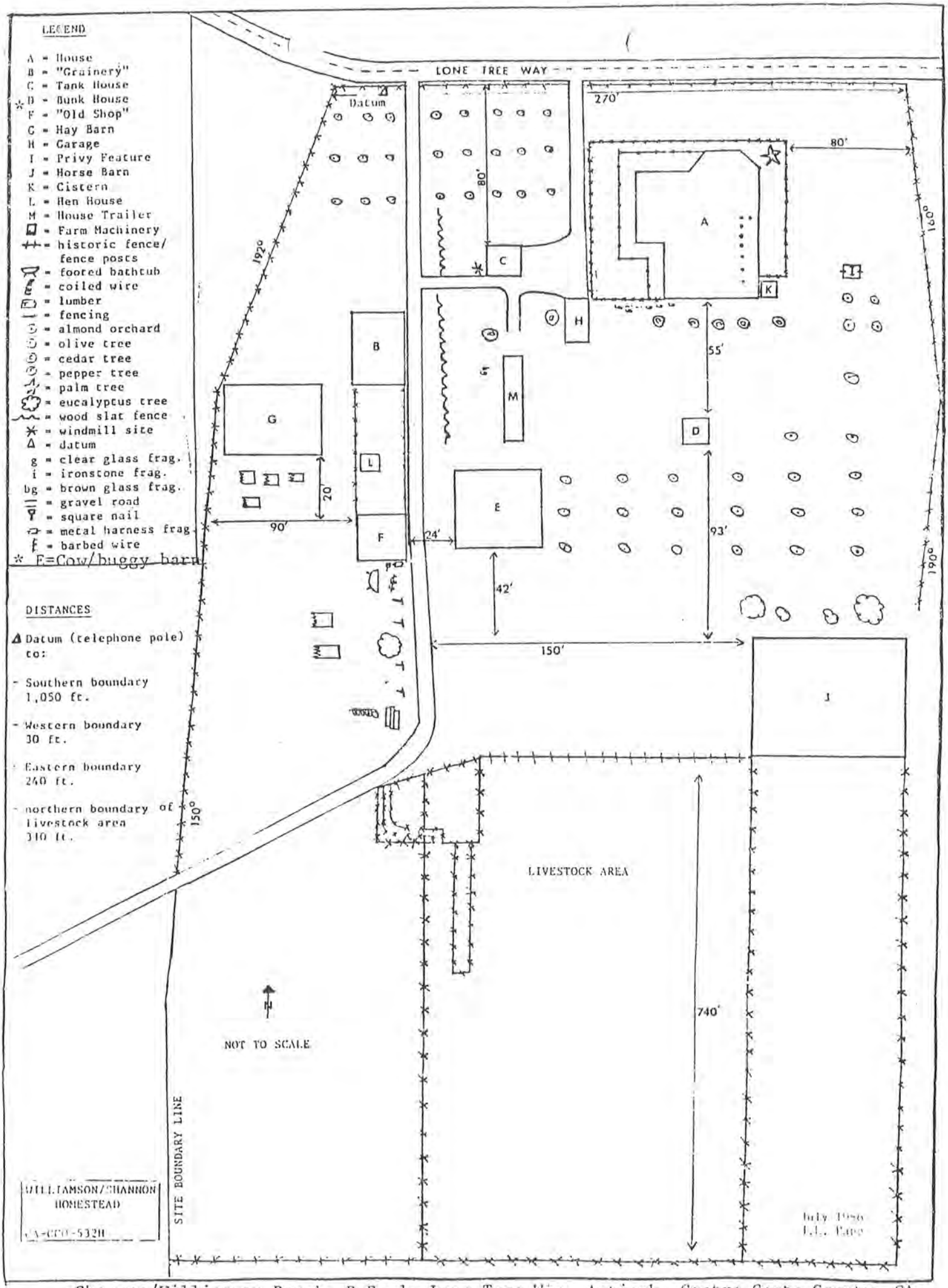
First Floor



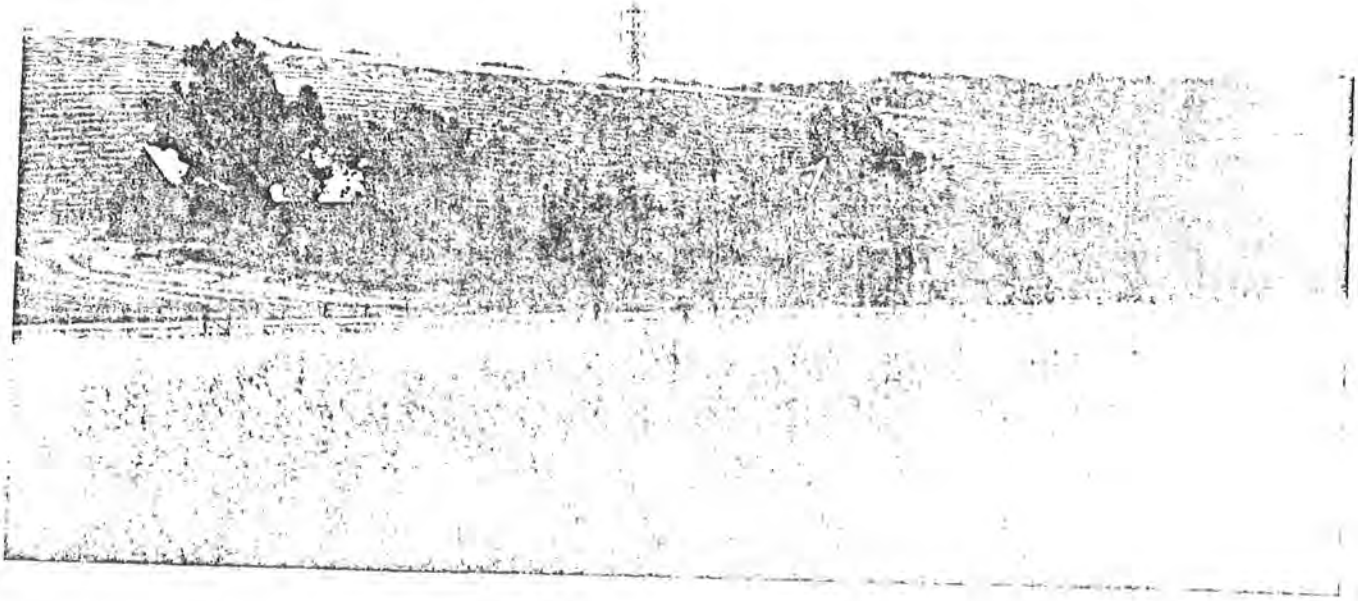
Scale: 1 cm = 1 ft.

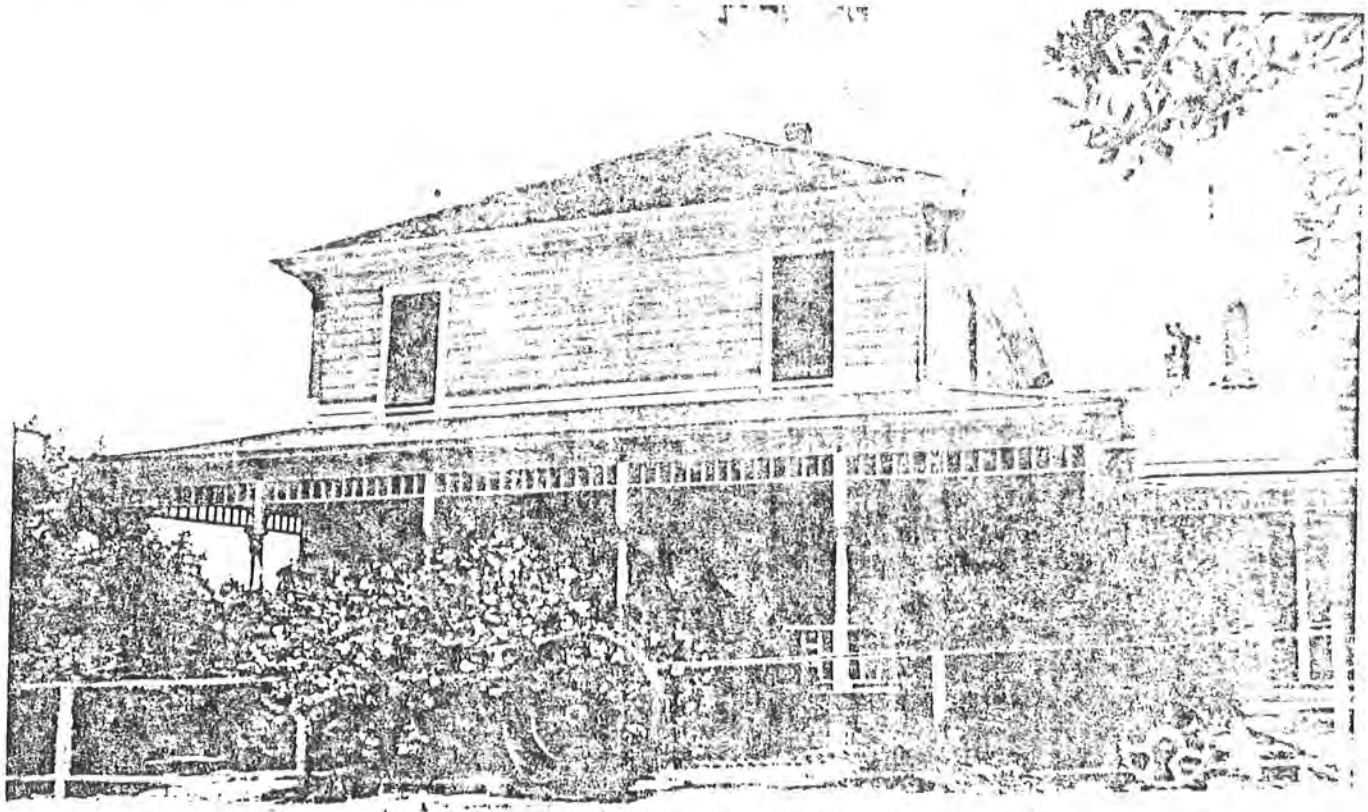
SHANNON RANCH/WILLIAMSON RANCH
R.R. 1, Lone Tree Way
Antioch, Contra Costa County, CA

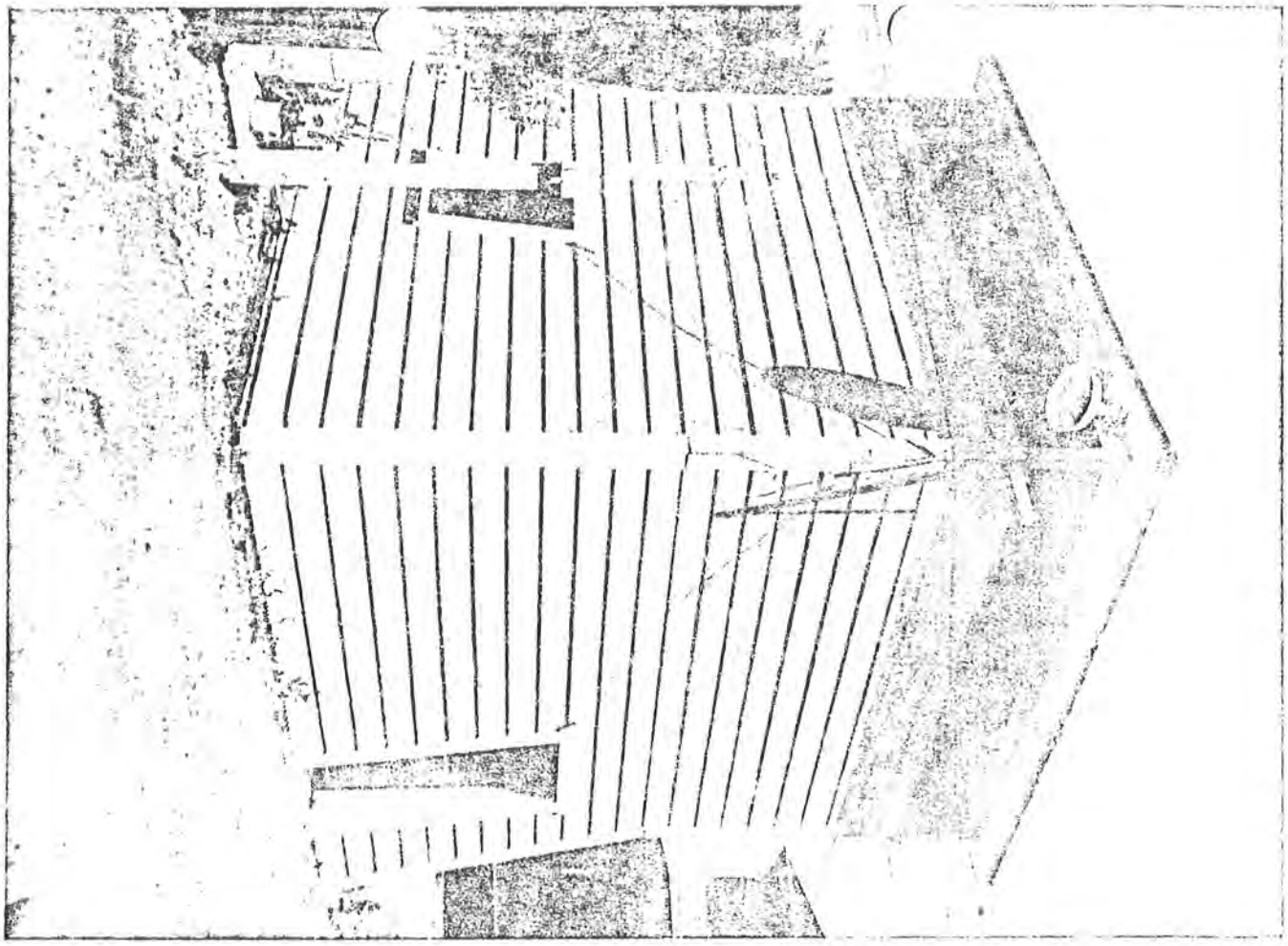
House floorplan

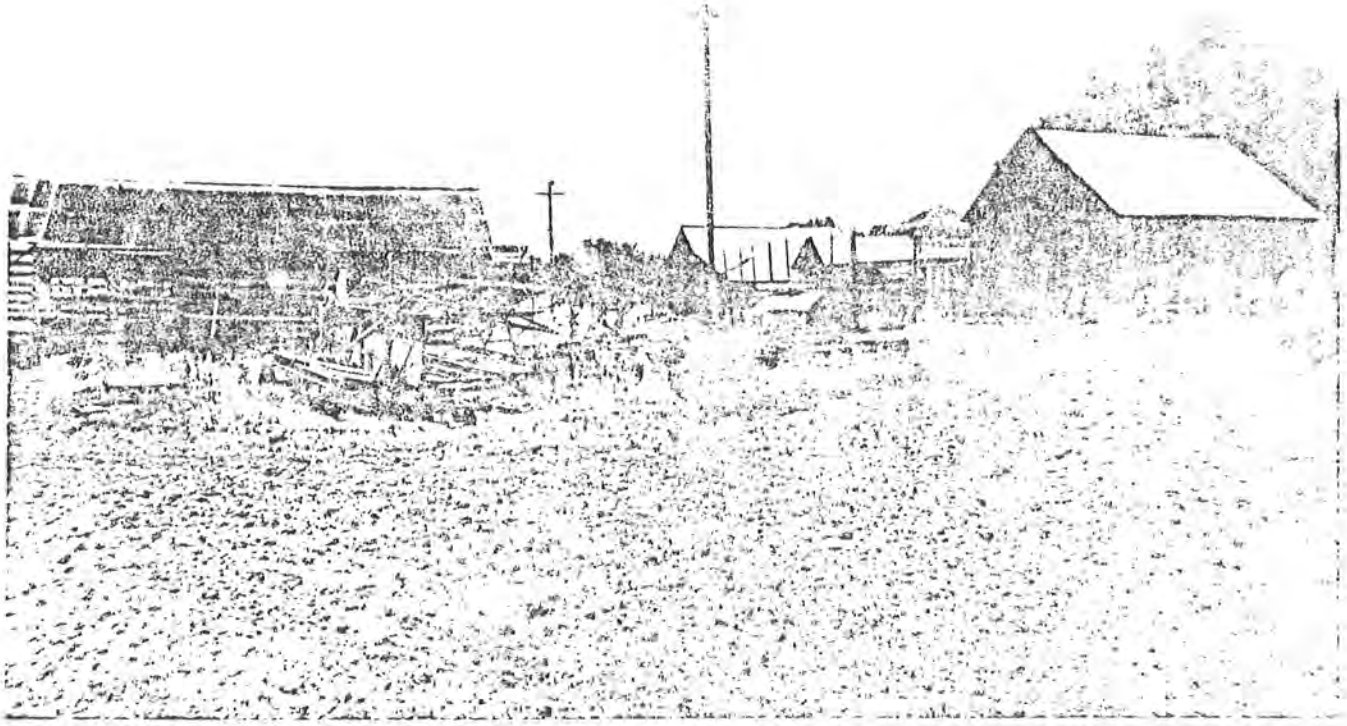


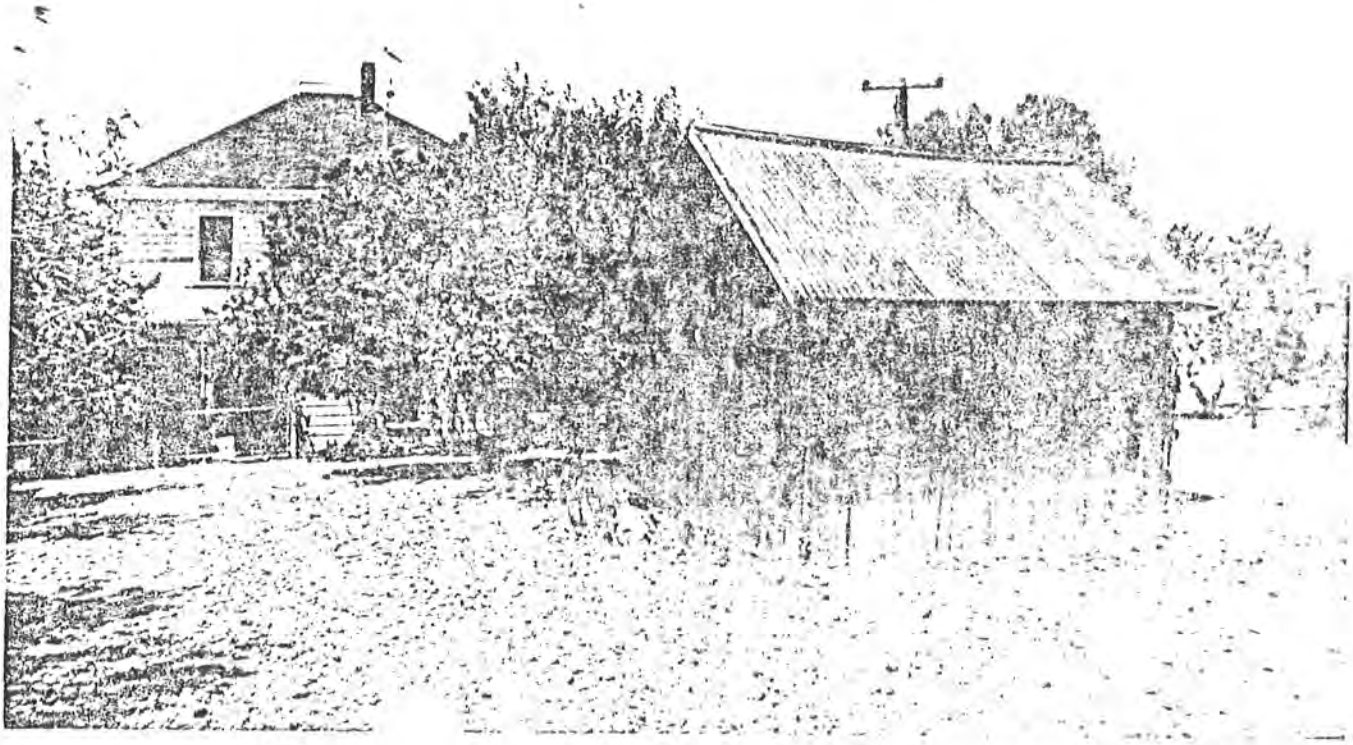
Shannon/Williamson Ranch, R.R. 1, Lone Tree Way, Antioch, Contra Costa County, CA
Sketch map, not to scale

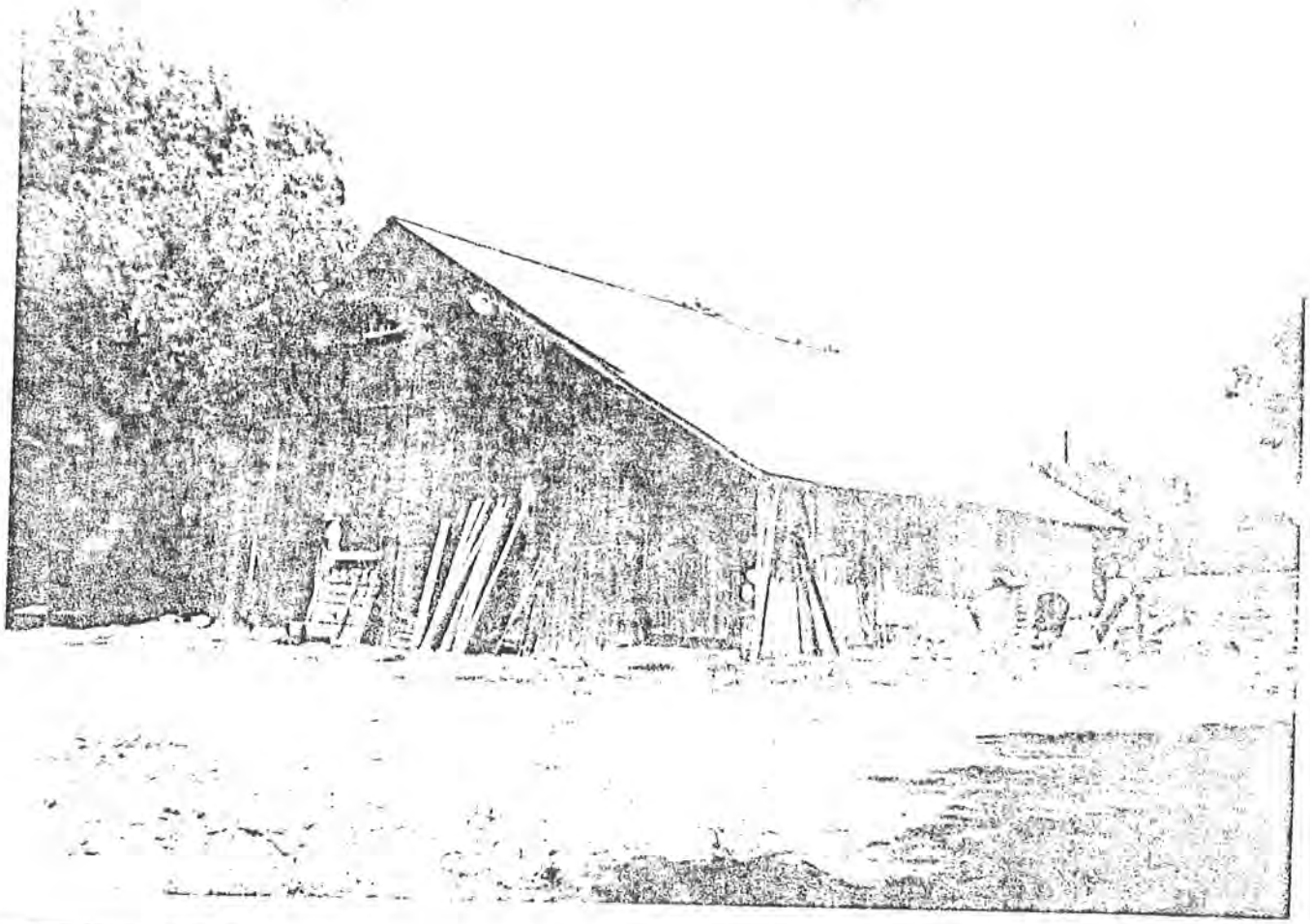


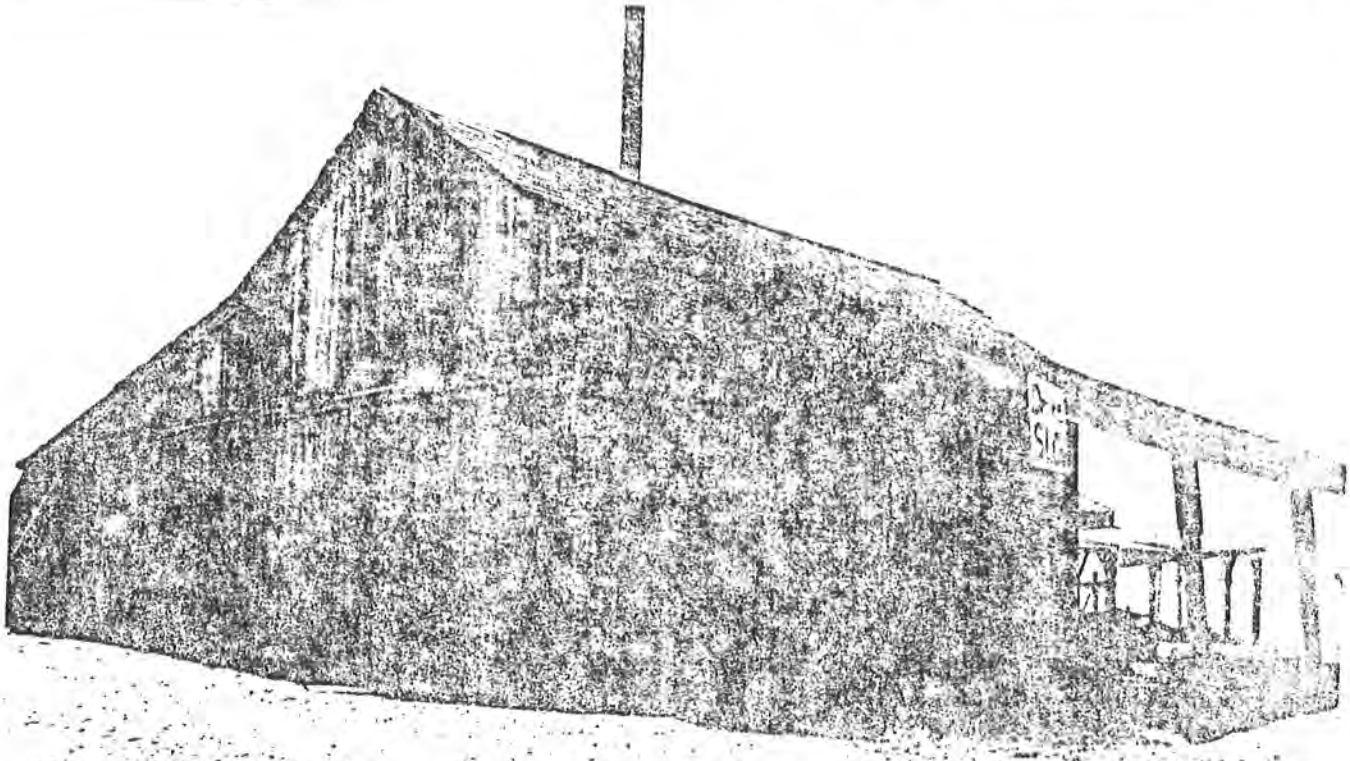


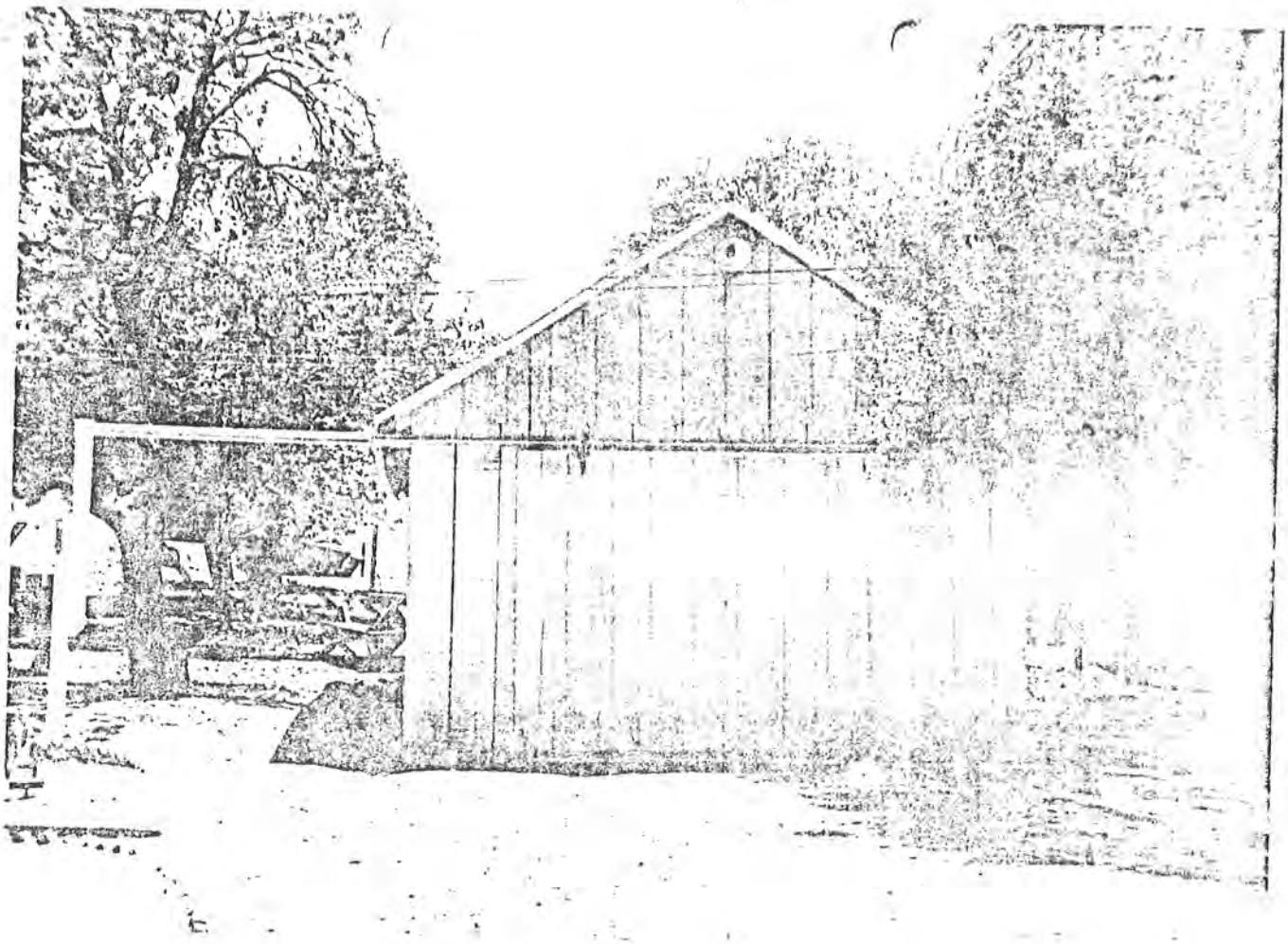


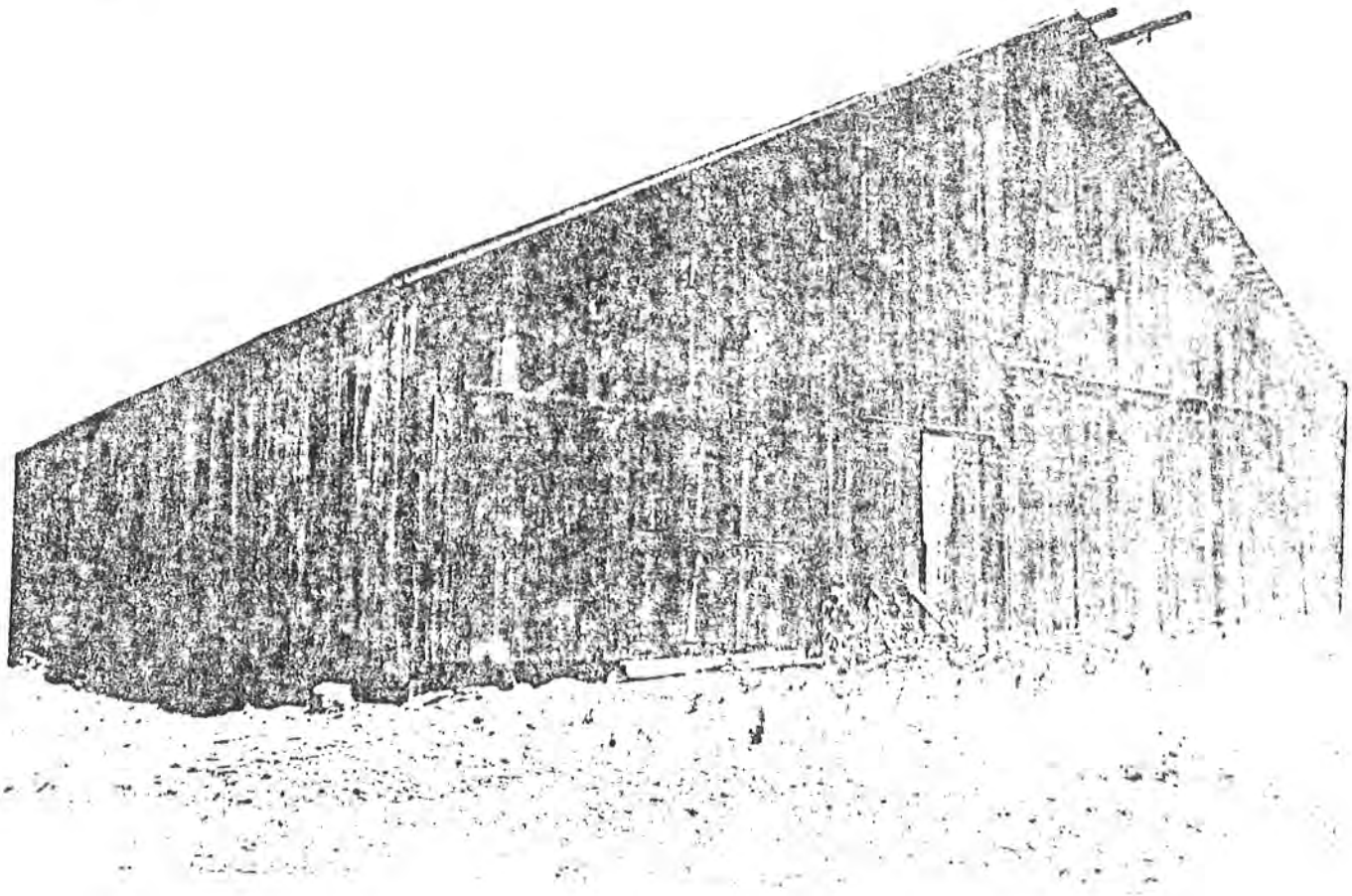


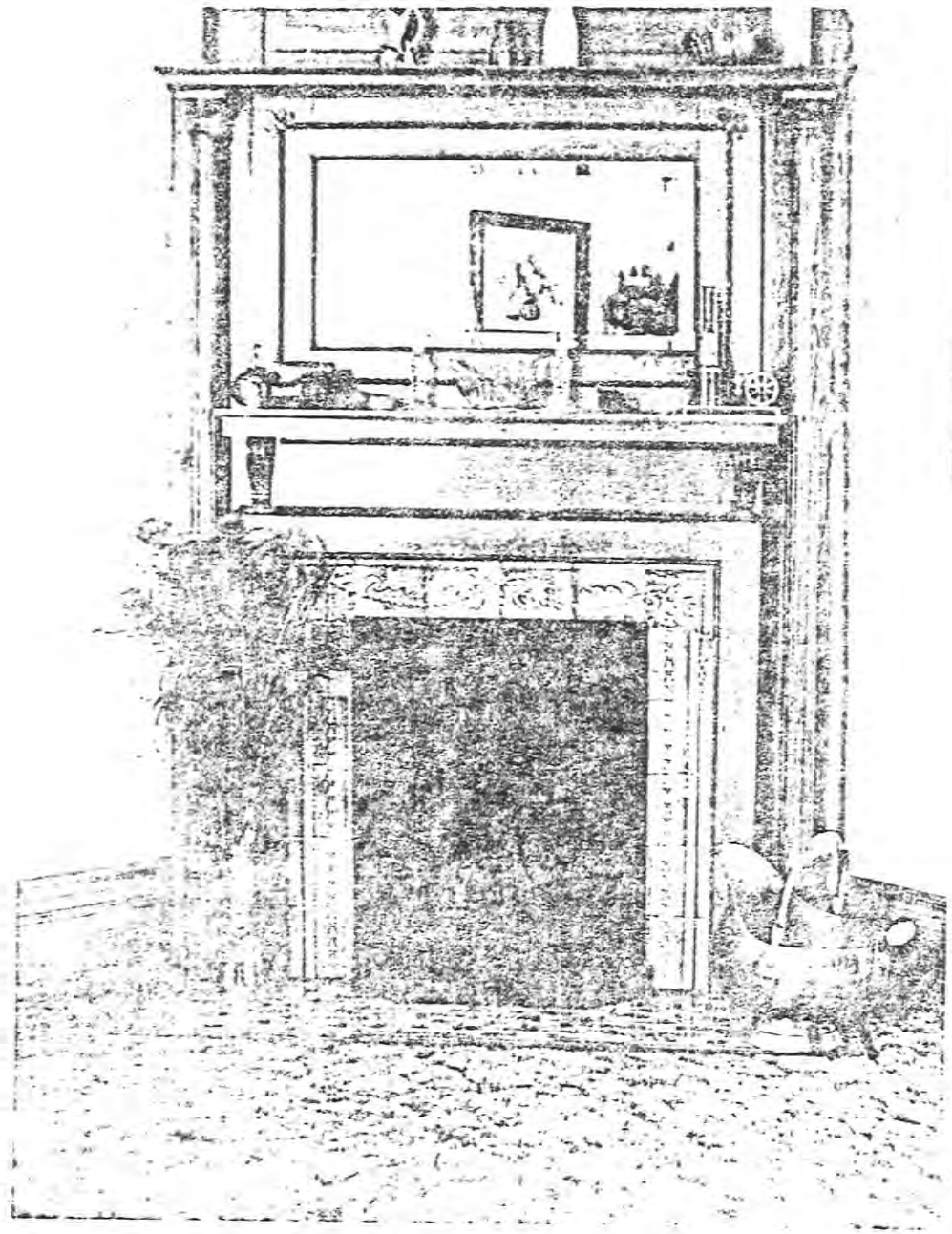


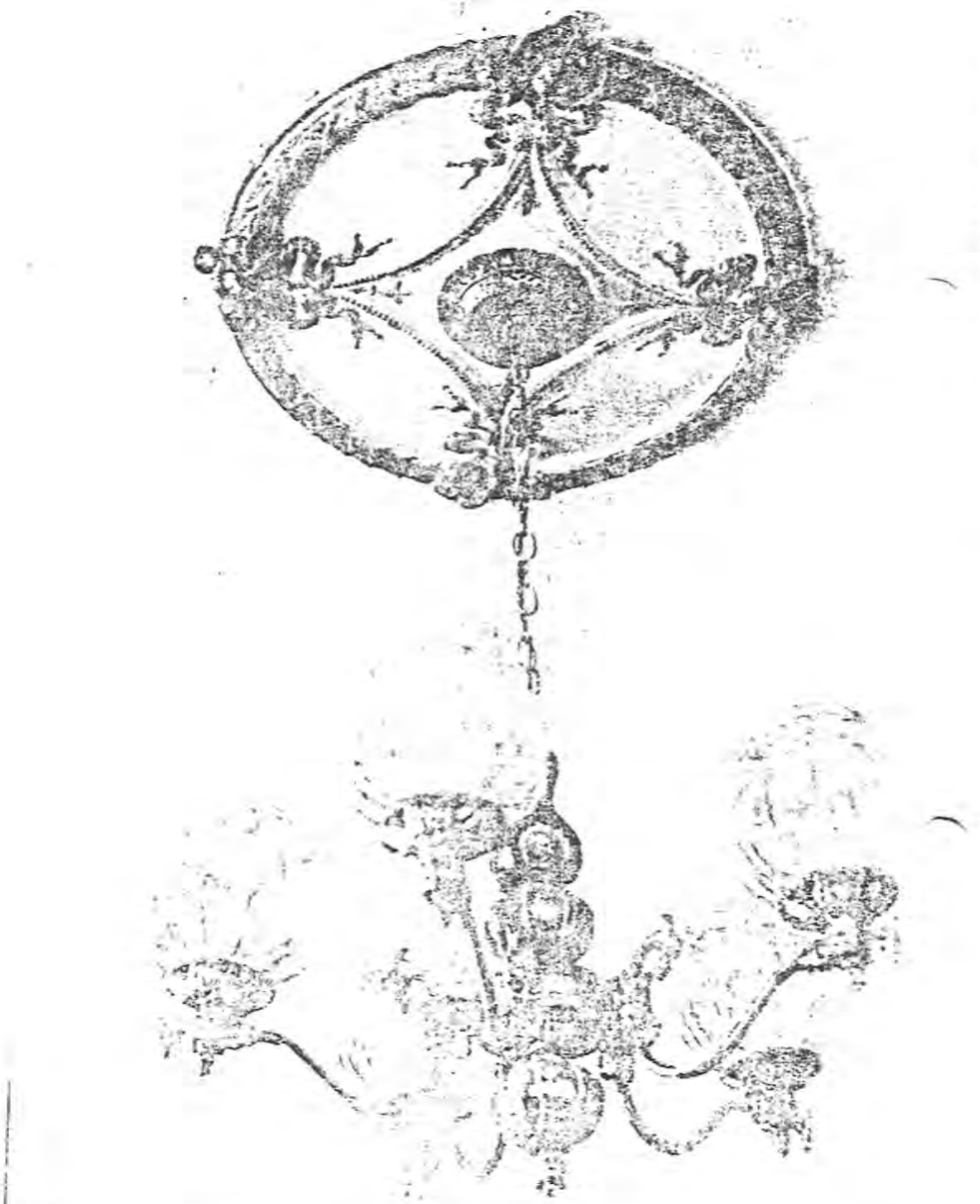


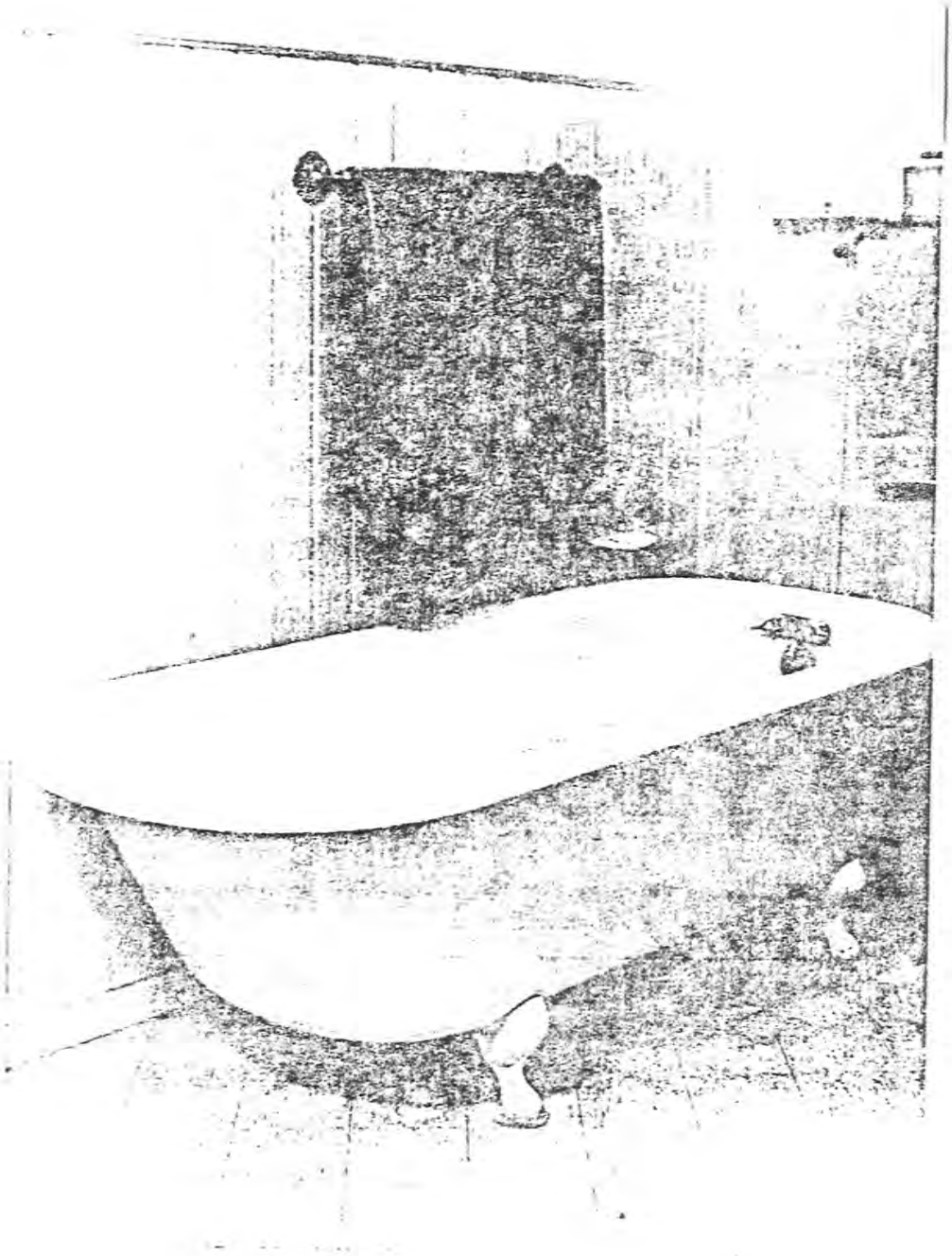


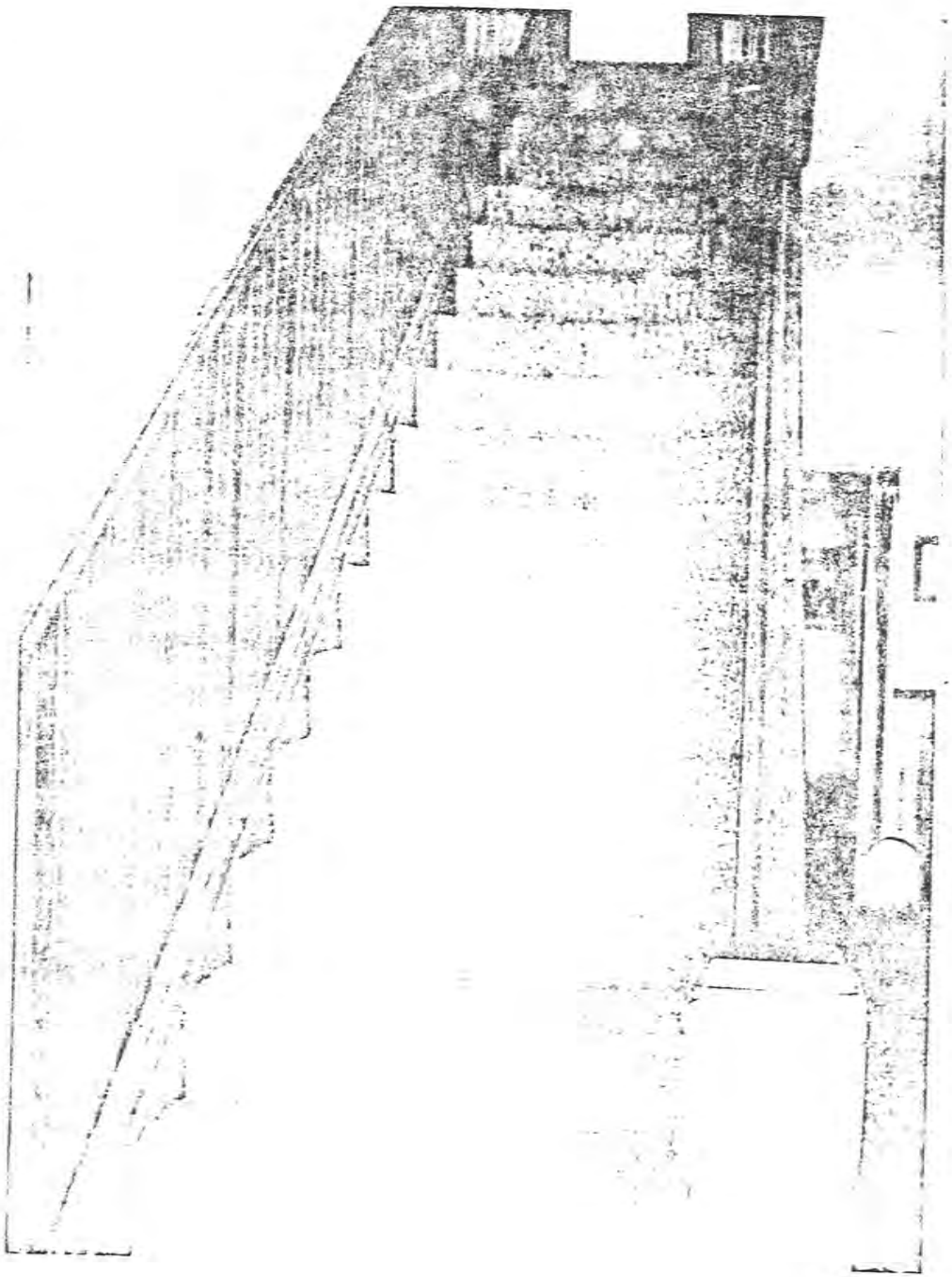










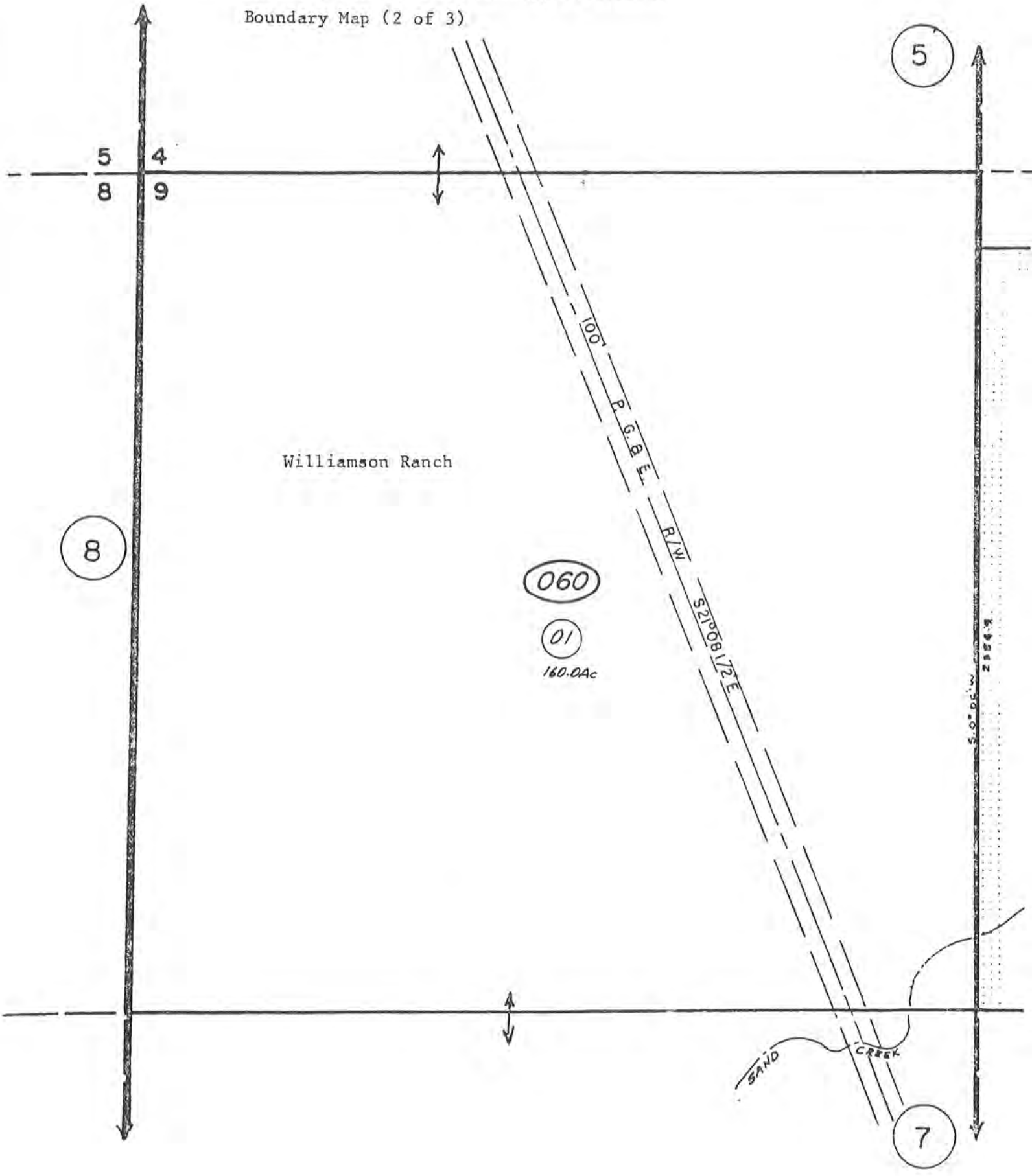


SHANNON RANCH/WILLIAMSON RANCH
R.R. 1, Lone Tree Way
Antioch, Contra Cost County, California

Boundary Map (1 of 3)

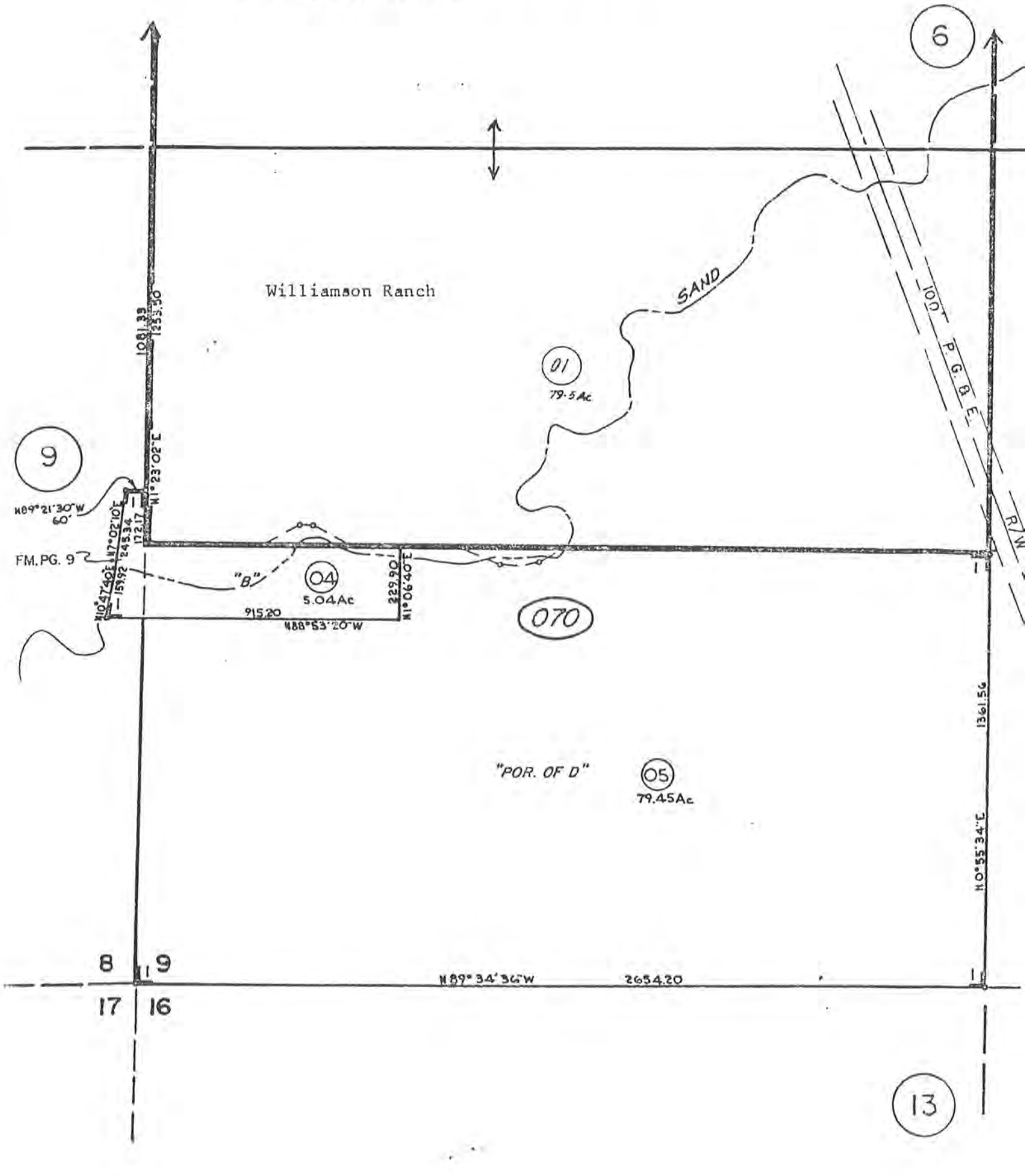
SHANNON . .NCH/WILLIAMSON RANCH
R.R. 1, Lone Tree Way
Antioch, Contra Costa County, California

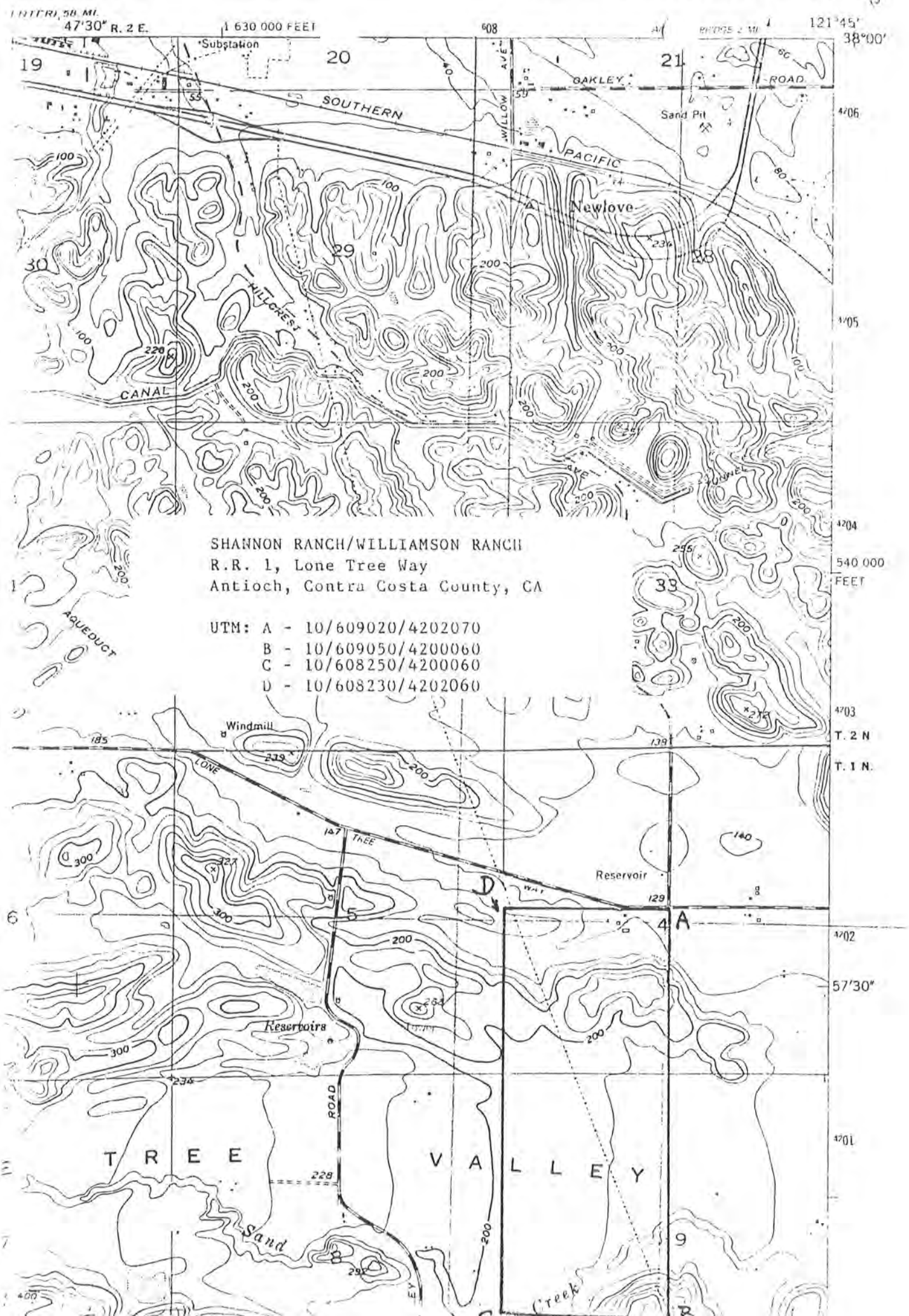
Boundary Map (2 of 3)



SHANNON RANCH/WILLIAMSON RANCH
R.R. 1, Lone Tree Way
Antioch, Contra Costa County, California

Boundary Map (3 of 3)




47'30" R. 2 E.
1 630 000 FEET
121°45'
38°00'
Substation
SOUTHERN PACIFIC
OAKLEY ROAD
Sand Pit
Newlove
WILLOW AVE
WILLOW ST
CANAL
AQUEDUCT
Windmill
LONE TREE WAY
Reservoir
Reservoirs
TREE VALLEY
SAND CREEK
4206
4205
4204
540 000 FEET
4203
T. 2 N
T. 1 N.
4202
57'30"
4201
SHANNON RANCH/WILLIAMSON RANCH
R.R. 1, Lone Tree Way
Antioch, Contra Costa County, CA
UTM: A - 10/609020/4202070
B - 10/609050/4200060
C - 10/608250/4200060
D - 10/608230/4202060

1. NAME: Williamson/Shannon Ranch
2. ADDRESS: R.R.1, Lone Tree Way
   Box 1115, Antioch, CA 94509
   Contra Costa County
3. PHOTOGRAPHER: Janet Pape
4. DATE: 11 May 1986
5. LOCATION OF NEGATIVE:
   Janet Pape, 1672 Oxford Street,
   Berkeley, CA 94709
6. DESCRIPTION OF VIEW: Facing south.
   North facade of house showing dormer,
   widow's walk, pediment over front entry,
   octagonal bay and spindlework; palm tree.
7. NUMBER: ~~01/10~~ 3 of 17

RECEIVED 2 8 APR 1986

HISTORIC ARCHAEOLOGICAL SITE RECORD

P-07-000303

SITE NAME: Williamson/Shannon Homestead **SITE NO:** CA-CCO-532H

1. **USGS** Antioch South, CA (464A) **YR:** 1953 **Photorevised:** 1980

2. **Landgrant:** No

3. **TWP** 1N **RANGE** 2E NW 1/4 of NE 1/4 of SW 1/4 of -- 1/4 **Section** 4

4. **UTM Coordinates** (608760E, 4292999 N) 608780E 4201970N **5. Contour: Hi** 138' **Low** 129'

6. **Address** Rural Route 1 (On Lone Tree Way, between Deer Valley Rd. & Hillcrest Rd)

7. **Site Location** Antioch, CA, Contra Costa County. Hiway 4 to Hillcrest exit. Turn left on to Hillcrest to Lone Tree Way. Turn right and go approx. 500 ft. Site is south of Lone Tree Way, with fencing bordering on the three remaining sides.

8. **Historic Name, if known:** Shannon farm/ranch

9. **Present Owner(s):** Donald A. Williamson, Shirley Williamson (siblings)

Address: Rural Route 1, P.O. Box 1115

Ownership is: **Public** _____ **Private** XX

9. **Present Use** Ranching **Original Use** Farming/Ranching

10. **Site Description** Approximate 6-acre 19th century farm complex containing a house, tank house, horse barn, cow barn, "old shop" barn, "grainery", chicken house, bunk house, and a 20th century garage. A cistern with a gabezo type shelter over it, is situated at the SE corner of the east side of the house. 19th & 20th century farm machinery and equipment lay about the complex and inside the barns. One feature, an approx. 4'sq. area where the privy was once situated, is located ap. 40' eastof the east house entrance. Livestock pens are situated south and west of the horse barn. Original cabin burned down in c1893 where new house is now situated. Family lived in "grainery" structure during the house reconstruction. The area south of the barns and north of the livestock pens has lumber, coiled wire, tires and other farm appurtenances lying about.

11. **Apparent Significance of Site** The farm complex has been inhabited since 1869 by a single family. Structures have retained their historical integrity of workmanship design, location, and feeling of a 19th century homestead.

12. **Theme:** **Architecture** ___ **Arts & Leisure** ___ **Economic/Industrial** X

Exploration/Settlement ___ **Government** ___ **Military** ___ **Religion** ___

Social/Education ___

S-10413 S-7983

Site No. CA-CCO-532H

13. Dominant Vegetation Miner's lettuce, wild oats, mustard, almond orchard, eucalyptus trees and a cedar, palm, olive & pepper tree. Decorative shrubs surround the house and tank house.

14. Nearest Water: Distance 1 mi. Direction due south

Nature of Water Source Sand Creek which joins Marsh Creek approx. 3 mi. east

Other sources Contra Loma and Antioch Reservoirs to the southeast

15. Exposure to Prevailing Wind Northwest

16. Erosion None visible

17. Disturbance and/or Modifications None visible

18. Dimensions of Entire Site 270' x 1050'

Area of Entire Site 6+ acres. Method used to determine extent of site and individual features Pacing and tape measure

19. Features and/or Major Elements of Site (Keyed to Map)

A. Description House: two story with cellar; Italinate design with hip roof and bracketts at corners. South one-story section built c1895. North section built c1898. Open porch on north and west sides, enclosed porch on east side. Brick column foundation. Dimensions 61' x 66'5"

B. Description Grainery: Stone foundation, overhang on north side. Structure floor is elevated 3 ft'. Stove pipe hole in east wall.

Dimensions 24'2" x 32'8"

C. Description Tank house . Open wood criss-cross design near roof. A windmill was once situated on the west side of the tank house as evidenced by early photographs. Dimensions 16' 6" x 16' 6"

Site No. CA-CCO-532H

D. Description Bunk house: Wood structure with window on east side and door on west side. Floor is elevated approx. 2 ft. Used as storage area.

Dimensions 12'4" x 12'

Additional Notes on Features (See reverse side of sheet)

Fence posts south of "old shop" and running adjacent to the west side of the roadway are circa 1870. Fence c1870, runs E-W on west side of horse barn part of livestock pen. All structures are constructed of wood. All the barns, chicken house and bunk house have tin roofs; house & tank house have shingle roof.

20. Artifactual Remains: Ceramics White ironstone, 5 fragments

Glass clear, curved bottle glass , 3 fragments

clear window glass, 2 fragments , brown bottle glass, neck frag.-modern

Metal Square nails, harness fragments, two-strand, galvanized plate barbed wire.

Other Nine mortars and pestles are located on the west side of the house.

Bone and/or Shell None

21. Estimated Dates of Occupation Based on Artifacts 1870-1986

22. Occupation Dates Based on Published Sources, Oral Interviews, etc.

Homestead deed dated 1869; 1870, 1880, 1900 census. Assessment lists 1874-1881 Book of Deeds 1881-1906. Family documents.

23. Primary Building Material: Adobe____ Wood XX/ all structures Stone____ Brick____

Stucco____ Other____

24. Is Structure on Original Site: Moved____ Unknown____

All structures are on original site except for hay barn which was moved onto the property in early 1920's, and the garage which was moved from the north side of the tank house adjacent to the road to the west side of the house.

19. con't

E. Cow/Buggy Barn: Wood with a ground level and hip line hay doors on west side. Structure used for storage of farm equipment.
Dimensions: 40' x 35'3"

F. "Old Shop" barn: Wood with door on east side. Used presently for storage; used historically as a machine repair shop.
Dimensions: 22.5' x 20'5"

G. Hay Barn: Open wood slat construction. Moved from the Fitzpatrick property north of site across Lone Tree Way in early 1920's as stated by Donald Williamson. Used presently to store combine and other farm machinery.
Dimensions: 45'3" x 31'8"

H. Garage: Built in early 1920's, wood, shingle roof. Dimensions: 14'.5" x 20'.5"

I. Feature: Depressed area approximately 4'x 4' 40ft east of east house entrance.

J. Horse Barn: Wood structure with a door at ground level and hip level on west side. Small window size openings which have been boarded up run the length of the north side of the barn.
Dimensions: 70'7" x 56'

K. Cistern: Four posted at corners, with gabezo type roof.
Dimensions: 8'2" x 8'4"

L. Hen house: Wood structure , approximately 4' x 6'

Site No. CA-CCO-532H

25. Elements or Features related to site but outside site as delimited:

The complex is surrounded by open space. Complex is a portion of a 440 acre farm, 40 acres to the north across Lone Tree Way and 400 acres south of Lone Tree W

26. Current Landmark Status: Existing: None

Recommended: National Register of Historic Places

27. Previous Survey, Excavation, or Reference: None

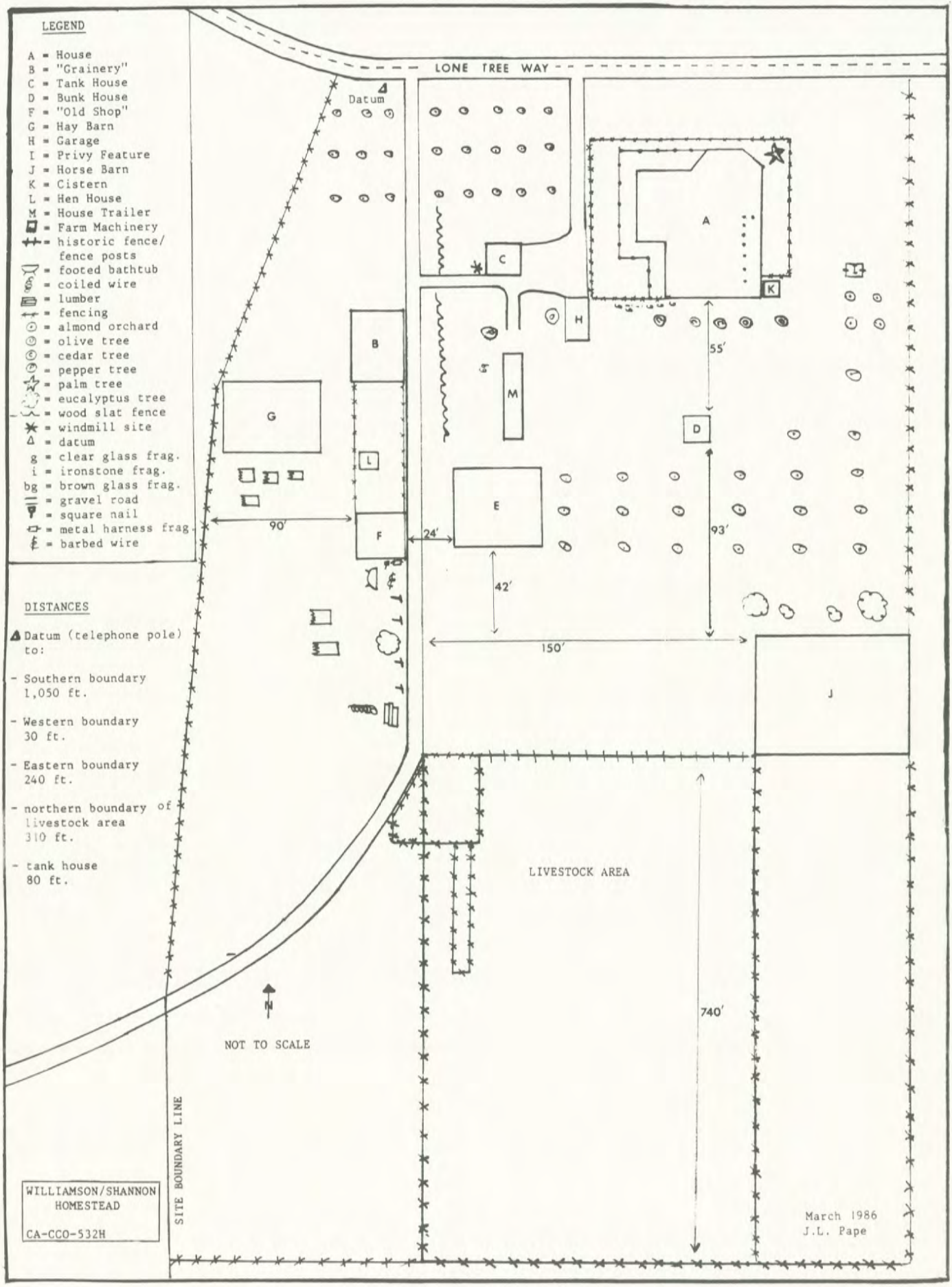
28. Photographs: Number 13 B/W ____ Color X Slides ____

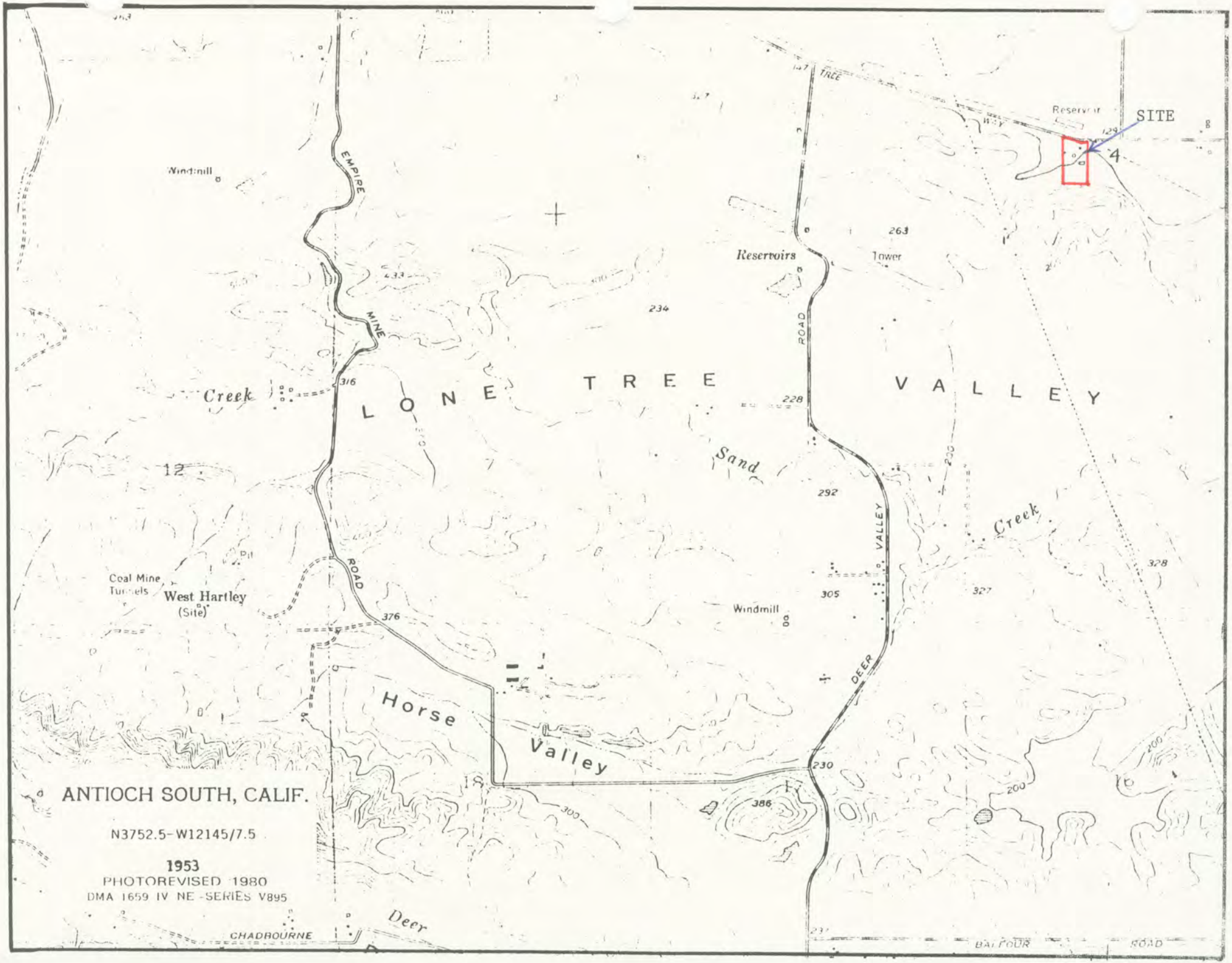
By Janet Pape & Donald Williamson

29.

Comments: The mortars and pestles located on the west side of the house were discovered throughout the years on the 440 acres, primarily while plowing, as related to me by Donald Williamson.

Recorded by: Janet L. Pape Date March 29, 1986


LEGEND
A = House
B = "Grainery"
C = Tank House
D = Bunk House
F = "Old Shop"
G = Hay Barn
H = Garage
I = Privy Feature
J = Horse Barn
K = Cistern
L = Hen House
M = House Trailer
= Farm Machinery
= historic fence/ fence posts
= footed bathtub
= coiled wire
= lumber
= fencing
= almond orchard
= olive tree
= cedar tree
= pepper tree
= palm tree
= eucalyptus tree
= wood slat fence
= windmill site
= datum
g = clear glass frag.
i = ironstone frag.
bg = brown glass frag.
= gravel road
= square nail
= metal harness frag.
= barbed wire
DISTANCES
Datum (telephone pole) to:
- Southern boundary 1,050 ft.
- Western boundary 30 ft.
- Eastern boundary 240 ft.
- northern boundary of livestock area 310 ft.
- tank house 80 ft.
LONE TREE WAY
Datum
A
B
C
D
E
F
G
H
I
J
K
L
M
55'
90'
24'
42'
93'
150'
740'
LIVESTOCK AREA
N
NOT TO SCALE
SITE BOUNDARY LINE
WILLIAMSON/SHANNON HOMESTEAD
CA-CCO-532H
March 1986
J.L. Pape


SITE
4
Reservoir
Windmill
EMPIRE MINE ROAD
Reservoirs
Tower
263
234
316
Creek
LONE TREE VALLEY
228
Sand
292
12
Pit
Coal Mine Tunnels
West Hartley (Site)
ROAD
376
Windmill
305
VALLEY
Creek
328
327
DEER
Horse Valley
230
386
18
ANTIOCH SOUTH, CALIF.
N3752.5-W12145/7.5
1953
PHOTOREVISED 1980
DMA 1659 IV NE-SERIES V895
CHADBOURNE
Deer
BALFOUR ROAD

Looking east

Barn & outbuildings on Don Williamson

2/23/86

P-07-000303 / CA-CCO-532/H
PHOTOS BY JANET PAPE (MARCH 1986)

CA-CCO-532H

Looking north

Outbuildings on Don Williamson estate

2/23/86

FEB 1986

Looking east
Home of Don Williamson
Antioch, CA
2/23/86

1986 FEB 1986

P-07-000303 / CA-CCO-532/H
PHOTOS BY JANET PAPE (MARCH 1986)

Looking NW
Outbuilding - "Granary"
Don Williamson estate

CA-CCO-532 H

FEB 1986

CA-CCO-532H

North side of house
Don Williamson home
Antioch, CA

FEB 1986

2/23/86

P-07-000303 / CA-CCO-532/H
PHOTOS BY JANET PAPE (MARCH 1986)

CA-CCO-532H

West side of house
Don Williamson at his home, Antioch, CA
2/23/86

FEB 1986

P-07-000303

P-07-000303

Appendix C DPR-523 SERIES FORMS

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6Z

Other Listings
Review Code | Reviewer | Date

Page 1 of 17 *Resource Name or #: (Assigned by recorder) 5200 Lone Tree Way
P1. Other Identifier:

*P2. Location: ☐ Not for Publication ☒ Unrestricted
*a. County Contra Costa County and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
*b. USGS 7.5' Quad Antioch South Date 2018 T 1N ; R 2E ; SE¼ of NW¼ of Sec 04 ; Mount Diablo B.M.
c. Address 5200 Lone Tree Way City Antioch Zip 93526
d. UTM: (Give more than one for large and/or linear resources) Zone __, _____ mE/ _____ mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)
Assessor Parcel Number (APN): 056-270-059

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

See District Record for detailed description.

*P3b. Resource Attributes: (List attributes and codes) HP33. Farm/Ranch
*P4.Resources Present: ☐ Building ☐ Structure ☐ Object ☐ Site ☒ District ☐ Element of District ☐ Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo: (view, date, accession #) View of 5200 Lone Tree Way looking SE, 7/19/2021

*P6. Date Constructed/Age and Source: ☒ Historic ☐ Prehistoric ☐ Both
1926; Contra County Assessor's Office

*P7. Owner and Address:
Jorge F. Vargas
4300 Delta Fair Blvd
Antioch, CA 94509

*P8. Recorded by: (Name, affiliation, and address)
Emily Rinaldi and Rebecca Riggs
Stantec Consulting Services, Inc.
801 S. Figueroa St, Suite 300
Los Angeles, CA 90017

*P9. Date Recorded: 7/14/2021

*P10. Survey Type: (Describe)
Intensive Survey

*P11. Report Citation: (Cite survey report and other sources, or enter "none.")
Emily Rinaldi, Stantec Consulting Services Inc., "Historic Resource Evaluation Report for the 5200 Lone Tree Way United Pacific Gas Station Project," August 2021

*Attachments: ☐ NONE ☐ Location Map ☒Continuation Sheet ☐ Building, Structure, and Object Record
☐ Archaeological Record ☒District Record ☐ Linear Feature Record ☐Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

*D3. Detailed Description (Discuss overall coherence of the district, its setting, visual characteristics, and minor features. List all elements of district.):

5200 Lone Tree Way is a former agricultural property located in the City of Antioch. The district includes one legal parcel approximately two acres in size that is associated with the assessor parcel number (APN) 056-270-059. It is bordered by Lone Tree Way on the north, Vista Grande Drive to the east, two single-family residential properties located at 5002–5003 Hollowglen to the south, and three single-family residential properties located at 5115–5123 Plumwood Way to the west. Lone Tree Way is a major arterial street providing regional access throughout southeast Antioch. It is six lanes wide with a center median and traffic traveling in an east-west direction. Vista Grande Drive is two lanes wide with a center median and traffic traveling in a north-south direction. The topography of the Project site and immediate vicinity is relatively flat. Surrounding land uses include commercial development such as restaurants, retail shops, and offices as well as residential development such as single-family and multi-family residences. Adjacent buildings are generally low scale, ranging from one to two stories in height.

The property is accessed via a main driveway on Lone Tree Way. The driveway is paved with asphalt and extends south from the north property boundary to a gravel paved surface parking area at the south end of the parcel. A portion of the rear surface parking area at the southwest corner of the parcel is surrounded by a chain-link fence. A concrete block curb borders the north boundary to the east and west of the driveway. A second driveway paved with concrete is located near the south end of the parcel on Vista Grande Drive. A half-height chain link fence with a sliding gate at the secondary driveway is located along the east property boundary. Landscaping primarily consists of mature trees, shrubs, and a grassy lawn.

There are six buildings located on the parcel, a single-family residence, two barns, two sheds, and a tank house. The residence is setback from the north property boundary to the west of the driveway, while the tank house is slightly setback from the north boundary to the east of the driveway. One barn, referred to for the purposes of this evaluation as the north barn, is located immediately to the southeast of the tank house. It has been previously converted into a garage. The second barn, referred to here as the south barn, is located further to the southwest near the east property boundary. Two sheds are also located on the property to the south of the north barn. For additional descriptive information regarding these buildings, please see the attached DPR 523 A (Primary Record) forms. Primary Record forms were prepared for the six buildings within the district boundary.

Based upon a review of aerial photographs, the property appears to have changed little between 1939 and 1982. Visible alterations to the property primarily included changes to the vegetation between the 1939, 1958, and 1965 aerials, such as the addition of an orchard to the east of the residence along Lone Tree Way and the removal and replacement of trees. The exact date of construction of the sheds is unknown, although they appear on the 1965 aerial. An aerial from 1993 shows that the orchard was been removed as well as many of the mature trees throughout the property. By 2002, Lone Tree Way was widened and the surrounding subdivision, Meadow Springs Village, was constructed.

There are only four building permits on file with the City of Antioch. One permit was for erecting a chain link fence in 2000. The remainder were for connecting the property to city utilities between 1996–1998. Numerous alterations to the individual buildings and structures on the property were noted in the field. The residence appears to be stripped entirely of any decorative features or ornament that may have been part of its original design. Its original cladding has been removed and replaced with stucco, the roofing material replaced, and all of its door and window sashes replaced. A former window opening at the center of the street-facing (north) elevation has been resized into a paired door opening. The entrance to the north barn has been reconfigured into three garage door openings. The original cladding and roofing materials also

appear to be replaced. The roof material at the south barn has been replaced. Finally, the tank house appears to be missing its windmill, which is typically used in the operation of tank houses.[1]

History of East Contra Costa County, 1850–1920

The Gold Rush incited a mass migration of over 300,000 people to California between 1848 and 1854, quickly propelling the territory into statehood and transforming almost every aspect of its earlier character.[2] New immigrants soon settled throughout the state, including an influx European and European-Americans into present-day east Contra Costa County. Following California statehood, the U.S. Government began issuing federal land patents for the area. Records indicate that the U.S. Government issued over 40 patents for land surrounding the Project site between the late 1860s and 1870s.[3]

Many of the new settlers were farmers, and as a result, early growth in East Contra Costa County was in part fueled by agriculture dominated by crops such as wheat, barley, and hay. Contra Costa County and Lone Tree Valley, in particular, soon became a leading producer of barley, used primarily for animal feed as well as for making larger beer and ale.[4] By 1879, 12% of the state's barley was grown in the county. Beginning in 1859, the discovery of coal in the Black Diamond mine area south of present-day Pittsburg also fueled early growth.[5] Black Diamond soon become California's largest mining operation from which nearly four million tons of coal was removed.

Several small communities and towns were formed in East Contra Costa County during this period. One of the earliest was Antioch, founded in 1849 as Smith's Landing by twin brothers, Rev. William Wiggins Smith and Rev. Joseph Horton Smith.[6] The town was promptly renamed Antioch in 1851 after the biblical city of Antioch. The early townsite developed around a pier on the banks of the San Joaquin River near what was then known as Front Street and Main Street.[7] Besides Antioch, other towns in East Contra Costa County founded in the mid-19th century include those associated with the Black Diamond mines, such as Pittsburg, Nortonville, Somersville, Stewartville, West Hartley, and Judsonville.[8]

The completion of the San Pablo & Tulare line of the Central Pacific Railroad in 1878 and the Stockton line of the Santa Fe Railroad in 1898, brought further development to East Contra Costa County.[9] Communities, such as Brentwood, Byron, Knightsen, and Oakley, formed around stops along the railroads. Early businesses in these towns included mercantile shops, blacksmith shops, barber shops, saloons, and hotels. The arrival of the railroads also provided farmers with easier access to transportation and expanded the number of markets they could ship their crops to. This led to a diversification of the types of crops cultivated in the county to include fruit and nuts.

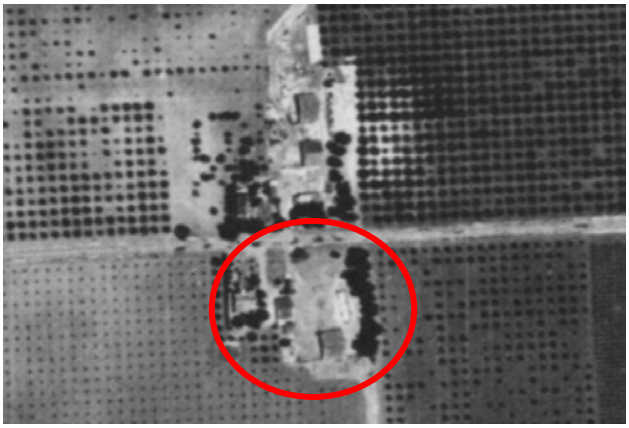
[1] Meg McConahey, "Rural Relics," *The Press Democrat*, November 3, 2011, accessed July 12, 2021, https://www.pressdemocrat.com/article/news/rural-relics/.
[2] "California Gold Rush," Britannica, accessed July 15, 2021, https://www.britannica.com/topic/California-Gold-Rush.
[3] Bureau of Land Management, "Land Patent Search," *General Land Office Record*, accessed July 15, 2021, https://glorecords.blm.gov/default.aspx.
[4] Janet L. Pape, "Shannon Ranch/Williamson Ranch," National Register of Historic Places Nomination Form, Antioch, California, January 29, 1987, sect. 8, pg. 2.
[5] "Black Diamond Mines Regional Preserve," East Bay Regional Park District, accessed July 15, 2021, https://www.ebparks.org/parks/black_diamond/default.htm#history.
[6] "Early Antioch," The Antioch Historical Museum, accessed July 15, 2021, https://www.antiochhistoricalmuseum.org/early-antioch.
[7] Sanborn Map Company, *Antioch*, 1884, Sheet 1.
[8] Adrian Praetzellis, "Black Diamond Mines," National Register of Historic Places Nomination Form, Antioch, California, Anthropological Studies Center, Sonoma State University, May 2, 1991, sect. 8, pg. 11.
[9] "Knightson," East Contra Costa County Historical Society, accessed July 15, 2021, https://eastcontracostahistory.org/our-communities/knightson/.

The last operating coal mines closed in East Contra Costa County in the 1900s; however, the local economy continued to diversity throughout the early 20th century.[10] Commercial sand mining soon replaced coal extraction beginning around 1910. Dairy grew to become a dominate industry in the area with Knightsen becoming the largest depot for shipping milk by the 1920s.[11] Finally, agricultural practices in the area changes with the establishment of irrigation districts that allowed for the cultivation of more water intensive crops such as almonds and grapes.

The farmers in the Lone Tree Valley had established a formal farming community and irrigation district by 1925.[12] The earliest aerial photograph of the area from 1939 shows scattered farms surrounded by uncultivated land. The parcels appear to have been formed by the United States rectangular land survey. Residences and farm buildings are typically clustered together near roadways and feature an allée or curved entry drive bordered by trees or orchards. These clusters are then surrounded by cultivated fields. Historic aerials illustrate that more of the undeveloped land was under cultivation by the mid-20th century; however, by the 1980s, some of the agricultural properties had been redeveloped with new residential, commercial, or industrial buildings. By the 1990s and 2000s, most of the agricultural properties in the area had been redeveloped, the majority with new suburban subdivisions.

History of Property

The date of construction for the buildings on the Project site is noted by the Contra Costa County Assessor's Office as 1926. The earliest available aerial photograph for the Project site is from 1939. It shows the residence and two barns in their current locations on the property and what appears to be the tankhouse, although it is not clearly depicted in the photograph (see **Photograph 1**). The area to the south of the Project site between present-day Hillcrest Avenue and Heidorn Ranch Road were under cultivation by that date. Across Lone Tree Way, there are what appear to be a residence and two barns that are no longer extant. It is not known whether these buildings on the north side of Lone Tree Way were historically associated with the Project site. The surrounding area on the north side of Lone Tree Way between present-day Hillcrest Avenue and Heidorn Ranch Road was also under cultivation by that date.



Photograph 1: 1939 aerial photograph with Project site circled in red (UCSB)

Building permits and ownership information from the date of construction are no longer on file with either the

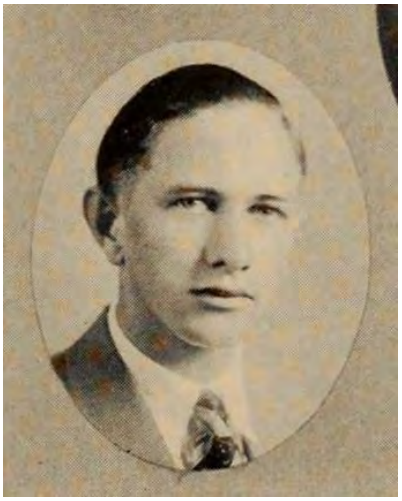
[10] Praetzellis, sect. 8, pg. 1.
[11] "Knightson," East Contra Costa County Historical Society.
[12] "Naval Day Celebration," *Mill Valley Record*, October 17, 1925.

City of Antioch or Contra Costa County; however, research indicates that the existing buildings on the Project site were likely constructed for owner Frederick H. Heidorn. Heidorn was the father of Frederick H. Heidron, Jr., who is documented in building permit records as owning the property in the 1990s. Census data dating from the late 1920s through the 1950s, newspaper articles, and other publicly available records such as draft cards indicate that the family resided on a farm located on Lone Tree Way. The current address of 5200 Lone Tree Way is not listed on any of these documents, which is likely because the property was not historically assigned a number address. Heirdorn, Jr.'s obituary notes that he grew up on his father's farm on Lone Tree Way and later inherited it from his father when he retired.[13]

Frederick Heidorn, Sr. was born in East Contra Costa County in 1872 (see **Photograph 2**). He married Mary Metten Heidorn (1882–1970) and had three children Frederick, Marie, and Ralph.[14] He is listed in census and voter registration records as a farmer and is noted in several newspaper articles from the 1920s for growing barley.[15] He is also noted as a trustee of the Lone Tree School District. Frederick Heidorn, Sr. passed away in 1954.[16]

Frederick Heidorn, Sr.'s father, Henry Heidorn, Sr., was an immigrant from Hanover, Germany who arrived in the United States in 1868, and later received a land patent in 1874 for land in East Contra Costa County located at the present-day interchange of State Route (SR) 160 and SR 4.[17] He was married to Charlotte Heidorn and had four children, Fred, Louisa, Kattie, and Minnie.[18] Henry Heidorn, Sr. was likely related to Christian Heidorn, who was another immigrant from Hanover, Germany who settled in East Contra Costa County around the same time. According to the 1880 census, Henry Heidorn, Sr. was a farmer who owned a 200-acre farm with 100 acres of wheat under cultivation as well as 3 dairy cows, 10 horses, and 100 chickens.[19]

Photograph 2: Frederick Heidorn, Sr., undated (Ancestry.com)



Photograph 3: Frederick Heidorn, Jr., 1928 (Ancestry.com)

[13] "Frederick Henry Heidorn, Jr.," *Contra Costa Times*, February 28, 2007.
[14] "Diablo Valley Boy Dies after Operation," *Oakland Tribune*, January 5, 1926.
[15] "Mrs. Laugenour to Be Bridge Club Hostess," *Woodland Daily Democrat*, January 18, 1929.
[16] "Fred H. Heidorn, Sr." *Oakland Tribune*, March 27, 1954.
[17] Bureau of Land Management, "Land Patent Search," *General Land Office Record* entry for Henry Heidorn, Sr., Contra Costa County, CA, no. 818.
[18] United States Census Bureau, 1880, Township Five, Contra Costa County, California, 23.
[19] U.S. Census, 1880.

Frederick Heidorn, Sr.'s son, Frederick Heidorn, Jr., was born in 1910 on the family farm (see **Photograph 3**). He attended Lone Tree School and Liberty High School, graduating in 1928. Upon graduation, he joined his father working their family farm and grew apricots, grapes, grain, walnuts, and almonds among other crops. He later married Doris Pfeiffer (1912–1990) in 1934 and had three children, Jayne, Susan, and Carol.[20] Frederick Heidorn, Jr. was a member of 4-H, Contra Costa Farm Bureau, Delta Dance, Antioch Senior Citizens, Antioch Historical Society and East Contra Costa Historical Society. Like his father, he was also a trustee of the Lone Tree School District. Frederick Heidorn, Jr. passed away in 2007.

It is not known how long the Heidorn family owned the property prior to the construction of the existing buildings in 1926. As noted above, Henry Heidorn, Sr. received a land patent f in 1874 for a property located farther north near the present-day SR 160 and SR 4 interchange. Daniel A. Lewis appears to have receive a land patent that included the Project site in 1871. Because primary source documents do not use number addresses and the City nor County have any deed information related to the property on record, it is difficult to determine when the Heidorn family purchased the property on Lone Tree Way. The 1920 census notes that the Heidorn family lived at a farm on Bretwood Road, which appears to have been a former name for present-day Lone Tree Way.[21] Therefore, it is possible that the family's association with the property pre-dates 1926.

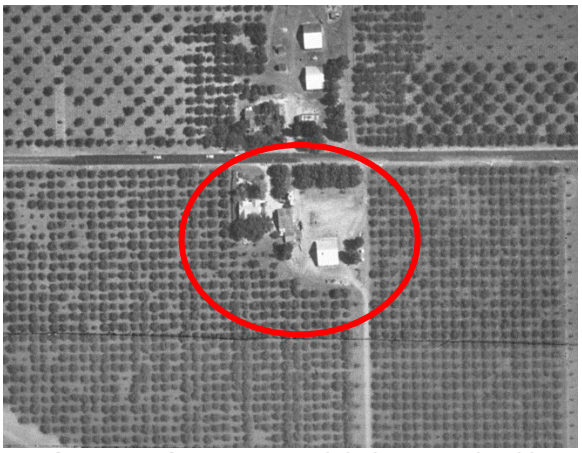
Aerial photographs show that the property changed little between 1939 and 1982 (see **Photograph 4** and **Photograph 5**). Visible alterations to the property primarily included changes to the vegetation, such as the addition of an orchard to the east of the residence along Lone Tree Way and the removal and replacement of trees. An aerial from 1993 shows that the orchard had been removed as well as many of the mature trees throughout the property. By 2002, Lone Tree Way had been widened and the surrounding subdivision, Meadow Springs Village, had been constructed.

It is likely that the Heidron family may have owned all or the majority of the land that today comprises the Meadow Springs Village subdivision. This subdivision extends south from Lone Tree Way to Prewett Ranch Drive between Hillcrest Avenue and Heidorn Ranch Road. Heidorn Ranch Road and Heidorn Park were probably named after the family when Meadow Springs was subdivided sometime in the late 1990s and early 2000s. Because the subdivision immediately surrounds the Project site to the west and south, the family likely sold this land, while retaining ownership of the part of the property where their residence was located.

[20] "Frederick Henry Heidorn, Jr."

[21] United States Census Bureau, 1920, Township Eight, Contra Costa County, California, 6B.

Photograph 4: 1958 aerial photograph with Project site circled in red (UCSB)



Photograph 5: 1965 aerial photograph with Project site circled in red (UCSB)

*D4. Boundary Description (Describe limits of district and attach map showing boundary and district elements.):

The boundary of the property is the full extent of the Contra Costa County Assessor Parcel No. 056-270-059.

*D5. Boundary Justification:

The boundary is the parcel on which the buildings and features associated with the Heidorn family were constructed and have been historically associated.

D6. Significance: Theme Early History of East Contra Costa County Area Antioch Period of Significance N/A Applicable Criteria None (Discuss district's importance in terms of its historical context as defined by theme, period of significance, and geographic scope. Also address the integrity of the district as a whole.)

5200 Lone Tree Way was evaluated for National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) under the established federal and state criteria. Because the six buildings lack individual distinction and are united by their history and physical development, they were evaluated as part of a potential historic district per the guidance outlined in "National Register Bulletin: Guidelines for Evaluating and Documenting Rural Historic Landscapes," which notes that properties "containing a number of buildings, sites, and structures–such as a ranch or farming community–are classified as historic districts."[22]

This evaluation finds that 5200 Lone Tree Way does not meet the criteria for listing in the NRHP or CRHR as a historic district nor do the individual buildings appear eligible for listing. The property therefore does not appear to be a historical resource for the purposes of the California Environmental Quality Act (CEQA) pursuant to Title 14 California Code of Regulations (CCR) §15064.5.

[22] McClelland et. all, "National Register Bulletin: Guidelines for Evaluation and Documenting Rural Historic Landscapes," U.S. Department of the Interior, National Park Service, Cultural Resources, 1989, revised 1999, 2.

National Register of Historic Places

Criterion A

To be eligible under NRHP Criterion A, a property must have a direct association with events that have made a significant contribution to the broad patterns of our history. Within "Guidelines for Evaluating and Documenting Rural Historic Landscapes," the National Park Service (NPS) outlines additional guidance specific to applying Criterion A to rural properties. The bulletin states that a property "must have served or resulted from an important event, activity or theme in agricultural development as recognized by the historic contexts for the area."[23] The property "must have had a direct involvement in the significant events or activities by contributing to the area's economy, productivity, or identity as an agricultural community."[24] Finally, the property "must cogently reflect the period of time in which the important events took place" through its historic landscape characteristics.[25] The most applicable context for evaluating the property under NRHP Criterion A is the Early History of East Contra Costa County.

5200 Lone Tree Way was operated as a farm by the Heidorn family beginning in the early 20th century until 2002 when Frederick H. Heidorn, Jr. sold most of the property, retaining only the residence and ancillary farm buildings located on the parcel associated with APN No. 056-270-059. Frederick H. Heidorn, Jr.'s grandfather and father, Henry Heidorn, Sr. and Frederick H. Heidorn, Sr., were early farmers who settled in east Contra Costa County in the 1870s. They are noted in census records and newspaper articles as cultivating wheat and barley, both important crops that contributed to the area's early agricultural development in the late 19th and early 20th centuries. By the early 1920s, wheat and barley were no longer one of the primary drivers of economic expansion. The local economy had begun to diversity with the growth of the sand extraction and dairy industries as well as with the establishment of irrigation districts that allowed for the cultivation of more water intensive crops, such as fruits and nuts.

Research could not confirm that the property located at 5200 Lone Tree Way is directly associated with Henry Heidorn Sr., nor could it be confirmed that the property is associated with Frederick H. Heidorn, Sr. prior to the 1920s. The earliest known record of the family occupying a property on Lone Tree Way is the 1920 census, which notes the family farm was located on Brentwood Road, likely the former name for Lone Tree Way. "National Register Bulletin: How to Apply the National Register Criteria for Evaluation" notes that "a property is not eligible if its associations are speculative."[26] Because it could not be determined that the property had a direct involvement in the early agricultural development of the area, the property does not appear to be significant under NRHP Criterion A within the context of the Early History of East Contra Costa County.

Even if the property's association with early agricultural development is later confirmed upon further research, it still does not appear to be eligible for listing under NRHP Criterion A because the property no longer reflects the period of time in which these important events took place. According to the Contra Costa County Assessor, the construction dates for the buildings on the property is 1926, which is after the end of the early period of agricultural development in east Contra Costa County between the 1850s and early 1920s. Additionally, the property has substantially changed since 1926 and no longer retains integrity of design, materials, workmanship, feeling, or setting. Most notably, the land surrounding 5200 Lone Tree Way

[23] McClelland et. all, 13.
[24] McClelland et. all, 13.
[25] Ibid.
[26] "National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation," U.S. Department of the Interior, National Park Service, Cultural Resources, eds. Patrick Andrus and Rebecca Shrimpton, 1990, revied 1997, 12.

was previously redeveloped into a residential subdivision and no longer retains its agricultural character. As "Guidelines for Evaluating and Documenting Rural Historic Landscapes" notes, "new construction and incompatible land uses covering extensive acreage such as residential subdivisions…. cause the greatest damage" to historic integrity.[27] Additionally, individual buildings, such as the residence and north barn, have been substantially altered through the removal and/or replacement of original features and materials. Please see the integrity assessment below for more information.

As noted above, research could not confirm that 5200 Lone Tree Way served or resulted from an important event, activity, or theme in agricultural development for East Contra Costa County nor that it had a direct involvement in significant events or activities by contributing to the area's economy, productivity, or identity as an early agricultural community. Therefore, the property does not appear to be eligible for listing under NRHP Criterion A.

Criterion B

NRHP Criterion B states that to be eligible, a property must be associated with the lives of persons significant in our past. NPS guidance specific to applying Criterion B to rural properties notes that persons associated with a rural property "may have, by their success, talent, or ingenuity, contributed to the historic development or economic prosperity of their community."[28] The guidance further notes that in certain instances "significance under Criterion B is often unrelated to historic uses," such as when a rural property is associated with the life of a political leader, writer, poet, artist, or industrialist. Finally, a property owned by one family over a long period of time may be eligible under Criterion B "if the accomplishments of one or more family members stand out."[29]

From at least the 1920s through the 2000s, 5200 Lone Tree Way was owned by the Heidorn family, who were European and European-American settlers who contributed to the early agricultural development of east Contra Costa County. Henry Heidorn Sr. was an immigrant from Hanover, Germany who arrived in the United States in 1868, and later received a land patent in 1874 for land in east Contra Costa County located at the present-day interchange of State Route (SR) 160 and SR 4. He is noted in the 1880 census as a farmer who owned a 200-acre farm with 100 acres of wheat under cultivation. His son, Frederick H. Heidorn, Sr., was born in east Contra Costa County in 1872. He later joined his father working on the family farm and was noted in newspaper articles from the 1920s as growing barley.

While both Henry Heidorn Sr. and Frederick H. Heidorn, Sr. are associated with early agricultural development in the area, research did not reveal either be an individual proven to have made a significant contribution to the historic development or economic prosperity of the local community. While the Heidorn family may have been prosperous early famers, no primary or secondary sources were found that detail their specific activities, accomplishments, or influence that distinguishes them from other early farmers in east Contra Costa County.

Frederick Heidorn, Jr., son of Frederick H Heidorn, Sr., was born on the family farm in 1910, and later inherited the property at 5200 Lone Tree Way after his father passed away in 1954. Besides his work as a farmer, he is noted as having been a member of several local organizations, including 4-H, Contra Costa Farm Bureau, Delta Dance, Antioch Senior Citizens, Antioch Historical Society and East Contra Costa Historical Society. He was also a trustee of the Lone Tree School District. While Frederick Heidorn, Jr. may

[27] McClelland et. all, 24.
[28] McClelland et. all, 14.
[29] McClelland et. all, 14.

have risen to local prominence within these community organizations, research did not reveal him to be an individual proven to have made a significant contribution to the historic development or economic prosperity of east Contra Costa County.

The individual contributions or roles of Henry Heidorn Sr., Frederick H. Heidorn, Sr., and Frederick Heidorn, Jr. cannot be identified and documented as significant within the history of east Contra Costa County under NRHP Criterion B. Additionally, many individuals have likely worked at the property over the years; however, collaborative efforts like these are typically best evaluated under Criterion A. For these reasons, 5200 Lone Tree Way does not appear to be significant under NRHP Criterion B.

Criterion C

A property is eligible under NRHP Criterion C if it embodies the distinctive characteristics of a type, period, or method of construction, represents the work of a master, possesses high artistic values, or lastly, represents a significant and distinguishable entity whose components may lack individual distinction. NPS guidance specific to applying Criterion C to rural properties states that properties eligible under this criterion may "illustrate a pattern of land use significant for its representation of traditional practices unique to a community."[30] Alternatively, the property may possess "buildings and outbuildings, whether high-style or vernacular, [that are] distinctive in design, style, or method of construction, and be representative of historic local or regional trends."[31]

5200 Lone Tree Way may have originally exhibited the landscape characteristics of an agricultural property from the 1920s; however, few landscape characteristics dating from this period remain extant. The properties original land uses, division of property, overall pattern of circulation, and natural features were mostly demolished when the surrounding residential subdivision was constructed. Other features such as the original fields for cropping, orchards, tree lines, and boundary demarcations were also removed. The only features that remain are the six buildings and the main driveway, which was originally unpaved but has since been paved with asphalt.

The north barn, south barn, tank house, and two sheds are all vernacular in their design and construction. Like other agricultural buildings constructed at this time, they feature metal or composite shingle roofing, no foundation or concrete on grade, and wood channel siding or vertical board. The design and construction of these buildings are typical for early-to-mid-20th century agricultural properties and commonly found throughout California and the western United States.

The residence does not embody the distinctive characteristics that would make it significant as an example of any one particular style. The only notable original design feature it possesses is its roof shape and decorative brackets; otherwise, all original decorative features or ornament appear to have been previously removed. The residence is thus lacking in qualities associated with finer examples of popular architectural styles for single-family residences during this period, such as Craftsman, Period Revival, Spanish Colonial Revival, and American Colonial Revival. It does not exhibit quality craftsmanship, nor does it demonstrate any innovative, important, or outstanding design features.

Overall, 5200 Lone Tree Way is not distinctive in its design, style, or method of construction. The property does not illustrate a pattern of land use significant for its representation of traditional practices unique to a community. It is also not representative of historic trends that were specific to this local area or region.

[30] McClelland et. all, 14.
[31] Ibid.

Therefore, the property does not appear to be significant under the first aspect of NRHP Criterion C.

The original architect and/or builder of the buildings on the property are unknown, but it is unlikely given their appearance that any are representative of the work of a master architect or builder. The possession of high artistic values refers to a building's articulation of a particular concept of design so fully that it expresses an aesthetic ideal. A building eligible under this aspect of NRHP Criterion C would need to possess ornamentation and detail to lend it high artistic value, which none of the buildings on the property possess. The last component of NRHP Criterion C, representing a significant and distinguishable entity whose components may lack individual distinction, is most applicable to districts. While the property may meet this aspect of Criterion C, a district must also derive significance from Criteria A, B, or the first half of Criterion C, which the property does not.

For these reasons, 5200 Lone Tree Way does not appear to be eligible under NRHP Criterion C.

Criterion D

To be eligible for listing under NRHP Criterion D, a property's physical material must have yielded, or may be likely to yield, information important to history or prehistory. This criterion generally applies to archaeological resources but may apply to a built resource in instances where a resource may contain important information about such topics as construction techniques or human activity. In any case, the resource must be the principal source of information. This is unlikely to be true for an agricultural property from the 1920s. Therefore, 5200 Lone Tree Way does not appear to be significant under NRHP Criterion D.

Integrity

5200 Lone Tree Way was analyzed against the seven aspects of integrity: location, design, materials, workmanship, feeling, setting, and association. The location of the buildings on the property has not changed; therefore, the property retains integrity of location. Most of the land that was likely originally part of the property has been redeveloped as a residential subdivision and the property no longer retains its original land uses, circulation, spatial organization, and boundary demarcations. Changes have also been made to the individual buildings, vegetation, and small-scale landscape features. As a result of these substantial alterations, the property does not retain integrity of design. The integrity of materials and workmanship have also been diminished by these alterations as well as by the poor condition of many of the buildings and structures. The wood features of the south barn and two sheds are severely deteriorated. Because of the loss of the crop fields and orchards as well as alterations made to individual buildings, the property no longer retains its feeling of a 1920s farm. The immediate setting has been altered by the loss of the crop fields, orchards, and removal of other landscape characteristics. The broader setting has been substantially changed by the construction of the surrounding residential and commercial development. Thus, the property no longer retains integrity of setting. Finally, the property was not found to be significant for its association with events or trends under NRHP Criterion A, an individual under NRHP Criterion B, or an architectural type or style under NRHP Criterion C, so there is no relevant integrity of association to evaluate.

Conclusion

5200 Lone Tree Way is not significant under the four NRHP Criteria A, B, C, or D. Its integrity of design, materials, workmanship, feeling, and setting have also been diminished by changes over time as well as by the poor condition of select building and structures. Therefore, the property does not appear to be eligible for the NRHP.

California Register of Historical Resources

The CRHR criteria for eligibility mirror those of the NRHP. Therefore, 5200 Lone Tree Way is ineligible for listing in the CRHR for the same reasons outlined above.

*D7. References (Give full citations including the names and addresses of any informants, where possible.):

Primary Resources

Bureau of Land Management. "Land Patent Search." *General Land Office Record*. Accessed July 15, 2021, https://glorecords.blm.gov/default.aspx.

Bureau of Land Management, "Land Patent Search," *General Land Office Record* entry for Henry Heidorn, Sr., Contra Costa County, CA, no. 818.

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"Fred H. Heidorn, Sr." *Oakland Tribune*. March 27, 1954.

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Secondary Resources

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"National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation." U.S. Department of the Interior, National Park Service, Cultural Resources, eds. Patrick Andrus and Rebecca Shrimpton. Accessed June 7, 2021, https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf.

Pape, Janet L. "Shannon Ranch/Williamson Ranch." National Register of Historic Places Nomination Form. Antioch, California. January 29, 1987.

Praetzellis, Adrian. "Black Diamond Mines." National Register of Historic Places Nomination Form. Antioch, California. Anthropological Studies Center, Sonoma State University. May 2, 1991.

*D8. Evaluator: Emily Rinaldi, Stantec Consulting Services, Inc. Date: 7/14/2021
Affiliation and Address: 801 Figueroa Street, Suite 300, Los Angeles, CA 90017

5200 Lone Tree Way Map (property outlined in red)

Photograph 1. Front driveway, view looking south towards residence and north barn (Stantec 7/12/21)

Photograph 2. Front driveway, view looking north towards residence and north barn (Stantec 7/12/21)

Photograph 3. Side yard, view looking north towards tank house (Stantec 7/12/21)

Photograph 4. North and south barn, view looking south (Stantec 7/12/21)

Photograph 5. South barn, view looking north towards Lone Tree Way (Stantec 7/12/21)

Photograph 6. Rear yard, view looking west (Stantec 7/12/21)

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Trinomial
NRHP Status Code 6Z

Other Listings
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Page 12 of 17 *Resource Name or #: (Assigned by recorder) 5200 Lone Tree Way
P1. Other Identifier: Residence

*P2. Location: ☐ Not for Publication ☒ Unrestricted
*a. County Contra Costa County and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
*b. USGS 7.5' Quad Antioch South Date 2018 T 1N ; R 2E ; SE¼ of NW¼ of Sec 04 ; Mount Diablo B.M.
c. Address 5200 Lone Tree Way City Antioch Zip 93526
d. UTM: (Give more than one for large and/or linear resources) Zone __, _____ mE/ _____ mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)
Assessor Parcel Number (APN): 056-270-059

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The residence is one story in height and L-shaped in plan. The roof consists of a cross-gable roof with clipped gables. It is clad in composition shingles and features overhanging closed eaves and decorative brackets. The exterior is clad in lightly textured stucco. The main entrance is located at the center of the north elevation within a porch formed by the overhanging roof eave. It consists of paired fully glazed wood doors. It is accessed via concrete steps bordered by a low brick wall. A secondary entrance is located at the south end of the east elevation and consists of a single, partially glazed wood door. The windows consist of rectangular openings, either singular or grouped. The sashes are fixed, sliding, or single-hung vinyl. The residence appears to be stripped entirely of any decorative features or ornament that may have been part of its original design. Its original cladding has been removed and replaced with stucco, the roofing material replaced, and all of its door and window sashes replaced. A former window opening at the center of the north elevation has been resized into a paired door opening.

*P3b. Resource Attributes: (List attributes and codes) HP2. Single family residence
*P4.Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☒ Element of District ☐ Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo: (view, date, accession #) View of residence at 5200 Lone Tree Way looking SW, 7/12/2021

*P6. Date Constructed/Age and Source: ☒ Historic ☐ Prehistoric ☐ Both
1926; Contra County Assessor's Office

*P7. Owner and Address:
Jorge F. Vargas
4300 Delta Fair Blvd
Antioch, CA 94509

*P8. Recorded by: (Name, affiliation, and address)
Emily Rinaldi and Rebecca Riggs
Stantec Consulting Services, Inc.
801 S. Figueroa St, Suite 300
Los Angeles, CA 90017

*P9. Date Recorded: 7/14/2021

*P10. Survey Type: (Describe)
Intensive Survey

*P11. Report Citation: (Cite survey report and other sources, or enter "none.")
Emily Rinaldi, Stantec Consulting Services Inc., "Historic Resource Evaluation Report for the 5200 Lone Tree Way United Pacific Gas Station Project," August 2021

*Attachments: ☐ NONE ☐ Location Map ☒Continuation Sheet ☐ Building, Structure, and Object Record
☐ Archaeological Record ☒District Record ☐ Linear Feature Record ☐Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List): _____

State of California - The Resources Agency
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Primary #
HRI #
Trinomial
NRHP Status Code 6Z

Other Listings
Review Code | Reviewer | Date

Page 13 of 17 *Resource Name or #: (Assigned by recorder) 5200 Lone Tree Way
P1. Other Identifier: North Barn

*P2. Location: ☐ Not for Publication ☒ Unrestricted
*a. County Contra Costa County and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
*b. USGS 7.5' Quad Antioch South Date 2018 T 1N ; R 2E ; SE¼ of NW¼ of Sec 04 ; Mount Diablo B.M.
c. Address 5200 Lone Tree Way City Antioch Zip 93526
d. UTM: (Give more than one for large and/or linear resources) Zone __, _____ mE/ _____ mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)
Assessor Parcel Number (APN): 056-270-059

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The north barn is one-story in height and rectangular in plan. It has a front gable roof clad in composition singles with wood eaves. It is clad in vertical wood channel siding. It has three garage openings on the west elevation, each with a roll-up garage door. The center opening is slightly wider than the side openings. There is a secondary pedestrian entrance at the south end of the east elevation. It consists of a single hollow-core wood door. Alterations to the north barn include its previously conversion into a garage, the likely reconfiguration of the original barn opening into three garage openings, as well as the replacement of the original cladding and roofing materials.

*P3b. Resource Attributes: (List attributes and codes) HP4. Ancillary building
*P4.Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☒ Element of District ☐ Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo: (view, date, accession #) View of north barn at 5200 Lone Tree Way looking NE, 7/12/2021

*P6. Date Constructed/Age and Source: ☒ Historic ☐ Prehistoric ☐ Both
1926; Contra County Assessor's Office

*P7. Owner and Address:
Jorge F. Vargas
4300 Delta Fair Blvd
Antioch, CA 94509

*P8. Recorded by: (Name, affiliation, and address)
Emily Rinaldi and Rebecca Riggs
Stantec Consulting Services, Inc.
801 S. Figueroa St, Suite 300
Los Angeles, CA 90017

*P9. Date Recorded: 7/14/2021

*P10. Survey Type: (Describe)
Intensive Survey

*P11. Report Citation: (Cite survey report and other sources, or enter "none.")
Emily Rinaldi, Stantec Consulting Services Inc., "Historic Resource Evaluation Report for the 5200 Lone Tree Way United Pacific Gas Station Project," August 2021

*Attachments: ☐ NONE ☐ Location Map ☒Continuation Sheet ☐ Building, Structure, and Object Record
☐ Archaeological Record ☒District Record ☐ Linear Feature Record ☐Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List): _____

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PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6Z

Other Listings
Review Code | Reviewer | Date

 *Resource Name or #: (Assigned by recorder) 5200 Lone Tree Way
P1. Other Identifier: South Barn

*P2. Location: ☐ Not for Publication ☒ Unrestricted
*a. County Contra Costa County and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
*b. USGS 7.5' Quad Antioch South Date 2018 T 1N ; R 2E ; SE¼ of NW¼ of Sec 04 ; Mount Diablo B.M.
c. Address 5200 Lone Tree Way City Antioch Zip 93526
d. UTM: (Give more than one for large and/or linear resources) Zone __, _____ mE/ _____ mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)
Assessor Parcel Number (APN): 056-270-059

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The south barn is one-and-a-half stories in height and rectangular in plan. It has a front gable roof covered in corrugated metal panels. The building is clad in vertical wood board. There are three door openings located on the west elevation, each with a sliding wood plank door. There are also three door openings on the east elevation. The center opening features a single double-height wood board door. The opening at the south end has paired wood board doors, while the opening at the north end has a single wood board sliding door. There are rectangular window openings on the north and south elevations that are infilled with wood board. Alterations include the likely replacement of the original roofing material. The south barn appears to be in poor condition. Portions of the wood boards are displaced, splintering, rotting, or missing entirely. Portions of the roofing material is missing and select wood roof beams are displaced.

*P3b. Resource Attributes: (List attributes and codes) HP4. Ancillary building
*P4.Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☒ Element of District ☐ Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo: (view, date, accession #) View of residence at 5200 Lone Tree Way looking SW, 7/12/2021

*P6. Date Constructed/Age and Source: ☒ Historic ☐ Prehistoric ☐ Both
1926; Contra County Assessor's Office

*P7. Owner and Address:
Jorge F. Vargas
4300 Delta Fair Blvd
Antioch, CA 94509

*P8. Recorded by: (Name, affiliation, and address)
Emily Rinaldi and Rebecca Riggs
Stantec Consulting Services, Inc.
801 S. Figueroa St, Suite 300
Los Angeles, CA 90017

*P9. Date Recorded: 7/14/2021

*P10. Survey Type: (Describe)
Intensive Survey

*P11. Report Citation: (Cite survey report and other sources, or enter "none.")
Emily Rinaldi, Stantec Consulting Services Inc., "Historic Resource Evaluation Report for the 5200 Lone Tree Way United Pacific Gas Station Project," August 2021

*Attachments: ☐ NONE ☐ Location Map ☒Continuation Sheet ☐ Building, Structure, and Object Record
☐ Archaeological Record ☒District Record ☐ Linear Feature Record ☐Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List): _____

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Page 15 of 17 *Resource Name or #: (Assigned by recorder) 5200 Lone Tree Way
P1. Other Identifier: Tankhouse

*P2. Location: ☐ Not for Publication ☒ Unrestricted
*a. County Contra Costa County and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
*b. USGS 7.5' Quad Antioch South Date 2018 T 1N ; R 2E ; SE¼ of NW¼ of Sec 04 ; Mount Diablo B.M.
c. Address 5200 Lone Tree Way City Antioch Zip 93526
d. UTM: (Give more than one for large and/or linear resources) Zone __, _____ mE/ _____ mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)
Assessor Parcel Number (APN): 056-270-059

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The tank house is a double-height structure with a square plan. It has a hipped roof clad in composition shingles topped by a wood finial. The structure is clad in horizontal wood board at the base with wood fish scale shingles above. The entrance is a single rectangular opening located off center on the east elevation. The door appears to have been previously removed. Rectangular openings infilled with wood vents are located on the north and south elevations. A vent infilled with wood lattice is also located on all elevations just below the roofline. Tank houses are enclosed water towers. The system historically operates via an exterior windmill that pumps water from a well into a water tank above. Alterations therefore likely include the removal of the windmill originally used in the tank house operation and the replacement of the original roofing materials.

*P3b. Resource Attributes: (List attributes and codes) HP4. Ancillary building
*P4.Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☒ Element of District ☐ Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo: (view, date, accession #) View of tankhouse at 5200 Lone Tree Way looking SW, 7/12/2021

*P6. Date Constructed/Age and Source: ☒ Historic ☐ Prehistoric ☐ Both
1926; Contra County Assessor's Office

*P7. Owner and Address:
Jorge F. Vargas
4300 Delta Fair Blvd
Antioch, CA 94509

*P8. Recorded by: (Name, affiliation, and address)
Emily Rinaldi and Rebecca Riggs
Stantec Consulting Services, Inc.
801 S. Figueroa St, Suite 300
Los Angeles, CA 90017

*P9. Date Recorded: 7/14/2021

*P10. Survey Type: (Describe)
Intensive Survey

*P11. Report Citation: (Cite survey report and other sources, or enter "none.")
Emily Rinaldi, Stantec Consulting Services Inc., "Historic Resource Evaluation Report for the 5200 Lone Tree Way United Pacific Gas Station Project," August 2021

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☐ Archaeological Record ☒District Record ☐ Linear Feature Record ☐Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List): _____

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Primary #
HRI #
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NRHP Status Code 6Z

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Page 16 of 17 *Resource Name or #: (Assigned by recorder) 5200 Lone Tree Way
P1. Other Identifier: North Shed

*P2. Location: ☐ Not for Publication ☒ Unrestricted
*a. County Contra Costa County and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
*b. USGS 7.5' Quad Antioch South Date 2018 T 1N ; R 2E ; SE¼ of NW¼ of Sec 04 ; Mount Diablo B.M.
c. Address 5200 Lone Tree Way City Antioch Zip 93526
d. UTM: (Give more than one for large and/or linear resources) Zone __, _____ mE/ _____ mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)
Assessor Parcel Number (APN): 056-270-059

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The north shed is one story in height and rectangular in plan. It has a corrugated metal shed roof. The exterior is wood board. The entrance is located on the south elevation and consists of a rectangular opening. Alterations include the likely replacement of the original roofing material. The wood board is also in poor condition. Portions of the planks are displaced, splintering, rotting, or missing entirely.

*P3b. Resource Attributes: (List attributes and codes) HP4. Ancillary building
*P4.Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☒ Element of District ☐ Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo: (view, date, accession #) View of north shed at 5200 Lone Tree Way looking NE, 7/12/2021

*P6. Date Constructed/Age and Source: ☒ Historic ☐ Prehistoric ☐ Both
1926; Contra County Assessor's Office

*P7. Owner and Address:
Jorge F. Vargas
4300 Delta Fair Blvd
Antioch, CA 94509

*P8. Recorded by: (Name, affiliation, and address)
Emily Rinaldi and Rebecca Riggs
Stantec Consulting Services, Inc.
801 S. Figueroa St, Suite 300
Los Angeles, CA 90017

*P9. Date Recorded: 7/14/2021

*P10. Survey Type: (Describe)
Intensive Survey

*P11. Report Citation: (Cite survey report and other sources, or enter "none.")
Emily Rinaldi, Stantec Consulting Services Inc., "Historic Resource Evaluation Report for the 5200 Lone Tree Way United Pacific Gas Station Project," August 2021

*Attachments: ☐ NONE ☐ Location Map ☒Continuation Sheet ☐ Building, Structure, and Object Record
☐ Archaeological Record ☒District Record ☐ Linear Feature Record ☐Milling Station Record ☐ Rock Art Record
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HRI #
Trinomial
NRHP Status Code 6Z

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Page 17 of 17 *Resource Name or #: (Assigned by recorder) 5200 Lone Tree Way
P1. Other Identifier: South Shed

*P2. Location: ☐ Not for Publication ☒ Unrestricted
*a. County Contra Costa County and (P2c, P2e, and P2b or P2d. Attach a Location Map as necessary.)
*b. USGS 7.5' Quad Antioch South Date 2018 T 1N ; R 2E ; SE¼ of NW¼ of Sec 04 ; Mount Diablo B.M.
c. Address 5200 Lone Tree Way City Antioch Zip 93526
d. UTM: (Give more than one for large and/or linear resources) Zone __, _____ mE/ _____ mN
e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, decimal degrees, etc., as appropriate)
Assessor Parcel Number (APN): 056-270-059

*P3a. Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The south shed is one story in height and rectangular in plan. It has a corrugated metal front gable roof. The exterior is wood board. The entrance is located on the east elevation and consists of a large rectangular opening. A large rectangular window opening on the north elevation is infilled with wood lattice. Alterations include the likely replacement of the original roofing material. The wood board is also in poor condition. Portions of the planks are displaced, splintering, rotting, or missing entirely.

*P3b. Resource Attributes: (List attributes and codes) HP4. Ancillary building
*P4.Resources Present: ☒ Building ☐ Structure ☐ Object ☐ Site ☐ District ☒ Element of District ☐ Other (Isolates, etc.)

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)

P5b. Description of Photo: (view, date, accession #) View of south shed at 5200 Lone Tree Way looking SW, 7/12/2021

*P6. Date Constructed/Age and Source: ☒ Historic ☐ Prehistoric ☐ Both
1926; Contra County Assessor's Office

*P7. Owner and Address:
Jorge F. Vargas
4300 Delta Fair Blvd
Antioch, CA 94509

*P8. Recorded by: (Name, affiliation, and address)
Emily Rinaldi and Rebecca Riggs
Stantec Consulting Services, Inc.
801 S. Figueroa St, Suite 300
Los Angeles, CA 90017

*P9. Date Recorded: 7/14/2021

*P10. Survey Type: (Describe)
Intensive Survey

*P11. Report Citation: (Cite survey report and other sources, or enter "none.")
Emily Rinaldi, Stantec Consulting Services Inc., "Historic Resource Evaluation Report for the 5200 Lone Tree Way United Pacific Gas Station Project," August 2021

*Attachments: ☐ NONE ☐ Location Map ☒Continuation Sheet ☐ Building, Structure, and Object Record
☐ Archaeological Record ☒District Record ☐ Linear Feature Record ☐Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List): _____

Appendix D
Energy Consumption Summary

PhaseName	PhaseType	PhaseStartDate	PhaseEndDate	NumDaysWeek	NumDays
Demolition	Demolition	2022/06/01	2022/06/21	5	15
Site Preparation	Site Preparation	2022/06/22	2022/06/23	5	2
Grading	Grading	2022/06/24	2022/06/29	5	4
Building Construction	Building Construction	2022/06/30	2023/01/04	5	135
Paving	Paving	2023/01/05	2023/01/18	5	10
Architectural Coating	Architectural Coating	2023/01/19	2023/01/31	5	9

Phase Name	Type	Amount	Usage Hours	Horse Power	Load Factor	Number of Days	Horse Pow	Fuel (gallons/HP-hour)	diesel Fuel Usage	Total
Demolition	Concrete/Industrial Saws	1	6	81	0.73	15	5,321.7	0.041989865	223.46	
Demolition	Excavators	1	4	158	0.38	15	3,602.4	0.019761453	71.19	
Demolition	Rubber Tired Dozers	0	8	247	0.4	15	0.0	0.02048249	0.00	
Demolition	Skid Steer Loaders	1	6	65	0.37	15	2,164.5	0.019057691	41.25	
Demolition	Tractors/Loaders/Backhoes	3	6	97	0.37	15	9,690.3	0.019127164	185.35	521.24
Site Preparation	Graders	1	6	187	0.41	2	920.0	0.02115725	19.47	
Site Preparation	Rubber Tired Dozers	1	6	247	0.4	2	1,185.6	0.02048249	24.28	
Site Preparation	Tractors/Loaders/Backhoes	1	6	97	0.37	2	430.7	0.019127164	8.24	51.99
Grading	Graders	1	6	187	0.41	4	1,840.1	0.02115725	38.93	
Grading	Rubber Tired Dozers	1	6	247	0.4	4	2,371.2	0.02048249	48.57	
Grading	Tractors/Loaders/Backhoes	2	6	97	0.37	4	1,722.7	0.019127164	32.95	120.45
Building Construction	Aerial Lifts	1	0.2	63	0.31	135	527.3	0.026177024	13.80	
Building Construction	Cranes	1	0.2	231	0.29	135	1,808.7	0.014889117	26.93	
Building Construction	Forklifts	1	6	89	0.2	135	14,418.0	0.010380794	149.67	
Building Construction	Generator Sets	1	7	84	0.74	135	58,741.2	0.042332745	2,486.68	
Building Construction	Tractors/Loaders/Backhoes	1	3	97	0.37	135	14,535.5	0.019127164	278.02	
Building Construction	Welders	3	4	46	0.45	135	33,534.0	0.025824342	865.99	3,821.10
Paving	Cement and Mortar Mixers	1	6	9	0.56	10	302.4	0.031954134	9.66	
Paving	Pavers	1	6	130	0.42	10	3,276.0	0.021528159	70.53	
Paving	Paving Equipment	1	6	132	0.36	10	2,851.2	0.018324359	52.25	
Paving	Rollers	1	6	80	0.38	10	1,824.0	0.019411734	35.41	
Paving	Tractors/Loaders/Backhoes	1	6	97	0.37	10	2,153.4	0.019127164	41.19	
Paving	Welders	3	4	46	0.45	10	2,484.0	0.025824342	64.15	273.18
Architectural Coating	Air Compressors	1	6	78	0.48	9	2,021.8	0.02758243	55.77	55.77
									4843.721035	4843.721

Phase Name	Phase Type	Phase Start Date	Phase End Date	Num Days Week	Num Days
Demolition	Demolition	2022/06/01	2022/06/21	5	15
Site Preparation	Site Preparation	2022/06/22	2022/06/23	5	2
Grading	Grading	2022/06/24	2022/06/29	5	4
Building Construction	Building Construction	2022/06/30	2023/01/04	5	135
Paving	Paving	2023/01/05	2023/01/18	5	10
Architectural Coating	Architectural Coating	2023/01/19	2023/01/31	5	9

	Trips per Day		Total Trips	Construction Trip Length (Miles)				Trips per Phase			VMT per Phase			Fuel Consumption		
Phase Name	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Days per Phase	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trips	Vendor Trips	Hauling Trips	Worker Trips	Vendor Trips	Hauling Trips
Demolition	36	0	39	10.8	7.3	22.3	15	540	0	39	5,832.00	0.00	869.70	222.54	0.00	147.13
Site Preparation	36	0	0	10.8	7.3	20	2	72	0	0	777.60	0.00	0.00	29.67	0.00	0.00
Grading	36	0	80	10.8	7.3	22.3	4	144	0	80	1,555.20	0.00	1,784.00	59.34	0.00	301.80
Building Construction	60	9	0	10.8	7.3	20	135	8100	72900	0	87,480.00	532,170.00	0.00	3,338.11	56,330.00	0.00
Paving	36	0	0	10.8	7.3	20	10	360	0	0	3,888.00	0.00	0.00	148.36	0.00	0.00
Architectural Coating	36	0	0	10.8	7.3	20	9	324	0	0	3,499.20	0.00	0.00	133.52	0.00	0.00

Total of all trips **60,710.48**

Trip Summary

Land Use	Weekday	Average Daily Trip Rate Saturday	Sunday	Unmitigated Annual VMT	Mitigated Annual VMT
Automobile Care Center	11.55	26.80	13.42	13,942.48	13,942.48
Convenience Market with Gas Pumps	3,688.00	1,997.44	1,997.44	1,915,032.65	1,915,032.65
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00
Total	3,699.55	2,024.24	2,010.86	1,928,975.13	1,928,975.13

FLEET MIX

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.558086	0.056127	0.18057	0.129764	0.024304	0.00548	0.007016	0.007028	0.000551	0.000343	0.026017	0.001231	0.003481
0.558086	0.366461			0.043828				0.005606		0.026017		

	Percent of Vehicle Trips	Annual VMT	Daily VMT	Average Fuel Economy (miles/gallon)	Total Annual Fuel Consumption (gallons)	Total Daily Fuel Consumption (gallons)
Passenger Cars (LDA)	55.8%	1,076,534.01	2,949.41	30.3	35,539.9	97.4
Light Trucks and Medium Vehicles (LDT1, LDT2, and MDV)	36.6%	706,894.16	1,936.70	22.6	31,314.1	85.8
Light-Heavy to Heavy-Heavy Diesel Trucks	4.4%	84,543.12	231.62	9.4	9,020.2	24.7
Motorcycles	0.6%	10,813.83	29.63	41.0	263.5	0.7
Other	2.6%	50,186.15	137.50	6.8	7,365.6	20.2
Total	100.0%	1,928,975.13	5,284.85		83,503.2	228.8

Project Operations Electricity Use

Source: CalEEMod

5200 Lone Tree Way Gas Station Project - Buildout Year Operations

Energy Use Land Use Sub Type	Land Use Size	T24E	NT24E	LightingElect			T24NG	NT24NG		
Automobile Care Center	1130	1.32	3.7	3.08	8.1	9,153	19.51	6.67	26.18	29,583.40
Convenience Market with Gas Pumps	3200	2	2.68	5.25	10.39	33,248	2.34	0	2.34	7,488.00
Other Asphalt Surfaces	41400	0	0	0	0	0	0	0	0	0
Other Non-Asphalt Surfaces	33976.8	0	0	0	0	0	0	0	0	0
Parking Lot	7600	0	0	0.35	0.35	2,660	0	0	0	0
Total						**45,061**				**37,071**

Appendix E
Noise Report

5200 Lone Tree Way United Pacific Gas Station Project

Noise Report

October 29, 2021

Prepared for:

City of Antioch

Prepared by:
Stantec Consulting Services Inc.
1340 Treat Blvd #300
Walnut Creek, CA 94597

Table of Contents

Acronyms and Abbreviations

CalGreen	California Green Building Standards Code
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dB	Decibels
dB(A)	Decibels A-Weighted
EPA	United Stated Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
Hz	Hertz (Frequency)
Ldn / DNL	Day-Night Noise Level
Leq	Equivalent Noise Level
Lmax	Maximum Noise Level
Lmin	Minimum Noise Level
OITC	Outside-Inside Transmission Class
PPV	Peak Particle Velocity
RCNM	Roadway Construction Noise Model
STC	Sound Transmission Class

1.0 PROJECT DESCRIPTION

The proposed project consists of a new United Pacific convenience store of 3,200 sf, attached car wash of 1,125 sf, a fuel canopy with eight fuel dispensers, three underground storage tanks, and related site improvements and landscaping on an approximately 2.0-acre lot. The proposed project proposes right-in/right-out ingress and egress from Lone Tree Way and Vista Grande Drive. The proposed project would provide nineteen parking stalls and landscaping which would consist of drought-tolerant species, including shade canopy trees. The car wash drive lane would provide adequate stacking away from areas of ingress/egress from public right-of-way. Additionally, the proposed project would include the widening of Lone Tree Way to accommodate a 270-foot deceleration lane taper along eastbound Lone Tree Way to the proposed 30-foot driveway.

2.0 ENVIRONMENTAL SETTING

2.1 NOISE FUNDAMENTALS AND TERMINOLOGY

Noise is generally defined as unwanted sound that annoys or disturbs people and potentially causes an adverse psychological or physiological effect on human health. Because noise is an environmental pollutant that can interfere with human activities, evaluation of noise is necessary when considering the environmental impacts of a proposed project.

Sound is mechanical energy (vibration) transmitted by pressure waves over a medium such as air or water. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level is the most common descriptor used to characterize the loudness of an existing sound level.

Although the decibel (dB) scale, a logarithmic scale, is used to quantify sound intensity, it does not accurately describe how sound intensity is perceived by human hearing. The perceived loudness of sound is dependent upon many factors, including sound pressure level and frequency content. The human ear is not equally sensitive to all frequencies in the entire spectrum, so noise measurements are weighted more heavily for frequencies to which humans are sensitive in a process called A-weighting, written as dB(A) and referred to as A-weighted decibels. There is a strong correlation between A-weighted sound levels and community response to noise. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. Table 1 summarizes typical A-weighted sound levels for different common noise sources.

Table 2.11. Typical A-Weighted Sound Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	-110-	Rock band
Jet flyover at 1,000 Feet		
	-100-	
Gas lawnmower at 3 Feet		
	-90-	
Diesel truck at 50 Feet at 50 MPH		Food blender at 3 Feet
Noisy urban area, daytime	-80-	Garbage Disposal at 3 Feet
Gas lawnmower, 100 Feet		
Commercial area	-70-	Vacuum Cleaner at 10 Feet
Heavy traffic at 300 Feet		Normal Speech at 3 Feet
	-60-	
Quiet urban daytime		Large business office
	-50-	Dishwasher in next room
Quiet urban nighttime		
Quiet suburban nighttime	-40-	Theater, large conference room (Background)
Quiet rural nighttime	-30-	
		Library
	-20-	Bedroom at night, concert hall (Background)
	-10-	
		Broadcast/recording studio
	-0-	

Source: Caltrans, Technical Noise Supplement Traffic Noise Analysis Protocol, September 2013

Different types of measurements are used to characterize the time-varying nature of sound. These measurements include the equivalent sound level (Leq), the minimum and maximum sound levels (Lmin and Lmax, respectively), percentile-exceeded sound levels (such as L10, L20), the day-night sound level (Ldn), and the community noise equivalent level (CNEL). Ldn and CNEL values often differ by less than 1 dB. As a matter of practice, Ldn and CNEL values are considered to be equivalent and are treated as such in this assessment. Table 2 defines sound measurements and other terminology used in this report.

Table 2. Definition of Sound Measurements

Sound Measurements	Definition
Decibel (dB)	A unitless measure of sound on a logarithmic scale, which indicates the squared ratio of sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micro-pascals.
A-Weighted Decibel (dB(A))	An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
Maximum Sound Level (Lmax)	The maximum sound level measured during the measurement period.
Minimum Sound Level (Lmin)	The minimum sound level measured during the measurement period.

Sound Measurements	Definition
Equivalent Sound Level (Leq)	The equivalent steady state sound level that in a stated period of time would contain the same acoustical energy.
Percentile-Exceeded Sound Level (Lxx)	The sound level exceeded xx % of a specific time period. L10 is the sound level exceeded 10% of the time. L90 is the sound level exceeded 90% of the time. L90 is often considered to be representative of the background noise level in a given area.
Day-Night Level (Ldn)	The energy average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.
Community Noise Equivalent Level (CNEL)	The energy average of the A-weighted sound levels occurring during a 24-hour period with 5 dB added to the A-weighted sound levels occurring during the period from 7:00 p.m. to 10:00 p.m. and 10 dB added to the A-weighted sound levels occurring during the period from 10:00 p.m. to 7:00 a.m.
Peak Particle Velocity (PPV)	A measurement of ground vibration defined as the maximum speed (measured in inches per second) at which a particle in the ground is moving relative to its inactive state. PPV is usually expressed in inches/second.
Frequency: Hertz (Hz)	The number of complete pressure fluctuations per second above and below atmospheric pressure.

Source: Federal Highway Administration Construction Noise Handbook (FHWA 2006)

With respect to how humans perceive and react to changes in noise levels, a 1 dB(A) increase is imperceptible, a 3 dB(A) increase is barely perceptible, a 5 dB(A) increase is clearly noticeable, and a 10 dB(A) increase is subjectively perceived as approximately twice as loud. These subjective reactions to changes in noise levels were developed on the basis of test subjects' reactions to changes in the levels of steady-state pure tones or broadband noise and to changes in levels of a given noise source. These statistical indicators are thought to be most applicable to noise levels in the range of 50 to 70 dB(A), as this is the usual range of voice and interior noise levels. Numbers of agencies and municipalities have developed or adopted noise level standards, consistent with these and other similar studies to help prevent annoyance and to protect against the degradation of the existing noise environment.

For a point source such as a stationary compressor or construction equipment, sound attenuates based on geometry at a rate of 6 dB per doubling of distance. For a line source such as free-flowing traffic on a freeway, sound attenuates at a rate of 3 dB per doubling of distance. Atmospheric conditions including wind, temperature gradients, and humidity can change how sound propagates over distance and can affect the level of sound received at a given location. The degree to which the ground surface absorbs acoustical energy also affects sound propagation. Sound that travels over an acoustically absorptive surface, such as grass, attenuates at a slightly greater rate than sound that travels over a hard surface, such as pavement. The increased attenuation is typically in the range of 1–2 dB per doubling of distance. Barriers, such as buildings and topography that block the line of sight between a source and receiver, also increase the attenuation of sound over distance.

2.2 DECIBEL ADDITION

Because decibels are logarithmic units, sound pressure levels cannot be added or subtracted through ordinary arithmetic. On the dB scale, a doubling of sound energy corresponds to a 3 dB increase. In other words, when two identical sources are each producing sound of the same loudness, their combined sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one source produces a sound pressure level of 70 dB(A), two identical sources would combine to produce 73 dB(A). The cumulative sound level of any number of sources can be determined using decibel addition.

2.3 VIBRATION STANDARDS

Vibration is like noise such that noise involves a source, a transmission path, and a receiver. While related to noise, vibration differs in that noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to vibration depends on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system that is vibrating.

Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of peak particle velocity (PPV) in inches per second. Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of PPV.

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 3 notes the general threshold at which human annoyance could occur is 0.1 PPV for continuous/frequent sources. Table 4 indicates the threshold for damage to typical residential and commercial structures ranges from 0.3 to 0.5 PPV for continuous/frequent sources.

Table 1. Guideline Vibration Annoyance Potential Criteria

Human Response	Maximum Peak Particle Velocity (inches/second)	
	Transient Sources	Continuous/Frequent Sources
Barely perceptible	0.035	0.012
Distinctly perceptible	0.24	0.035
Strongly perceptible	0.90	0.10
Severe	2.0	0.40

Notes: Transient sources create a single isolated vibration event, such as blasting or drop balls.
Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seal equipment, vibratory pile drivers, and vibratory compaction equipment.
Source: Caltrans Transportation and Construction Vibration Guidance Manual (Caltrans 2020)

Table 2. Guideline Vibration Damage Potential Criteria

Structure and Condition	Maximum Peak Particle Velocity (inches/second)	
	Transient Sources	Continuous/Frequent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.30	0.12
Historic and some old buildings	0.50	0.20
Older residential structure	0.70	0.30
New residential structures	1.2	0.50
Modern industrial/commercial buildings	2.0	0.50

Notes: Transient sources again create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seal equipment, vibratory pile drivers, and vibratory compaction equipment.
Source: Caltrans Transportation and Construction Vibration Guidance Manual (Caltrans 2020)

The operation of heavy construction equipment, particularly pile driving and other impact devices, such as pavement breakers, create seismic waves that radiate along the surface of the ground and downward into the earth. These surface waves can be felt as ground vibration. Vibration from the operation of this equipment can result in effects ranging from annoyance of people to damage of structures. Varying geology and distance will result in different vibration levels containing different frequencies and displacements. In all cases, vibration amplitudes will decrease with increasing distance. Perceptible groundborne vibration is generally limited to areas within a few hundred feet of construction activities.

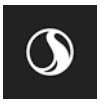
Table 7-4 “Vibration Source Levels for Construction Equipment” in the 2018 Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual lists vibration source levels for the construction equipment most likely to generate high levels of ground vibration (FTA 2018). The equipment listed in the FTA table includes impact and sonic pile drivers, clam shovel drops, hydromills, vibratory rollers, hoe rams, large and small bulldozers, caisson drilling, loaded trucks, and jackhammers. Table 5 below summarizes typical reference vibration levels generated by select construction equipment proposed for this project.

Table 3. Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity at 25 Feet
Vibratory roller	0.210
Large bulldozer	0.089
Loaded trucks	0.076
Small bulldozer	0.003

Source: Federal Transit Administration Transit Noise and Vibration Impact Assessment Manual (FTA 2018)

Vibration amplitude attenuates over distance and is a complex function of how energy is imparted into the ground and the soil conditions through which the vibration is traveling. The following equation can be



used to estimate the vibration level at a given distance for typical soil conditions (FTA 2018). “PPVref” is the reference PPV from Table 5 and “Distance” is the distance between the source and the receptor:

PPV = PPVref x (25/Distance)^1.5

3.0 REGULATORY SETTING

Federal, state, and local agencies regulate different aspects of environmental noise. Generally, the federal government sets standards for transportation-related noise sources closely linked to interstate commerce. These include aircraft, locomotives, and trucks. No federal noise standards are directly applicable to this project. The state government sets standards for transportation noise sources such as automobiles, light trucks, and motorcycles. Noise sources associated with industrial, commercial, and construction activities are generally subject to local control through noise ordinances and general plan policies. Local general plans identify general principles intended to guide and influence development plans.

3.1 STATE REGULATIONS

3.1.1 California Green Building Standards (CalGreen)

The 2016 California Green Building Standards Code (CalGreen) establishes interior noise insulation standards for non-residential occupied buildings. CalGreen Section 5.507 “Environmental Comfort”, states the following:

5.507.4.1 Exterior noise transmission. Wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 in the following locations:

1. *Within the 65 CNEL noise contour of an airport*

Exceptions:

1. *Ldn or CNEL for military airports shall be determined by the facility Air Installation Compatible Land Use Zone (AICUZ) plan.*
2. *Ldn or CNEL for other airports and heliports for which a land use plan that has not been developed shall be determined by the local general plan noise element.*
3. *Within the 65 CNEL or Ldn noise contour of a freeway or expressway, railroad, industrial source or fxed-guideway notice source as determined by the Noise Element of the General Plan.*

5.507.4.1.1 Noise exposure where noise contours are not readily available. Buildings exposed to a noise level of 65 dB Leq-1-hr during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30).

5.507.4.2 Performance method. For buildings located as defined in Section 5.507.4.1 or 5.507.4.1.1, wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (Leq -1Hr) of 50 dBA in occupied areas during any hours of operations

5.507.4.2.1 Site features. Exterior features such as sound walls or earth berms may be utilized as appropriate to the building, addition or alteration project to mitigate sound migration to the interior.

5.507.4.2.2 Documentation of compliance. An acoustical analysis documenting complying interior sound levels shall be prepared by personnel approved by the architect or engineer of record.

5.507.4.3 Interior sound transmission. Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.

3.2 LOCAL REGULATIONS

3.2.1 City of Antioch General Plan[1]

The General Plan sets forth noise and land use compatibility standards to guide development, as well as noise goals and policies to protect citizens from the harmful and annoying effects of excessive noise. The following noise objectives and policies are applicable to the proposed project.

Objective 11.6.1 Noise Objective. Achieve and maintain exterior noise levels appropriate to planned land uses throughout Antioch as described below:

- Residential
  - Single-Family: 60 dBA CNEL within rear yards
  - Multifamily: 60 dBA CNEL within exterior open space
- Schools
  - Classrooms: 65 dBA CNEL
  - Play and Sports Areas: 70 dBA CNEL
- Hospitals, Libraries: 60 dBA CNEL
- Commercial/Industrial: 70 dBA CNEL at the front setback

11.6.2 Noise Policies

a. Implementation of the noise objective contained in Section 11.6.1 and the policies contained in 11.6.2 of the Environmental Hazards Element shall be based on noise data contained in Section 4.9 of the General Plan EIR, unless a noise analysis conducted

[1] https://www.antiochca.gov/fc/community-development/planning/Antioch_Adopted_General_Plan.pdf, last accessed October 29, 2021.

pursuant to the City's development and environmental review process provides more up-to-date and accurate noise predictions, as determined by the City.

b. Maintain a pattern of land uses that separates noise sensitive land uses from major noise sources to the extent possible, and guide noise-tolerant land uses into the noisier portions of the Planning Area.

c. Minimize motor vehicle noise in residential areas through proper route location and sensitive roadway design.

- Provide planned industrial areas with truck access routes separated from residential areas to the maximum feasible extent.

- Where needed, provide traffic calming devices to slow traffic speech within residential neighborhoods.

d. Where new development (including construction and improvement of roadways) is proposed in areas exceeding the noise levels identified in the General Plan Noise Objective, or where the development of proposed uses could result in a significant increase in noise, require a detailed noise attenuation study to be prepared by a qualified acoustical engineer to determine appropriate mitigation and ways to incorporate such mitigation into project design and implementation.

e. When new development incorporating a potentially significant noise generator is proposed, require noise analyses to be prepared by a qualified acoustical engineer. Require the implementation of appropriate noise mitigation when the proposed project will cause new exceedances of General Plan noise objectives, or an audible (3.0 dB(A)) increase in noise in areas where General Plan noise objectives are already exceeded as the result of existing development.

f. In reviewing noise impacts, utilize site design and architectural design features to the extent feasible to mitigate impacts on residential neighborhoods and other uses that are sensitive to noise. In addition to sound barriers, design techniques to mitigate noise impacts may include, but are not limited to:

- Increased building setbacks to increase the distance between the noise source and sensitive receptor.

- Orient buildings which are compatible with higher noise levels adjacent to noise generators or in clusters to shield more noise sensitive areas and uses.

- Place noise tolerant use, such as parking areas, and noise tolerant structures, such as garages, between the noise source and sensitive receptor.

- Cluster office, commercial, or multifamily residential structures to reduce noise levels within interior open space areas.

- Provide double glazed and double paned windows on the side of the structure facing a major noise source, and place entries away from the noise source to the extent possible.

g. Where feasible, require the use of noise barriers (walls, berms, or a combination thereof) to reduce significant noise impacts.

- Noise barriers must have sufficient mass to reduce noise transmission and high enough to shield the receptor from the noise source.

- To be effective, the barrier needs to be constructed without cracks or openings.

- The barrier must interrupt the line of sight between the noise sources and the noise receptor.

- The effects of noise "flanking" the noise barrier should be minimized by bending the end of the barrier back from the noise source.

- Require appropriate landscaping treatment to be provided in conjunction with noise barriers to mitigate their potential aesthetic impacts.

h. Continue enforcement of California Noise Insulation Standards (Title 25, Section 1092, California Administrative Code).

i. Ensure that construction activities are regulated as to hours of operation in order to avoid or mitigate noise impacts on adjacent noise-sensitive land uses.

j. Require proposed development adjacent to occupied noise sensitive land uses to implement a construction-related noise mitigation plan. This plan would depict the location of construction equipment storage and maintenance area, and document methods to be employed to minimize noise impacts on adjacent noise sensitive land uses.

k. Require that all construction equipment utilize noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

m. Prior to the issuance of any grading plans, the City shall condition approval of subdivisions and non-residential development adjacent to any developed/occupied noise-sensitive land uses by requiring applicants to submit a construction-related noise

mitigation plan to the City for review and approval. The plan should depict the location of construction equipment and how the noise from this equipment will be mitigated during construction of the project through the use of such methods as:

- The construction contractor shall use temporary noise-attenuation fences, where feasible, to reduce construction noise impacts on adjacent noise sensitive land uses.
- During all project site excavation and grading on-site, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.
- The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.
- The construction contractor shall limit all construction-related activities that would result in high noise levels to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday. No construction shall be allowed on Sundays and public holidays.

n. The construction-related noise mitigation plan required shall also specify that haul truck deliveries be subject to the same hours specified for construction equipment. Additionally, the plan shall denote any construction traffic haul routes where heavy trucks would exceed 100 daily trips (counting those both to and from the construction site). To the extent feasible, the plan shall denote haul routes that do not pass sensitive land uses or residential dwellings. Lastly, the construction-related noise mitigation plan shall incorporate any other restrictions imposed by the City.

(City of Antioch 2003a)

3.2.2 City of Antioch Code of Ordinances[2]

Article 19 "Noise Attenuation Requirements", Section 9-5.1901 "Noise Attenuation Requirements" provides the following noise attenuation requirements for proposed development.

A. Stationary noise sources. Uses adjacent to outdoor living areas (e.g., backyards for single-family homes and patios for multifamily units) and parks shall not cause an increase in background ambient noise which will exceed 60 CNEL.

B. Mobile noise sources.

[2] https://codelibrary.amlegal.com/codes/antioch/latest/antioch_ca/0-0-0-29353, last accessed October 29, 2021.

1) Arterial and street traffic shall not cause an increase in background ambient noise which will exceed 60 CNEL.

D. Noise attenuation. The City may require noise attenuation measures be incorporated into a project to obtain compliance with this section. Measures outlined in the noise policies of the General Plan should be utilized to mitigate noise to the maximum feasible extent.

Section 5-17.04 "Heavy Construction Equipment Noise" states it shall be unlawful for any person to operate heavy construction equipment during the hours specified below:

1) On weekdays prior to 7:00 a.m. and after 6:00 p.m.

2) On weekdays within 300 feet of occupied dwelling space, prior to 8:00 a.m. and after 5:00 p.m.

3) On weekends and holidays, prior to 9:00 a.m. and after 5:00 p.m., irrespective of the distance from the occupied dwelling.

"Heavy Construction Equipment" is defined as equipment used in grading and earth moving, including diesel engine equipped machines used for that purpose, except pickup trucks of one ton or less. "Operate" includes the starting, warming-up, and idling of heavy construction equipment engines or motors.

Section 5-17.05 "Construction Activity Noise" states it shall be unlawful for any person to be involved in construction activity during the hours specified below:

1) On weekdays prior to 7:00 a.m. and after 6:00 p.m.

2) On weekdays within 300 feet of occupied dwellings, prior to 8:00 a.m. and after 5:00 p.m.

3) On weekends and holidays, prior to 9:00 a.m. and after 5:00 p.m., irrespective of the distance from the occupied dwellings.

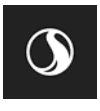
"Construction Activity" means the process or manner of constructing, building, refurbishing, remodeling or demolishing a structure, delivering supplies thereto and includes, but is not limited to, hammering, sawing, drilling, and other construction activities when the noise or sound therefrom can be heard beyond the perimeter of the parcel where such work is being performed. The term "Construction Activity" also includes the testing of any audible device such as a burglar or fire alarm or loudspeaker. "Construction Activity" does not include floor covering installation or painting when done with non-powered equipment.

(City of Antioch 2015b)

4.0 EXISTING NOISE ENVIRONMENT

4.1 SENSITIVE RECEPTORS

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are considered to be more sensitive to noise intrusion than commercial or industrial activities. Ambient noise levels can also affect the perceived desirability or livability of a development.

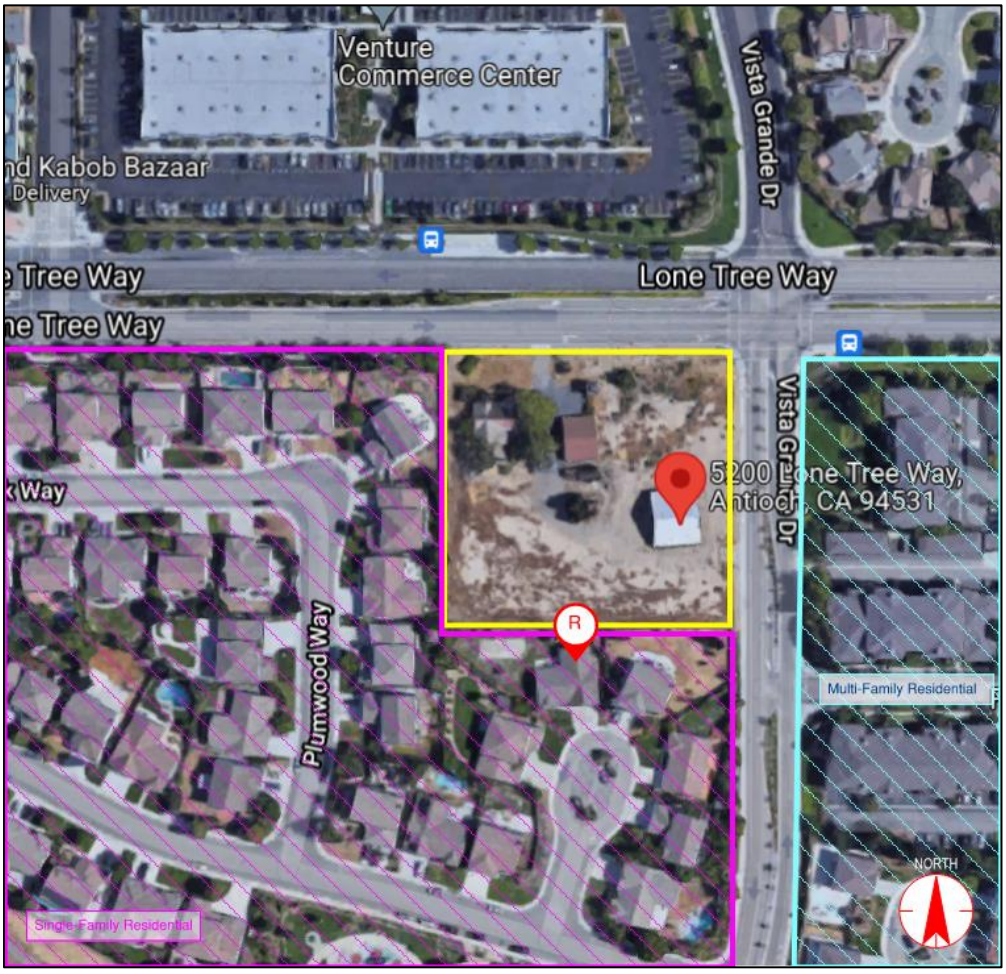


The project site is in southeast Antioch and is currently occupied by a single-story residential structure, a single-story barn structure, a single-story three car garage structure, two seatrain storage containers, two small sheds, and a domestic water tower structure. The rest of the project site consists of land utilized for vehicle and equipment storage for a paving company. The area surrounding the project site consists of commercial, office and residential uses.

As shown in Figure 2, the project site (within the yellow square) is on the southwest corner of Lone Tree Way and Vista Grande Drive. Land use across Lone Tree Way, north of the project site, consists of office and commercial uses. Land use across Vista Grande Drive, to the east of the site, consists of multi-family residential apartments (aqua hatched area in Figure 2). The project site is bordered by one- to two-story single family residential homes to the south and west. State Route 4 is located approximately 0.6 miles east of the project site.

The closest noise-sensitive receptors to the project site are the single-family residential homes along Plumwood Way and Hollowglen Court (pink hatched area in Figure 2). According to the April 19, 2021 Preliminary Not for Construction drawing set, the south edge of the project site will be as close as 16' from the residential home at 5002 Hollowglen Court (red pin in Figure 2).

Figure 2: Project Site and Neighboring Sensitive Receptors



4.2 EXISTING AMBIENT NOISE LEVELS

The existing noise environment in a project area is characterized by the area's general level of development because the level of development and ambient noise levels tend to be closely correlated. Areas that are not urbanized are typically relatively quiet, while areas that are more urbanized are noisier as a result of roadway traffic, industrial activities, and other human activities.

The City as a whole is exposed to noise generated by traffic on major freeways, such as SR 4, and to a lesser extent along major arterial roads, such as Lone Tree Way. The ambient noise levels at and around the 5200 Lone Tree Way gas station project were estimated using the published noise contours in Tables 4.9.C "Existing Traffic Noise" and 4.9.E "Projected Maximum Noise Contours at Build Out" in the Draft General Plan Update Environmental Impact Report for the City of Antioch. Table 4.9.C notes the following noise contour lines for Lone Tree Way south of James Donlon Boulevard:

- 70 dB(A) CNEL – 71' from the roadway centerline
- 65 dB(A) CNEL – 142' from the roadway centerline
- 60 dB(A) CNEL – 301' from the roadway centerline

Table 4.9.E lists the following future noise contours for arterial roadways:

- 70 dB(A) CNEL – 86' from the roadway centerline
- 65 dB(A) CNEL – 242' from the roadway centerline
- 60 dB(A) CNEL – 583' from the roadway centerline
- 55 dB(A) CNEL – 1,318' from the roadway centerline

The gas station project site is located 51' to 347' from the centerline of Lone Tree Way. Using Table 4.9.E in the draft EIR, ambient noise levels are estimated between 68 dB(A) to 71 dB(A). The residential home closest to Lone Tree Way is 114' from the roadway centerline. Estimated ambient noise levels from Lone Tree Way could be up to 69 dB(A) at the home. The single-family home at 5002 Hollowglen Court is about 362' from the centerline of Lone Tree Way. Estimated ambient noise levels at this home are around 63 dB(A).

Therefore, ambient noise levels at the project site should be at the 70 dB(A) CNEL level recommended for commercial/industrial sites in paragraph 11.6.1 "Noise Objective" in the City of Antioch General Plan. The ambient noise level at the existing residential homes may already be above the recommended 60 dB(A) CNEL level listed in the general plan.

5.0 METHODOLOGY FOR ANALYSIS

In accordance with the requirements of CEQA, the noise analysis evaluates the project's noise sources to determine the impact of the proposed project on the existing ambient noise environment. As noted above, noise contours listed in Table 4.9.E "Projected Maximum Noise Contours at Build Out" in the Draft General Plan Update Environmental Impact Report for the City of Antioch were used to provide baseline noise conditions at nearby sensitive receptors and within the project site vicinity. For the purpose of this analysis, potential sensitive receptors were determined by reviewing current aerial photography.

Impacts from future project-related traffic were estimated using the impact analysis contained within the traffic report, prepared by Stantec.

Noise from the project's mechanical systems would operate regularly and are therefore required to comply with the policies and restrictions listed in the General Plan and Code of Ordinances.

The Federal Highway Administration Roadway Construction Noise Model (RCNM) was used to estimate the impact from short-term construction activities. The RCNM is used as the Federal Highway Administration's national standard for predicting noise generated from construction. The RCNM analysis includes the calculation of noise levels at a defined distance for a variety of construction equipment. The spreadsheet inputs include acoustical use factors and distance to receptors and calculates the expected Lmax and Leq values at a selected receptor.

5.1 EPA GUIDELINES

The EPA has established guidelines (EPA 1973) for assessing the impact of an increase in noise levels. These guidelines have been used as industry standard for several years to determine the potential impact of noise increases on communities. Most people will tolerate a small increase in background noise (up to about 5 dB(A)) without complaint, especially if the increase is gradual over a period of years (such as from gradually increasing traffic volumes). Increases greater than 5 dB(A) may cause complaints and interference with sleep. Increases above 10 dB(A) (heard as a doubling of judged loudness) are likely to cause complaints and should be considered a serious increase. Table 6 defines each of the traditional impact descriptions, their quantitative range, and the qualitative human response to changes in noise levels.

Table 1. U.S. Environmental Protection Agency (EPA) Impact Guidelines

Increase over Existing or Baseline Sound Levels	Impact Per EPA Region Guidelines	Qualitative Human Perception of Difference in Sound Levels
0 decibels (dB) to 5 dB	Minimum Impact	Imperceivable or Slight Difference
6 dB to 10 dB	Significant Impact	Significant Noticeable Difference – Complaints Possible
Over 10 dB	Serious Impact	Loudness Changes by a Factor of Two or Greater. Clearly Audible Difference – Complaints Likely

6.0 ENVIRONMENTAL ANALYSIS

6.1 EXTERIOR TRAFFIC NOISE

The level of traffic noise experienced at a location depends primarily on traffic speed (tire noise increases with speed) and the proportion of truck traffic on the road. Trucks generate engine, exhaust, and wind noise in addition to tire noise.

Changes in traffic volumes can also have an impact on overall noise levels. For example, it takes 25 percent more traffic volume to produce an increase of only 1 dB(A) in the ambient noise level. For roads already heavy with traffic volume, an increase in traffic numbers could even reduce noise because the heavier volumes could slow down the average speed of the vehicles. A doubling of traffic volume results in a 3 dB(A) increase in noise levels.

In Section 3.17 “Transportation” in the initial study document, it is stated that the project does not conflict with the General Plan Circulation Element, any program plan, ordinance, or policy addressing the circulation system. The project does not propose to amend or adjust roadway classifications, the roadway network, transit routes, or bicycle network as identified in the General Plan. Since the project does not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, the impact of noise produced from the traffic associated with this project is also anticipated to be less than significant.

6.2 INTERIOR TRAFFIC NOISE

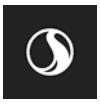
CalGreen states if an occupied non-guestroom space is exposed to a noise level of 65 dB(A) Leq 1-hr during any hour of operation, the exterior façade design is required to incorporate features to reduce noise inside the spaces to a maximum of 50 dBA Leq 1-hr. Given the convenience store on the project site would be exposed to noise levels up to 71 dB(A) CNEL/Ldn, a 1-hour noise level of 65 dB(A) Leq or greater is possible, and the project would be required to comply with the CalGreen requirements.

The April 19, 2021 Preliminary Not for Construction drawing set shows a hard-surfaced floor, exposed metal deck ceiling, and about 562 square feet of exterior glazing in the front wall of the convenience store. Using these assumptions, windows with a minimum Outside-Inside Transmission Class (OITC) rating of OITC 20 would be required to help achieve the code-dictated maximum 50 dB(A) 1-hour Leq noise level. A typical 1” thick insulating glass unit constructed of ¼” glass – ½” airspace – ¼” glass has an expected rating of OITC 26. Therefore, standard construction should be acceptable for the convenience store to achieve the CalGreen code requirements and traffic noise levels would have a less than significant impact.

6.3 PROJECT FIXED-SOURCE AND OPERATIONAL NOISE

6.3.1 Fixed-Source Noise

The roof plan contained in the April 19, 2021 Preliminary Not for Construction drawing set shows two rooftop units, one exhaust fan, and three condensing units on top of the convenience store.



There is also a car wash tunnel located on the east side of the convenience store. Vehicles will enter the car wash tunnel from the south and exit to the north. Typical car wash tunnels will have blowers at the end to dry cars as the exit the tunnel. The single-family residential homes along Plumwood Way should be well-shielded from the car wash tunnel by the convenience store and by an existing block wall at the property line of the project site. The multi-family residential units across Vista Grande Drive will experience shielding of noise from the car wash from the east wall of the car wash tunnel itself. The single-family residential homes around Hollowglen Court will be separated from the car wash tunnel by the existing block wall only.

Both the rooftop equipment and the car wash operation will generate noise that will radiate to the neighboring properties. The noise from this equipment would be obliged to comply with the requirements in Policy 11.6.2.e in the General Plan and the maximum noise level limits listed in Section 9-5.1901, Paragraph A in the City of Antioch Code of Ordinances.

When the actual on-site equipment is selected, including the car wash blowers, a noise analysis will be prepared by a qualified acoustical engineer and the equipment will be designed to incorporate measures as needed, such as shielding, barriers, and/or attenuators to reduce noise levels that may affect nearby properties. Noise levels from the project's fixed-source equipment will either be designed to achieve 60 dB(A) Ldn at the outdoor living areas of the existing residential receptors or will not cause an audible (3.0 dB(A)) increase in noise in areas where General Plan noise objectives are already exceeded as the result of existing development.

With the requirements listed in Policy 11.6.2.e in the General Plan and Section 9-5.1901, Paragraph A, the impact of fixed-source noise to the neighboring properties would be less than significant.

6.3.2 Operational Noise

When the project is completed, noise will be generated from the operation of the new gas station, including parking lot activity, noise from gas pump kiosks, and potential background music. Noise from patrons visiting the convenience store would consist of driving to the store and parking lot activity. Noise from parking lot activity includes elements, such as car doors closing and conversation. These activities will be very short in duration and much quieter than the existing traffic experienced on the local roads. For example, from Table 2 above, normal conversation at 3 feet is 65 dB(A). The closest noise-sensitive receptors are about 85 feet away from the convenience store. Using distance attenuation of 6 dB per doubling of distance, normal conversation at the gas station would only be 36 dB(A) at the closest residential receptors and would be well below the noise level generated from current street traffic. Therefore, operation of the proposed project would have a less than significant impact on neighboring properties.

6.3.3 Trash Enclosure

The April 19, 2021 Preliminary Not for Construction drawing set shows a trash enclosure located on the west side of the parking lot, approximately 106' from the closest residential receptors along Plumwood Way. The trash enclosure will be completely closed by concrete walls on the north, south, and west sides of the dumpsters to shield them from the neighboring residential homes.

Activity from garbage truck traffic and trash pickup would remain the same as currently experienced with the residential and commercial uses already around the project site and noise from trash pickup should have a less than significant impact.

6.4 SHORT TERM CONSTRUCTION NOISE

Two types of short-term noise impacts could occur during construction. The first type of short-term noise impact is traffic noise from construction crew vehicular commutes on the access roads leading to and from the project site. As stated in Section 3.17 "Transportation" in the initial study document, construction of the proposed project would generate traffic through the transport of workers, equipment, and materials to and from the project site. It is currently anticipated that project construction would take approximately 8 months to complete, starting in June 2022 and ending in January 2023. Construction equipment and materials would be stored onsite. Construction activities are anticipated to be mostly confined to the project site, but the construction of a turn lane into the Project site may require lane closures along Lone Tree Way. Project construction and grading activities would be consistent with the Antioch Municipal Code Section 5-17.05 and would occur on weekdays from 7:00 a.m. - 6:00 p.m., on weekdays within 300 feet of occupied dwellings, 8:00 a.m. - 5:00 p.m., and on weekends and holidays 9:00 a.m. - 5:00 p.m., irrespective of the distance from the occupied dwellings (City of Antioch 2020b). Since construction traffic would be temporary and would be spread across the duration of construction, this impact would be less than significant.

The second type of short-term noise impact is related to noise generated during construction. Construction activities would include demolition, site preparation, grading, building construction, paving, and architectural coating. Each construction stage has its own mix of equipment, and consequently, its own noise characteristics. The various construction operations would change the character of the noise generated at the project site and therefore, the noise level as construction progresses. The loudest stages of construction include the demolition, site preparation, and grading stages, as the noisiest construction equipment is typically earthmoving and grading equipment.

The construction of the 5200 Lone Tree Way United Pacific Gas Station project would be conducted in six stages and each stage will use different construction equipment. The main types of noise-producing equipment for each construction stage are shown in Table 7.

Table 7. Construction Stage Equipment

Construction Stage	Construction Equipment	
Demolition	• Concrete Saw • Rubber-Tired Dozer • Tractor	• Front-End Loader • Backhoe • Haul Trucks (2)
Site Preparation	• Grader • Rubber-Tired Dozer	• Tractor
Grading	• Grader • Rubber-Tired Dozer • Tractor	• Front-End Loader • Haul Trucks (3)

Construction Stage	Construction Equipment	
Building Construction	• Crane • Generator • Welders (3)	• Forklift • Tractor
Paving	• Cement Mixer • Paver • Paving Equipment	• Roller • Tractor
Architectural Coating	• Air Compressor	

Table 8 lists the types of construction equipment and the maximum and average operational noise level as measured at 16', 36', and 85' from the operating equipment. The 16' distance represents the approximate closest distance between the south edge of the project site and the closest noise-sensitive receptor at 5002 Hollowglen Court. The 16' distance would be applicable during the Demolition, Site Preparation, and Grading stages of construction. The 36' distance is the estimated closest distance between the paving work and the residence at 5002 Hollowglen Court. The 85' distance is the approximate closest distance between the closest residential receptor and the building construction and architectural coating work.

Table 8. Summary of Construction Equipment Source Levels

Construction Equipment Source at the Project Site	Distance to Nearest Sensitive Receptor	Sound Level at Receptor		
		Lmax, dB(A)	Acoustical Use Factor (%)	Leq, dB(A)
Backhoe	16 feet	87.5	40	83.5
	36 feet	80.4		76.4
	85 feet	73.0		69.0
Crane	16 feet	90.4	16	82.5
	36 feet	83.4		75.4
	85 feet	75.0		68.0
Compressor (air)	16 feet	87.6	40	83.6
	36 feet	80.5		76.5
	85 feet	73.1		69.1
Concrete Mixer	16 feet	88.7	40	84.7
	36 feet	81.7		77.7
	85 feet	74.2		70.2
Concrete Saw	16 feet	99.5	20	92.5
	36 feet	92.4		85.4
	85 feet	85.0		78.0
Dozer	16 feet	91.6	40	87.6
	36 feet	84.5		80.5
	85 feet	77.1		73.1

Construction Equipment Source at the Project Site	Distance to Nearest Sensitive Receptor	Sound Level at Receptor		
		Lmax, dB(A)	Acoustical Use Factor (%)	Leq, dB(A)
Forklift (Gradall)	16 feet	93.3	40	89.3
	36 feet	86.3		82.3
	85 feet	78.8		74.8
Front End Loader	16 feet	89.0	40	85.0
	36 feet	82.0		78.0
	85 feet	74.5		70.5
Generator	16 feet	90.5	50	87.5
	36 feet	83.5		80.5
	85 feet	76.0		73.0
Grader	16 feet	94.9	40	90.9
	36 feet	87.9		83.9
	85 feet	80.4		76.4
Haul Truck	16 feet	86.4	40	82.4
	36 feet	79.4		75.4
	85 feet	71.9		67.9
Paver and Paving Equipment	16 feet	87.1	50	84.1
	36 feet	80.1		77.1
	85 feet	72.6		69.6
Roller	16 feet	89.9	20	82.9
	36 feet	82.9		75.9
	85 feet	75.4		68.4
Tractor	16 feet	93.9	40	89.9
	36 feet	86.9		82.9
	85 feet	79.4		75.4
Welder	16 feet	83.9	40	79.9
	36 feet	76.9		72.9
	85 feet	69.4		65.4

Source: Federal Highway Administration Road Construction Noise Model v1.1 2018

A worst-case condition for construction activity would assume all noise-generating equipment were operating at the same time and at the same distance from the closest noise-sensitive receptor. Using this assumption, the RCNM program calculated the following combined Leq and Lmax noise levels from each stage of construction as shown in Table 9.

Table 9. Calculated Noise Level from Each Construction Stage

Construction Phase	Distance to Closest Noise Sensitive Receptor (feet)	Calculated Maximum Sound Level in A-Weighted Decibels	Calculated Equivalent Sound Level in A-Weighted Decibels
Demolition	16 feet	101.8	96.3
Site Preparation	16 feet	98.4	94.5
Grading	16 feet	99.6	95.6
Building Construction	85 feet	84.3	80.1
Paving	36 feet	90.2	85.9
Architectural Coating	85 feet	73.1	69.1

Although noise levels from construction could exceed the 60-65 dB(A) land use compatibility level for residential properties as defined by the General Plan (Antioch 2003a), increases in noise levels from construction activity would be temporary. All construction activities at the site would also follow the time and noise reduction measure requirements listed in Policies 11.6.2.i, j, k, m, and n in the General Plan and Sections 5-17.04 and 5-17.05 in the City of Antioch Code of Ordinances (Antioch 2015b) as follows:

i. Ensure that construction activities are regulated as to hours of operation in order to avoid or mitigate noise impacts on adjacent noise-sensitive land uses.

j. Require proposed development adjacent to occupied noise sensitive land uses to implement a construction-related noise mitigation plan. This plan would depict the location of construction equipment storage and maintenance area, and document methods to be employed to minimize noise impacts on adjacent noise sensitive land uses.

k. Require that all construction equipment utilize noise reduction features (e.g., mufflers and engine shrouds) that are no less effective than those originally installed by the manufacturer.

m. Prior to the issuance of any grading plans, the City shall condition approval of subdivisions and non-residential development adjacent to any developed/occupied noise-sensitive land uses by requiring applicants to submit a construction-related noise mitigation plan to the City for review and approval. The plan should depict the location of construction equipment and how the noise from this equipment will be mitigated during construction of the project through the use of such methods as:

- The construction contractor shall use temporary noise-attenuation fences, where feasible, to reduce construction noise impacts on adjacent noise sensitive land uses.

- During all project site excavation and grading on-site, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards. The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.

- The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.

- The construction contractor shall limit all construction-related activities that would result in high noise levels to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday. No construction shall be allowed on Sundays and public holidays.

n. The construction-related noise mitigation plan required shall also specify that haul truck deliveries be subject to the same hours specified for construction equipment. Additionally, the plan shall denote any construction traffic haul routes where heavy trucks would exceed 100 daily trips (counting those both to and from the construction site). To the extent feasible, the plan shall denote haul routes that do not pass sensitive land uses or residential dwellings. Lastly, the construction-related noise mitigation plan shall incorporate any other restrictions imposed by the City.

Section 5-17.04 “Heavy Construction Equipment Noise” and Section 5-17.05 “Construction Activity Noise” states it shall be unlawful for any person to operate heavy construction equipment or be involved in construction activity during the hours specified below:

1) On weekdays prior to 7:00 a.m. and after 6:00 p.m.

2) On weekdays within 300 feet of occupied dwelling space, prior to 8:00 a.m. and after 5:00 p.m.

3) On weekends and holidays, prior to 9:00 a.m. and after 5:00 p.m., irrespective of the distance from the occupied dwelling.

In conclusion, construction noise would be short-term and intermittent. Furthermore, the implementation of the mitigation measures and hours restrictions as dictated by the City would reduce construction noise to the closest noise-sensitive receptors to the extent feasible. Therefore, impacts from construction noise would be less than significant with mitigation.

6.5 GROUNDBORNE VIBRATION

During construction of the proposed project, equipment such as trucks and bulldozers may be used as close as 16 feet from the nearest sensitive receptor at 5002 Hollowglen Court. Rollers may be used as close as 36 feet from the nearest residential property. Equipment used during project construction could generate vibration levels between 0.0124 and 0.1738 PPV as shown below in Table 10. Although vibration levels from construction could exceed the threshold at which human annoyance could occur, construction activities would be temporary and would be limited to the hours restrictions set in the City of Antioch General Plan and Municipal Code.

All estimated construction vibration levels are expected to be below the limit for building damage as defined by Table 4.

Table 10. Calculated Vibration Levels for Construction Equipment

Type of Equipment	Calculated Peak Particle Velocity at Closest Noise-Sensitive Receptor	Threshold at which Human Annoyance Could Occur	Potential for Proposed Project to Exceed Threshold
Large Bulldozer	0.1738	0.10	Yes
Loaded Trucks	0.1484	0.10	Yes
Small Bulldozer	0.1215	0.10	Yes
Vibratory Roller	0.0124	0.10	None

Source: Federal Transit Administration Transit Noise and Vibration Impact Assessment Manual (FTA 2018)

Construction activities would again be temporary in nature and would likely occur during normal daytime working hours. The Federal Transit Administration offers the following construction vibration mitigation measures listed in Section 7.2 “Construction Vibration Assessment” in the Transit Noise and Vibration Impact Assessment Manual document (FTA Report No. 0123 September 2018).

Design Considerations and Project Layout

- Route heavily loaded trucks away from residential streets. Select streets with the fewest homes if no alternatives are available.
- Operate earth-moving equipment on the construction lot as far away from vibration-sensitive sites as possible.

Sequence of Operations

- Phase demolition, earth-moving, and ground-impacting operations so as not to occur in the same time period. Unlike noise, the total vibration level produced could be substantially less when each vibration source operates separately.
- Avoid nighttime activities. Sensitivity to vibration increases during the nighttime hours in residential neighborhoods.

Alternate Construction Methods

- Avoid vibratory rollers and packers near sensitive areas.

Vibration Mitigation Plan

- Describe and commit to a mitigation plan that will be developed and implemented during the engineering and construction phase when the information available during the project development phase will not be sufficient to define specific construction vibration mitigation measures. The objective of the plan should be to minimize construction vibration damage using all reasonable and feasible means available. The plan should include the following components:
    - A procedure for establishing threshold and limiting vibration values for potentially affected structures, based on an assessment of each structure’s ability to withstand the loads and displacements due to construction vibrations.

- A commitment to develop a vibration monitoring plan during the engineering phase and to implement a compliance monitoring program during construction.

Implementation of the recommendations provided by the FTA would make construction vibration impacts less than significant with mitigation incorporated.

7.0 CONCLUSION

Noise generation associated with the proposed project is typically attributed to project construction activities. Operational noise generation can be attributed to marginally greater noise from the patrons of the convenience store as well as from typical commercial fixed rooftop and carwash mechanical equipment.

Based on the FHWA RCNM, the proposed project can generate high levels of construction noise which are temporary and would not result in long-term noise increases from construction. While the noise levels presented are a "worst-case" scenario and may at times be audible over traffic-related noise levels surrounding the area, these high levels are not expected to be continuous. Moreover, the highest noise levels would occur only during the hours allowed by the City of Antioch restrictions and should be reduced by the application of measures to control construction noise and vibration at the project site. Noise and vibration control techniques should be implemented to ensure noise and vibration generated from temporary construction activities would not be substantial at nearby sensitive receptors.

The new gas station and convenience store at 5200 Lone Tree Way would follow all requirements of the City of Antioch General Plan and the City of Antioch Code of Ordinances and would incorporate appropriate mitigation measures to limit construction noise and vibration to the neighboring noise-sensitive receptors. Therefore, the project would have a less than significant impact on the surrounding neighborhood.

8.0 REFERENCES

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Report date: 10/29/2021
Case Description: 5200 Lone Tree Way - Demolition

		Baselines (dBA)		---- Receptor #1 ----
Description	Land Use	Daytime	Evening	Night
5002 Hollowglen Court	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Concrete Saw	No	20		89.6	16	0
Dozer	No	40		81.7	16	0
Tractor	No	40	84		16	0
Front End Loader	No	40		79.1	16	0
Backhoe	No	40		77.6	16	0
Haul Truck	No	40		76.5	16	0
Haul Truck	No	40		76.5	16	0

Results

	Calculated (dBA)	
Equipment	Lmax	Leq
Concrete Saw	99.5	92.5
Dozer	91.6	87.6
Tractor	93.9	89.9
Front End Loader	89	85
Backhoe	87.5	83.5
Haul Truck	86.4	82.4
Haul Truck	86.4	82.4
Total	**101.8**	**96.3**

Report date: 10/29/2021
Case Description: 5200 Lone Tree Way - Site Preparation

		Baselines (dBA)		---- Receptor #1 ----
Description	Land Use	Daytime	Evening	Night
5002 Hollowglen Court	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		16	0
Dozer	No	40		81.7	16	0
Tractor	No	40	84		16	0

Results

	Calculated (dBA)	
Equipment	Lmax	Leq
Grader	94.9	90.9
Dozer	91.6	87.6
Tractor	93.9	89.9
Total	**98.4**	**94.5**

Report date: 10/29/2021
Case Description: 5200 Lone Tree Way - Grading

		Baselines (dBA)		---- Receptor #1 ----
Description	Land Use	Daytime	Evening	Night
5002 Hollowglen Court	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85		16	0
Dozer	No	40		81.7	16	0
Tractor	No	40	84		16	0
Front End Loader	No	40		79.1	16	0
Haul Truck	No	40		76.5	16	0
Haul Truck	No	40		76.5	16	0
Haul Truck	No	40		76.5	16	0

Results

	Calculated (dBA)	
Equipment	Lmax	Leq
Grader	94.9	90.9
Dozer	91.6	87.6
Tractor	93.9	89.9
Front End Loader	89	85
Haul Truck	86.4	82.4
Haul Truck	86.4	82.4
Haul Truck	86.4	82.4
Total	**99.6**	**95.6**

Report date: 10/29/2021
Case Description: 5200 Lone Tree Way - Building Construction

		Baselines (dBA)		---- Receptor #1 ----
Description	Land Use	Daytime	Evening	Night
5002 Hollowglen Court	Residential	60	60	60

Description	Impact Device	Usage(%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Crane	No	16		80.6	85	0
Gradall	No	40		83.4	85	0
Generator	No	50		80.6	85	0
Tractor	No	40	84		85	0
Welder / Torch	No	40		74	85	0
Welder / Torch	No	40		74	85	0
Welder / Torch	No	40		74	85	0

Results

	Calculated (dBA)	
Equipment	Lmax	Leq
Crane	75.9	68
Gradall	78.8	74.8
Generator	76	73
Tractor	79.4	75.4
Welder / Torch	69.4	65.4
Welder / Torch	69.4	65.4
Welder / Torch	69.4	65.4
Total	**84.3**	**80.1**

Report date: 10/29/2021
Case Description: 5200 Lone Tree Way - Paving

		Baselines (dBA)		---- Receptor #1 ----
Description	Land Use	Daytime	Evening	Night
5002 Hollowglen Court	Residential	60	60	60

			Equipment			
	Impact		Spec Lmax	Actual Lmax	Receptor Distance	Estimated Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Concrete Mixer Truck	No	40		78.8	36	0
Paver	No	50		77.2	36	0
Paver	No	50		77.2	36	0
Roller	No	20		80	36	0
Tractor	No	40	84		36	0

Results

	Calculated (dBA)	
Equipment	Lmax	Leq
Concrete Mixer Truck	81.7	77.7
Paver	80.1	77.1
Paver	80.1	77.1
Roller	82.9	75.9
Tractor	86.9	82.9
Total	**90.2**	**85.9**

Report date: 10/29/2021
Case Description: 5200 Lone Tree Way - Architectural Coating

		Baselines (dBA)		---- Receptor #1 ----
Description	Land Use	Daytime	Evening	Night
5002 Hollowglen Court	Residential	60	60	60

			Equipment			
			Spec	Actual	Receptor	Estimated
	Impact		Lmax	Lmax	Distance	Shielding
Description	Device	Usage(%)	(dBA)	(dBA)	(feet)	(dBA)
Compressor (air)	No	40		77.7	85	0

Results

	Calculated (dBA)	
Equipment	Lmax	Leq
Compressor (air)	73.1	69.1
Total	**73.1**	**69.1**