Air Quality Technical Report

Pellissippi Parkway Extension (SR 162)

Blount County, Tennessee

TDOT PIN: 101423.00

State Project No. 05097-1226-04

Prepared For:

Tennessee Department of Transportation

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List of Acronyms

CAA	Clean Air Act
CFC	Chlorofluorocarbons
CFR	Code of Federal Regulations
CH_4	Methane
CO	Carbon Monoxide
CO_2	Carbon Dioxide
EA	Environmental Assessment
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FR	Federal Register
HC	Hydrocarbons
HCFC	Hydrochlorofluorocarbons
IRIS	Integrated Risk Information System
LOS	Level of Service
Mg/m^3	milligrams per cubic meters
MSAT	Mobile Source Air Toxics

N_2O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NASA	National Aeronautics and Space Administration
NATA	National Air Toxics Assessment
NEPA	National Environmental Policy Act of 1969
NH_3	Ammonia
NOAA	National Oceanic and Atmospheric Administration
NO_2	Nitrogen Dioxide
NO_X	Nitrogen Oxides
NOI	Notice of Intent
O_3	Ozone
Pb	Lead
$PM_{2.5}$	Particulate Matter less than or equal to 2.5 microns in size
PM_{10}	Particulate Matter less than or equal to 10 microns in size
ppm	Parts per million
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SO_X	Sulfur Oxides
SR	State Route
TDOT	Tennessee Department of Transportation
TIP	Transportation Improvement Program
TPO	Transportation Planning Organization
TSP	Total Suspended Particulates
$\mu g/m^3$	Micrograms per cubic meter
USEPA	US Environmental Protection Agency
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds

1. Introduction

Pellissippi Parkway (State Route (SR) 162) is a major northwest/southeast route connecting Interstate 40 (I-40)/I-75 and SR 33 in Knox and Blount Counties, Tennessee. Pellissippi Parkway (designated as I-140) between I-40/I-75 and SR 33 was designed and built in four sections between 1987 and 2005. The section of Pellissippi Parkway between SR 33 and US 321/SR 73 is the remaining undeveloped portion of the parkway that was identified in the State's 1986 Urgent Highway Needs Plan. The Tennessee Department of Transportation (TDOT) proposes to extend the existing Pellissippi Parkway from SR 33 to US 321/SR 73 in the cities of Alcoa and Maryville and in unincorporated Blount County. The total length of the proposed extension is approximately 4.5 miles.

The project is proposed by TDOT for the following purposes:

- Provide travel options for motorists to the existing radial roadway network;
- Enhance regional transportation system linkages;
- Assist in achieving acceptable traffic flows (level of service) on the transportation network; and
- Enhance roadway safety on the roadway network, including the Maryville core.

In April 2006, TDOT initiated an Environmental Impact Statement (EIS) for the project with the publication of a formal Notice of Intent (NOI) to prepare an EIS in the Federal Register. Public and agency scoping was conducted in the Spring and Summer of 2006. At that time, TDOT asked the public to provide input on the purpose and need for the project and to identify potential alternatives for consideration in the Draft EIS. Additional public meetings were held in November 2007 and February 2008 to gather public input on the refined purpose and need and potential project corridors and alternatives.

An initial range of alternatives and corridors were developed as a result of public input and input from local and regional agencies, including the Knoxville Regional Transportation Planning Organization (TPO). The alternatives and corridors were refined based on windshield reviews and reviews of existing data sources including Geographic Information Systems (GIS) information from local, state and federal agencies.

Based on the results of the screening analysis and application of evaluation criteria, public input during the 2007 and 2008 public meetings and comment periods, and participating agency comments and concurrence, TDOT has determined the following alternatives that will be carried forward, refined and evaluated in the DEIS (**Figure 1**):

- **No-Build Alternative:** The No-Build Alternative would not extend Pellissippi Parkway beyond its existing terminus at SR 33; however, the No-Build Alternative would include projects in the study area that are identified in the Knoxville Region Long Range Transportation Plan (LRTP) 2005 to 2030, including those projects listed below:
  - Improving SR 33, including widening to four lanes and making intersection improvements at Brown School Road;
  - Improving sections of US 411, including adding a center turn lane and reconstructing substandard two-lane sections;

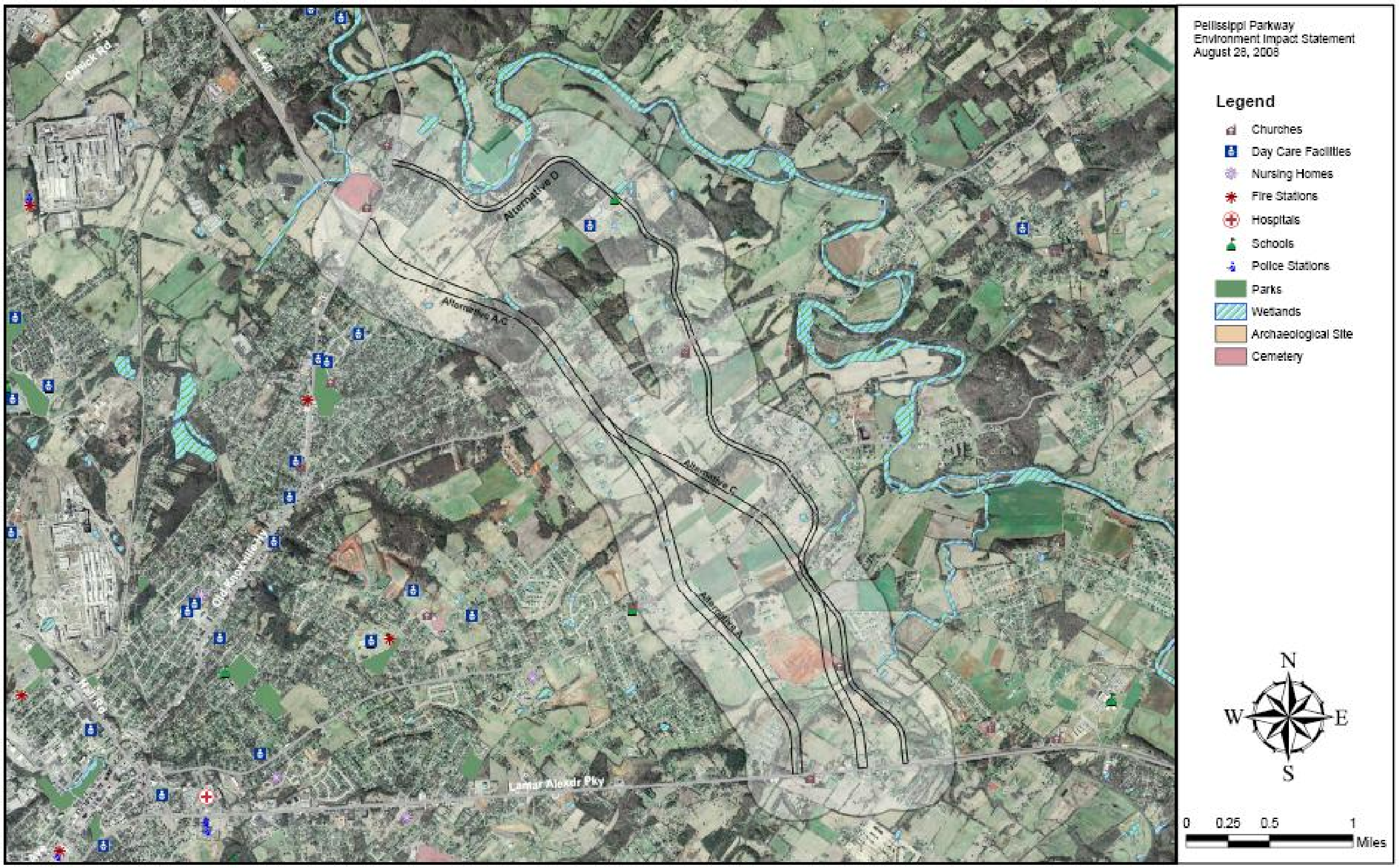
- Reconstructing substandard two-lane sections of Peppermint Hills Road, Sam Houston School Road, and Ellejoy Road;
- Constructing new six-lane Relocated Alcoa Highway; and
- Improving Alcoa Highway (SR 115) by adding turn lanes and traffic signals and widening four-lane sections to six-lanes.

- **Extend Pellissippi Parkway in one of two option alignments**: Under the Build Alternative, existing Pellissippi Parkway would be extended from SR 33 to US 321, as a four-lane divided roadway, with interchanges at SR 33, US 411 and US 321. The two alternate alignments under consideration for the DEIS, Alternative A and Alternative C, are described below:
  - **Alternative A**: This alternative alignment generally follows the corridor identified and investigated in the 2002 Environmental Assessment (EA) and selected as the preferred alternative. This alternative starts on the east side of SR 33, opposite the existing half interchange of Pellissippi Parkway and SR 33. From this terminus, the route follows a generally easterly and southeasterly path to Wildwood Road, passing through former farmlands that are now the site of the proposed Pellissippi Center Research and Development Park. Alternative A also runs west of Mount Lebanon Road in this area. After crossing Wildwood Road, the alignment continues in a generally southerly direction, crossing Brown School Road, US 411 east of the Davis Ford Road intersection with US 411, and Davis Ford Road, and then passing along the northeastern edge of the Kensington Place mobile home park. The alignment intersects with US 321 just east of Flag Branch. Alternative A is approximately 4.38 miles in length.
  - **Alternative C**: This alternative shares the route of Alternative A from SR 33 to the vicinity of Brown School Road, at which point Alternative C diverges to the east. Alternative C then runs in a southeasterly direction, crossing US 411 about 0.6 miles east of Alternative A. It continues southeasterly to cross Davis Ford Road and proceeds southerly, crossing Centennial Church Road about 500 feet west of Helton Road, crossing John Helton Road and terminating with US 321 at Hubbard School Road. The alternative is approximately 4.68 miles in length.

- **Upgrade Existing Two-Lane Network – Corridor D**: The alternative concept of upgrading a two-lane network of existing roads to serve as a two-lane connection between SR 33 and US 321 emerged during the course of this study based on discussions with the public about travel needs and environmental concerns. This upgraded network was seen as a way to improve some of the currently deficient two-lane roads in the study area and provide a more direct connection between SR 33 and US 321 east of Maryville without having a new freeway-type facility. A route using portions of existing Sam Houston, Peppermint Road, Hitch Road, and Helton Road was identified. Under this alternative, now referred to as Alternative D, an improved two-lane roadway with adequate shoulders would be constructed using the existing roadway alignment where possible, while straightening curves and realigning intersections and using new locations to provide a continuous route with a 50 mile per hour design speed. The length of this corridor is approximately 5.77 miles.

Figure 1: Project Study Area

Alternatives to be Evaluated in the DEIS



2. Environmental Analysis

2.1. Affected Environment

Air pollution is a general term that refers to one or more chemical substances that degrade the quality of the atmosphere. Individual air pollutants degrade the atmosphere by reducing visibility, damaging property, reducing the productivity or vigor of crops or natural vegetation, or harming human or animal health.

2.1.1. Clean Air Act Amendments of 1990

The Clean Air Act (CAA) Amendments of 1990 and the Final Transportation Conformity Rule [40 CFR Parts 51 and 93] direct the U.S. Environmental Protection Agency (EPA) to implement environmental policies and regulations that will ensure acceptable levels of air quality. The Clean Air Act and the Final Transportation Conformity Rule affect proposed transportation projects. According to Title I, Section 176 (c) 2:

> "No federal agency may approve, accept, or fund any transportation plan, program, or project unless such plan, program, or project has been found to conform to any applicable State Implementation Plan (SIP) in effect under this act."

The Final Conformity Rule defines conformity as follows:

> "Conformity to an implementation plan's purpose of eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards (NAAQS) and achieving expeditious attainment of such standards; and that such activities will not:
>
> - Cause or contribute to any new violation of any NAAQS in any area;
> - Increase the frequency or severity of any existing violation of any NAAQS in any area; or
> - Delay timely attainment of any NAAQS or any required interim emission reductions or other milestones in any area."

2.1.2. National and State Ambient Air Quality Standards

As required by the Clean Air Act, National Ambient Air Quality Standards (NAAQS) have been established for six major air pollutants. These pollutants, known as criteria pollutants, are: carbon monoxide, nitrogen dioxide, ozone, particulate matter (PM_{10} and $PM_{2.5}$), sulfur dioxide and lead. The State of Tennessee has also established ambient air quality standards. These standards are either the same or more stringent than the corresponding federal standards.

Both State and Federal standards are summarized in Table 1. The "primary" standards have been established to protect the public health. The "secondary" standards are intended to protect the nation's welfare and account for air pollutant effects on soil, water, visibility, materials, vegetation and other aspects of the general welfare.

Table 1: State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	Tennessee Standards		Federal Standards	
		Primary	Secondary	Primary	Secondary
Ozone	1 hour	0.12 ppm (235 $\mu g/m^3$)	Same as primary standard	0.12 ppm (235 $\mu g/m^3$) (applies in only limited areas)	Same as primary standard
	8 hour(5)	--	--	0.075 ppm (147 $\mu g/m^3$)	Same as primary standard
Carbon Monoxide	8 hour(1)	9 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	None
	1 hour(1)	35 ppm (40 mg/m^3)	35 ppm (40 mg/m^3)	35 ppm (40 mg/m^3)	
Nitrogen Dioxide	Annual arithmetic mean	0.05 ppm (100 $\mu g/m^3$)	Same as primary standard	0.053 ppm (100 $\mu g/m^3$)	Same as primary standard
Sulfur Dioxide	Annual arithmetic mean	0.030 ppm (80 $\mu g/m^3$)	--	0.030 ppm (80 $\mu g/m^3$)	-
	24 hour(1)	0.14 ppm (365 $\mu g/m^3$)	--	0.14 ppm (365 $\mu g/m^3$)	-
	3 hour		0.5 ppm (1,300 $\mu g/m^3$)	-	0.5 ppm (1,300 $\mu g/m^3$)
Particulate Matter (PM_{10})	Annual arithmetic mean	50 $\mu g/m^3$	Same as primary standard	--	--
	24 hour(2)	150 $\mu g/m^3$		150 $\mu g/m^3$	Same as primary standard
Particulate Matter ($PM_{2.5}$)	Annual arithmetic mean(3)	--	--	15 $\mu g/m^3$	Same as primary standard
	24 hour(4)	--	--	35 $\mu g/m^3$	
Total Suspended Particulates (TSP)(6)	24 hour	--	150 $\mu g/m^3$	--	--
Lead	Quarterly arithmetic mean	1.5 $\mu g/m^3$	-	1.5 $\mu g/m^3$	-

Source: *http://www.tennessee.gov/sos/rules/1200/1200-03/1200-03-03.pdf and http://www.epa.gov/air/criteria.html*

(1) Not to be exceeded more than once per year.

(2) Not to be exceeded more than once per year on average over 3 years.

(3) To attain this standard, the 3-year average of the weighted annual mean PM2.5 concentrations from single or multiple community-oriented monitors must not exceed 15.0 µg/m3.

(4) To attain this standard, the 3-year average of the 98th percentile of 24-hour concentrations at each population-oriented monitor within an area must not exceed 35 µg/m3 (effective December 17, 2006).

(5) (a) To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm.
(b) The 1997 standard—and the implementation rules for that standard—will remain in place for implementation purposes as the EPA undertakes rulemaking to address the transition from the 1997 ozone standard to the 2008 ozone standard.

2.1.3. Criteria Pollutants and Effects

Pollutants that have established national standards are referred to as "criteria pollutants." The sources of these pollutants, their effects on human health and the nation's welfare, and their final deposition in the atmosphere vary considerably. A brief description of each pollutant is provided below.

Figure 2: Ozone in the Atmosphere

Source: Ozone NY
http://www.ozoneny.org/about_ozone/good_vs_bad_ozone.asp

Ozone. Ozone (O_3) is a colorless toxic gas. As shown in Figure 2, 0_3 is found in both the Earth's upper and lower atmospheric levels. In the upper atmosphere, O_3 is a naturally occurring gas that helps to prevent the sun's harmful ultraviolet rays from reaching the Earth. In the lower layer of the atmosphere, O_3 is man-made. Although O_3 is not directly emitted, it forms in the lower atmosphere through a chemical reaction between hydrocarbons (HC), also referred to as Volatile Organic Compounds or VOCs, and nitrogen oxides (NOx), which are emitted from industrial sources and from automobiles. Substantial O_3 formations generally require a stable atmosphere with strong sunlight; thus high levels of O_3 are generally a concern in the summer. O_3 is the main ingredient of smog. O_3 enters the bloodstream through the respiratory system and interferes with the transfer of oxygen, depriving sensitive tissues in the heart and brain of oxygen. O_3 also damages vegetation by inhibiting its growth.

Particulate Matter. Particulate pollution is composed of solid particles or liquid droplets that are small enough to remain suspended in the air. In general, particulate pollution can include dust, soot, and smoke; these can be irritating but usually are not poisonous.

Particulate pollution also can include bits of solid or liquid substances that can be highly toxic. Of particular concern are those particles that are smaller than, or equal to, 10 microns (PM_{10}) and 2.5 microns ($PM_{2.5}$) in size.

PM_{10} refers to particulate matter less than 10 microns in diameter, about one-seventh the thickness of a human hair (Figure 3). Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter also forms when industry and gases emitted from motor vehicles undergo chemical reactions in the atmosphere.

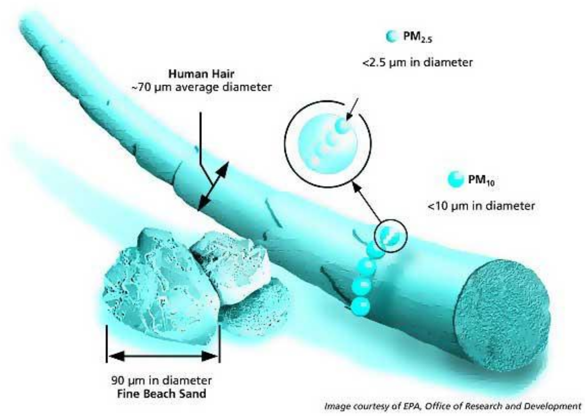
Major sources of PM_{10} include motor vehicles; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and atmospheric chemical and photochemical reactions. Suspended particulates produce haze and reduce visibility.

Data collected through numerous nationwide studies indicate that most of the PM_{10} comes from the following:

- Fugitive dust
- Wind erosion
- Agricultural and forestry sources

A small portion of particulate matter is the product of fuel combustion processes. In the case of $PM_{2.5}$, the combustion of fossil fuels accounts for a significant portion of this pollutant. The main health effect of airborne particulate matter is on the respiratory system. $PM_{2.5}$ refers to particulates that are 2.5 microns or less in diameter, roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (from motor vehicles, power generation, and industrial facilities), residential fireplaces, and wood stoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as sulfur dioxide, nitrogen oxides, and volatile organic compounds. Like PM_{10}, $PM_{2.5}$ can penetrate the human respiratory system's natural defenses and damage the respiratory tract when inhaled. Whereas particles 2.5 to 10 microns in diameter tend to collect in the upper portion of the respiratory system, particles 2.5 microns or less are so tiny that they can penetrate deeper into the lungs and damage lung tissues.

Figure 3: Relative Particulate Matter Size

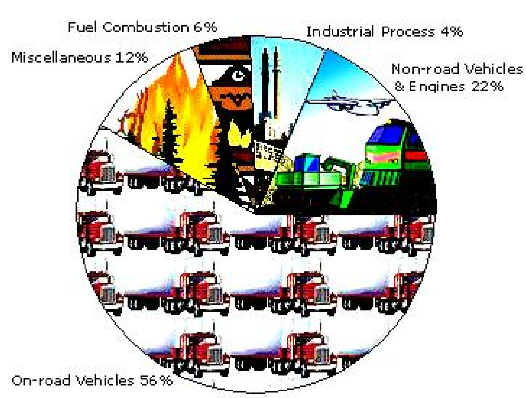


Source: EPA Office of Air and Radiation
http://www.epa.gov/oar/particlepollution/basic.html

Carbon Monoxide. Carbon monoxide (CO) is a colorless gas that interferes with the transfer of oxygen to the brain. CO is emitted almost exclusively from the incomplete combustion of fossil fuels. As shown in Figure 4, on-road motor vehicle exhaust is the primary source of CO. In cities, 85 to 95 percent of all CO emissions may come from motor vehicle exhaust. Prolonged exposure to high levels of CO can cause headaches, drowsiness, loss of equilibrium, or heart disease. CO levels are generally highest in the colder months of the year when inversion conditions (when warmer air traps colder air near the ground) are more frequent.

CO concentrations can vary greatly over relatively short distances. Relatively high concentrations of CO are typically found near congested intersections, along heavily used roadways carrying slow-moving traffic, and in areas where atmospheric dispersion is inhibited by urban "street canyon" conditions. Consequently, CO concentrations must be predicted on a localized, or microscale, basis.

Figure 4: Sources of CO



Source: US EPA, http://www.epa.gov/air/urbanair/co/what1.html#

Nitrogen Dioxide. Nitrogen dioxide (NO_2) is a brownish gas that irritates the lungs. It can cause breathing difficulties at high concentrations. As with O_3, NO_2 is not directly emitted, but is formed through a reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO_2 are collectively referred to as nitrogen oxides (NOx) and are major contributors to ozone formation. NO_2 also contributes to the formation of PM_{10}. At atmospheric concentrations, NO_2 is only potentially irritating. In high concentrations, the result is a brownish-red cast to the atmosphere and reduced visibility. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. An increase in bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 parts per million (ppm).

Lead. Lead (Pb) is a stable element that persists and accumulates both in the environment and in animals. Its principal effects in humans are on the blood-forming, nervous, and renal systems. Lead levels in the urban environment from mobile sources have decreased significantly due to the federally-mandated switch to lead-free gasoline.

Sulfur Dioxide. Sulfur Dioxide (SO_2) is a product of high-sulfur fuel combustion. The main sources of SO_2 are coal and oil used in power stations, industry, and domestic heating. Industrial chemical manufacturing is another source of SO_2. SO_2 is an irritant gas that attacks the throat and lungs. It can cause acute respiratory symptoms and diminished ventilator function in children. SO_2 can also yellow plant leaves and corrode iron and steel.

2.1.4. Mobile Source Air Toxics

In addition to the criteria pollutants for which there are NAAQS, the EPA also regulates air toxics. Toxic air pollutants are those pollutants known or suspected to cause cancer or other serious health effects. Most air toxics originate from human-made sources, including on-road mobile sources, non-road mobile sources (e.g., airplanes), area sources (e.g., dry cleaners), and stationary sources (e.g., factories or refineries). Controlling air toxic emissions became a national priority with the passage of the Clean Air Act Amendments (CAAA) of 1990, whereby Congress mandated that the U.S. Environmental Protection Agency (EPA) regulate 188 air toxics, also known as hazardous air pollutants. The EPA has assessed this expansive list in their latest rule on the Control of Hazardous Air Pollutants from Mobile Sources (Federal Register, Vol. 72, No. 37, page 8430, February 26, 2007) and identified a group of 93 compounds emitted from mobile sources that are listed in their Integrated Risk Information System (IRIS) (http://www.epa.gov/ncea/iris/index.html). In addition, EPA identified seven compounds with significant contributions from mobile sources that are among the national and regional-scale cancer risk drivers from their 1999 National Air Toxics Assessment (NATA) (http://www.epa.gov/ttn/atw/nata1999/). These compounds discussed below are acrolein, benzene, 1,3-butadiene, diesel particulate matter plus diesel exhaust organic gases (diesel PM), formaldehyde, naphthalene, and polycyclic organic matter. While FHWA considers these the priority mobile source air toxics, the list is subject to change and may be adjusted in consideration of future EPA rules.

- Benzene - characterized as a known human carcinogen.
- Acrolein - The potential carcinogenicity of acrolein cannot be determined because the existing data are inadequate for an assessment of human carcinogenic potential for either the oral or inhalation route of exposure.
- Formaldehyde - a probable human carcinogen, based on limited evidence in humans, and sufficient evidence in animals.

- 1,3-butadiene - characterized as carcinogenic to humans by inhalation.

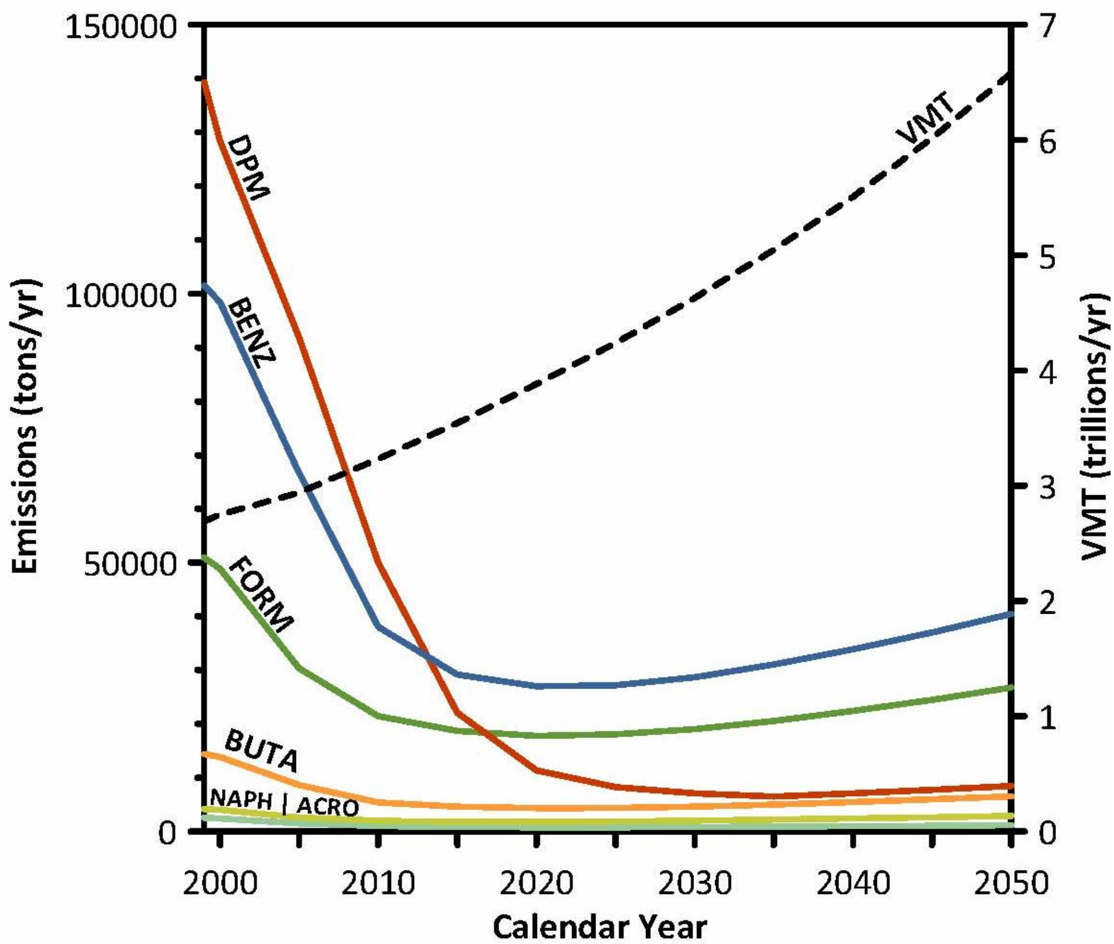
- Diesel Exhaust (DE) - likely to be carcinogenic to humans by inhalation from environmental exposures. Diesel exhaust as reviewed by USEPA is the combination of diesel particulate matter and diesel exhaust organic gases. Diesel exhaust also represents chronic respiratory effects, possibly the primary noncancer hazard from MSATs. Prolonged exposures may impair pulmonary function and could produce symptoms, such as cough, phlegm, and chronic bronchitis. Exposure relationships have not been developed from these studies.

- Naphthalene - classified as a Group C, possible human carcinogen, by USEPA. Acute exposure of humans to naphthalene by inhalation, ingestion, and dermal contact is associated with hemolytic anemia, damage to the liver, and neurological damage. Cataracts also have been reported in workers acutely exposed to naphthalene by inhalation and ingestion.

- Polycyclic Organic Matter (POM) - defines a broad class of compounds that includes the polycyclic aromatic hydrocarbon compounds (PAHs), of which benzo[a]pyrene is a member. Cancer is the major concern from exposure to POM. USEPA has classified seven PAHs (benzo[a]pyrene, benz[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene, dibenz[a,h]anthracene, and indeno[1,2,3-cd]pyrene) as Group B2, probable human carcinogens.

The 2007 EPA rule mentioned above requires controls that will dramatically decrease MSAT emissions through cleaner fuels and cleaner engines. According to an FHWA analysis using EPA's MOBILE6.2 model, even if vehicle activity (vehicle-miles travelled, VMT) increases by 145 percent as assumed, a combined reduction of 72 percent in the total annual emission rate for the priority MSAT is projected from 1999 to 2050, as shown in Figure 5.

Figure 5. National Projected MSAT Emission Trends 1999 – 2050 for Vehicles Operating on Roadways Using USEPA's Mobile6.2 Model



Note:
(1) Annual emissions of polycyclic organic matter are projected to be 561 tons/yr for 1999, decreasing to 373 tons/yr for 2050.
(2) Trends for specific locations may be different, depending on locally derived information representing vehicle-miles traveled, vehicle speeds, vehicle mix, fuels, emission control programs, meteorology, and other factors
Source: U.S. Environmental Protection Agency. MOBILE6.2 Model run 20 August 2009.

2.1.5. Attainment Status/Regional Air Quality Conformity

Section 107 of the 1977 Clean Air Act Amendment requires that the EPA publish a list of all geographic areas in compliance with the NAAQS, as well as those areas not in attainment of the NAAQS. Areas not in compliance with the NAAQS are termed nonattainment areas. Areas that have insufficient data to make a determination are unclassified, and are treated as being in attainment areas until proven otherwise. The designation of an area is made on a pollutant-by-pollutant basis. The the EPA's area designations are shown in Table 2.

Table 2: Attainment Classifications and Definitions

Attainment	Unclassified	Maintenance	Nonattainment
Area is in compliance with the NAAQS.	Area has insufficient data to make a determination and is treated as being in attainment.	Area once classified as nonattainment but has since demonstrated attainment of the NAAQS.	Area is not in compliance with the NAAQS.

Knox and Blount Counties are classified as attainment areas for all criteria pollutants except 8-hour O_3 and $PM_{2.5}$, for which they are classified as non-attainment areas.

2.1.6. Ambient Air Quality in the Study Area

Local Meteorology

The Knoxville are is located in a broad valley between the Cumberland Mountains, which lie northwest of the city, and the Great Smoky Mountains, which lie southeast of the city. These two mountain ranges exercise a marked influence upon the climate of the valley. The Cumberland Mountains, to the northwest, serve to retard and weaken the force of the cold winter air, which frequently penetrates far south of the latitude of Knoxville over the plains areas to the west of the mountains.

The mountains also serve to modify the hot summer winds, which are common to the plains to the west. In addition, they serve as a fixed incline plane, which lifts the warm, moist air flowing northward from the Gulf of Mexico and thereby increases the frequency of afternoon thunderstorms. Relief from extremely high temperatures, which such thunderstorms produce, serves to reduce the number of extremely warm days in the valley.

July is usually the warmest month of the year. The coldest weather usually occurs during the month of January. Sudden great temperature changes occur infrequently. This again is due mainly to the retarding effect of the mountains. Summer nights are nearly always comfortable.

Rainfall is ample for agricultural purposes and is favorably distributed during the year for most crops. Precipitation is greatest in the wintertime. Another peak period occurs during the late spring and summer months. The period of lowest rainfall occurs during the fall. A cumulative total of approximately 12 inches of snow falls annually. However, this usually comes in amounts of less than 4 inches at one time. It is unusual for snow to remain on the ground in measurable amounts longer than one week.

The topography also has a pronounced effect upon the prevailing wind direction. Daytime winds usually have a southwesterly component, while nighttime winds usually move from the northeast. The winds are relatively light and tornadoes are extremely rare. (NOAA)

Monitored Air Quality

Ambient air quality monitor data for CO, PM_{10}, $PM_{2.5}$, O_3, NO_x, and SO_2 for the years 2005-2007 are presented in Table 3. Monitoring locations are shown in Figure 5. Maximum concentrations at these locations are shown in Figure 6. Detailed monitoring data can be found in Appendix A.

2.2. Environmental Consequences

2.2.1. Pollutants for Analysis

Pollutants that can be traced principally to motor vehicles are relevant to the evaluation of the project's impacts; these pollutants include CO, HC, NO_x, O_3, PM_{10}, $PM_{2.5}$, and MSAT. Transportation sources account for a small percentage of regional emissions of SO_x and Pb; thus, a detailed analysis is not required.

HC (VOC) and NO_x emissions from automotive sources are a concern primarily because they are precursors in the formation of ozone and particulate matter. Ozone is formed through a series of reactions that occur in the atmosphere in the presence of sunlight. Since the reactions are slow and occur as the pollutants are diffusing downwind, elevated ozone levels often are found many miles from the sources of the precursor pollutants. Therefore, the effects of HC and NO_x emissions generally are examined on a regional or "mesoscale" basis.

PM_{10} and $PM_{2.5}$ impacts are both regional and local. A significant portion of particulate matter, especially PM_{10}, comes from disturbed vacant land, construction activity, and paved road dust. $PM_{2.5}$ also comes from these sources. Motor vehicle exhaust, particularly from diesel vehicles, is also a source of PM_{10} and $PM_{2.5}$. PM_{10}, and especially $PM_{2.5}$, can also be created by secondary formation from precursor elements such as sulfur dioxide (SO_2), nitrogen oxides (NO_X), volatile organic compounds (VOCs), and ammonia (NH_3). Secondary formation occurs due to chemical reaction in the atmosphere generally downwind some distance from the original emission source. Thus it is appropriate to predict concentrations of PM_{10} and $PM_{2.5}$ on both a regional and a localized basis. The project area is classified as attainment for PM_{10} but nonattainment for $PM_{2.5}$. Therefore, a localized hotspot analysis for $PM_{2.5}$ is required as per the guidelines in the EPA released document *Transportation Conformity Guidance for Qualitative Hot-Spot Analyses in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas* (dated March 29, 2006).

CO impacts are generally localized. Even under the worst meteorological conditions and most congested traffic conditions, high concentrations are limited to a relatively short distance (300 to 600 feet) of heavily traveled roadways. Vehicle emissions are the major sources of CO. The Pellissippi Parkway project could change traffic patterns within the project area. Consequently, it is appropriate to predict concentrations of CO on both a regional and a localized or "microscale" basis.

Table 3: Ambient Air Quality Monitored Data 2005-2007

			2007 Sequoyah Avenue *Maryville*			**1000 Francis Road** *Knoxville*			**800 Townview Place** *Knoxville*			**4625 Mildred Drive** *Knoxville*			**Great Smoky Mountains National Park – Look Rock**		
			2005	*2006*	*2007*	*2005*	*2006*	*2007*	*2005*	*2006*	*2007*	*2005*	*2006*	*2007*	*2005*	*2006*	*2007*
Carbon Monoxide (CO) [ppm]	1-Hour	Maximum															0.9
		2nd Maximum															0.8
		# of Exceedences															0
	8-Hour	Maximum															0.5
		2nd Maximum															0.4
		# of Exceedences															0
Particulate Matter [$\mu g/m^3$]	PM_{10}	Maximum 24-Hour							57	54	56						
		Mean Annual							26	25	27						
		# of Exceedences							0	0	0						
	$PM_{2.5}$	Maximum 24-Hour	36.7	39.7	47.1	35	46.9	35.4				39.6	40.9	44.2			
		Mean Annual	14.82	14.07	15.24	15.35	16.39	15.52				16.16	14.44	15.21			
		# of Exceedences	0	0	1	1	1	1				1	0	1			
Ozone (O_3) [ppm]	8-Hour	First Highest										0.091	0.089	0.119	0.092	0.089	0.096
		Second Highest										0.088	0.088	0.095	0.089	0.087	0.095
		Third Highest										0.086	0.086	0.092	0.086	0.086	0.092
		Fourth Highest										0.086	0.086	0.092	0.086	0.085	0.088
		# of Days Standard Exceeded										25	17	24	30	17	31
Nitrogen Dioxide (NO_2) [ppm]		1-Hour Maximum															
		1-Hour Second Maximum															
		Annual Mean															
		# of Days Standard Exceeded															
Sulfur Dioxide (SO_2) [ppm]		1-Hour Maximum															0.028
		3-Hour Maximum															0.018
		24-Hour Maximum															0.006
		Annual Mean															0.002

Source: EPA Office of Air Quality Planning and Standards (AIRSData); http://www.epa.gov/air/data/geosel.html

Figure 6: Air Quality Monitoring Locations

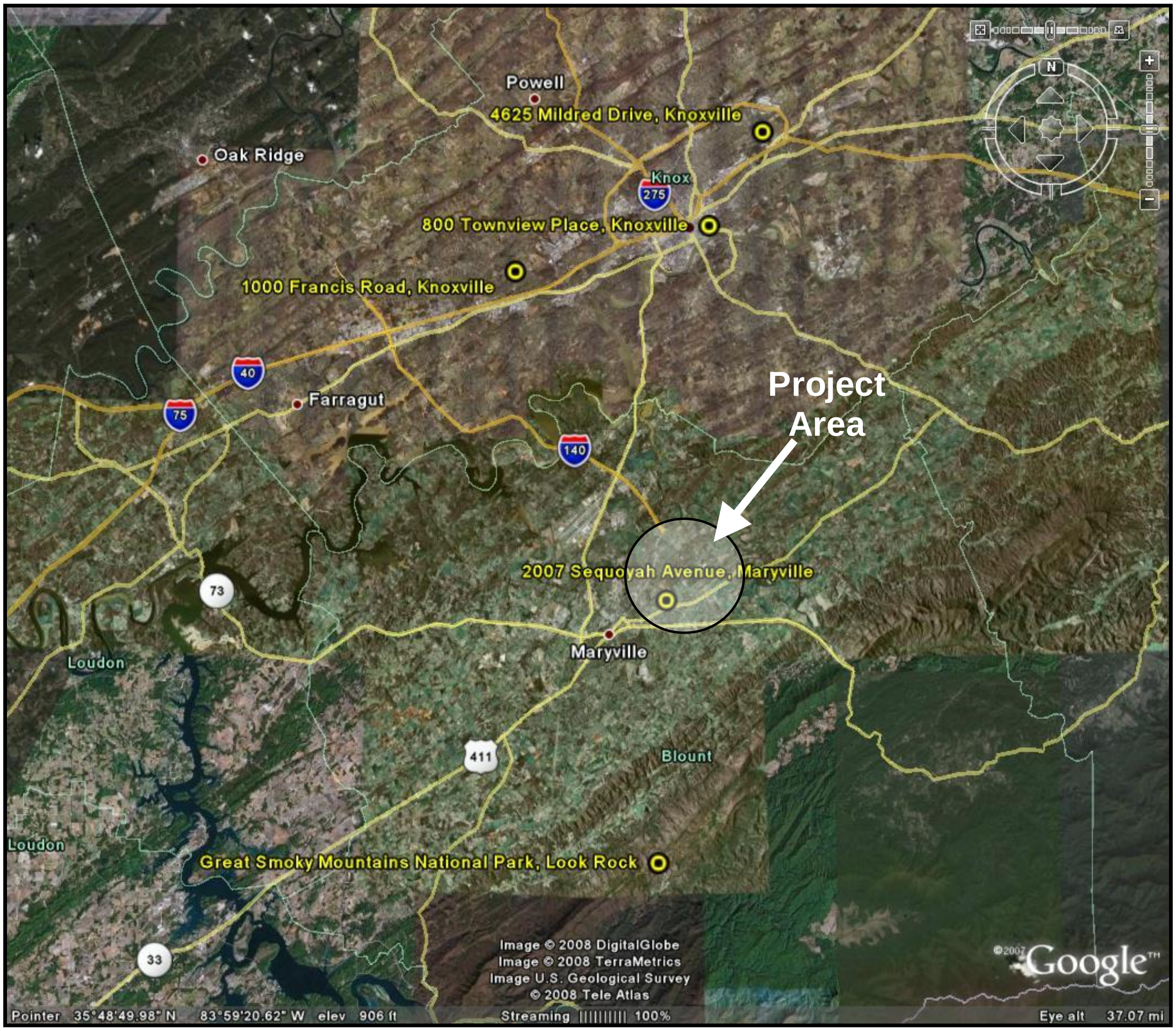
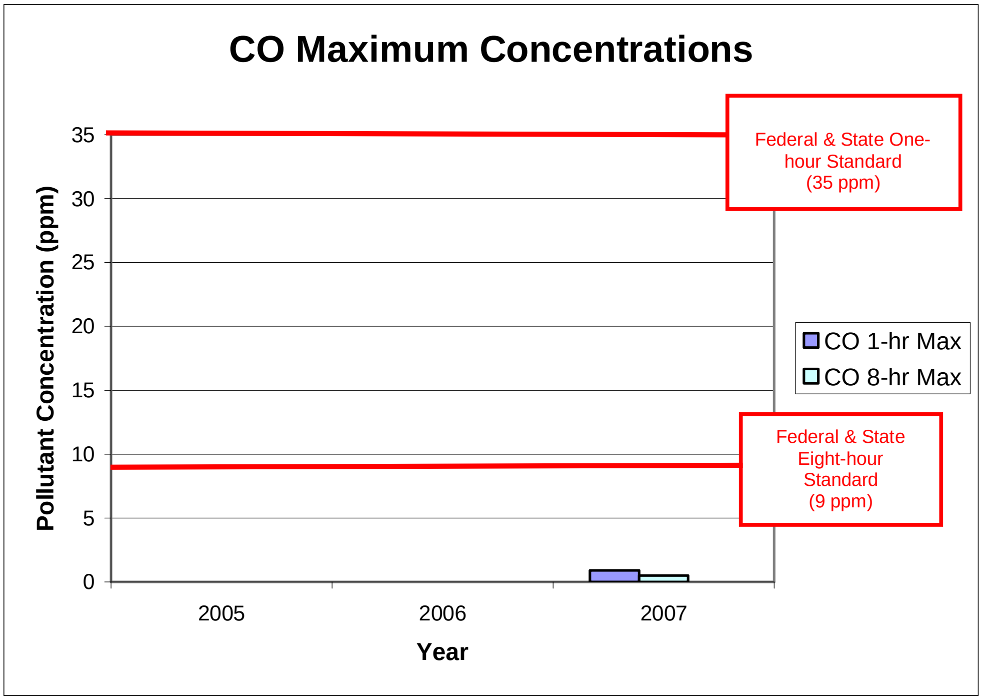


Figure 7: Maximum Measured Pollutant Concentrations



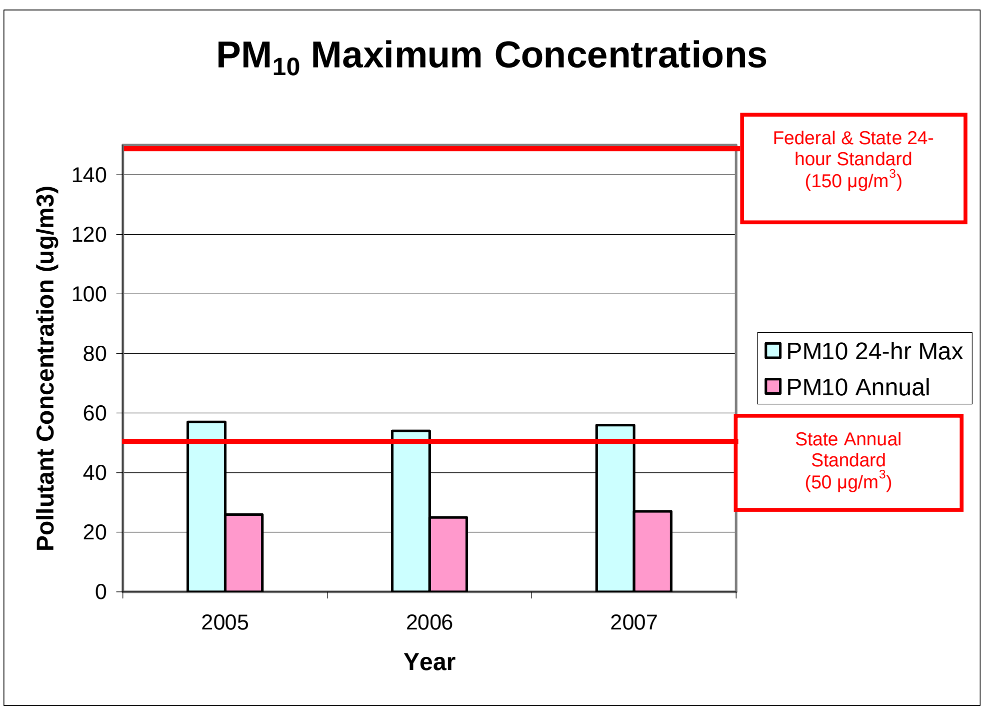
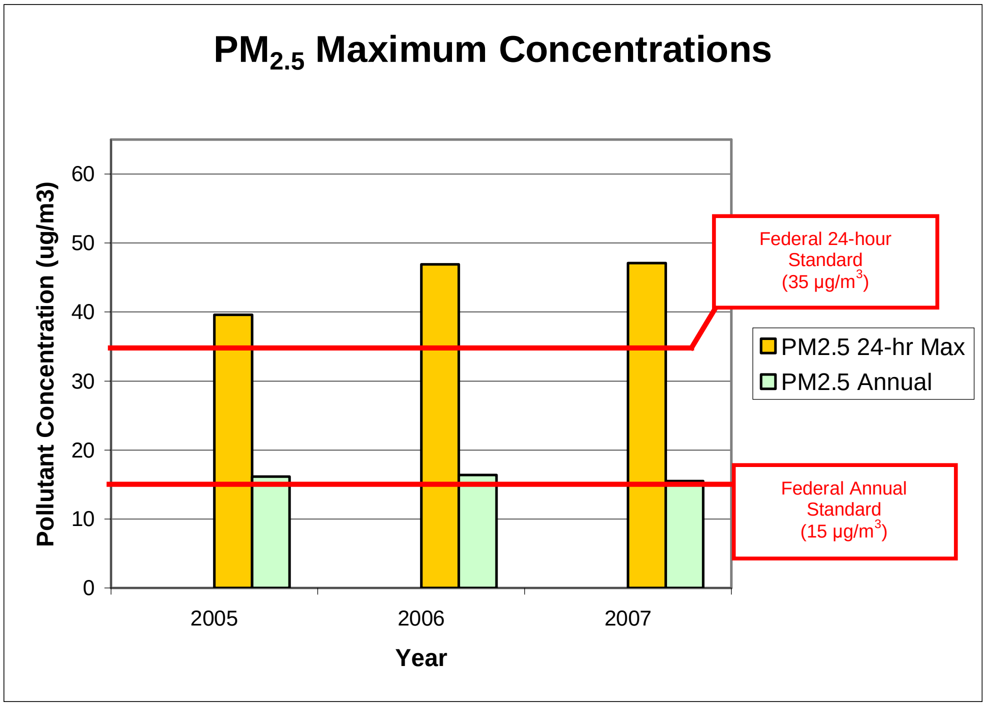
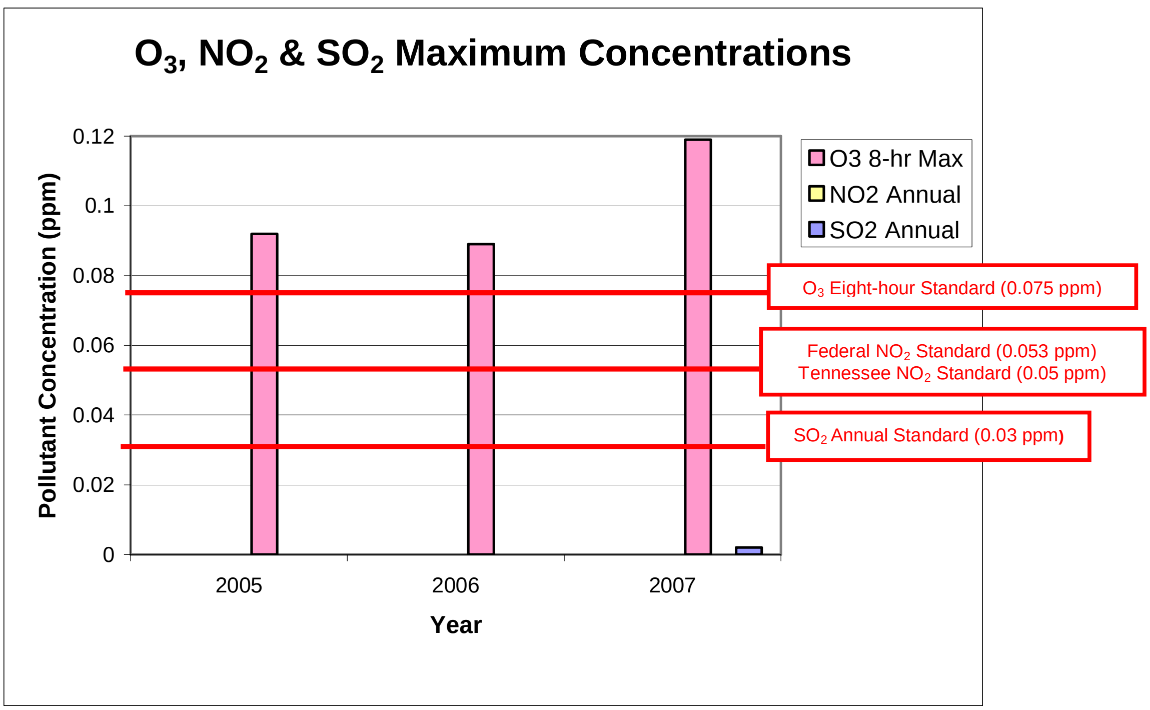


Figure 7: Maximum Measured Pollutant Concentrations (Cont'd)





MSAT impacts are both regional and local. Through the issuance of the EPA's Final Rule, Control of Emissions of Hazardous Air Pollutants from Mobile Sources (66 FR 17229), it was determined that many existing and newly promulgated mobile source emission control programs would result in a reduction of MSATs. FHWA projects that even with a 64 percent increase in Vehicle Miles Traveled (VMT), the programs will reduce on-highway emissions of benzene, formaldehyde, 1,3-butadiene, and acetaldehyde by 57 percent to 65 percent, and will reduce on-highway diesel PM emissions by 87 percent. As a result, the EPA has concluded that no further motor vehicle emission standards or fuel standards were necessary to further control MSATs.

2.2.2. Regional Analysis

As shown in Table 4, the project is predicted to increase regional VMT when compared to the No Build scenario. This VMT increase, along with a slight increase in regional speed, is predicted to cause an increase in regional pollutant levels ranging from 4% to 0%. Alternatives A&C are predicted to have the largest impacts as compared to the No Build alternative. Alternative D is predicted to have lower regional emissions impacts than Alternatives A&C, as compared to the No Build Alternative.

Table 4: Regional Pollutant Emission Burdens (Kilograms/Day)

Year 2030 Scenario	Vehicle Miles Traveled	Speed (mph)	Pollutant Burden					% Change from No Build				
			CO	NOx	VOC	PM_{10}	$PM_{2.5}$	CO	NOx	VOC	PM_{10}	$PM_{2.5}$
No Build	4,119,455	42	48,737	1,491	1,652	105	49	-	-	-	-	-
Alternatives A & C	4,226,278	44	50,605	1,543	1,674	108	50	4%	4%	1%	3%	3%
Alternative D	4,139,386	43	49,275	1,507	1,647	106	49	1%	1%	0%	0%	0%

2.2.3. Microscale CO Analysis

Microscale air quality modeling was performed using the most recent version of the EPA mobile source emission factor model (MOBILE6.2) and the CAL3QHC (Version 2.0) air quality dispersion model to estimate future No Build (without the proposed project) and future Build (with the proposed project) CO levels at selected locations in the project area. Though the alternatives have different regional traffic impacts, the analysis tools used to perform the analysis are not sensitive enough to provide distinct differences in traffic at the local or microscale level. As a result, the same microscale traffic results are used for all build alternatives and the predicted air quality levels are representative of all build alternatives.

Dispersion Model

Mobile source models are the basic analytical tools used to estimate CO concentrations expected under given traffic, roadway geometry, and meteorological conditions. The mathematical expressions and formulations that comprise the various models attempt to describe an extremely complex physical phenomenon as closely as possible. The dispersion modeling program used in this project for estimating pollutant concentrations near roadway intersections is the CAL3QHC (Version 2.0) dispersion model developed by the EPA and released in 1992.

CAL3QHC is a Gaussian model recommended in the *EPA Guidelines for Modeling Carbon Monoxide from Roadway Intersections* (EPA-454/R-92-005). Gaussian models assume that the dispersion of pollutants downwind of a pollution source follows a normal distribution from the center of the pollution source.

Different emission rates occur when vehicles are stopped (idling), accelerating, decelerating, and moving at different average speeds. CAL3QHC simplifies these different emission rates into two components:

- Emissions when vehicles are stopped (idling) during the red phase of a signalized intersection.
- Emissions when vehicles are in motion during the green phase of a signalized intersection.

The CAL3QHC (Version 2.0) air quality dispersion model has undergone extensive testing by the EPA and has been found to provide reliable estimates of inert (nonreactive) pollutant concentrations resulting from motor vehicle emissions. A complete description of the model is provided in the *User's Guide to CAL3QHC (Version 2.0): A Modeling Methodology for Predicting Pollutant Concentrations near Roadway Intersections* (EPA-454/R-92-006).

Vehicular Emissions

Vehicular emissions were estimated using the EPA MOBILE6.2 vehicular emission factor model. (*User's Guide to MOBILE6.2, Mobile Source Emission Factor Model, Ann Arbor, Michigan,* EPA420-R-02-028*,* October 2002). Input parameters were provided by Knoxville Regional Transportation Planning Organization (TPO).

MOBILE6.2 is a mobile source emission estimate program that provides current and future estimates of emissions from highway motor vehicles. The latest in the MOBILE series, dating to 1978, MOBILE6.2 was designed by the EPA to address a wide variety of air pollution modeling needs. MOBILE6.2 incorporates update to date information on basic emission rates, more realistic driving patterns, separation of start and running emissions, improved correction factors, and changing fleet composition. It also includes impacts of new regulations promulgated since the model's previous version was released. Input and output files for the Mobile6.2 program are included in Appendix B.

Site Selection and Receptor Locations

A screening evaluation was performed to identify which intersections in the project area are most congested and most affected by the Build Alternatives. As listed in Table 5, 11 locations were screened based on changes in intersection volumes, delay, and levels-of-service (LOS) from the No Build to the Build Alternatives. Sites fail the screening evaluation if the LOS decreases below "D" in one of the Build Alternatives as compared to the No Build Alternative, or if the delay and/or volume increase from the No Build to Build scenario along with a LOS below D.

Table 5: Screening Locations

Intersection Number*	Intersection
3	SR 115 / US 129 at SR 73 / US 321
5	SR 33 at SR 126 (Pellissippi Parkway
6	SR 33 at Wildwood Road
7	SR 33 / E. Broadway at SR 35 / S. Washington St
8	SR 33 at SR 73 / US 321
9	SR 35 / S. Washington St at Sevierville Rd
10	S. Washington St / SR 35 at High St / SR 35
11	S. Washington St at SR 73 / US 321
12	SR 73 / US 321 at SR 335 / Old Glory Road
New Intersection	US 411 at proposed Pellissippi Parkway Extension West Ramp
New Intersection	US 411 at proposed Pellissippi Parkway Extension East Ramp

* Intersection numbers correspond to the numbering sequence in the traffic study.

Based on the screening results, the following sites were selected for detailed analysis:

- Site 3, SR 115 / US 129 at SR 73 / US 321
- Site 8, SR 33 at SR 73 / US 321
- Site 12, SR 73 / US 321 at SR 335 / Old Glory Road

These locations, shown in Figure 7, demonstrate the highest volumes and the poorest LOS of the sites that failed the screening analysis within the project area.

Meteorological Conditions

The transport and concentration of pollutants emitted from motor vehicles are influenced by three principal meteorological factors: wind direction, wind speed, and the atmosphere's profile. The values for these parameters were chosen to maximize pollutant concentrations at each prediction site (that is, to establish a conservative, worst-case situation).

- **Wind Direction**. Maximum CO concentrations normally are found when the wind is assumed to blow parallel to a roadway adjacent to the receptor location. At complex intersections, it is difficult to predict which wind angle will result in maximum concentrations. Therefore, the approximate wind angle that would result in maximum pollutant concentrations at each receptor location was used in the analysis. All wind angles from 0° to 360° (in 5° increments) were considered.
- **Wind Speed**. CO concentrations are greatest at low wind speeds. A conservative wind speed of one meter per second (2.2 miles per hour) was used to predict CO concentrations during peak traffic periods.
- **Temperature and Profile of the Atmosphere**. A minimum temperature of 26.5^{o} F, a maximum temperature of 45.9^{o} F, a "mixing" height (the height in the atmosphere to which pollutants rise) of 1,000 meters, and neutral atmospheric stability (stability class D) conditions were used in estimating microscale CO concentrations. The selection of these meteorological parameters was based on data from the Knoxville Regional TPO and the EPA.

Figure 8: Air Quality Analysis Locations

The CO levels estimated by the model are the maximum concentrations that could be expected to occur at each air quality receptor site analyzed given the assumed simultaneous occurrence of a number of worst-case conditions: peak-hour traffic conditions, conservative vehicular operating conditions, low wind speed, low atmospheric temperature, neutral atmospheric conditions, and maximizing wind direction.

Persistence Factor

Peak eight-hour concentrations of CO were obtained by multiplying the highest peak hour CO estimates by a persistence factor. The persistence factor accounts for the following:

- Over eight-hours (as distinct from a single hour) vehicle volumes will fluctuate downward from the peak hour.
- Vehicle speeds may vary.
- Meteorological conditions, including wind speed and wind direction, will vary compared to the conservative assumptions used for the single hour.

A persistence factor of 0.7 was used in this analysis. This factor is recommended by the EPA.

Background Concentrations

Microscale modeling is used to predict CO concentrations resulting from emissions from motor vehicles using roadways immediately adjacent to the locations at which predictions are being made. A CO background level must be added to this value to account for CO entering the area from other sources upwind of the receptors. The CO background level should be located away from the influence of local traffic congestion.

Based on information provided by the Tennessee Department of Environment and Conservation, a 1.0 ppm background value was added to the one-hour and eight-hour modeled results at the analysis site.

Traffic Information

Traffic data for the air quality analysis were derived from traffic counts and other information developed as part of an overall traffic analysis for this project. Output from the Highway Capacity Manual 2000 signal timing traffic model was used to obtain signal timing parameters. The microscale CO analysis was performed based on data from this analysis for the AM and PM peak traffic periods. These are the periods when maximum traffic volumes occur on local streets and when the greatest traffic and air quality effects of the proposed project are expected.

The percentages of each type of vehicle, for the existing and future year conditions, were determined using data for the Knoxville area provided by the Knoxville Regional TPO. Vehicle speeds used in the analysis were obtained from traffic information developed for this project.

Analysis Years

CO concentrations were predicted for the opening (2015) and design (2035) years for the project.

2.2.4. Microscale CO Assessment

Maximum one-hour and eight-hour CO levels were predicted at receptor sites along the proposed project. Maximum one-hour CO concentrations are shown in Table 6. Maximum eight-hour CO concentrations are shown in Table 7. CAL3QHC (Version 2) input and output information for each site is contained in Appendix C. No violations of the NAAQS are predicted under any alternative.

Table 6: Predicted Worst-Case One-hour CO Concentrations (ppm)

Site Description	2015				2035			
	No Build		Build		No Build		Build	
	AM	PM	AM	PM	AM	PM	AM	PM
Site 3 - SR 115 / US 129 at SR 73 / US 321	3.5	4.4	3.5	4.4	3.4	4.1	3.4	4.3
Site 8 - SR 33 at SR 73 / US 321	3.6	4.1	3.4	4.0	3.5	3.9	3.5	3.9
Site 12 - SR 73 / US 321 at SR 335 / Old Glory Road	2.9	3.2	2.9	3.2	3.1	3.6	3.2	3.7

Notes:
1. Concentrations include one-hour CO background = 1.0 ppm
2. One-hour CO Standard = 35 ppm

Table 7: Predicted Worst-Case Eight-hour CO Concentrations (ppm)

Site Description	2015				2035			
	No Build		Build		No Build		Build	
	AM	PM	AM	PM	AM	PM	AM	PM
Site 3 - SR 115 / US 129 at SR 73 / US 321	2.8	3.4	2.8	3.4	2.7	3.2	2.7	3.3
Site 8 - SR 33 at SR 73 / US 321	2.8	3.2	2.7	3.1	2.8	3.0	2.8	3.0
Site 12 - SR 73 / US 321 at SR 335 / Old Glory Road	2.3	2.5	2.3	2.5	2.5	2.8	2.5	2.9

Notes:
1. Concentrations include eight-hour CO background = 1.0 ppm
2. Eight-hour CO Standard = 9 ppm

2.2.5. MSAT Assessment

On February 3, 2006, the FHWA released "*Interim Guidance on Air Toxic Analysis in NEPA Documents.*" This guidance was superseded on September 30, 2009 by FHWA's "*Interim Guidance Update on Air Toxic Analysis in NEPA Documents.*" The purpose of FHWA's guidance is to advise on when and how to analyze Mobile Source Air Toxics (MSATs) in the NEPA process for highways. This guidance is interim, because MSAT science is still evolving. As the science progresses, FHWA will update the guidance.

A qualitative analysis provides a basis for identifying and comparing the potential differences among MSAT emissions, if any, from the various alternatives. The qualitative assessment presented below is derived in part from a study conducted by the FHWA entitled A Methodology for Evaluating Mobile Source Air Toxic Emissions Among Transportation Project Alternatives, found at: www.fhwa.dot.gov/environment/airtoxic/msatcompare/msatemissions.htm. FHWA's Interim Guidance groups projects into the following tier categories:

1. No analysis for projects with no potential for meaningful MSAT Effects;

2. Qualitative analysis for projects with low potential MSAT effects; or

3. Quantitative analysis to differentiate alternatives for projects with higher potential MSAT effects.

Based on the recommended tiering approach, the Pellissippi Parkway project falls within the Tier 2 approach. Tier 2 is appropriate for this project because it does not fall under the Tier 1 category, which includes:

- Projects qualifying as a categorical exclusion under 23 CFR, Part 771.117(c);

- Projects exempt under the Clean Air Act conformity rule under 40 CFR, Part 93.126; or

- Other projects with no meaningful impacts on traffic volumes or vehicle mix.

The project also does not fall under the Tier 3 category. Tier 3 includes projects that:

- Create or significantly alter a major intermodal freight facility that has the potential to concentrate high levels of diesel particulate matter in a single location; or

- Create new or add significant capacity to urban highways such as interstates, urban arterials, or urban collector-distributor routes with traffic volumes where the Average Annual Daily Traffic (AADT) is projected to be in the range of 140,000 to 150,000 vehicles per day (vpd), or greater, by the design year.

  And also:

- Proposed to be located in proximity to populated areas.

As stated in FHWA's guidance, Tier 2 includes projects "that serve to improve operations of highway, transit or freight without adding substantial new capacity or without creating a facility that is likely to meaningfully increase MSAT emissions. This category covers a broad range of projects. We anticipate that most highway projects that need an MSAT assessment will fall into this category. " Based on this guidance, the project was analyzed using the Tier 2 approach.

No roadways in the project area, including the new portion of the Pellissippi Parkway, will have AADT approaching the range of 140,000 to 150,000 vehicles per day. Furthermore, for each alternative in this EIS, the amount of MSAT emitted would be proportional to the vehicle miles traveled, or VMT, assuming that other variables such as fleet mix are the same for each alternative. When compared to the No Build Alternative, the VMT for Build Alternative A/C is predicted to have less than a 1% increase, and the VMT for Build Alternative D is predicted to have less than a 3% increase. This is not considered an appreciable difference in VMT, and therefore is not expected to result in a measurable difference in MSAT emissions for the Build Alternatives, when compared to the No Build Alternative (Table 4). Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by 72 percent from 1999 to 2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in virtually all locations.

Under each alternative there may be localized areas where VMT would increase, and other areas where VMT would decrease. Therefore, it is possible that localized increases and decreases in MSAT emissions may occur. The localized increases in MSAT emissions would likely be most pronounced along the new roadway sections for the proposed Pellissippi Parkway between SR 33 and US 321/SR 73. There are several residential areas adjacent to this new roadway corridor, both on the east and west sides of the project area. However, even if increases do occur at these locations, they are expected to be substantially reduced in the future due to implementation of EPA's vehicle and fuel regulations.

This document has provided a qualitative analysis of MSAT emissions relative to the proposed project's detailed study alternatives and has acknowledged that the detailed study alternatives involving road improvements could increase exposure to MSAT emissions in certain locations, although the concentrations and duration of exposures are uncertain. However, available technical tools do not enable prediction of the project-specific health impacts of the emission changes associated with the detailed study alternatives. Because of these limitations, the following discussion is included in accordance with the President's Council on Environmental Quality (CEQ) regulations (40 CFR, Section 1502.22[b]) regarding incomplete or unavailable information.

2.2.5.1 Incomplete or Unavailable Information for Project-Specific MSAT Health Impacts Analysis

In FHWA's view, information is incomplete or unavailable to credibly predict the project-specific health impacts due to changes in MSAT emissions associated with a proposed set of highway alternatives. The outcome of such an assessment, adverse or not, would be influenced more by the uncertainty introduced into the process through assumption and speculation rather than any genuine insight into the actual health impacts directly attributable to MSAT exposure associated with a proposed action.

The EPA is responsible for protecting the public health and welfare from any known or anticipated effect of an air pollutant. They are the lead authority for administering the Clean Air Act and its amendments and have specific statutory obligations with respect to hazardous air pollutants and MSAT. The EPA is in the continual process of assessing human health effects, exposures, and risks posed by air pollutants. They maintain the Integrated Risk Information System (IRIS), which is "a compilation of electronic reports on specific substances found in the environment and their potential to cause human health effects" (EPA, http://www.epa.gov/ncea/iris/index.html). Each report contains assessments of non-cancerous and cancerous effects for individual compounds and quantitative estimates of risk levels from lifetime oral and inhalation exposures with uncertainty spanning perhaps an order of magnitude. Other organizations are also active in the research and analyses of the human health effects of MSAT, including the Health Effects Institute (HEI). Two HEI studies are summarized in Appendix D of FHWA's Interim Guidance Update on Mobile source Air Toxic Analysis in NEPA

Documents. Among the adverse health effects linked to MSAT compounds at high exposures are cancer in humans in occupational settings; cancer in animals; and irritation to the respiratory tract, including the exacerbation of asthma. Less obvious is the adverse human health effects of MSAT compounds at current environmental concentrations (HEI, http://pubs.healtheffects.org/view.php?id=282) or in the future as vehicle emissions substantially decrease (HEI, http://pubs.healtheffects.org/view.php?id=306).

The methodologies for forecasting health impacts include emissions modeling; dispersion modeling; exposure modeling; and then final determination of health impacts - each step in the process building on the model predictions obtained in the previous step. All are encumbered by technical shortcomings or uncertain science that prevents a more complete differentiation of the MSAT health impacts among a set of project alternatives. These difficulties are magnified for lifetime (i.e., 70 year) assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emissions rates) over that time frame, since such information is unavailable. The results produced by the EPA's MOBILE6.2 model, the California EPA's Emfac2007 model, and the EPA's DraftMOVES2009 model in forecasting MSAT emissions are highly inconsistent. Indications from the development of the MOVES model are that MOBILE6.2 significantly underestimates diesel particulate matter (PM) emissions and significantly overestimates benzene emissions.

Regarding air dispersion modeling, an extensive evaluation of EPA's guideline CAL3QHC model was conducted in an NCHRP study (http://www.epa.gov/scram001/dispersion_alt.htm#hyroad), which documents poor model performance at ten sites across the country - three where intensive monitoring was conducted plus an additional seven with less intensive monitoring. The study indicates a bias of the CAL3QHC model to overestimate concentrations near highly congested intersections and underestimate concentrations near uncongested intersections. The consequence of this is a tendency to overstate the air quality benefits of mitigating congestion at intersections. Such poor model performance is less difficult to manage for demonstrating compliance with National Ambient Air Quality Standards for relatively short time frames than it is for forecasting individual exposure over an entire lifetime, especially given that some information needed for estimating 70-year lifetime exposure is unavailable. It is particularly difficult to reliably forecast MSAT exposure near roadways, and to determine the portion of time that people are actually exposed at a specific location.

There are considerable uncertainties associated with the existing estimates of toxicity of the various MSAT, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population, a concern expressed by HEI (http://pubs.healtheffects.org/view.php?id=282). As a result, there is no national consensus on air dose-response values assumed to protect the public health and welfare for MSAT compounds, and in particular for diesel PM. The EPA (http://www.epa.gov/risk/basicinformation.htm#g) and the HEI (http://pubs.healtheffects.org/getfile.php?u=395) have not established a basis for quantitative risk assessment of diesel PM in ambient settings.

There is also the lack of a national consensus on an acceptable level of risk. The current context is the process used by the EPA as provided by the Clean Air Act to determine whether more stringent controls are required in order to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect for industrial sources subject to the maximum achievable control technology standards, such as benzene emissions from refineries.

The decision framework is a two-step process. The first step requires EPA to determine a "safe" or "acceptable" level of risk due to emissions from a source, which is generally no greater than approximately 100 in a million. Additional factors are considered in the second step, the goal of which is to maximize the number of people with risks less than 1 in a million due to emissions from a source. The results of this statutory two-step process do not guarantee that cancer risks from exposure to air toxics are less than 1 in a million;in some cases, the residual risk determination could result in maximum individual cancer risks that are as high as approximately 100 in a million. In a June 2008 decision, the U.S. Court of Appeals for the District of Columbia Circuit upheld EPA's approach to addressing risk in its two step decision framework. Information is incomplete or unavailable to establish that even the largest of highway projects would result in levels of risk greater than safe or acceptable.

Because of the limitations in the methodologies for forecasting health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts. Consequently, the results of such assessments would not be useful to decision makers, who would need to weigh this information against project benefits, such as reducing traffic congestion, accident rates, and fatalities plus improved access for emergency response, that are better suited for quantitative analysis.

2.2.6. $PM_{2.5}$ Assessment

It has been determined through interagency consultation on January 13, 2009 between the EPA, FHWA and TDOT, that the project is **not a project of air quality concern** and that this project is in conformity with the SIP. Documentation of this finding can be found in Appendix D. Based on these findings, the Clean Air Act and 40 CFR §93.116 requirements are met.

2.3. Construction Impacts on Air Quality

In general, construction-related effects of the project would be limited to short-term increased fugitive dust and mobile-source emissions during construction. State and local regulations regarding dust control and other air quality emission reduction controls should be followed.

2.3.1. Fugitive Dust Emissions

Fugitive dust is airborne particulate matter, generally of a relatively large particulate size. Construction-related fugitive dust would be generated by haul trucks, concrete trucks, delivery trucks, and earth-moving vehicles operating around the construction sites. This fugitive dust would be caused by particulate matter that is re-suspended ("kicked up") by vehicle movement over paved and unpaved roads, dirt tracked onto paved surfaces from unpaved areas at access points, and material blown from uncovered haul trucks.

Generally, the distance that particles drift from their source depends on their size, the emission height, and the wind speed. Small particles (30 to 100 micron range) can travel several hundred feet before settling to the ground. Most fugitive dust, however, is comprised of relatively large particles (that is, particles greater than 100 microns in diameter). These particles are responsible for the reduced visibility often associated with this type of construction. Given their relatively large size, these particles tend to settle within 20 to 30 feet of their source.

To minimize the amount of construction dust generated, the guidelines below should be followed. The following prevention and mitigation measures should be taken to minimize the potential particulate pollution problem:

Site Preparation

- Minimize land disturbance.
- Use watering trucks to minimize dust.
- Cover trucks when hauling dirt.
- Stabilize the surface of dirt piles if they are not removed immediately.
- Use windbreaks to prevent accidental dust pollution.
- Limit vehicular paths and stabilize temporary roads.
- Pave all unpaved construction roads and parking areas to road grade for a length no less than 50 feet from where such roads and parking areas exit the construction site to prevent dirt from washing onto paved roadways.

Construction

- Cover trucks when transferring materials.
- Use dust suppressants on unpaved traveled paths.
- Minimize unnecessary vehicular and machinery activities.
- Minimize dirt track-out by washing or cleaning trucks before leaving the construction site. An alternative to this strategy is to pave a few hundred feet of the exit road just before entering the public road.

Post-Construction

- Re-vegetate any disturbed land not used.
- Remove unused material.
- Remove dirt piles.
- Re-vegetate all vehicular paths created during construction to avoid future off-road vehicular activities.

2.3.2. Mobile Source Emissions

Since CO emissions from motor vehicles generally increase with decreasing vehicle speed, disruption of traffic during construction (such as a temporary reduction of roadway capacity and increased queue lengths) could result in short-term, elevated concentrations of CO. To minimize the amount of emissions generated, every effort should be made during construction to limit disruption to traffic, especially during peak travel hours.

2.4. Conclusions

The purpose and need of the project focuses on meeting the current and future regional transportation needs of the area. The project is not predicted to cause or exacerbate a violation of the NAAQS. The project has been classified as one “not of air quality concern” by the EPA and FHWA in regard to $PM_{2.5.}$

A qualitative analysis for projects with low potential MSAT impacts was performed for this project. No roadways in the project area, including the new portion of the Pellissippi Parkway, will have AADT approaching the range of 140,000 to 150,000 vehicles per day. Furthermore, for each alternative in this EIS, the amount of MSAT emitted would be proportional to the vehicle miles traveled, or VMT, assuming that other variables such as fleet mix are the same for each alternative. When compared to the No Build Alternative, the VMT for Build Alternative A/C is predicted to have less than a 1% increase, and the VMT for Build Alternative D is predicted to have less than a 3% increase. This is not considered an appreciable difference in VMT, and therefore is not expected to result in a measurable difference in MSAT emissions for the Build Alternatives, when compared to the No Build Alternative. Also, regardless of the alternative chosen, emissions will likely be lower than present levels in the design year as a result of EPA's national control programs that are projected to reduce annual MSAT emissions by 72 percent from 1999 to 2050. Local conditions may differ from these national projections in terms of fleet mix and turnover, VMT growth rates, and local control measures. However, the magnitude of the EPA-projected reductions is so great (even after accounting for VMT growth) that MSAT emissions in the study area are likely to be lower in the future in virtually all locations.

Under each alternative there may be localized areas where VMT would increase, and other areas where VMT would decrease. Therefore, it is possible that localized increases and decreases in MSAT emissions may occur. The localized increases in MSAT emissions would likely be most pronounced along the new roadway sections for the proposed Pellissippi Parkway between SR 33 and US 321/SR 73. There are several residential areas adjacent to this new roadway corridor, both on the east and west sides of the project area. However, even if increases do occur at these locations, they are expected to be substantially reduced in the future due to implementation of EPA's vehicle and fuel regulations.

This document has provided a qualitative analysis of MSAT emissions relative to the proposed project’s detailed study alternatives and has acknowledged that the detailed study alternatives involving road improvements could increase exposure to MSAT emissions in certain locations, although the concentrations and duration of exposures are uncertain. However, available technical tools do not enable prediction of the project-specific health impacts of the emission changes associated with the detailed study alternatives.

Construction-related effects of the project would be limited to short-term increased fugitive dust and mobile-source emissions during construction. State and local regulations regarding dust control and other air quality emission reduction controls should be followed.

3. References

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Appendix A: Monitored Ambient Air Quality Data

AirData

AirData - Monitor Values Report - Criteria Air Pollutants
Generated on Wednesday, November 19, 2008

You are here: EPA Home Air & Radiation AirData Reports and Maps Select Geography Select Report/Map Monitor Values Report Criteria Monitor Values Report

Monitor Values Report - Criteria Air Pollutants

Geographic Area: Tennessee
Pollutant: Carbon Monoxide
Year: 2005, 2006, 2007

EPA Air Quality Standards:
Carbon Monoxide: 35 ppm (1-hour average), 9 ppm (8-hour average)

ppm = parts per million

17 Rows
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	CO (ppm)															
	1-Hour Values				8-Hour Values											
Row #	# Obs	1st Max	2nd Max	# Exceed	1st Max	2nd Max	# Exceed	Monitor Number	Year	Site ID	Site Address	City	County	State	EPA Region
SORT															
1	6,426	0.9	0.8	0	0.5	0.4	0	2	2007	470090101	Great Smoky Mountains Np Look Rock		Blount Co	TN	04
2	8,717	3.3	3.3	0	2.6	2.4	0	1	2005	470370021	700 Broadway	Nashville	Davidson Co	TN	04
3	8,720	3.5	3.4	0	3.0	2.7	0	1	2006	470370021	700 Broadway	Nashville	Davidson Co	TN	04
4	8,712	3.0	2.9	0	2.4	2.1	0	1	2007	470370021	700 Broadway	Nashville	Davidson Co	TN	04
5	8,714	4.2	4.1	0	3.5	3.3	0	1	2005	470370031	210 North 7th Street	Nashville	Davidson Co	TN	04
6	8,720	3.9	3.7	0	3.2	3.2	0	1	2006	470370031	210 North 7th Street	Nashville	Davidson Co	TN	04
7	2,758	2.6	2.6	0	2.3	2.0	0	1	2007	470370031	210 North 7th Street	Nashville	Davidson Co	TN	04

8	6,425	3.2	3.1	0	2.6	2.5	0	1	2006	471570024	416 Alabama Avenue	Memphis	Shelby Co	TN	04
9	8,495	3.1	2.9	0	2.4	1.7	0	1	2007	471570024	416 Alabama Avenue	Memphis	Shelby Co	TN	04
10	8,491	5.9	3.8	0	3.4	2.8	0	1	2005	471570034	2666 Hernando Road	Memphis	Shelby Co	TN	04
11	2,097	5.1	4.2	0	3.2	3.0	0	1	2006	471570034	2666 Hernando Road	Memphis	Shelby Co	TN	04
12	8,447	3.7	3.0	0	2.3	2.3	0	1	2005	471570036	726 E Parkway	Memphis	Shelby Co	TN	04
13	8,543	3.2	3.2	0	2.5	2.5	0	1	2006	471570036	726 E Parkway	Memphis	Shelby Co	TN	04
14	8,536	2.5	2.5	0	2.1	2.0	0	1	2007	471570036	726 E Parkway	Memphis	Shelby Co	TN	04
15	8,307	2.4	2.4	0	1.3	1.3	0	1	2005	471630007	Eastman Ross N.Robinson	Kingsport	Sullivan Co	TN	04
16	8,247	2.5	2.1	0	1.5	1.3	0	1	2006	471630007	Eastman Ross N.Robinson	Kingsport	Sullivan Co	TN	04
17	8,285	2.7	2.5	0	1.7	1.2	0	1	2007	471630007	Eastman Ross N.Robinson	Kingsport	Sullivan Co	TN	04
Grand Total				0			0		2005						
				0			0		2007						
				0			0		2006						

Page 1 of 1

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AirData

AirData - Monitor Values Report - Criteria Air Pollutants
Generated on Wednesday, November 19, 2008

You are here: EPA Home Air & Radiation AirData Reports and Maps Select Geography Select Report/Map Monitor Values Report Criteria
Monitor Values Report

Monitor Values Report - Criteria Air Pollutants

Geographic Area: Tennessee
Pollutant: Particles < 10 micrometers diameter
Year: 2005, 2006, 2007

EPA Air Quality Standards:
Particles < 10 micrometers diameter: 150 µg/m3 (24-hour average), 50 µg/m3 (annual mean)

µg/m3 = micrograms per cubic meter

80 Rows
See Disclaimer

	PM10 (µg/m3)																
	24-Hour Values							Annual									
Row #	# Obs	1st Max	2nd Max	3rd Max	4th Max	# Exceed Actual	# Exceed Estimated	Mean	# Exceed	Monitor Number	Year	Site ID	Site Address	City	County	State	EPA Region
SORT																	
1	60	81	80	64	51	0	0.0	26	0	1	2005	470110103	Bowaters Vec Sub-Station Calhoun		Bradley Co	TN	04
2	60	42	38	37	36	0	0.0	22	0	1	2006	470110103	Bowaters Vec Sub-Station Calhoun		Bradley Co	TN	04
3	60	45	45	40	39	0	0.0	22	0	1	2007	470110103	Bowaters Vec Sub-Station Calhoun		Bradley Co	TN	04
4	60	48	46	44	42	0	0.0	25	0	1	2005	470111002	Fire Dept On By-Pass	Cleveland	Bradley Co	TN	04
5	55	48	45	43	42	0	0.0	25	0	2	2005	470111002	Fire Dept On By-Pass	Cleveland	Bradley Co	TN	04

6	59	52	41	38	35	0	0.0	22	0	2	2006	470111002	Fire Dept On By-Pass	Cleveland	Bradley Co	TN	04
7	59	51	43	39	37	0	0.0	23	0	1	2006	470111002	Fire Dept On By-Pass	Cleveland	Bradley Co	TN	04
8	55	50	43	42	40	0	0.0	24	0	1	2007	470111002	Fire Dept On By-Pass	Cleveland	Bradley Co	TN	04
9	58	50	43	42	41	0	0.0	24	0	2	2007	470111002	Fire Dept On By-Pass	Cleveland	Bradley Co	TN	04
10	57	62	56	53	42	0	0.0	25	0	1	2005	470370002	Lester & Hart Sts	Nashville	Davidson Co	TN	04
11	59	58	47	43	43	0	0.0	23	0	1	2006	470370002	Lester & Hart Sts	Nashville	Davidson Co	TN	04
12	58	58	57	53	46	0	0.0	24	0	1	2007	470370002	Lester & Hart Sts	Nashville	Davidson Co	TN	04
13	56	59	50	48	46	0	0.0	28	0	1	2005	470370024	56th Ave And Louisiana St	Nashville	Davidson Co	TN	04
14	59	62	49	49	46	0	0.0	27	0	2	2005	470370024	56th Ave And Louisiana St	Nashville	Davidson Co	TN	04
15	60	60	50	46	39	0	0.0	25	0	2	2006	470370024	56th Ave And Louisiana St	Nashville	Davidson Co	TN	04
16	59	57	49	47	41	0	0.0	25	0	1	2006	470370024	56th Ave And Louisiana St	Nashville	Davidson Co	TN	04
17	57	53	53	52	49	0	0.0	26	0	1	2007	470370024	56th Ave And Louisiana St	Nashville	Davidson Co	TN	04
18	55	54	52	50	49	0	0.0	26	0	2	2007	470370024	56th Ave And Louisiana St	Nashville	Davidson Co	TN	04
19	52	46	43	43	38	0	0.0	23	0	2	2005	470650006	3300 South Broad Street. 33rd And Broad,	Chattanooga	Hamilton Co	TN	04
20	52	47	45	45	39	0	0.0	23	0	1	2005	470650006	3300 South Broad Street. 33rd And Broad,	Chattanooga	Hamilton Co	TN	04
21	61	44	42	37	37	0	0.0	20	0	2	2006	470650006	3300 South Broad Street. 33rd And Broad,	Chattanooga	Hamilton Co	TN	04
													3300 South				

22	64	44	43	39	37	0	0.0	22	0	1	2006	470650006	Broad Street. 33rd And Broad,	Chattanooga	Hamilton Co	TN	04
23	62	45	44	44	37	0	0.0	21	0	2	2007	470650006	3300 South Broad Street. 33rd And Broad,	Chattanooga	Hamilton Co	TN	04
24	64	46	44	43	40	0	0.0	22	0	1	2007	470650006	3300 South Broad Street. 33rd And Broad,	Chattanooga	Hamilton Co	TN	04
25	53	57	56	44	43	0	0.0	26	0	1	2005	470930022	800 Townview Place/Green Elementary Sch.	Knoxville	Knox Co	TN	04
26	49	54	44	43	37	0	0.0	25	0	1	2006	470930022	800 Townview Place/Green Elementary Sch.	Knoxville	Knox Co	TN	04
27	60	56	49	49	47	0	0.0	27	0	1	2007	470930022	800 Townview Place/Green Elementary Sch.	Knoxville	Knox Co	TN	04
28	226	77	76	68	58	0	0.0	26	0	1	2005	470931013	1403 Davanna Street Knoxville, Tn 37917	Knoxville	Knox Co	TN	04
29	223	56	53	52	51	0	0.0	26	0	1	2006	470931013	1403 Davanna Street Knoxville, Tn 37917	Knoxville	Knox Co	TN	04
30	233	58	57	55	53	0	0.0	26	0	1	2007	470931013	1403 Davanna Street Knoxville, Tn 37917	Knoxville	Knox Co	TN	04
31	57	53	43	41	39	0	0.0	24	0	2	2005	470931017	1613 Vermont Avenue	Knoxville	Knox Co	TN	04
32	56	52	45	43	40	0	0.0	24	0	1	2005	470931017	1613 Vermont Avenue	Knoxville	Knox Co	TN	04
													1613				

33	58	50	49	41	38	0	0.0	23	0	1	2006	470931017	Vermont Avenue	Knoxville	Knox Co	TN	04
34	55	53	49	41	39	0	0.0	24	0	2	2006	470931017	1613 Vermont Avenue	Knoxville	Knox Co	TN	04
35	59	54	51	48	46	0	0.0	27	0	1	2007	470931017	1613 Vermont Avenue	Knoxville	Knox Co	TN	04
36	59	55	52	51	49	0	0.0	27	0	2	2007	470931017	1613 Vermont Avenue	Knoxville	Knox Co	TN	04
37	60	102	79	76	70	0	0.0	39	0	2	2005	471070101	Calhoun Bowaters North(B-1) Lamountville		McMinn Co	TN	04
38	62	102	80	76	68	0	0.0	39	0	1	2005	471070101	Calhoun Bowaters North(B-1) Lamountville		McMinn Co	TN	04
39	60	73	63	62	58	0	0.0	38	0	2	2006	471070101	Calhoun Bowaters North(B-1) Lamountville		McMinn Co	TN	04
40	60	72	72	64	63	0	0.0	39	0	1	2006	471070101	Calhoun Bowaters North(B-1) Lamountville		McMinn Co	TN	04
41	30	63	63	53	53	0	0.0	37	0	2	2007	471070101	Calhoun Bowaters North(B-1) Lamountville		McMinn Co	TN	04
42	60	67	62	61	54	0	0.0	36	0	1	2007	471070101	Calhoun Bowaters North(B-1) Lamountville		McMinn Co	TN	04
43	59	44	42	39	36	0	0.0	19	0	1	2005	471130003	Jackson Regional Health Office Parking L	Jackson	Madison Co	TN	04
44	56	62	45	39	35	0	0.0	20	0	1	2006	471130003	Jackson Regional Health Office Parking L	Jackson	Madison Co	TN	04
45	51	62	43	43	39	0	0.0	21	0	1	2007	471130003	Jackson Regional Health Office Parking L	Jackson	Madison Co	TN	04

46	61	47	46	46	44	0	0.0	21	0	1	2005	471250006	Meek'S Property	Clarksville	Montgomery Co	TN	04
47	60	48	47	46	44	0	0.0	21	0	2	2005	471250006	Meek'S Property	Clarksville	Montgomery Co	TN	04
48	58	67	50	40	37	0	0.0	21	0	2	2006	471250006	Meek'S Property	Clarksville	Montgomery Co	TN	04
49	54	60	49	40	34	0	0.0	20	0	1	2006	471250006	Meek'S Property	Clarksville	Montgomery Co	TN	04
50	56	65	50	48	47	0	0.0	24	0	1	2007	471250006	Meek'S Property	Clarksville	Montgomery Co	TN	04
51	58	66	51	49	47	0	0.0	25	0	2	2007	471250006	Meek'S Property	Clarksville	Montgomery Co	TN	04
52	61	60	42	42	41	0	0.0	25	0	1	2005	471450103	R.Carbon Clymersville Rd & Baldwin	Rockwood	Roane Co	TN	04
53	60	55	44	42	41	0	0.0	26	0	2	2005	471450103	R.Carbon Clymersville Rd & Baldwin	Rockwood	Roane Co	TN	04
54	61	48	41	40	39	0	0.0	24	0	2	2006	471450103	R.Carbon Clymersville Rd & Baldwin	Rockwood	Roane Co	TN	04
55	61	48	47	41	38	0	0.0	24	0	1	2006	471450103	R.Carbon Clymersville Rd & Baldwin	Rockwood	Roane Co	TN	04
56	59	55	48	44	44	0	0.0	28	0	1	2007	471450103	R.Carbon Clymersville Rd & Baldwin	Rockwood	Roane Co	TN	04
57	58	45	44	43	42	0	0.0	28	0	2	2007	471450103	R.Carbon Clymersville Rd & Baldwin	Rockwood	Roane Co	TN	04
58	61	102	44	41	41	0	0.0	25	0	1	2005	471450104	R.Carbon Hewitt Ave. High Shcool	Rockwood	Roane Co	TN	04
59	61	46	42	41	38	0	0.0	21	0	1	2006	471450104	R.Carbon Hewitt Ave. High Shcool	Rockwood	Roane Co	TN	04
60	57	43	41	41	38	0	0.0	24	0	1	2007	471450104	R.Carbon Hewitt Ave. High Shcool	Rockwood	Roane Co	TN	04
													Gas Service				

61	59	68	60	53	49	0	0.0	30	0	1	2005	471570016	Center Meagher Street	Memphis	Shelby Co	TN	04
62	58	81	49	42	40	0	0.0	25	0	1	2006	471570016	Gas Service Center Meagher Street	Memphis	Shelby Co	TN	04
63	57	76	49	40	37	0	0.0	23	0	2	2006	471570016	Gas Service Center Meagher Street	Memphis	Shelby Co	TN	04
64	54	65	54	45	43	0	0.0	26	0	2	2007	471570016	Gas Service Center Meagher Street	Memphis	Shelby Co	TN	04
65	57	71	57	53	44	0	0.0	26	0	1	2007	471570016	Gas Service Center Meagher Street	Memphis	Shelby Co	TN	04
66	60	61	49	47	46	0	0.0	25	0	1	2005	471570046	3065 Fite Rd	Memphis	Shelby Co	TN	04
67	56	71	67	57	46	0	0.0	25	0	1	2006	471570046	3065 Fite Rd	Memphis	Shelby Co	TN	04
68	54	53	47	40	38	0	0.0	22	0	1	2007	471570046	3065 Fite Rd	Memphis	Shelby Co	TN	04
69	58	47	38	38	37	0	0.0	21	0	1	2005	471730104	Luttrell Bates Farm Donahew Rd		Union Co	TN	04
70	58	52	52	42	42	0	0.0	22	0	1	2006	471730104	Luttrell Bates Farm Donahew Rd		Union Co	TN	04
71	50	54	54	50	47	0	0.0	23	0	1	2007	471730104	Luttrell Bates Farm Donahew Rd		Union Co	TN	04
72	61	52	44	43	42	0	0.0	20	0	1	2005	471730105	Luttrell Smith House Donahew Rd.		Union Co	TN	04
73	61	59	44	43	40	0	0.0	20	0	2	2005	471730105	Luttrell Smith House Donahew Rd.		Union Co	TN	04
74	60	51	40	39	34	0	0.0	19	0	2	2006	471730105	Luttrell Smith House Donahew Rd.		Union Co	TN	04
75	60	54	41	40	39	0	0.0	20	0	1	2006	471730105	Luttrell Smith House Donahew		Union Co	TN	04

													Rd.				
76	58	49	43	37	36	0	0.0	21	0	1	2007	471730105	Luttrell Smith House Donahew Rd.		Union Co	TN	04
77	58	48	43	40	36	0	0.0	20	0	2	2007	471730105	Luttrell Smith House Donahew Rd.		Union Co	TN	04
78	361	97	96	85	80	0	0.0	34	0	1	2005	471730107	Donahue Property On Donahue Road		Union Co	TN	04
79	365	107	102	100	95	0	0.0	36	0	1	2006	471730107	Donahue Property On Donahue Road		Union Co	TN	04
80	365	120	114	100	94	0	0.0	36	0	1	2007	471730107	Donahue Property On Donahue Road		Union Co	TN	04
Grand Total							0.0		0		2005						
							0.0		0		2007						
							0.0		0		2006						

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AirData

AirData - Monitor Values Report - Criteria Air Pollutants
Generated on Wednesday, November 19, 2008

Monitor Values Report - Criteria Air Pollutants

Geographic Area: Tennessee
Pollutant: Particles < 2.5 micrometers diameter
Year: 2005, 2006, 2007

EPA Air Quality Standards:
Particles < 2.5 micrometers diameter: 35 µg/m3 (24-Hour Average), 15.0 µg/m3 (annual mean)

µg/m3 = micrograms per cubic meter

97 Rows
See Disclaimer

	PM2.5 (µg/m3)																
	24-Hour Values							Annual		Monitor Number							
Row #	# Obs	1st Max	2nd Max	3rd Max	4th Max	98th Pct	# Exceed	Mean	# Exceed		Year	Site ID	Site Address	City	County	State	EPA Region
SORT																	
1	86	35.0	34.3	33.0	31.7	34.3	0	**15.35**	1	1	2005	470930028	1000 Francis Road	Knoxville	Knox Co	TN	04
2	96	46.9	40.7	31.8	29.2	**40.7**	1	**16.39**	1	1	2006	470930028	1000 Francis Road	Knoxville	Knox Co	TN	04
3	102	35.4	35.0	33.1	33.1	33.1	0	**15.52**	1	1	2007	470930028	1000 Francis Road	Knoxville	Knox Co	TN	04
4	335	46.5	43.1	40.8	40.7	**38.8**	1	14.90	0	1	2005	470370023	105 South 17th St @ Lockeland School	Nashville	Davidson Co	TN	04
5	83	36.6	28.2	26.4	26.3	28.2	0	13.52	0	2	2005	470370023	105 South 17th St @ Lockeland School	Nashville	Davidson Co	TN	04
6	349	37.2	36.3	36.2	32.7	30.9	0	14.30	0	1	2006	470370023	105 South 17th St @	Nashville	Davidson Co	TN	04

													Lockeland School				
7	66	31.2	29.6	27.7	25.2	29.6	0	13.76	0	2	2006	470370023	105 South 17th St @ Lockeland School	Nashville	Davidson Co	TN	04
8	357	46.6	44.2	40.9	40.4	33.9	0	13.79	0	1	2007	470370023	105 South 17th St @ Lockeland School	Nashville	Davidson Co	TN	04
9	65	44.9	32.0	31.1	29.7	32.0	0	14.94	0	2	2007	470370023	105 South 17th St @ Lockeland School	Nashville	Davidson Co	TN	04
10	337	47.9	44.9	44.5	44.2	**39.8**	1	14.75	0	1	2005	471570047	1064 Breedlove Street	Memphis	Shelby Co	TN	04
11	343	39.0	36.3	35.3	35.0	29.1	0	13.28	0	1	2006	471570047	1064 Breedlove Street	Memphis	Shelby Co	TN	04
12	60	24.6	23.8	23.7	23.2	23.8	0	12.89	0	2	2006	471570047	1064 Breedlove Street	Memphis	Shelby Co	TN	04
13	347	45.9	39.0	38.7	38.2	32.7	0	12.85	0	1	2007	471570047	1064 Breedlove Street	Memphis	Shelby Co	TN	04
14	61	47.5	31.7	31.1	26.9	31.7	0	13.53	0	2	2007	471570047	1064 Breedlove Street	Memphis	Shelby Co	TN	04
15	118	35.7	35.6	34.2	33.9	34.2	0	**16.15**	1	1	2005	471050108	130 Webb Drive	Loudon	Loudon Co	TN	04
16	106	39.6	30.2	29.8	29.2	29.8	0	14.97	0	1	2006	471050108	130 Webb Drive	Loudon	Loudon Co	TN	04
17	111	62.4	40.4	36.0	34.7	**36.0**	1	**16.05**	1	1	2007	471050108	130 Webb Drive	Loudon	Loudon Co	TN	04
18	67	25.0	22.2	21.6	19.1	22.2	0	10.75	0	1	2005	471130006	1371-A North Parkway Jackson, Tn 38301	Jackson	Madison Co	TN	04
19	68	24.0	22.5	20.3	19.1	22.5	0	10.15	0	2	2005	471130006	1371-A North Parkway Jackson, Tn 38301	Jackson	Madison Co	TN	04
20	105	38.8	33.8	31.1	27.8	31.1	0	12.05	0	2	2006	471130006	1371-A North Parkway Jackson, Tn	Jackson	Madison Co	TN	04

													38301				
21	113	65.2	38.7	34.3	29.9	34.3	0	12.22	0	1	2006	471130006	1371-A North Parkway Jackson, Tn 38301	Jackson	Madison Co	TN	04
22	117	44.3	31.5	28.7	28.7	28.7	0	12.58	0	1	2007	471130006	1371-A North Parkway Jackson, Tn 38301	Jackson	Madison Co	TN	04
23	117	45.3	45.1	38.3	31.5	**38.3**	1	13.16	0	2	2007	471130006	1371-A North Parkway Jackson, Tn 38301	Jackson	Madison Co	TN	04
24	61	37.3	37.2	36.2	36.1	**37.3**	1	**17.24**	1	1	2007	470931013	1403 Davanna Street Knoxville, Tn 37917	Knoxville	Knox Co	TN	04
25	86	38.0	36.9	35.8	31.0	**36.9**	1	**16.06**	1	1	2005	470650031	1510 Maxwell Road, East Ridge	Chattanooga	Hamilton Co	TN	04
26	61	39.1	28.7	26.9	25.2	28.7	0	14.26	0	1	2006	470650031	1510 Maxwell Road, East Ridge	Chattanooga	Hamilton Co	TN	04
27	339	37.9	34.7	33.6	33.2	31.6	0	14.75	0	1	2007	470650031	1510 Maxwell Road, East Ridge	Chattanooga	Hamilton Co	TN	04
28	120	59.1	46.0	43.0	39.1	**43.0**	1	**15.07**	1	1	2005	471251009	1514 Golf Club Lane	Clarksville	Montgomery Co	TN	04
29	118	40.4	37.1	34.3	31.4	34.3	0	13.38	0	1	2006	471251009	1514 Golf Club Lane	Clarksville	Montgomery Co	TN	04
30	341	52.6	43.0	39.1	38.7	35.4	0	13.30	0	1	2007	471251009	1514 Golf Club Lane	Clarksville	Montgomery Co	TN	04
31	121	56.5	41.4	37.9	36.5	**37.9**	1	14.45	0	1	2005	471410001	155 West 8th Street	Cookeville	Putnam Co	TN	04
32	67	32.7	31.3	23.6	23.4	31.3	0	14.78	0	1	2006	471410001	155 West 8th Street	Cookeville	Putnam Co	TN	04
33	116	61.1	41.5	36.3	35.2	**36.3**	1	14.30	0	1	2005	471192007	1600 Nashville Hwy	Columbia	Maury Co	TN	04
34	108	31.7	29.6	27.7	27.3	27.7	0	12.89	0	1	2006	471192007	1600 Nashville Hwy	Columbia	Maury Co	TN	04
35	112	36.5	36.5	31.2	30.4	31.2	0	13.36	0	1	2007	471192007	1600 Nashville Hwy	Columbia	Maury Co	TN	04
36	58	35.5	32.7	31.3	26.9	32.7	0	**16.35**	1	2	2005	470931017	1613 Vermont Avenue	Knoxville	Knox Co	TN	04

37	284	39.8	37.4	36.4	35.9	**35.5**	1	**16.25**	1	1	2005	470931017	1613 Vermont Avenue	Knoxville	Knox Co	TN	04
38	323	41.1	39.1	34.8	33.8	32.1	0	**15.60**	1	1	2006	470931017	1613 Vermont Avenue	Knoxville	Knox Co	TN	04
39	96	39.9	32.1	31.8	28.5	32.1	0	**15.96**	1	2	2006	470931017	1613 Vermont Avenue	Knoxville	Knox Co	TN	04
40	145	32.7	32.4	32.4	32.3	32.4	0	12.46	0	1	2007	470931017	1613 Vermont Avenue	Knoxville	Knox Co	TN	04
41	133	41.1	40.7	35.0	34.5	**40.7**	1	**15.29**	1	2	2007	470931017	1613 Vermont Avenue	Knoxville	Knox Co	TN	04
42	120	37.3	34.1	32.0	31.1	32.0	0	15.02	0	1	2005	471631007	1649 D Street	Kingsport	Sullivan Co	TN	04
43	117	43.0	29.9	29.7	29.2	29.7	0	13.80	0	1	2006	471631007	1649 D Street	Kingsport	Sullivan Co	TN	04
44	116	41.8	40.9	34.4	33.0	34.4	0	14.59	0	1	2007	471631007	1649 D Street	Kingsport	Sullivan Co	TN	04
45	111	47.7	37.9	34.9	34.4	34.9	0	13.87	0	1	2005	470450004	175-B Greenwood Street	Dyersburg	Dyer Co	TN	04
46	109	58.7	37.1	36.7	27.6	**36.7**	1	11.76	0	1	2006	470450004	175-B Greenwood Street	Dyersburg	Dyer Co	TN	04
47	118	44.2	40.8	28.5	26.7	28.5	0	12.08	0	1	2007	470450004	175-B Greenwood Street	Dyersburg	Dyer Co	TN	04
48	122	38.5	36.7	30.6	29.7	30.6	0	14.21	0	1	2005	470370025	180 Mccalll St.	Nashville	Davidson Co	TN	04
49	117	36.6	33.7	31.7	28.3	31.7	0	14.13	0	1	2006	470370025	180 Mccalll St.	Nashville	Davidson Co	TN	04
50	121	41.1	40.6	40.0	34.6	**40.0**	1	14.23	0	1	2007	470370025	180 Mccalll St.	Nashville	Davidson Co	TN	04
51	113	36.7	36.4	33.0	31.0	33.0	0	14.82	0	1	2005	470090011	2007 Sequoyah Avenue	Maryville	Blount Co	TN	04
52	117	39.7	36.0	30.9	29.5	30.9	0	14.07	0	1	2006	470090011	2007 Sequoyah Avenue	Maryville	Blount Co	TN	04
53	113	47.1	39.8	38.8	37.0	**38.8**	1	**15.24**	1	1	2007	470090011	2007 Sequoyah Avenue	Maryville	Blount Co	TN	04
54	117	49.7	42.7	42.0	36.0	**42.0**	1	14.89	0	1	2005	471570014	3431 Sharpe Avenue	Memphis	Shelby Co	TN	04
55	117	34.7	32.3	25.1	24.5	25.1	0	12.97	0	1	2006	471570014	3431 Sharpe Avenue	Memphis	Shelby Co	TN	04
56	115	49.1	37.2	33.4	28.0	33.4	0	13.54	0	1	2007	471570014	3431 Sharpe Avenue	Memphis	Shelby Co	TN	04

57	348	54.3	42.6	40.6	37.5	**36.2**	1	13.50	0	1	2005	470370036	400 Davidson Rd	Nashville	Davidson Co	TN	04
58	347	35.7	35.6	34.4	33.0	32.1	0	13.32	0	1	2006	470370036	400 Davidson Rd	Nashville	Davidson Co	TN	04
59	351	43.0	39.9	35.1	33.5	32.3	0	12.13	0	1	2007	470370036	400 Davidson Rd	Nashville	Davidson Co	TN	04
60	76	34.8	26.5	25.9	25.4	26.5	0	14.87	0	1	2006	471570024	416 Alabama Avenue	Memphis	Shelby Co	TN	04
61	294	39.6	39.3	38.2	35.6	35.1	0	**16.16**	1	1	2005	470931020	4625 Mildred Drive	Knoxville	Knox Co	TN	04
62	319	40.9	35.7	33.6	33.0	31.7	0	14.44	0	1	2006	470931020	4625 Mildred Drive	Knoxville	Knox Co	TN	04
63	260	44.2	41.5	39.2	38.3	**35.9**	1	**15.21**	1	1	2007	470931020	4625 Mildred Drive	Knoxville	Knox Co	TN	04
64	31	34.8	26.0	24.0	23.5	34.8	0	**15.05**	1	1	2005	471251010	4667 Guthrie Road, Clarksville, Tn		Montgomery Co	TN	04
65	137	36.8	36.3	36.0	32.6	**36.0**	1	13.57	0	1	2006	471251010	4667 Guthrie Road, Clarksville, Tn		Montgomery Co	TN	04
66	42	33.8	31.5	29.1	23.9	33.8	0	12.52	0	1	2006	471410005	630 East 20th Street	Cookeville	Putnam Co	TN	04
67	101	43.2	33.9	33.9	33.2	33.9	0	13.35	0	1	2007	471410005	630 East 20th Street	Cookeville	Putnam Co	TN	04
68	116	44.7	42.0	37.4	35.7	**37.4**	1	13.25	0	1	2005	471571004	6855 Mudville Rd. Edmund Orgill Park		Shelby Co	TN	04
69	119	30.1	27.2	26.2	24.8	26.2	0	11.38	0	1	2006	471571004	6855 Mudville Rd. Edmund Orgill Park		Shelby Co	TN	04
70	117	43.7	28.0	27.6	25.9	27.6	0	11.63	0	1	2007	471571004	6855 Mudville Rd. Edmund Orgill Park		Shelby Co	TN	04
71	116	36.7	35.0	30.7	30.6	30.7	0	12.13	0	1	2005	470990002	Busby Rd		Lawrence Co	TN	04
72	116	30.9	27.3	24.7	24.5	24.7	0	11.70	0	1	2006	470990002	Busby Rd		Lawrence Co	TN	04
73	111	50.2	40.0	39.8	29.3	**39.8**	1	12.59	0	1	2007	470990002	Busby Rd		Lawrence Co	TN	04
74	113	34.1	33.5	32.5	32.5	32.5	0	**15.35**	1	1	2005	471450004	Harriman High 1002 N. Roan St Moved From	Harriman	Roane Co	TN	04
75	111	33.4	32.7	28.6	28.0	28.6	0	14.07	0	1	2006	471450004	Harriman High 1002 N. Roan St Moved From	Harriman	Roane Co	TN	04

76	119	34.1	33.4	33.2	33.1	33.2	0	14.92	0	1	2007	471450004	Harriman High 1002 N. Roan St Moved From	Harriman	Roane Co	TN	04
77	352	53.6	47.7	43.4	43.1	**37.6**	1	14.55	0	1	2005	471570038	Jackson Park School	Memphis	Shelby Co	TN	04
78	344	35.8	33.7	31.4	30.4	27.9	0	12.93	0	1	2006	471570038	Jackson Park School	Memphis	Shelby Co	TN	04
79	334	50.4	46.6	40.9	38.6	35.0	0	13.25	0	1	2007	471570038	Jackson Park School	Memphis	Shelby Co	TN	04
80	121	36.3	36.0	35.0	33.4	35.0	0	**15.55**	1	1	2005	470654002	Riverside Substation 911 Siskin Dr	Chattanooga	Hamilton Co	TN	04
81	104	36.4	36.2	34.9	33.8	34.9	0	**15.62**	1	2	2005	470654002	Riverside Substation 911 Siskin Dr	Chattanooga	Hamilton Co	TN	04
82	116	38.4	32.9	32.6	32.3	32.6	0	14.81	0	2	2006	470654002	Riverside Substation 911 Siskin Dr	Chattanooga	Hamilton Co	TN	04
83	117	38.5	32.9	32.7	31.7	32.7	0	14.93	0	1	2006	470654002	Riverside Substation 911 Siskin Dr	Chattanooga	Hamilton Co	TN	04
84	116	36.6	35.1	34.3	32.2	34.3	0	14.91	0	1	2007	470654002	Riverside Substation 911 Siskin Dr	Chattanooga	Hamilton Co	TN	04
85	111	36.8	34.5	32.2	31.6	32.2	0	14.56	0	2	2007	470654002	Riverside Substation 911 Siskin Dr	Chattanooga	Hamilton Co	TN	04
86	118	60.1	41.6	41.0	31.3	**41.0**	1	14.77	0	1	2005	471650007	Rockland Recreation Area-Old Hickory Dam		Sumner Co	TN	04
87	115	42.7	41.3	35.0	32.2	35.0	0	14.76	0	2	2005	471650007	Rockland Recreation Area-Old Hickory Dam		Sumner Co	TN	04
88	118	36.1	33.5	29.7	28.4	29.7	0	13.62	0	2	2006	471650007	Rockland Recreation Area-Old Hickory Dam		Sumner Co	TN	04
89	119	34.8	33.0	29.2	28.6	29.2	0	13.21	0	1	2006	471650007	Rockland Recreation Area-Old Hickory Dam		Sumner Co	TN	04
90	117	43.4	37.8	33.4	33.2	33.4	0	13.65	0	1	2007	471650007	Rockland Recreation		Sumner Co	TN	04

													Area-Old Hickory Dam				
91	116	43.7	38.3	37.0	33.9	**37.0**	1	13.73	0	2	2007	471650007	Rockland Recreation Area-Old Hickory Dam		Sumner Co	TN	04
92	110	35.8	34.2	33.5	33.0	33.5	0	14.79	0	1	2005	471071002	Saint Mark Ame Zion Church, 707 North Ja	Athens	McMinn Co	TN	04
93	112	37.6	36.3	32.6	28.9	32.6	0	13.83	0	1	2006	471071002	Saint Mark Ame Zion Church, 707 North Ja	Athens	McMinn Co	TN	04
94	117	43.9	38.5	35.8	33.3	**35.8**	1	**15.51**	1	1	2007	471071002	Saint Mark Ame Zion Church, 707 North Ja	Athens	McMinn Co	TN	04
95	58	36.1	32.9	29.7	25.9	32.9	0	13.79	0	1	2005	470651011	Soddy Daisy H.S. 00620 Sequoyah Rd		Hamilton Co	TN	04
96	62	25.5	24.4	23.7	23.1	24.4	0	13.08	0	1	2006	470651011	Soddy Daisy H.S. 00620 Sequoyah Rd		Hamilton Co	TN	04
97	60	37.6	32.8	31.8	28.1	32.8	0	14.22	0	1	2007	470651011	Soddy Daisy H.S. 00620 Sequoyah Rd		Hamilton Co	TN	04
Grand Total							12		11		2005						
							10		7		2007						
							3		3		2006						

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AirData - Monitor Values Report - Criteria Air Pollutants
Generated on Wednesday, November 19, 2008

AirData

Monitor Values Report - Criteria Air Pollutants

Geographic Area: Tennessee
Pollutant: Ozone
Year: 2005, 2006, 2007

EPA Air Quality Standards:
Ozone: 0.12 ppm (1-hour average), 0.075 ppm (8-hour average)

ppm = parts per million

80 Rows
See Disclaimer

	O3 (ppm)																											
	1-Hour Values										8-Hour Values																	
Row #	1st Max	2nd Max	3rd Max	4th Max	# Exceed Actual	# Exceed Estimated	Required Days	# Days	% Days	Missing Days	1st Max	2nd Max	3rd Max	4th Max	Days > Std	Required Days	# Days	% Days	Monitor Number	Year	Site ID	Site Address	City	County	State	EPA Region
SORT																												
1	0.083	0.079	0.079	0.079	0	0.0	245	243	99	2	0.074	0.071	0.071	0.070	0	245	242	99	1	2005	470370011	1015 Trinity Lane	Nashville	Davidson Co	TN	04
2	0.091	0.088	0.082	0.080	0	0.0	245	240	98	2	0.084	0.077	0.072	0.072	2	245	240	98	1	2006	470370011	1015 Trinity Lane	Nashville	Davidson Co	TN	04
3	0.094	0.083	0.083	0.083	0	0.0	245	245	100	0	0.079	0.077	0.077	**0.076**	4	245	245	100	1	2007	470370011	1015 Trinity Lane	Nashville	Davidson Co	TN	04
4	0.120	0.104	0.099	0.096	0	0.0	245	241	98	0	0.105	0.086	0.086	**0.084**	18	245	239	98	1	2005	470890002	1188 Lost Creek Rd		Jefferson Co	TN	04
5	0.115	0.106	0.102	0.099	0	0.0	245	235	96	1	0.097	0.091	0.083	**0.083**	12	245	232	95	1	2006	470890002	1188 Lost Creek Rd		Jefferson Co	TN	04
6	0.123	0.105	0.103	0.100	0	0.0	245	245	100	0	0.089	0.089	0.087	**0.085**	14	245	245	100	1	2007	470890002	1188 Lost Creek Rd		Jefferson Co	TN	04
7	0.100	0.098	0.097	0.096	0	0.0	184	184	100	0	0.089	0.088	0.086	**0.082**	10	184	184	100	1	2005	471572005	12560 Coburn Road, Eads, Tn		Shelby Co	TN	04
8	0.088	0.086	0.084	0.079	0	0.0	62	60	97	1	0.081	0.078	0.076	0.073	3	62	60	97	1	2006	471572005	12560 Coburn Road, Eads, Tn		Shelby Co	TN	04
9	0.110	0.101	0.100	0.099	0	0.0	245	244	100	1	0.088	0.085	0.085	**0.085**	26	245	244	100	1	2005	471050108	130 Webb Drive	Loudon	Loudon Co	TN	04
10	0.117	0.090	0.086	0.085	0	0.0	93	92	99	0	0.092	0.082	0.078	**0.076**	5	93	92	99	1	2006	471050108	130 Webb Drive	Loudon	Loudon Co	TN	04
11	0.111	0.111	0.103	0.102	0	0.0	245	245	100	0	0.094	0.093	0.084	**0.082**	7	245	244	100	1	2005	471570021	1330 Frayser Blvd	Memphis	Shelby Co	TN	04
12	0.132	0.125	0.097	0.095	2	**2.1**	245	239	98	0	0.105	0.096	0.083	**0.083**	9	245	239	98	1	2006	471570021	1330 Frayser Blvd	Memphis	Shelby Co	TN	04
13	0.115	0.098	0.095	0.095	0	0.0	245	243	99	2	0.099	0.082	0.081	**0.081**	17	245	241	98	1	2007	471570021	1330 Frayser Blvd	Memphis	Shelby Co	TN	04
14	0.097	0.088	0.083	0.082	0	0.0	245	242	99	1	0.090	0.083	0.076	**0.076**	4	245	242	99	1	2007	471410004	1382 Benson Road, Cookeville, Tn		Putnam Co	TN	04
15	0.097	0.095	0.095	0.090	0	0.0	153	147	96	0	0.089	0.085	0.078	**0.078**	8	153	146	95	1	2006	471050109	1703 Roberts Rd	Loudon	Loudon Co	TN	04
16	0.109	0.105	0.104	0.103	0	0.0	245	245	100	0	0.096	0.090	0.088	**0.088**	22	245	245	100	1	2007	471050109	1703 Roberts Rd	Loudon	Loudon Co	TN	04

17	0.128	0.099	0.098	0.098	1	1.0	245	240	98	3	0.108	0.091	0.087	**0.084**	12	245	238	97	2	2006	470750003	1741 Hillville Loop Road		Haywood Co	TN	04
18	0.080	0.080	0.077	0.076	0	0.0	245	59	24	2	0.077	0.075	0.066	0.066	1	245	59	24	2	2007	470750003	1741 Hillville Loop Road		Haywood Co	TN	04
19	0.104	0.101	0.096	0.093	0	0.0	245	232	95	5	0.094	0.081	0.079	**0.079**	7	245	230	94	1	2005	470370026	3711 Bell Road	Nashville	Davidson Co	TN	04
20	0.108	0.103	0.099	0.098	0	0.0	245	241	98	1	0.098	0.088	0.082	**0.079**	8	245	241	98	1	2006	470370026	3711 Bell Road	Nashville	Davidson Co	TN	04
21	0.112	0.094	0.094	0.092	0	0.0	245	245	100	0	0.100	0.088	0.083	**0.080**	11	245	245	100	1	2007	470370026	3711 Bell Road	Nashville	Davidson Co	TN	04
22	0.105	0.102	0.100	0.099	0	0.0	245	245	100	0	0.091	0.088	0.086	**0.086**	25	245	245	100	1	2005	470931020	4625 Mildred Drive	Knoxville	Knox Co	TN	04
23	0.112	0.107	0.105	0.104	0	0.0	245	236	96	1	0.089	0.088	0.086	**0.086**	17	245	236	96	1	2006	470931020	4625 Mildred Drive	Knoxville	Knox Co	TN	04
24	0.142	0.117	0.106	0.106	1	1.0	245	245	100	0	0.119	0.095	0.092	**0.092**	24	245	245	100	1	2007	470931020	4625 Mildred Drive	Knoxville	Knox Co	TN	04
25	0.087	0.081	0.080	0.080	0	0.0	237	223	94	4	0.078	0.076	0.075	0.075	2	237	220	93	1	2005	471251010	4667 Guthrie Road, Clarksville, Tn		Montgomery Co	TN	04
26	0.065	0.064	0.063	0.063	0	0.0	245	30	12	1	0.061	0.061	0.060	0.057	0	245	30	12	1	2006	471251010	4667 Guthrie Road, Clarksville, Tn		Montgomery Co	TN	04
27	0.116	0.097	0.092	0.090	0	0.0	245	245	100	0	0.099	0.086	0.083	**0.080**	9	245	244	100	1	2005	470654003	6200 Bonny Oaks Drive Eastside Utility F	Chattanooga	Hamilton Co	TN	04
28	0.108	0.104	0.099	0.098	0	0.0	245	245	100	0	0.091	0.087	0.087	**0.085**	12	245	245	100	1	2006	470654003	6200 Bonny Oaks Drive Eastside Utility F	Chattanooga	Hamilton Co	TN	04
29	0.119	0.111	0.101	0.100	0	0.0	245	245	100	0	0.103	0.099	0.089	**0.089**	21	245	245	100	1	2007	470654003	6200 Bonny Oaks Drive Eastside Utility F	Chattanooga	Hamilton Co	TN	04
30	0.104	0.098	0.096	0.090	0	0.0	245	244	100	1	0.083	0.082	0.082	**0.081**	10	245	243	99	1	2005	471571004	6855 Mudville Rd. Edmund Orgill Park		Shelby Co	TN	04
31	0.113	0.097	0.097	0.096	0	0.0	245	245	100	0	0.096	0.085	0.084	**0.084**	13	245	245	100	1	2006	471571004	6855 Mudville Rd. Edmund Orgill Park		Shelby Co	TN	04
32	0.096	0.091	0.089	0.089	0	0.0	245	245	100	0	0.089	0.082	0.081	**0.080**	12	245	244	100	1	2007	471571004	6855 Mudville Rd. Edmund Orgill Park		Shelby Co	TN	04
33	0.099	0.093	0.092	0.089	0	0.0	245	243	99	2	0.088	0.085	0.085	**0.084**	16	245	243	99	1	2006	470630003	8250 Whitaker Ridge Rd., Whitesburg, Tn		Hamblen Co	TN	04
34	0.098	0.097	0.094	0.091	0	0.0	245	243	99	0	0.085	0.083	0.081	**0.081**	12	245	243	99	1	2005	471210104	8401 Highway 60		Meigs Co	TN	04
35	0.102	0.096	0.092	0.091	0	0.0	245	241	98	2	0.087	0.082	0.081	**0.080**	10	245	235	96	1	2006	471210104	8401 Highway 60		Meigs Co	TN	04
36	0.116	0.097	0.093	0.092	0	0.0	245	240	98	0	0.096	0.089	0.085	**0.083**	12	245	238	97	1	2007	471210104	8401 Highway 60		Meigs Co	TN	04
37	0.107	0.103	0.101	0.101	0	0.0	245	243	99	0	0.092	0.084	0.082	**0.081**	11	245	242	99	1	2005	470930021	9315 Rutledge Pike Mascot Tn 37806	Mascot	Knox Co	TN	04
38	0.098	0.098	0.097	0.096	0	0.0	245	229	93	1	0.090	0.085	0.079	**0.077**	5	245	229	93	1	2006	470930021	9315 Rutledge Pike Mascot Tn 37806	Mascot	Knox Co	TN	04
39	0.115	0.107	0.100	0.098	0	0.0	245	245	100	0	0.093	0.089	0.088	**0.087**	26	245	245	100	1	2007	470930021	9315 Rutledge Pike Mascot Tn 37806	Mascot	Knox Co	TN	04
40	0.095	0.078	0.078	0.077	0	0.0	245	244	100	1	0.075	0.073	0.073	0.072	0	245	243	99	1	2006	470990002	Busby Rd		Lawrence Co	TN	04
41	0.090	0.087	0.087	0.086	0	0.0	245	236	96	0	0.084	0.081	0.081	**0.079**	13	245	234	96	1	2007	470990002	Busby Rd		Lawrence Co	TN	04
																						Cedars Of				

42	0.101	0.091	0.090	0.090	0	0.0	245	237	97	3	0.087	0.082	0.081	**0.081**	10	245	233	95	1	2005	471890103	Lebanon State Park	Lebanon	Wilson Co	TN	04
43	0.095	0.094	0.094	0.091	0	0.0	245	245	100	0	0.086	0.083	0.081	**0.080**	5	245	239	98	1	2006	471890103	Cedars Of Lebanon State Park	Lebanon	Wilson Co	TN	04
44	0.098	0.097	0.096	0.095	0	0.0	245	242	99	1	0.093	0.091	0.086	**0.085**	20	245	236	96	1	2007	471890103	Cedars Of Lebanon State Park	Lebanon	Wilson Co	TN	04
45	0.094	0.089	0.086	0.085	0	0.0	245	176	72	1	0.086	0.081	0.079	**0.078**	7	245	175	71	1	2005	471550102	Clingsmans Dome, Great Smoky Mtns. Np		Sevier Co	TN	04
46	0.100	0.096	0.095	0.093	0	0.0	245	186	76	0	0.089	0.088	0.088	**0.086**	20	245	185	76	1	2006	471550102	Clingsmans Dome, Great Smoky Mtns. Np		Sevier Co	TN	04
47	0.105	0.099	0.096	0.096	0	0.0	245	184	75	2	0.092	0.090	0.088	**0.087**	35	245	175	71	1	2007	471550102	Clingsmans Dome, Great Smoky Mtns. Np		Sevier Co	TN	04
48	0.105	0.092	0.089	0.087	0	0.0	245	239	98	6	0.087	0.080	0.079	**0.078**	9	245	231	94	1	2005	471650101	Cottontown Wright'S Farm		Sumner Co	TN	04
49	0.105	0.104	0.099	0.097	0	0.0	245	242	99	0	0.090	0.087	0.084	**0.083**	9	245	240	98	1	2006	471650101	Cottontown Wright'S Farm		Sumner Co	TN	04
50	0.104	0.103	0.101	0.095	0	0.0	245	244	100	1	0.091	0.086	0.086	**0.085**	22	245	245	100	1	2007	471650101	Cottontown Wright'S Farm		Sumner Co	TN	04
51	0.099	0.089	0.088	0.088	0	0.0	245	237	97	1	0.092	0.082	0.082	**0.079**	4	245	235	96	1	2005	471490101	Eagleville Puckett'S Farm		Rutherford Co	TN	04
52	0.095	0.082	0.081	0.080	0	0.0	245	236	96	2	0.076	0.076	0.075	0.074	2	245	229	93	1	2006	471490101	Eagleville Puckett'S Farm		Rutherford Co	TN	04
53	0.112	0.104	0.100	0.095	0	0.0	245	230	94	0	0.098	0.091	0.089	**0.089**	8	245	228	93	1	2007	471490101	Eagleville Puckett'S Farm		Rutherford Co	TN	04
54	0.087	0.086	0.084	0.083	0	0.0	245	238	97	4	0.079	0.077	0.076	**0.076**	5	245	232	95	1	2005	471870106	Fairview Middle School Crow Cut Road	Fairview	Williamson Co	TN	04
55	0.097	0.084	0.082	0.082	0	0.0	245	233	95	4	0.085	0.075	0.073	0.072	1	245	229	93	1	2006	471870106	Fairview Middle School Crow Cut Road	Fairview	Williamson Co	TN	04
56	0.109	0.097	0.095	0.093	0	0.0	245	241	98	0	0.089	0.088	0.087	**0.085**	20	245	241	98	1	2007	471870106	Fairview Middle School Crow Cut Road	Fairview	Williamson Co	TN	04
57	0.103	0.099	0.096	0.096	0	0.0	245	242	99	0	0.090	0.090	0.085	**0.081**	12	245	238	97	1	2005	470010101	Freels Bend_Study Area Melton Lake	Oak Ridge	Anderson Co	TN	04
58	0.117	0.113	0.101	0.095	0	0.0	245	244	100	1	0.107	0.087	0.083	**0.080**	10	245	243	99	1	2006	470010101	Freels Bend_Study Area Melton Lake	Oak Ridge	Anderson Co	TN	04
59	0.107	0.099	0.092	0.091	0	0.0	245	240	98	3	0.090	0.084	0.081	**0.080**	9	245	234	96	1	2007	470010101	Freels Bend_Study Area Melton Lake	Oak Ridge	Anderson Co	TN	04
60	0.104	0.102	0.094	0.093	0	0.0	245	241	98	4	0.088	0.086	0.083	**0.079**	11	245	240	98	1	2005	471550101	Great Smoky Mountain Np Cove Mountain		Sevier Co	TN	04
61	0.097	0.094	0.092	0.089	0	0.0	245	243	99	2	0.086	0.085	0.081	**0.080**	19	245	241	98	1	2006	471550101	Great Smoky Mountain Np Cove Mountain		Sevier Co	TN	04
62	0.101	0.098	0.097	0.097	0	0.0	245	242	99	3	0.089	0.089	0.088	**0.088**	26	245	243	99	1	2007	471550101	Great Smoky Mountain Np Cove Mountain		Sevier Co	TN	04
																						Great Smoky				

63	0.080	0.077	0.076	0.074	0	0.0	245	191	78	4	0.075	0.074	0.068	0.066	0	245	190	78	1	2005	470090102	Mountains Np - Cades Cove		Blount Co	TN	04
64	0.085	0.083	0.078	0.078	0	0.0	245	242	99	1	0.074	0.073	0.072	0.071	0	245	242	99	1	2006	470090102	Great Smoky Mountains Np - Cades Cove		Blount Co	TN	04
65	0.098	0.096	0.089	0.084	0	0.0	245	243	99	1	0.086	0.079	0.077	0.074	3	245	243	99	1	2007	470090102	Great Smoky Mountains Np - Cades Cove		Blount Co	TN	04
66	0.100	0.098	0.096	0.094	0	0.0	245	242	99	3	0.092	0.089	0.086	**0.086**	30	245	242	99	1	2005	470090101	Great Smoky Mountains Np Look Rock		Blount Co	TN	04
67	0.097	0.094	0.094	0.093	0	0.0	245	241	98	1	0.089	0.087	0.086	**0.085**	17	245	238	97	1	2006	470090101	Great Smoky Mountains Np Look Rock		Blount Co	TN	04
68	0.118	0.103	0.101	0.100	0	0.0	245	243	99	2	0.096	0.095	0.092	**0.088**	31	245	243	99	1	2007	470090101	Great Smoky Mountains Np Look Rock		Blount Co	TN	04
69	0.105	0.102	0.095	0.094	0	0.0	245	244	100	1	0.086	0.085	0.081	**0.080**	12	245	244	100	1	2005	471632002	Hill Road		Sullivan Co	TN	04
70	0.114	0.111	0.100	0.091	0	0.0	245	245	100	0	0.098	0.091	0.083	**0.081**	8	245	244	100	1	2006	471632002	Hill Road		Sullivan Co	TN	04
71	0.110	0.107	0.106	0.106	0	0.0	245	242	99	1	0.091	0.091	0.090	**0.090**	16	245	242	99	1	2007	471632002	Hill Road		Sullivan Co	TN	04
72	0.101	0.099	0.098	0.096	0	0.0	245	240	98	2	0.088	0.085	0.083	**0.083**	14	245	239	98	1	2005	471632003	Ketron Middle School On Bloomingdale Rd.	Kingsport	Sullivan Co	TN	04
73	0.107	0.099	0.096	0.092	0	0.0	245	243	99	0	0.092	0.089	0.085	**0.083**	10	245	241	98	1	2006	471632003	Ketron Middle School On Bloomingdale Rd.	Kingsport	Sullivan Co	TN	04
74	0.119	0.111	0.110	0.103	0	0.0	245	245	100	0	0.099	0.098	0.094	**0.085**	13	245	245	100	1	2007	471632003	Ketron Middle School On Bloomingdale Rd.	Kingsport	Sullivan Co	TN	04
75	0.110	0.100	0.095	0.094	0	0.0	245	245	100	0	0.097	0.090	0.086	**0.083**	16	245	245	100	1	2005	471650007	Rockland Recreation Area-Old Hickory Dam		Sumner Co	TN	04
76	0.108	0.104	0.101	0.100	0	0.0	245	243	99	2	0.098	0.091	0.089	**0.088**	16	245	239	98	1	2006	471650007	Rockland Recreation Area-Old Hickory Dam		Sumner Co	TN	04
77	0.114	0.098	0.098	0.094	0	0.0	245	240	98	3	0.104	0.088	0.087	**0.083**	23	245	241	98	1	2007	471650007	Rockland Recreation Area-Old Hickory Dam		Sumner Co	TN	04
78	0.105	0.103	0.090	0.090	0	0.0	245	245	100	0	0.092	0.084	0.079	**0.077**	7	245	244	100	1	2005	470651011	Soddy Daisy H.S. 00620 Sequoyah Rd		Hamilton Co	TN	04
79	0.112	0.104	0.101	0.099	0	0.0	245	244	100	1	0.093	0.090	0.089	**0.088**	13	245	244	100	1	2006	470651011	Soddy Daisy H.S. 00620 Sequoyah Rd		Hamilton Co	TN	04
80	0.116	0.100	0.100	0.099	0	0.0	245	242	99	0	0.092	0.090	0.089	**0.085**	18	245	241	98	1	2007	470651011	Soddy Daisy H.S. 00620 Sequoyah Rd		Hamilton Co	TN	04
Grand Total						0.0									274					2005						
						1.0									425					2007						
						3.1									262					2006						

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AirData

Monitor Values Report - Criteria Air Pollutants

Geographic Area: Tennessee
Pollutant: Nitrogen Dioxide
Year: 2005, 2006, 2007

EPA Air Quality Standards:
Nitrogen Dioxide: 0.053 ppm (annual mean)

ppm = parts per million

24 Rows
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	NO2 (ppm)												
	1-Hour Values			Annual		Monitor Number							
Row #	# Obs	1st Max	2nd Max	Mean	# Exceed		Year	Site ID	Site Address	City	County	State	EPA Region
SORT													
1	8,106	0.054	0.049	0.012	0	1	2005	470110102	Charleston Bowaters South (B-2) Worth St.		Bradley Co	TN	04
2	8,265	0.088	0.059	0.011	0	1	2006	470110102	Charleston Bowaters South (B-2) Worth St.		Bradley Co	TN	04
3	8,225	0.049	0.043	0.010	0	1	2007	470110102	Charleston Bowaters South (B-2) Worth St.		Bradley Co	TN	04
4	1,353	0.038	0.032	0.005	0	1	2005	470310004	Summitville Rd., Manchester, Tn 37355		Coffee Co	TN	04
5	8,670	0.068	0.066	0.018	0	1	2005	470370011	1015 Trinity Lane	Nashville	Davidson Co	TN	04
6	8,597	0.059	0.059	0.017	0	1	2006	470370011	1015 Trinity Lane	Nashville	Davidson Co	TN	04
7	8,663	0.065	0.061	0.018	0	1	2007	470370011	1015 Trinity Lane	Nashville	Davidson Co	TN	04
8	8,361	0.035	0.035	0.004	0	1	2006	470630003	8250 Whitaker Ridge Rd., Whitesburg, Tn		Hamblen Co	TN	04
9	6,753	0.025	0.024	0.002	0	2	2006	470750003	1741 Hillville Loop Road		Haywood Co	TN	04

10	2,608	0.021	0.020	0.003	0	2	2007	470750003	1741 Hillville Loop Road		Haywood Co	TN	04
11	8,043	0.056	0.049	0.012	0	1	2005	471070101	Calhoun Bowaters North(B-1) Lamountville		McMinn Co	TN	04
12	7,663	0.061	0.059	0.012	0	1	2006	471070101	Calhoun Bowaters North(B-1) Lamountville		McMinn Co	TN	04
13	8,250	0.058	0.058	0.012	0	1	2007	471070101	Calhoun Bowaters North(B-1) Lamountville		McMinn Co	TN	04
14	6,914	0.034	0.030	0.006	0	2	2005	471210104	8401 Highway 60		Meigs Co	TN	04
15	1,338	0.029	0.027	0.007	0	2	2006	471210104	8401 Highway 60		Meigs Co	TN	04
16	6,804	0.033	0.027	0.004	0	1	2005	471251010	4667 Guthrie Road, Clarksville, Tn		Montgomery Co	TN	04
17	2,019	0.029	0.025	0.004	0	1	2006	471251010	4667 Guthrie Road, Clarksville, Tn		Montgomery Co	TN	04
18	6,973	0.019	0.019	0.002	0	2	2007	471410004	1382 Benson Road, Cookeville, Tn		Putnam Co	TN	04
19	4,533	0.068	0.067	0.014	0	1	2006	471570024	416 Alabama Avenue	Memphis	Shelby Co	TN	04
20	5,569	0.031	0.029	0.003	0	1	2005	471572005	12560 Coburn Road, Eads, Tn		Shelby Co	TN	04
21	2,746	0.037	0.037	0.004	0	1	2006	471572005	12560 Coburn Road, Eads, Tn		Shelby Co	TN	04
22	7,589	0.153	0.151	0.012	0	1	2005	471630007	Eastman Ross N.Robinson	Kingsport	Sullivan Co	TN	04
23	7,147	0.094	0.070	0.012	0	1	2006	471630007	Eastman Ross N.Robinson	Kingsport	Sullivan Co	TN	04
24	8,201	0.054	0.051	0.011	0	1	2007	471630007	Eastman Ross N.Robinson	Kingsport	Sullivan Co	TN	04
Grand Total					0		2005						
					0		2007						
					0		2006						

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AirData - Monitor Values Report - Criteria Air Pollutants
Generated on Wednesday, November 19, 2008

AirData

Monitor Values Report - Criteria Air Pollutants

Geographic Area: Tennessee
Pollutant: Sulfur Dioxide
Year: 2005, 2006, 2007

EPA Air Quality Standards:
Sulfur Dioxide: 0.5 ppm (3-hour average), 0.14 ppm (24-hour average), 0.030 ppm (annual mean)

ppm = parts per million

59 Rows
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	SO2 (ppm)																	
	1-Hour Values			3-Hour Values			24-Hour Values			Annual								
Row #	# Obs	1st Max	2nd Max	1st Max	2nd Max	# Exceed	1st Max	2nd Max	# Exceed	Mean	# Exceed	Monitor Number	Year	Site ID	Site Address	City	County	St
SORT																		
1	8,623	0.175	0.081	0.059	0.048	0	0.012	0.011	0	0.002	0	1	2005	471450009	Tva Kingston #8	Rockwood	Roane Co	TN
2	8,747	0.357	0.266	0.163	0.140	0	0.038	0.035	0	0.004	0	1	2007	470730002	Tva John Sevier 4 1.0 Mi Sw John Sev. Fp		Hawkins Co	TN
3	8,624	0.160	0.141	0.088	0.075	0	0.019	0.013	0	0.002	0	1	2006	470850020	Tva Jof 13 2.03 N 36 E Jof Plant		Humphreys Co	TN
4	8,660	0.080	0.059	0.044	0.042	0	0.014	0.012	0	0.002	0	1	2007	471651002	Tva Gallatin 1___1.8 Mi N Of Gallatin Fp		Sumner Co	TN
5	8,629	0.121	0.100	0.094	0.064	0	0.025	0.015	0	0.002	0	1	2006	470010028	Tva Bull Run 26__0.5 Mi Ne Bull Run Fp		Anderson Co	TN

6	7,911	0.086	0.078	0.072	0.059	0	0.027	0.026	0	0.006	0	1	2007	471571034	Tva Allen 10_____1.26 Mi Ene Allen Fp	Memphis	Shelby Co	TN
7	8,156	0.096	0.096	0.078	0.077	0	0.048	0.035	0	0.006	0	1	2006	471571034	Tva Allen 10_____1.26 Mi Ene Allen Fp	Memphis	Shelby Co	TN
8	8,160	0.098	0.097	0.083	0.073	0	0.040	0.037	0	0.005	0	1	2005	471571034	Tva Allen 10_____1.26 Mi Ene Allen Fp	Memphis	Shelby Co	TN
9	1,413	0.019	0.019	0.017	0.016	0	0.009	0.007	0	0.002	0	1	2005	470310004	Summitville Rd., Manchester, Tn 37355		Coffee Co	TN
10	6,511	0.226	0.068	0.076	0.034	0	0.012	0.007	0	0.002	0	1	2006	471390007	South Highland St At Ocoee_River		Polk Co	TN
11	8,276	0.111	0.081	0.041	0.033	0	0.015	0.015	0	0.003	0	1	2005	471390007	South Highland St At Ocoee_River		Polk Co	TN
12	8,108	0.265	0.242	0.196	0.193	0	0.097	0.067	0	0.012	0	1	2007	470090002	Rock Gardens Cleveland St.	Alcoa	Blount Co	TN
13	8,271	0.219	0.218	0.188	0.167	0	0.098	0.080	0	0.012	0	1	2006	470090002	Rock Gardens Cleveland St.	Alcoa	Blount Co	TN
14	8,006	0.231	0.202	0.178	0.155	0	0.097	0.089	0	0.011	0	1	2005	470090002	Rock Gardens Cleveland St.	Alcoa	Blount Co	TN
15	8,367	0.141	0.132	0.110	0.072	0	0.026	0.025	0	0.004	0	1	2007	470090006	Rankin Rd. & Joule St.	Alcoa	Blount Co	TN
16	8,219	0.092	0.090	0.080	0.069	0	0.029	0.028	0	0.004	0	1	2006	470090006	Rankin Rd. & Joule St.	Alcoa	Blount Co	TN
17	8,306	0.119	0.098	0.089	0.080	0	0.049	0.036	0	0.006	0	1	2005	470090006	Rankin Rd. & Joule St.	Alcoa	Blount Co	TN
18	8,550	0.214	0.140	0.120	0.096	0	0.053	0.015	0	0.003	0	1	2007	471250006	Meek'S Property	Clarksville	Montgomery Co	TN
19	8,603	0.087	0.078	0.052	0.033	0	0.025	0.013	0	0.006	0	1	2006	471250006	Meek'S Property	Clarksville	Montgomery Co	TN
20	8,655	0.091	0.075	0.037	0.036	0	0.010	0.010	0	0.004	0	1	2005	471250006	Meek'S Property	Clarksville	Montgomery Co	TN
															Great Smoky			

21	6,512	0.028	0.026	0.018	0.017	0	0.006	0.005	0	0.002	0	2	2007	470090101	Mountains Np Look Rock		Blount Co	TN
22	8,651	0.028	0.025	0.021	0.019	0	0.006	0.006	0	0.002	0	1	2007	471550101	Great Smoky Mountain Np Cove Mountain		Sevier Co	TN
23	6,543	0.040	0.032	0.023	0.020	0	0.007	0.005	0	0.002	0	1	2006	471550101	Great Smoky Mountain Np Cove Mountain		Sevier Co	TN
24	8,271	0.230	0.166	0.102	0.093	0	0.040	0.035	0	0.006	0	1	2007	471630007	Eastman Ross N.Robinson	Kingsport	Sullivan Co	TN
25	8,334	0.234	0.216	0.138	0.137	0	0.046	0.043	0	0.008	0	1	2006	471630007	Eastman Ross N.Robinson	Kingsport	Sullivan Co	TN
26	8,305	0.219	0.197	0.134	0.121	0	0.060	0.039	0	0.006	0	1	2005	471630007	Eastman Ross N.Robinson	Kingsport	Sullivan Co	TN
27	8,333	0.222	0.154	0.162	0.118	0	0.035	0.032	0	0.004	0	1	2007	471630009	Eastman Meadow View	Kingsport	Sullivan Co	TN
28	8,233	0.184	0.182	0.127	0.121	0	0.040	0.034	0	0.004	0	1	2006	471630009	Eastman Meadow View	Kingsport	Sullivan Co	TN
29	8,285	0.234	0.191	0.122	0.107	0	0.027	0.027	0	0.006	0	1	2005	471630009	Eastman Meadow View	Kingsport	Sullivan Co	TN
30	8,674	0.122	0.119	0.076	0.065	0	0.020	0.018	0	0.006	0	1	2007	471250106	Cumberland Heights Elementary School	Clarksville	Montgomery Co	TN
31	8,619	0.313	0.219	0.129	0.121	0	0.056	0.048	0	0.007	0	1	2006	471250106	Cumberland Heights Elementary School	Clarksville	Montgomery Co	TN
32	8,676	0.110	0.101	0.061	0.051	0	0.023	0.017	0	0.007	0	1	2005	471250106	Cumberland Heights Elementary School	Clarksville	Montgomery Co	TN
33	6,906	0.066	0.053	0.026	0.022	0	0.010	0.009	0	0.003	0	1	2006	471390003	Copper Basin Hosp.		Polk Co	TN
34	8,180	0.324	0.052	0.124	0.019	0	0.020	0.010	0	0.003	0	1	2005	471390003	Copper Basin Hosp.		Polk Co	TN
															Charleston			

35	8,227	0.124	0.069	0.061	0.057	0	0.048	0.045	0	0.006	0	1	2007	470110102	Bowaters South(B-2) Worth St.		Bradley Co	TN
36	8,265	0.139	0.137	0.112	0.100	0	0.054	0.054	0	0.004	0	1	2006	470110102	Charleston Bowaters South(B-2) Worth St.		Bradley Co	TN
37	8,107	0.115	0.087	0.055	0.052	0	0.029	0.026	0	0.006	0	1	2005	470110102	Charleston Bowaters South(B-2) Worth St.		Bradley Co	TN
38	8,252	0.141	0.126	0.101	0.053	0	0.022	0.018	0	0.007	0	1	2007	471070101	Calhoun Bowaters North(B-1) Lamountville		McMinn Co	TN
39	7,664	0.251	0.204	0.184	0.112	0	0.041	0.024	0	0.006	0	1	2006	471070101	Calhoun Bowaters North(B-1) Lamountville		McMinn Co	TN
40	8,126	0.141	0.139	0.102	0.097	0	0.038	0.027	0	0.008	0	1	2005	471070101	Calhoun Bowaters North(B-1) Lamountville		McMinn Co	TN
41	1,396	0.027	0.019	0.021	0.014	0	0.008	0.005	0	0.002	0	2	2006	471210104	8401 Highway 60		Meigs Co	TN
42	7,329	0.056	0.015	0.021	0.011	0	0.004	0.004	0	0.002	0	2	2005	471210104	8401 Highway 60		Meigs Co	TN
43	8,741	0.276	0.113	0.126	0.072	0	0.034	0.031	0	0.005	0	1	2006	470630003	8250 Whitaker Ridge Rd., Whitesburg, Tn		Hamblen Co	TN
44	2,149	0.056	0.042	0.042	0.035	0	0.013	0.012	0	0.003	0	1	2006	471251010	4667 Guthrie Road, Clarksville, Tn		Montgomery Co	TN
45	7,020	0.137	0.037	0.052	0.028	0	0.017	0.011	0	0.002	0	1	2005	471251010	4667 Guthrie Road, Clarksville, Tn		Montgomery Co	TN
46	8,298	0.022	0.016	0.009	0.008	0	0.005	0.005	0	0.003	0	1	2007	471570046	3065 Fite Rd	Memphis	Shelby Co	TN
47	8,189	0.141	0.127	0.107	0.063	0	0.031	0.014	0	0.004	0	1	2006	471570046	3065 Fite Rd	Memphis	Shelby Co	TN
48	8,282	0.349	0.295	0.188	0.122	0	0.062	0.028	0	0.004	0	1	2005	471570046	3065 Fite Rd	Memphis	Shelby Co	TN
49	2,036	0.044	0.038	0.030	0.018	0	0.012	0.009	0	0.005	0	1	2006	471570034	2666 Hernando Road	Memphis	Shelby Co	TN

50	8,121	0.053	0.050	0.035	0.030	0	0.012	0.011	0	0.004	0	1	2005	471570034	2666 Hernando Road	Memphis	Shelby Co	TN
51	2,873	0.038	0.023	0.024	0.008	0	0.006	0.003	0	0.001	0	2	2007	470750003	1741 Hillville Loop Road		Haywood Co	TN
52	7,266	0.018	0.017	0.015	0.014	0	0.005	0.005	0	0.001	0	2	2006	470750003	1741 Hillville Loop Road		Haywood Co	TN
53	7,328	0.030	0.030	0.025	0.020	0	0.009	0.008	0	0.002	0	2	2007	471410004	1382 Benson Road, Cookeville, Tn		Putnam Co	TN
54	2,867	0.013	0.012	0.011	0.008	0	0.004	0.004	0	0.001	0	1	2006	471572005	12560 Coburn Road, Eads, Tn		Shelby Co	TN
55	5,864	0.013	0.012	0.009	0.008	0	0.004	0.004	0	0.001	0	1	2005	471572005	12560 Coburn Road, Eads, Tn		Shelby Co	TN
56	8,675	0.038	0.033	0.034	0.022	0	0.013	0.010	0	0.003	0	1	2007	470370011	1015 Trinity Lane	Nashville	Davidson Co	TN
57	8,623	0.023	0.023	0.021	0.020	0	0.011	0.009	0	0.003	0	1	2006	470370011	1015 Trinity Lane	Nashville	Davidson Co	TN
58	8,674	0.047	0.040	0.040	0.030	0	0.019	0.013	0	0.003	0	1	2005	470370011	1015 Trinity Lane	Nashville	Davidson Co	TN
59	8,645	0.059	0.053	0.025	0.024	0	0.008	0.008	0	0.002	0	1	2005	471610007	1.13 Miles Sse Of Cumberland Power Plant		Stewart Co	TN
Grand Total						0			0		0		2005					
						0			0		0		2007					
						0			0		0		2006					

Page 1 of 1

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Disclaimer: AirData reports are produced from a monthly extract of EPA's air pollution database, AQS. Data for this report were extracted on November 1, 2008. They represent the best information available to EPA from state agencies on that date. However, some values may be absent due to incomplete reporting, and some values subsequently may be changed due to quality assurance activities. The AQS database is updated daily by state and local organizations who own and submit the data. Please contact the pertinent state agency to report errors.

Readers are cautioned not to infer a qualitative ranking order of geographic areas based on AirData reports. Air pollution levels measured in the vicinity of a particular monitoring site may not be representative of the prevailing air quality of a county or urban area. Pollutants emitted from a particular source may have little impact on the immediate geographic area, and the amount of pollutants emitted does not indicate whether the source is complying with applicable regulations.

Appendix B: MOBILE6 Data

```
*****************************************************************************
* MOBILE6.2.03 (24-Sep-2003)                                                *
* Input file: TN2015.INP (file 1, run 1).                                   *
*****************************************************************************
  M603 Comment:
               User has disabled the calculation of REFUELING emissions.


* Reading Registration Distributions from the following external
* data file: E:\AQPROG\MOBILE62\TN\KNREG.D
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                 1.00     MYR sum not = 1. (will normalize)

* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 1.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
            The user supplied arterial average speed of  2.5
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.
  M615 Comment:
               User supplied VMT mix.
  M 48 Warning:
              there are no sales for vehicle class HDGV8b
  M 48 Warning:
              there are no sales for vehicle class LDDT12

                    Calendar Year:  2015
                            Month:  Jan.
                         Altitude:  Low
              Minimum Temperature:  31.0 (F)
              Maximum Temperature:  52.0 (F)
                Absolute Humidity:   75. grains/lb
                 Nominal Fuel RVP:  15.0 psi
                    Weathered RVP:  15.0 psi
              Fuel Sulfur Content:   30. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                Reformulated Gas:  No

       Vehicle Type:      LDGV    LDGT12    LDGT34     LDGT      HDGV      LDDV      LDDT      HDDV        MC
 All Veh
               GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------
  ------
   VMT Distribution:    0.3268    0.4316    0.1470              0.0365    0.0003    0.0022    0.0502    0.0054
  1.0000

---------------------------------------------------------------------------------------------------------------
-------
 Composite Emission Factors (g/mi):
     Composite CO  :     37.07     37.18     43.71     38.84     43.55     2.402     1.699     3.166    105.97
  36.915

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* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 2.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
            The user supplied arterial average speed of  5.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.
  M615 Comment:
               User supplied VMT mix.
  M 48 Warning:
              there are no sales for vehicle class HDGV8b
  M 48 Warning:
              there are no sales for vehicle class LDDT12

                    Calendar Year:  2015
                            Month:  Jan.
                         Altitude:  Low
              Minimum Temperature:  31.0 (F)
              Maximum Temperature:  52.0 (F)
                Absolute Humidity:   75. grains/lb
                 Nominal Fuel RVP:  15.0 psi
                    Weathered RVP:  15.0 psi
              Fuel Sulfur Content:   30. ppm

              Exhaust I/M Program:  No
```

```
               Evap I/M Program:  No
                    ATP Program:  No
               Reformulated Gas:  No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC
 All Veh
             GVWR:                <6000     >6000     (All)
                       ------    ------    ------    ------    ------    ------    ------    ------    ------
  ------
  VMT Distribution:    0.3268    0.4316    0.1470              0.0365    0.0003    0.0022    0.0502    0.0054
 1.0000

----------------------------------------------------------------------------------------------------------------
-------
 Composite Emission Factors (g/mi):
    Composite CO  :     23.67     24.73     28.44     25.67     34.80     2.019     1.427     2.584     62.85
 24.335

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* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 3.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
 M583 Warning:
           The user supplied arterial average speed of 10.0
           will be used for all hours of the day.  100% of VMT
           has been assigned to the arterial/collector roadway
           type for all hours of the day and all vehicle types.
 M615 Comment:
              User supplied VMT mix.
 M 48 Warning:
             there are no sales for vehicle class HDGV8b
 M 48 Warning:
             there are no sales for vehicle class LDDT12

                   Calendar Year:  2015
                           Month:  Jan.
                        Altitude:  Low
             Minimum Temperature:  31.0 (F)
             Maximum Temperature:  52.0 (F)
               Absolute Humidity:   75. grains/lb
                Nominal Fuel RVP:  15.0 psi
                   Weathered RVP:  15.0 psi
             Fuel Sulfur Content:   30. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
                Reformulated Gas:  No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC
 All Veh
             GVWR:                <6000     >6000     (All)
                       ------    ------    ------    ------    ------    ------    ------    ------    ------
  ------
  VMT Distribution:    0.3268    0.4316    0.1470              0.0365    0.0003    0.0022    0.0502    0.0054
 1.0000

----------------------------------------------------------------------------------------------------------------
-------
 Composite Emission Factors (g/mi):
    Composite CO  :     17.34     18.70     21.06     19.30     23.15     1.491     1.052     1.782     32.40
 17.944

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* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 4.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
 M583 Warning:
           The user supplied arterial average speed of 15.0
           will be used for all hours of the day.  100% of VMT
           has been assigned to the arterial/collector roadway
           type for all hours of the day and all vehicle types.
 M615 Comment:
              User supplied VMT mix.
 M 48 Warning:
             there are no sales for vehicle class HDGV8b
 M 48 Warning:
             there are no sales for vehicle class LDDT12

                   Calendar Year:  2015
                           Month:  Jan.
                        Altitude:  Low
             Minimum Temperature:  31.0 (F)
             Maximum Temperature:  52.0 (F)
               Absolute Humidity:   75. grains/lb
                Nominal Fuel RVP:  15.0 psi
                   Weathered RVP:  15.0 psi
             Fuel Sulfur Content:   30. ppm
```

```
            Exhaust I/M Program:  No
               Evap I/M Program:  No
                    ATP Program:  No
               Reformulated Gas:  No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC
 All Veh
              GVWR:               <6000     >6000     (All)
                       ------    ------    ------    ------    ------    ------    ------    ------    ------
  ------
  VMT Distribution:    0.3268    0.4316    0.1470              0.0365    0.0003    0.0022    0.0502    0.0054
  1.0000

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-------
 Composite Emission Factors (g/mi):
     Composite CO  :     15.40     16.78     18.72     17.27     16.27     1.164     0.821     1.286     22.54
  15.810

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* # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 5.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
           The user supplied arterial average speed of 20.0
           will be used for all hours of the day.  100% of VMT
           has been assigned to the arterial/collector roadway
           type for all hours of the day and all vehicle types.
  M615 Comment:
              User supplied VMT mix.
  M 48 Warning:
            there are no sales for vehicle class HDGV8b
  M 48 Warning:
            there are no sales for vehicle class LDDT12

                  Calendar Year:  2015
                          Month:  Jan.
                       Altitude:  Low
            Minimum Temperature:  31.0 (F)
            Maximum Temperature:  52.0 (F)
              Absolute Humidity:   75. grains/lb
               Nominal Fuel RVP:  15.0 psi
                  Weathered RVP:  15.0 psi
            Fuel Sulfur Content:   30. ppm

            Exhaust I/M Program:  No
               Evap I/M Program:  No
                    ATP Program:  No
               Reformulated Gas:  No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC
 All Veh
              GVWR:               <6000     >6000     (All)
                       ------    ------    ------    ------    ------    ------    ------    ------    ------
  ------
  VMT Distribution:    0.3268    0.4316    0.1470              0.0365    0.0003    0.0022    0.0502    0.0054
  1.0000

------------------------------------------------------------------------------------------------------------
-------
 Composite Emission Factors (g/mi):
     Composite CO  :     14.44     15.82     17.54     16.26     12.09     0.956     0.674     0.971     18.00
  14.714

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* # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 6.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
           The user supplied arterial average speed of 25.0
           will be used for all hours of the day.  100% of VMT
           has been assigned to the arterial/collector roadway
           type for all hours of the day and all vehicle types.
  M615 Comment:
              User supplied VMT mix.
  M 48 Warning:
            there are no sales for vehicle class HDGV8b
  M 48 Warning:
            there are no sales for vehicle class LDDT12

                  Calendar Year:  2015
                          Month:  Jan.
                       Altitude:  Low
            Minimum Temperature:  31.0 (F)
            Maximum Temperature:  52.0 (F)
              Absolute Humidity:   75. grains/lb
               Nominal Fuel RVP:  15.0 psi
```

Weathered RVP: 15.0 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.3268	0.4316	0.1470		0.0365	0.0003	0.0022	0.0502	0.0054	1.0000

Composite Emission Factors (g/mi):

	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
Composite CO :	13.91	15.30	16.91	15.71	9.48	0.822	0.578	0.768	15.21	14.102

* #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 7.
* #

M583 Warning:
The user supplied arterial average speed of 30.0
will be used for all hours of the day. 100% of VMT
has been assigned to the arterial/collector roadway
type for all hours of the day and all vehicle types.

M615 Comment:
User supplied VMT mix.

M 48 Warning:
there are no sales for vehicle class HDGV8b

M 48 Warning:
there are no sales for vehicle class LDDT12

Calendar Year: 2015
Month: Jan.
Altitude: Low
Minimum Temperature: 31.0 (F)
Maximum Temperature: 52.0 (F)
Absolute Humidity: 75. grains/lb
Nominal Fuel RVP: 15.0 psi
Weathered RVP: 15.0 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.3268	0.4316	0.1470		0.0365	0.0003	0.0022	0.0502	0.0054	1.0000

Composite Emission Factors (g/mi):

	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
Composite CO :	13.67	15.07	16.63	15.47	7.86	0.735	0.516	0.635	13.20	13.810

* #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 8.
* #

M583 Warning:
The user supplied arterial average speed of 35.0
will be used for all hours of the day. 100% of VMT
has been assigned to the arterial/collector roadway
type for all hours of the day and all vehicle types.

M615 Comment:
User supplied VMT mix.

M 48 Warning:
there are no sales for vehicle class HDGV8b

M 48 Warning:
there are no sales for vehicle class LDDT12

Calendar Year: 2015
Month: Jan.
Altitude: Low
Minimum Temperature: 31.0 (F)
Maximum Temperature: 52.0 (F)

```
               Absolute Humidity:   75. grains/lb
                 Nominal Fuel RVP:  15.0 psi
                    Weathered RVP:  15.0 psi
              Fuel Sulfur Content:   30. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC
 All Veh
             GVWR:                <6000     >6000     (All)
                       ------    ------    ------    ------    ------    ------    ------    ------    ------
  ------
   VMT Distribution:    0.3268    0.4316    0.1470              0.0365    0.0003    0.0022    0.0502    0.0054
  1.0000

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-------
 Composite Emission Factors (g/mi):
     Composite CO  :     13.70     15.13     16.70     15.53      6.89     0.678     0.477     0.550     11.70
  13.805

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* # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 9.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
            The user supplied arterial average speed of 40.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.
  M615 Comment:
               User supplied VMT mix.
  M 48 Warning:
              there are no sales for vehicle class HDGV8b
  M 48 Warning:
              there are no sales for vehicle class LDDT12

                    Calendar Year:  2015
                            Month:  Jan.
                         Altitude:  Low
              Minimum Temperature:  31.0 (F)
              Maximum Temperature:  52.0 (F)
                Absolute Humidity:   75. grains/lb
                 Nominal Fuel RVP:  15.0 psi
                    Weathered RVP:  15.0 psi
              Fuel Sulfur Content:   30. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC
 All Veh
             GVWR:                <6000     >6000     (All)
                       ------    ------    ------    ------    ------    ------    ------    ------    ------
  ------
   VMT Distribution:    0.3268    0.4316    0.1470              0.0365    0.0003    0.0022    0.0502    0.0054
  1.0000

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-------
 Composite Emission Factors (g/mi):
     Composite CO  :     14.15     15.61     17.27     16.03      6.37     0.644     0.452     0.498     10.67
  14.217

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* # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 10.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
            The user supplied arterial average speed of 45.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.
  M615 Comment:
               User supplied VMT mix.
  M 48 Warning:
              there are no sales for vehicle class HDGV8b
  M 48 Warning:
              there are no sales for vehicle class LDDT12

                    Calendar Year:  2015
                            Month:  Jan.
                         Altitude:  Low
```

Minimum Temperature: 31.0 (F)
Maximum Temperature: 52.0 (F)
Absolute Humidity: 75. grains/lb
Nominal Fuel RVP: 15.0 psi
Weathered RVP: 15.0 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
	------	------	------	------	------	------	------	------	------	------
VMT Distribution:	0.3268	0.4316	0.1470		0.0365	0.0003	0.0022	0.0502	0.0054	1.0000

Composite Emission Factors (g/mi):										
Composite CO :	14.60	16.09	17.84	16.53	6.23	0.627	0.440	0.472	10.01	14.645

----

* #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 11.
* #
M583 Warning:
The user supplied arterial average speed of 50.0
will be used for all hours of the day. 100% of VMT
has been assigned to the arterial/collector roadway
type for all hours of the day and all vehicle types.
M615 Comment:
User supplied VMT mix.
M 48 Warning:
there are no sales for vehicle class HDGV8b
M 48 Warning:
there are no sales for vehicle class LDDT12

Calendar Year: 2015
Month: Jan.
Altitude: Low
Minimum Temperature: 31.0 (F)
Maximum Temperature: 52.0 (F)
Absolute Humidity: 75. grains/lb
Nominal Fuel RVP: 15.0 psi
Weathered RVP: 15.0 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
	------	------	------	------	------	------	------	------	------	------
VMT Distribution:	0.3268	0.4316	0.1470		0.0365	0.0003	0.0022	0.0502	0.0054	1.0000

Composite Emission Factors (g/mi):										
Composite CO :	15.05	16.57	18.41	17.04	6.44	0.625	0.439	0.468	9.74	15.090

----

* #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 12.
* #
M583 Warning:
The user supplied arterial average speed of 55.0
will be used for all hours of the day. 100% of VMT
has been assigned to the arterial/collector roadway
type for all hours of the day and all vehicle types.
M615 Comment:
User supplied VMT mix.
M 48 Warning:
there are no sales for vehicle class HDGV8b
M 48 Warning:
there are no sales for vehicle class LDDT12

Calendar Year: 2015

```
                     Month:  Jan.
                  Altitude:  Low
       Minimum Temperature:  31.0 (F)
       Maximum Temperature:  52.0 (F)
         Absolute Humidity:   75. grains/lb
          Nominal Fuel RVP:  15.0 psi
             Weathered RVP:  15.0 psi
       Fuel Sulfur Content:   30. ppm

       Exhaust I/M Program:  No
          Evap I/M Program:  No
               ATP Program:  No
          Reformulated Gas:  No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC
 All Veh
              GVWR:               <6000     >6000     (All)
                       ------    ------    ------    ------    ------    ------    ------    ------    ------
  ------
  VMT Distribution:    0.3268    0.4316    0.1470              0.0365    0.0003    0.0022    0.0502    0.0054
  1.0000

------------------------------------------------------------------------------------------------------------
-------
 Composite Emission Factors (g/mi):
    Composite CO  :     15.50     17.05     18.98     17.54      7.03     0.637     0.447     0.487      9.74
  15.551

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* # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 13.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
           The user supplied arterial average speed of 60.0
           will be used for all hours of the day.  100% of VMT
           has been assigned to the arterial/collector roadway
           type for all hours of the day and all vehicle types.
  M615 Comment:
              User supplied VMT mix.
  M 48 Warning:
             there are no sales for vehicle class HDGV8b
  M 48 Warning:
             there are no sales for vehicle class LDDT12

             Calendar Year:  2015
                     Month:  Jan.
                  Altitude:  Low
       Minimum Temperature:  31.0 (F)
       Maximum Temperature:  52.0 (F)
         Absolute Humidity:   75. grains/lb
          Nominal Fuel RVP:  15.0 psi
             Weathered RVP:  15.0 psi
       Fuel Sulfur Content:   30. ppm

       Exhaust I/M Program:  No
          Evap I/M Program:  No
               ATP Program:  No
          Reformulated Gas:  No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC
 All Veh
              GVWR:               <6000     >6000     (All)
                       ------    ------    ------    ------    ------    ------    ------    ------    ------
  ------
  VMT Distribution:    0.3268    0.4316    0.1470              0.0365    0.0003    0.0022    0.0502    0.0054
  1.0000

------------------------------------------------------------------------------------------------------------
-------
 Composite Emission Factors (g/mi):
    Composite CO  :     15.95     17.54     19.55     18.05      8.10     0.665     0.467     0.529     16.36
  16.067

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* # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 14.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
           The user supplied arterial average speed of 65.0
           will be used for all hours of the day.  100% of VMT
           has been assigned to the arterial/collector roadway
           type for all hours of the day and all vehicle types.
  M615 Comment:
              User supplied VMT mix.
  M 48 Warning:
             there are no sales for vehicle class HDGV8b
  M 48 Warning:
             there are no sales for vehicle class LDDT12
```

Calendar Year: 2015
Month: Jan.
Altitude: Low
Minimum Temperature: 31.0 (F)
Maximum Temperature: 52.0 (F)
Absolute Humidity: 75. grains/lb
Nominal Fuel RVP: 15.0 psi
Weathered RVP: 15.0 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.3268	0.4316	0.1470		0.0365	0.0003	0.0022	0.0502	0.0054	1.0000

Composite Emission Factors (g/mi):

	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
Composite CO :	16.40	18.02	20.12	18.55	9.87	0.713	0.501	0.601	22.97	16.610

```
*****************************************************************************
* MOBILE6.2.03 (24-Sep-2003)                                                *
* Input file: TN2035.INP (file 1, run 1).                                   *
*****************************************************************************
  M603 Comment:
              User has disabled the calculation of REFUELING emissions.


* Reading Registration Distributions from the following external
* data file: E:\AQPROG\MOBILE62\TN\KNREG.D
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)
  M 49 Warning:
                1.00     MYR sum not = 1. (will normalize)

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 1.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
            The user supplied arterial average speed of  2.5
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.
  M615 Comment:
              User supplied VMT mix.
  M 48 Warning:
             there are no sales for vehicle class HDGV8b
  M 48 Warning:
             there are no sales for vehicle class LDDT12

                   Calendar Year:  2035
                           Month:  Jan.
                        Altitude:  Low
             Minimum Temperature:  31.0 (F)
             Maximum Temperature:  52.0 (F)
               Absolute Humidity:   75. grains/lb
                Nominal Fuel RVP:  15.0 psi
                   Weathered RVP:  15.0 psi
             Fuel Sulfur Content:   30. ppm

             Exhaust I/M Program:  No
                Evap I/M Program:  No
                     ATP Program:  No
               Reformulated Gas:  No

      Vehicle Type:      LDGV    LDGT12    LDGT34     LDGT      HDGV      LDDV      LDDT      HDDV        MC
 All Veh
             GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------
  ------
   VMT Distribution:    0.2953    0.4658    0.1589              0.0359    0.0003    0.0023    0.0361    0.0054
  1.0000

-------------------------------------------------------------------------------------------------------------
-------
 Composite Emission Factors (g/mi):
     Composite CO  :     31.18     29.53     34.01     30.67     39.44     1.915     1.138     0.765    105.97
  30.385

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* # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 2.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
            The user supplied arterial average speed of  5.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.
  M615 Comment:
              User supplied VMT mix.
  M 48 Warning:
             there are no sales for vehicle class HDGV8b
  M 48 Warning:
             there are no sales for vehicle class LDDT12

                   Calendar Year:  2035
                           Month:  Jan.
                        Altitude:  Low
             Minimum Temperature:  31.0 (F)
             Maximum Temperature:  52.0 (F)
               Absolute Humidity:   75. grains/lb
                Nominal Fuel RVP:  15.0 psi
                   Weathered RVP:  15.0 psi
             Fuel Sulfur Content:   30. ppm

             Exhaust I/M Program:  No
```

```
               Evap I/M Program:  No
                    ATP Program:  No
              Reformulated Gas:  No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC
 All Veh
             GVWR:               <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------
  ------
  VMT Distribution:    0.2953    0.4658    0.1589              0.0359    0.0003    0.0023    0.0361    0.0054
 1.0000

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-------
 Composite Emission Factors (g/mi):
    Composite CO  :     20.22     19.51     22.08     20.16     31.52     1.607     0.950     0.625     62.85
 20.062

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* # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 3.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
            The user supplied arterial average speed of 10.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.
  M615 Comment:
               User supplied VMT mix.
  M 48 Warning:
              there are no sales for vehicle class HDGV8b
  M 48 Warning:
              there are no sales for vehicle class LDDT12

                    Calendar Year:  2035
                            Month:  Jan.
                         Altitude:  Low
              Minimum Temperature:  31.0 (F)
              Maximum Temperature:  52.0 (F)
                Absolute Humidity:   75. grains/lb
                 Nominal Fuel RVP:  15.0 psi
                    Weathered RVP:  15.0 psi
              Fuel Sulfur Content:   30. ppm

              Exhaust I/M Program:  No
                 Evap I/M Program:  No
                      ATP Program:  No
                 Reformulated Gas:  No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC
 All Veh
             GVWR:               <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------
  ------
  VMT Distribution:    0.2953    0.4658    0.1589              0.0359    0.0003    0.0023    0.0361    0.0054
 1.0000

-------------------------------------------------------------------------------------------------------------
-------
 Composite Emission Factors (g/mi):
    Composite CO  :     15.00     14.63     16.27     15.05     20.97     1.181     0.691     0.431     32.40
 14.777

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* # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 4.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
            The user supplied arterial average speed of 15.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.
  M615 Comment:
               User supplied VMT mix.
  M 48 Warning:
              there are no sales for vehicle class HDGV8b
  M 48 Warning:
              there are no sales for vehicle class LDDT12

                    Calendar Year:  2035
                            Month:  Jan.
                         Altitude:  Low
              Minimum Temperature:  31.0 (F)
              Maximum Temperature:  52.0 (F)
                Absolute Humidity:   75. grains/lb
                 Nominal Fuel RVP:  15.0 psi
                    Weathered RVP:  15.0 psi
              Fuel Sulfur Content:   30. ppm
```

```
           Exhaust I/M Program:  No
              Evap I/M Program:  No
                   ATP Program:  No
              Reformulated Gas:  No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC
 All Veh
              GVWR:               <6000     >6000     (All)
                        ------   ------    ------    ------    ------    ------    ------    ------    ------
  ------
  VMT Distribution:    0.2953    0.4658    0.1589              0.0359    0.0003    0.0023    0.0361    0.0054
  1.0000

---------------------------------------------------------------------------------------------------------------
-------
 Composite Emission Factors (g/mi):
     Composite CO  :     13.40     13.07     14.41     13.41     14.74     0.918     0.531     0.311     22.54
  12.997

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* # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 5.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
           The user supplied arterial average speed of 20.0
           will be used for all hours of the day.  100% of VMT
           has been assigned to the arterial/collector roadway
           type for all hours of the day and all vehicle types.
  M615 Comment:
              User supplied VMT mix.
  M 48 Warning:
             there are no sales for vehicle class HDGV8b
  M 48 Warning:
             there are no sales for vehicle class LDDT12

                 Calendar Year:  2035
                         Month:  Jan.
                      Altitude:  Low
           Minimum Temperature:  31.0 (F)
           Maximum Temperature:  52.0 (F)
             Absolute Humidity:   75. grains/lb
              Nominal Fuel RVP:  15.0 psi
                 Weathered RVP:  15.0 psi
           Fuel Sulfur Content:   30. ppm

           Exhaust I/M Program:  No
              Evap I/M Program:  No
                   ATP Program:  No
              Reformulated Gas:  No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC
 All Veh
              GVWR:               <6000     >6000     (All)
                        ------   ------    ------    ------    ------    ------    ------    ------    ------
  ------
  VMT Distribution:    0.2953    0.4658    0.1589              0.0359    0.0003    0.0023    0.0361    0.0054
  1.0000

---------------------------------------------------------------------------------------------------------------
-------
 Composite Emission Factors (g/mi):
     Composite CO  :     12.59     12.29     13.48     12.59     10.95     0.751     0.429     0.235     18.00
  12.084

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* # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 6.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
           The user supplied arterial average speed of 25.0
           will be used for all hours of the day.  100% of VMT
           has been assigned to the arterial/collector roadway
           type for all hours of the day and all vehicle types.
  M615 Comment:
              User supplied VMT mix.
  M 48 Warning:
             there are no sales for vehicle class HDGV8b
  M 48 Warning:
             there are no sales for vehicle class LDDT12

                 Calendar Year:  2035
                         Month:  Jan.
                      Altitude:  Low
           Minimum Temperature:  31.0 (F)
           Maximum Temperature:  52.0 (F)
             Absolute Humidity:   75. grains/lb
              Nominal Fuel RVP:  15.0 psi
```

```
                Weathered RVP:  15.0 psi
          Fuel Sulfur Content:   30. ppm

          Exhaust I/M Program:  No
             Evap I/M Program:  No
                  ATP Program:  No
             Reformulated Gas:  No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC
 All Veh
               GVWR:               <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------
  ------
  VMT Distribution:    0.2953    0.4658    0.1589              0.0359    0.0003    0.0023    0.0361    0.0054
  1.0000

------------------------------------------------------------------------------------------------------------------
-------
 Composite Emission Factors (g/mi):
    Composite CO  :     12.14     11.86     12.97     12.14      8.59     0.643     0.364     0.186     15.21
  11.567

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* # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 7.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
           The user supplied arterial average speed of 30.0
           will be used for all hours of the day.  100% of VMT
           has been assigned to the arterial/collector roadway
           type for all hours of the day and all vehicle types.
  M615 Comment:
              User supplied VMT mix.
  M 48 Warning:
             there are no sales for vehicle class HDGV8b
  M 48 Warning:
             there are no sales for vehicle class LDDT12

                Calendar Year:  2035
                        Month:  Jan.
                     Altitude:  Low
          Minimum Temperature:  31.0 (F)
          Maximum Temperature:  52.0 (F)
            Absolute Humidity:   75. grains/lb
             Nominal Fuel RVP:  15.0 psi
                Weathered RVP:  15.0 psi
          Fuel Sulfur Content:   30. ppm

          Exhaust I/M Program:  No
             Evap I/M Program:  No
                  ATP Program:  No
             Reformulated Gas:  No

       Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC
 All Veh
               GVWR:               <6000     >6000     (All)
                         ------    ------    ------    ------    ------    ------    ------    ------    ------
  ------
  VMT Distribution:    0.2953    0.4658    0.1589              0.0359    0.0003    0.0023    0.0361    0.0054
  1.0000

------------------------------------------------------------------------------------------------------------------
-------
 Composite Emission Factors (g/mi):
    Composite CO  :     11.95     11.68     12.75     11.95      7.12     0.573     0.321     0.154     13.20
  11.330

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* # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 8.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
           The user supplied arterial average speed of 35.0
           will be used for all hours of the day.  100% of VMT
           has been assigned to the arterial/collector roadway
           type for all hours of the day and all vehicle types.
  M615 Comment:
              User supplied VMT mix.
  M 48 Warning:
             there are no sales for vehicle class HDGV8b
  M 48 Warning:
             there are no sales for vehicle class LDDT12

                Calendar Year:  2035
                        Month:  Jan.
                     Altitude:  Low
          Minimum Temperature:  31.0 (F)
          Maximum Temperature:  52.0 (F)
```

```
                Absolute Humidity:   75. grains/lb
                  Nominal Fuel RVP:  15.0 psi
                     Weathered RVP:  15.0 psi
               Fuel Sulfur Content:   30. ppm

               Exhaust I/M Program:  No
                  Evap I/M Program:  No
                       ATP Program:  No
                  Reformulated Gas:  No
```

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.2953	0.4658	0.1589		0.0359	0.0003	0.0023	0.0361	0.0054	1.0000
Composite Emission Factors (g/mi):										
Composite CO :	11.97	11.72	12.80	11.99	6.24	0.528	0.293	0.133	11.70	11.320

```
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 9.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
            The user supplied arterial average speed of 40.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.
  M615 Comment:
               User supplied VMT mix.
  M 48 Warning:
              there are no sales for vehicle class HDGV8b
  M 48 Warning:
              there are no sales for vehicle class LDDT12

                    Calendar Year:  2035
                            Month:  Jan.
                         Altitude:  Low
              Minimum Temperature:  31.0 (F)
              Maximum Temperature:  52.0 (F)
                Absolute Humidity:   75. grains/lb
                  Nominal Fuel RVP:  15.0 psi
                     Weathered RVP:  15.0 psi
               Fuel Sulfur Content:   30. ppm

               Exhaust I/M Program:  No
                  Evap I/M Program:  No
                       ATP Program:  No
                  Reformulated Gas:  No
```

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.2953	0.4658	0.1589		0.0359	0.0003	0.0023	0.0361	0.0054	1.0000
Composite Emission Factors (g/mi):										
Composite CO :	12.35	12.12	13.27	12.42	5.77	0.500	0.276	0.120	10.67	11.674

```
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 10.
* # # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
            The user supplied arterial average speed of 45.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.
  M615 Comment:
               User supplied VMT mix.
  M 48 Warning:
              there are no sales for vehicle class HDGV8b
  M 48 Warning:
              there are no sales for vehicle class LDDT12

                    Calendar Year:  2035
                            Month:  Jan.
                         Altitude:  Low
```

```
            Minimum Temperature:  31.0 (F)
            Maximum Temperature:  52.0 (F)
              Absolute Humidity:   75. grains/lb
               Nominal Fuel RVP:  15.0 psi
                  Weathered RVP:  15.0 psi
            Fuel Sulfur Content:   30. ppm

            Exhaust I/M Program:  No
               Evap I/M Program:  No
                    ATP Program:  No
               Reformulated Gas:  No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC
 All Veh
             GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------
  ------
  VMT Distribution:    0.2953    0.4658    0.1589              0.0359    0.0003    0.0023    0.0361    0.0054
  1.0000

-----------------------------------------------------------------------------------------------------------------
-------
 Composite Emission Factors (g/mi):
    Composite CO  :     12.74     12.53     13.73     12.84      5.64     0.487     0.268     0.114     10.01
  12.041

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* # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 11.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
          The user supplied arterial average speed of 50.0
          will be used for all hours of the day.  100% of VMT
          has been assigned to the arterial/collector roadway
          type for all hours of the day and all vehicle types.
  M615 Comment:
             User supplied VMT mix.
  M 48 Warning:
            there are no sales for vehicle class HDGV8b
  M 48 Warning:
            there are no sales for vehicle class LDDT12

                  Calendar Year:  2035
                          Month:  Jan.
                       Altitude:  Low
            Minimum Temperature:  31.0 (F)
            Maximum Temperature:  52.0 (F)
              Absolute Humidity:   75. grains/lb
               Nominal Fuel RVP:  15.0 psi
                  Weathered RVP:  15.0 psi
            Fuel Sulfur Content:   30. ppm

            Exhaust I/M Program:  No
               Evap I/M Program:  No
                    ATP Program:  No
               Reformulated Gas:  No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC
 All Veh
             GVWR:                <6000     >6000     (All)
                        ------    ------    ------    ------    ------    ------    ------    ------    ------
  ------
  VMT Distribution:    0.2953    0.4658    0.1589              0.0359    0.0003    0.0023    0.0361    0.0054
  1.0000

-----------------------------------------------------------------------------------------------------------------
-------
 Composite Emission Factors (g/mi):
    Composite CO  :     13.12     12.94     14.20     13.26      5.83     0.485     0.267     0.113      9.74
  12.423

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* # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 12.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
          The user supplied arterial average speed of 55.0
          will be used for all hours of the day.  100% of VMT
          has been assigned to the arterial/collector roadway
          type for all hours of the day and all vehicle types.
  M615 Comment:
             User supplied VMT mix.
  M 48 Warning:
            there are no sales for vehicle class HDGV8b
  M 48 Warning:
            there are no sales for vehicle class LDDT12

                  Calendar Year:  2035
```

```
                      Month:  Jan.
                   Altitude:  Low
        Minimum Temperature:  31.0 (F)
        Maximum Temperature:  52.0 (F)
          Absolute Humidity:   75. grains/lb
           Nominal Fuel RVP:  15.0 psi
              Weathered RVP:  15.0 psi
        Fuel Sulfur Content:   30. ppm

        Exhaust I/M Program:  No
           Evap I/M Program:  No
                ATP Program:  No
           Reformulated Gas:  No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC
 All Veh
             GVWR:               <6000     >6000     (All)
                       ------    ------    ------    ------    ------    ------    ------    ------    ------
  ------
  VMT Distribution:    0.2953    0.4658    0.1589              0.0359    0.0003    0.0023    0.0361    0.0054
  1.0000

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 Composite Emission Factors (g/mi):
    Composite CO  :     13.50     13.34     14.67     13.68      6.36     0.494     0.273     0.118      9.74
  12.818

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* # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 13.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
            The user supplied arterial average speed of 60.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.
  M615 Comment:
               User supplied VMT mix.
  M 48 Warning:
              there are no sales for vehicle class HDGV8b
  M 48 Warning:
              there are no sales for vehicle class LDDT12

              Calendar Year:  2035
                      Month:  Jan.
                   Altitude:  Low
        Minimum Temperature:  31.0 (F)
        Maximum Temperature:  52.0 (F)
          Absolute Humidity:   75. grains/lb
           Nominal Fuel RVP:  15.0 psi
              Weathered RVP:  15.0 psi
        Fuel Sulfur Content:   30. ppm

        Exhaust I/M Program:  No
           Evap I/M Program:  No
                ATP Program:  No
           Reformulated Gas:  No

      Vehicle Type:      LDGV    LDGT12    LDGT34      LDGT      HDGV      LDDV      LDDT      HDDV        MC
 All Veh
             GVWR:               <6000     >6000     (All)
                       ------    ------    ------    ------    ------    ------    ------    ------    ------
  ------
  VMT Distribution:    0.2953    0.4658    0.1589              0.0359    0.0003    0.0023    0.0361    0.0054
  1.0000

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-------
 Composite Emission Factors (g/mi):
    Composite CO  :     13.88     13.75     15.14     14.10      7.34     0.517     0.286     0.128     16.36
  13.265

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-------

* # # # # # # # # # # # # # # # # # # # # # # # # # #
* Scenario Title : Pellissippi Parkway (PA)

* File 1, Run 1, Scenario 14.
* # # # # # # # # # # # # # # # # # # # # # # # # # #
  M583 Warning:
            The user supplied arterial average speed of 65.0
            will be used for all hours of the day.  100% of VMT
            has been assigned to the arterial/collector roadway
            type for all hours of the day and all vehicle types.
  M615 Comment:
               User supplied VMT mix.
  M 48 Warning:
              there are no sales for vehicle class HDGV8b
  M 48 Warning:
              there are no sales for vehicle class LDDT12
```

Calendar Year: 2035
Month: Jan.
Altitude: Low
Minimum Temperature: 31.0 (F)
Maximum Temperature: 52.0 (F)
Absolute Humidity: 75. grains/lb
Nominal Fuel RVP: 15.0 psi
Weathered RVP: 15.0 psi
Fuel Sulfur Content: 30. ppm

Exhaust I/M Program: No
Evap I/M Program: No
ATP Program: No
Reformulated Gas: No

Vehicle Type:	LDGV	LDGT12	LDGT34	LDGT	HDGV	LDDV	LDDT	HDDV	MC	All Veh
GVWR:		<6000	>6000	(All)						
VMT Distribution:	0.2953	0.4658	0.1589		0.0359	0.0003	0.0023	0.0361	0.0054	1.0000
Composite Emission Factors (g/mi):										
Composite CO :	14.26	14.15	15.61	14.52	8.94	0.555	0.310	0.145	22.97	13.735

Appendix C: CAL3QHC Input and Output Files

CAL3QHC
Input and output files

SR 115 / US 129 at SR 73 / US 321

```
Pellissippi Site 3 NB AM                60.0321.0.0000.000280.30480000    1    1
SE MID S              549570.   518885.       5.0
SE 164 S              549576.   519046.       5.0
SE 82 S               549585.   519128.       5.0
SE CNR                549633.   519199.       5.0
SE 82 E               549709.   519236.       5.0
SE 164 E              549792.   519233.       5.0
SE MID E              549949.   519226.       5.0
NE MID E              549955.   519313.       5.0
NE 164 E              549803.   519318.       5.0
NE 82 E               549722.   519334.       5.0
NE CNR                549647.   519371.       5.0
NE 82 N               549609.   519453.       5.0
NE 164 N              549611.   519534.       5.0
NE MID N              549622.   519690.       5.0
NW MID N              549493.   519702.       5.0
NW 164 N              549475.   519543.       5.0
NW 82 N               549440.   519467.       5.0
NW CNR                549388.   519405.       5.0
NW 82 W               549312.   519369.       5.0
NW 164 W              549230.   519375.       5.0
NW MID W              549068.   519424.       5.0
SW MID W              549066.   519299.       5.0
SW 164 W              549262.   519250.       5.0
SW 82 W               549343.   519242.       5.0
SW CNR                549420.   519205.       5.0
SW 82 S               549455.   519123.       5.0
SW 164 S              549453.   519042.       5.0
SW MID S              549448.   518884.       5.0
Pellissippi Site 3 NB AM                 50  1   0
  1
0         115nbAP   AG549562.518286.549536.518778.    203015.1  0.  44   30.
  1
0         115nbAP   AG549536.518779.549542.519048.    203015.1  0.  44   30.
  1
0         115nbTH   AG549542.519049.549558.519283.    181715.1  0.  44   30.
  2
0         115nbTHQ  AG549555.519240.549542.519055.      0.  24   2
       120        67       2.0 1817   92.3 3200 1 3
  1
0         115nbL    AG549525.519034.549540.519281.      6215.1  0.  32   30.
  2
0         115nbLQ   AG549537.519239.549527.519055.      0.  12   1
       120       104       2.0   62   92.3 1600 1 3
  1
0         115nbR    AG549552.519059.549572.519162.     15115.1  0.  32   30.
  1
0         115nbR    AG549572.519162.549613.519209.     15115.1  0.  32   30.
  1
0         115nbR    AG549613.519209.549667.519241.     15115.1  0.  32   30.
  1
0         115nbR    AG549667.519241.549710.519256.     15115.1  0.  32   30.
  1
0         115nbD    AG549558.519284.549632.520276.    204815.6  0.  44   30.
  1
0         115sbAP   AG549585.520283.549536.519742.     70115.6  0.  44   30.
  1
0         115sbTH   AG549538.519742.549505.519275.     57915.6  0.  44   30.
  2
0         115sbTQ   AG549511.519353.549531.519644.      0.  24   2
       120        67       2.0  579   92.3 3200 1 3
  1
0         115sbRT   AG549517.519701.549496.519531.     10015.6  0.  32   30.
  1
0         115sbRT   AG549496.519531.549456.519440.     10015.6  0.  32   30.
  1
0         115sbRT   AG549456.519440.549389.519372.     10015.6  0.  32   30.
  1
0         115sbRT   AG549389.519372.549264.519335.     10015.6  0.  32   30.
  1
0         115sbD    AG549504.519274.549480.518921.     70615.1  0.  44   30.
  1
0         115sbD    AG549480.518921.549482.518689.     70615.1  0.  44   30.
  1
0         115sbD    AG549482.518689.549523.518287.     70615.1  0.  44   30.
  1
0         115sbLT   AG549552.519628.549531.519300.     12215.6  0.  44   30.
  2
0         115sbLQ   AG549534.519352.549551.519615.      0.  24   2
       120       104       2.0  122   92.3 3200 1 3
  1
0         73ebAP    AG548565.519526.549067.519334.    107715.6  0.  44   30.
  1
0         73ebAP    AG549067.519334.549179.519301.    107715.6  0.  44   30.
  1
0         73ebAP    AG549179.519301.549324.519280.    107715.6  0.  44   30.
  1
0         73ebTH    AG549325.519280.549526.519270.     93315.6  0.  44   30.
  2
0         73ebTHQ   AG549466.519273.549327.519280.      0.  24   2
       120        78       2.0  933   92.3 3200 1 3
  1
0         73ebRT    AG549361.519268.549437.519224.      2715.6  0.  32   30.
  1
0         73ebRT    AG549437.519224.549472.519163.      2715.6  0.  32   30.
  1
0         73ebRT    AG549472.519163.549484.519052.      2715.6  0.  32   30.
  1
0         73ebLT    AG549327.519293.549525.519286.     11715.6  0.  32   30.
  2
```

```
0         73ebLQ    AG549465.519288.549331.519293.      0.  12   1
       120       104       2.0  117   92.3 1600 1 3
  1
0         73ebD     AG549527.519270.550079.519241.    120614.6  0.  44   30.
  1
0         73ebD     AG550079.519241.550246.519242.    120614.6  0.  44   30.
  1
0         73ebD     AG550246.519242.550532.519262.    120614.6  0.  44   30.
  1
0         73wbAP    AG550532.519311.550254.519287.     88414.6  0.  44   30.
  1
0         73wbAP    AG550254.519287.550054.519286.     88414.6  0.  44   30.
  1
0         73wbAP    AG550054.519286.549809.519295.     88414.6  0.  44   30.
  1
0         73wbTH    AG549808.519296.549534.519306.     67014.6  0.  44   30.
  2
0         73wbTHQ   AG549596.519304.549800.519296.      0.  24   2
       120        78       2.0  670   92.3 3200 1 3
  1
0         73wbR     AG549752.519305.549665.519330.     11414.6  0.  32   30.
  1
0         73wbR     AG549665.519330.549612.519372.     11414.6  0.  32   30.
  1
0         73wbR     AG549612.519372.549575.519474.     11414.6  0.  32   30.
  1
0         73wbL     AG549802.519280.549533.519291.     10014.6  0.  32   30.
  2
0         73wbLQ    AG549598.519288.549796.519280.      0.  12   1
       120       104       2.0  100   92.3 1600 1 3
  1
0         73wbD     AG549533.519308.549316.519323.     73215.6  0.  44   30.
  1
0         73wbD     AG549316.519323.549172.519350.     73215.6  0.  44   30.
  1
0         73wbD     AG549172.519350.549055.519391.     73215.6  0.  44   30.
  1
0         73wbD     AG549055.519391.548587.519592.     73215.6  0.  44   30.
1.0   04  1000   0Y  5  0 72
```

JOB: Pellissippi Site 3 NB AM RUN: Pellissippi Site 3 NB AM
DATE: 02/23/2009 TIME: 10:51:21.08

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION		X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	115nbAP	549562.0	518286.0	549536.0	518778.0	493.	357.	AG	2030.	15.1	.0	44.0		
2. 0	115nbAP	549536.0	518779.0	549542.0	519048.0	269.	1.	AG	2030.	15.1	.0	44.0		
3. 0	115nbTH	549542.0	519049.0	549558.0	519283.0	235.	4.	AG	1817.	15.1	.0	44.0		
4. 0	115nbTHQ	549555.0	519240.0	549531.7	518908.2	333.	184.	AG	276.	100.0	.0	24.0	.70	16.9
5. 0	115nbL	549525.0	519034.0	549540.0	519281.0	247.	3.	AG	62.	15.1	.0	32.0		
6. 0	115nbLQ	549537.0	519239.0	549535.1	519203.8	35.	183.	AG	215.	100.0	.0	12.0	.39	1.8
7. 0	115nbR	549552.0	519059.0	549572.0	519162.0	105.	11.	AG	151.	15.1	.0	32.0		
8. 0	115nbR	549572.0	519162.0	549613.0	519209.0	62.	41.	AG	151.	15.1	.0	32.0		
9. 0	115nbR	549613.0	519209.0	549667.0	519241.0	63.	59.	AG	151.	15.1	.0	32.0		
10. 0	115nbR	549667.0	519241.0	549710.0	519256.0	46.	71.	AG	151.	15.1	.0	32.0		
11. 0	115nbD	549558.0	519284.0	549632.0	520276.0	995.	4.	AG	2048.	15.6	.0	44.0		
12. 0	115sbAP	549585.0	520283.0	549536.0	519742.0	543.	185.	AG	701.	15.6	.0	44.0		
13. 0	115sbTH	549538.0	519742.0	549505.0	519275.0	468.	184.	AG	579.	15.6	.0	44.0		
14. 0	115sbTQ	549511.0	519353.0	549518.3	519458.7	106.	4.	AG	276.	100.0	.0	24.0	.22	5.4
15. 0	115sbRT	549517.0	519701.0	549496.0	519531.0	171.	187.	AG	100.	15.6	.0	32.0		
16. 0	115sbRT	549496.0	519531.0	549456.0	519440.0	99.	204.	AG	100.	15.6	.0	32.0		
17. 0	115sbRT	549456.0	519440.0	549389.0	519372.0	95.	225.	AG	100.	15.6	.0	32.0		
18. 0	115sbRT	549389.0	519372.0	549264.0	519335.0	130.	254.	AG	100.	15.6	.0	32.0		
19. 0	115sbD	549504.0	519274.0	549480.0	518921.0	354.	184.	AG	706.	15.1	.0	44.0		
20. 0	115sbD	549480.0	518921.0	549482.0	518689.0	232.	180.	AG	706.	15.1	.0	44.0		
21. 0	115sbD	549482.0	518689.0	549523.0	518287.0	404.	174.	AG	706.	15.1	.0	44.0		
22. 0	115sbLT	549552.0	519628.0	549531.0	519300.0	329.	184.	AG	122.	15.6	.0	44.0		
23. 0	115sbLQ	549534.0	519352.0	549536.3	519386.6	35.	4.	AG	429.	100.0	.0	24.0	.19	1.8
24. 0	73ebAP	548565.0	519526.0	549067.0	519334.0	537.	111.	AG	1077.	15.6	.0	44.0		
25. 0	73ebAP	549067.0	519334.0	549179.0	519301.0	117.	106.	AG	1077.	15.6	.0	44.0		
26. 0	73ebAP	549179.0	519301.0	549324.0	519280.0	146.	98.	AG	1077.	15.6	.0	44.0		
27. 0	73ebTH	549325.0	519280.0	549526.0	519270.0	201.	93.	AG	933.	15.6	.0	44.0		
28. 0	73ebTHQ	549466.0	519273.0	549267.5	519283.0	199.	273.	AG	322.	100.0	.0	24.0	.46	10.1
29. 0	73ebRT	549361.0	519268.0	549437.0	519224.0	88.	120.	AG	27.	15.6	.0	32.0		
30. 0	73ebRT	549437.0	519224.0	549472.0	519163.0	70.	150.	AG	27.	15.6	.0	32.0		
31. 0	73ebRT	549472.0	519163.0	549484.0	519052.0	112.	174.	AG	27.	15.6	.0	32.0		
32. 0	73ebLT	549327.0	519293.0	549525.0	519286.0	198.	92.	AG	117.	15.6	.0	32.0		
33. 0	73ebLQ	549465.0	519288.0	549391.3	519290.8	74.	272.	AG	215.	100.0	.0	12.0	.74	3.8
34. 0	73ebD	549527.0	519270.0	550079.0	519241.0	553.	93.	AG	1206.	14.6	.0	44.0		
35. 0	73ebD	550079.0	519241.0	550246.0	519242.0	167.	90.	AG	1206.	14.6	.0	44.0		
36. 0	73ebD	550246.0	519242.0	550532.0	519262.0	287.	86.	AG	1206.	14.6	.0	44.0		
37. 0	73wbAP	550532.0	519311.0	550254.0	519287.0	279.	265.	AG	884.	14.6	.0	44.0		
38. 0	73wbAP	550254.0	519287.0	550054.0	519286.0	200.	270.	AG	884.	14.6	.0	44.0		
39. 0	73wbAP	550054.0	519286.0	549809.0	519295.0	245.	272.	AG	884.	14.6	.0	44.0		
40. 0	73wbTH	549808.0	519296.0	549534.0	519306.0	274.	272.	AG	670.	14.6	.0	44.0		
41. 0	73wbTHQ	549596.0	519304.0	549738.8	519298.4	143.	92.	AG	322.	100.0	.0	24.0	.33	7.3
42. 0	73wbR	549752.0	519305.0	549665.0	519330.0	91.	286.	AG	114.	14.6	.0	32.0		
43. 0	73wbR	549665.0	519330.0	549612.0	519372.0	68.	308.	AG	114.	14.6	.0	32.0		
44. 0	73wbR	549612.0	519372.0	549575.0	519474.0	108.	340.	AG	114.	14.6	.0	32.0		

JOB: Pellissippi Site 3 NB AM RUN: Pellissippi Site 3 NB AM
DATE: 02/23/2009 TIME: 10:51:21.08

LINK VARIABLES

LINK DESCRIPTION		X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. 0	73wbL	549802.0	519280.0	549533.0	519291.0	269.	272.	AG	100.	14.6	.0	32.0		
46. 0	73wbLQ	549598.0	519288.0	549656.7	519285.7	59.	93.	AG	215.	100.0	.0	12.0	.63	3.0
47. 0	73wbD	549533.0	519308.0	549316.0	519323.0	218.	274.	AG	732.	15.6	.0	44.0		
48. 0	73wbD	549316.0	519323.0	549172.0	519350.0	147.	281.	AG	732.	15.6	.0	44.0		
49. 0	73wbD	549172.0	519350.0	549055.0	519391.0	124.	289.	AG	732.	15.6	.0	44.0		
50. 0	73wbD	549055.0	519391.0	548587.0	519592.0	509.	293.	AG	732.	15.6	.0	44.0		

JOB: Pellissippi Site 3 NB AM RUN: Pellissippi Site 3 NB AM
DATE: 02/23/2009 TIME: 10:51:21.08

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. 0	115nbTHQ	120	67	2.0	1817	3200	92.30	1	3
6. 0	115nbLQ	120	104	2.0	62	1600	92.30	1	3
14. 0	115sbTQ	120	67	2.0	579	3200	92.30	1	3
23. 0	115sbLQ	120	104	2.0	122	3200	92.30	1	3
28. 0	73ebTHQ	120	78	2.0	933	3200	92.30	1	3
33. 0	73ebLQ	120	104	2.0	117	1600	92.30	1	3
41. 0	73wbTHQ	120	78	2.0	670	3200	92.30	1	3
46. 0	73wbLQ	120	104	2.0	100	1600	92.30	1	3

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE MID S	549570.0	518885.0	5.0
2. SE 164 S	549576.0	519046.0	5.0
3. SE 82 S	549585.0	519128.0	5.0
4. SE CNR	549633.0	519199.0	5.0
5. SE 82 E	549709.0	519236.0	5.0

6. SE 164 E	*	549792.0	519233.0	5.0	*
7. SE MID E	*	549949.0	519226.0	5.0	*
8. NE MID E	*	549955.0	519313.0	5.0	*
9. NE 164 E	*	549803.0	519318.0	5.0	*
10. NE 82 E	*	549722.0	519334.0	5.0	*
11. NE CNR	*	549647.0	519371.0	5.0	*
12. NE 82 N	*	549609.0	519453.0	5.0	*
13. NE 164 N	*	549611.0	519534.0	5.0	*
14. NE MID N	*	549622.0	519690.0	5.0	*
15. NW MID N	*	549493.0	519702.0	5.0	*
16. NW 164 N	*	549475.0	519543.0	5.0	*
17. NW 82 N	*	549440.0	519467.0	5.0	*
18. NW CNR	*	549388.0	519405.0	5.0	*
19. NW 82 W	*	549312.0	519369.0	5.0	*
20. NW 164 W	*	549230.0	519375.0	5.0	*
21. NW MID W	*	549068.0	519424.0	5.0	*
22. SW MID W	*	549066.0	519299.0	5.0	*
23. SW 164 W	*	549262.0	519250.0	5.0	*
24. SW 82 W	*	549343.0	519242.0	5.0	*
25. SW CNR	*	549420.0	519205.0	5.0	*
26. SW 82 S	*	549455.0	519123.0	5.0	*
27. SW 164 S	*	549453.0	519042.0	5.0	*
28. SW MID S	*	549448.0	518884.0	5.0	*

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MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	*	1.9	2.0	1.8	1.5	1.5	.8	.8	.0	.1	.2	.5	1.0	1.1	1.1	.3	.2	.2	.0	.0	.0
5.	*	1.4	1.6	1.5	1.2	1.3	.8	.8	.0	.0	.1	.3	.8	.9	.9	.4	.4	.3	.1	.0	.0
10.	*	1.1	1.1	1.3	1.1	1.3	.8	.8	.0	.0	.1	.2	.5	.6	.6	.6	.5	.4	.2	.1	.0
15.	*	.7	.8	1.0	1.0	1.2	.8	.8	.0	.0	.0	.1	.3	.4	.4	.7	.7	.5	.3	.2	.1
20.	*	.6	.6	.9	1.0	1.1	.9	.8	.0	.0	.0	.0	.2	.2	.2	.8	.9	.6	.5	.3	.1
25.	*	.3	.5	.7	.9	1.1	.9	.8	.0	.0	.0	.0	.1	.1	.1	.9	.9	.6	.5	.3	.2
30.	*	.1	.3	.5	.8	1.0	.8	.8	.0	.0	.0	.0	.0	.1	.1	.9	.9	.5	.4	.3	.3
35.	*	.1	.3	.5	.8	1.0	.8	.8	.0	.0	.0	.0	.0	.0	.0	.8	.8	.6	.4	.4	.2
40.	*	.1	.2	.5	.8	.9	.8	.8	.0	.0	.0	.0	.0	.0	.0	.8	.8	.6	.4	.4	.2
45.	*	.1	.1	.4	.8	1.0	.9	.9	.0	.0	.0	.0	.0	.0	.0	.8	.8	.6	.4	.4	.2
50.	*	.1	.2	.4	.8	1.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.7	.8	.6	.4	.4	.3
55.	*	.1	.2	.4	.7	.9	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.8	.8	.6	.5	.3	.3
60.	*	.0	.2	.3	.7	1.0	1.1	1.2	.1	.0	.0	.0	.0	.0	.0	.8	.8	.6	.5	.4	.3
65.	*	.0	.1	.3	.7	1.1	1.1	1.1	.1	.1	.0	.0	.0	.0	.0	.8	.7	.7	.5	.4	.3
70.	*	.0	.1	.3	.5	1.1	1.1	1.3	.1	.1	.0	.0	.0	.0	.0	.7	.7	.5	.6	.4	.4
75.	*	.0	.1	.3	.5	1.1	1.2	1.5	.2	.2	.0	.0	.0	.0	.0	.6	.6	.5	.7	.4	.4
80.	*	.0	.0	.1	.4	1.1	1.4	1.2	.4	.2	.1	.0	.0	.0	.0	.7	.6	.7	.7	.5	.4
85.	*	.0	.0	.1	.4	1.2	1.2	1.2	.5	.4	.1	.0	.0	.0	.0	.7	.6	.7	.8	.8	.6
90.	*	.0	.0	.0	.2	1.0	1.2	1.1	.8	.8	.4	.1	.0	.0	.0	.7	.6	.6	.8	1.0	.7
95.	*	.0	.0	.0	.1	.8	.9	.9	.9	.9	.6	.2	.0	.0	.0	.7	.6	.7	1.0	1.0	.9
100.	*	.0	.0	.0	.1	.5	.6	.6	1.0	1.0	.8	.2	.0	.0	.0	.7	.6	.8	1.1	1.4	1.1
105.	*	.0	.0	.0	.0	.3	.4	.4	1.1	1.1	.7	.4	.2	.0	.0	.7	.6	1.0	1.1	1.3	1.2
110.	*	.0	.0	.0	.0	.2	.2	.3	1.0	1.0	.7	.5	.2	.0	.0	.7	.6	1.0	1.1	1.4	1.3
115.	*	.0	.0	.0	.0	.2	.2	.2	1.1	1.0	.7	.5	.2	.0	.0	.7	.7	1.2	1.1	1.3	1.3
120.	*	.0	.0	.0	.0	.1	.1	.1	.9	1.0	.7	.6	.2	.2	.0	.7	.7	1.3	1.1	1.5	1.5
125.	*	.0	.0	.0	.0	.1	.1	.1	1.0	1.0	.8	.8	.4	.2	.0	.7	.8	1.3	1.3	1.5	1.4
130.	*	.0	.0	.0	.0	.1	.1	.1	.9	.9	.8	.8	.5	.2	.0	.8	1.0	1.2	1.0	1.4	1.4
135.	*	.0	.0	.0	.0	.1	.1	.1	.9	.9	.7	.8	.4	.2	.1	.8	1.1	1.4	1.1	1.7	1.5
140.	*	.0	.0	.0	.0	.0	.1	.1	.8	.9	.8	.9	.5	.1	.1	1.0	1.1	1.4	1.2	1.6	1.4
145.	*	.0	.0	.0	.0	.0	.0	.1	.8	.8	.9	.8	.5	.3	.1	1.1	1.2	1.1	1.2	1.5	1.3
150.	*	.0	.0	.0	.0	.0	.0	.0	.7	.7	1.0	.8	.5	.3	.1	1.1	1.3	1.1	1.3	1.4	1.1
155.	*	.1	.0	.0	.0	.0	.0	.0	.7	.7	1.1	.9	.5	.3	.1	1.1	1.4	1.4	1.4	1.4	1.0
160.	*	.2	.1	.0	.0	.0	.0	.0	.7	.6	1.1	.9	.6	.4	.3	1.2	1.4	1.3	1.3	1.5	1.0
165.	*	.3	.2	.2	.0	.0	.0	.0	.7	.7	1.2	1.0	.6	.5	.3	1.3	1.6	1.3	1.3	1.2	.8
170.	*	.4	.4	.4	.1	.0	.0	.0	.7	.7	1.3	1.1	.9	.8	.4	1.4	1.7	1.1	1.3	1.2	.8
175.	*	.7	.7	.6	.2	.0	.0	.0	.7	.6	1.3	1.3	1.2	1.0	.9	1.1	1.5	.9	1.2	1.0	.7
180.	*	.9	.9	.9	.2	.1	.0	.0	.8	.7	1.5	1.5	1.4	1.1	1.2	1.0	1.3	1.0	1.0	1.1	.6
185.	*	1.2	1.4	1.1	.5	.1	.1	.0	.7	.8	1.6	1.5	1.5	1.5	1.4	.8	1.0	.9	.8	1.0	.6
190.	*	1.3	1.6	1.4	.6	.2	.1	.0	.7	.7	1.6	1.7	1.7	1.9	1.7	.5	.7	.5	.6	.9	.6
195.	*	1.5	1.8	1.7	.7	.3	.1	.0	.8	.8	1.7	2.1	2.0	2.0	1.6	.2	.4	.5	.6	.8	.5
200.	*	1.5	1.8	1.9	.9	.4	.2	.1	.8	.8	1.8	1.9	1.8	2.0	1.7	.1	.4	.4	.7	.8	.6
205.	*	1.4	1.9	2.0	1.1	.4	.2	.1	.8	.9	1.9	1.9	2.0	2.1	1.5	.1	.4	.4	.7	.9	.6

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WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	1.4	1.9	2.0	1.0	.6	.3	.1	.8	.9	2.0	1.7	2.1	1.9	1.6	.1	.4	.5	.6	.9	.6
215.	*	1.2	2.0	1.9	1.0	.6	.4	.1	.9	1.0	2.0	1.7	2.0	1.8	1.6	.0	.2	.5	.6	.8	.5
220.	*	1.3	1.9	1.9	1.0	.7	.3	.3	1.0	1.0	2.1	1.7	1.9	1.8	1.4	.0	.2	.5	.5	.7	.6
225.	*	1.2	1.9	1.9	1.0	.6	.5	.3	1.1	1.4	2.2	1.5	2.1	1.6	1.4	.0	.3	.4	.6	.7	.6
230.	*	1.2	1.7	1.9	1.0	.7	.6	.3	1.1	1.5	2.2	1.4	1.9	1.6	1.2	.0	.2	.3	.5	.6	.7
235.	*	1.1	1.7	1.8	1.0	.8	.6	.3	1.2	1.5	2.1	1.4	1.8	1.3	1.1	.1	.0	.3	.3	.6	.6
240.	*	1.1	1.6	1.7	1.0	.7	.7	.3	1.2	1.4	2.3	1.3	1.9	1.2	1.1	.1	.0	.3	.4	.6	.6
245.	*	1.1	1.7	1.6	1.0	.7	.6	.4	1.2	1.6	2.2	1.5	1.9	1.1	1.1	.1	.1	.2	.3	.5	.6
250.	*	1.1	1.6	1.6	1.0	.7	.7	.5	1.4	1.8	2.2	1.4	1.6	1.0	1.1	.1	.1	.2	.4	.5	.7
255.	*	1.1	1.6	1.6	.9	.8	.7	.5	1.4	1.9	1.9	1.4	1.4	1.1	1.1	.1	.1	.1	.4	.7	.7
260.	*	1.1	1.6	1.6	1.0	1.1	.8	.6	1.4	2.0	1.8	1.4	1.3	1.1	1.0	.0	.2	.2	.4	.5	.7
265.	*	1.1	1.6	1.6	1.2	1.3	1.1	1.0	1.4	1.8	1.8	1.3	1.2	1.1	1.0	.0	.2	.2	.4	.6	.7
270.	*	1.0	1.6	1.6	1.2	1.3	1.3	1.2	1.2	1.7	1.5	1.3	1.2	1.1	1.0	.0	.2	.2	.2	.6	.7
275.	*	1.0	1.6	1.6	1.3	1.7	1.5	1.4	.8	1.6	1.3	1.2	1.2	1.0	1.0	.0	.0	.2	.2	.6	.6
280.	*	1.1	1.5	1.6	1.5	2.0	1.8	1.5	.7	1.3	1.1	1.1	1.0	1.0	1.0	.0	.0	.2	.2	.4	.5

285.	*	1.2	1.6	1.8	1.8	1.8	1.9	1.5	.6	.8	.6	.9	1.0	1.0	1.0	.0	.0	.0	.2	.3	.5
290.	*	1.3	1.7	1.9	1.7	2.0	2.2	1.4	.3	.6	.6	.9	1.0	1.0	1.0	.0	.0	.0	.0	.2	.3
295.	*	1.3	1.6	2.1	1.6	2.2	1.9	1.5	.3	.6	.6	.9	.9	1.0	1.1	.0	.0	.0	.0	.1	.3
300.	*	1.4	1.8	2.1	1.7	2.4	1.9	1.5	.3	.5	.5	.8	.9	1.0	1.1	.0	.0	.0	.0	.0	.1
305.	*	1.4	1.9	2.2	1.3	2.2	1.8	1.4	.3	.4	.5	.7	1.0	1.0	1.1	.0	.0	.0	.0	.0	.0
310.	*	1.6	2.0	2.1	1.6	2.1	1.7	1.2	.2	.4	.5	.7	1.0	1.0	1.1	.0	.0	.0	.0	.0	.0
315.	*	1.7	2.1	2.2	1.6	2.1	1.6	1.1	.2	.4	.4	.7	1.0	1.1	1.1	.0	.0	.0	.0	.0	.0
320.	*	1.8	2.2	2.2	1.4	2.3	1.6	1.2	.2	.3	.5	.7	1.1	1.1	1.2	.0	.0	.0	.0	.0	.0
325.	*	2.0	2.2	2.2	1.6	2.1	1.4	1.0	.2	.3	.5	.7	1.1	1.2	1.3	.0	.0	.0	.0	.0	.0
330.	*	2.1	2.2	2.4	1.5	2.0	1.3	1.0	.2	.3	.5	.7	1.1	1.2	1.3	.0	.0	.0	.0	.0	.0
335.	*	2.3	2.3	2.4	1.6	1.9	1.2	1.0	.1	.3	.4	.7	1.2	1.4	1.4	.0	.0	.0	.0	.0	.0
340.	*	2.4	2.5	2.5	1.8	1.9	1.2	.9	.1	.3	.5	.7	1.3	1.4	1.4	.0	.0	.0	.0	.0	.0
345.	*	2.3	2.5	2.1	1.7	1.8	1.0	.9	.1	.2	.5	.8	1.4	1.5	1.5	.0	.0	.0	.0	.0	.0
350.	*	2.2	2.3	2.0	1.6	1.7	1.0	.9	.1	.2	.4	.7	1.4	1.5	1.5	.1	.0	.0	.0	.0	.0
355.	*	2.1	2.1	2.0	1.7	1.7	.9	.8	.0	.1	.2	.6	1.3	1.3	1.3	.2	.2	.0	.0	.0	.0
360.	*	1.9	2.0	1.8	1.5	1.5	.8	.8	.0	.1	.2	.5	1.0	1.1	1.1	.3	.2	.2	.0	.0	.0
MAX	*	2.4	2.5	2.5	1.8	2.4	2.2	1.5	1.4	2.0	2.3	2.1	2.1	2.1	1.7	1.4	1.7	1.4	1.4	1.7	1.5
DEGR.	*	340	340	340	285	300	290	75	250	260	240	195	210	205	200	170	170	135	155	135	120

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JOB: Pellissippi Site 3 NB AM RUN: Pellissippi Site 3 NB AM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	*	.0	.7	.8	1.3	1.2	1.0	.8	.8
5.	*	.0	.6	.9	1.4	1.4	1.0	1.1	1.0
10.	*	.0	.7	1.1	1.4	1.5	1.1	1.4	1.3
15.	*	.0	.7	1.2	1.5	1.6	1.4	1.4	1.2
20.	*	.0	.7	1.2	1.6	1.6	1.5	1.1	1.5
25.	*	.0	.8	1.3	1.7	1.6	1.5	1.4	1.5
30.	*	.1	.7	1.4	1.9	1.5	1.5	1.6	1.7
35.	*	.1	.7	1.6	1.9	1.4	1.3	1.5	1.6
40.	*	.1	.8	1.6	1.9	1.4	1.5	1.5	1.4
45.	*	.1	.9	1.9	1.9	1.5	1.5	1.3	1.3
50.	*	.1	.9	1.9	2.1	1.4	1.6	1.3	1.3
55.	*	.1	.9	1.9	2.2	1.2	1.4	1.3	1.3
60.	*	.1	.9	2.1	2.1	1.0	1.4	1.2	1.3
65.	*	.1	.8	2.1	2.4	1.1	1.4	1.1	1.1
70.	*	.1	.9	2.3	2.0	1.4	1.3	1.1	1.0
75.	*	.1	1.0	2.1	1.8	1.4	1.2	1.1	1.0
80.	*	.1	1.2	1.9	1.7	1.3	1.1	1.1	.9
85.	*	.1	1.3	1.8	1.5	1.3	1.1	1.0	.9
90.	*	.1	1.4	1.7	1.3	1.1	1.1	1.1	.9
95.	*	.2	1.3	1.1	1.0	1.0	1.0	1.0	.8
100.	*	.5	1.1	.8	.7	.8	1.0	1.1	.8
105.	*	.8	.9	.7	.7	.9	1.0	1.0	.8
110.	*	.9	.5	.5	.6	.8	1.0	1.0	.8
115.	*	1.1	.6	.3	.5	.8	1.0	1.0	.7
120.	*	.9	.3	.4	.5	.8	1.0	1.1	.8
125.	*	1.0	.2	.4	.6	.8	1.1	1.1	.8
130.	*	1.0	.2	.4	.6	.9	1.0	1.1	.8
135.	*	.9	.2	.3	.5	.8	1.1	1.1	.8
140.	*	.9	.2	.4	.6	.9	1.0	1.1	1.0
145.	*	.8	.1	.4	.6	.9	1.1	1.1	.9
150.	*	.6	.1	.2	.5	.8	1.2	1.2	1.0
155.	*	.6	.1	.2	.5	.9	1.1	1.2	1.0
160.	*	.6	.1	.2	.4	.8	1.2	1.1	1.1
165.	*	.6	.0	.1	.2	.7	1.2	1.1	.8
170.	*	.6	.0	.1	.2	.7	1.0	.9	.8
175.	*	.6	.0	.0	.1	.4	.9	.7	.6
180.	*	.5	.0	.0	.1	.3	.6	.6	.5
185.	*	.6	.0	.0	.0	.1	.4	.3	.3
190.	*	.6	.0	.0	.0	.0	.3	.3	.2
195.	*	.6	.0	.0	.0	.0	.0	.0	.1
200.	*	.6	.0	.0	.0	.0	.0	.0	.0
205.	*	.5	.0	.0	.0	.0	.0	.0	.0

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JOB: Pellissippi Site 3 NB AM RUN: Pellissippi Site 3 NB AM

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	*	.6	.0	.0	.0	.0	.0	.0	.0
215.	*	.6	.0	.0	.0	.0	.0	.0	.0
220.	*	.7	.0	.0	.0	.0	.0	.0	.0
225.	*	.6	.0	.0	.0	.0	.0	.0	.0
230.	*	.6	.0	.0	.0	.0	.0	.0	.0
235.	*	.6	.0	.0	.0	.0	.0	.0	.0
240.	*	.6	.0	.0	.0	.0	.0	.0	.0
245.	*	.6	.0	.0	.0	.0	.0	.0	.0
250.	*	.7	.0	.0	.0	.0	.0	.0	.0
255.	*	.7	.0	.0	.0	.0	.0	.0	.0
260.	*	.7	.0	.0	.0	.0	.0	.0	.0
265.	*	.7	.0	.0	.1	.0	.0	.0	.0
270.	*	.7	.1	.2	.1	.0	.0	.0	.0
275.	*	.7	.1	.3	.5	.2	.0	.0	.0
280.	*	.6	.2	.3	.5	.3	.0	.0	.0
285.	*	.6	.3	.6	.8	.4	.1	.0	.0

290.	*	.4	.5	.7	1.2	.7	.1	.1	.0
295.	*	.3	.6	.9	1.3	1.0	.3	.1	.0
300.	*	.2	.7	.9	1.4	1.0	.4	.1	.0
305.	*	.1	.8	1.0	1.6	1.0	.4	.2	.1
310.	*	.1	.8	.9	1.3	.9	.5	.2	.1
315.	*	.0	.8	.8	1.4	1.0	.5	.2	.1
320.	*	.0	.8	.8	1.3	1.0	.5	.2	.1
325.	*	.0	.7	.8	1.3	1.0	.6	.2	.0
330.	*	.0	.8	.7	1.4	.9	.5	.4	.1
335.	*	.0	.8	.7	1.3	1.0	.6	.3	.1
340.	*	.0	.7	.6	1.3	1.0	.6	.4	.1
345.	*	.0	.7	.7	1.3	.9	.5	.4	.2
350.	*	.0	.6	.7	1.3	1.0	.6	.6	.4
355.	*	.0	.7	.8	1.2	1.2	.8	.6	.4
360.	*	.0	.7	.8	1.3	1.2	1.0	.8	.8
MAX	*	1.1	1.4	2.3	2.4	1.6	1.6	1.6	1.7
DEGR.	*	115	90	70	65	15	50	30	30

THE HIGHEST CONCENTRATION IS 2.50 PPM AT 340 DEGREES FROM REC2 .
THE 2ND HIGHEST CONCENTRATION IS 2.50 PPM AT 340 DEGREES FROM REC3 .
THE 3RD HIGHEST CONCENTRATION IS 2.40 PPM AT 300 DEGREES FROM REC5 .

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Pellissippi Site 3 NB PM                60.0321.0.0000.000280.30480000    1    1
SE MID S              549570.   518885.       5.0
SE 164 S              549576.   519046.       5.0
SE 82 S               549585.   519128.       5.0
SE CNR                549633.   519199.       5.0
SE 82 E               549709.   519236.       5.0
SE 164 E              549792.   519233.       5.0
SE MID E              549949.   519226.       5.0
NE MID E              549955.   519313.       5.0
NE 164 E              549803.   519318.       5.0
NE 82 E               549722.   519334.       5.0
NE CNR                549647.   519371.       5.0
NE 82 N               549609.   519453.       5.0
NE 164 N              549611.   519534.       5.0
NE MID N              549622.   519690.       5.0
NW MID N              549493.   519702.       5.0
NW 164 N              549475.   519543.       5.0
NW 82 N               549440.   519467.       5.0
NW CNR                549388.   519405.       5.0
NW 82 W               549312.   519369.       5.0
NW 164 W              549230.   519375.       5.0
NW MID W              549068.   519424.       5.0
SW MID W              549066.   519299.       5.0
SW 164 W              549262.   519250.       5.0
SW 82 W               549343.   519242.       5.0
SW CNR                549420.   519205.       5.0
SW 82 S               549455.   519123.       5.0
SW 164 S              549453.   519042.       5.0
SW MID S              549448.   518884.       5.0
Pellissippi Site 3 NB PM                 50  1   0
  1
0         115nbAP   AG549562.518286.549536.518778.    117615.1  0.  44   30.
  1
0         115nbAP   AG549536.518779.549542.519048.    117615.1  0.  44   30.
  1
0         115nbTH   AG549542.519049.549558.519283.     89115.1  0.  44   30.
  2
0         115nbTHQ  AG549555.519240.549542.519055.      0.  24   2
       140        89       2.0  891   92.3 3200 1 3
  1
0         115nbL    AG549525.519034.549540.519281.      6615.1  0.  32   30.
  2
0         115nbLQ   AG549537.519239.549527.519055.      0.  12   1
       140       123       2.0   66   92.3 1600 1 3
  1
0         115nbR    AG549552.519059.549572.519162.     19915.1  0.  32   30.
  1
0         115nbR    AG549572.519162.549613.519209.     19915.1  0.  32   30.
  1
0         115nbR    AG549613.519209.549667.519241.     19915.1  0.  32   30.
  1
0         115nbR    AG549667.519241.549710.519256.     19915.1  0.  32   30.
  1
0         115nbD    AG549558.519284.549632.520276.    114715.6  0.  44   30.
  1
0         115sbAP   AG549585.520283.549536.519742.    152215.6  0.  44   30.
  1
0         115sbTH   AG549538.519742.549505.519275.    126315.6  0.  44   30.
  2
0         115sbTQ   AG549511.519353.549531.519644.      0.  24   2
       140        89       2.0 1263   92.3 3200 1 3
  1
0         115sbRT   AG549517.519701.549496.519531.     10015.6  0.  32   30.
  1
0         115sbRT   AG549496.519531.549456.519440.     10015.6  0.  32   30.
  1
0         115sbRT   AG549456.519440.549389.519372.     10015.6  0.  32   30.
  1
0         115sbRT   AG549389.519372.549264.519335.     10015.6  0.  32   30.
  1
0         115sbD    AG549504.519274.549480.518921.    169215.1  0.  44   30.
  1
0         115sbD    AG549480.518921.549482.518689.    169215.1  0.  44   30.
  1
0         115sbD    AG549482.518689.549523.518287.    169215.1  0.  44   30.
  1
0         115sbLT   AG549552.519628.549531.519300.     25915.6  0.  44   30.
  2
0         115sbLQ   AG549534.519352.549551.519615.      0.  24   2
       140       123       2.0  259   92.3 3200 1 3
  1
0         73ebAP    AG548565.519526.549067.519334.    124115.6  0.  44   30.
  1
0         73ebAP    AG549067.519334.549179.519301.    124115.6  0.  44   30.
  1
0         73ebAP    AG549179.519301.549324.519280.    124115.6  0.  44   30.
  1
0         73ebTH    AG549325.519280.549526.519270.    111115.6  0.  44   30.
  2
0         73ebTHQ   AG549466.519273.549327.519280.      0.  24   2
       140        92       2.0 1111   92.3 3200 1 3
  1
0         73ebRT    AG549361.519268.549437.519224.      4415.6  0.  32   30.
  1
0         73ebRT    AG549437.519224.549472.519163.      4415.6  0.  32   30.
  1
0         73ebRT    AG549472.519163.549484.519052.      4415.6  0.  32   30.
  1
0         73ebLT    AG549327.519293.549525.519286.      8615.6  0.  32   30.
  2
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0         73ebLQ    AG549465.519288.549331.519293.      0.  12   1
       140       123       2.0   86   92.3 1600 1 3
  1
0         73ebD     AG549527.519270.550079.519241.    156914.6  0.  44   30.
  1
0         73ebD     AG550079.519241.550246.519242.    156914.6  0.  44   30.
  1
0         73ebD     AG550246.519242.550532.519262.    156914.6  0.  44   30.
  1
0         73wbAP    AG550532.519311.550254.519287.    152114.6  0.  44   30.
  1
0         73wbAP    AG550254.519287.550054.519286.    152114.6  0.  44   30.
  1
0         73wbAP    AG550054.519286.549809.519295.    152114.6  0.  44   30.
  1
0         73wbTH    AG549808.519296.549534.519306.     96614.6  0.  44   30.
  2
0         73wbTHQ   AG549596.519304.549800.519296.      0.  24   2
       140        92       2.0  966   92.3 3200 1 3
  1
0         73wbR     AG549752.519305.549665.519330.     17014.6  0.  32   30.
  1
0         73wbR     AG549665.519330.549612.519372.     17014.6  0.  32   30.
  1
0         73wbR     AG549612.519372.549575.519474.     17014.6  0.  32   30.
  1
0         73wbL     AG549802.519280.549533.519291.     38514.6  0.  32   30.
  2
0         73wbLQ    AG549598.519288.549796.519280.      0.  12   1
       140       123       2.0  385   92.3 1600 1 3
  1
0         73wbD     AG549533.519308.549316.519323.    103215.6  0.  44   30.
  1
0         73wbD     AG549316.519323.549172.519350.    103215.6  0.  44   30.
  1
0         73wbD     AG549172.519350.549055.519391.    103215.6  0.  44   30.
  1
0         73wbD     AG549055.519391.548587.519592.    103215.6  0.  44   30.
1.0   04  1000   0Y  5  0 72
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1 CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.2, JUNE 2000

JOB: Pellissippi Site 3 NB PM RUN: Pellissippi Site 3 NB PM
DATE: 02/23/2009 TIME: 11:04:33.87

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION		X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	115nbAP	549562.0	518286.0	549536.0	518778.0	493.	357.	AG	1176.	15.1	.0	44.0		
2. 0	115nbAP	549536.0	518779.0	549542.0	519048.0	269.	1.	AG	1176.	15.1	.0	44.0		
3. 0	115nbTH	549542.0	519049.0	549558.0	519283.0	235.	4.	AG	891.	15.1	.0	44.0		
4. 0	115nbTHQ	549555.0	519240.0	549539.9	519024.0	217.	184.	AG	315.	100.0	.0	24.0	.41	11.0
5. 0	115nbL	549525.0	519034.0	549540.0	519281.0	247.	3.	AG	66.	15.1	.0	32.0		
6. 0	115nbLQ	549537.0	519239.0	549534.6	519194.7	44.	183.	AG	218.	100.0	.0	12.0	.45	2.3
7. 0	115nbR	549552.0	519059.0	549572.0	519162.0	105.	11.	AG	199.	15.1	.0	32.0		
8. 0	115nbR	549572.0	519162.0	549613.0	519209.0	62.	41.	AG	199.	15.1	.0	32.0		
9. 0	115nbR	549613.0	519209.0	549667.0	519241.0	63.	59.	AG	199.	15.1	.0	32.0		
10. 0	115nbR	549667.0	519241.0	549710.0	519256.0	46.	71.	AG	199.	15.1	.0	32.0		
11. 0	115nbD	549558.0	519284.0	549632.0	520276.0	995.	4.	AG	1147.	15.6	.0	44.0		
12. 0	115sbAP	549585.0	520283.0	549536.0	519742.0	543.	185.	AG	1522.	15.6	.0	44.0		
13. 0	115sbTH	549538.0	519742.0	549505.0	519275.0	468.	184.	AG	1263.	15.6	.0	44.0		
14. 0	115sbTQ	549511.0	519353.0	549532.1	519659.4	307.	4.	AG	315.	100.0	.0	24.0	.59	15.6
15. 0	115sbRT	549517.0	519701.0	549496.0	519531.0	171.	187.	AG	100.	15.6	.0	32.0		
16. 0	115sbRT	549496.0	519531.0	549456.0	519440.0	99.	204.	AG	100.	15.6	.0	32.0		
17. 0	115sbRT	549456.0	519440.0	549389.0	519372.0	95.	225.	AG	100.	15.6	.0	32.0		
18. 0	115sbRT	549389.0	519372.0	549264.0	519335.0	130.	254.	AG	100.	15.6	.0	32.0		
19. 0	115sbD	549504.0	519274.0	549480.0	518921.0	354.	184.	AG	1692.	15.1	.0	44.0		
20. 0	115sbD	549480.0	518921.0	549482.0	518689.0	232.	180.	AG	1692.	15.1	.0	44.0		
21. 0	115sbD	549482.0	518689.0	549523.0	518287.0	404.	174.	AG	1692.	15.1	.0	44.0		
22. 0	115sbLT	549552.0	519628.0	549531.0	519300.0	329.	184.	AG	259.	15.6	.0	44.0		
23. 0	115sbLQ	549534.0	519352.0	549539.6	519438.6	87.	4.	AG	435.	100.0	.0	24.0	.43	4.4
24. 0	73ebAP	548565.0	519526.0	549067.0	519334.0	537.	111.	AG	1241.	15.6	.0	44.0		
25. 0	73ebAP	549067.0	519334.0	549179.0	519301.0	117.	106.	AG	1241.	15.6	.0	44.0		
26. 0	73ebAP	549179.0	519301.0	549324.0	519280.0	146.	98.	AG	1241.	15.6	.0	44.0		
27. 0	73ebTH	549325.0	519280.0	549526.0	519270.0	201.	93.	AG	1111.	15.6	.0	44.0		
28. 0	73ebTHQ	549466.0	519273.0	549187.2	519287.1	279.	273.	AG	325.	100.0	.0	24.0	.55	14.2
29. 0	73ebRT	549361.0	519268.0	549437.0	519224.0	88.	120.	AG	44.	15.6	.0	32.0		
30. 0	73ebRT	549437.0	519224.0	549472.0	519163.0	70.	150.	AG	44.	15.6	.0	32.0		
31. 0	73ebRT	549472.0	519163.0	549484.0	519052.0	112.	174.	AG	44.	15.6	.0	32.0		
32. 0	73ebLT	549327.0	519293.0	549525.0	519286.0	198.	92.	AG	86.	15.6	.0	32.0		
33. 0	73ebLQ	549465.0	519288.0	549406.7	519290.2	58.	273.	AG	218.	100.0	.0	12.0	.58	3.0
34. 0	73ebD	549527.0	519270.0	550079.0	519241.0	553.	93.	AG	1569.	14.6	.0	44.0		
35. 0	73ebD	550079.0	519241.0	550246.0	519242.0	167.	90.	AG	1569.	14.6	.0	44.0		
36. 0	73ebD	550246.0	519242.0	550532.0	519262.0	287.	86.	AG	1569.	14.6	.0	44.0		
37. 0	73wbAP	550532.0	519311.0	550254.0	519287.0	279.	265.	AG	1521.	14.6	.0	44.0		
38. 0	73wbAP	550254.0	519287.0	550054.0	519286.0	200.	270.	AG	1521.	14.6	.0	44.0		
39. 0	73wbAP	550054.0	519286.0	549809.0	519295.0	245.	272.	AG	1521.	14.6	.0	44.0		
40. 0	73wbTH	549808.0	519296.0	549534.0	519306.0	274.	272.	AG	966.	14.6	.0	44.0		
41. 0	73wbTHQ	549596.0	519304.0	549838.8	519294.5	243.	92.	AG	325.	100.0	.0	24.0	.48	12.3
42. 0	73wbR	549752.0	519305.0	549665.0	519330.0	91.	286.	AG	170.	14.6	.0	32.0		
43. 0	73wbR	549665.0	519330.0	549612.0	519372.0	68.	308.	AG	170.	14.6	.0	32.0		
44. 0	73wbR	549612.0	519372.0	549575.0	519474.0	108.	340.	AG	170.	14.6	.0	32.0		

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JOB: Pellissippi Site 3 NB PM RUN: Pellissippi Site 3 NB PM
DATE: 02/23/2009 TIME: 11:04:33.87

LINK VARIABLES

LINK DESCRIPTION		X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. 0	73wbL	549802.0	519280.0	549533.0	519291.0	269.	272.	AG	385.	14.6	.0	32.0		
46. 0	73wbLQ	549598.0	519288.0	552341.5	519177.2	2746.	92.	AG	218.	100.0	.0	12.0	2.60	139.5
47. 0	73wbD	549533.0	519308.0	549316.0	519323.0	218.	274.	AG	1032.	15.6	.0	44.0		
48. 0	73wbD	549316.0	519323.0	549172.0	519350.0	147.	281.	AG	1032.	15.6	.0	44.0		
49. 0	73wbD	549172.0	519350.0	549055.0	519391.0	124.	289.	AG	1032.	15.6	.0	44.0		
50. 0	73wbD	549055.0	519391.0	548587.0	519592.0	509.	293.	AG	1032.	15.6	.0	44.0		

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JOB: Pellissippi Site 3 NB PM RUN: Pellissippi Site 3 NB PM
DATE: 02/23/2009 TIME: 11:04:33.87

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. 0	115nbTHQ	140	89	2.0	891	3200	92.30	1	3
6. 0	115nbLQ	140	123	2.0	66	1600	92.30	1	3
14. 0	115sbTQ	140	89	2.0	1263	3200	92.30	1	3
23. 0	115sbLQ	140	123	2.0	259	3200	92.30	1	3
28. 0	73ebTHQ	140	92	2.0	1111	3200	92.30	1	3
33. 0	73ebLQ	140	123	2.0	86	1600	92.30	1	3
41. 0	73wbTHQ	140	92	2.0	966	3200	92.30	1	3
46. 0	73wbLQ	140	123	2.0	385	1600	92.30	1	3

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE MID S	549570.0	518885.0	5.0
2. SE 164 S	549576.0	519046.0	5.0
3. SE 82 S	549585.0	519128.0	5.0
4. SE CNR	549633.0	519199.0	5.0
5. SE 82 E	549709.0	519236.0	5.0

6.	SE 164 E	*	549792.0	519233.0	5.0	*
7.	SE MID E	*	549949.0	519226.0	5.0	*
8.	NE MID E	*	549955.0	519313.0	5.0	*
9.	NE 164 E	*	549803.0	519318.0	5.0	*
10.	NE 82 E	*	549722.0	519334.0	5.0	*
11.	NE CNR	*	549647.0	519371.0	5.0	*
12.	NE 82 N	*	549609.0	519453.0	5.0	*
13.	NE 164 N	*	549611.0	519534.0	5.0	*
14.	NE MID N	*	549622.0	519690.0	5.0	*
15.	NW MID N	*	549493.0	519702.0	5.0	*
16.	NW 164 N	*	549475.0	519543.0	5.0	*
17.	NW 82 N	*	549440.0	519467.0	5.0	*
18.	NW CNR	*	549388.0	519405.0	5.0	*
19.	NW 82 W	*	549312.0	519369.0	5.0	*
20.	NW 164 W	*	549230.0	519375.0	5.0	*
21.	NW MID W	*	549068.0	519424.0	5.0	*
22.	SW MID W	*	549066.0	519299.0	5.0	*
23.	SW 164 W	*	549262.0	519250.0	5.0	*
24.	SW 82 W	*	549343.0	519242.0	5.0	*
25.	SW CNR	*	549420.0	519205.0	5.0	*
26.	SW 82 S	*	549455.0	519123.0	5.0	*
27.	SW 164 S	*	549453.0	519042.0	5.0	*
28.	SW MID S	*	549448.0	518884.0	5.0	*

1

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	*	1.4	1.9	2.0	1.9	2.3	2.0	1.5	.0	.0	.2	.3	.8	.8	.8	.5	.4	.1	.1	.0	.0
5.	*	1.3	1.7	1.5	1.6	2.1	2.0	1.5	.0	.0	.1	.3	.5	.7	.7	.6	.6	.4	.1	.0	.0
10.	*	1.2	1.4	1.5	1.4	2.0	2.1	1.5	.0	.0	.0	.1	.4	.4	.4	.8	.8	.5	.3	.1	.0
15.	*	.8	.9	.9	1.5	1.9	1.9	1.5	.0	.0	.0	.1	.2	.3	.2	.9	1.1	.7	.5	.2	.1
20.	*	.6	.9	.8	1.4	1.9	1.8	1.4	.0	.0	.0	.0	.1	.1	.1	1.1	1.3	.8	.6	.2	.2
25.	*	.3	.6	.8	1.4	1.9	1.8	1.4	.0	.0	.0	.0	.1	.1	.1	1.1	1.4	.9	.7	.4	.2
30.	*	.4	.6	.8	1.4	1.9	1.8	1.5	.0	.0	.0	.0	.0	.0	.0	1.1	1.4	.9	.7	.4	.2
35.	*	.4	.6	.9	1.4	2.0	1.8	1.5	.0	.0	.0	.0	.0	.0	.0	1.0	1.5	1.0	.7	.4	.3
40.	*	.3	.6	.8	1.4	2.1	1.7	1.6	.1	.0	.0	.0	.0	.0	.0	.9	1.4	1.0	.7	.5	.4
45.	*	.3	.5	.9	1.5	2.0	1.8	1.7	.1	.0	.0	.0	.0	.0	.0	.9	1.5	1.0	.7	.5	.4
50.	*	.3	.5	.9	1.5	2.2	1.8	1.8	.1	.0	.0	.0	.0	.0	.0	.9	1.6	1.1	.8	.5	.3
55.	*	.2	.5	.9	1.5	2.2	2.0	1.9	.1	.0	.0	.0	.0	.0	.0	.9	1.6	1.0	.7	.5	.3
60.	*	.2	.4	.8	1.5	2.3	2.0	2.0	.1	.1	.0	.0	.0	.0	.0	.9	1.6	1.0	.7	.6	.4
65.	*	.1	.4	.7	1.3	2.2	2.0	2.0	.1	.1	.0	.0	.0	.0	.0	.8	1.6	1.1	.8	.6	.4
70.	*	.1	.4	.7	1.3	2.4	2.0	2.3	.3	.2	.0	.0	.0	.0	.0	.8	1.4	1.0	.8	.6	.5
75.	*	.1	.3	.6	1.2	2.3	2.3	2.3	.5	.4	.2	.0	.0	.0	.0	.7	1.4	1.0	1.0	.6	.5
80.	*	.1	.1	.6	1.4	2.4	2.3	2.2	.9	.8	.2	.1	.0	.0	.0	.8	1.3	1.0	1.0	.8	.6
85.	*	.1	.1	.3	1.1	2.2	2.1	1.9	1.2	1.3	.8	.2	.1	.0	.0	.8	1.3	1.1	1.1	1.3	.8
90.	*	.0	.1	.2	.9	2.0	2.0	1.7	1.5	1.7	1.3	.5	.1	.1	.0	.8	1.4	1.2	1.5	1.3	1.0
95.	*	.0	.1	.1	.4	1.5	1.6	1.5	1.6	2.0	1.6	1.0	.1	.1	.0	.8	1.4	1.2	1.7	1.5	1.6
100.	*	.0	.0	.1	.2	1.0	1.1	1.1	2.0	2.2	1.9	1.2	.4	.1	.1	.9	1.4	1.7	1.8	1.6	1.6
105.	*	.0	.0	.0	.2	.5	.7	.7	2.1	2.5	2.0	1.3	.6	.1	.1	.9	1.4	1.7	1.6	1.7	1.6
110.	*	.0	.0	.0	.0	.4	.4	.5	2.2	2.6	2.3	1.4	.6	.4	.1	.9	1.7	1.9	1.7	1.8	1.6
115.	*	.0	.0	.0	.0	.2	.2	.2	2.1	2.5	2.0	1.4	.5	.5	.1	1.0	1.7	2.1	1.4	1.9	1.6
120.	*	.0	.0	.0	.0	.1	.2	.2	2.0	2.6	2.3	1.3	.7	.4	.1	1.0	1.8	2.2	1.1	1.7	1.6
125.	*	.0	.0	.0	.0	.1	.1	.1	1.8	2.5	2.4	1.5	.8	.3	.1	1.3	1.9	2.0	1.6	1.6	1.7
130.	*	.0	.0	.0	.0	.1	.1	.1	1.9	2.6	2.3	1.5	.8	.4	.2	1.3	2.3	2.0	1.4	1.7	1.6
135.	*	.0	.0	.0	.0	.1	.1	.1	1.7	2.5	2.2	1.4	.8	.5	.3	1.5	2.2	1.9	1.1	1.7	1.6
140.	*	.0	.0	.0	.0	.1	.1	.1	1.6	2.5	2.1	1.4	.8	.6	.3	1.8	2.3	1.8	1.2	1.7	1.7
145.	*	.0	.0	.0	.0	.1	.1	.1	1.6	2.5	2.1	1.5	.8	.7	.3	1.8	2.2	1.7	1.3	1.7	1.6
150.	*	.0	.0	.0	.0	.0	.1	.1	1.6	2.4	2.0	1.5	.7	.6	.4	2.0	2.2	1.5	1.4	1.4	1.6
155.	*	.0	.0	.0	.0	.0	.0	.1	1.5	2.4	2.0	1.5	.7	.6	.4	2.2	2.4	1.4	1.4	1.6	1.6
160.	*	.1	.0	.0	.0	.0	.0	.0	1.4	2.3	2.0	1.5	.8	.6	.4	2.3	2.3	1.3	1.4	1.7	1.6
165.	*	.1	.2	.1	.0	.0	.0	.0	1.4	2.2	2.0	1.5	.7	.7	.5	2.3	2.2	1.3	1.5	1.6	1.4
170.	*	.4	.3	.2	.0	.0	.0	.0	1.4	2.2	2.0	1.5	.7	.7	.5	2.2	2.0	1.4	1.5	1.5	1.2
175.	*	.5	.4	.4	.1	.0	.0	.0	1.4	2.3	2.0	1.5	1.0	1.0	.6	1.9	2.1	1.4	1.2	1.3	1.1
180.	*	.7	.7	.6	.3	.0	.0	.0	1.5	2.3	2.0	1.9	1.4	1.0	1.1	1.6	1.6	1.2	1.1	1.1	1.1
185.	*	.9	.8	.8	.4	.2	.0	.0	1.5	2.3	2.2	2.1	1.6	1.4	1.2	1.3	1.0	.8	.8	1.2	1.1
190.	*	1.0	.9	1.1	.5	.2	.1	.0	1.4	2.4	2.3	2.2	1.7	1.8	1.3	.8	.6	.7	.7	1.2	1.0
195.	*	1.0	1.0	1.4	.7	.4	.2	.0	1.4	2.5	2.4	2.2	1.8	1.5	1.5	.6	.6	.6	.7	1.2	1.0
200.	*	1.1	1.2	1.6	.9	.4	.2	.0	1.4	2.4	2.6	2.3	1.6	2.1	2.0	.4	.4	.5	.7	1.1	1.1
205.	*	1.2	1.1	1.5	.9	.6	.4	.2	1.6	2.7	2.6	2.2	1.7	1.9	2.0	.1	.4	.5	.7	1.2	.9

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WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	1.1	1.1	1.6	.8	.4	.4	.2	1.7	2.6	2.6	2.0	2.2	2.0	1.9	.1	.5	.5	.8	1.2	.9
215.	*	1.1	1.1	1.6	.9	.5	.3	.3	1.7	2.8	2.7	1.9	1.9	2.0	1.7	.1	.5	.6	.8	1.2	.8
220.	*	1.1	1.3	1.7	1.1	.7	.5	.4	1.8	2.9	2.6	1.7	2.0	1.9	1.5	.1	.5	.5	.7	1.2	.8
225.	*	1.0	1.2	1.7	1.1	.7	.5	.3	1.9	3.0	2.6	1.7	2.2	2.0	1.4	.0	.3	.5	.7	1.1	.9
230.	*	1.0	1.2	1.7	1.0	.7	.5	.3	2.1	3.2	2.7	1.7	2.3	2.0	1.4	.0	.3	.5	.8	1.2	.8
235.	*	.9	1.3	1.6	1.0	.7	.5	.4	2.1	3.4	2.7	1.3	2.3	1.7	1.1	.1	.3	.3	.7	1.0	.7
240.	*	.9	1.3	1.6	1.0	.7	.6	.4	2.1	3.4	2.8	1.3	2.3	1.5	1.1	.2	.1	.4	.7	.9	.8
245.	*	.9	1.4	1.6	1.0	.7	.6	.4	2.5	3.3	2.6	1.6	2.5	1.4	1.2	.2	.1	.5	.5	.9	.8
250.	*	.9	1.3	1.6	1.0	.8	.7	.5	2.5	3.4	2.7	1.7	2.2	1.5	1.2	.2	.2	.4	.7	.9	.8
255.	*	.9	1.5	1.5	1.0	.9	.8	.7	2.7	3.3	2.3	1.6	2.2	1.4	1.2	.2	.2	.4	.7	.9	.9
260.	*	.9	1.5	1.5	1.1	1.2	1.0	.8	2.7	3.3	2.1	1.6	1.9	1.5	1.1	.2	.2	.3	.5	.7	1.0
265.	*	.9	1.5	1.6	1.2	1.5	1.1	1.4	2.4	2.8	2.0	2.0	1.8	1.5	.9	.0	.2	.2	.5	.8	.9
270.	*	.9	1.6	1.6	1.3	1.5	1.7	1.6	2.4	2.7	1.7	1.6	1.8	1.5	.8	.0	.2	.2	.4	.7	.8
275.	*	.9	1.5	1.6	1.6	2.0	2.1	2.2	1.9	2.2	1.6	1.7	1.7	1.3	.8	.0	.1	.2	.3	.6	.9
280.	*	.9	1.5	1.8	1.8	2.5	2.5	2.6	1.6	1.7	1.4	1.5	1.6	1.3	.8	.0	.0	.2	.2	.5	.6

285.	.9	1.5	1.9	1.9	2.5	2.7	2.7	1.2	1.0	1.0	1.4	1.4	1.3	.9	.0	.0	.1	.2	.4	.6
290.	.9	1.6	2.2	2.2	2.9	2.7	2.9	.7	.8	.8	1.4	1.4	1.3	.8	.0	.0	.0	.1	.3	.4
295.	.9	1.8	2.2	2.0	2.5	2.8	2.7	.6	.7	.8	1.3	1.4	1.3	.8	.0	.0	.0	.0	.2	.4
300.	1.0	1.9	2.5	1.7	2.6	2.7	2.6	.4	.6	.8	1.3	1.4	1.3	.9	.0	.0	.0	.0	.1	.1
305.	1.0	2.1	2.3	1.5	2.9	2.6	2.5	.4	.6	.7	1.2	1.3	1.3	.8	.0	.0	.0	.0	.0	.1
310.	1.2	2.0	2.2	1.8	2.9	2.7	2.4	.4	.5	.7	1.2	1.3	1.3	.8	.0	.0	.0	.0	.0	.0
315.	1.2	2.2	2.2	1.6	3.0	2.6	2.1	.4	.4	.6	1.1	1.3	1.3	1.0	.0	.0	.0	.0	.0	.0
320.	1.1	2.1	2.2	1.7	2.8	2.6	2.1	.3	.4	.6	1.1	1.3	1.3	1.0	.0	.0	.0	.0	.0	.0
325.	1.2	2.1	2.3	1.8	2.8	2.4	1.7	.3	.5	.5	.9	1.4	1.4	1.0	.0	.0	.0	.0	.0	.0
330.	1.3	2.2	2.4	2.0	2.8	2.5	1.7	.2	.5	.5	.8	1.3	1.2	1.0	.0	.0	.0	.0	.0	.0
335.	1.5	2.2	2.3	1.9	2.7	2.5	1.7	.2	.2	.5	.8	1.4	1.2	1.1	.0	.0	.0	.0	.0	.0
340.	1.7	2.5	2.3	2.1	2.5	2.1	1.6	.2	.2	.5	.9	1.3	1.2	1.1	.0	.0	.0	.0	.0	.0
345.	1.9	2.4	2.6	2.0	2.5	2.1	1.6	.0	.2	.3	.7	1.3	1.2	1.1	.1	.0	.0	.0	.0	.0
350.	1.7	2.6	2.3	2.2	2.4	2.0	1.4	.0	.2	.3	.7	1.2	1.1	1.1	.1	.1	.0	.0	.0	.0
355.	1.6	2.1	2.0	2.0	2.4	2.2	1.5	.0	.2	.2	.5	1.0	1.0	1.0	.2	.2	.1	.0	.0	.0
360.	1.4	1.9	2.0	1.9	2.3	2.0	1.5	.0	.0	.2	.3	.8	.8	.8	.5	.4	.1	.1	.0	.0
MAX	1.9	2.6	2.6	2.2	3.0	2.8	2.9	2.7	3.4	2.8	2.3	2.5	2.1	2.0	2.3	2.4	2.2	1.8	1.9	1.7
DEGR.	345	350	345	290	315	295	290	255	235	240	200	245	200	200	160	155	120	100	115	125

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JOB: Pellissippi Site 3 NB PM RUN: Pellissippi Site 3 NB PM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	.0	.9	1.5	1.3	1.5	1.5	1.2	1.4
5.	.0	.8	1.6	1.4	1.7	1.6	1.6	1.6
10.	.0	.8	1.6	1.8	1.9	1.7	2.0	1.8
15.	.0	.7	1.7	1.9	2.1	1.9	1.9	1.8
20.	.0	.7	1.7	1.9	2.0	1.9	1.9	2.1
25.	.0	.9	2.0	2.2	2.0	2.0	1.9	1.9
30.	.1	1.0	2.0	2.3	1.9	1.9	2.0	1.9
35.	.2	1.0	1.9	2.2	1.8	2.1	2.0	1.8
40.	.2	.9	2.1	2.3	1.9	1.9	1.9	1.6
45.	.2	.9	2.3	2.4	1.6	2.1	2.0	1.6
50.	.2	1.2	2.4	2.4	1.5	1.9	2.0	1.6
55.	.2	1.2	2.3	2.1	1.6	2.0	2.0	1.4
60.	.3	1.2	2.2	2.3	1.6	2.2	1.8	1.2
65.	.3	1.3	2.3	2.4	1.8	2.2	1.8	1.3
70.	.3	1.4	2.5	2.3	2.0	2.0	1.6	1.2
75.	.3	1.7	2.5	2.3	1.9	1.9	1.6	1.1
80.	.3	2.3	2.7	2.4	1.9	1.8	1.4	1.1
85.	.4	2.0	2.3	2.2	1.7	1.6	1.3	1.1
90.	.6	2.0	2.1	1.7	1.6	1.5	1.4	1.0
95.	1.0	1.8	1.7	1.5	1.5	1.4	1.4	1.0
100.	1.2	1.7	1.2	1.1	1.2	1.3	1.1	1.0
105.	1.0	1.2	.8	.8	1.1	1.3	1.1	1.0
110.	1.3	.9	.7	.6	.9	1.3	1.0	1.0
115.	1.3	.6	.4	.6	.9	1.3	1.1	1.0
120.	1.5	.4	.4	.6	.8	1.3	1.1	1.0
125.	1.3	.2	.4	.6	.8	1.2	1.0	1.1
130.	1.1	.2	.4	.7	.8	1.2	1.0	1.1
135.	1.2	.2	.4	.6	.9	1.3	1.1	1.1
140.	1.2	.1	.3	.5	.9	1.3	1.1	1.3
145.	1.1	.3	.3	.5	.9	1.2	1.2	1.2
150.	1.1	.2	.4	.4	.7	1.1	1.3	1.3
155.	.9	.1	.4	.6	.9	1.3	1.2	1.4
160.	.8	.0	.3	.5	.9	1.3	1.4	1.4
165.	.7	.0	.3	.5	.7	1.3	1.5	1.3
170.	.7	.0	.1	.4	.7	1.2	1.3	1.2
175.	.7	.0	.0	.3	.6	1.0	1.1	1.1
180.	.9	.0	.0	.1	.4	.9	.8	.7
185.	.7	.0	.0	.0	.3	.7	.6	.6
190.	.7	.0	.0	.0	.1	.4	.4	.3
195.	.8	.0	.0	.0	.0	.2	.2	.2
200.	.7	.0	.0	.0	.0	.1	.1	.1
205.	.8	.0	.0	.0	.0	.0	.0	.0

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JOB: Pellissippi Site 3 NB PM RUN: Pellissippi Site 3 NB PM

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	.8	.0	.0	.0	.0	.0	.0	.0
215.	.7	.0	.0	.0	.0	.0	.0	.0
220.	.8	.0	.0	.0	.0	.0	.0	.0
225.	.8	.0	.0	.0	.0	.0	.0	.0
230.	.7	.0	.0	.0	.0	.0	.0	.0
235.	.7	.0	.0	.0	.0	.0	.0	.0
240.	.8	.0	.0	.0	.0	.0	.0	.0
245.	.8	.0	.0	.0	.0	.0	.0	.0
250.	.8	.0	.0	.0	.0	.0	.0	.0
255.	.8	.0	.0	.0	.0	.0	.0	.0
260.	1.0	.0	.0	.1	.0	.0	.0	.0
265.	.9	.0	.0	.2	.0	.0	.0	.0
270.	.9	.1	.3	.5	.1	.0	.0	.0
275.	.9	.1	.4	.7	.3	.0	.0	.0
280.	.9	.2	.7	1.0	.5	.0	.0	.0
285.	.7	.5	1.0	1.5	.7	.1	.0	.0

290.	*	.5	.6	1.2	1.6	1.0	.3	.1	.0
295.	*	.4	.7	1.4	1.8	1.2	.5	.1	.0
300.	*	.2	.9	1.7	1.9	1.3	.6	.2	.0
305.	*	.2	.9	1.7	2.0	1.4	.7	.3	.1
310.	*	.1	1.0	1.8	1.8	1.2	.7	.4	.2
315.	*	.0	1.0	1.7	1.6	1.0	.6	.4	.2
320.	*	.0	1.0	1.8	1.5	1.1	.7	.4	.2
325.	*	.0	1.0	1.6	1.6	1.2	.7	.4	.1
330.	*	.0	1.0	1.6	1.5	1.1	.7	.5	.1
335.	*	.0	.8	1.5	1.5	1.0	.6	.5	.2
340.	*	.0	.9	1.5	1.4	1.1	.6	.4	.2
345.	*	.0	.8	1.6	1.5	1.1	.7	.5	.3
350.	*	.0	.8	1.6	1.5	1.1	.9	.7	.5
355.	*	.0	.7	1.6	1.5	1.3	1.1	.9	1.0
360.	*	.0	.9	1.5	1.3	1.5	1.5	1.2	1.4
MAX	*	1.5	2.3	2.7	2.4	2.1	2.2	2.0	2.1
DEGR.	*	120	80	80	80	15	60	45	20

THE HIGHEST CONCENTRATION IS 3.40 PPM AT 235 DEGREES FROM REC9 .
THE 2ND HIGHEST CONCENTRATION IS 3.00 PPM AT 315 DEGREES FROM REC5 .
THE 3RD HIGHEST CONCENTRATION IS 2.90 PPM AT 290 DEGREES FROM REC7 .

```
Pellissippi Site 3 BD AM                60.0321.0.0000.000280.30480000    1    1
SE MID S              549570.   518885.       5.0
SE 164 S              549576.   519046.       5.0
SE 82 S               549585.   519128.       5.0
SE CNR                549633.   519199.       5.0
SE 82 E               549709.   519236.       5.0
SE 164 E              549792.   519233.       5.0
SE MID E              549949.   519226.       5.0
NE MID E              549955.   519313.       5.0
NE 164 E              549803.   519318.       5.0
NE 82 E               549722.   519334.       5.0
NE CNR                549647.   519371.       5.0
NE 82 N               549609.   519453.       5.0
NE 164 N              549611.   519534.       5.0
NE MID N              549622.   519690.       5.0
NW MID N              549493.   519702.       5.0
NW 164 N              549475.   519543.       5.0
NW 82 N               549440.   519467.       5.0
NW CNR                549388.   519405.       5.0
NW 82 W               549312.   519369.       5.0
NW 164 W              549230.   519375.       5.0
NW MID W              549068.   519424.       5.0
SW MID W              549066.   519299.       5.0
SW 164 W              549262.   519250.       5.0
SW 82 W               549343.   519242.       5.0
SW CNR                549420.   519205.       5.0
SW 82 S               549455.   519123.       5.0
SW 164 S              549453.   519042.       5.0
SW MID S              549448.   518884.       5.0
Pellissippi Site 3 BD AM                 50  1   0
  1
0         115nbAP   AG549562.518286.549536.518778.    197315.1  0.  44   30.
  1
0         115nbAP   AG549536.518779.549542.519048.    197315.1  0.  44   30.
  1
0         115nbTH   AG549542.519049.549558.519283.    176515.1  0.  44   30.
  2
0         115nbTHQ  AG549555.519240.549542.519055.      0.  24   2
       120        67       2.0 1765   92.3 3200 1 3
  1
0         115nbL    AG549525.519034.549540.519281.      6115.1  0.  32   30.
  2
0         115nbLQ   AG549537.519239.549527.519055.      0.  12   1
       120       104       2.0   61   92.3 1600 1 3
  1
0         115nbR    AG549552.519059.549572.519162.     14715.1  0.  32   30.
  1
0         115nbR    AG549572.519162.549613.519209.     14715.1  0.  32   30.
  1
0         115nbR    AG549613.519209.549667.519241.     14715.1  0.  32   30.
  1
0         115nbR    AG549667.519241.549710.519256.     14715.1  0.  32   30.
  1
0         115nbD    AG549558.519284.549632.520276.    199015.6  0.  44   30.
  1
0         115sbAP   AG549585.520283.549536.519742.     68115.6  0.  44   30.
  1
0         115sbTH   AG549538.519742.549505.519275.     56215.6  0.  44   30.
  2
0         115sbTQ   AG549511.519353.549531.519644.      0.  24   2
       120        67       2.0  562   92.3 3200 1 3
  1
0         115sbRT   AG549517.519701.549496.519531.     10015.6  0.  32   30.
  1
0         115sbRT   AG549496.519531.549456.519440.     10015.6  0.  32   30.
  1
0         115sbRT   AG549456.519440.549389.519372.     10015.6  0.  32   30.
  1
0         115sbRT   AG549389.519372.549264.519335.     10015.6  0.  32   30.
  1
0         115sbD    AG549504.519274.549480.518921.     68515.1  0.  44   30.
  1
0         115sbD    AG549480.518921.549482.518689.     68515.1  0.  44   30.
  1
0         115sbD    AG549482.518689.549523.518287.     68515.1  0.  44   30.
  1
0         115sbLT   AG549552.519628.549531.519300.     11915.6  0.  44   30.
  2
0         115sbLQ   AG549534.519352.549551.519615.      0.  24   2
       120       104       2.0  119   92.3 3200 1 3
  1
0         73ebAP    AG548565.519526.549067.519334.    104615.6  0.  44   30.
  1
0         73ebAP    AG549067.519334.549179.519301.    104615.6  0.  44   30.
  1
0         73ebAP    AG549179.519301.549324.519280.    104615.6  0.  44   30.
  1
0         73ebTH    AG549325.519280.549526.519270.     90615.6  0.  44   30.
  2
0         73ebTHQ   AG549466.519273.549327.519280.      0.  24   2
       120        78       2.0  906   92.3 3200 1 3
  1
0         73ebRT    AG549361.519268.549437.519224.      2615.6  0.  32   30.
  1
0         73ebRT    AG549437.519224.549472.519163.      2615.6  0.  32   30.
  1
0         73ebRT    AG549472.519163.549484.519052.      2615.6  0.  32   30.
  1
0         73ebLT    AG549327.519293.549525.519286.     11415.6  0.  32   30.
  2
```

```
0        73ebLQ    AG549465.519288.549331.519293.      0.  12   1
       120       104       2.0  114   92.3 1600 1 3
  1
0        73ebD     AG549527.519270.550079.519241.    117214.6  0.  44   30.
  1
0        73ebD     AG550079.519241.550246.519242.    117214.6  0.  44   30.
  1
0        73ebD     AG550246.519242.550532.519262.    117214.6  0.  44   30.
  1
0        73wbAP    AG550532.519311.550254.519287.     85914.6  0.  44   30.
  1
0        73wbAP    AG550254.519287.550054.519286.     85914.6  0.  44   30.
  1
0        73wbAP    AG550054.519286.549809.519295.     85914.6  0.  44   30.
  1
0        73wbTH    AG549808.519296.549534.519306.     65114.6  0.  44   30.
  2
0        73wbTHQ   AG549596.519304.549800.519296.      0.  24   2
       120        78       2.0  651   92.3 3200 1 3
  1
0        73wbR     AG549752.519305.549665.519330.     11114.6  0.  32   30.
  1
0        73wbR     AG549665.519330.549612.519372.     11114.6  0.  32   30.
  1
0        73wbR     AG549612.519372.549575.519474.     11114.6  0.  32   30.
  1
0        73wbL     AG549802.519280.549533.519291.      9714.6  0.  32   30.
  2
0        73wbLQ    AG549598.519288.549796.519280.      0.  12   1
       120       104       2.0   97   92.3 1600 1 3
  1
0        73wbD     AG549533.519308.549316.519323.     71215.6  0.  44   30.
  1
0        73wbD     AG549316.519323.549172.519350.     71215.6  0.  44   30.
  1
0        73wbD     AG549172.519350.549055.519391.     71215.6  0.  44   30.
  1
0        73wbD     AG549055.519391.548587.519592.     71215.6  0.  44   30.
1.0   04  1000   0Y  5  0 72
```

1 CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.2, JUNE 2000

JOB: Pellissippi Site 3 BD AM   RUN: Pellissippi Site 3 BD AM
DATE: 02/23/2009 TIME: 11:20:37.10

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S   VD = .0 CM/S   Z0 = 321. CM
U = 1.0 M/S   CLAS = 4 (D)   ATIM = 60. MINUTES   MIXH = 1000. M   AMB = .0 PPM

LINK VARIABLES

	LINK DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	115nbAP	549562.0	518286.0	549536.0	518778.0	493.	357.	AG	1973.	15.1	.0	44.0		
2. 0	115nbAP	549536.0	518779.0	549542.0	519048.0	269.	1.	AG	1973.	15.1	.0	44.0		
3. 0	115nbTH	549542.0	519049.0	549558.0	519283.0	235.	4.	AG	1765.	15.1	.0	44.0		
4. 0	115nbTHQ	549555.0	519240.0	549532.4	518917.7	323.	184.	AG	276.	100.0	.0	24.0	.68	16.4
5. 0	115nbL	549525.0	519034.0	549540.0	519281.0	247.	3.	AG	61.	15.1	.0	32.0		
6. 0	115nbLQ	549537.0	519239.0	549535.1	519204.3	35.	183.	AG	215.	100.0	.0	12.0	.38	1.8
7. 0	115nbR	549552.0	519059.0	549572.0	519162.0	105.	11.	AG	147.	15.1	.0	32.0		
8. 0	115nbR	549572.0	519162.0	549613.0	519209.0	62.	41.	AG	147.	15.1	.0	32.0		
9. 0	115nbR	549613.0	519209.0	549667.0	519241.0	63.	59.	AG	147.	15.1	.0	32.0		
10. 0	115nbR	549667.0	519241.0	549710.0	519256.0	46.	71.	AG	147.	15.1	.0	32.0		
11. 0	115nbD	549558.0	519284.0	549632.0	520276.0	995.	4.	AG	1990.	15.6	.0	44.0		
12. 0	115sbAP	549585.0	520283.0	549536.0	519742.0	543.	185.	AG	681.	15.6	.0	44.0		
13. 0	115sbTH	549538.0	519742.0	549505.0	519275.0	468.	184.	AG	562.	15.6	.0	44.0		
14. 0	115sbTQ	549511.0	519353.0	549518.1	519455.7	103.	4.	AG	276.	100.0	.0	24.0	.22	5.2
15. 0	115sbRT	549517.0	519701.0	549496.0	519531.0	171.	187.	AG	100.	15.6	.0	32.0		
16. 0	115sbRT	549496.0	519531.0	549456.0	519440.0	99.	204.	AG	100.	15.6	.0	32.0		
17. 0	115sbRT	549456.0	519440.0	549389.0	519372.0	95.	225.	AG	100.	15.6	.0	32.0		
18. 0	115sbRT	549389.0	519372.0	549264.0	519335.0	130.	254.	AG	100.	15.6	.0	32.0		
19. 0	115sbD	549504.0	519274.0	549480.0	518921.0	354.	184.	AG	685.	15.1	.0	44.0		
20. 0	115sbD	549480.0	518921.0	549482.0	518689.0	232.	180.	AG	685.	15.1	.0	44.0		
21. 0	115sbD	549482.0	518689.0	549523.0	518287.0	404.	174.	AG	685.	15.1	.0	44.0		
22. 0	115sbLT	549552.0	519628.0	549531.0	519300.0	329.	184.	AG	119.	15.6	.0	44.0		
23. 0	115sbLQ	549534.0	519352.0	549536.2	519385.5	34.	4.	AG	429.	100.0	.0	24.0	.18	1.7
24. 0	73ebAP	548565.0	519526.0	549067.0	519334.0	537.	111.	AG	1046.	15.6	.0	44.0		
25. 0	73ebAP	549067.0	519334.0	549179.0	519301.0	117.	106.	AG	1046.	15.6	.0	44.0		
26. 0	73ebAP	549179.0	519301.0	549324.0	519280.0	146.	98.	AG	1046.	15.6	.0	44.0		
27. 0	73ebTH	549325.0	519280.0	549526.0	519270.0	201.	93.	AG	906.	15.6	.0	44.0		
28. 0	73ebTHQ	549466.0	519273.0	549273.0	519282.7	193.	273.	AG	322.	100.0	.0	24.0	.45	9.8
29. 0	73ebRT	549361.0	519268.0	549437.0	519224.0	88.	120.	AG	26.	15.6	.0	32.0		
30. 0	73ebRT	549437.0	519224.0	549472.0	519163.0	70.	150.	AG	26.	15.6	.0	32.0		
31. 0	73ebRT	549472.0	519163.0	549484.0	519052.0	112.	174.	AG	26.	15.6	.0	32.0		
32. 0	73ebLT	549327.0	519293.0	549525.0	519286.0	198.	92.	AG	114.	15.6	.0	32.0		
33. 0	73ebLQ	549465.0	519288.0	549394.2	519290.7	71.	272.	AG	215.	100.0	.0	12.0	.72	3.6
34. 0	73ebD	549527.0	519270.0	550079.0	519241.0	553.	93.	AG	1172.	14.6	.0	44.0		
35. 0	73ebD	550079.0	519241.0	550246.0	519242.0	167.	90.	AG	1172.	14.6	.0	44.0		
36. 0	73ebD	550246.0	519242.0	550532.0	519262.0	287.	86.	AG	1172.	14.6	.0	44.0		
37. 0	73wbAP	550532.0	519311.0	550254.0	519287.0	279.	265.	AG	859.	14.6	.0	44.0		
38. 0	73wbAP	550254.0	519287.0	550054.0	519286.0	200.	270.	AG	859.	14.6	.0	44.0		
39. 0	73wbAP	550054.0	519286.0	549809.0	519295.0	245.	272.	AG	859.	14.6	.0	44.0		
40. 0	73wbTH	549808.0	519296.0	549534.0	519306.0	274.	272.	AG	651.	14.6	.0	44.0		
41. 0	73wbTHQ	549596.0	519304.0	549734.5	519298.6	139.	92.	AG	322.	100.0	.0	24.0	.32	7.0
42. 0	73wbR	549752.0	519305.0	549665.0	519330.0	91.	286.	AG	111.	14.6	.0	32.0		
43. 0	73wbR	549665.0	519330.0	549612.0	519372.0	68.	308.	AG	111.	14.6	.0	32.0		
44. 0	73wbR	549612.0	519372.0	549575.0	519474.0	108.	340.	AG	111.	14.6	.0	32.0		

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JOB: Pellissippi Site 3 BD AM   RUN: Pellissippi Site 3 BD AM
DATE: 02/23/2009 TIME: 11:20:37.10

LINK VARIABLES

	LINK DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. 0	73wbL	549802.0	519280.0	549533.0	519291.0	269.	272.	AG	97.	14.6	.0	32.0		
46. 0	73wbLQ	549598.0	519288.0	549654.4	519285.8	56.	92.	AG	215.	100.0	.0	12.0	.61	2.9
47. 0	73wbD	549533.0	519308.0	549316.0	519323.0	218.	274.	AG	712.	15.6	.0	44.0		
48. 0	73wbD	549316.0	519323.0	549172.0	519350.0	147.	281.	AG	712.	15.6	.0	44.0		
49. 0	73wbD	549172.0	519350.0	549055.0	519391.0	124.	289.	AG	712.	15.6	.0	44.0		
50. 0	73wbD	549055.0	519391.0	548587.0	519592.0	509.	293.	AG	712.	15.6	.0	44.0		

1

JOB: Pellissippi Site 3 BD AM   RUN: Pellissippi Site 3 BD AM
DATE: 02/23/2009 TIME: 11:20:37.10

ADDITIONAL QUEUE LINK PARAMETERS

	LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. 0	115nbTHQ	120	67	2.0	1765	3200	92.30	1	3
6. 0	115nbLQ	120	104	2.0	61	1600	92.30	1	3
14. 0	115sbTQ	120	67	2.0	562	3200	92.30	1	3
23. 0	115sbLQ	120	104	2.0	119	3200	92.30	1	3
28. 0	73ebTHQ	120	78	2.0	906	3200	92.30	1	3
33. 0	73ebLQ	120	104	2.0	114	1600	92.30	1	3
41. 0	73wbTHQ	120	78	2.0	651	3200	92.30	1	3
46. 0	73wbLQ	120	104	2.0	97	1600	92.30	1	3

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE MID S	549570.0	518885.0	5.0
2. SE 164 S	549576.0	519046.0	5.0
3. SE 82 S	549585.0	519128.0	5.0
4. SE CNR	549633.0	519199.0	5.0
5. SE 82 E	549709.0	519236.0	5.0

6. SE 164 E	*	549792.0	519233.0	5.0	*
7. SE MID E	*	549949.0	519226.0	5.0	*
8. NE MID E	*	549955.0	519313.0	5.0	*
9. NE 164 E	*	549803.0	519318.0	5.0	*
10. NE 82 E	*	549722.0	519334.0	5.0	*
11. NE CNR	*	549647.0	519371.0	5.0	*
12. NE 82 N	*	549609.0	519453.0	5.0	*
13. NE 164 N	*	549611.0	519534.0	5.0	*
14. NE MID N	*	549622.0	519690.0	5.0	*
15. NW MID N	*	549493.0	519702.0	5.0	*
16. NW 164 N	*	549475.0	519543.0	5.0	*
17. NW 82 N	*	549440.0	519467.0	5.0	*
18. NW CNR	*	549388.0	519405.0	5.0	*
19. NW 82 W	*	549312.0	519369.0	5.0	*
20. NW 164 W	*	549230.0	519375.0	5.0	*
21. NW MID W	*	549068.0	519424.0	5.0	*
22. SW MID W	*	549066.0	519299.0	5.0	*
23. SW 164 W	*	549262.0	519250.0	5.0	*
24. SW 82 W	*	549343.0	519242.0	5.0	*
25. SW CNR	*	549420.0	519205.0	5.0	*
26. SW 82 S	*	549455.0	519123.0	5.0	*
27. SW 164 S	*	549453.0	519042.0	5.0	*
28. SW MID S	*	549448.0	518884.0	5.0	*

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MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	*	1.7	2.0	1.7	1.3	1.4	.8	.8	.0	.1	.2	.5	1.0	1.1	1.1	.3	.2	.2	.0	.0	.0
5.	*	1.3	1.5	1.5	1.2	1.3	.8	.8	.0	.0	.1	.3	.8	.9	.9	.4	.4	.2	.1	.0	.0
10.	*	1.1	1.1	1.3	1.1	1.3	.8	.8	.0	.0	.1	.2	.5	.6	.6	.6	.5	.4	.2	.1	.0
15.	*	.7	.8	1.0	1.0	1.0	.8	.8	.0	.0	.0	.1	.3	.4	.4	.7	.7	.5	.3	.1	.1
20.	*	.6	.6	.8	1.0	1.0	.7	.7	.0	.0	.0	.0	.2	.2	.2	.7	.9	.6	.5	.3	.1
25.	*	.3	.5	.7	.9	.9	.8	.8	.0	.0	.0	.0	.1	.1	.1	.9	.9	.6	.5	.3	.2
30.	*	.1	.3	.5	.8	1.0	.8	.8	.0	.0	.0	.0	.0	.1	.1	.9	.9	.5	.4	.2	.3
35.	*	.1	.3	.5	.8	.9	.8	.8	.0	.0	.0	.0	.0	.0	.0	.8	.8	.6	.4	.4	.2
40.	*	.1	.2	.4	.7	.9	.8	.8	.0	.0	.0	.0	.0	.0	.0	.8	.8	.6	.4	.4	.2
45.	*	.1	.1	.4	.7	1.0	.8	.8	.0	.0	.0	.0	.0	.0	.0	.8	.8	.6	.4	.4	.2
50.	*	.1	.2	.4	.8	.9	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.7	.8	.6	.4	.3	.3
55.	*	.1	.2	.3	.7	.9	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.8	.8	.5	.5	.3	.3
60.	*	.0	.2	.3	.7	.9	1.1	1.0	.1	.0	.0	.0	.0	.0	.0	.8	.7	.5	.5	.4	.3
65.	*	.0	.1	.3	.6	1.1	1.1	1.0	.1	.1	.0	.0	.0	.0	.0	.7	.7	.6	.5	.4	.3
70.	*	.0	.1	.3	.5	1.1	1.0	1.2	.1	.1	.0	.0	.0	.0	.0	.6	.7	.5	.5	.4	.4
75.	*	.0	.1	.2	.4	1.1	1.2	1.4	.2	.2	.0	.0	.0	.0	.0	.6	.6	.4	.7	.4	.4
80.	*	.0	.0	.1	.4	1.0	1.3	1.2	.3	.2	.1	.0	.0	.0	.0	.6	.6	.5	.7	.5	.4
85.	*	.0	.0	.1	.4	1.0	1.2	1.2	.5	.4	.1	.0	.0	.0	.0	.6	.6	.6	.8	.8	.6
90.	*	.0	.0	.0	.2	1.0	1.1	1.1	.8	.8	.3	.1	.0	.0	.0	.6	.6	.6	.8	1.0	.7
95.	*	.0	.0	.0	.1	.8	.9	.9	.9	.9	.6	.2	.0	.0	.0	.6	.6	.7	1.0	1.0	.7
100.	*	.0	.0	.0	.1	.5	.6	.6	1.0	1.0	.8	.2	.0	.0	.0	.6	.6	.7	1.1	1.2	1.0
105.	*	.0	.0	.0	.0	.3	.3	.4	1.0	1.1	.7	.3	.1	.0	.0	.6	.6	.8	1.1	1.3	1.1
110.	*	.0	.0	.0	.0	.2	.2	.3	1.0	1.0	.7	.5	.2	.0	.0	.6	.6	1.0	1.0	1.3	1.3
115.	*	.0	.0	.0	.0	.2	.2	.2	1.1	1.0	.7	.5	.2	.0	.0	.6	.7	1.2	1.1	1.3	1.3
120.	*	.0	.0	.0	.0	.1	.1	.1	.9	1.0	.6	.6	.2	.2	.0	.6	.7	1.3	1.1	1.4	1.4
125.	*	.0	.0	.0	.0	.1	.1	.1	.9	1.0	.7	.8	.2	.2	.0	.7	.8	1.2	1.3	1.5	1.3
130.	*	.0	.0	.0	.0	.1	.1	.1	.9	.9	.8	.8	.5	.2	.0	.8	.9	1.2	.9	1.4	1.4
135.	*	.0	.0	.0	.0	.1	.1	.1	.9	.9	.7	.8	.4	.2	.1	.8	1.0	1.4	1.1	1.7	1.5
140.	*	.0	.0	.0	.0	.0	.1	.1	.8	.9	.7	.8	.4	.1	.1	.9	1.0	1.3	1.2	1.6	1.3
145.	*	.0	.0	.0	.0	.0	.0	.1	.7	.7	.8	.8	.5	.3	.1	1.1	1.2	1.1	1.1	1.3	1.3
150.	*	.0	.0	.0	.0	.0	.0	.0	.7	.7	.9	.8	.5	.3	.1	1.1	1.3	1.1	1.2	1.4	1.0
155.	*	.1	.0	.0	.0	.0	.0	.0	.7	.7	1.0	.9	.5	.3	.1	1.1	1.4	1.3	1.4	1.3	.9
160.	*	.2	.1	.0	.0	.0	.0	.0	.7	.6	1.1	.9	.5	.4	.3	1.2	1.4	1.3	1.3	1.5	1.0
165.	*	.3	.2	.2	.0	.0	.0	.0	.7	.7	1.1	1.0	.5	.5	.3	1.3	1.6	1.2	1.3	1.2	.8
170.	*	.4	.4	.4	.1	.0	.0	.0	.7	.7	1.2	1.0	.9	.8	.4	1.3	1.7	1.1	1.3	1.2	.8
175.	*	.6	.7	.6	.2	.0	.0	.0	.7	.6	1.3	1.3	1.1	1.0	.8	1.1	1.4	.9	1.2	1.0	.6
180.	*	.9	.9	.9	.2	.1	.0	.0	.7	.6	1.4	1.5	1.3	1.1	1.2	1.0	1.3	1.0	1.0	1.1	.6
185.	*	1.2	1.4	1.1	.5	.1	.1	.0	.7	.8	1.6	1.5	1.5	1.5	1.4	.8	1.0	.9	.8	1.0	.6
190.	*	1.3	1.6	1.4	.6	.2	.1	.0	.7	.7	1.6	1.7	1.6	1.9	1.7	.4	.5	.5	.6	.9	.5
195.	*	1.4	1.8	1.6	.7	.2	.1	.0	.8	.7	1.7	1.8	1.8	1.9	1.6	.2	.3	.5	.6	.8	.5
200.	*	1.4	1.8	1.9	.8	.4	.2	.1	.8	.8	1.8	1.9	1.8	1.9	1.7	.1	.4	.4	.7	.7	.5
205.	*	1.4	1.9	2.0	1.0	.4	.2	.1	.8	.9	1.9	1.9	2.0	2.1	1.5	.1	.4	.4	.6	.7	.6

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WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	1.3	1.9	2.0	1.0	.6	.3	.1	.8	.9	1.9	1.7	2.1	1.9	1.5	.1	.4	.5	.6	.8	.6
215.	*	1.2	1.9	1.8	1.0	.5	.4	.1	.9	.9	2.0	1.7	1.9	1.8	1.5	.0	.2	.5	.6	.7	.5
220.	*	1.3	1.9	1.8	1.0	.6	.3	.3	.9	.9	2.1	1.6	1.8	1.8	1.4	.0	.2	.4	.5	.7	.6
225.	*	1.2	1.7	1.8	1.0	.6	.5	.3	1.0	1.4	2.2	1.5	1.8	1.6	1.2	.0	.2	.3	.6	.6	.6
230.	*	1.1	1.7	1.8	1.0	.6	.5	.3	1.1	1.4	2.1	1.4	1.8	1.5	1.1	.0	.1	.3	.5	.6	.7
235.	*	1.1	1.5	1.7	1.0	.7	.6	.3	1.2	1.5	2.1	1.4	1.8	1.2	1.1	.0	.0	.2	.3	.6	.6
240.	*	1.1	1.5	1.6	1.0	.7	.6	.3	1.2	1.4	2.2	1.2	1.9	1.2	1.0	.1	.0	.2	.3	.6	.5
245.	*	1.1	1.7	1.6	1.0	.7	.6	.4	1.1	1.6	2.2	1.4	1.7	1.1	1.1	.1	.1	.2	.3	.5	.6
250.	*	1.0	1.6	1.6	1.0	.7	.7	.5	1.3	1.8	2.1	1.4	1.5	1.0	1.1	.1	.1	.2	.3	.5	.6
255.	*	1.0	1.6	1.6	.9	.8	.7	.5	1.2	1.9	1.9	1.4	1.3	1.1	1.1	.1	.1	.1	.4	.6	.7
260.	*	1.0	1.6	1.6	1.0	1.0	.8	.6	1.4	1.9	1.7	1.4	1.2	1.1	1.0	.0	.2	.2	.4	.5	.6
265.	*	1.0	1.5	1.6	1.2	1.2	1.0	.9	1.2	1.8	1.6	1.3	1.2	1.1	1.0	.0	.2	.2	.4	.5	.7
270.	*	1.0	1.6	1.6	1.2	1.2	1.2	1.2	1.1	1.6	1.5	1.3	1.2	1.1	1.0	.0	.2	.2	.2	.5	.7
275.	*	1.0	1.6	1.6	1.3	1.7	1.5	1.4	.8	1.6	1.3	1.2	1.1	1.0	1.0	.0	.0	.2	.2	.6	.6
280.	*	1.0	1.5	1.6	1.5	2.0	1.8	1.5	.7	1.1	1.1	1.1	1.0	1.0	1.0	.0	.0	.1	.2	.4	.5

285.	*	1.0	1.5	1.8	1.7	1.8	1.8	1.4	.6	.8	.6	.9	1.0	1.0	1.0	.0	.0	.0	.2	.3	.4
290.	*	1.1	1.7	1.9	1.7	2.0	2.0	1.3	.3	.6	.6	.9	.9	1.0	1.0	.0	.0	.0	.0	.2	.3
295.	*	1.2	1.6	2.1	1.5	2.1	1.9	1.5	.3	.6	.6	.9	.9	1.0	1.1	.0	.0	.0	.0	.1	.3
300.	*	1.3	1.8	2.1	1.6	2.3	1.9	1.4	.3	.5	.5	.8	.9	1.0	1.1	.0	.0	.0	.0	.0	.1
305.	*	1.3	1.9	2.0	1.3	2.1	1.8	1.4	.3	.4	.5	.7	.9	1.0	1.1	.0	.0	.0	.0	.0	.0
310.	*	1.4	1.9	2.0	1.5	2.1	1.6	1.1	.2	.3	.5	.7	1.0	1.0	1.0	.0	.0	.0	.0	.0	.0
315.	*	1.5	2.1	2.2	1.6	2.1	1.6	1.1	.2	.4	.4	.7	1.0	1.1	1.1	.0	.0	.0	.0	.0	.0
320.	*	1.7	2.2	2.2	1.4	2.1	1.4	1.1	.2	.3	.4	.6	1.0	1.1	1.2	.0	.0	.0	.0	.0	.0
325.	*	1.8	2.2	2.2	1.5	2.1	1.4	1.0	.2	.3	.5	.7	1.1	1.1	1.3	.0	.0	.0	.0	.0	.0
330.	*	2.0	2.2	2.4	1.5	1.9	1.2	1.0	.2	.3	.5	.7	1.1	1.2	1.3	.0	.0	.0	.0	.0	.0
335.	*	2.1	2.2	2.4	1.6	1.9	1.2	1.0	.1	.3	.4	.7	1.2	1.3	1.4	.0	.0	.0	.0	.0	.0
340.	*	2.3	2.3	2.5	1.7	1.8	1.1	.9	.1	.2	.5	.7	1.3	1.4	1.4	.0	.0	.0	.0	.0	.0
345.	*	2.3	2.4	2.1	1.7	1.7	.9	.9	.1	.2	.4	.8	1.4	1.5	1.5	.0	.0	.0	.0	.0	.0
350.	*	2.2	2.3	2.0	1.6	1.6	1.0	.9	.1	.2	.4	.7	1.3	1.3	1.4	.1	.0	.0	.0	.0	.0
355.	*	2.0	2.0	1.9	1.5	1.6	.9	.8	.0	.1	.2	.6	1.2	1.3	1.2	.2	.2	.0	.0	.0	.0
360.	*	1.7	2.0	1.7	1.3	1.4	.8	.8	.0	.1	.2	.5	1.0	1.1	1.1	.3	.2	.2	.0	.0	.0
MAX	*	2.3	2.4	2.5	1.7	2.3	2.0	1.5	1.4	1.9	2.2	1.9	2.1	2.1	1.7	1.3	1.7	1.4	1.4	1.7	1.5
DEGR.	*	340	345	340	285	300	290	280	260	260	225	205	210	205	200	165	170	135	155	135	135

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JOB: Pellissippi Site 3 BD AM RUN: Pellissippi Site 3 BD AM

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	*	.0	.6	.7	1.3	1.2	1.0	.7	.8
5.	*	.0	.6	.8	1.4	1.4	1.0	1.1	.9
10.	*	.0	.6	1.0	1.4	1.5	1.1	1.2	1.2
15.	*	.0	.7	1.0	1.5	1.5	1.3	1.4	1.2
20.	*	.0	.7	1.1	1.6	1.5	1.3	1.1	1.5
25.	*	.0	.8	1.2	1.7	1.5	1.4	1.3	1.5
30.	*	.1	.7	1.3	1.9	1.4	1.5	1.6	1.6
35.	*	.1	.7	1.5	1.9	1.3	1.3	1.5	1.5
40.	*	.1	.7	1.5	1.9	1.4	1.5	1.4	1.4
45.	*	.1	.8	1.8	1.9	1.5	1.5	1.3	1.3
50.	*	.1	.9	1.9	2.1	1.3	1.6	1.3	1.1
55.	*	.1	.8	1.9	2.1	1.2	1.4	1.3	1.1
60.	*	.1	.8	2.0	2.0	1.0	1.4	1.2	1.2
65.	*	.1	.8	2.1	2.2	1.1	1.4	1.1	.9
70.	*	.1	.9	2.3	2.0	1.4	1.3	1.1	.9
75.	*	.1	1.0	2.0	1.8	1.4	1.2	1.1	.8
80.	*	.1	1.1	1.9	1.6	1.3	1.1	1.1	.8
85.	*	.1	1.3	1.8	1.5	1.3	1.1	1.0	.8
90.	*	.1	1.4	1.8	1.3	1.1	1.1	1.1	.7
95.	*	.2	1.3	1.0	.9	.9	1.0	1.0	.7
100.	*	.5	1.1	.8	.7	.8	1.0	1.1	.7
105.	*	.8	.8	.7	.7	.8	1.0	1.0	.7
110.	*	.9	.5	.5	.6	.8	1.0	1.0	.7
115.	*	1.1	.6	.3	.5	.8	1.0	1.0	.7
120.	*	.9	.3	.4	.5	.8	1.0	1.0	.8
125.	*	.9	.2	.4	.6	.8	1.1	1.1	.8
130.	*	1.0	.2	.4	.5	.9	1.0	1.1	.8
135.	*	.9	.2	.3	.5	.8	1.1	1.1	.8
140.	*	.8	.2	.4	.6	.9	1.0	1.1	1.0
145.	*	.8	.1	.3	.6	.8	1.1	1.1	.9
150.	*	.6	.1	.2	.5	.8	1.2	1.1	1.0
155.	*	.6	.1	.2	.5	.9	1.1	1.1	1.0
160.	*	.6	.1	.2	.4	.7	1.0	1.0	1.1
165.	*	.6	.0	.1	.2	.7	1.1	1.1	.8
170.	*	.6	.0	.1	.2	.7	1.0	.9	.8
175.	*	.6	.0	.0	.1	.4	.9	.7	.6
180.	*	.5	.0	.0	.1	.3	.6	.6	.5
185.	*	.6	.0	.0	.0	.1	.4	.3	.3
190.	*	.6	.0	.0	.0	.0	.2	.3	.1
195.	*	.5	.0	.0	.0	.0	.0	.0	.0
200.	*	.5	.0	.0	.0	.0	.0	.0	.0
205.	*	.5	.0	.0	.0	.0	.0	.0	.0

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JOB: Pellissippi Site 3 BD AM RUN: Pellissippi Site 3 BD AM

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	*	.6	.0	.0	.0	.0	.0	.0	.0
215.	*	.6	.0	.0	.0	.0	.0	.0	.0
220.	*	.6	.0	.0	.0	.0	.0	.0	.0
225.	*	.6	.0	.0	.0	.0	.0	.0	.0
230.	*	.6	.0	.0	.0	.0	.0	.0	.0
235.	*	.6	.0	.0	.0	.0	.0	.0	.0
240.	*	.6	.0	.0	.0	.0	.0	.0	.0
245.	*	.6	.0	.0	.0	.0	.0	.0	.0
250.	*	.6	.0	.0	.0	.0	.0	.0	.0
255.	*	.7	.0	.0	.0	.0	.0	.0	.0
260.	*	.7	.0	.0	.0	.0	.0	.0	.0
265.	*	.7	.0	.0	.1	.0	.0	.0	.0
270.	*	.7	.1	.1	.1	.0	.0	.0	.0
275.	*	.7	.1	.3	.5	.2	.0	.0	.0
280.	*	.6	.2	.3	.5	.3	.0	.0	.0
285.	*	.6	.3	.6	.8	.4	.1	.0	.0

290.	*	.4	.5	.7	1.1	.7	.1	.1	.0
295.	*	.3	.6	.9	1.3	1.0	.2	.1	.0
300.	*	.2	.7	.9	1.4	1.0	.4	.1	.0
305.	*	.1	.8	1.0	1.5	1.0	.4	.1	.1
310.	*	.1	.8	.9	1.3	.9	.5	.2	.1
315.	*	.0	.8	.8	1.3	1.0	.5	.2	.1
320.	*	.0	.8	.7	1.3	1.0	.5	.2	.1
325.	*	.0	.7	.6	1.3	.9	.5	.2	.0
330.	*	.0	.8	.5	1.4	.8	.5	.4	.0
335.	*	.0	.7	.6	1.3	.9	.6	.3	.1
340.	*	.0	.6	.6	1.3	1.0	.6	.4	.1
345.	*	.0	.7	.6	1.3	.9	.5	.4	.2
350.	*	.0	.6	.6	1.3	1.0	.6	.6	.4
355.	*	.0	.7	.7	1.2	1.2	.7	.5	.4
360.	*	.0	.6	.7	1.3	1.2	1.0	.7	.8
MAX	*	1.1	1.4	2.3	2.2	1.5	1.6	1.6	1.6
DEGR.	*	115	90	70	65	45	50	30	30

THE HIGHEST CONCENTRATION IS 2.50 PPM AT 340 DEGREES FROM REC3 .
THE 2ND HIGHEST CONCENTRATION IS 2.40 PPM AT 345 DEGREES FROM REC2 .
THE 3RD HIGHEST CONCENTRATION IS 2.30 PPM AT 340 DEGREES FROM REC1 .

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Pellissippi Site 3 BD PM                60.0321.0.0000.000280.30480000    1    1
SE MID S              549570.   518885.       5.0
SE 164 S              549576.   519046.       5.0
SE 82 S               549585.   519128.       5.0
SE CNR                549633.   519199.       5.0
SE 82 E               549709.   519236.       5.0
SE 164 E              549792.   519233.       5.0
SE MID E              549949.   519226.       5.0
NE MID E              549955.   519313.       5.0
NE 164 E              549803.   519318.       5.0
NE 82 E               549722.   519334.       5.0
NE CNR                549647.   519371.       5.0
NE 82 N               549609.   519453.       5.0
NE 164 N              549611.   519534.       5.0
NE MID N              549622.   519690.       5.0
NW MID N              549493.   519702.       5.0
NW 164 N              549475.   519543.       5.0
NW 82 N               549440.   519467.       5.0
NW CNR                549388.   519405.       5.0
NW 82 W               549312.   519369.       5.0
NW 164 W              549230.   519375.       5.0
NW MID W              549068.   519424.       5.0
SW MID W              549066.   519299.       5.0
SW 164 W              549262.   519250.       5.0
SW 82 W               549343.   519242.       5.0
SW CNR                549420.   519205.       5.0
SW 82 S               549455.   519123.       5.0
SW 164 S              549453.   519042.       5.0
SW MID S              549448.   518884.       5.0
Pellissippi Site 3 BD PM                 50  1   0
  1
0         115nbAP   AG549562.518286.549536.518778.    112415.1  0.  44   30.
  1
0         115nbAP   AG549536.518779.549542.519048.    112415.1  0.  44   30.
  1
0         115nbTH   AG549542.519049.549558.519283.     86515.1  0.  44   30.
  2
0         115nbTHQ  AG549555.519240.549542.519055.      0.  24   2
       140        89       2.0  865   92.3 3200 1 3
  1
0         115nbL    AG549525.519034.549540.519281.      6515.1  0.  32   30.
  2
0         115nbLQ   AG549537.519239.549527.519055.      0.  12   1
       140       123       2.0   65   92.3 1600 1 3
  1
0         115nbR    AG549552.519059.549572.519162.     19415.1  0.  32   30.
  1
0         115nbR    AG549572.519162.549613.519209.     19415.1  0.  32   30.
  1
0         115nbR    AG549613.519209.549667.519241.     19415.1  0.  32   30.
  1
0         115nbR    AG549667.519241.549710.519256.     19415.1  0.  32   30.
  1
0         115nbD    AG549558.519284.549632.520276.    111415.6  0.  44   30.
  1
0         115sbAP   AG549585.520283.549536.519742.    147815.6  0.  44   30.
  1
0         115sbTH   AG549538.519742.549505.519275.    122615.6  0.  44   30.
  2
0         115sbTQ   AG549511.519353.549531.519644.      0.  24   2
       140        89       2.0 1226   92.3 3200 1 3
  1
0         115sbRT   AG549517.519701.549496.519531.     10015.6  0.  32   30.
  1
0         115sbRT   AG549496.519531.549456.519440.     10015.6  0.  32   30.
  1
0         115sbRT   AG549456.519440.549389.519372.     10015.6  0.  32   30.
  1
0         115sbRT   AG549389.519372.549264.519335.     10015.6  0.  32   30.
  1
0         115sbD    AG549504.519274.549480.518921.    164315.1  0.  44   30.
  1
0         115sbD    AG549480.518921.549482.518689.    164315.1  0.  44   30.
  1
0         115sbD    AG549482.518689.549523.518287.    164315.1  0.  44   30.
  1
0         115sbLT   AG549552.519628.549531.519300.     25215.6  0.  44   30.
  2
0         115sbLQ   AG549534.519352.549551.519615.      0.  24   2
       140       123       2.0  252   92.3 3200 1 3
  1
0         73ebAP    AG548565.519526.549067.519334.    120615.6  0.  44   30.
  1
0         73ebAP    AG549067.519334.549179.519301.    120615.6  0.  44   30.
  1
0         73ebAP    AG549179.519301.549324.519280.    120615.6  0.  44   30.
  1
0         73ebTH    AG549325.519280.549526.519270.    107915.6  0.  44   30.
  2
0         73ebTHQ   AG549466.519273.549327.519280.      0.  24   2
       140        92       2.0 1079   92.3 3200 1 3
  1
0         73ebRT    AG549361.519268.549437.519224.      4315.6  0.  32   30.
  1
0         73ebRT    AG549437.519224.549472.519163.      4315.6  0.  32   30.
  1
0         73ebRT    AG549472.519163.549484.519052.      4315.6  0.  32   30.
  1
0         73ebLT    AG549327.519293.549525.519286.      8415.6  0.  32   30.
  2
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0         73ebLQ    AG549465.519288.549331.519293.      0.  12   1
       140       123       2.0   84   92.3 1600 1 3
  1
0         73ebD     AG549527.519270.550079.519241.    152514.6  0.  44   30.
  1
0         73ebD     AG550079.519241.550246.519242.    152514.6  0.  44   30.
  1
0         73ebD     AG550246.519242.550532.519262.    152514.6  0.  44   30.
  1
0         73wbAP    AG550532.519311.550254.519287.    147914.6  0.  44   30.
  1
0         73wbAP    AG550254.519287.550054.519286.    147914.6  0.  44   30.
  1
0         73wbAP    AG550054.519286.549809.519295.    147914.6  0.  44   30.
  1
0         73wbTH    AG549808.519296.549534.519306.     94014.6  0.  44   30.
  2
0         73wbTHQ   AG549596.519304.549800.519296.      0.  24   2
       140        92       2.0  940   92.3 3200 1 3
  1
0         73wbR     AG549752.519305.549665.519330.     16514.6  0.  32   30.
  1
0         73wbR     AG549665.519330.549612.519372.     16514.6  0.  32   30.
  1
0         73wbR     AG549612.519372.549575.519474.     16514.6  0.  32   30.
  1
0         73wbL     AG549802.519280.549533.519291.     37414.6  0.  32   30.
  2
0         73wbLQ    AG549598.519288.549796.519280.      0.  12   1
       140       123       2.0  374   92.3 1600 1 3
  1
0         73wbD     AG549533.519308.549316.519323.    100515.6  0.  44   30.
  1
0         73wbD     AG549316.519323.549172.519350.    100515.6  0.  44   30.
  1
0         73wbD     AG549172.519350.549055.519391.    100515.6  0.  44   30.
  1
0         73wbD     AG549055.519391.548587.519592.    100515.6  0.  44   30.
1.0   04  1000   0Y  5  0 72
```

JOB: Pellissippi Site 3 BD PM RUN: Pellissippi Site 3 BD PM
DATE: 02/23/2009 TIME: 11:27:03.83

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION		X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	115nbAP	549562.0	518286.0	549536.0	518778.0	493.	357.	AG	1124.	15.1	.0	44.0		
2. 0	115nbAP	549536.0	518779.0	549542.0	519048.0	269.	1.	AG	1124.	15.1	.0	44.0		
3. 0	115nbTH	549542.0	519049.0	549558.0	519283.0	235.	4.	AG	865.	15.1	.0	44.0		
4. 0	115nbTHQ	549555.0	519240.0	549540.3	519030.3	210.	184.	AG	315.	100.0	.0	24.0	.40	10.7
5. 0	115nbL	549525.0	519034.0	549540.0	519281.0	247.	3.	AG	65.	15.1	.0	32.0		
6. 0	115nbLQ	549537.0	519239.0	549534.6	519195.3	44.	183.	AG	218.	100.0	.0	12.0	.44	2.2
7. 0	115nbR	549552.0	519059.0	549572.0	519162.0	105.	11.	AG	194.	15.1	.0	32.0		
8. 0	115nbR	549572.0	519162.0	549613.0	519209.0	62.	41.	AG	194.	15.1	.0	32.0		
9. 0	115nbR	549613.0	519209.0	549667.0	519241.0	63.	59.	AG	194.	15.1	.0	32.0		
10. 0	115nbR	549667.0	519241.0	549710.0	519256.0	46.	71.	AG	194.	15.1	.0	32.0		
11. 0	115nbD	549558.0	519284.0	549632.0	520276.0	995.	4.	AG	1114.	15.6	.0	44.0		
12. 0	115sbAP	549585.0	520283.0	549536.0	519742.0	543.	185.	AG	1478.	15.6	.0	44.0		
13. 0	115sbTH	549538.0	519742.0	549505.0	519275.0	468.	184.	AG	1226.	15.6	.0	44.0		
14. 0	115sbTQ	549511.0	519353.0	549531.5	519650.6	298.	4.	AG	315.	100.0	.0	24.0	.57	15.2
15. 0	115sbRT	549517.0	519701.0	549496.0	519531.0	171.	187.	AG	100.	15.6	.0	32.0		
16. 0	115sbRT	549496.0	519531.0	549456.0	519440.0	99.	204.	AG	100.	15.6	.0	32.0		
17. 0	115sbRT	549456.0	519440.0	549389.0	519372.0	95.	225.	AG	100.	15.6	.0	32.0		
18. 0	115sbRT	549389.0	519372.0	549264.0	519335.0	130.	254.	AG	100.	15.6	.0	32.0		
19. 0	115sbD	549504.0	519274.0	549480.0	518921.0	354.	184.	AG	1643.	15.1	.0	44.0		
20. 0	115sbD	549480.0	518921.0	549482.0	518689.0	232.	180.	AG	1643.	15.1	.0	44.0		
21. 0	115sbD	549482.0	518689.0	549523.0	518287.0	404.	174.	AG	1643.	15.1	.0	44.0		
22. 0	115sbLT	549552.0	519628.0	549531.0	519300.0	329.	184.	AG	252.	15.6	.0	44.0		
23. 0	115sbLQ	549534.0	519352.0	549539.5	519436.6	85.	4.	AG	435.	100.0	.0	24.0	.42	4.3
24. 0	73ebAP	548565.0	519526.0	549067.0	519334.0	537.	111.	AG	1206.	15.6	.0	44.0		
25. 0	73ebAP	549067.0	519334.0	549179.0	519301.0	117.	106.	AG	1206.	15.6	.0	44.0		
26. 0	73ebAP	549179.0	519301.0	549324.0	519280.0	146.	98.	AG	1206.	15.6	.0	44.0		
27. 0	73ebTH	549325.0	519280.0	549526.0	519270.0	201.	93.	AG	1079.	15.6	.0	44.0		
28. 0	73ebTHQ	549466.0	519273.0	549195.2	519286.7	271.	273.	AG	325.	100.0	.0	24.0	.54	13.8
29. 0	73ebRT	549361.0	519268.0	549437.0	519224.0	88.	120.	AG	43.	15.6	.0	32.0		
30. 0	73ebRT	549437.0	519224.0	549472.0	519163.0	70.	150.	AG	43.	15.6	.0	32.0		
31. 0	73ebRT	549472.0	519163.0	549484.0	519052.0	112.	174.	AG	43.	15.6	.0	32.0		
32. 0	73ebLT	549327.0	519293.0	549525.0	519286.0	198.	92.	AG	84.	15.6	.0	32.0		
33. 0	73ebLQ	549465.0	519288.0	549408.3	519290.1	57.	272.	AG	218.	100.0	.0	12.0	.57	2.9
34. 0	73ebD	549527.0	519270.0	550079.0	519241.0	553.	93.	AG	1525.	14.6	.0	44.0		
35. 0	73ebD	550079.0	519241.0	550246.0	519242.0	167.	90.	AG	1525.	14.6	.0	44.0		
36. 0	73ebD	550246.0	519242.0	550532.0	519262.0	287.	86.	AG	1525.	14.6	.0	44.0		
37. 0	73wbAP	550532.0	519311.0	550254.0	519287.0	279.	265.	AG	1479.	14.6	.0	44.0		
38. 0	73wbAP	550254.0	519287.0	550054.0	519286.0	200.	270.	AG	1479.	14.6	.0	44.0		
39. 0	73wbAP	550054.0	519286.0	549809.0	519295.0	245.	272.	AG	1479.	14.6	.0	44.0		
40. 0	73wbTH	549808.0	519296.0	549534.0	519306.0	274.	272.	AG	940.	14.6	.0	44.0		
41. 0	73wbTHQ	549596.0	519304.0	549832.3	519294.7	236.	92.	AG	325.	100.0	.0	24.0	.47	12.0
42. 0	73wbR	549752.0	519305.0	549665.0	519330.0	91.	286.	AG	165.	14.6	.0	32.0		
43. 0	73wbR	549665.0	519330.0	549612.0	519372.0	68.	308.	AG	165.	14.6	.0	32.0		
44. 0	73wbR	549612.0	519372.0	549575.0	519474.0	108.	340.	AG	165.	14.6	.0	32.0		

JOB: Pellissippi Site 3 BD PM RUN: Pellissippi Site 3 BD PM
DATE: 02/23/2009 TIME: 11:27:03.83

LINK VARIABLES

LINK DESCRIPTION		X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. 0	73wbL	549802.0	519280.0	549533.0	519291.0	269.	272.	AG	374.	14.6	.0	32.0		
46. 0	73wbLQ	549598.0	519288.0	552221.5	519182.0	2626.	92.	AG	218.	100.0	.0	12.0	2.53	133.4
47. 0	73wbD	549533.0	519308.0	549316.0	519323.0	218.	274.	AG	1005.	15.6	.0	44.0		
48. 0	73wbD	549316.0	519323.0	549172.0	519350.0	147.	281.	AG	1005.	15.6	.0	44.0		
49. 0	73wbD	549172.0	519350.0	549055.0	519391.0	124.	289.	AG	1005.	15.6	.0	44.0		
50. 0	73wbD	549055.0	519391.0	548587.0	519592.0	509.	293.	AG	1005.	15.6	.0	44.0		

JOB: Pellissippi Site 3 BD PM RUN: Pellissippi Site 3 BD PM
DATE: 02/23/2009 TIME: 11:27:03.83

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. 0	115nbTHQ	140	89	2.0	865	3200	92.30	1	3
6. 0	115nbLQ	140	123	2.0	65	1600	92.30	1	3
14. 0	115sbTQ	140	89	2.0	1226	3200	92.30	1	3
23. 0	115sbLQ	140	123	2.0	252	3200	92.30	1	3
28. 0	73ebTHQ	140	92	2.0	1079	3200	92.30	1	3
33. 0	73ebLQ	140	123	2.0	84	1600	92.30	1	3
41. 0	73wbTHQ	140	92	2.0	940	3200	92.30	1	3
46. 0	73wbLQ	140	123	2.0	374	1600	92.30	1	3

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE MID S	549570.0	518885.0	5.0
2. SE 164 S	549576.0	519046.0	5.0
3. SE 82 S	549585.0	519128.0	5.0
4. SE CNR	549633.0	519199.0	5.0
5. SE 82 E	549709.0	519236.0	5.0

6. SE 164 E	*	549792.0	519233.0	5.0	*
7. SE MID E	*	549949.0	519226.0	5.0	*
8. NE MID E	*	549955.0	519313.0	5.0	*
9. NE 164 E	*	549803.0	519318.0	5.0	*
10. NE 82 E	*	549722.0	519334.0	5.0	*
11. NE CNR	*	549647.0	519371.0	5.0	*
12. NE 82 N	*	549609.0	519453.0	5.0	*
13. NE 164 N	*	549611.0	519534.0	5.0	*
14. NE MID N	*	549622.0	519690.0	5.0	*
15. NW MID N	*	549493.0	519702.0	5.0	*
16. NW 164 N	*	549475.0	519543.0	5.0	*
17. NW 82 N	*	549440.0	519467.0	5.0	*
18. NW CNR	*	549388.0	519405.0	5.0	*
19. NW 82 W	*	549312.0	519369.0	5.0	*
20. NW 164 W	*	549230.0	519375.0	5.0	*
21. NW MID W	*	549068.0	519424.0	5.0	*
22. SW MID W	*	549066.0	519299.0	5.0	*
23. SW 164 W	*	549262.0	519250.0	5.0	*
24. SW 82 W	*	549343.0	519242.0	5.0	*
25. SW CNR	*	549420.0	519205.0	5.0	*
26. SW 82 S	*	549455.0	519123.0	5.0	*
27. SW 164 S	*	549453.0	519042.0	5.0	*
28. SW MID S	*	549448.0	518884.0	5.0	*

1

JOB: Pellissippi Site 3 BD PM   RUN: Pellissippi Site 3 BD PM

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	*	1.4	1.9	1.9	1.8	2.3	2.0	1.5	.0	.0	.2	.3	.8	.8	.8	.4	.4	.1	.1	.0	.0
5.	*	1.3	1.7	1.5	1.6	2.1	2.0	1.5	.0	.0	.1	.3	.5	.7	.6	.6	.6	.4	.1	.0	.0
10.	*	1.0	1.2	1.4	1.4	1.9	2.0	1.5	.0	.0	.0	.1	.4	.4	.4	.8	.8	.5	.2	.1	.0
15.	*	.8	.9	.8	1.5	1.9	1.7	1.4	.0	.0	.0	.1	.2	.3	.2	.8	1.1	.7	.5	.2	.1
20.	*	.6	.9	.7	1.4	1.9	1.8	1.4	.0	.0	.0	.0	.1	.1	.1	1.0	1.3	.8	.5	.2	.2
25.	*	.3	.6	.7	1.4	1.9	1.7	1.4	.0	.0	.0	.0	.1	.1	.1	1.0	1.3	.9	.6	.3	.2
30.	*	.4	.6	.7	1.4	1.9	1.7	1.4	.0	.0	.0	.0	.0	.0	.0	1.1	1.4	.9	.7	.4	.2
35.	*	.4	.6	.8	1.4	1.9	1.6	1.5	.0	.0	.0	.0	.0	.0	.0	1.0	1.5	1.0	.7	.4	.3
40.	*	.3	.6	.8	1.4	2.0	1.7	1.6	.1	.0	.0	.0	.0	.0	.0	.9	1.4	.9	.7	.4	.4
45.	*	.3	.5	.9	1.5	2.0	1.6	1.6	.1	.0	.0	.0	.0	.0	.0	.9	1.5	.9	.7	.5	.4
50.	*	.3	.5	.9	1.5	2.2	1.8	1.7	.1	.0	.0	.0	.0	.0	.0	.9	1.6	1.0	.7	.5	.3
55.	*	.2	.5	.9	1.5	2.2	1.8	1.8	.1	.0	.0	.0	.0	.0	.0	.8	1.6	1.0	.7	.5	.3
60.	*	.1	.4	.7	1.5	2.3	1.8	2.0	.1	.1	.0	.0	.0	.0	.0	.8	1.4	1.0	.7	.6	.4
65.	*	.1	.3	.7	1.3	2.2	1.9	2.0	.1	.1	.0	.0	.0	.0	.0	.8	1.4	1.1	.8	.6	.4
70.	*	.1	.4	.6	1.3	2.3	2.0	2.2	.2	.2	.0	.0	.0	.0	.0	.8	1.4	1.0	.8	.6	.5
75.	*	.1	.3	.6	1.2	2.3	2.3	2.2	.5	.4	.2	.0	.0	.0	.0	.6	1.3	1.0	1.0	.6	.5
80.	*	.1	.1	.4	1.3	2.4	2.3	2.1	.7	.8	.2	.1	.0	.0	.0	.6	1.3	1.0	1.0	.8	.6
85.	*	.1	.1	.3	1.1	2.2	2.0	1.9	1.1	1.3	.8	.2	.1	.0	.0	.8	1.3	1.1	1.1	1.3	.8
90.	*	.0	.1	.2	.7	1.9	2.0	1.7	1.5	1.6	1.2	.4	.1	.1	.0	.7	1.4	1.2	1.5	1.3	1.0
95.	*	.0	.1	.1	.4	1.5	1.6	1.5	1.6	2.0	1.6	.9	.1	.1	.0	.7	1.4	1.2	1.7	1.5	1.5
100.	*	.0	.0	.1	.2	1.0	1.1	1.0	2.0	2.2	1.9	1.2	.3	.1	.1	.9	1.4	1.7	1.8	1.6	1.6
105.	*	.0	.0	.0	.2	.5	.6	.7	2.1	2.4	2.0	1.3	.6	.1	.1	.9	1.4	1.7	1.5	1.7	1.6
110.	*	.0	.0	.0	.0	.4	.4	.5	2.1	2.5	2.1	1.1	.5	.2	.1	.8	1.7	1.9	1.6	1.7	1.6
115.	*	.0	.0	.0	.0	.2	.2	.2	2.0	2.4	2.0	1.4	.5	.4	.1	.9	1.7	2.1	1.4	1.9	1.6
120.	*	.0	.0	.0	.0	.1	.2	.2	2.0	2.5	2.2	1.3	.7	.3	.1	1.0	1.7	2.2	1.1	1.7	1.5
125.	*	.0	.0	.0	.0	.1	.1	.1	1.8	2.4	2.3	1.5	.8	.3	.1	1.2	1.8	2.0	1.6	1.6	1.6
130.	*	.0	.0	.0	.0	.1	.1	.1	1.8	2.4	2.3	1.5	.8	.4	.2	1.3	2.2	2.0	1.4	1.7	1.6
135.	*	.0	.0	.0	.0	.1	.1	.1	1.7	2.4	2.2	1.4	.8	.4	.3	1.4	2.2	1.9	1.0	1.7	1.5
140.	*	.0	.0	.0	.0	.1	.1	.1	1.6	2.4	2.1	1.4	.8	.6	.3	1.6	2.2	1.7	1.2	1.6	1.7
145.	*	.0	.0	.0	.0	.0	.1	.1	1.6	2.3	2.0	1.3	.8	.7	.3	1.7	2.1	1.7	1.3	1.6	1.5
150.	*	.0	.0	.0	.0	.0	.1	.1	1.5	2.3	2.0	1.4	.7	.6	.4	2.0	2.1	1.5	1.3	1.4	1.5
155.	*	.0	.0	.0	.0	.0	.0	.0	1.5	2.4	2.0	1.4	.7	.6	.4	2.1	2.4	1.4	1.4	1.6	1.6
160.	*	.1	.0	.0	.0	.0	.0	.0	1.4	2.3	2.0	1.4	.7	.6	.3	2.2	2.3	1.2	1.3	1.7	1.5
165.	*	.1	.2	.0	.0	.0	.0	.0	1.4	2.2	2.0	1.4	.7	.6	.5	2.2	2.1	1.3	1.5	1.6	1.3
170.	*	.4	.3	.2	.0	.0	.0	.0	1.4	2.2	2.0	1.4	.7	.7	.5	2.1	2.0	1.3	1.5	1.5	1.2
175.	*	.4	.4	.3	.1	.0	.0	.0	1.4	2.1	2.0	1.4	1.0	.8	.6	1.8	1.9	1.4	1.2	1.3	1.1
180.	*	.7	.6	.6	.3	.0	.0	.0	1.5	2.3	2.0	1.6	1.4	1.0	1.1	1.6	1.6	1.2	1.0	1.1	1.1
185.	*	.9	.8	.8	.4	.2	.0	.0	1.5	2.3	2.1	2.0	1.6	1.3	1.2	1.3	1.0	.7	.8	1.2	1.0
190.	*	.9	.9	1.1	.5	.2	.1	.0	1.4	2.3	2.2	2.1	1.6	1.7	1.3	.8	.6	.7	.7	1.1	1.0
195.	*	1.0	1.0	1.4	.7	.4	.2	.0	1.4	2.5	2.4	2.1	1.7	1.5	1.4	.6	.6	.5	.7	1.2	1.0
200.	*	1.1	1.1	1.6	.9	.4	.2	.0	1.4	2.4	2.6	2.0	1.5	2.0	2.0	.4	.4	.5	.7	1.1	.9
205.	*	1.2	1.0	1.5	.8	.6	.4	.2	1.6	2.7	2.5	2.1	1.7	1.9	2.0	.1	.4	.4	.7	1.2	.9

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JOB: Pellissippi Site 3 BD PM   RUN: Pellissippi Site 3 BD PM

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	1.0	1.0	1.6	.8	.4	.4	.2	1.7	2.5	2.6	1.9	2.2	2.0	1.9	.1	.5	.5	.8	1.2	.8
215.	*	1.0	1.1	1.6	.9	.5	.2	.3	1.6	2.8	2.7	1.9	1.8	2.0	1.6	.1	.5	.6	.8	1.2	.8
220.	*	1.0	1.2	1.7	1.1	.7	.4	.3	1.7	2.8	2.6	1.7	1.9	1.9	1.5	.1	.4	.5	.7	1.2	.8
225.	*	.9	1.0	1.7	1.1	.7	.5	.3	1.9	3.0	2.6	1.7	2.2	2.0	1.4	.0	.3	.5	.7	1.1	.7
230.	*	.9	1.1	1.7	1.0	.6	.4	.3	2.0	3.0	2.6	1.7	2.2	1.9	1.4	.0	.3	.5	.8	1.2	.8
235.	*	.9	1.0	1.6	1.0	.7	.5	.4	2.1	3.4	2.6	1.3	2.2	1.7	1.1	.1	.2	.3	.7	.9	.7
240.	*	.9	1.2	1.6	1.0	.7	.6	.4	2.1	3.4	2.8	1.3	2.3	1.5	1.1	.1	.1	.4	.6	.9	.7
245.	*	.9	1.2	1.5	1.0	.7	.6	.4	2.2	3.3	2.6	1.6	2.4	1.4	1.1	.2	.1	.5	.5	.8	.8
250.	*	.9	1.2	1.5	1.0	.7	.7	.5	2.4	3.4	2.6	1.7	2.2	1.4	1.2	.2	.2	.4	.7	.9	.8
255.	*	.9	1.4	1.5	1.0	.9	.8	.7	2.5	3.3	2.3	1.6	2.2	1.4	1.1	.2	.2	.4	.5	.8	.7
260.	*	.9	1.3	1.5	1.1	1.2	.9	.8	2.7	3.3	2.1	1.5	1.8	1.5	1.0	.1	.2	.3	.5	.7	1.0
265.	*	.9	1.4	1.5	1.2	1.4	1.1	1.4	2.4	2.8	1.9	1.8	1.8	1.5	.9	.0	.2	.2	.5	.7	.9
270.	*	.8	1.5	1.5	1.3	1.5	1.7	1.5	2.3	2.7	1.6	1.5	1.7	1.5	.8	.0	.2	.2	.4	.7	.8
275.	*	.9	1.5	1.5	1.6	2.0	2.1	2.1	1.9	2.2	1.4	1.7	1.7	1.3	.8	.0	.1	.2	.3	.6	.8
280.	*	.9	1.5	1.7	1.8	2.4	2.5	2.5	1.4	1.7	1.4	1.5	1.5	1.3	.8	.0	.0	.2	.2	.5	.6

285. *	.8	1.4	1.8	1.9	2.4	2.7	2.7	1.1	1.0	1.0	1.4	1.4	1.3	.8	.0	.0	.1	.2	.4	.6
290. *	.9	1.6	2.1	2.1	2.8	2.7	2.8	.7	.7	.8	1.1	1.4	1.3	.8	.0	.0	.0	.1	.3	.4
295. *	.9	1.8	2.1	1.9	2.5	2.7	2.6	.6	.7	.8	1.3	1.4	1.3	.8	.0	.0	.0	.0	.2	.4
300. *	.9	1.9	2.3	1.6	2.4	2.6	2.6	.4	.6	.7	1.3	1.4	1.3	.9	.0	.0	.0	.0	.1	.1
305. *	1.0	2.0	2.3	1.5	2.8	2.6	2.4	.4	.6	.7	1.2	1.3	1.3	.8	.0	.0	.0	.0	.0	.1
310. *	1.0	2.0	2.1	1.7	2.9	2.6	2.4	.4	.4	.7	1.1	1.3	1.3	.8	.0	.0	.0	.0	.0	.0
315. *	1.2	2.2	2.1	1.6	3.0	2.6	2.1	.4	.4	.6	1.1	1.3	1.2	.9	.0	.0	.0	.0	.0	.0
320. *	1.1	2.1	2.2	1.6	2.8	2.4	2.1	.3	.4	.6	1.1	1.3	1.3	.9	.0	.0	.0	.0	.0	.0
325. *	1.1	2.1	2.2	1.8	2.8	2.3	1.7	.3	.4	.5	.8	1.3	1.3	1.0	.0	.0	.0	.0	.0	.0
330. *	1.3	2.1	2.3	1.9	2.8	2.5	1.7	.2	.3	.5	.7	1.3	1.2	1.0	.0	.0	.0	.0	.0	.0
335. *	1.5	2.2	2.3	1.9	2.7	2.4	1.6	.2	.2	.5	.8	1.4	1.0	1.0	.0	.0	.0	.0	.0	.0
340. *	1.7	2.5	2.3	2.1	2.5	2.1	1.6	.2	.2	.5	.8	1.2	1.2	1.1	.0	.0	.0	.0	.0	.0
345. *	1.7	2.4	2.3	2.0	2.5	2.1	1.6	.0	.2	.3	.6	1.2	1.2	1.1	.1	.0	.0	.0	.0	.0
350. *	1.7	2.6	2.3	2.2	2.4	2.0	1.4	.0	.2	.3	.6	1.1	1.1	1.0	.1	.1	.0	.0	.0	.0
355. *	1.6	2.2	2.0	2.0	2.2	2.0	1.5	.0	.2	.2	.5	1.0	1.0	.9	.2	.2	.1	.0	.0	.0
360. *	1.4	1.9	1.9	1.8	2.3	2.0	1.5	.0	.0	.2	.3	.8	.8	.8	.4	.4	.1	.1	.0	.0
MAX *	1.7	2.6	2.3	2.2	3.0	2.7	2.8	2.7	3.4	2.8	2.1	2.4	2.0	2.0	2.2	2.4	2.2	1.8	1.9	1.7
DEGR. *	345	350	350	350	315	285	290	260	235	240	190	245	225	200	160	155	120	100	115	140

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JOB: Pellissippi Site 3 BD PM RUN: Pellissippi Site 3 BD PM

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) *	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0. *	.0	.9	1.5	1.3	1.5	1.5	1.1	1.4
5. *	.0	.8	1.4	1.4	1.7	1.6	1.5	1.6
10. *	.0	.8	1.6	1.6	1.9	1.7	1.9	1.7
15. *	.0	.7	1.7	1.8	2.1	1.8	1.9	1.9
20. *	.0	.7	1.7	1.8	2.0	1.7	2.0	1.9
25. *	.0	.9	2.0	2.2	1.9	2.0	1.8	1.9
30. *	.1	.9	2.0	2.2	1.9	1.9	2.0	1.9
35. *	.2	.9	1.9	2.2	1.8	2.0	1.9	1.7
40. *	.2	.9	2.0	2.3	1.8	1.8	1.9	1.6
45. *	.2	.9	2.2	2.4	1.6	2.0	1.9	1.5
50. *	.2	1.1	2.3	2.4	1.5	1.9	1.9	1.5
55. *	.2	1.2	2.2	2.1	1.6	2.0	1.9	1.4
60. *	.3	1.2	2.2	2.3	1.6	2.2	1.8	1.2
65. *	.3	1.3	2.2	2.4	1.7	2.2	1.8	1.2
70. *	.3	1.4	2.5	2.3	1.9	1.9	1.6	1.2
75. *	.3	1.7	2.4	2.3	1.9	1.8	1.5	1.1
80. *	.3	2.1	2.4	2.4	1.9	1.7	1.4	1.1
85. *	.4	2.0	2.3	2.2	1.7	1.5	1.3	1.1
90. *	.6	1.7	2.0	1.7	1.5	1.4	1.4	1.0
95. *	1.0	1.8	1.5	1.4	1.4	1.3	1.3	1.0
100. *	1.1	1.7	1.1	1.1	1.2	1.2	1.1	1.0
105. *	1.0	1.2	.8	.8	1.0	1.2	1.0	1.0
110. *	1.3	.6	.7	.6	.8	1.2	1.0	1.0
115. *	1.3	.5	.4	.6	.8	1.2	1.0	.9
120. *	1.3	.4	.4	.6	.8	1.2	1.0	.9
125. *	1.2	.1	.4	.6	.8	1.2	1.0	1.1
130. *	1.1	.1	.4	.7	.8	1.2	1.0	1.1
135. *	1.1	.2	.4	.6	.8	1.2	1.0	1.1
140. *	1.1	.1	.3	.5	.8	1.2	1.1	1.0
145. *	.9	.3	.3	.4	.8	1.1	1.2	1.2
150. *	.9	.2	.4	.4	.7	1.1	1.2	1.3
155. *	.9	.1	.4	.6	.8	1.3	1.2	1.3
160. *	.6	.0	.3	.5	.9	1.2	1.3	1.4
165. *	.7	.0	.3	.5	.7	1.3	1.3	1.2
170. *	.7	.0	.1	.4	.7	1.2	1.1	1.2
175. *	.7	.0	.0	.2	.6	1.0	1.1	1.0
180. *	.7	.0	.0	.1	.4	.9	.8	.7
185. *	.7	.0	.0	.0	.3	.7	.6	.6
190. *	.7	.0	.0	.0	.1	.4	.4	.3
195. *	.8	.0	.0	.0	.0	.2	.2	.2
200. *	.7	.0	.0	.0	.0	.1	.1	.1
205. *	.7	.0	.0	.0	.0	.0	.0	.0

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JOB: Pellissippi Site 3 BD PM RUN: Pellissippi Site 3 BD PM

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) *	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210. *	.7	.0	.0	.0	.0	.0	.0	.0
215. *	.7	.0	.0	.0	.0	.0	.0	.0
220. *	.7	.0	.0	.0	.0	.0	.0	.0
225. *	.8	.0	.0	.0	.0	.0	.0	.0
230. *	.7	.0	.0	.0	.0	.0	.0	.0
235. *	.7	.0	.0	.0	.0	.0	.0	.0
240. *	.7	.0	.0	.0	.0	.0	.0	.0
245. *	.8	.0	.0	.0	.0	.0	.0	.0
250. *	.8	.0	.0	.0	.0	.0	.0	.0
255. *	.8	.0	.0	.0	.0	.0	.0	.0
260. *	.8	.0	.0	.1	.0	.0	.0	.0
265. *	.9	.0	.0	.2	.0	.0	.0	.0
270. *	.9	.1	.3	.5	.1	.0	.0	.0
275. *	.9	.1	.4	.7	.3	.0	.0	.0
280. *	.8	.2	.5	1.0	.5	.0	.0	.0
285. *	.7	.3	.9	1.5	.6	.1	.0	.0

290.	*	.5	.6	1.1	1.6	1.0	.3	.1	.0
295.	*	.4	.7	1.3	1.7	1.2	.4	.1	.0
300.	*	.2	.9	1.6	1.9	1.3	.6	.2	.0
305.	*	.1	.9	1.6	2.0	1.3	.7	.3	.1
310.	*	.1	1.0	1.8	1.8	1.1	.6	.4	.2
315.	*	.0	1.0	1.7	1.5	1.0	.6	.4	.2
320.	*	.0	.9	1.7	1.5	1.1	.7	.4	.1
325.	*	.0	.9	1.6	1.4	1.1	.7	.4	.1
330.	*	.0	.9	1.5	1.5	1.1	.6	.5	.1
335.	*	.0	.8	1.5	1.5	1.0	.6	.5	.1
340.	*	.0	.9	1.5	1.4	1.1	.6	.4	.2
345.	*	.0	.8	1.5	1.5	1.1	.7	.5	.3
350.	*	.0	.8	1.6	1.5	1.1	.9	.7	.5
355.	*	.0	.7	1.6	1.5	1.3	1.1	.9	.9
360.	*	.0	.9	1.5	1.3	1.5	1.5	1.1	1.4
MAX	*	1.3	2.1	2.5	2.4	2.1	2.2	2.0	1.9
DEGR.	*	110	80	70	80	15	60	20	15

THE HIGHEST CONCENTRATION IS 3.40 PPM AT 235 DEGREES FROM REC9 .
THE 2ND HIGHEST CONCENTRATION IS 3.00 PPM AT 315 DEGREES FROM REC5 .
THE 3RD HIGHEST CONCENTRATION IS 2.80 PPM AT 290 DEGREES FROM REC7 .

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Pellissippi Site 3 NB AM 2035          60.0321.0.0000.000280.30480000    1    1
SE MID S              549570.   518885.       5.0
SE 164 S              549576.   519046.       5.0
SE 82 S               549585.   519128.       5.0
SE CNR                549633.   519199.       5.0
SE 82 E               549709.   519236.       5.0
SE 164 E              549792.   519233.       5.0
SE MID E              549949.   519226.       5.0
NE MID E              549955.   519313.       5.0
NE 164 E              549803.   519318.       5.0
NE 82 E               549722.   519334.       5.0
NE CNR                549647.   519371.       5.0
NE 82 N               549609.   519453.       5.0
NE 164 N              549611.   519534.       5.0
NE MID N              549622.   519690.       5.0
NW MID N              549493.   519702.       5.0
NW 164 N              549475.   519543.       5.0
NW 82 N               549440.   519467.       5.0
NW CNR                549388.   519405.       5.0
NW 82 W               549312.   519369.       5.0
NW 164 W              549230.   519375.       5.0
NW MID W              549068.   519424.       5.0
SW MID W              549066.   519299.       5.0
SW 164 W              549262.   519250.       5.0
SW 82 W               549343.   519242.       5.0
SW CNR                549420.   519205.       5.0
SW 82 S               549455.   519123.       5.0
SW 164 S              549453.   519042.       5.0
SW MID S              549448.   518884.       5.0
Pellissippi Site 3 NB AM 2035           50  1   0
  1
0         115nbAP   AG549562.518286.549536.518778.    248112.4  0.  44   30.
  1
0         115nbAP   AG549536.518779.549542.519048.    248112.4  0.  44   30.
  1
0         115nbTH   AG549542.519049.549558.519283.    222012.4  0.  44   30.
  2
0         115nbTHQ  AG549555.519240.549542.519055.      0.  24   2
       120        67       2.0 2220   76.0 3200 1 3
  1
0         115nbL    AG549525.519034.549540.519281.      7612.4  0.  32   30.
  2
0         115nbLQ   AG549537.519239.549527.519055.      0.  12   1
       120       104       2.0   76   76.0 1600 1 3
  1
0         115nbR    AG549552.519059.549572.519162.     18512.4  0.  32   30.
  1
0         115nbR    AG549572.519162.549613.519209.     18512.4  0.  32   30.
  1
0         115nbR    AG549613.519209.549667.519241.     18512.4  0.  32   30.
  1
0         115nbR    AG549667.519241.549710.519256.     18512.4  0.  32   30.
  1
0         115nbD    AG549558.519284.549632.520276.    250312.8  0.  44   30.
  1
0         115sbAP   AG549585.520283.549536.519742.     85612.8  0.  44   30.
  1
0         115sbTH   AG549538.519742.549505.519275.     70712.8  0.  44   30.
  2
0         115sbTQ   AG549511.519353.549531.519644.      0.  24   2
       120        67       2.0  707   76.0 3200 1 3
  1
0         115sbRT   AG549517.519701.549496.519531.     10012.8  0.  32   30.
  1
0         115sbRT   AG549496.519531.549456.519440.     10012.8  0.  32   30.
  1
0         115sbRT   AG549456.519440.549389.519372.     10012.8  0.  32   30.
  1
0         115sbRT   AG549389.519372.549264.519335.     10012.8  0.  32   30.
  1
0         115sbD    AG549504.519274.549480.518921.     86112.4  0.  44   30.
  1
0         115sbD    AG549480.518921.549482.518689.     86112.4  0.  44   30.
  1
0         115sbD    AG549482.518689.549523.518287.     86112.4  0.  44   30.
  1
0         115sbLT   AG549552.519628.549531.519300.     14912.8  0.  44   30.
  2
0         115sbLQ   AG549534.519352.549551.519615.      0.  24   2
       120       104       2.0  149   76.0 3200 1 3
  1
0         73ebAP    AG548565.519526.549067.519334.    131612.8  0.  44   30.
  1
0         73ebAP    AG549067.519334.549179.519301.    131612.8  0.  44   30.
  1
0         73ebAP    AG549179.519301.549324.519280.    131612.8  0.  44   30.
  1
0         73ebTH    AG549325.519280.549526.519270.    114112.8  0.  44   30.
  2
0         73ebTHQ   AG549466.519273.549327.519280.      0.  24   2
       120        78       2.0 1141   76.0 3200 1 3
  1
0         73ebRT    AG549361.519268.549437.519224.      3212.8  0.  32   30.
  1
0         73ebRT    AG549437.519224.549472.519163.      3212.8  0.  32   30.
  1
0         73ebRT    AG549472.519163.549484.519052.      3212.8  0.  32   30.
  1
0         73ebLT    AG549327.519293.549525.519286.     14312.8  0.  32   30.
  2
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0         73ebLQ    AG549465.519288.549331.519293.      0.  12   1
       120       104       2.0  143   76.0 1600 1 3
  1
0         73ebD     AG549527.519270.550079.519241.    151112.0  0.  44   30.
  1
0         73ebD     AG550079.519241.550246.519242.    151112.0  0.  44   30.
  1
0         73ebD     AG550246.519242.550532.519262.    151112.0  0.  44   30.
  1
0         73wbAP    AG550532.519311.550254.519287.    108112.0  0.  44   30.
  1
0         73wbAP    AG550254.519287.550054.519286.    108112.0  0.  44   30.
  1
0         73wbAP    AG550054.519286.549809.519295.    108112.0  0.  44   30.
  1
0         73wbTH    AG549808.519296.549534.519306.     81912.0  0.  44   30.
  2
0         73wbTHQ   AG549596.519304.549800.519296.      0.  24   2
       120        78       2.0  819   76.0 3200 1 3
  1
0         73wbR     AG549752.519305.549665.519330.     14012.0  0.  32   30.
  1
0         73wbR     AG549665.519330.549612.519372.     14012.0  0.  32   30.
  1
0         73wbR     AG549612.519372.549575.519474.     14012.0  0.  32   30.
  1
0         73wbL     AG549802.519280.549533.519291.     12212.0  0.  32   30.
  2
0         73wbLQ    AG549598.519288.549796.519280.      0.  12   1
       120       104       2.0  122   76.0 1600 1 3
  1
0         73wbD     AG549533.519308.549316.519323.     89512.8  0.  44   30.
  1
0         73wbD     AG549316.519323.549172.519350.     89512.8  0.  44   30.
  1
0         73wbD     AG549172.519350.549055.519391.     89512.8  0.  44   30.
  1
0         73wbD     AG549055.519391.548587.519592.     89512.8  0.  44   30.
1.0   04  1000   0Y  5  0 72
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1 CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.2, JUNE 2000 PAGE 1

JOB: Pellissippi Site 3 NB AM 2035 RUN: Pellissippi Site 3 NB AM 2035
DATE: 02/23/2009 TIME: 12:46:09.72

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION		X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	115nbAP	549562.0	518286.0	549536.0	518778.0	493.	357.	AG	2481.	12.4	.0	44.0		
2. 0	115nbAP	549536.0	518779.0	549542.0	519048.0	269.	1.	AG	2481.	12.4	.0	44.0		
3. 0	115nbTH	549542.0	519049.0	549558.0	519283.0	235.	4.	AG	2220.	12.4	.0	44.0		
4. 0	115nbTHQ	549555.0	519240.0	549526.0	518827.2	414.	184.	AG	228.	100.0	.0	24.0	.85	21.0
5. 0	115nbL	549525.0	519034.0	549540.0	519281.0	247.	3.	AG	76.	12.4	.0	32.0		
6. 0	115nbLQ	549537.0	519239.0	549534.6	519195.8	43.	183.	AG	177.	100.0	.0	12.0	.48	2.2
7. 0	115nbR	549552.0	519059.0	549572.0	519162.0	105.	11.	AG	185.	12.4	.0	32.0		
8. 0	115nbR	549572.0	519162.0	549613.0	519209.0	62.	41.	AG	185.	12.4	.0	32.0		
9. 0	115nbR	549613.0	519209.0	549667.0	519241.0	63.	59.	AG	185.	12.4	.0	32.0		
10. 0	115nbR	549667.0	519241.0	549710.0	519256.0	46.	71.	AG	185.	12.4	.0	32.0		
11. 0	115nbD	549558.0	519284.0	549632.0	520276.0	995.	4.	AG	2503.	12.8	.0	44.0		
12. 0	115sbAP	549585.0	520283.0	549536.0	519742.0	543.	185.	AG	856.	12.8	.0	44.0		
13. 0	115sbTH	549538.0	519742.0	549505.0	519275.0	468.	184.	AG	707.	12.8	.0	44.0		
14. 0	115sbTQ	549511.0	519353.0	549519.9	519482.0	129.	4.	AG	228.	100.0	.0	24.0	.27	6.6
15. 0	115sbRT	549517.0	519701.0	549496.0	519531.0	171.	187.	AG	100.	12.8	.0	32.0		
16. 0	115sbRT	549496.0	519531.0	549456.0	519440.0	99.	204.	AG	100.	12.8	.0	32.0		
17. 0	115sbRT	549456.0	519440.0	549389.0	519372.0	95.	225.	AG	100.	12.8	.0	32.0		
18. 0	115sbRT	549389.0	519372.0	549264.0	519335.0	130.	254.	AG	100.	12.8	.0	32.0		
19. 0	115sbD	549504.0	519274.0	549480.0	518921.0	354.	184.	AG	861.	12.4	.0	44.0		
20. 0	115sbD	549480.0	518921.0	549482.0	518689.0	232.	180.	AG	861.	12.4	.0	44.0		
21. 0	115sbD	549482.0	518689.0	549523.0	518287.0	404.	174.	AG	861.	12.4	.0	44.0		
22. 0	115sbLT	549552.0	519628.0	549531.0	519300.0	329.	184.	AG	149.	12.8	.0	44.0		
23. 0	115sbLQ	549534.0	519352.0	549536.7	519394.0	42.	4.	AG	353.	100.0	.0	24.0	.23	2.1
24. 0	73ebAP	548565.0	519526.0	549067.0	519334.0	537.	111.	AG	1316.	12.8	.0	44.0		
25. 0	73ebAP	549067.0	519334.0	549179.0	519301.0	117.	106.	AG	1316.	12.8	.0	44.0		
26. 0	73ebAP	549179.0	519301.0	549324.0	519280.0	146.	98.	AG	1316.	12.8	.0	44.0		
27. 0	73ebTH	549325.0	519280.0	549526.0	519270.0	201.	93.	AG	1141.	12.8	.0	44.0		
28. 0	73ebTHQ	549466.0	519273.0	549223.2	519285.2	243.	273.	AG	265.	100.0	.0	24.0	.56	12.3
29. 0	73ebRT	549361.0	519268.0	549437.0	519224.0	88.	120.	AG	32.	12.8	.0	32.0		
30. 0	73ebRT	549437.0	519224.0	549472.0	519163.0	70.	150.	AG	32.	12.8	.0	32.0		
31. 0	73ebRT	549472.0	519163.0	549484.0	519052.0	112.	174.	AG	32.	12.8	.0	32.0		
32. 0	73ebLT	549327.0	519293.0	549525.0	519286.0	198.	92.	AG	143.	12.8	.0	32.0		
33. 0	73ebLQ	549465.0	519288.0	549354.1	519292.2	111.	272.	AG	177.	100.0	.0	12.0	.90	5.6
34. 0	73ebD	549527.0	519270.0	550079.0	519241.0	553.	93.	AG	1511.	12.0	.0	44.0		
35. 0	73ebD	550079.0	519241.0	550246.0	519242.0	167.	90.	AG	1511.	12.0	.0	44.0		
36. 0	73ebD	550246.0	519242.0	550532.0	519262.0	287.	86.	AG	1511.	12.0	.0	44.0		
37. 0	73wbAP	550532.0	519311.0	550254.0	519287.0	279.	265.	AG	1081.	12.0	.0	44.0		
38. 0	73wbAP	550254.0	519287.0	550054.0	519286.0	200.	270.	AG	1081.	12.0	.0	44.0		
39. 0	73wbAP	550054.0	519286.0	549809.0	519295.0	245.	272.	AG	1081.	12.0	.0	44.0		
40. 0	73wbTH	549808.0	519296.0	549534.0	519306.0	274.	272.	AG	819.	12.0	.0	44.0		
41. 0	73wbTHQ	549596.0	519304.0	549770.3	519297.2	174.	92.	AG	265.	100.0	.0	24.0	.40	8.9
42. 0	73wbR	549752.0	519305.0	549665.0	519330.0	91.	286.	AG	140.	12.0	.0	32.0		
43. 0	73wbR	549665.0	519330.0	549612.0	519372.0	68.	308.	AG	140.	12.0	.0	32.0		
44. 0	73wbR	549612.0	519372.0	549575.0	519474.0	108.	340.	AG	140.	12.0	.0	32.0		

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JOB: Pellissippi Site 3 NB AM 2035 RUN: Pellissippi Site 3 NB AM 2035
DATE: 02/23/2009 TIME: 12:46:09.72

LINK VARIABLES

LINK DESCRIPTION		X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. 0	73wbL	549802.0	519280.0	549533.0	519291.0	269.	272.	AG	122.	12.0	.0	32.0		
46. 0	73wbLQ	549598.0	519288.0	549677.1	519284.8	79.	93.	AG	177.	100.0	.0	12.0	.77	4.0
47. 0	73wbD	549533.0	519308.0	549316.0	519323.0	218.	274.	AG	895.	12.8	.0	44.0		
48. 0	73wbD	549316.0	519323.0	549172.0	519350.0	147.	281.	AG	895.	12.8	.0	44.0		
49. 0	73wbD	549172.0	519350.0	549055.0	519391.0	124.	289.	AG	895.	12.8	.0	44.0		
50. 0	73wbD	549055.0	519391.0	548587.0	519592.0	509.	293.	AG	895.	12.8	.0	44.0		

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JOB: Pellissippi Site 3 NB AM 2035 RUN: Pellissippi Site 3 NB AM 2035
DATE: 02/23/2009 TIME: 12:46:09.72

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. 0	115nbTHQ	120	67	2.0	2220	3200	76.00	1	3
6. 0	115nbLQ	120	104	2.0	76	1600	76.00	1	3
14. 0	115sbTQ	120	67	2.0	707	3200	76.00	1	3
23. 0	115sbLQ	120	104	2.0	149	3200	76.00	1	3
28. 0	73ebTHQ	120	78	2.0	1141	3200	76.00	1	3
33. 0	73ebLQ	120	104	2.0	143	1600	76.00	1	3
41. 0	73wbTHQ	120	78	2.0	819	3200	76.00	1	3
46. 0	73wbLQ	120	104	2.0	122	1600	76.00	1	3

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE MID S	549570.0	518885.0	5.0
2. SE 164 S	549576.0	519046.0	5.0
3. SE 82 S	549585.0	519128.0	5.0
4. SE CNR	549633.0	519199.0	5.0
5. SE 82 E	549709.0	519236.0	5.0

6. SE 164 E	*	549792.0	519233.0	5.0	*
7. SE MID E	*	549949.0	519226.0	5.0	*
8. NE MID E	*	549955.0	519313.0	5.0	*
9. NE 164 E	*	549803.0	519318.0	5.0	*
10. NE 82 E	*	549722.0	519334.0	5.0	*
11. NE CNR	*	549647.0	519371.0	5.0	*
12. NE 82 N	*	549609.0	519453.0	5.0	*
13. NE 164 N	*	549611.0	519534.0	5.0	*
14. NE MID N	*	549622.0	519690.0	5.0	*
15. NW MID N	*	549493.0	519702.0	5.0	*
16. NW 164 N	*	549475.0	519543.0	5.0	*
17. NW 82 N	*	549440.0	519467.0	5.0	*
18. NW CNR	*	549388.0	519405.0	5.0	*
19. NW 82 W	*	549312.0	519369.0	5.0	*
20. NW 164 W	*	549230.0	519375.0	5.0	*
21. NW MID W	*	549068.0	519424.0	5.0	*
22. SW MID W	*	549066.0	519299.0	5.0	*
23. SW 164 W	*	549262.0	519250.0	5.0	*
24. SW 82 W	*	549343.0	519242.0	5.0	*
25. SW CNR	*	549420.0	519205.0	5.0	*
26. SW 82 S	*	549455.0	519123.0	5.0	*
27. SW 164 S	*	549453.0	519042.0	5.0	*
28. SW MID S	*	549448.0	518884.0	5.0	*

1

JOB: Pellissippi Site 3 NB AM 2035 RUN: Pellissippi Site 3 NB AM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	*	1.8	1.9	1.7	1.4	1.4	.9	.8	.0	.1	.2	.5	1.0	1.1	1.1	.3	.2	.2	.0	.0	.0
5.	*	1.4	1.5	1.5	1.2	1.3	.8	.8	.0	.0	.1	.3	.8	.9	.9	.4	.4	.3	.1	.0	.0
10.	*	1.1	1.0	1.1	1.1	1.3	.8	.8	.0	.0	.1	.2	.5	.6	.6	.6	.5	.4	.2	.1	.0
15.	*	.7	.8	1.0	1.0	1.2	.8	.8	.0	.0	.0	.1	.3	.4	.4	.7	.6	.5	.3	.2	.1
20.	*	.6	.5	.9	1.0	1.2	.9	.8	.0	.0	.0	.0	.2	.2	.2	.8	.8	.6	.5	.3	.1
25.	*	.3	.5	.7	.9	1.2	.9	.8	.0	.0	.0	.0	.1	.1	.1	.9	.9	.6	.5	.3	.2
30.	*	.1	.3	.6	.9	1.1	.8	.8	.0	.0	.0	.0	.0	.1	.1	.9	.9	.5	.4	.3	.3
35.	*	.1	.3	.5	.9	1.1	.8	.8	.0	.0	.0	.0	.0	.0	.0	.8	.8	.6	.4	.4	.2
40.	*	.1	.3	.5	.8	1.1	.8	.9	.0	.0	.0	.0	.0	.0	.0	.8	.8	.6	.4	.4	.2
45.	*	.1	.3	.4	.8	1.2	.9	.9	.0	.0	.0	.0	.0	.0	.0	.8	.7	.6	.4	.4	.2
50.	*	.1	.3	.4	.8	1.2	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.7	.7	.6	.5	.4	.3
55.	*	.1	.2	.4	.8	1.0	1.1	1.1	.0	.0	.0	.0	.0	.0	.0	.8	.7	.6	.5	.4	.3
60.	*	.0	.2	.3	.7	1.1	1.1	1.2	.1	.0	.0	.0	.0	.0	.0	.8	.7	.6	.5	.4	.3
65.	*	.0	.1	.3	.7	1.2	1.1	1.1	.1	.1	.0	.0	.0	.0	.0	.8	.6	.7	.5	.4	.3
70.	*	.0	.1	.3	.6	1.2	1.2	1.4	.1	.1	.0	.0	.0	.0	.0	.7	.6	.6	.6	.4	.4
75.	*	.0	.1	.3	.5	1.1	1.2	1.5	.2	.2	.0	.0	.0	.0	.0	.6	.6	.6	.6	.4	.4
80.	*	.0	.0	.1	.4	1.1	1.4	1.3	.4	.2	.1	.0	.0	.0	.0	.7	.6	.8	.6	.5	.4
85.	*	.0	.0	.1	.4	1.3	1.3	1.2	.5	.4	.1	.0	.0	.0	.0	.7	.6	.8	.7	.7	.6
90.	*	.0	.0	.0	.2	1.1	1.2	1.1	.8	.8	.4	.1	.0	.0	.0	.7	.6	.7	.8	.9	.7
95.	*	.0	.0	.0	.1	.8	1.0	.9	.9	.9	.7	.2	.0	.0	.0	.7	.6	.7	1.0	.9	.9
100.	*	.0	.0	.0	.1	.5	.6	.6	1.0	1.0	.9	.2	.0	.0	.0	.7	.6	.9	1.0	1.3	1.1
105.	*	.0	.0	.0	.0	.4	.4	.4	1.1	1.2	.8	.5	.2	.0	.0	.7	.6	1.1	1.1	1.2	1.1
110.	*	.0	.0	.0	.0	.2	.3	.3	1.0	1.0	.8	.5	.2	.0	.0	.7	.6	1.2	1.0	1.4	1.2
115.	*	.0	.0	.0	.0	.2	.2	.2	1.1	1.1	.9	.6	.2	.0	.0	.7	.7	1.2	1.1	1.2	1.2
120.	*	.0	.0	.0	.0	.1	.1	.1	.9	1.0	1.0	.7	.2	.2	.0	.7	.7	1.3	1.1	1.4	1.5
125.	*	.0	.0	.0	.0	.1	.1	.1	1.0	1.0	1.0	.9	.5	.2	.0	.7	.9	1.3	1.1	1.3	1.4
130.	*	.0	.0	.0	.0	.1	.1	.1	.9	.9	1.1	.8	.5	.2	.0	.8	1.1	1.3	1.0	1.4	1.4
135.	*	.0	.0	.0	.0	.1	.1	.1	.9	.9	1.1	.9	.4	.2	.1	.8	1.1	1.4	1.0	1.5	1.4
140.	*	.0	.0	.0	.0	.0	.1	.1	.8	.9	1.1	.9	.5	.2	.1	.9	1.2	1.3	1.2	1.3	1.3
145.	*	.0	.0	.0	.0	.0	.1	.1	.8	.8	1.2	.9	.5	.3	.1	1.0	1.2	1.1	1.1	1.3	1.3
150.	*	.0	.0	.0	.0	.0	.0	.1	.7	.8	1.3	.8	.5	.3	.1	1.0	1.4	1.1	1.2	1.3	1.1
155.	*	.1	.0	.0	.0	.0	.0	.0	.7	.8	1.3	.9	.5	.3	.1	1.0	1.5	1.2	1.4	1.3	1.2
160.	*	.2	.1	.0	.0	.0	.0	.0	.7	.8	1.3	.9	.6	.4	.3	1.2	1.5	1.3	1.3	1.4	1.1
165.	*	.3	.2	.2	.0	.0	.0	.0	.7	.8	1.3	.9	.6	.4	.3	1.2	1.5	1.3	1.2	1.1	1.0
170.	*	.4	.5	.4	.1	.0	.0	.0	.7	.8	1.3	1.0	.9	.7	.4	1.3	1.7	1.1	1.2	1.0	1.0
175.	*	.7	.7	.6	.2	.0	.0	.0	.7	.7	1.3	1.2	1.2	1.0	.9	1.0	1.3	.9	1.1	.8	.8
180.	*	.9	1.0	.9	.3	.1	.0	.0	.8	.7	1.4	1.4	1.3	1.1	1.2	.9	1.2	.9	1.0	.9	.8
185.	*	1.2	1.5	1.1	.5	.1	.1	.0	.8	.8	1.5	1.5	1.5	1.5	1.4	.8	1.0	.9	.8	.8	.8
190.	*	1.3	1.7	1.4	.7	.2	.1	.0	.7	.8	1.6	1.7	1.7	1.8	1.7	.5	.7	.5	.7	.8	.7
195.	*	1.6	1.9	1.8	.7	.3	.1	.0	.8	.9	1.6	1.8	2.0	2.0	1.6	.2	.4	.5	.7	.7	.6
200.	*	1.6	1.8	1.8	.9	.4	.2	.1	.8	.9	1.7	1.8	1.8	2.0	1.7	.1	.4	.5	.7	.7	.7
205.	*	1.6	1.9	2.0	1.1	.4	.2	.1	.8	1.0	1.9	1.7	2.0	2.0	1.5	.1	.3	.5	.7	.9	.6

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JOB: Pellissippi Site 3 NB AM 2035 RUN: Pellissippi Site 3 NB AM 2035

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	1.6	1.9	1.9	.9	.6	.3	.1	.8	1.1	2.0	1.7	2.2	1.9	1.6	.1	.4	.5	.5	.9	.6
215.	*	1.5	1.9	1.8	.9	.6	.4	.1	.9	1.2	2.0	1.6	2.0	1.8	1.6	.1	.2	.5	.6	.9	.5
220.	*	1.6	1.8	1.8	.9	.7	.3	.3	1.1	1.3	2.0	1.6	1.8	1.8	1.4	.0	.2	.5	.5	.7	.6
225.	*	1.6	1.8	1.8	.9	.6	.5	.4	1.1	1.4	2.1	1.4	2.0	1.7	1.4	.0	.3	.4	.6	.7	.6
230.	*	1.6	1.6	1.7	.9	.7	.5	.3	1.1	1.6	2.1	1.4	1.9	1.6	1.2	.0	.3	.3	.6	.7	.7
235.	*	1.5	1.5	1.7	.9	.8	.5	.3	1.2	1.6	1.9	1.4	1.9	1.4	1.1	.1	.0	.3	.3	.7	.6
240.	*	1.5	1.5	1.6	.9	.7	.6	.3	1.2	1.7	2.1	1.2	1.9	1.2	1.1	.1	.0	.4	.4	.7	.6
245.	*	1.6	1.6	1.5	.9	.7	.5	.4	1.3	2.0	2.2	1.5	1.9	1.2	1.1	.1	.1	.2	.4	.5	.6
250.	*	1.6	1.5	1.5	.9	.7	.6	.5	1.4	2.1	2.0	1.3	1.7	1.1	1.1	.1	.1	.2	.4	.5	.7
255.	*	1.6	1.5	1.5	.9	.8	.6	.5	1.4	2.1	1.8	1.4	1.4	1.2	1.1	.1	.1	.1	.4	.7	.7
260.	*	1.6	1.5	1.5	.9	1.1	.8	.6	1.4	2.1	1.6	1.5	1.3	1.1	1.0	.0	.2	.2	.4	.5	.7
265.	*	1.6	1.5	1.5	1.1	1.2	1.1	.9	1.4	1.9	1.6	1.3	1.3	1.1	1.0	.0	.2	.2	.4	.6	.7
270.	*	1.5	1.5	1.5	1.2	1.3	1.3	1.2	1.2	1.8	1.5	1.2	1.2	1.1	1.0	.0	.2	.2	.2	.6	.7
275.	*	1.5	1.5	1.5	1.2	1.7	1.6	1.4	.8	1.6	1.2	1.2	1.2	1.0	1.0	.0	.0	.2	.2	.6	.6
280.	*	1.5	1.4	1.6	1.5	1.9	1.8	1.6	.7	1.3	1.1	1.1	1.1	1.0	1.0	.0	.0	.2	.2	.4	.5

285.	*	1.6	1.5	1.7	1.8	1.9	1.9	1.6	.6	.8	.6	.9	1.1	1.0	1.0	.0	.0	.0	.2	.3	.5
290.	*	1.6	1.6	1.8	1.7	1.9	2.1	1.5	.3	.6	.6	.9	1.0	1.0	1.0	.0	.0	.0	.0	.2	.3
295.	*	1.6	1.6	2.0	1.6	2.2	1.9	1.5	.3	.6	.6	.9	1.0	1.0	1.1	.0	.0	.0	.0	.1	.3
300.	*	1.6	1.7	2.0	1.5	2.3	1.9	1.5	.3	.5	.5	.8	1.0	1.0	1.1	.0	.0	.0	.0	.0	.1
305.	*	1.6	1.8	2.2	1.3	2.2	1.9	1.4	.3	.4	.5	.7	1.0	1.0	1.1	.0	.0	.0	.0	.0	.0
310.	*	1.7	1.9	2.1	1.5	2.1	1.9	1.2	.2	.4	.5	.7	1.0	1.1	1.1	.0	.0	.0	.0	.0	.0
315.	*	1.8	1.9	2.1	1.4	2.2	1.8	1.1	.2	.4	.4	.8	1.0	1.1	1.1	.0	.0	.0	.0	.0	.0
320.	*	1.8	2.1	2.0	1.4	2.3	1.7	1.2	.2	.3	.5	.8	1.1	1.1	1.2	.0	.0	.0	.0	.0	.0
325.	*	1.9	2.1	2.2	1.6	2.0	1.6	1.1	.2	.3	.5	.7	1.1	1.2	1.3	.0	.0	.0	.0	.0	.0
330.	*	2.1	2.1	2.2	1.5	2.0	1.4	1.0	.2	.3	.5	.7	1.1	1.2	1.3	.0	.0	.0	.0	.0	.0
335.	*	2.2	2.2	2.2	1.6	1.9	1.4	1.0	.1	.3	.4	.7	1.2	1.4	1.4	.0	.0	.0	.0	.0	.0
340.	*	2.4	2.3	2.4	1.7	1.9	1.3	.9	.1	.3	.5	.7	1.3	1.4	1.4	.0	.0	.0	.0	.0	.0
345.	*	2.2	2.4	2.0	1.7	1.7	1.2	.9	.1	.2	.5	.8	1.4	1.5	1.5	.0	.0	.0	.0	.0	.0
350.	*	2.0	2.2	2.0	1.6	1.6	1.1	.9	.1	.2	.4	.7	1.4	1.5	1.5	.1	.0	.0	.0	.0	.0
355.	*	2.0	2.0	2.0	1.5	1.6	1.0	.8	.0	.1	.2	.6	1.3	1.3	1.3	.2	.2	.0	.0	.0	.0
360.	*	1.8	1.9	1.7	1.4	1.4	.9	.8	.0	.1	.2	.5	1.0	1.1	1.1	.3	.2	.2	.0	.0	.0
MAX	*	2.4	2.4	2.4	1.8	2.3	2.1	1.6	1.4	2.1	2.2	1.8	2.2	2.0	1.7	1.3	1.7	1.4	1.4	1.5	1.5
DEGR.	*	340	345	340	285	300	290	285	250	250	245	195	210	200	200	170	170	135	155	135	120

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JOB: Pellissippi Site 3 NB AM 2035 RUN: Pellissippi Site 3 NB AM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	*	.0	.7	1.2	1.3	1.1	.9	.7	.8
5.	*	.0	.6	1.2	1.4	1.4	1.0	1.1	1.0
10.	*	.0	.7	1.3	1.4	1.5	1.1	1.3	1.2
15.	*	.0	.7	1.3	1.5	1.4	1.4	1.4	1.2
20.	*	.0	.7	1.3	1.7	1.5	1.5	1.2	1.5
25.	*	.0	.8	1.3	1.8	1.6	1.4	1.4	1.4
30.	*	.1	.7	1.4	1.9	1.4	1.5	1.5	1.6
35.	*	.1	.7	1.5	1.9	1.4	1.3	1.4	1.5
40.	*	.1	.8	1.5	1.9	1.2	1.5	1.5	1.3
45.	*	.1	.9	1.8	2.0	1.4	1.5	1.3	1.2
50.	*	.1	.9	1.8	2.0	1.3	1.5	1.3	1.2
55.	*	.1	.9	1.9	2.1	1.1	1.3	1.2	1.3
60.	*	.1	.9	1.9	2.0	1.0	1.4	1.1	1.3
65.	*	.1	.8	1.9	2.3	1.0	1.4	1.1	1.1
70.	*	.1	1.0	2.2	1.9	1.4	1.3	1.1	1.1
75.	*	.1	1.0	1.9	1.7	1.4	1.2	1.1	1.1
80.	*	.1	1.3	1.8	1.6	1.3	1.1	1.2	1.1
85.	*	.1	1.3	1.7	1.5	1.3	1.1	1.0	1.1
90.	*	.1	1.4	1.7	1.3	1.1	1.1	1.1	1.1
95.	*	.2	1.3	1.2	1.0	1.0	1.0	1.0	1.1
100.	*	.5	1.1	.8	.8	.8	1.0	1.1	1.1
105.	*	.8	.9	.7	.6	.8	1.0	1.0	1.1
110.	*	.9	.5	.4	.5	.7	1.1	1.0	1.0
115.	*	1.1	.6	.3	.5	.7	1.0	1.0	.9
120.	*	.9	.4	.4	.5	.7	1.0	1.1	1.0
125.	*	1.1	.2	.4	.6	.7	1.1	1.1	1.0
130.	*	1.0	.2	.4	.6	.8	1.0	1.1	.9
135.	*	.9	.3	.3	.5	.7	1.1	1.1	1.0
140.	*	1.0	.2	.5	.6	.8	1.1	1.1	1.1
145.	*	.8	.1	.4	.6	.8	1.1	1.2	.9
150.	*	.6	.1	.3	.5	.8	1.2	1.3	1.0
155.	*	.6	.1	.2	.5	.9	1.1	1.2	1.0
160.	*	.6	.1	.2	.4	.8	1.2	1.2	1.1
165.	*	.6	.0	.1	.3	.7	1.2	1.1	.8
170.	*	.6	.0	.1	.2	.7	1.1	1.0	.8
175.	*	.6	.0	.0	.1	.5	.9	.8	.6
180.	*	.5	.0	.0	.1	.3	.7	.6	.5
185.	*	.6	.0	.0	.0	.1	.4	.3	.3
190.	*	.6	.0	.0	.0	.0	.3	.3	.2
195.	*	.6	.0	.0	.0	.0	.0	.0	.1
200.	*	.6	.0	.0	.0	.0	.0	.0	.0
205.	*	.5	.0	.0	.0	.0	.0	.0	.0

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JOB: Pellissippi Site 3 NB AM 2035 RUN: Pellissippi Site 3 NB AM 2035

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	*	.6	.0	.0	.0	.0	.0	.0	.0
215.	*	.6	.0	.0	.0	.0	.0	.0	.0
220.	*	.7	.0	.0	.0	.0	.0	.0	.0
225.	*	.6	.0	.0	.0	.0	.0	.0	.0
230.	*	.6	.0	.0	.0	.0	.0	.0	.0
235.	*	.6	.0	.0	.0	.0	.0	.0	.0
240.	*	.6	.0	.0	.0	.0	.0	.0	.0
245.	*	.6	.0	.0	.0	.0	.0	.0	.0
250.	*	.7	.0	.0	.0	.0	.0	.0	.0
255.	*	.7	.0	.0	.0	.0	.0	.0	.0
260.	*	.7	.0	.0	.0	.0	.0	.0	.0
265.	*	.7	.0	.0	.2	.0	.0	.0	.0
270.	*	.7	.1	.2	.2	.0	.0	.0	.0
275.	*	.7	.1	.3	.6	.3	.0	.0	.0
280.	*	.6	.2	.3	.6	.3	.0	.0	.0
285.	*	.6	.3	.7	.9	.5	.1	.0	.0

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290.  *    .4    .5    .8   1.3    .7    .1    .1    .0
295.  *    .3    .6   1.0   1.4   1.0    .4    .1    .0
300.  *    .2    .7   1.1   1.4   1.0    .4    .1    .0
305.  *    .1    .8   1.3   1.6   1.0    .4    .2    .1
310.  *    .1    .8   1.2   1.3    .9    .5    .3    .1
315.  *    .0    .8   1.2   1.3   1.0    .5    .3    .1
320.  *    .0    .8   1.3   1.2   1.0    .5    .2    .1
325.  *    .0    .7   1.3   1.2   1.0    .5    .2    .0
330.  *    .0    .8   1.2   1.3    .8    .5    .4    .1
335.  *    .0    .8   1.3   1.2    .9    .5    .3    .1
340.  *    .0    .7   1.2   1.2   1.0    .5    .4    .1
345.  *    .0    .7   1.2   1.2   1.0    .5    .5    .2
350.  *    .0    .6   1.2   1.2   1.0    .7    .6    .4
355.  *    .0    .7   1.2   1.1   1.1    .8    .7    .4
360.  *    .0    .7   1.2   1.3   1.1    .9    .7    .8
------*-----------------------------------------------------
MAX   *   1.1   1.4   2.2   2.3   1.6   1.5   1.5   1.6
DEGR. *  115    90    70    65    25    20    30    30

THE HIGHEST CONCENTRATION IS    2.40 PPM AT  340 DEGREES FROM REC1 .
THE 2ND HIGHEST CONCENTRATION IS    2.40 PPM AT  345 DEGREES FROM REC2 .
THE 3RD HIGHEST CONCENTRATION IS    2.40 PPM AT  340 DEGREES FROM REC3 .
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Pellissippi Site 3 NB PM 2035           60.0321.0.0000.000280.30480000    1    1
SE MID S               549570.   518885.       5.0
SE 164 S               549576.   519046.       5.0
SE 82 S                549585.   519128.       5.0
SE CNR                 549633.   519199.       5.0
SE 82 E                549709.   519236.       5.0
SE 164 E               549792.   519233.       5.0
SE MID E               549949.   519226.       5.0
NE MID E               549955.   519313.       5.0
NE 164 E               549803.   519318.       5.0
NE 82 E                549722.   519334.       5.0
NE CNR                 549647.   519371.       5.0
NE 82 N                549609.   519453.       5.0
NE 164 N               549611.   519534.       5.0
NE MID N               549622.   519690.       5.0
NW MID N               549493.   519702.       5.0
NW 164 N               549475.   519543.       5.0
NW 82 N                549440.   519467.       5.0
NW CNR                 549388.   519405.       5.0
NW 82 W                549312.   519369.       5.0
NW 164 W               549230.   519375.       5.0
NW MID W               549068.   519424.       5.0
SW MID W               549066.   519299.       5.0
SW 164 W               549262.   519250.       5.0
SW 82 W                549343.   519242.       5.0
SW CNR                 549420.   519205.       5.0
SW 82 S                549455.   519123.       5.0
SW 164 S               549453.   519042.       5.0
SW MID S               549448.   518884.       5.0
Pellissippi Site 3 NB PM 2035            50  1   0
  1
0         115nbAP   AG549562.518286.549536.518778.    141312.4  0.  44   30.
  1
0         115nbAP   AG549536.518779.549542.519048.    141312.4  0.  44   30.
  1
0         115nbTH   AG549542.519049.549558.519283.    108912.4  0.  44   30.
  2
0         115nbTHQ  AG549555.519240.549542.519055.      0.  24   2
       140        89       2.0 1089   76.0 3200 1 3
  1
0         115nbL    AG549525.519034.549540.519281.      8112.4  0.  32   30.
  2
0         115nbLQ   AG549537.519239.549527.519055.      0.  12   1
       140       123       2.0   81   76.0 1600 1 3
  1
0         115nbR    AG549552.519059.549572.519162.     24312.4  0.  32   30.
  1
0         115nbR    AG549572.519162.549613.519209.     24312.4  0.  32   30.
  1
0         115nbR    AG549613.519209.549667.519241.     24312.4  0.  32   30.
  1
0         115nbR    AG549667.519241.549710.519256.     24312.4  0.  32   30.
  1
0         115nbD    AG549558.519284.549632.520276.    140212.8  0.  44   30.
  1
0         115sbAP   AG549585.520283.549536.519742.    185912.8  0.  44   30.
  1
0         115sbTH   AG549538.519742.549505.519275.    154312.8  0.  44   30.
  2
0         115sbTQ   AG549511.519353.549531.519644.      0.  24   2
       140        89       2.0 1543   76.0 3200 1 3
  1
0         115sbRT   AG549517.519701.549496.519531.     10012.8  0.  32   30.
  1
0         115sbRT   AG549496.519531.549456.519440.     10012.8  0.  32   30.
  1
0         115sbRT   AG549456.519440.549389.519372.     10012.8  0.  32   30.
  1
0         115sbRT   AG549389.519372.549264.519335.     10012.8  0.  32   30.
  1
0         115sbD    AG549504.519274.549480.518921.    206812.4  0.  44   30.
  1
0         115sbD    AG549480.518921.549482.518689.    206812.4  0.  44   30.
  1
0         115sbD    AG549482.518689.549523.518287.    206812.4  0.  44   30.
  1
0         115sbLT   AG549552.519628.549531.519300.     31612.8  0.  44   30.
  2
0         115sbLQ   AG549534.519352.549551.519615.      0.  24   2
       140       123       2.0  316   76.0 3200 1 3
  1
0         73ebAP    AG548565.519526.549067.519334.    151712.8  0.  44   30.
  1
0         73ebAP    AG549067.519334.549179.519301.    151712.8  0.  44   30.
  1
0         73ebAP    AG549179.519301.549324.519280.    151712.8  0.  44   30.
  1
0         73ebTH    AG549325.519280.549526.519270.    135812.8  0.  44   30.
  2
0         73ebTHQ   AG549466.519273.549327.519280.      0.  24   2
       140        92       2.0 1358   76.0 3200 1 3
  1
0         73ebRT    AG549361.519268.549437.519224.      5412.8  0.  32   30.
  1
0         73ebRT    AG549437.519224.549472.519163.      5412.8  0.  32   30.
  1
0         73ebRT    AG549472.519163.549484.519052.      5412.8  0.  32   30.
  1
0         73ebLT    AG549327.519293.549525.519286.     10512.8  0.  32   30.
  2
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0         73ebLQ    AG549465.519288.549331.519293.      0.  12   1
       140       123       2.0  105   76.0 1600 1 3
  1
0         73ebD     AG549527.519270.550079.519241.    191712.0  0.  44   30.
  1
0         73ebD     AG550079.519241.550246.519242.    191712.0  0.  44   30.
  1
0         73ebD     AG550246.519242.550532.519262.    191712.0  0.  44   30.
  1
0         73wbAP    AG550532.519311.550254.519287.    186012.0  0.  44   30.
  1
0         73wbAP    AG550254.519287.550054.519286.    186012.0  0.  44   30.
  1
0         73wbAP    AG550054.519286.549809.519295.    186012.0  0.  44   30.
  1
0         73wbTH    AG549808.519296.549534.519306.    118112.0  0.  44   30.
  2
0         73wbTHQ   AG549596.519304.549800.519296.      0.  24   2
       140        92       2.0 1181   76.0 3200 1 3
  1
0         73wbR     AG549752.519305.549665.519330.     20812.0  0.  32   30.
  1
0         73wbR     AG549665.519330.549612.519372.     20812.0  0.  32   30.
  1
0         73wbR     AG549612.519372.549575.519474.     20812.0  0.  32   30.
  1
0         73wbL     AG549802.519280.549533.519291.     47112.0  0.  32   30.
  2
0         73wbLQ    AG549598.519288.549796.519280.      0.  12   1
       140       123       2.0  471   76.0 1600 1 3
  1
0         73wbD     AG549533.519308.549316.519323.    126212.8  0.  44   30.
  1
0         73wbD     AG549316.519323.549172.519350.    126212.8  0.  44   30.
  1
0         73wbD     AG549172.519350.549055.519391.    126212.8  0.  44   30.
  1
0         73wbD     AG549055.519391.548587.519592.    126212.8  0.  44   30.
1.0   04  1000   0Y  5  0 72
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1 CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.2, JUNE 2000 PAGE 1

JOB: Pellissippi Site 3 NB PM 2035 RUN: Pellissippi Site 3 NB PM 2035
DATE: 02/23/2009 TIME: 12:55:42.76

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION		X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	115nbAP	549562.0	518286.0	549536.0	518778.0	493.	357.	AG	1413.	12.4	.0	44.0		
2. 0	115nbAP	549536.0	518779.0	549542.0	519048.0	269.	1.	AG	1413.	12.4	.0	44.0		
3. 0	115nbTH	549542.0	519049.0	549558.0	519283.0	235.	4.	AG	1089.	12.4	.0	44.0		
4. 0	115nbTHQ	549555.0	519240.0	549536.5	518975.9	265.	184.	AG	259.	100.0	.0	24.0	.51	13.4
5. 0	115nbL	549525.0	519034.0	549540.0	519281.0	247.	3.	AG	81.	12.4	.0	32.0		
6. 0	115nbLQ	549537.0	519239.0	549534.0	519184.6	54.	183.	AG	179.	100.0	.0	12.0	.55	2.8
7. 0	115nbR	549552.0	519059.0	549572.0	519162.0	105.	11.	AG	243.	12.4	.0	32.0		
8. 0	115nbR	549572.0	519162.0	549613.0	519209.0	62.	41.	AG	243.	12.4	.0	32.0		
9. 0	115nbR	549613.0	519209.0	549667.0	519241.0	63.	59.	AG	243.	12.4	.0	32.0		
10. 0	115nbR	549667.0	519241.0	549710.0	519256.0	46.	71.	AG	243.	12.4	.0	32.0		
11. 0	115nbD	549558.0	519284.0	549632.0	520276.0	995.	4.	AG	1402.	12.8	.0	44.0		
12. 0	115sbAP	549585.0	520283.0	549536.0	519742.0	543.	185.	AG	1859.	12.8	.0	44.0		
13. 0	115sbTH	549538.0	519742.0	549505.0	519275.0	468.	184.	AG	1543.	12.8	.0	44.0		
14. 0	115sbTQ	549511.0	519353.0	549536.7	519727.3	375.	4.	AG	259.	100.0	.0	24.0	.72	19.1
15. 0	115sbRT	549517.0	519701.0	549496.0	519531.0	171.	187.	AG	100.	12.8	.0	32.0		
16. 0	115sbRT	549496.0	519531.0	549456.0	519440.0	99.	204.	AG	100.	12.8	.0	32.0		
17. 0	115sbRT	549456.0	519440.0	549389.0	519372.0	95.	225.	AG	100.	12.8	.0	32.0		
18. 0	115sbRT	549389.0	519372.0	549264.0	519335.0	130.	254.	AG	100.	12.8	.0	32.0		
19. 0	115sbD	549504.0	519274.0	549480.0	518921.0	354.	184.	AG	2068.	12.4	.0	44.0		
20. 0	115sbD	549480.0	518921.0	549482.0	518689.0	232.	180.	AG	2068.	12.4	.0	44.0		
21. 0	115sbD	549482.0	518689.0	549523.0	518287.0	404.	174.	AG	2068.	12.4	.0	44.0		
22. 0	115sbLT	549552.0	519628.0	549531.0	519300.0	329.	184.	AG	316.	12.8	.0	44.0		
23. 0	115sbLQ	549534.0	519352.0	549540.8	519458.1	106.	4.	AG	358.	100.0	.0	24.0	.53	5.4
24. 0	73ebAP	548565.0	519526.0	549067.0	519334.0	537.	111.	AG	1517.	12.8	.0	44.0		
25. 0	73ebAP	549067.0	519334.0	549179.0	519301.0	117.	106.	AG	1517.	12.8	.0	44.0		
26. 0	73ebAP	549179.0	519301.0	549324.0	519280.0	146.	98.	AG	1517.	12.8	.0	44.0		
27. 0	73ebTH	549325.0	519280.0	549526.0	519270.0	201.	93.	AG	1358.	12.8	.0	44.0		
28. 0	73ebTHQ	549466.0	519273.0	549124.8	519290.2	342.	273.	AG	268.	100.0	.0	24.0	.68	17.4
29. 0	73ebRT	549361.0	519268.0	549437.0	519224.0	88.	120.	AG	54.	12.8	.0	32.0		
30. 0	73ebRT	549437.0	519224.0	549472.0	519163.0	70.	150.	AG	54.	12.8	.0	32.0		
31. 0	73ebRT	549472.0	519163.0	549484.0	519052.0	112.	174.	AG	54.	12.8	.0	32.0		
32. 0	73ebLT	549327.0	519293.0	549525.0	519286.0	198.	92.	AG	105.	12.8	.0	32.0		
33. 0	73ebLQ	549465.0	519288.0	549389.0	519290.9	76.	272.	AG	179.	100.0	.0	12.0	.71	3.9
34. 0	73ebD	549527.0	519270.0	550079.0	519241.0	553.	93.	AG	1917.	12.0	.0	44.0		
35. 0	73ebD	550079.0	519241.0	550246.0	519242.0	167.	90.	AG	1917.	12.0	.0	44.0		
36. 0	73ebD	550246.0	519242.0	550532.0	519262.0	287.	86.	AG	1917.	12.0	.0	44.0		
37. 0	73wbAP	550532.0	519311.0	550254.0	519287.0	279.	265.	AG	1860.	12.0	.0	44.0		
38. 0	73wbAP	550254.0	519287.0	550054.0	519286.0	200.	270.	AG	1860.	12.0	.0	44.0		
39. 0	73wbAP	550054.0	519286.0	549809.0	519295.0	245.	272.	AG	1860.	12.0	.0	44.0		
40. 0	73wbTH	549808.0	519296.0	549534.0	519306.0	274.	272.	AG	1181.	12.0	.0	44.0		
41. 0	73wbTHQ	549596.0	519304.0	549892.6	519292.4	297.	92.	AG	268.	100.0	.0	24.0	.59	15.1
42. 0	73wbR	549752.0	519305.0	549665.0	519330.0	91.	286.	AG	208.	12.0	.0	32.0		
43. 0	73wbR	549665.0	519330.0	549612.0	519372.0	68.	308.	AG	208.	12.0	.0	32.0		
44. 0	73wbR	549612.0	519372.0	549575.0	519474.0	108.	340.	AG	208.	12.0	.0	32.0		

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JOB: Pellissippi Site 3 NB PM 2035 RUN: Pellissippi Site 3 NB PM 2035
DATE: 02/23/2009 TIME: 12:55:42.76

LINK VARIABLES

LINK DESCRIPTION		X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. 0	73wbL	549802.0	519280.0	549533.0	519291.0	269.	272.	AG	471.	12.0	.0	32.0		
46. 0	73wbLQ	549598.0	519288.0	553279.5	519139.3	3684.	92.	AG	179.	100.0	.0	12.0	3.18	187.2
47. 0	73wbD	549533.0	519308.0	549316.0	519323.0	218.	274.	AG	1262.	12.8	.0	44.0		
48. 0	73wbD	549316.0	519323.0	549172.0	519350.0	147.	281.	AG	1262.	12.8	.0	44.0		
49. 0	73wbD	549172.0	519350.0	549055.0	519391.0	124.	289.	AG	1262.	12.8	.0	44.0		
50. 0	73wbD	549055.0	519391.0	548587.0	519592.0	509.	293.	AG	1262.	12.8	.0	44.0		

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JOB: Pellissippi Site 3 NB PM 2035 RUN: Pellissippi Site 3 NB PM 2035
DATE: 02/23/2009 TIME: 12:55:42.76

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. 0	115nbTHQ	140	89	2.0	1089	3200	76.00	1	3
6. 0	115nbLQ	140	123	2.0	81	1600	76.00	1	3
14. 0	115sbTQ	140	89	2.0	1543	3200	76.00	1	3
23. 0	115sbLQ	140	123	2.0	316	3200	76.00	1	3
28. 0	73ebTHQ	140	92	2.0	1358	3200	76.00	1	3
33. 0	73ebLQ	140	123	2.0	105	1600	76.00	1	3
41. 0	73wbTHQ	140	92	2.0	1181	3200	76.00	1	3
46. 0	73wbLQ	140	123	2.0	471	1600	76.00	1	3

RECEPTOR LOCATIONS

RECEPTOR	X (FT)	Y (FT)	Z (FT)
1. SE MID S	549570.0	518885.0	5.0
2. SE 164 S	549576.0	519046.0	5.0
3. SE 82 S	549585.0	519128.0	5.0
4. SE CNR	549633.0	519199.0	5.0
5. SE 82 E	549709.0	519236.0	5.0

6.	SE 164 E	*	549792.0	519233.0	5.0 *
7.	SE MID E	*	549949.0	519226.0	5.0 *
8.	NE MID E	*	549955.0	519313.0	5.0 *
9.	NE 164 E	*	549803.0	519318.0	5.0 *
10.	NE 82 E	*	549722.0	519334.0	5.0 *
11.	NE CNR	*	549647.0	519371.0	5.0 *
12.	NE 82 N	*	549609.0	519453.0	5.0 *
13.	NE 164 N	*	549611.0	519534.0	5.0 *
14.	NE MID N	*	549622.0	519690.0	5.0 *
15.	NW MID N	*	549493.0	519702.0	5.0 *
16.	NW 164 N	*	549475.0	519543.0	5.0 *
17.	NW 82 N	*	549440.0	519467.0	5.0 *
18.	NW CNR	*	549388.0	519405.0	5.0 *
19.	NW 82 W	*	549312.0	519369.0	5.0 *
20.	NW 164 W	*	549230.0	519375.0	5.0 *
21.	NW MID W	*	549068.0	519424.0	5.0 *
22.	SW MID W	*	549066.0	519299.0	5.0 *
23.	SW 164 W	*	549262.0	519250.0	5.0 *
24.	SW 82 W	*	549343.0	519242.0	5.0 *
25.	SW CNR	*	549420.0	519205.0	5.0 *
26.	SW 82 S	*	549455.0	519123.0	5.0 *
27.	SW 164 S	*	549453.0	519042.0	5.0 *
28.	SW MID S	*	549448.0	518884.0	5.0 *

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MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	*	1.3	1.8	1.8	1.9	2.2	1.9	1.5	.0	.0	.2	.3	.9	.8	.8	.5	.5	.1	.1	.0	.0
5.	*	1.4	1.6	1.5	1.6	2.0	1.9	1.5	.0	.0	.1	.3	.5	.7	.7	.6	.6	.5	.2	.1	.0
10.	*	1.0	1.4	1.4	1.4	1.8	2.0	1.4	.0	.0	.0	.1	.4	.4	.4	.8	.9	.5	.3	.1	.0
15.	*	.8	.8	1.0	1.4	1.7	1.7	1.4	.0	.0	.0	.1	.2	.3	.2	.9	1.1	.8	.5	.2	.1
20.	*	.6	.7	.9	1.3	1.7	1.7	1.3	.0	.0	.0	.0	.1	.1	.1	1.1	1.3	.8	.6	.2	.2
25.	*	.3	.6	.8	1.3	1.8	1.8	1.4	.0	.0	.0	.0	.1	.1	.1	1.1	1.4	.9	.7	.4	.2
30.	*	.4	.6	.8	1.3	1.8	1.9	1.5	.0	.0	.0	.0	.0	.0	.0	1.1	1.5	.9	.7	.4	.2
35.	*	.4	.6	.7	1.3	1.9	1.9	1.5	.0	.0	.0	.0	.0	.0	.0	1.1	1.5	1.0	.7	.4	.4
40.	*	.4	.6	.7	1.3	2.0	1.9	1.6	.1	.0	.0	.0	.0	.0	.0	1.0	1.4	1.0	.7	.5	.4
45.	*	.3	.5	.8	1.4	1.9	2.0	1.7	.1	.0	.0	.0	.0	.0	.0	1.0	1.3	1.0	.7	.5	.4
50.	*	.3	.5	.8	1.5	2.0	1.9	1.7	.1	.0	.0	.0	.0	.0	.0	1.1	1.4	1.1	.8	.5	.3
55.	*	.2	.5	.8	1.4	2.1	2.1	1.8	.1	.0	.0	.0	.0	.0	.0	1.1	1.4	1.0	.7	.5	.3
60.	*	.2	.5	.7	1.4	2.2	2.0	1.9	.1	.1	.0	.0	.0	.0	.0	1.2	1.4	1.0	.8	.6	.3
65.	*	.1	.4	.7	1.2	2.2	2.2	2.0	.1	.1	.0	.0	.0	.0	.0	1.1	1.4	1.0	.8	.6	.3
70.	*	.1	.4	.7	1.2	2.4	2.1	2.3	.3	.2	.0	.0	.0	.0	.0	1.2	1.3	1.0	.9	.6	.4
75.	*	.1	.2	.6	1.2	2.3	2.3	2.2	.5	.5	.1	.0	.0	.0	.0	1.1	1.3	.9	.9	.6	.4
80.	*	.1	.1	.6	1.4	2.4	2.3	2.1	.8	.8	.3	.1	.0	.0	.0	1.3	1.2	1.0	.8	.8	.5
85.	*	.1	.1	.3	1.2	2.2	2.1	1.9	1.1	1.4	.8	.2	.1	.0	.0	1.3	1.2	1.0	.9	1.0	.8
90.	*	.0	.1	.2	.9	2.0	1.9	1.6	1.4	1.8	1.3	.6	.1	.1	.0	1.3	1.3	1.2	1.2	1.2	.9
95.	*	.0	.1	.1	.4	1.5	1.6	1.5	1.6	2.3	1.6	.9	.1	.1	.0	1.3	1.3	1.2	1.4	1.4	1.5
100.	*	.0	.0	.1	.2	1.0	1.1	1.1	1.9	2.4	2.0	1.3	.4	.1	.1	1.4	1.3	1.6	1.6	1.4	1.6
105.	*	.0	.0	.0	.2	.5	.7	.7	2.0	2.7	2.1	1.3	.6	.1	.1	1.4	1.3	1.7	1.6	1.6	1.4
110.	*	.0	.0	.0	.0	.3	.3	.4	2.1	2.9	2.3	1.4	.6	.3	.1	1.4	1.6	1.8	1.6	1.7	1.7
115.	*	.0	.0	.0	.0	.2	.2	.2	2.0	2.7	1.9	1.3	.5	.4	.1	1.4	1.6	2.1	1.3	1.7	1.6
120.	*	.0	.0	.0	.0	.1	.2	.2	1.9	2.8	2.2	1.2	.7	.4	.1	1.4	1.7	2.0	1.2	1.4	1.6
125.	*	.0	.0	.0	.0	.1	.1	.1	1.8	2.7	2.2	1.3	.7	.4	.1	1.6	2.0	1.9	1.6	1.4	1.7
130.	*	.0	.0	.0	.0	.1	.1	.1	1.8	2.6	2.1	1.3	.7	.4	.2	1.6	2.1	1.8	1.3	1.6	1.5
135.	*	.0	.0	.0	.0	.1	.1	.1	1.7	2.5	2.1	1.3	.7	.5	.3	1.8	2.2	1.7	1.0	1.5	1.5
140.	*	.0	.0	.0	.0	.1	.1	.1	1.5	2.4	2.0	1.3	.6	.6	.3	1.9	2.1	1.6	1.1	1.5	1.6
145.	*	.0	.0	.0	.0	.1	.1	.1	1.5	2.3	1.9	1.4	.6	.7	.4	1.8	2.2	1.6	1.3	1.5	1.5
150.	*	.0	.0	.0	.0	.0	.1	.1	1.5	2.2	1.9	1.4	.6	.6	.4	2.0	2.1	1.4	1.3	1.2	1.5
155.	*	.0	.0	.0	.0	.0	.0	.1	1.4	2.2	1.8	1.4	.6	.6	.4	2.1	2.2	1.3	1.4	1.4	1.5
160.	*	.1	.0	.0	.0	.0	.0	.0	1.4	2.1	1.8	1.4	.7	.6	.4	2.0	2.2	1.1	1.4	1.5	1.5
165.	*	.1	.2	.0	.0	.0	.0	.0	1.4	2.1	1.8	1.4	.6	.7	.5	2.1	2.0	1.2	1.4	1.4	1.2
170.	*	.4	.3	.2	.0	.0	.0	.0	1.4	2.1	1.8	1.4	.7	.6	.5	1.9	1.8	1.4	1.4	1.3	1.1
175.	*	.4	.4	.4	.1	.0	.0	.0	1.4	2.2	1.8	1.4	1.0	.9	.5	1.7	1.8	1.4	1.2	1.1	1.0
180.	*	.7	.6	.6	.3	.0	.0	.0	1.5	2.2	1.8	1.8	1.3	.9	1.0	1.4	1.5	1.1	1.1	1.0	1.0
185.	*	.9	.9	.9	.5	.2	.0	.0	1.5	2.1	2.0	2.1	1.6	1.3	1.2	1.3	.9	.8	.9	1.0	1.0
190.	*	1.0	1.0	1.2	.5	.2	.1	.0	1.4	2.1	2.0	2.2	1.7	1.6	1.3	.8	.6	.7	.7	1.0	1.0
195.	*	1.0	1.2	1.5	.7	.4	.2	.0	1.4	2.3	2.3	2.1	1.8	1.5	1.5	.6	.5	.7	.7	1.0	1.0
200.	*	1.1	1.4	1.7	.9	.4	.2	.0	1.4	2.2	2.4	2.0	1.6	2.1	1.9	.4	.3	.5	.7	.9	1.1
205.	*	1.2	1.4	1.6	.9	.6	.4	.2	1.6	2.4	2.4	2.0	1.7	1.9	1.9	.1	.4	.5	.7	1.0	1.0

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WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	1.0	1.4	1.6	.8	.4	.4	.2	1.6	2.5	2.4	2.0	2.1	1.9	1.8	.1	.5	.5	.8	1.0	1.0
215.	*	1.1	1.5	1.6	.9	.5	.3	.3	1.6	2.6	2.5	1.8	1.8	2.0	1.8	.1	.5	.6	.9	1.0	1.0
220.	*	1.1	1.6	1.6	1.1	.7	.5	.4	1.7	2.6	2.4	1.6	1.9	1.9	1.5	.1	.4	.5	.7	1.0	1.0
225.	*	1.0	1.6	1.6	1.1	.7	.5	.3	1.9	2.7	2.4	1.5	2.0	1.8	1.4	.1	.3	.5	.7	1.0	1.0
230.	*	1.0	1.5	1.6	1.0	.7	.5	.3	2.1	2.8	2.5	1.7	2.2	1.9	1.4	.0	.3	.5	.8	1.1	1.0
235.	*	.9	1.6	1.5	1.0	.6	.5	.4	2.1	3.0	2.4	1.4	2.3	1.6	1.3	.1	.3	.4	.7	1.0	.9
240.	*	.9	1.5	1.5	1.0	.6	.6	.4	2.1	3.0	2.5	1.2	2.3	1.6	1.2	.2	.2	.4	.7	1.0	.9
245.	*	.9	1.4	1.5	.9	.6	.6	.4	2.6	3.0	2.5	1.6	2.4	1.3	1.2	.2	.1	.5	.6	.9	.9
250.	*	.9	1.4	1.5	.9	.7	.7	.5	2.7	3.1	2.5	1.7	2.2	1.4	1.3	.2	.2	.5	.7	1.0	.8
255.	*	.9	1.5	1.4	1.0	.9	.7	.7	2.9	3.1	2.2	1.5	2.2	1.3	1.3	.2	.2	.4	.7	.9	.9
260.	*	.9	1.5	1.4	1.0	1.2	.9	.8	2.8	2.9	2.0	1.6	1.9	1.4	1.3	.2	.2	.3	.6	.8	1.0
265.	*	.9	1.4	1.5	1.1	1.3	1.1	1.4	2.6	2.7	1.8	1.8	1.9	1.4	1.1	.0	.2	.2	.5	.9	.9
270.	*	.9	1.5	1.5	1.2	1.5	1.7	1.6	2.5	2.3	1.5	1.7	1.8	1.4	1.1	.0	.2	.2	.4	.7	.8
275.	*	.9	1.4	1.5	1.5	2.0	2.1	2.1	2.0	2.1	1.5	1.6	1.8	1.2	1.1	.0	.1	.2	.3	.6	.9
280.	*	.9	1.4	1.7	1.7	2.5	2.4	2.5	1.6	1.6	1.4	1.3	1.6	1.2	1.1	.0	.0	.2	.2	.5	.6

285. *	.9	1.4	1.8	1.8	2.5	2.5	2.6	1.2	.9	.9	1.2	1.4	1.2	1.1	.0	.0	.1	.2	.4	.6
290. *	.9	1.6	2.1	2.1	2.5	2.6	2.8	.8	.7	.8	1.2	1.4	1.2	1.0	.0	.0	.0	.1	.3	.4
295. *	.9	1.7	2.1	2.0	2.5	2.6	2.7	.6	.7	.8	1.2	1.4	1.2	1.0	.0	.0	.0	.0	.2	.4
300. *	1.0	1.8	2.3	1.7	2.4	2.6	2.6	.4	.5	.8	1.2	1.3	1.2	1.0	.0	.0	.0	.0	.1	.1
305. *	1.0	1.9	2.2	1.5	2.7	2.5	2.6	.4	.5	.7	1.2	1.2	1.2	.9	.0	.0	.0	.0	.0	.1
310. *	1.1	1.9	2.1	1.7	2.5	2.5	2.4	.4	.4	.7	1.2	1.2	1.2	.9	.0	.0	.0	.0	.0	.0
315. *	1.2	2.0	2.1	1.6	2.8	2.4	2.2	.5	.4	.7	1.1	1.2	1.3	1.0	.0	.0	.0	.0	.0	.0
320. *	1.2	2.0	2.0	1.6	2.8	2.5	2.2	.3	.4	.6	1.1	1.2	1.3	1.0	.0	.0	.0	.0	.0	.0
325. *	1.2	1.9	2.1	1.7	2.7	2.3	1.9	.3	.5	.5	1.1	1.3	1.4	1.0	.0	.0	.0	.0	.0	.0
330. *	1.4	2.1	2.1	2.0	2.7	2.4	1.8	.2	.5	.5	.7	1.3	1.3	1.0	.0	.0	.0	.0	.0	.0
335. *	1.6	2.1	2.1	2.0	2.6	2.4	1.8	.2	.2	.5	.8	1.4	1.2	1.1	.0	.0	.0	.0	.0	.0
340. *	1.8	2.4	2.2	2.0	2.4	2.1	1.7	.2	.2	.5	.9	1.4	1.3	1.1	.0	.0	.0	.0	.0	.0
345. *	2.0	2.3	2.5	2.0	2.3	1.9	1.5	.0	.2	.3	.7	1.3	1.2	1.1	.1	.0	.0	.0	.0	.0
350. *	1.7	2.3	2.2	2.0	2.3	1.9	1.4	.0	.2	.3	.7	1.3	1.2	1.1	.1	.1	.0	.0	.0	.0
355. *	1.7	1.9	1.9	1.8	2.2	2.1	1.4	.0	.2	.2	.6	1.0	1.1	1.0	.2	.2	.1	.0	.0	.0
360. *	1.3	1.8	1.8	1.9	2.2	1.9	1.5	.0	.0	.2	.3	.9	.8	.8	.5	.5	.1	.1	.0	.0
MAX *	2.0	2.4	2.5	2.1	2.8	2.6	2.8	2.9	3.1	2.5	2.2	2.4	2.1	1.9	2.1	2.2	2.1	1.6	1.7	1.7
DEGR. *	345	340	345	290	315	290	290	255	250	215	190	245	200	200	155	135	115	125	110	110

1

JOB: Pellissippi Site 3 NB PM 2035 RUN: Pellissippi Site 3 NB PM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) *	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0. *	.0	.9	1.4	1.2	1.5	1.4	1.2	1.4
5. *	.0	.8	1.4	1.3	1.7	1.6	1.5	1.6
10. *	.0	.8	1.4	1.7	1.8	1.7	1.9	1.7
15. *	.0	.7	1.5	1.8	1.8	1.9	1.9	1.8
20. *	.0	.7	1.5	1.8	1.9	1.9	1.8	2.2
25. *	.0	1.0	1.8	2.1	1.9	2.0	2.0	1.9
30. *	.1	1.0	1.8	2.3	1.8	1.9	1.8	2.0
35. *	.2	1.0	1.7	2.2	1.8	1.9	2.0	1.9
40. *	.2	.9	1.8	2.2	1.6	1.9	1.9	1.7
45. *	.2	1.0	2.2	2.2	1.5	1.9	1.8	1.6
50. *	.2	1.2	2.2	2.3	1.4	2.0	1.9	1.7
55. *	.4	1.2	2.0	2.1	1.4	2.0	1.9	1.5
60. *	.3	1.3	2.0	2.3	1.6	2.1	1.7	1.3
65. *	.3	1.3	2.2	2.3	1.8	2.0	1.7	1.3
70. *	.3	1.5	2.4	2.2	2.1	1.9	1.5	1.2
75. *	.3	1.8	2.3	2.0	1.9	1.8	1.4	1.1
80. *	.3	2.4	2.4	2.2	1.7	1.8	1.4	1.1
85. *	.4	2.1	2.1	2.2	1.6	1.5	1.3	1.1
90. *	.6	2.1	2.1	1.7	1.6	1.4	1.4	1.0
95. *	.9	1.9	1.7	1.5	1.4	1.3	1.4	1.0
100. *	1.1	1.9	1.2	1.0	1.1	1.2	1.2	1.0
105. *	1.0	1.4	.8	.8	1.1	1.2	1.2	1.0
110. *	1.2	1.0	.6	.6	.8	1.2	1.2	1.0
115. *	1.2	.7	.4	.6	.8	1.2	1.3	1.0
120. *	1.4	.5	.4	.6	.7	1.3	1.2	1.0
125. *	1.3	.3	.4	.6	.7	1.2	1.2	1.1
130. *	1.2	.3	.4	.7	.7	1.2	1.2	1.1
135. *	1.3	.2	.4	.6	.8	1.3	1.2	1.1
140. *	1.2	.1	.4	.5	.9	1.4	1.2	1.3
145. *	1.2	.3	.3	.5	.9	1.2	1.3	1.2
150. *	1.2	.2	.4	.5	.9	1.2	1.3	1.3
155. *	1.0	.1	.4	.6	.9	1.4	1.2	1.4
160. *	.9	.1	.3	.5	.9	1.4	1.4	1.4
165. *	.8	.0	.3	.5	.8	1.4	1.4	1.3
170. *	.8	.0	.1	.4	.7	1.2	1.2	1.2
175. *	.7	.0	.0	.2	.6	1.0	1.1	1.1
180. *	.9	.0	.0	.1	.4	.9	.8	.7
185. *	.7	.0	.0	.0	.3	.7	.6	.6
190. *	.7	.0	.0	.0	.1	.4	.4	.3
195. *	.8	.0	.0	.0	.0	.2	.2	.2
200. *	.7	.0	.0	.0	.0	.1	.1	.1
205. *	.8	.0	.0	.0	.0	.0	.0	.0

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JOB: Pellissippi Site 3 NB PM 2035 RUN: Pellissippi Site 3 NB PM 2035

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) *	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210. *	.8	.0	.0	.0	.0	.0	.0	.0
215. *	.7	.0	.0	.0	.0	.0	.0	.0
220. *	.8	.0	.0	.0	.0	.0	.0	.0
225. *	.8	.0	.0	.0	.0	.0	.0	.0
230. *	.7	.0	.0	.0	.0	.0	.0	.0
235. *	.7	.0	.0	.0	.0	.0	.0	.0
240. *	.8	.0	.0	.0	.0	.0	.0	.0
245. *	.8	.0	.0	.0	.0	.0	.0	.0
250. *	.8	.0	.0	.0	.0	.0	.0	.0
255. *	.8	.0	.0	.0	.0	.0	.0	.0
260. *	1.0	.0	.1	.1	.0	.0	.0	.0
265. *	1.0	.0	.1	.2	.0	.0	.0	.0
270. *	.9	.1	.4	.5	.1	.0	.0	.0
275. *	.9	.1	.6	.7	.3	.0	.0	.0
280. *	.9	.2	.9	1.0	.5	.0	.0	.0
285. *	.7	.5	1.1	1.5	.7	.2	.0	.0

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290.  *    .5    .6   1.3   1.6   1.0    .3    .1    .0
295.  *    .4    .7   1.5   1.7   1.2    .5    .1    .0
300.  *    .2    .9   1.8   1.9   1.2    .6    .3    .0
305.  *    .2    .9   1.7   1.9   1.3    .7    .3    .1
310.  *    .1   1.0   1.8   1.7   1.1    .7    .4    .2
315.  *    .0   1.0   1.7   1.5    .9    .5    .4    .2
320.  *    .0   1.0   1.7   1.3   1.0    .6    .4    .3
325.  *    .0   1.0   1.5   1.5   1.1    .6    .4    .1
330.  *    .0   1.0   1.4   1.4   1.1    .6    .5    .1
335.  *    .0    .8   1.3   1.4   1.0    .5    .5    .2
340.  *    .0    .9   1.3   1.3   1.0    .6    .4    .2
345.  *    .0    .8   1.4   1.4   1.0    .6    .5    .3
350.  *    .0    .8   1.4   1.4   1.0    .9    .6    .5
355.  *    .0    .7   1.4   1.4   1.2   1.1    .8   1.0
360.  *    .0    .9   1.4   1.2   1.5   1.4   1.2   1.4
------*-------------------------------------------------
MAX   *   1.4   2.4   2.4   2.3   2.1   2.1   2.0   2.2
DEGR. *  120    80    70    30    70    60    25    20

THE HIGHEST CONCENTRATION IS    3.10 PPM AT  250 DEGREES FROM REC9 .
THE 2ND HIGHEST CONCENTRATION IS    2.90 PPM AT  255 DEGREES FROM REC8 .
THE 3RD HIGHEST CONCENTRATION IS    2.80 PPM AT  315 DEGREES FROM REC5 .
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Pellissippi Site 3 BD AM 2035           60.0321.0.0000.000280.30480000    1    1
SE MID S              549570.   518885.       5.0
SE 164 S              549576.   519046.       5.0
SE 82 S               549585.   519128.       5.0
SE CNR                549633.   519199.       5.0
SE 82 E               549709.   519236.       5.0
SE 164 E              549792.   519233.       5.0
SE MID E              549949.   519226.       5.0
NE MID E              549955.   519313.       5.0
NE 164 E              549803.   519318.       5.0
NE 82 E               549722.   519334.       5.0
NE CNR                549647.   519371.       5.0
NE 82 N               549609.   519453.       5.0
NE 164 N              549611.   519534.       5.0
NE MID N              549622.   519690.       5.0
NW MID N              549493.   519702.       5.0
NW 164 N              549475.   519543.       5.0
NW 82 N               549440.   519467.       5.0
NW CNR                549388.   519405.       5.0
NW 82 W               549312.   519369.       5.0
NW 164 W              549230.   519375.       5.0
NW MID W              549068.   519424.       5.0
SW MID W              549066.   519299.       5.0
SW 164 W              549262.   519250.       5.0
SW 82 W               549343.   519242.       5.0
SW CNR                549420.   519205.       5.0
SW 82 S               549455.   519123.       5.0
SW 164 S              549453.   519042.       5.0
SW MID S              549448.   518884.       5.0
Pellissippi Site 3 BD AM 2035            50  1   0
  1
0         115nbAP   AG549562.518286.549536.518778.    256612.4  0.  44   30.
  1
0         115nbAP   AG549536.518779.549542.519048.    256612.4  0.  44   30.
  1
0         115nbTH   AG549542.519049.549558.519283.    229612.4  0.  44   30.
  2
0         115nbTHQ  AG549555.519240.549542.519055.      0.  24   2
       120        67       2.0 2296   76.0 3200 1 3
  1
0         115nbL    AG549525.519034.549540.519281.      7912.4  0.  32   30.
  2
0         115nbLQ   AG549537.519239.549527.519055.      0.  12   1
       120       104       2.0   79   76.0 1600 1 3
  1
0         115nbR    AG549552.519059.549572.519162.     19112.4  0.  32   30.
  1
0         115nbR    AG549572.519162.549613.519209.     19112.4  0.  32   30.
  1
0         115nbR    AG549613.519209.549667.519241.     19112.4  0.  32   30.
  1
0         115nbR    AG549667.519241.549710.519256.     19112.4  0.  32   30.
  1
0         115nbD    AG549558.519284.549632.520276.    258812.8  0.  44   30.
  1
0         115sbAP   AG549585.520283.549536.519742.     88712.8  0.  44   30.
  1
0         115sbTH   AG549538.519742.549505.519275.     73312.8  0.  44   30.
  2
0         115sbTQ   AG549511.519353.549531.519644.      0.  24   2
       120        67       2.0  733   76.0 3200 1 3
  1
0         115sbRT   AG549517.519701.549496.519531.     10012.8  0.  32   30.
  1
0         115sbRT   AG549496.519531.549456.519440.     10012.8  0.  32   30.
  1
0         115sbRT   AG549456.519440.549389.519372.     10012.8  0.  32   30.
  1
0         115sbRT   AG549389.519372.549264.519335.     10012.8  0.  32   30.
  1
0         115sbD    AG549504.519274.549480.518921.     89312.4  0.  44   30.
  1
0         115sbD    AG549480.518921.549482.518689.     89312.4  0.  44   30.
  1
0         115sbD    AG549482.518689.549523.518287.     89312.4  0.  44   30.
  1
0         115sbLT   AG549552.519628.549531.519300.     15412.8  0.  44   30.
  2
0         115sbLQ   AG549534.519352.549551.519615.      0.  24   2
       120       104       2.0  154   76.0 3200 1 3
  1
0         73ebAP    AG548565.519526.549067.519334.    136112.8  0.  44   30.
  1
0         73ebAP    AG549067.519334.549179.519301.    136112.8  0.  44   30.
  1
0         73ebAP    AG549179.519301.549324.519280.    136112.8  0.  44   30.
  1
0         73ebTH    AG549325.519280.549526.519270.    117912.8  0.  44   30.
  2
0         73ebTHQ   AG549466.519273.549327.519280.      0.  24   2
       120        78       2.0 1179   76.0 3200 1 3
  1
0         73ebRT    AG549361.519268.549437.519224.      3412.8  0.  32   30.
  1
0         73ebRT    AG549437.519224.549472.519163.      3412.8  0.  32   30.
  1
0         73ebRT    AG549472.519163.549484.519052.      3412.8  0.  32   30.
  1
0         73ebLT    AG549327.519293.549525.519286.     14812.8  0.  32   30.
  2
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0         73ebLQ    AG549465.519288.549331.519293.      0.  12   1
       120       104       2.0  148   76.0 1600 1 3
  1
0         73ebD     AG549527.519270.550079.519241.    152412.0  0.  44   30.
  1
0         73ebD     AG550079.519241.550246.519242.    152412.0  0.  44   30.
  1
0         73ebD     AG550246.519242.550532.519262.    152412.0  0.  44   30.
  1
0         73wbAP    AG550532.519311.550254.519287.    111812.0  0.  44   30.
  1
0         73wbAP    AG550254.519287.550054.519286.    111812.0  0.  44   30.
  1
0         73wbAP    AG550054.519286.549809.519295.    111812.0  0.  44   30.
  1
0         73wbTH    AG549808.519296.549534.519306.     84812.0  0.  44   30.
  2
0         73wbTHQ   AG549596.519304.549800.519296.      0.  24   2
       120        78       2.0  848   76.0 3200 1 3
  1
0         73wbR     AG549752.519305.549665.519330.     14412.0  0.  32   30.
  1
0         73wbR     AG549665.519330.549612.519372.     14412.0  0.  32   30.
  1
0         73wbR     AG549612.519372.549575.519474.     14412.0  0.  32   30.
  1
0         73wbL     AG549802.519280.549533.519291.     12612.0  0.  32   30.
  2
0         73wbLQ    AG549598.519288.549796.519280.      0.  12   1
       120       104       2.0  126   76.0 1600 1 3
  1
0         73wbD     AG549533.519308.549316.519323.     92712.8  0.  44   30.
  1
0         73wbD     AG549316.519323.549172.519350.     92712.8  0.  44   30.
  1
0         73wbD     AG549172.519350.549055.519391.     92712.8  0.  44   30.
  1
0         73wbD     AG549055.519391.548587.519592.     92712.8  0.  44   30.
1.0   04  1000   0Y  5  0 72
```

1 CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.2, JUNE 2000 PAGE 1

JOB: Pellissippi Site 3 BD AM 2035 RUN: Pellissippi Site 3 BD AM 2035
DATE: 02/23/2009 TIME: 13:03:03.98

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION		X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	115nbAP	549562.0	518286.0	549536.0	518778.0	493.	357.	AG	2566.	12.4	.0	44.0		
2. 0	115nbAP	549536.0	518779.0	549542.0	519048.0	269.	1.	AG	2566.	12.4	.0	44.0		
3. 0	115nbTH	549542.0	519049.0	549558.0	519283.0	235.	4.	AG	2296.	12.4	.0	44.0		
4. 0	115nbTHQ	549555.0	519240.0	549524.1	518799.3	442.	184.	AG	228.	100.0	.0	24.0	.88	22.4
5. 0	115nbL	549525.0	519034.0	549540.0	519281.0	247.	3.	AG	79.	12.4	.0	32.0		
6. 0	115nbLQ	549537.0	519239.0	549534.5	519194.1	45.	183.	AG	177.	100.0	.0	12.0	.50	2.3
7. 0	115nbR	549552.0	519059.0	549572.0	519162.0	105.	11.	AG	191.	12.4	.0	32.0		
8. 0	115nbR	549572.0	519162.0	549613.0	519209.0	62.	41.	AG	191.	12.4	.0	32.0		
9. 0	115nbR	549613.0	519209.0	549667.0	519241.0	63.	59.	AG	191.	12.4	.0	32.0		
10. 0	115nbR	549667.0	519241.0	549710.0	519256.0	46.	71.	AG	191.	12.4	.0	32.0		
11. 0	115nbD	549558.0	519284.0	549632.0	520276.0	995.	4.	AG	2588.	12.8	.0	44.0		
12. 0	115sbAP	549585.0	520283.0	549536.0	519742.0	543.	185.	AG	887.	12.8	.0	44.0		
13. 0	115sbTH	549538.0	519742.0	549505.0	519275.0	468.	184.	AG	733.	12.8	.0	44.0		
14. 0	115sbTQ	549511.0	519353.0	549520.2	519486.8	134.	4.	AG	228.	100.0	.0	24.0	.28	6.8
15. 0	115sbRT	549517.0	519701.0	549496.0	519531.0	171.	187.	AG	100.	12.8	.0	32.0		
16. 0	115sbRT	549496.0	519531.0	549456.0	519440.0	99.	204.	AG	100.	12.8	.0	32.0		
17. 0	115sbRT	549456.0	519440.0	549389.0	519372.0	95.	225.	AG	100.	12.8	.0	32.0		
18. 0	115sbRT	549389.0	519372.0	549264.0	519335.0	130.	254.	AG	100.	12.8	.0	32.0		
19. 0	115sbD	549504.0	519274.0	549480.0	518921.0	354.	184.	AG	893.	12.4	.0	44.0		
20. 0	115sbD	549480.0	518921.0	549482.0	518689.0	232.	180.	AG	893.	12.4	.0	44.0		
21. 0	115sbD	549482.0	518689.0	549523.0	518287.0	404.	174.	AG	893.	12.4	.0	44.0		
22. 0	115sbLT	549552.0	519628.0	549531.0	519300.0	329.	184.	AG	154.	12.8	.0	44.0		
23. 0	115sbLQ	549534.0	519352.0	549536.8	519395.7	44.	4.	AG	353.	100.0	.0	24.0	.24	2.2
24. 0	73ebAP	548565.0	519526.0	549067.0	519334.0	537.	111.	AG	1361.	12.8	.0	44.0		
25. 0	73ebAP	549067.0	519334.0	549179.0	519301.0	117.	106.	AG	1361.	12.8	.0	44.0		
26. 0	73ebAP	549179.0	519301.0	549324.0	519280.0	146.	98.	AG	1361.	12.8	.0	44.0		
27. 0	73ebTH	549325.0	519280.0	549526.0	519270.0	201.	93.	AG	1179.	12.8	.0	44.0		
28. 0	73ebTHQ	549466.0	519273.0	549215.1	519285.7	251.	273.	AG	265.	100.0	.0	24.0	.58	12.8
29. 0	73ebRT	549361.0	519268.0	549437.0	519224.0	88.	120.	AG	34.	12.8	.0	32.0		
30. 0	73ebRT	549437.0	519224.0	549472.0	519163.0	70.	150.	AG	34.	12.8	.0	32.0		
31. 0	73ebRT	549472.0	519163.0	549484.0	519052.0	112.	174.	AG	34.	12.8	.0	32.0		
32. 0	73ebLT	549327.0	519293.0	549525.0	519286.0	198.	92.	AG	148.	12.8	.0	32.0		
33. 0	73ebLQ	549465.0	519288.0	549343.3	519292.6	122.	272.	AG	177.	100.0	.0	12.0	.93	6.2
34. 0	73ebD	549527.0	519270.0	550079.0	519241.0	553.	93.	AG	1524.	12.0	.0	44.0		
35. 0	73ebD	550079.0	519241.0	550246.0	519242.0	167.	90.	AG	1524.	12.0	.0	44.0		
36. 0	73ebD	550246.0	519242.0	550532.0	519262.0	287.	86.	AG	1524.	12.0	.0	44.0		
37. 0	73wbAP	550532.0	519311.0	550254.0	519287.0	279.	265.	AG	1118.	12.0	.0	44.0		
38. 0	73wbAP	550254.0	519287.0	550054.0	519286.0	200.	270.	AG	1118.	12.0	.0	44.0		
39. 0	73wbAP	550054.0	519286.0	549809.0	519295.0	245.	272.	AG	1118.	12.0	.0	44.0		
40. 0	73wbTH	549808.0	519296.0	549534.0	519306.0	274.	272.	AG	848.	12.0	.0	44.0		
41. 0	73wbTHQ	549596.0	519304.0	549776.7	519296.9	181.	92.	AG	265.	100.0	.0	24.0	.42	9.2
42. 0	73wbR	549752.0	519305.0	549665.0	519330.0	91.	286.	AG	144.	12.0	.0	32.0		
43. 0	73wbR	549665.0	519330.0	549612.0	519372.0	68.	308.	AG	144.	12.0	.0	32.0		
44. 0	73wbR	549612.0	519372.0	549575.0	519474.0	108.	340.	AG	144.	12.0	.0	32.0		

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JOB: Pellissippi Site 3 BD AM 2035 RUN: Pellissippi Site 3 BD AM 2035
DATE: 02/23/2009 TIME: 13:03:03.98

LINK VARIABLES

LINK DESCRIPTION		X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. 0	73wbL	549802.0	519280.0	549533.0	519291.0	269.	272.	AG	126.	12.0	.0	32.0		
46. 0	73wbLQ	549598.0	519288.0	549682.0	519284.6	84.	92.	AG	177.	100.0	.0	12.0	.79	4.3
47. 0	73wbD	549533.0	519308.0	549316.0	519323.0	218.	274.	AG	927.	12.8	.0	44.0		
48. 0	73wbD	549316.0	519323.0	549172.0	519350.0	147.	281.	AG	927.	12.8	.0	44.0		
49. 0	73wbD	549172.0	519350.0	549055.0	519391.0	124.	289.	AG	927.	12.8	.0	44.0		
50. 0	73wbD	549055.0	519391.0	548587.0	519592.0	509.	293.	AG	927.	12.8	.0	44.0		

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JOB: Pellissippi Site 3 BD AM 2035 RUN: Pellissippi Site 3 BD AM 2035
DATE: 02/23/2009 TIME: 13:03:03.98

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. 0	115nbTHQ	120	67	2.0	2296	3200	76.00	1	3
6. 0	115nbLQ	120	104	2.0	79	1600	76.00	1	3
14. 0	115sbTQ	120	67	2.0	733	3200	76.00	1	3
23. 0	115sbLQ	120	104	2.0	154	3200	76.00	1	3
28. 0	73ebTHQ	120	78	2.0	1179	3200	76.00	1	3
33. 0	73ebLQ	120	104	2.0	148	1600	76.00	1	3
41. 0	73wbTHQ	120	78	2.0	848	3200	76.00	1	3
46. 0	73wbLQ	120	104	2.0	126	1600	76.00	1	3

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE MID S	549570.0	518885.0	5.0
2. SE 164 S	549576.0	519046.0	5.0
3. SE 82 S	549585.0	519128.0	5.0
4. SE CNR	549633.0	519199.0	5.0
5. SE 82 E	549709.0	519236.0	5.0

6.	SE 164 E	*	549792.0	519233.0	5.0	*
7.	SE MID E	*	549949.0	519226.0	5.0	*
8.	NE MID E	*	549955.0	519313.0	5.0	*
9.	NE 164 E	*	549803.0	519318.0	5.0	*
10.	NE 82 E	*	549722.0	519334.0	5.0	*
11.	NE CNR	*	549647.0	519371.0	5.0	*
12.	NE 82 N	*	549609.0	519453.0	5.0	*
13.	NE 164 N	*	549611.0	519534.0	5.0	*
14.	NE MID N	*	549622.0	519690.0	5.0	*
15.	NW MID N	*	549493.0	519702.0	5.0	*
16.	NW 164 N	*	549475.0	519543.0	5.0	*
17.	NW 82 N	*	549440.0	519467.0	5.0	*
18.	NW CNR	*	549388.0	519405.0	5.0	*
19.	NW 82 W	*	549312.0	519369.0	5.0	*
20.	NW 164 W	*	549230.0	519375.0	5.0	*
21.	NW MID W	*	549068.0	519424.0	5.0	*
22.	SW MID W	*	549066.0	519299.0	5.0	*
23.	SW 164 W	*	549262.0	519250.0	5.0	*
24.	SW 82 W	*	549343.0	519242.0	5.0	*
25.	SW CNR	*	549420.0	519205.0	5.0	*
26.	SW 82 S	*	549455.0	519123.0	5.0	*
27.	SW 164 S	*	549453.0	519042.0	5.0	*
28.	SW MID S	*	549448.0	518884.0	5.0	*

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MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	*	1.9	1.9	1.7	1.5	1.4	1.0	.9	.0	.1	.2	.5	1.1	1.2	1.2	.3	.2	.2	.0	.0	.0
5.	*	1.4	1.5	1.5	1.4	1.3	.9	1.0	.0	.0	.1	.3	.9	1.0	.9	.4	.4	.3	.1	.0	.0
10.	*	1.1	1.0	1.1	1.1	1.3	.8	.9	.0	.0	.1	.2	.6	.6	.6	.6	.5	.4	.3	.1	.0
15.	*	.7	.8	1.0	1.0	1.2	.8	.9	.0	.0	.0	.1	.4	.4	.4	.7	.6	.5	.3	.2	.1
20.	*	.6	.5	.9	1.0	1.2	.9	.9	.0	.0	.0	.0	.2	.2	.2	.8	.8	.6	.5	.3	.1
25.	*	.3	.5	.7	.9	1.2	.9	.9	.0	.0	.0	.0	.1	.1	.1	.9	.9	.6	.5	.3	.2
30.	*	.1	.3	.6	.9	1.2	.8	.9	.0	.0	.0	.0	.0	.1	.1	.9	.9	.6	.4	.4	.3
35.	*	.1	.3	.5	.9	1.1	.8	.9	.0	.0	.0	.0	.0	.0	.0	.9	.8	.6	.5	.4	.3
40.	*	.1	.3	.5	.9	1.1	.9	.9	.0	.0	.0	.0	.0	.0	.0	.8	.8	.6	.5	.4	.2
45.	*	.1	.4	.4	.8	1.3	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.8	.7	.6	.4	.4	.2
50.	*	.1	.3	.5	.8	1.2	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.8	.7	.6	.5	.4	.3
55.	*	.1	.2	.5	.9	1.1	1.1	1.1	.0	.0	.0	.0	.0	.0	.0	.8	.7	.6	.5	.5	.3
60.	*	.0	.2	.4	.7	1.1	1.1	1.2	.1	.0	.0	.0	.0	.0	.0	.8	.7	.7	.5	.5	.3
65.	*	.0	.1	.3	.7	1.2	1.1	1.2	.1	.1	.0	.0	.0	.0	.0	.8	.7	.7	.6	.4	.4
70.	*	.0	.1	.3	.6	1.2	1.3	1.4	.1	.1	.0	.0	.0	.0	.0	.7	.7	.7	.6	.4	.4
75.	*	.0	.1	.3	.5	1.1	1.3	1.5	.2	.2	.0	.0	.0	.0	.0	.7	.6	.7	.6	.4	.4
80.	*	.0	.0	.1	.4	1.2	1.4	1.3	.4	.3	.1	.0	.0	.0	.0	.7	.7	.8	.7	.5	.4
85.	*	.0	.0	.1	.4	1.3	1.3	1.2	.5	.4	.1	.0	.0	.0	.0	.7	.7	.8	.7	.7	.6
90.	*	.0	.0	.0	.2	1.1	1.2	1.1	.8	.8	.4	.1	.0	.0	.0	.7	.7	.8	.8	.9	.7
95.	*	.0	.0	.0	.1	.8	1.0	1.0	.9	.9	.7	.2	.0	.0	.0	.7	.7	.9	1.0	.9	1.0
100.	*	.0	.0	.0	.1	.5	.6	.6	1.0	1.1	.9	.3	.0	.0	.0	.7	.7	1.0	1.0	1.3	1.1
105.	*	.0	.0	.0	.0	.4	.4	.4	1.2	1.2	.8	.5	.2	.0	.0	.7	.7	1.1	1.1	1.2	1.1
110.	*	.0	.0	.0	.0	.2	.3	.3	1.1	1.1	.9	.5	.2	.0	.0	.7	.6	1.3	1.0	1.4	1.2
115.	*	.0	.0	.0	.0	.2	.2	.2	1.1	1.2	1.0	.6	.2	.0	.0	.7	.8	1.3	1.1	1.2	1.2
120.	*	.0	.0	.0	.0	.1	.1	.1	.9	1.0	1.0	.7	.3	.2	.0	.7	1.0	1.4	1.1	1.4	1.5
125.	*	.0	.0	.0	.0	.1	.1	.1	1.0	1.0	1.2	.9	.5	.2	.0	.7	1.0	1.4	1.1	1.4	1.4
130.	*	.0	.0	.0	.0	.1	.1	.1	.9	1.0	1.2	.8	.5	.2	.0	.8	1.1	1.4	1.0	1.4	1.4
135.	*	.0	.0	.0	.0	.1	.1	.1	.9	.9	1.1	.9	.4	.2	.1	.9	1.2	1.5	1.0	1.5	1.5
140.	*	.0	.0	.0	.0	.0	.1	.1	.8	.9	1.2	.9	.5	.3	.1	.9	1.2	1.3	1.2	1.4	1.3
145.	*	.0	.0	.0	.0	.0	.1	.1	.8	.9	1.3	.9	.5	.3	.1	1.0	1.4	1.3	1.1	1.3	1.4
150.	*	.0	.0	.0	.0	.0	.0	.1	.8	.8	1.3	1.0	.5	.3	.1	1.0	1.4	1.2	1.2	1.4	1.1
155.	*	.1	.0	.0	.0	.0	.0	.0	.7	.8	1.3	.9	.6	.3	.1	1.0	1.5	1.2	1.4	1.3	1.2
160.	*	.2	.2	.0	.0	.0	.0	.0	.7	.8	1.3	.9	.6	.4	.3	1.2	1.5	1.3	1.3	1.4	1.1
165.	*	.3	.2	.2	.0	.0	.0	.0	.7	.8	1.3	1.0	.6	.4	.3	1.2	1.6	1.3	1.2	1.2	1.0
170.	*	.4	.5	.4	.1	.0	.0	.0	.7	.8	1.3	1.0	1.0	.7	.4	1.3	1.7	1.1	1.2	1.0	1.0
175.	*	.8	.7	.6	.2	.0	.0	.0	.7	.8	1.3	1.2	1.2	1.0	.9	1.0	1.3	.9	1.1	.9	.9
180.	*	1.0	1.2	.9	.3	.1	.0	.0	.8	.8	1.4	1.5	1.4	1.2	1.2	1.0	1.2	.9	1.0	.9	.8
185.	*	1.3	1.6	1.1	.5	.1	.1	.0	.8	.9	1.5	1.5	1.7	1.5	1.5	1.0	1.0	.9	.8	.8	.8
190.	*	1.4	1.8	1.6	.8	.2	.1	.0	.7	.9	1.6	1.8	1.7	1.8	1.7	.5	.8	.5	.8	.8	.8
195.	*	1.7	2.0	1.8	.8	.3	.1	.1	.8	.9	1.6	1.8	2.0	2.0	1.7	.2	.4	.5	.7	.7	.6
200.	*	1.7	1.9	2.0	.9	.4	.2	.1	.8	1.0	1.8	1.8	1.9	2.0	1.8	.1	.4	.5	.8	.9	.7
205.	*	1.7	1.9	2.0	1.1	.4	.3	.1	.8	1.1	2.0	1.8	2.1	2.1	1.6	.1	.3	.5	.8	.9	.7

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WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	1.7	1.9	1.9	1.0	.6	.3	.1	.8	1.1	2.0	1.8	2.2	2.0	1.6	.1	.4	.6	.6	.9	.6
215.	*	1.7	1.9	1.8	.9	.6	.4	.2	1.0	1.3	2.0	1.6	2.0	1.9	1.6	.1	.3	.5	.6	.9	.5
220.	*	1.7	1.9	1.8	.9	.7	.3	.3	1.2	1.3	2.0	1.6	1.8	1.9	1.5	.0	.2	.5	.6	.9	.6
225.	*	1.7	1.8	1.9	.9	.6	.5	.4	1.1	1.5	2.2	1.4	2.0	1.8	1.4	.0	.3	.4	.6	.7	.6
230.	*	1.7	1.7	1.7	1.1	.7	.6	.3	1.1	1.7	2.1	1.6	2.1	1.7	1.3	.0	.3	.3	.6	.7	.7
235.	*	1.7	1.6	1.7	1.0	.8	.5	.3	1.2	1.7	1.9	1.4	2.0	1.5	1.1	.1	.0	.3	.5	.7	.6
240.	*	1.7	1.6	1.6	1.0	.7	.6	.3	1.3	1.9	2.1	1.4	2.0	1.4	1.1	.1	.0	.4	.4	.7	.6
245.	*	1.6	1.6	1.6	1.0	.7	.5	.4	1.3	2.1	2.2	1.6	1.9	1.2	1.2	.1	.1	.3	.4	.6	.6
250.	*	1.6	1.6	1.5	1.0	.7	.6	.5	1.4	2.2	2.0	1.3	1.8	1.1	1.1	.1	.1	.3	.4	.5	.7
255.	*	1.6	1.5	1.5	1.0	.8	.6	.5	1.4	2.2	1.8	1.4	1.5	1.2	1.1	.1	.2	.1	.5	.7	.7
260.	*	1.6	1.5	1.5	1.1	1.1	.8	.6	1.4	2.2	1.6	1.5	1.5	1.1	1.0	.0	.2	.2	.4	.5	.7
265.	*	1.6	1.6	1.5	1.2	1.2	1.1	1.0	1.4	2.0	1.7	1.4	1.4	1.1	1.0	.0	.2	.2	.5	.6	.7
270.	*	1.6	1.5	1.6	1.3	1.4	1.3	1.2	1.2	1.8	1.5	1.2	1.3	1.1	1.0	.0	.2	.2	.3	.6	.7
275.	*	1.5	1.5	1.6	1.5	1.7	1.7	1.4	1.0	1.9	1.2	1.2	1.3	1.0	1.0	.0	.0	.2	.2	.6	.6
280.	*	1.5	1.5	1.7	1.7	2.1	1.8	1.7	.8	1.5	1.1	1.1	1.2	1.0	1.0	.0	.0	.2	.2	.5	.6

285.	*	1.6	1.5	1.7	1.9	1.9	1.9	1.6	.6	.9	.6	.9	1.2	1.0	1.0	.0	.0	.0	.2	.3	.5
290.	*	1.6	1.6	1.9	1.8	1.9	2.1	1.5	.4	.7	.6	.9	1.1	1.0	1.0	.0	.0	.0	.1	.2	.3
295.	*	1.6	1.6	2.0	1.6	2.3	1.9	1.5	.3	.7	.6	.9	1.1	1.0	1.1	.0	.0	.0	.0	.2	.3
300.	*	1.7	1.7	2.1	1.6	2.3	1.9	1.5	.3	.6	.5	.9	1.1	1.0	1.1	.0	.0	.0	.0	.0	.1
305.	*	1.7	1.8	2.2	1.5	2.2	1.9	1.4	.3	.5	.5	.8	1.1	1.1	1.2	.0	.0	.0	.0	.0	.0
310.	*	1.7	1.9	2.1	1.5	2.1	1.9	1.3	.2	.4	.5	.7	1.0	1.1	1.2	.0	.0	.0	.0	.0	.0
315.	*	1.8	1.9	2.2	1.5	2.3	1.8	1.3	.2	.4	.5	.8	1.1	1.1	1.1	.0	.0	.0	.0	.0	.0
320.	*	1.9	2.1	2.0	1.4	2.3	1.7	1.2	.2	.4	.5	.8	1.2	1.2	1.3	.0	.0	.0	.0	.0	.0
325.	*	1.9	2.2	2.3	1.6	2.1	1.7	1.2	.2	.3	.5	.7	1.1	1.2	1.3	.0	.0	.0	.0	.0	.0
330.	*	2.1	2.2	2.3	1.6	2.0	1.4	1.1	.2	.3	.5	.7	1.2	1.3	1.4	.0	.0	.0	.0	.0	.0
335.	*	2.2	2.2	2.3	1.6	1.9	1.4	1.1	.2	.4	.4	.7	1.2	1.4	1.4	.0	.0	.0	.0	.0	.0
340.	*	2.4	2.3	2.4	1.7	1.9	1.4	1.0	.1	.4	.5	.9	1.4	1.5	1.5	.0	.0	.0	.0	.0	.0
345.	*	2.2	2.4	2.2	1.7	1.8	1.2	1.0	.1	.2	.5	.9	1.4	1.5	1.5	.0	.0	.0	.0	.0	.0
350.	*	2.1	2.3	2.0	1.6	1.7	1.2	1.0	.1	.2	.4	.7	1.4	1.5	1.5	.1	.0	.0	.0	.0	.0
355.	*	2.1	2.0	2.0	1.5	1.6	1.0	.9	.0	.1	.2	.6	1.3	1.3	1.3	.2	.2	.0	.0	.0	.0
360.	*	1.9	1.9	1.7	1.5	1.4	1.0	.9	.0	.1	.2	.5	1.1	1.2	1.2	.3	.2	.2	.0	.0	.0
MAX	*	2.4	2.4	2.4	1.9	2.3	2.1	1.7	1.4	2.2	2.2	1.8	2.2	2.1	1.8	1.3	1.7	1.5	1.4	1.5	1.5
DEGR.	*	340	345	340	285	295	290	280	250	250	225	195	210	205	200	170	170	135	155	135	120

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JOB: Pellissippi Site 3 BD AM 2035 RUN: Pellissippi Site 3 BD AM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	*	.0	.7	1.2	1.3	1.2	1.0	.8	.8
5.	*	.0	.6	1.3	1.4	1.5	1.0	1.1	1.0
10.	*	.0	.7	1.4	1.5	1.7	1.1	1.3	1.2
15.	*	.0	.7	1.4	1.7	1.5	1.4	1.4	1.2
20.	*	.0	.7	1.4	1.8	1.7	1.5	1.4	1.5
25.	*	.0	.8	1.3	1.8	1.7	1.6	1.5	1.4
30.	*	.1	.7	1.4	1.9	1.6	1.5	1.5	1.6
35.	*	.1	.8	1.5	1.9	1.4	1.4	1.4	1.5
40.	*	.1	.8	1.5	1.9	1.3	1.5	1.5	1.4
45.	*	.1	.9	1.8	2.1	1.5	1.5	1.5	1.4
50.	*	.2	.9	1.9	2.1	1.3	1.5	1.4	1.2
55.	*	.2	.9	1.9	2.1	1.1	1.4	1.3	1.3
60.	*	.2	.9	2.0	2.1	1.1	1.4	1.1	1.3
65.	*	.2	.9	1.9	2.2	1.2	1.4	1.1	1.1
70.	*	.2	1.0	2.3	2.0	1.5	1.4	1.1	1.1
75.	*	.1	1.1	2.1	1.8	1.4	1.2	1.1	1.1
80.	*	.1	1.4	1.8	1.6	1.3	1.1	1.2	1.1
85.	*	.1	1.4	1.7	1.6	1.3	1.1	1.0	1.1
90.	*	.1	1.5	1.7	1.3	1.1	1.1	1.1	1.1
95.	*	.2	1.4	1.2	1.0	1.0	1.0	1.0	1.1
100.	*	.5	1.1	.8	.8	.9	1.0	1.1	1.1
105.	*	.8	.9	.7	.6	.8	1.0	1.0	1.1
110.	*	.9	.6	.5	.5	.7	1.1	1.0	1.1
115.	*	1.1	.6	.3	.5	.7	1.1	1.1	1.1
120.	*	.9	.4	.4	.5	.7	1.0	1.1	1.1
125.	*	1.2	.2	.4	.6	.7	1.1	1.1	1.0
130.	*	1.1	.2	.4	.6	.8	1.0	1.1	1.1
135.	*	.9	.3	.3	.5	.7	1.1	1.1	1.1
140.	*	1.1	.2	.5	.6	.8	1.1	1.1	1.2
145.	*	1.0	.1	.4	.7	.8	1.1	1.2	1.0
150.	*	.7	.1	.3	.5	.9	1.2	1.3	1.1
155.	*	.6	.1	.3	.5	.9	1.1	1.3	1.2
160.	*	.6	.1	.2	.4	.8	1.3	1.2	1.1
165.	*	.6	.0	.1	.3	.8	1.2	1.3	.9
170.	*	.6	.0	.1	.2	.7	1.1	1.0	.8
175.	*	.6	.0	.0	.1	.5	.9	.8	.7
180.	*	.6	.0	.0	.1	.3	.8	.7	.5
185.	*	.6	.0	.0	.0	.1	.4	.4	.3
190.	*	.6	.0	.0	.0	.0	.3	.3	.2
195.	*	.6	.0	.0	.0	.0	.0	.0	.1
200.	*	.6	.0	.0	.0	.0	.0	.0	.0
205.	*	.6	.0	.0	.0	.0	.0	.0	.0

1

JOB: Pellissippi Site 3 BD AM 2035 RUN: Pellissippi Site 3 BD AM 2035

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	*	.6	.0	.0	.0	.0	.0	.0	.0
215.	*	.6	.0	.0	.0	.0	.0	.0	.0
220.	*	.7	.0	.0	.0	.0	.0	.0	.0
225.	*	.6	.0	.0	.0	.0	.0	.0	.0
230.	*	.6	.0	.0	.0	.0	.0	.0	.0
235.	*	.6	.0	.0	.0	.0	.0	.0	.0
240.	*	.6	.0	.0	.0	.0	.0	.0	.0
245.	*	.7	.0	.0	.0	.0	.0	.0	.0
250.	*	.7	.0	.0	.0	.0	.0	.0	.0
255.	*	.7	.0	.0	.0	.0	.0	.0	.0
260.	*	.7	.0	.0	.0	.0	.0	.0	.0
265.	*	.7	.0	.0	.2	.0	.0	.0	.0
270.	*	.7	.1	.2	.3	.0	.0	.0	.0
275.	*	.8	.1	.3	.6	.3	.0	.0	.0
280.	*	.6	.2	.4	.8	.4	.0	.0	.0
285.	*	.6	.3	.8	1.0	.5	.1	.0	.0

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290.  *    .4    .5    .9   1.4    .9    .1    .1    .0
295.  *    .3    .6   1.1   1.4   1.0    .4    .1    .0
300.  *    .2    .7   1.2   1.5   1.0    .4    .1    .0
305.  *    .1    .9   1.4   1.6   1.0    .4    .2    .1
310.  *    .1    .9   1.3   1.4   1.0    .5    .4    .1
315.  *    .0    .8   1.5   1.3   1.0    .5    .3    .1
320.  *    .0    .8   1.3   1.3   1.0    .5    .2    .1
325.  *    .0    .7   1.4   1.3   1.0    .6    .2    .0
330.  *    .0    .8   1.3   1.4    .9    .5    .4    .1
335.  *    .0    .8   1.3   1.2   1.0    .5    .4    .1
340.  *    .0    .7   1.3   1.2   1.0    .5    .5    .1
345.  *    .0    .7   1.2   1.2   1.0    .6    .5    .2
350.  *    .0    .8   1.2   1.3   1.1    .7    .6    .4
355.  *    .0    .7   1.2   1.4   1.2    .8    .7    .5
360.  *    .0    .7   1.2   1.3   1.2   1.0    .8    .8
------*-----------------------------------------------
MAX   *   1.2   1.5   2.3   2.2   1.7   1.6   1.5   1.6
DEGR. *  125    90    70    65    10    25    25    30

THE HIGHEST CONCENTRATION IS    2.40 PPM AT  340 DEGREES FROM REC1 .
THE 2ND HIGHEST CONCENTRATION IS    2.40 PPM AT  345 DEGREES FROM REC2 .
THE 3RD HIGHEST CONCENTRATION IS    2.40 PPM AT  340 DEGREES FROM REC3 .
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Pellissippi Site 3 BD PM 2035          60.0321.0.0000.000280.30480000    1    1
SE MID S              549570.   518885.       5.0
SE 164 S              549576.   519046.       5.0
SE 82 S               549585.   519128.       5.0
SE CNR                549633.   519199.       5.0
SE 82 E               549709.   519236.       5.0
SE 164 E              549792.   519233.       5.0
SE MID E              549949.   519226.       5.0
NE MID E              549955.   519313.       5.0
NE 164 E              549803.   519318.       5.0
NE 82 E               549722.   519334.       5.0
NE CNR                549647.   519371.       5.0
NE 82 N               549609.   519453.       5.0
NE 164 N              549611.   519534.       5.0
NE MID N              549622.   519690.       5.0
NW MID N              549493.   519702.       5.0
NW 164 N              549475.   519543.       5.0
NW 82 N               549440.   519467.       5.0
NW CNR                549388.   519405.       5.0
NW 82 W               549312.   519369.       5.0
NW 164 W              549230.   519375.       5.0
NW MID W              549068.   519424.       5.0
SW MID W              549066.   519299.       5.0
SW 164 W              549262.   519250.       5.0
SW 82 W               549343.   519242.       5.0
SW CNR                549420.   519205.       5.0
SW 82 S               549455.   519123.       5.0
SW 164 S              549453.   519042.       5.0
SW MID S              549448.   518884.       5.0
Pellissippi Site 3 BD PM 2035           50  1   0
  1
0         115nbAP   AG549562.518286.549536.518778.    146212.4  0.  44   30.
  1
0         115nbAP   AG549536.518779.549542.519048.    146212.4  0.  44   30.
  1
0         115nbTH   AG549542.519049.549558.519283.    112612.4  0.  44   30.
  2
0         115nbTHQ  AG549555.519240.549542.519055.      0.  24   2
       140       89       2.0 1126   76.0 3200 1 3
  1
0         115nbL    AG549525.519034.549540.519281.      8412.4  0.  32   30.
  2
0         115nbLQ   AG549537.519239.549527.519055.      0.  12   1
       140      123       2.0   84   76.0 1600 1 3
  1
0         115nbR    AG549552.519059.549572.519162.     25212.4  0.  32   30.
  1
0         115nbR    AG549572.519162.549613.519209.     25212.4  0.  32   30.
  1
0         115nbR    AG549613.519209.549667.519241.     25212.4  0.  32   30.
  1
0         115nbR    AG549667.519241.549710.519256.     25212.4  0.  32   30.
  1
0         115nbD    AG549558.519284.549632.520276.    145012.8  0.  44   30.
  1
0         115sbAP   AG549585.520283.549536.519742.    192312.8  0.  44   30.
  1
0         115sbTH   AG549538.519742.549505.519275.    159612.8  0.  44   30.
  2
0         115sbTQ   AG549511.519353.549531.519644.      0.  24   2
       140       89       2.0 1596   76.0 3200 1 3
  1
0         115sbRT   AG549517.519701.549496.519531.     10012.8  0.  32   30.
  1
0         115sbRT   AG549496.519531.549456.519440.     10012.8  0.  32   30.
  1
0         115sbRT   AG549456.519440.549389.519372.     10012.8  0.  32   30.
  1
0         115sbRT   AG549389.519372.549264.519335.     10012.8  0.  32   30.
  1
0         115sbD    AG549504.519274.549480.518921.    213812.4  0.  44   30.
  1
0         115sbD    AG549480.518921.549482.518689.    213812.4  0.  44   30.
  1
0         115sbD    AG549482.518689.549523.518287.    213812.4  0.  44   30.
  1
0         115sbLT   AG549552.519628.549531.519300.     32712.8  0.  44   30.
  2
0         115sbLQ   AG549534.519352.549551.519615.      0.  24   2
       140      123       2.0  327   76.0 3200 1 3
  1
0         73ebAP    AG548565.519526.549067.519334.    156912.8  0.  44   30.
  1
0         73ebAP    AG549067.519334.549179.519301.    156912.8  0.  44   30.
  1
0         73ebAP    AG549179.519301.549324.519280.    156912.8  0.  44   30.
  1
0         73ebTH    AG549325.519280.549526.519270.    140512.8  0.  44   30.
  2
0         73ebTHQ   AG549466.519273.549327.519280.      0.  24   2
       140       92       2.0 1405   76.0 3200 1 3
  1
0         73ebRT    AG549361.519268.549437.519224.      5512.8  0.  32   30.
  1
0         73ebRT    AG549437.519224.549472.519163.      5512.8  0.  32   30.
  1
0         73ebRT    AG549472.519163.549484.519052.      5512.8  0.  32   30.
  1
0         73ebLT    AG549327.519293.549525.519286.     10912.8  0.  32   30.
  2
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```
0         73ebLQ    AG549465.519288.549331.519293.      0.  12   1
       140       123       2.0  109   76.0 1600 1 3
  1
0         73ebD     AG549527.519270.550079.519241.    198412.0  0.  44   30.
  1
0         73ebD     AG550079.519241.550246.519242.    198412.0  0.  44   30.
  1
0         73ebD     AG550246.519242.550532.519262.    198412.0  0.  44   30.
  1
0         73wbAP    AG550532.519311.550254.519287.    192312.0  0.  44   30.
  1
0         73wbAP    AG550254.519287.550054.519286.    192312.0  0.  44   30.
  1
0         73wbAP    AG550054.519286.549809.519295.    192312.0  0.  44   30.
  1
0         73wbTH    AG549808.519296.549534.519306.    122112.0  0.  44   30.
  2
0         73wbTHQ   AG549596.519304.549800.519296.      0.  24   2
       140        92       2.0 1221   76.0 3200 1 3
  1
0         73wbR     AG549752.519305.549665.519330.     21512.0  0.  32   30.
  1
0         73wbR     AG549665.519330.549612.519372.     21512.0  0.  32   30.
  1
0         73wbR     AG549612.519372.549575.519474.     21512.0  0.  32   30.
  1
0         73wbL     AG549802.519280.549533.519291.     48712.0  0.  32   30.
  2
0         73wbLQ    AG549598.519288.549796.519280.      0.  12   1
       140       123       2.0  487   76.0 1600 1 3
  1
0         73wbD     AG549533.519308.549316.519323.    130512.8  0.  44   30.
  1
0         73wbD     AG549316.519323.549172.519350.    130512.8  0.  44   30.
  1
0         73wbD     AG549172.519350.549055.519391.    130512.8  0.  44   30.
  1
0         73wbD     AG549055.519391.548587.519592.    130512.8  0.  44   30.
1.0   04  1000   0Y  5  0 72
```

JOB: Pellissippi Site 3 BD PM 2035 RUN: Pellissippi Site 3 BD PM 2035
DATE: 02/23/2009 TIME: 13:09:37.08

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0 115nbAP	549562.0	518286.0	549536.0	518778.0	493.	357.	AG	1462.	12.4	.0	44.0		
2. 0 115nbAP	549536.0	518779.0	549542.0	519048.0	269.	1.	AG	1462.	12.4	.0	44.0		
3. 0 115nbTH	549542.0	519049.0	549558.0	519283.0	235.	4.	AG	1126.	12.4	.0	44.0		
4. 0 115nbTHQ	549555.0	519240.0	549535.8	518966.7	274.	184.	AG	259.	100.0	.0	24.0	.52	13.9
5. 0 115nbL	549525.0	519034.0	549540.0	519281.0	247.	3.	AG	84.	12.4	.0	32.0		
6. 0 115nbLQ	549537.0	519239.0	549533.9	519182.3	57.	183.	AG	179.	100.0	.0	12.0	.57	2.9
7. 0 115nbR	549552.0	519059.0	549572.0	519162.0	105.	11.	AG	252.	12.4	.0	32.0		
8. 0 115nbR	549572.0	519162.0	549613.0	519209.0	62.	41.	AG	252.	12.4	.0	32.0		
9. 0 115nbR	549613.0	519209.0	549667.0	519241.0	63.	59.	AG	252.	12.4	.0	32.0		
10. 0 115nbR	549667.0	519241.0	549710.0	519256.0	46.	71.	AG	252.	12.4	.0	32.0		
11. 0 115nbD	549558.0	519284.0	549632.0	520276.0	995.	4.	AG	1450.	12.8	.0	44.0		
12. 0 115sbAP	549585.0	520283.0	549536.0	519742.0	543.	185.	AG	1923.	12.8	.0	44.0		
13. 0 115sbTH	549538.0	519742.0	549505.0	519275.0	468.	184.	AG	1596.	12.8	.0	44.0		
14. 0 115sbTQ	549511.0	519353.0	549537.6	519740.5	388.	4.	AG	259.	100.0	.0	24.0	.74	19.7
15. 0 115sbRT	549517.0	519701.0	549496.0	519531.0	171.	187.	AG	100.	12.8	.0	32.0		
16. 0 115sbRT	549496.0	519531.0	549456.0	519440.0	99.	204.	AG	100.	12.8	.0	32.0		
17. 0 115sbRT	549456.0	519440.0	549389.0	519372.0	95.	225.	AG	100.	12.8	.0	32.0		
18. 0 115sbRT	549389.0	519372.0	549264.0	519335.0	130.	254.	AG	100.	12.8	.0	32.0		
19. 0 115sbD	549504.0	519274.0	549480.0	518921.0	354.	184.	AG	2138.	12.4	.0	44.0		
20. 0 115sbD	549480.0	518921.0	549482.0	518689.0	232.	180.	AG	2138.	12.4	.0	44.0		
21. 0 115sbD	549482.0	518689.0	549523.0	518287.0	404.	174.	AG	2138.	12.4	.0	44.0		
22. 0 115sbLT	549552.0	519628.0	549531.0	519300.0	329.	184.	AG	327.	12.8	.0	44.0		
23. 0 115sbLQ	549534.0	519352.0	549541.1	519461.4	110.	4.	AG	358.	100.0	.0	24.0	.55	5.6
24. 0 73ebAP	548565.0	519526.0	549067.0	519334.0	537.	111.	AG	1569.	12.8	.0	44.0		
25. 0 73ebAP	549067.0	519334.0	549179.0	519301.0	117.	106.	AG	1569.	12.8	.0	44.0		
26. 0 73ebAP	549179.0	519301.0	549324.0	519280.0	146.	98.	AG	1569.	12.8	.0	44.0		
27. 0 73ebTH	549325.0	519280.0	549526.0	519270.0	201.	93.	AG	1405.	12.8	.0	44.0		
28. 0 73ebTHQ	549466.0	519273.0	549113.3	519290.8	353.	273.	AG	268.	100.0	.0	24.0	.70	17.9
29. 0 73ebRT	549361.0	519268.0	549437.0	519224.0	88.	120.	AG	55.	12.8	.0	32.0		
30. 0 73ebRT	549437.0	519224.0	549472.0	519163.0	70.	150.	AG	55.	12.8	.0	32.0		
31. 0 73ebRT	549472.0	519163.0	549484.0	519052.0	112.	174.	AG	55.	12.8	.0	32.0		
32. 0 73ebLT	549327.0	519293.0	549525.0	519286.0	198.	92.	AG	109.	12.8	.0	32.0		
33. 0 73ebLQ	549465.0	519288.0	549384.6	519291.0	81.	273.	AG	179.	100.0	.0	12.0	.74	4.1
34. 0 73ebD	549527.0	519270.0	550079.0	519241.0	553.	93.	AG	1984.	12.0	.0	44.0		
35. 0 73ebD	550079.0	519241.0	550246.0	519242.0	167.	90.	AG	1984.	12.0	.0	44.0		
36. 0 73ebD	550246.0	519242.0	550532.0	519262.0	287.	86.	AG	1984.	12.0	.0	44.0		
37. 0 73wbAP	550532.0	519311.0	550254.0	519287.0	279.	265.	AG	1923.	12.0	.0	44.0		
38. 0 73wbAP	550254.0	519287.0	550054.0	519286.0	200.	270.	AG	1923.	12.0	.0	44.0		
39. 0 73wbAP	550054.0	519286.0	549809.0	519295.0	245.	272.	AG	1923.	12.0	.0	44.0		
40. 0 73wbTH	549808.0	519296.0	549534.0	519306.0	274.	272.	AG	1221.	12.0	.0	44.0		
41. 0 73wbTHQ	549596.0	519304.0	549902.7	519292.0	307.	92.	AG	268.	100.0	.0	24.0	.61	15.6
42. 0 73wbR	549752.0	519305.0	549665.0	519330.0	91.	286.	AG	215.	12.0	.0	32.0		
43. 0 73wbR	549665.0	519330.0	549612.0	519372.0	68.	308.	AG	215.	12.0	.0	32.0		
44. 0 73wbR	549612.0	519372.0	549575.0	519474.0	108.	340.	AG	215.	12.0	.0	32.0		

JOB: Pellissippi Site 3 BD PM 2035 RUN: Pellissippi Site 3 BD PM 2035
DATE: 02/23/2009 TIME: 13:09:37.08

LINK VARIABLES

LINK DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. 0 73wbL	549802.0	519280.0	549533.0	519291.0	269.	272.	AG	487.	12.0	.0	32.0		
46. 0 73wbLQ	549598.0	519288.0	553454.0	519132.3	3859.	92.	AG	179.	100.0	.0	12.0	3.29	196.0
47. 0 73wbD	549533.0	519308.0	549316.0	519323.0	218.	274.	AG	1305.	12.8	.0	44.0		
48. 0 73wbD	549316.0	519323.0	549172.0	519350.0	147.	281.	AG	1305.	12.8	.0	44.0		
49. 0 73wbD	549172.0	519350.0	549055.0	519391.0	124.	289.	AG	1305.	12.8	.0	44.0		
50. 0 73wbD	549055.0	519391.0	548587.0	519592.0	509.	293.	AG	1305.	12.8	.0	44.0		

JOB: Pellissippi Site 3 BD PM 2035 RUN: Pellissippi Site 3 BD PM 2035
DATE: 02/23/2009 TIME: 13:09:37.08

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. 0 115nbTHQ	140	89	2.0	1126	3200	76.00	1	3
6. 0 115nbLQ	140	123	2.0	84	1600	76.00	1	3
14. 0 115sbTQ	140	89	2.0	1596	3200	76.00	1	3
23. 0 115sbLQ	140	123	2.0	327	3200	76.00	1	3
28. 0 73ebTHQ	140	92	2.0	1405	3200	76.00	1	3
33. 0 73ebLQ	140	123	2.0	109	1600	76.00	1	3
41. 0 73wbTHQ	140	92	2.0	1221	3200	76.00	1	3
46. 0 73wbLQ	140	123	2.0	487	1600	76.00	1	3

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE MID S	549570.0	518885.0	5.0
2. SE 164 S	549576.0	519046.0	5.0
3. SE 82 S	549585.0	519128.0	5.0
4. SE CNR	549633.0	519199.0	5.0
5. SE 82 E	549709.0	519236.0	5.0

6.	SE 164 E	*	549792.0	519233.0	5.0	*
7.	SE MID E	*	549949.0	519226.0	5.0	*
8.	NE MID E	*	549955.0	519313.0	5.0	*
9.	NE 164 E	*	549803.0	519318.0	5.0	*
10.	NE 82 E	*	549722.0	519334.0	5.0	*
11.	NE CNR	*	549647.0	519371.0	5.0	*
12.	NE 82 N	*	549609.0	519453.0	5.0	*
13.	NE 164 N	*	549611.0	519534.0	5.0	*
14.	NE MID N	*	549622.0	519690.0	5.0	*
15.	NW MID N	*	549493.0	519702.0	5.0	*
16.	NW 164 N	*	549475.0	519543.0	5.0	*
17.	NW 82 N	*	549440.0	519467.0	5.0	*
18.	NW CNR	*	549388.0	519405.0	5.0	*
19.	NW 82 W	*	549312.0	519369.0	5.0	*
20.	NW 164 W	*	549230.0	519375.0	5.0	*
21.	NW MID W	*	549068.0	519424.0	5.0	*
22.	SW MID W	*	549066.0	519299.0	5.0	*
23.	SW 164 W	*	549262.0	519250.0	5.0	*
24.	SW 82 W	*	549343.0	519242.0	5.0	*
25.	SW CNR	*	549420.0	519205.0	5.0	*
26.	SW 82 S	*	549455.0	519123.0	5.0	*
27.	SW 164 S	*	549453.0	519042.0	5.0	*
28.	SW MID S	*	549448.0	518884.0	5.0	*

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MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) * CONCENTRATION (PPM)

WIND ANGLE (DEGR)	*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	*	1.4	1.9	1.9	1.9	2.2	1.9	1.5	.0	.0	.2	.3	.9	.8	.8	.5	.5	.2	.1	.0	.0
5.	*	1.4	1.6	1.7	1.6	2.1	1.9	1.5	.0	.0	.1	.3	.5	.7	.7	.6	.8	.5	.2	.1	.0
10.	*	1.0	1.4	1.5	1.4	1.8	2.0	1.4	.0	.0	.0	.1	.4	.5	.4	.8	.9	.5	.4	.1	.0
15.	*	.8	.8	1.2	1.5	1.8	1.8	1.4	.0	.0	.0	.1	.3	.3	.2	.9	1.1	.8	.5	.2	.1
20.	*	.6	.7	1.0	1.3	1.7	1.8	1.4	.0	.0	.0	.0	.1	.1	.1	1.1	1.3	.8	.6	.2	.2
25.	*	.3	.6	.8	1.3	1.8	1.9	1.5	.0	.0	.0	.0	.1	.1	.1	1.2	1.4	1.0	.7	.4	.2
30.	*	.4	.6	.8	1.3	1.9	1.9	1.5	.0	.0	.0	.0	.0	.0	.0	1.2	1.5	1.0	.7	.4	.2
35.	*	.4	.6	.8	1.4	1.9	1.9	1.5	.0	.0	.0	.0	.0	.0	.0	1.1	1.5	1.2	.7	.4	.4
40.	*	.4	.6	.7	1.4	2.0	2.0	1.7	.1	.0	.0	.0	.0	.0	.0	1.1	1.4	1.0	.8	.7	.4
45.	*	.3	.6	.8	1.4	2.0	2.0	1.7	.1	.0	.0	.0	.0	.0	.0	1.2	1.3	1.0	.8	.6	.4
50.	*	.3	.5	.8	1.5	2.0	2.1	1.7	.1	.0	.0	.0	.0	.0	.0	1.2	1.4	1.1	.8	.5	.3
55.	*	.2	.5	.8	1.5	2.2	2.1	1.8	.1	.1	.0	.0	.0	.0	.0	1.3	1.4	1.0	.9	.5	.3
60.	*	.2	.5	.7	1.4	2.2	2.1	1.9	.1	.1	.0	.0	.0	.0	.0	1.3	1.4	1.0	.9	.6	.3
65.	*	.1	.4	.7	1.3	2.3	2.2	2.0	.1	.1	.0	.0	.0	.0	.0	1.2	1.4	1.0	.8	.6	.3
70.	*	.1	.4	.7	1.3	2.4	2.2	2.3	.3	.2	.0	.0	.0	.0	.0	1.3	1.4	1.0	.9	.6	.4
75.	*	.1	.3	.6	1.3	2.4	2.5	2.2	.5	.5	.1	.0	.0	.0	.0	1.3	1.3	.9	.9	.6	.4
80.	*	.1	.1	.8	1.4	2.5	2.4	2.2	.8	.8	.3	.1	.0	.0	.0	1.3	1.4	1.0	.8	.8	.5
85.	*	.1	.1	.4	1.3	2.3	2.1	2.0	1.1	1.4	.9	.2	.1	.0	.0	1.3	1.4	1.1	1.0	1.1	.8
90.	*	.0	.1	.2	.9	2.0	1.9	1.6	1.4	1.8	1.4	.7	.1	.1	.0	1.3	1.5	1.2	1.3	1.2	.9
95.	*	.0	.1	.1	.5	1.5	1.7	1.5	1.7	2.3	1.6	.9	.1	.1	.0	1.3	1.5	1.2	1.4	1.4	1.5
100.	*	.0	.0	.1	.2	1.0	1.3	1.2	1.9	2.8	2.0	1.3	.5	.1	.1	1.4	1.5	1.7	1.6	1.5	1.6
105.	*	.0	.0	.0	.2	.6	.7	.7	2.0	2.9	2.1	1.4	.6	.1	.1	1.4	1.5	1.7	1.6	1.6	1.4
110.	*	.0	.0	.0	.0	.3	.3	.4	2.2	3.0	2.3	1.4	.6	.4	.1	1.4	1.7	1.8	1.6	1.7	1.9
115.	*	.0	.0	.0	.0	.2	.2	.2	2.0	3.0	1.9	1.3	.6	.4	.1	1.4	1.8	2.1	1.4	1.7	1.7
120.	*	.0	.0	.0	.0	.1	.2	.2	2.0	2.8	2.3	1.4	.8	.4	.1	1.4	1.9	2.0	1.2	1.4	1.7
125.	*	.0	.0	.0	.0	.1	.1	.1	1.9	2.8	2.3	1.4	.7	.4	.1	1.6	2.1	1.9	1.6	1.5	1.7
130.	*	.0	.0	.0	.0	.1	.1	.1	1.8	2.6	2.2	1.6	.7	.4	.2	1.6	2.1	1.8	1.3	1.6	1.6
135.	*	.0	.0	.0	.0	.1	.1	.1	1.7	2.5	2.2	1.4	.7	.5	.3	1.9	2.2	1.8	1.0	1.5	1.5
140.	*	.0	.0	.0	.0	.1	.1	.1	1.5	2.5	2.0	1.3	.7	.7	.3	1.9	2.1	1.8	1.2	1.5	1.6
145.	*	.0	.0	.0	.0	.1	.1	.1	1.5	2.3	1.9	1.4	.6	.7	.4	1.9	2.2	1.6	1.3	1.6	1.5
150.	*	.0	.0	.0	.0	.0	.1	.1	1.5	2.4	1.9	1.4	.7	.6	.4	2.0	2.1	1.4	1.4	1.4	1.5
155.	*	.0	.0	.0	.0	.0	.0	.1	1.4	2.3	1.8	1.4	.8	.6	.4	2.1	2.2	1.4	1.5	1.5	1.6
160.	*	.1	.0	.0	.0	.0	.0	.0	1.4	2.2	1.8	1.4	.8	.6	.4	2.0	2.2	1.3	1.5	1.5	1.5
165.	*	.2	.2	.1	.0	.0	.0	.0	1.4	2.2	1.8	1.4	.7	.7	.5	2.1	2.0	1.3	1.6	1.4	1.4
170.	*	.4	.3	.2	.0	.0	.0	.0	1.4	2.2	1.8	1.4	1.0	.6	.5	1.9	1.8	1.4	1.5	1.3	1.1
175.	*	.5	.4	.5	.1	.0	.0	.0	1.5	2.3	1.8	1.4	1.2	1.0	.5	1.7	1.9	1.4	1.3	1.2	1.0
180.	*	.7	.8	.6	.3	.0	.0	.0	1.5	2.3	1.8	1.8	1.5	1.2	1.0	1.4	1.6	1.2	1.2	1.0	1.0
185.	*	.9	.9	.9	.5	.2	.0	.0	1.5	2.2	2.0	2.1	1.6	1.6	1.3	1.3	1.0	1.0	1.0	1.0	1.1
190.	*	1.1	1.1	1.3	.5	.2	.2	.0	1.5	2.3	2.1	2.2	1.7	1.7	1.4	.9	.6	.7	.8	1.0	1.1
195.	*	1.0	1.2	1.5	.7	.4	.2	.0	1.5	2.4	2.3	2.1	1.8	1.8	1.6	.6	.5	.7	.7	1.0	1.1
200.	*	1.1	1.6	1.7	.9	.5	.2	.0	1.4	2.4	2.4	2.0	1.8	2.1	1.9	.4	.3	.5	.7	1.0	1.2
205.	*	1.2	1.6	1.7	1.0	.6	.4	.2	1.6	2.6	2.4	2.0	1.7	2.2	1.9	.1	.4	.6	.7	1.0	1.0

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WIND ANGLE (DEGR) * CONCENTRATION (PPM)

WIND ANGLE (DEGR)	*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	1.1	1.4	1.6	.8	.4	.4	.3	1.7	2.7	2.4	2.0	2.2	2.0	1.8	.1	.5	.5	.8	1.0	1.0
215.	*	1.2	1.5	1.6	.9	.6	.3	.3	1.8	2.6	2.5	1.9	2.0	2.0	1.9	.1	.5	.6	.9	1.0	1.1
220.	*	1.1	1.7	1.7	1.1	.8	.5	.4	1.9	2.6	2.4	1.6	2.0	1.9	1.6	.1	.4	.5	.7	1.0	1.0
225.	*	1.0	1.6	1.6	1.1	.7	.5	.3	2.0	2.9	2.5	1.5	2.2	1.9	1.4	.1	.3	.5	.7	1.0	1.1
230.	*	1.0	1.6	1.6	1.0	.7	.5	.3	2.2	2.9	2.5	1.7	2.2	1.9	1.4	.0	.3	.5	.8	1.1	1.0
235.	*	1.0	1.6	1.5	1.0	.6	.5	.5	2.1	3.0	2.3	1.4	2.4	1.7	1.3	.1	.3	.5	.7	1.0	1.0
240.	*	.9	1.5	1.5	1.0	.6	.6	.4	2.3	3.1	2.5	1.3	2.3	1.7	1.3	.2	.2	.4	.7	1.0	.9
245.	*	.9	1.5	1.5	.9	.6	.7	.5	2.7	3.1	2.6	1.6	2.4	1.4	1.2	.2	.1	.5	.6	.9	1.0
250.	*	.9	1.4	1.5	.9	.7	.7	.5	2.8	3.2	2.5	1.8	2.2	1.4	1.3	.2	.2	.5	.7	1.0	.9
255.	*	.9	1.5	1.5	1.0	1.0	.7	.7	3.0	3.3	2.3	1.5	2.3	1.3	1.3	.2	.2	.4	.7	1.0	1.0
260.	*	.9	1.5	1.5	1.0	1.3	.9	.9	2.8	2.9	2.0	1.7	2.0	1.4	1.3	.2	.2	.3	.6	.8	1.0
265.	*	.9	1.4	1.5	1.1	1.4	1.1	1.5	2.8	2.7	1.9	1.8	1.9	1.4	1.1	.0	.2	.2	.5	.9	.9
270.	*	.9	1.5	1.5	1.2	1.5	1.7	1.8	2.7	2.3	1.6	1.7	1.8	1.4	1.1	.0	.2	.2	.4	.7	.9
275.	*	.9	1.4	1.6	1.5	2.0	2.2	2.2	2.3	2.1	1.5	1.6	1.8	1.2	1.1	.0	.1	.2	.3	.6	.9
280.	*	.9	1.4	1.7	1.7	2.6	2.5	2.7	1.6	1.6	1.4	1.4	1.6	1.2	1.1	.0	.0	.2	.2	.6	.6

285. *	.9	1.5	1.8	2.1	2.5	2.6	3.0	1.2	1.0	1.1	1.3	1.5	1.2	1.2	.0	.0	.1	.2	.5	.6
290. *	.9	1.6	2.1	2.1	2.5	2.7	2.9	.8	.7	.8	1.2	1.4	1.2	1.0	.0	.0	.0	.1	.3	.4
295. *	.9	1.7	2.1	2.3	2.5	2.6	2.7	.6	.7	.8	1.2	1.4	1.2	1.0	.0	.0	.0	.0	.2	.4
300. *	1.0	1.8	2.3	1.7	2.6	2.6	2.7	.4	.5	.8	1.2	1.3	1.2	1.1	.0	.0	.0	.0	.1	.1
305. *	1.1	2.0	2.2	1.6	2.7	2.6	2.6	.4	.5	.7	1.3	1.2	1.2	.9	.0	.0	.0	.0	.0	.1
310. *	1.3	1.9	2.1	1.7	2.6	2.5	2.5	.4	.4	.7	1.2	1.2	1.3	1.1	.0	.0	.0	.0	.0	.0
315. *	1.3	2.0	2.2	1.7	2.9	2.6	2.3	.5	.5	.7	1.2	1.2	1.3	1.1	.0	.0	.0	.0	.0	.0
320. *	1.2	2.0	2.1	1.6	2.8	2.5	2.3	.3	.5	.6	1.1	1.3	1.3	1.0	.0	.0	.0	.0	.0	.0
325. *	1.3	2.0	2.1	1.7	2.7	2.4	2.0	.3	.5	.6	1.1	1.3	1.4	1.0	.0	.0	.0	.0	.0	.0
330. *	1.4	2.1	2.2	2.2	2.7	2.4	1.9	.2	.5	.5	.7	1.4	1.4	1.1	.0	.0	.0	.0	.0	.0
335. *	1.7	2.2	2.1	2.1	2.7	2.4	1.8	.2	.3	.5	.9	1.4	1.4	1.1	.0	.0	.0	.0	.0	.0
340. *	1.8	2.4	2.4	2.1	2.4	2.4	1.8	.2	.2	.5	.9	1.5	1.3	1.1	.0	.0	.0	.0	.0	.0
345. *	2.1	2.3	2.5	2.1	2.3	2.0	1.6	.0	.2	.5	.7	1.3	1.4	1.2	.1	.0	.0	.0	.0	.0
350. *	1.9	2.4	2.4	2.1	2.4	2.0	1.4	.0	.2	.3	.7	1.3	1.2	1.1	.1	.1	.0	.0	.0	.0
355. *	1.7	1.9	2.0	1.8	2.2	2.1	1.4	.0	.2	.2	.6	1.0	1.2	1.0	.2	.3	.1	.0	.0	.0
360. *	1.4	1.9	1.9	1.9	2.2	1.9	1.5	.0	.0	.2	.3	.9	.8	.8	.5	.5	.2	.1	.0	.0
MAX *	2.1	2.4	2.5	2.3	2.9	2.7	3.0	3.0	3.3	2.6	2.2	2.4	2.2	1.9	2.1	2.2	2.1	1.6	1.7	1.9
DEGR. *	345	350	345	295	315	290	285	255	255	245	190	235	205	200	155	135	115	125	110	110

1

JOB: Pellissippi Site 3 BD PM 2035 RUN: Pellissippi Site 3 BD PM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) *	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0. *	.0	.9	1.4	1.2	1.5	1.4	1.2	1.4
5. *	.0	.9	1.4	1.5	1.7	1.7	1.5	1.6
10. *	.0	.8	1.5	1.8	1.9	1.7	1.9	2.0
15. *	.0	.7	1.5	1.8	1.8	1.9	2.0	1.8
20. *	.0	.9	1.5	1.8	1.9	2.0	1.9	2.2
25. *	.0	1.0	1.8	2.1	2.1	2.0	2.1	1.9
30. *	.1	1.0	1.8	2.3	2.0	2.1	1.8	2.0
35. *	.2	1.0	1.7	2.2	1.8	1.9	2.0	1.9
40. *	.2	1.0	1.9	2.2	1.6	1.9	1.9	1.7
45. *	.2	1.2	2.2	2.2	1.5	1.9	1.9	1.8
50. *	.2	1.3	2.2	2.3	1.5	2.1	1.9	1.8
55. *	.4	1.2	2.1	2.3	1.4	2.0	1.9	1.5
60. *	.3	1.3	2.2	2.5	1.8	2.1	1.8	1.5
65. *	.3	1.3	2.2	2.5	1.8	2.0	1.7	1.3
70. *	.3	1.5	2.5	2.2	2.1	2.0	1.5	1.2
75. *	.3	1.9	2.5	2.1	1.9	1.8	1.5	1.1
80. *	.3	2.5	2.4	2.2	1.8	1.8	1.4	1.2
85. *	.5	2.2	2.2	2.4	1.8	1.5	1.3	1.2
90. *	.7	2.3	2.1	1.7	1.7	1.4	1.4	1.1
95. *	.9	2.1	1.7	1.5	1.4	1.3	1.4	1.1
100. *	1.1	2.0	1.2	1.0	1.1	1.2	1.2	1.1
105. *	1.0	1.6	.8	.9	1.1	1.2	1.2	1.1
110. *	1.3	1.1	.6	.7	.8	1.2	1.2	1.0
115. *	1.2	.8	.4	.6	.8	1.2	1.3	1.1
120. *	1.4	.7	.4	.6	.8	1.3	1.3	1.1
125. *	1.4	.5	.5	.6	.7	1.2	1.3	1.1
130. *	1.3	.3	.4	.7	.7	1.2	1.3	1.1
135. *	1.4	.3	.4	.7	.9	1.4	1.3	1.2
140. *	1.3	.1	.5	.5	.9	1.4	1.2	1.3
145. *	1.2	.3	.3	.6	.9	1.3	1.3	1.2
150. *	1.3	.2	.5	.5	.9	1.2	1.3	1.3
155. *	1.1	.1	.5	.6	.9	1.5	1.3	1.4
160. *	1.0	.1	.3	.5	1.0	1.4	1.4	1.4
165. *	.9	.0	.3	.5	.8	1.5	1.5	1.5
170. *	.8	.0	.1	.4	.7	1.4	1.4	1.3
175. *	.7	.0	.0	.3	.6	1.0	1.2	1.1
180. *	.9	.0	.0	.1	.4	.9	.9	.8
185. *	.7	.0	.0	.0	.3	.7	.7	.6
190. *	.7	.0	.0	.0	.1	.4	.5	.3
195. *	.9	.0	.0	.0	.0	.2	.2	.2
200. *	.7	.0	.0	.0	.0	.1	.1	.1
205. *	.8	.0	.0	.0	.0	.0	.0	.0

1

JOB: Pellissippi Site 3 BD PM 2035 RUN: Pellissippi Site 3 BD PM 2035

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) *	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210. *	.8	.0	.0	.0	.0	.0	.0	.0
215. *	.7	.0	.0	.0	.0	.0	.0	.0
220. *	.8	.0	.0	.0	.0	.0	.0	.0
225. *	.8	.0	.0	.0	.0	.0	.0	.0
230. *	.7	.0	.0	.0	.0	.0	.0	.0
235. *	.7	.0	.0	.0	.0	.0	.0	.0
240. *	.8	.0	.0	.0	.0	.0	.0	.0
245. *	.8	.0	.0	.0	.0	.0	.0	.0
250. *	.9	.0	.0	.0	.0	.0	.0	.0
255. *	.9	.0	.0	.0	.0	.0	.0	.0
260. *	1.0	.0	.1	.1	.0	.0	.0	.0
265. *	1.0	.0	.1	.2	.0	.0	.0	.0
270. *	.9	.1	.4	.5	.1	.0	.0	.0
275. *	.9	.1	.6	.7	.3	.0	.0	.0
280. *	.9	.2	.9	1.0	.5	.0	.0	.0
285. *	.7	.5	1.2	1.5	.8	.2	.0	.0

```
290.  *    .6    .6   1.4   1.6   1.0    .3    .1    .0
295.  *    .5    .7   1.6   1.7   1.2    .5    .1    .0
300.  *    .2    .9   1.8   1.9   1.2    .6    .3    .0
305.  *    .2   1.1   1.9   1.9   1.3    .7    .3    .1
310.  *    .1   1.1   1.8   1.7   1.1    .7    .4    .2
315.  *    .0   1.0   1.7   1.6    .9    .5    .4    .2
320.  *    .0   1.0   1.7   1.4   1.0    .6    .4    .3
325.  *    .0   1.0   1.6   1.5   1.1    .6    .4    .1
330.  *    .0   1.0   1.5   1.4   1.1    .6    .5    .2
335.  *    .0    .9   1.3   1.5   1.0    .5    .5    .2
340.  *    .0    .9   1.4   1.3   1.0    .6    .4    .2
345.  *    .0    .8   1.4   1.4   1.0    .6    .5    .3
350.  *    .0    .9   1.4   1.4   1.0    .9    .6    .5
355.  *    .0    .8   1.4   1.4   1.2   1.1    .9   1.0
360.  *    .0    .9   1.4   1.2   1.5   1.4   1.2   1.4
------*-------------------------------------------------------
MAX   *   1.4   2.5   2.5   2.5   2.1   2.1   2.1   2.2
DEGR. *  120    80    70    60    70    30    25    20

THE HIGHEST CONCENTRATION IS    3.30 PPM AT  255 DEGREES FROM REC9 .
THE 2ND HIGHEST CONCENTRATION IS    3.00 PPM AT  285 DEGREES FROM REC7 .
THE 3RD HIGHEST CONCENTRATION IS    3.00 PPM AT  255 DEGREES FROM REC8 .
```

CAL3QHC
Input and output files

SR 33 at SR 73 / US 321

```
Pellissippi Site 8 NB AM 2015           60.0321.0.0000.000280.30480000    1    1
SE MID S               549556.   519307.       5.0
SE 164 S               549623.   519358.       5.0
SE 82 S                549690.   519410.       5.0
SE CNR                 549780.   519444.       5.0
SE 82 E                549877.   519436.       5.0
SE 164 E               549957.   519419.       5.0
SE MID E               550037.   519403.       5.0
NE MID E               550161.   519479.       5.0
NE 164 E               550081.   519498.       5.0
NE 82 E                550002.   519516.       5.0
NE CNR                 549919.   519561.       5.0
NE 82 N                549979.   519642.       5.0
NE 164 N               550037.   519701.       5.0
NE MID N               550088.   519765.       5.0
NW MID N               549939.   519739.       5.0
NW 164 N               549875.   519688.       5.0
NW 82 N                549809.   519638.       5.0
NW CNR                 549728.   519588.       5.0
NW 82 W                549633.   519562.       5.0
NW 164 W               549551.   519558.       5.0
NW MID W               549468.   519552.       5.0
SW MID W               549264.   519444.       5.0
SW 164 W               549345.   519451.       5.0
SW 82 W                549427.   519459.       5.0
SW CNR                 549524.   519433.       5.0
SW 82 S                549465.   519343.       5.0
SW 164 S               549401.   519293.       5.0
SW MID S               549336.   519242.       5.0
Pellissippi Site 8 NB AM 2015            50  1   0
  1
0         SR33nb    AG548974.518884.549121.519014.    150813.8   0  32   30.
  1
0         SR33nb    AG549121.519014.549343.519192.    150813.8   0  32   30.
  1
0         SR33nb    AG549343.519192.549527.519330.    150813.8   0  32   30.
  1
0         SR33nbT   AG549528.519333.549744.519507.     67913.8   0  32   30.
  2
0         33nbTQ    AG549633.519417.549529.519334.      0.  12   1
       100        68        2.0  679   92.3 1600 1 3
  1
0         SR33nbL   AG549394.519249.549726.519511.      7313.8   0  32   30.
  2
0         33nbLQ    AG549622.519429.549515.519345.      0.  12   1
       100        77        2.0   73   92.3 1600 1 3
  1
0         SR33nbD   AG549745.519507.549965.519682.    100613.8   0  32   30.
  1
0         SR33nbD   AG549965.519682.550092.519820.    100613.8   0  44   30.
  1
0         SR33nbD   AG550092.519820.550418.520254.    100613.8   0  44   30.
  1
0         SR33nbR   AG549563.519333.549692.519433.     75613.8   0  32   30.
  2
0         33nbRQ    AG549647.519399.549566.519336.      0.  12   1
       100        68        2.0  756   92.3 1600 1 3
  1
0         SR33nbR   AG549692.519433.549790.519470.     75613.8   0  32   30.
  1
0         SR33sb    AG550393.520276.550090.519858.     36913.8   0  44   30.
  1
0         SR33sb    AG550090.519858.549985.519733.     36913.8   0  44   30.
  1
0         SR33sb    AG549985.519733.549936.519687.     36913.8   0  44   30.
  1
0         SR33sbT   AG549936.519686.549718.519520.     24813.8   0  32   30.
  2
0         33sbTQ    AG549804.519585.549932.519683.      0.  12   1
       100        68        2.0  248   92.3 1600 1 3
  1
0         SR33sbL   AG549935.519676.549739.519524.       213.8   0  32   30.
  2
0         33sbLQ    AG549811.519580.549927.519670.      0.  12   1
       100        77        2.0    2   92.3 1600 1 3
  1
0         SR33sbR   AG549915.519691.549781.519587.     11913.8   0  32   30.
  2
0         33sbRQ    AG549796.519598.549909.519686.      0.  12   1
       100        68        2.0  119   92.3 1600 1 3
  1
0         SR33sbR   AG549781.519587.549679.519542.     11913.8   0  32   30.
  1
0         SR33sbD   AG549718.519520.549294.519186.     81913.8   0  32   30.
  1
0         SR33sbD   AG549294.519186.549118.519041.     81913.8   0  32   30.
  1
0         SR33sbD   AG549118.519041.548963.518904.     81913.8   0  32   30.
  1
0         321eb     AG548761.519421.549272.519466.    132614.6   0  44   30.
  1
0         321ebT    AG549271.519468.549452.519486.    100414.6   0  44   30.
  1
0         321ebT    AG549452.519486.549687.519496.    100414.6   0  44   30.
  2
0         321ebTQ   AG549600.519492.549449.519486.      0.  24   2
```

```
       100        58       2.0 1004   92.3 3200 1 3
  1
0         321ebR    AG549507.519484.549542.519448.      8414.6   0  32   30.
  1
0         321ebR    AG549542.519448.549540.519382.      8414.6   0  32   30.
  1
0         321ebL    AG549275.519487.549457.519506.     32214.6   0  32   30.
  1
0         321ebL    AG549457.519506.549675.519517.     32214.6   0  32   30.
  2
0         321ebLQ   AG549600.519513.549456.519506.      0.  12   1
       100        77       2.0  322   92.3 1600 1 3
  1
0         321ebD    AG549693.519499.550395.519347.    167814.2   0  44   30.
  1
0         321ebD    AG550395.519347.550538.519325.    167814.2   0  44   30.
  1
0         321ebD    AG550538.519325.550787.519348.    167814.2   0  44   30.
  1
0         321wb     AG550748.519394.550570.519368.    136514.2   0  44   30.
  1
0         321wb     AG550570.519368.550393.519392.    136514.2   0  44   30.
  1
0         321wb     AG550393.519392.550105.519453.    136514.2   0  44   30.
  1
0         321wbT    AG550105.519454.549803.519526.     87814.2   0  44   30.
  2
0         321wbTQ   AG549852.519514.550090.519457.      0.  24   2
       100        58       2.0  878   92.3 3200 1 3
  1
0         321wbL    AG550101.519439.549798.519507.     48714.2   0  32   30.
  2
0         321wbLQ   AG549851.519495.550080.519444.      0.  12   1
       100        89       2.0  487   92.3 1600 1 3
  1
0         321wbR    AG549946.519502.549888.519552.       514.2   0  32   30.
  1
0         321wbR    AG549888.519552.549892.519619.       514.2   0  32   30.
  1
0         321wbD    AG549803.519526.549584.519535.    106514.6   0  44   30.
  1
0         321wbD    AG549584.519535.549409.519523.    106514.6   0  44   30.
  1
0         321wbD    AG549409.519523.548759.519461.    106514.6   0  44   30.
1.0   04  1000   0Y  5  0 72
```

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1                         CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.2, JUNE 2000
PAGE  1

      JOB: Pellissippi Site 8 NB AM 2015                     RUN: Pellissippi Site 8 NB AM 2015
      DATE: 12/15/2008   TIME: 14:08:44.55


       SITE & METEOROLOGICAL VARIABLES
       -------------------------------
       VS =    .0 CM/S       VD =    .0 CM/S       Z0 = 321. CM
        U =  1.0 M/S         CLAS =   4  (D)     ATIM =  60. MINUTES     MIXH =  1000. M   AMB =   .0 PPM

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H
  W    V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)
(FT) (FT)       (VEH)

------------------------*--------------------------------------*------------------------------------------
-------------
       1. 0         SR33nb    * 548974.0  518884.0  549121.0  519014.0 *     196.    49. AG  1508.  13.8    .0
32.0
       2. 0         SR33nb    * 549121.0  519014.0  549343.0  519192.0 *     285.    51. AG  1508.  13.8    .0
32.0
       3. 0         SR33nb    * 549343.0  519192.0  549527.0  519330.0 *     230.    53. AG  1508.  13.8    .0
32.0
       4. 0         SR33nbT   * 549528.0  519333.0  549744.0  519507.0 *     277.    51. AG   679.  13.8    .0
32.0
       5. 0         33nbTQ    * 549633.0  519417.0  547536.3  517744.0 *    2682.   231. AG   168. 100.0    .0
12.0 1.52 136.3
       6. 0         SR33nbL   * 549394.0  519249.0  549726.0  519511.0 *     423.    52. AG    73.  13.8    .0
32.0
       7. 0         33nbLQ    * 549622.0  519429.0  549597.8  519410.1 *      31.   232. AG   191. 100.0    .0
12.0  .24   1.6
       8. 0         SR33nbD   * 549745.0  519507.0  549965.0  519682.0 *     281.    51. AG  1006.  13.8    .0
32.0
       9. 0         SR33nbD   * 549965.0  519682.0  550092.0  519820.0 *     188.    43. AG  1006.  13.8    .0
44.0
      10. 0         SR33nbD   * 550092.0  519820.0  550418.0  520254.0 *     543.    37. AG  1006.  13.8    .0
44.0
      11. 0         SR33nbR   * 549563.0  519333.0  549692.0  519433.0 *     163.    52. AG   756.  13.8    .0
32.0
      12. 0         33nbRQ    * 549647.0  519399.0  546894.9  517258.3 *    3487.   232. AG   168. 100.0    .0
12.0 1.69 177.1
      13. 0         SR33nbR   * 549692.0  519433.0  549790.0  519470.0 *     105.    69. AG   756.  13.8    .0
32.0
      14. 0         SR33sb    * 550393.0  520276.0  550090.0  519858.0 *     516.   216. AG   369.  13.8    .0
44.0
      15. 0         SR33sb    * 550090.0  519858.0  549985.0  519733.0 *     163.   220. AG   369.  13.8    .0
44.0
      16. 0         SR33sb    * 549985.0  519733.0  549936.0  519687.0 *      67.   227. AG   369.  13.8    .0
44.0
      17. 0         SR33sbT   * 549936.0  519686.0  549718.0  519520.0 *     274.   233. AG   248.  13.8    .0
32.0
      18. 0         33sbTQ    * 549804.0  519585.0  549877.2  519641.1 *      92.    53. AG   168. 100.0    .0
12.0  .55   4.7
      19. 0         SR33sbL   * 549935.0  519676.0  549739.0  519524.0 *     248.   232. AG     2.  13.8    .0
32.0
      20. 0         33sbLQ    * 549811.0  519580.0  549811.7  519580.5 *       1.    52. AG   191. 100.0    .0
12.0  .01    .0
      21. 0         SR33sbR   * 549915.0  519691.0  549781.0  519587.0 *     170.   232. AG   119.  13.8    .0
32.0
      22. 0         33sbRQ    * 549796.0  519598.0  549830.9  519625.2 *      44.    52. AG   168. 100.0    .0
12.0  .27   2.2
      23. 0         SR33sbR   * 549781.0  519587.0  549679.0  519542.0 *     112.   246. AG   119.  13.8    .0
32.0
      24. 0         SR33sbD   * 549718.0  519520.0  549294.0  519186.0 *     540.   232. AG   819.  13.8    .0
32.0
      25. 0         SR33sbD   * 549294.0  519186.0  549118.0  519041.0 *     228.   231. AG   819.  13.8    .0
32.0
      26. 0         SR33sbD   * 549118.0  519041.0  548963.0  518904.0 *     207.   229. AG   819.  13.8    .0
32.0
      27. 0         321eb     * 548761.0  519421.0  549272.0  519466.0 *     513.    85. AG  1326.  14.6    .0
44.0
      28. 0         321ebT    * 549271.0  519468.0  549452.0  519486.0 *     182.    84. AG  1004.  14.6    .0
44.0
      29. 0         321ebT    * 549452.0  519486.0  549687.0  519496.0 *     235.    88. AG  1004.  14.6    .0
44.0
      30. 0         321ebTQ   * 549600.0  519492.0  549440.9  519485.7 *     159.   268. AG   287. 100.0    .0
24.0  .41   8.1
      31. 0         321ebR    * 549507.0  519484.0  549542.0  519448.0 *      50.   136. AG    84.  14.6    .0
32.0
      32. 0         321ebR    * 549542.0  519448.0  549540.0  519382.0 *      66.   182. AG    84.  14.6    .0
32.0
      33. 0         321ebL    * 549275.0  519487.0  549457.0  519506.0 *     183.    84. AG   322.  14.6    .0
32.0
      34. 0         321ebL    * 549457.0  519506.0  549675.0  519517.0 *     218.    87. AG   322.  14.6    .0
32.0
      35. 0         321ebLQ   * 549600.0  519513.0  549197.7  519493.5 *     403.   267. AG   191. 100.0    .0
12.0 1.06  20.5
      36. 0         321ebD    * 549693.0  519499.0  550395.0  519347.0 *     718.   102. AG  1678.  14.2    .0
44.0
      37. 0         321ebD    * 550395.0  519347.0  550538.0  519325.0 *     145.    99. AG  1678.  14.2    .0
44.0
      38. 0         321ebD    * 550538.0  519325.0  550787.0  519348.0 *     250.    85. AG  1678.  14.2    .0
```

44.0

39. 0	321wb	* 550748.0	519394.0	550570.0	519368.0 *	180.	262.	AG	1365.	14.2	.0	44.0		
40. 0	321wb	* 550570.0	519368.0	550393.0	519392.0 *	179.	278.	AG	1365.	14.2	.0	44.0		
41. 0	321wb	* 550393.0	519392.0	550105.0	519453.0 *	294.	282.	AG	1365.	14.2	.0	44.0		
42. 0	321wbT	* 550105.0	519454.0	549803.0	519526.0 *	310.	283.	AG	878.	14.2	.0	44.0		
43. 0	321wbTQ	* 549852.0	519514.0	549987.4	519481.6 *	139.	103.	AG	287.	100.0	.0	24.0	.36	7.1
44. 0	321wbL	* 550101.0	519439.0	549798.0	519507.0 *	310.	283.	AG	487.	14.2	.0	32.0		

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JOB: Pellissippi Site 8 NB AM 2015 RUN: Pellissippi Site 8 NB AM 2015
DATE: 12/15/2008 TIME: 14:08:44.55

LINK VARIABLES

LINK DESCRIPTION		* X1	Y1	X2	Y2 *	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. 0	321wbLQ	* 549851.0	519495.0	553904.6	518592.1 *	4153.	103.	AG	220.	100.0	.0	12.0	4.35	211.0
46. 0	321wbR	* 549946.0	519502.0	549888.0	519552.0 *	77.	311.	AG	5.	14.2	.0	32.0		
47. 0	321wbR	* 549888.0	519552.0	549892.0	519619.0 *	67.	3.	AG	5.	14.2	.0	32.0		
48. 0	321wbD	* 549803.0	519526.0	549584.0	519535.0 *	219.	272.	AG	1065.	14.6	.0	44.0		
49. 0	321wbD	* 549584.0	519535.0	549409.0	519523.0 *	175.	266.	AG	1065.	14.6	.0	44.0		
50. 0	321wbD	* 549409.0	519523.0	548759.0	519461.0 *	653.	265.	AG	1065.	14.6	.0	44.0		

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JOB: Pellissippi Site 8 NB AM 2015 RUN: Pellissippi Site 8 NB AM 2015
DATE: 12/15/2008 TIME: 14:08:44.55

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		* CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
5. 0	33nbTQ	* 100	68	2.0	679	1600	92.30	1	3
7. 0	33nbLQ	* 100	77	2.0	73	1600	92.30	1	3
12. 0	33nbRQ	* 100	68	2.0	756	1600	92.30	1	3
18. 0	33sbTQ	* 100	68	2.0	248	1600	92.30	1	3
20. 0	33sbLQ	* 100	77	2.0	2	1600	92.30	1	3
22. 0	33sbRQ	* 100	68	2.0	119	1600	92.30	1	3
30. 0	321ebTQ	* 100	58	2.0	1004	3200	92.30	1	3
35. 0	321ebLQ	* 100	77	2.0	322	1600	92.30	1	3
43. 0	321wbTQ	* 100	58	2.0	878	3200	92.30	1	3
45. 0	321wbLQ	* 100	89	2.0	487	1600	92.30	1	3

RECEPTOR LOCATIONS

RECEPTOR	* COORDINATES (FT) X	Y	Z *
1. SE MID S	* 549556.0	519307.0	5.0 *
2. SE 164 S	* 549623.0	519358.0	5.0 *
3. SE 82 S	* 549690.0	519410.0	5.0 *
4. SE CNR	* 549780.0	519444.0	5.0 *
5. SE 82 E	* 549877.0	519436.0	5.0 *
6. SE 164 E	* 549957.0	519419.0	5.0 *
7. SE MID E	* 550037.0	519403.0	5.0 *
8. NE MID E	* 550161.0	519479.0	5.0 *
9. NE 164 E	* 550081.0	519498.0	5.0 *
10. NE 82 E	* 550002.0	519516.0	5.0 *
11. NE CNR	* 549919.0	519561.0	5.0 *
12. NE 82 N	* 549979.0	519642.0	5.0 *
13. NE 164 N	* 550037.0	519701.0	5.0 *
14. NE MID N	* 550088.0	519765.0	5.0 *
15. NW MID N	* 549939.0	519739.0	5.0 *
16. NW 164 N	* 549875.0	519688.0	5.0 *
17. NW 82 N	* 549809.0	519638.0	5.0 *
18. NW CNR	* 549728.0	519588.0	5.0 *
19. NW 82 W	* 549633.0	519562.0	5.0 *
20. NW 164 W	* 549551.0	519558.0	5.0 *
21. NW MID W	* 549468.0	519552.0	5.0 *
22. SW MID W	* 549264.0	519444.0	5.0 *
23. SW 164 W	* 549345.0	519451.0	5.0 *
24. SW 82 W	* 549427.0	519459.0	5.0 *
25. SW CNR	* 549524.0	519433.0	5.0 *
26. SW 82 S	* 549465.0	519343.0	5.0 *
27. SW 164 S	* 549401.0	519293.0	5.0 *
28. SW MID S	* 549336.0	519242.0	5.0 *

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JOB: Pellissippi Site 8 NB AM 2015 RUN: Pellissippi Site 8 NB AM 2015

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
	CONCENTRATION (PPM)																			
0.	1.8	1.9	1.3	1.3	2.0	2.0	1.5	.1	.2	.1	.2	.5	.5	.7	.0	.0	.0	.0	.0	.0
5.	2.0	1.8	1.2	1.5	1.9	1.9	1.6	.1	.2	.1	.3	.5	.6	.7	.0	.0	.0	.0	.0	.0
10.	2.0	1.6	1.2	1.5	1.9	1.8	1.5	.1	.1	.2	.3	.5	.6	.6	.0	.0	.0	.0	.0	.0
15.	1.8	1.7	1.3	1.5	2.0	1.9	1.5	.1	.1	.2	.3	.6	.7	.7	.0	.0	.0	.0	.0	.0
20.	1.9	1.7	1.4	1.5	2.1	1.9	1.5	.1	.1	.2	.3	.6	.7	.7	.0	.0	.0	.0	.0	.0
25.	1.9	1.6	1.4	1.4	2.1	1.7	1.5	.0	.1	.2	.4	.6	.6	.6	.0	.0	.0	.0	.0	.0
30.	1.9	1.5	1.3	1.8	2.0	1.7	1.4	.0	.1	.1	.4	.7	.5	.6	.1	.0	.0	.0	.0	.0
35.	1.8	1.5	1.2	1.6	2.0	1.6	1.5	.0	.0	.1	.3	.5	.5	.6	.1	.1	.1	.0	.0	.0
40.	1.7	1.4	1.4	1.6	1.9	1.5	1.5	.0	.0	.1	.2	.4	.3	.4	.3	.1	.1	.1	.0	.0
45.	1.4	1.1	1.6	1.7	1.8	1.5	1.5	.0	.0	.0	.2	.3	.3	.2	.5	.2	.2	.1	.0	.0
50.	1.5	1.3	1.4	1.5	1.9	1.5	1.6	.0	.0	.0	.2	.2	.1	.1	.5	.3	.2	.2	.1	.0
55.	1.3	1.3	1.4	1.6	1.9	1.5	1.6	.0	.0	.0	.0	.2	.1	.1	.4	.3	.2	.5	.1	.1
60.	1.0	1.0	1.3	1.7	1.9	1.7	1.9	.0	.0	.0	.0	.0	.0	.0	.4	.5	.3	.5	.2	.1
65.	.8	.9	1.2	1.6	2.0	1.8	1.9	.0	.0	.0	.0	.0	.0	.0	.4	.5	.4	.5	.2	.0
70.	.7	.8	1.2	1.7	2.1	1.9	2.0	.0	.0	.0	.0	.0	.0	.0	.5	.3	.5	.6	.3	.2
75.	.6	.9	1.1	1.8	2.1	2.0	2.0	.0	.0	.0	.0	.0	.0	.0	.5	.3	.6	.6	.3	.3
80.	.5	.9	1.1	1.8	2.1	2.0	2.0	.0	.0	.0	.0	.0	.0	.0	.4	.4	.6	.6	.4	.5
85.	.5	.6	1.2	1.9	2.2	2.1	2.2	.2	.2	.2	.0	.0	.0	.0	.5	.4	.6	.5	1.0	.9
90.	.3	.5	1.0	1.7	2.2	2.3	2.4	.2	.2	.2	.1	.0	.0	.0	.5	.3	.6	.7	.9	1.2
95.	.2	.3	.7	1.6	2.1	2.1	2.3	.6	.6	.4	.2	.1	.0	.0	.5	.4	.7	1.1	1.4	1.4
100.	.1	.3	.5	1.2	1.9	1.9	2.1	1.1	.9	.9	.4	.1	.1	.1	.6	.5	.8	1.1	1.7	1.9
105.	.1	.1	.3	.9	1.4	1.4	1.6	1.3	1.2	1.3	.6	.2	.1	.1	.5	.5	1.1	1.6	1.8	2.0
110.	.0	.1	.2	.6	1.1	1.0	1.2	1.4	1.4	1.4	.8	.3	.1	.1	.5	.6	1.2	1.7	2.0	2.0
115.	.0	.0	.0	.3	.6	.6	.7	1.6	1.5	1.3	.8	.5	.2	.1	.6	.7	1.6	1.7	2.0	1.7
120.	.0	.0	.0	.1	.5	.5	.5	1.6	1.4	1.5	1.2	.4	.3	.1	.7	.7	1.6	1.8	1.8	1.8
125.	.0	.0	.0	.1	.3	.3	.3	1.4	1.5	1.4	1.1	.4	.4	.2	.8	.7	1.6	1.7	1.6	1.7
130.	.0	.0	.0	.0	.2	.2	.2	1.5	1.4	1.4	1.3	.6	.3	.2	.7	1.0	1.9	1.6	1.4	1.6
135.	.0	.0	.0	.0	.1	.1	.2	1.4	1.3	1.4	1.4	.5	.3	.1	.6	1.0	2.0	1.4	1.3	1.7
140.	.0	.0	.0	.0	.1	.1	.1	1.4	1.2	1.3	1.4	.6	.3	.3	.6	1.1	2.0	1.5	1.3	1.7
145.	.0	.0	.0	.0	.1	.1	.1	1.3	1.2	1.2	1.3	.6	.3	.3	.8	.9	2.0	1.2	1.4	1.6
150.	.0	.0	.0	.0	.1	.1	.1	1.3	1.2	1.2	1.4	.6	.4	.3	.9	.9	2.0	1.1	1.3	2.0
155.	.0	.0	.0	.0	.1	.1	.1	1.3	1.2	1.2	1.3	.6	.4	.3	.8	1.0	1.9	1.2	1.3	2.0
160.	.0	.0	.0	.0	.1	.1	.1	1.2	1.2	1.2	1.2	.4	.4	.3	.7	1.1	1.7	1.1	1.3	2.1
165.	.0	.0	.0	.0	.0	.0	.1	1.2	1.2	1.1	1.2	.6	.5	.3	.9	1.2	1.4	1.1	1.2	2.1
170.	.0	.0	.0	.0	.0	.0	.0	1.2	1.2	1.1	1.2	.6	.5	.3	.9	1.2	1.5	1.1	1.3	2.1
175.	.0	.0	.0	.0	.0	.0	.0	1.2	1.2	1.1	1.2	.6	.4	.3	.8	1.2	1.5	1.2	1.5	2.1
180.	.0	.0	.0	.0	.0	.0	.0	1.2	1.1	1.2	1.2	.6	.4	.3	.8	1.4	1.3	1.2	1.5	2.1

185.	*	.0	.0	.0	.0	.0	.0	.0	1.2	1.1	1.2	1.2	.7	.5	.3	.9	1.2	1.2	1.0	1.6	2.0
190.	*	.0	.0	.0	.0	.0	.0	.0	1.2	1.1	1.3	1.2	.7	.5	.3	1.0	1.2	1.3	1.1	1.6	2.0
195.	*	.0	.0	.0	.0	.0	.0	.0	1.2	1.1	1.3	1.2	.7	.5	.4	1.0	1.1	1.2	1.4	1.7	2.0
200.	*	.0	.0	.1	.0	.0	.0	.0	1.2	1.1	1.4	1.2	.7	.5	.4	1.1	1.2	1.2	1.4	1.9	2.0
205.	*	.0	.1	.1	.0	.0	.0	.0	1.2	1.1	1.4	1.2	.7	.5	.4	.8	1.1	1.3	1.3	1.9	2.1

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JOB: Pellissippi Site 8 NB AM 2015 RUN: Pellissippi Site 8 NB AM 2015

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	.1	.2	.2	.0	.0	.0	.0	1.2	1.1	1.5	1.2	.7	.5	.5	.8	1.4	1.2	1.4	2.0	2.2
215.	*	.3	.4	.3	.0	.0	.0	.0	1.2	1.1	1.6	1.2	.7	.6	.6	.9	1.3	1.4	1.7	2.1	2.3
220.	*	.6	.6	.6	.2	.0	.0	.1	1.2	1.1	1.6	1.3	1.0	.8	.8	.9	1.2	1.5	1.8	2.2	2.3
225.	*	.8	1.0	1.1	.3	.3	.1	.1	1.2	1.1	1.8	1.2	.8	.7	.8	.9	1.5	1.3	1.6	2.2	2.0
230.	*	1.1	1.4	1.6	.7	.3	.3	.2	1.5	1.4	2.0	1.5	1.0	1.0	1.1	1.0	1.3	1.3	1.6	2.2	1.8
235.	*	1.6	1.8	1.8	1.1	.4	.3	.3	1.5	1.4	2.0	1.8	1.1	.9	1.0	.9	.8	.8	1.4	2.0	1.9
240.	*	1.8	2.0	1.9	1.1	.7	.3	.3	1.5	1.5	2.2	1.8	1.2	1.0	1.0	.7	.8	.9	1.3	2.0	1.7
245.	*	1.9	2.2	2.1	1.2	.8	.4	.3	1.6	1.5	2.3	1.6	1.2	1.5	.8	.6	.7	.9	1.4	1.8	1.9
250.	*	2.0	2.1	1.8	1.0	.8	.5	.4	1.6	1.8	2.4	1.5	1.4	1.2	.8	.3	.7	.7	1.2	1.8	1.7
255.	*	1.9	1.9	1.6	1.1	.8	.6	.5	1.7	1.7	2.5	1.6	1.2	1.0	.7	.3	.4	.7	1.2	1.8	1.6
260.	*	1.8	1.9	1.7	1.4	.9	.6	.6	1.7	1.8	2.6	1.4	1.2	.7	.5	.1	.3	.5	.9	1.4	1.3
265.	*	1.7	1.8	1.6	1.6	1.4	1.0	.7	1.5	2.2	2.4	1.3	1.0	.6	.5	.0	.1	.3	.6	1.3	1.1
270.	*	1.7	1.9	1.8	1.7	1.4	1.4	1.1	1.6	2.1	2.0	1.2	.7	.5	.5	.0	.0	.1	.5	.7	.7
275.	*	1.7	1.9	1.8	1.9	1.6	1.6	1.4	1.5	1.6	1.7	.6	.6	.5	.5	.0	.0	.0	.3	.6	.6
280.	*	1.7	2.0	1.8	1.9	1.8	1.8	1.8	1.2	1.1	1.0	.4	.6	.4	.5	.0	.0	.0	.0	.3	.3
285.	*	1.7	2.0	1.9	1.9	1.8	1.8	2.0	.8	.8	.7	.5	.4	.4	.5	.0	.0	.0	.0	.1	.2
290.	*	1.6	1.9	1.9	1.8	1.9	1.8	1.9	.5	.3	.5	.4	.4	.4	.5	.0	.0	.0	.0	.0	.1
295.	*	1.8	2.0	1.9	1.8	2.0	1.9	2.1	.3	.3	.4	.4	.4	.4	.5	.0	.0	.0	.0	.0	.1
300.	*	1.7	2.1	1.7	1.8	1.6	1.8	2.4	.1	.1	.2	.4	.3	.4	.5	.0	.0	.0	.0	.0	.0
305.	*	1.7	2.1	1.6	1.5	1.6	2.1	2.3	.1	.1	.2	.4	.3	.4	.5	.0	.0	.0	.0	.0	.0
310.	*	1.5	2.2	1.6	1.5	1.6	2.0	2.3	.1	.1	.2	.4	.3	.5	.5	.0	.0	.0	.0	.0	.0
315.	*	1.5	2.0	1.6	1.6	1.5	2.2	2.3	.0	.1	.1	.3	.3	.5	.5	.0	.0	.0	.0	.0	.0
320.	*	1.5	2.1	1.5	1.6	1.5	2.0	2.2	.1	.1	.1	.3	.5	.5	.5	.0	.0	.0	.0	.0	.0
325.	*	1.8	2.2	1.5	1.6	1.6	2.2	2.2	.1	.1	.1	.3	.5	.4	.5	.0	.0	.0	.0	.0	.0
330.	*	1.7	2.2	1.2	1.4	1.6	2.1	2.0	.1	.1	.1	.3	.4	.4	.5	.0	.0	.0	.0	.0	.0
335.	*	1.6	2.2	1.1	1.4	1.7	2.0	1.7	.1	.1	.1	.3	.5	.5	.5	.0	.0	.0	.0	.0	.0
340.	*	1.6	2.1	1.1	1.3	1.7	1.9	1.6	.1	.1	.1	.3	.5	.5	.5	.0	.0	.0	.0	.0	.0
345.	*	1.6	2.2	1.3	1.4	1.7	1.9	1.5	.1	.1	.2	.2	.4	.5	.5	.0	.0	.0	.0	.0	.0
350.	*	1.8	2.1	1.3	1.3	1.8	1.9	1.5	.1	.1	.2	.2	.4	.5	.5	.0	.0	.0	.0	.0	.0
355.	*	1.8	2.0	1.2	1.3	1.9	1.9	1.5	.1	.1	.1	.2	.5	.5	.5	.0	.0	.0	.0	.0	.0
360.	*	1.8	1.9	1.3	1.3	2.0	2.0	1.5	.1	.2	.1	.2	.5	.5	.7	.0	.0	.0	.0	.0	.0
MAX	*	2.0	2.2	2.1	1.9	2.2	2.3	2.4	1.7	2.2	2.6	1.8	1.4	1.5	1.1	1.1	1.5	2.0	1.8	2.2	2.3
DEGR.	*	5	245	245	275	85	90	90	255	265	260	235	250	245	230	200	225	135	220	230	220

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PAGE 6

JOB: Pellissippi Site 8 NB AM 2015 RUN: Pellissippi Site 8 NB AM 2015

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	.0	1.3	1.2	1.3	1.3	.6	.4	.3
5.	.0	1.3	1.2	1.3	1.3	.5	.5	.3
10.	.0	1.2	1.2	1.4	1.3	.5	.4	.3
15.	.0	1.3	1.2	1.4	1.3	.5	.5	.5
20.	.0	1.4	1.2	1.5	1.4	.7	.5	.5
25.	.0	1.3	1.2	1.6	1.3	.7	.6	.6
30.	.0	1.4	1.2	1.7	1.2	.8	.6	.5
35.	.0	1.4	1.2	1.9	1.2	.9	.7	.6
40.	.0	1.3	1.2	1.8	1.2	.8	.8	.7
45.	.0	1.4	1.4	2.0	1.1	.8	1.0	1.0
50.	.0	1.5	1.4	2.0	1.2	1.2	1.2	1.3
55.	.1	1.4	1.5	2.3	1.3	1.2	1.6	1.6
60.	.1	1.6	1.6	2.1	1.0	1.5	1.6	1.4
65.	.1	1.7	1.7	2.2	1.1	2.0	1.5	1.7
70.	.2	1.7	1.9	2.2	1.4	1.7	1.8	1.8
75.	.4	1.7	1.8	2.3	1.4	1.7	1.9	1.8
80.	.6	1.7	1.6	2.4	1.3	1.8	2.0	1.8
85.	.9	1.4	1.7	2.0	1.5	1.8	1.6	1.7
90.	1.4	1.1	1.5	1.8	1.5	1.6	1.6	1.7
95.	1.8	1.1	1.1	1.2	1.2	1.7	1.7	1.6
100.	2.2	1.0	.9	1.2	1.1	1.5	1.5	1.5
105.	2.4	.6	.9	.9	.9	1.5	1.4	1.3
110.	2.0	.6	.7	.8	.9	1.2	1.2	1.3
115.	2.2	.4	.5	.5	.7	1.1	1.2	1.3
120.	2.0	.4	.5	.5	.7	1.2	1.2	1.3
125.	2.1	.4	.4	.5	.7	1.2	1.2	1.3
130.	2.0	.4	.4	.4	.7	1.2	1.2	1.3
135.	2.2	.4	.4	.5	.7	1.2	1.2	1.2
140.	2.1	.4	.4	.4	.7	1.2	1.2	1.2
145.	2.1	.4	.4	.4	.7	1.2	1.2	1.2
150.	2.0	.4	.5	.4	.7	1.2	1.2	1.3
155.	2.0	.4	.5	.4	.7	1.2	1.2	1.3
160.	2.0	.5	.4	.5	.7	1.2	1.2	1.2
165.	2.0	.5	.4	.5	.8	1.2	1.2	1.3
170.	2.0	.4	.4	.5	.8	1.2	1.2	1.3
175.	1.9	.3	.5	.5	.8	1.3	1.2	1.2
180.	2.0	.4	.5	.5	.9	1.3	1.3	1.4
185.	2.0	.4	.5	.5	.9	1.5	1.4	1.4
190.	1.9	.4	.4	.5	.8	1.5	1.5	1.4
195.	1.9	.4	.4	.5	1.0	1.5	1.5	1.6
200.	1.9	.4	.4	.5	1.0	1.6	1.5	1.6
205.	1.9	.5	.4	.5	1.1	1.7	1.6	1.6

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WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	1.6	.3	.4	.6	1.0	1.7	1.7	1.7
215.	1.5	.3	.3	.6	1.0	1.9	1.8	1.8
220.	1.7	.3	.2	.4	1.0	1.9	1.9	1.7
225.	1.5	.3	.2	.3	.8	1.7	1.7	1.7
230.	1.7	.3	.2	.3	.7	1.5	1.4	1.5
235.	1.6	.1	.2	.3	.4	1.1	1.1	1.1
240.	1.5	.2	.2	.1	.2	.8	.7	.6
245.	1.6	.3	.2	.2	.0	.5	.6	.5
250.	1.6	.4	.3	.3	.0	.2	.1	.2
255.	1.6	.7	.6	.6	.1	.1	.1	.1
260.	1.3	.9	.7	.7	.3	.1	.1	.0
265.	1.2	1.1	1.0	1.0	.4	.2	.0	.0
270.	.7	1.2	1.2	1.2	.6	.1	.0	.0
275.	.5	1.4	1.3	1.5	.7	.2	.1	.0
280.	.3	1.4	1.2	1.4	.8	.3	.2	.1
285.	.2	1.3	1.4	1.6	.9	.3	.2	.1
290.	.1	1.3	1.3	1.5	1.0	.3	.3	.2
295.	.0	1.3	1.3	1.4	1.1	.6	.3	.2
300.	.0	1.3	1.3	1.3	1.2	.5	.3	.3
305.	.0	1.2	1.3	1.3	1.2	.5	.3	.3
310.	.0	1.3	1.3	1.2	1.1	.5	.3	.3
315.	.0	1.2	1.2	1.2	1.2	.3	.3	.3
320.	.0	1.2	1.2	1.2	1.3	.3	.4	.3
325.	.0	1.2	1.2	1.1	1.3	.4	.4	.2
330.	.0	1.2	1.2	1.2	1.3	.3	.4	.2
335.	.0	1.1	1.2	1.2	1.3	.3	.3	.3
340.	.0	1.1	1.2	1.2	1.3	.5	.3	.3
345.	.0	1.1	1.2	1.2	1.3	.5	.3	.4

350.	*	.0	1.1	1.2	1.2	1.3	.5	.3	.4
355.	*	.0	1.3	1.2	1.2	1.3	.6	.3	.3
360.	*	.0	1.3	1.2	1.3	1.3	.6	.4	.3
MAX	*	2.4	1.7	1.9	2.4	1.5	2.0	2.0	1.8
DEGR.	*	105	75	70	80	85	65	80	70

THE HIGHEST CONCENTRATION IS 2.60 PPM AT 260 DEGREES FROM REC10.
THE 2ND HIGHEST CONCENTRATION IS 2.40 PPM AT 90 DEGREES FROM REC7 .
THE 3RD HIGHEST CONCENTRATION IS 2.40 PPM AT 105 DEGREES FROM REC21.

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Pellissippi Site 8 NB PM 2015          60.0321.0.0000.000280.30480000    1    1
SE MID S               549556.   519307.       5.0
SE 164 S               549623.   519358.       5.0
SE 82 S                549690.   519410.       5.0
SE CNR                 549780.   519444.       5.0
SE 82 E                549877.   519436.       5.0
SE 164 E               549957.   519419.       5.0
SE MID E               550037.   519403.       5.0
NE MID E               550161.   519479.       5.0
NE 164 E               550081.   519498.       5.0
NE 82 E                550002.   519516.       5.0
NE CNR                 549919.   519561.       5.0
NE 82 N                549979.   519642.       5.0
NE 164 N               550037.   519701.       5.0
NE MID N               550088.   519765.       5.0
NW MID N               549939.   519739.       5.0
NW 164 N               549875.   519688.       5.0
NW 82 N                549809.   519638.       5.0
NW CNR                 549728.   519588.       5.0
NW 82 W                549633.   519562.       5.0
NW 164 W               549551.   519558.       5.0
NW MID W               549468.   519552.       5.0
SW MID W               549264.   519444.       5.0
SW 164 W               549345.   519451.       5.0
SW 82 W                549427.   519459.       5.0
SW CNR                 549524.   519433.       5.0
SW 82 S                549465.   519343.       5.0
SW 164 S               549401.   519293.       5.0
SW MID S               549336.   519242.       5.0
Pellissippi Site 8 NB PM 2015            50  1   0
  1
0         SR33nb    AG548974.518884.549121.519014.    120113.8   0  32   30.
  1
0         SR33nb    AG549121.519014.549343.519192.    120113.8   0  32   30.
  1
0         SR33nb    AG549343.519192.549527.519330.    120113.8   0  32   30.
  1
0         SR33nbT   AG549528.519333.549744.519507.     59213.8   0  32   30.
  2
0         33nbTQ    AG549633.519417.549529.519334.      0.  12   1
       120        79       2.0  592   92.3 1600 1 3
  1
0         SR33nbL   AG549394.519249.549726.519511.      2513.8   0  32   30.
  2
0         33nbLQ    AG549622.519429.549515.519345.      0.  12   1
       120        92       2.0   25   92.3 1600 1 3
  1
0         SR33nbD   AG549745.519507.549965.519682.     90413.8   0  32   30.
  1
0         SR33nbD   AG549965.519682.550092.519820.     90413.8   0  44   30.
  1
0         SR33nbD   AG550092.519820.550418.520254.     90413.8   0  44   30.
  1
0         SR33nbR   AG549563.519333.549692.519433.     58413.8   0  32   30.
  2
0         33nbRQ    AG549647.519399.549566.519336.      0.  12   1
       120        79       2.0  584   92.3 1600 1 3
  1
0         SR33nbR   AG549692.519433.549790.519470.     58413.8   0  32   30.
  1
0         SR33sb    AG550393.520276.550090.519858.     87013.8   0  44   30.
  1
0         SR33sb    AG550090.519858.549985.519733.     87013.8   0  44   30.
  1
0         SR33sb    AG549985.519733.549936.519687.     87013.8   0  44   30.
  1
0         SR33sbT   AG549936.519686.549718.519520.     51213.8   0  32   30.
  2
0         33sbTQ    AG549804.519585.549932.519683.      0.  12   1
       120        79       2.0  512   92.3 1600 1 3
  1
0         SR33sbL   AG549935.519676.549739.519524.      1313.8   0  32   30.
  2
0         33sbLQ    AG549811.519580.549927.519670.      0.  12   1
       120        92       2.0   13   92.3 1600 1 3
  1
0         SR33sbR   AG549915.519691.549781.519587.     34513.8   0  32   30.
  2
0         33sbRQ    AG549796.519598.549909.519686.      0.  12   1
       120        79       2.0  345   92.3 1600 1 3
  1
0         SR33sbR   AG549781.519587.549679.519542.     34513.8   0  32   30.
  1
0         SR33sbD   AG549718.519520.549294.519186.    131113.8   0  32   30.
  1
0         SR33sbD   AG549294.519186.549118.519041.    131113.8   0  32   30.
  1
0         SR33sbD   AG549118.519041.548963.518904.    131113.8   0  32   30.
  1
0         321eb     AG548761.519421.549272.519466.    167514.6   0  44   30.
  1
0         321ebT    AG549271.519468.549452.519486.    131614.6   0  44   30.
  1
0         321ebT    AG549452.519486.549687.519496.    131614.6   0  44   30.
  2
0         321ebTQ   AG549600.519492.549449.519486.      0.  24   2
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```
       120        79       2.0 1316   92.3 3200 1 3
  1
0         321ebR    AG549507.519484.549542.519448.      4914.6   0  32   30.
  1
0         321ebR    AG549542.519448.549540.519382.      4914.6   0  32   30.
  1
0         321ebL    AG549275.519487.549457.519506.     31014.6   0  32   30.
  1
0         321ebL    AG549457.519506.549675.519517.     31014.6   0  32   30.
  2
0         321ebLQ   AG549600.519513.549456.519506.      0.  12   1
       120        92       2.0  310   92.3 1600 1 3
  1
0         321ebD    AG549693.519499.550395.519347.    191314.2   0  44   30.
  1
0         321ebD    AG550395.519347.550538.519325.    191314.2   0  44   30.
  1
0         321ebD    AG550538.519325.550787.519348.    191314.2   0  44   30.
  1
0         321wb     AG550748.519394.550570.519368.    171614.2   0  44   30.
  1
0         321wb     AG550570.519368.550393.519392.    171614.2   0  44   30.
  1
0         321wb     AG550393.519392.550105.519453.    171614.2   0  44   30.
  1
0         321wbT    AG550105.519454.549803.519526.     96414.2   0  44   30.
  2
0         321wbTQ   AG549852.519514.550090.519457.      0.  24   2
       120        79       2.0  964   92.3 3200 1 3
  1
0         321wbL    AG550101.519439.549798.519507.     75014.2   0  32   30.
  2
0         321wbLQ   AG549851.519495.550080.519444.      0.  12   1
       120       104       2.0  750   92.3 1600 1 3
  1
0         321wbR    AG549946.519502.549888.519552.       214.2   0  32   30.
  1
0         321wbR    AG549888.519552.549892.519619.       214.2   0  32   30.
  1
0         321wbD    AG549803.519526.549584.519535.    133414.6   0  44   30.
  1
0         321wbD    AG549584.519535.549409.519523.    133414.6   0  44   30.
  1
0         321wbD    AG549409.519523.548759.519461.    133414.6   0  44   30.
1.0   04  1000   0Y  5  0 72
```

JOB: Pellissippi Site 8 NB PM 2015 RUN: Pellissippi Site 8 NB PM 2015
DATE: 12/15/2008 TIME: 14:09:07.73

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK	DESCRIPTION	X1 (FT)	Y1 (FT)	X2 (FT)	Y2 (FT)	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	SR33nb	548974.0	518884.0	549121.0	519014.0	196.	49.	AG	1201.	13.8	.0	32.0		
2. 0	SR33nb	549121.0	519014.0	549343.0	519192.0	285.	51.	AG	1201.	13.8	.0	32.0		
3. 0	SR33nb	549343.0	519192.0	549527.0	519330.0	230.	53.	AG	1201.	13.8	.0	32.0		
4. 0	SR33nbT	549528.0	519333.0	549744.0	519507.0	277.	51.	AG	592.	13.8	.0	32.0		
5. 0	33nbTQ	549633.0	519417.0	548570.1	518568.9	1360.	231.	AG	163.	100.0	.0	12.0	1.20	69.1
6. 0	SR33nbL	549394.0	519249.0	549726.0	519511.0	423.	52.	AG	25.	13.8	.0	32.0		
7. 0	33nbLQ	549622.0	519429.0	549612.1	519421.2	13.	232.	AG	190.	100.0	.0	12.0	.08	.6
8. 0	SR33nbD	549745.0	519507.0	549965.0	519682.0	281.	51.	AG	904.	13.8	.0	32.0		
9. 0	SR33nbD	549965.0	519682.0	550092.0	519820.0	188.	43.	AG	904.	13.8	.0	44.0		
10. 0	SR33nbD	550092.0	519820.0	550418.0	520254.0	543.	37.	AG	904.	13.8	.0	44.0		
11. 0	SR33nbR	549563.0	519333.0	549692.0	519433.0	163.	52.	AG	584.	13.8	.0	32.0		
12. 0	33nbRQ	549647.0	519399.0	548640.0	518615.7	1276.	232.	AG	163.	100.0	.0	12.0	1.18	64.8
13. 0	SR33nbR	549692.0	519433.0	549790.0	519470.0	105.	69.	AG	584.	13.8	.0	32.0		
14. 0	SR33sb	550393.0	520276.0	550090.0	519858.0	516.	216.	AG	870.	13.8	.0	44.0		
15. 0	SR33sb	550090.0	519858.0	549985.0	519733.0	163.	220.	AG	870.	13.8	.0	44.0		
16. 0	SR33sb	549985.0	519733.0	549936.0	519687.0	67.	227.	AG	870.	13.8	.0	44.0		
17. 0	SR33sbT	549936.0	519686.0	549718.0	519520.0	274.	233.	AG	512.	13.8	.0	32.0		
18. 0	33sbTQ	549804.0	519585.0	550217.2	519901.2	520.	53.	AG	163.	100.0	.0	12.0	1.04	26.4
19. 0	SR33sbL	549935.0	519676.0	549739.0	519524.0	248.	232.	AG	13.	13.8	.0	32.0		
20. 0	33sbLQ	549811.0	519580.0	549816.2	519584.0	7.	52.	AG	190.	100.0	.0	12.0	.04	.3
21. 0	SR33sbR	549915.0	519691.0	549781.0	519587.0	170.	232.	AG	345.	13.8	.0	32.0		
22. 0	33sbRQ	549796.0	519598.0	549913.6	519689.6	149.	52.	AG	163.	100.0	.0	12.0	.70	7.6
23. 0	SR33sbR	549781.0	519587.0	549679.0	519542.0	112.	246.	AG	345.	13.8	.0	32.0		
24. 0	SR33sbD	549718.0	519520.0	549294.0	519186.0	540.	232.	AG	1311.	13.8	.0	32.0		
25. 0	SR33sbD	549294.0	519186.0	549118.0	519041.0	228.	231.	AG	1311.	13.8	.0	32.0		
26. 0	SR33sbD	549118.0	519041.0	548963.0	518904.0	207.	229.	AG	1311.	13.8	.0	32.0		
27. 0	321eb	548761.0	519421.0	549272.0	519466.0	513.	85.	AG	1675.	14.6	.0	44.0		
28. 0	321ebT	549271.0	519468.0	549452.0	519486.0	182.	84.	AG	1316.	14.6	.0	44.0		
29. 0	321ebT	549452.0	519486.0	549687.0	519496.0	235.	88.	AG	1316.	14.6	.0	44.0		
30. 0	321ebTQ	549600.0	519492.0	549316.0	519480.7	284.	268.	AG	326.	100.0	.0	24.0	.67	14.4
31. 0	321ebR	549507.0	519484.0	549542.0	519448.0	50.	136.	AG	49.	14.6	.0	32.0		
32. 0	321ebR	549542.0	519448.0	549540.0	519382.0	66.	182.	AG	49.	14.6	.0	32.0		
33. 0	321ebL	549275.0	519487.0	549457.0	519506.0	183.	84.	AG	310.	14.6	.0	32.0		
34. 0	321ebL	549457.0	519506.0	549675.0	519517.0	218.	87.	AG	310.	14.6	.0	32.0		
35. 0	321ebLQ	549600.0	519513.0	549375.9	519502.1	224.	267.	AG	190.	100.0	.0	12.0	.97	11.4
36. 0	321ebD	549693.0	519499.0	550395.0	519347.0	718.	102.	AG	1913.	14.2	.0	44.0		
37. 0	321ebD	550395.0	519347.0	550538.0	519325.0	145.	99.	AG	1913.	14.2	.0	44.0		
38. 0	321ebD	550538.0	519325.0	550787.0	519348.0	250.	85.	AG	1913.	14.2	.0			

44.0

Link	Description	X1	Y1	X2	Y2	Length (FT)	BRG (DEG)	Type	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	Queue (VEH)
39. 0	321wb	550748.0	519394.0	550570.0	519368.0	180.	262.	AG	1716.	14.2	.0	44.0		
40. 0	321wb	550570.0	519368.0	550393.0	519392.0	179.	278.	AG	1716.	14.2	.0	44.0		
41. 0	321wb	550393.0	519392.0	550105.0	519453.0	294.	282.	AG	1716.	14.2	.0	44.0		
42. 0	321wbT	550105.0	519454.0	549803.0	519526.0	310.	283.	AG	964.	14.2	.0	44.0		
43. 0	321wbTQ	549852.0	519514.0	550054.5	519465.5	208.	103.	AG	326.	100.0	.0	24.0	.49	10.6
44. 0	321wbL	550101.0	519439.0	549798.0	519507.0	310.	283.	AG	750.	14.2	.0	32.0		

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JOB: Pellissippi Site 8 NB PM 2015 RUN: Pellissippi Site 8 NB PM 2015

DATE: 12/15/2008 TIME: 14:09:07.73

LINK VARIABLES

LINK DESCRIPTION		* X1	Y1	X2	Y2 *	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. 0	321wbLQ	549851.0	519495.0	556228.2	518074.5	6533.	103.	AG	215.	100.0	.0	12.0	4.72	331.9
46. 0	321wbR	549946.0	519502.0	549888.0	519552.0	77.	311.	AG	2.	14.2	.0	32.0		
47. 0	321wbR	549888.0	519552.0	549892.0	519619.0	67.	3.	AG	2.	14.2	.0	32.0		
48. 0	321wbD	549803.0	519526.0	549584.0	519535.0	219.	272.	AG	1334.	14.6	.0	44.0		
49. 0	321wbD	549584.0	519535.0	549409.0	519523.0	175.	266.	AG	1334.	14.6	.0	44.0		
50. 0	321wbD	549409.0	519523.0	548759.0	519461.0	653.	265.	AG	1334.	14.6	.0	44.0		

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JOB: Pellissippi Site 8 NB PM 2015 RUN: Pellissippi Site 8 NB PM 2015

DATE: 12/15/2008 TIME: 14:09:07.73

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
5. 0	33nbTQ	120	79	2.0	592	1600	92.30	1	3
7. 0	33nbLQ	120	92	2.0	25	1600	92.30	1	3
12. 0	33nbRQ	120	79	2.0	584	1600	92.30	1	3
18. 0	33sbTQ	120	79	2.0	512	1600	92.30	1	3
20. 0	33sbLQ	120	92	2.0	13	1600	92.30	1	3
22. 0	33sbRQ	120	79	2.0	345	1600	92.30	1	3
30. 0	321ebTQ	120	79	2.0	1316	3200	92.30	1	3
35. 0	321ebLQ	120	92	2.0	310	1600	92.30	1	3
43. 0	321wbTQ	120	79	2.0	964	3200	92.30	1	3
45. 0	321wbLQ	120	104	2.0	750	1600	92.30	1	3

RECEPTOR LOCATIONS

RECEPTOR	X (FT)	Y (FT)	Z (FT)
1. SE MID S	549556.0	519307.0	5.0
2. SE 164 S	549623.0	519358.0	5.0
3. SE 82 S	549690.0	519410.0	5.0
4. SE CNR	549780.0	519444.0	5.0
5. SE 82 E	549877.0	519436.0	5.0
6. SE 164 E	549957.0	519419.0	5.0
7. SE MID E	550037.0	519403.0	5.0
8. NE MID E	550161.0	519479.0	5.0
9. NE 164 E	550081.0	519498.0	5.0
10. NE 82 E	550002.0	519516.0	5.0
11. NE CNR	549919.0	519561.0	5.0
12. NE 82 N	549979.0	519642.0	5.0
13. NE 164 N	550037.0	519701.0	5.0
14. NE MID N	550088.0	519765.0	5.0
15. NW MID N	549939.0	519739.0	5.0
16. NW 164 N	549875.0	519688.0	5.0
17. NW 82 N	549809.0	519638.0	5.0
18. NW CNR	549728.0	519588.0	5.0
19. NW 82 W	549633.0	519562.0	5.0
20. NW 164 W	549551.0	519558.0	5.0
21. NW MID W	549468.0	519552.0	5.0
22. SW MID W	549264.0	519444.0	5.0
23. SW 164 W	549345.0	519451.0	5.0
24. SW 82 W	549427.0	519459.0	5.0
25. SW CNR	549524.0	519433.0	5.0
26. SW 82 S	549465.0	519343.0	5.0
27. SW 164 S	549401.0	519293.0	5.0
28. SW MID S	549336.0	519242.0	5.0

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JOB: Pellissippi Site 8 NB PM 2015 RUN: Pellissippi Site 8 NB PM 2015

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
	CONCENTRATION (PPM)																			
0.	2.0	1.8	1.2	1.5	2.4	2.4	2.3	.3	.5	.3	.7	.9	.7	1.1	.0	.0	.0	.0	.0	.0
5.	2.1	1.9	1.2	1.7	2.4	2.3	2.3	.2	.3	.3	.6	.7	.9	1.0	.0	.0	.0	.0	.0	.0
10.	2.0	1.7	1.4	1.8	2.4	2.4	2.4	.2	.3	.5	.6	.8	1.0	1.1	.0	.0	.0	.0	.0	.0
15.	1.9	1.9	1.5	1.8	2.5	2.6	2.4	.2	.3	.5	.7	1.0	1.0	1.2	.0	.0	.0	.0	.0	.0
20.	1.9	1.8	1.4	1.7	2.4	2.5	2.0	.1	.2	.4	.8	1.0	1.2	1.3	.0	.0	.0	.0	.0	.0
25.	1.9	1.6	1.5	1.9	2.6	2.4	1.8	.0	.2	.3	.8	.9	1.1	1.1	.1	.0	.0	.0	.0	.0
30.	1.8	1.9	1.6	1.9	2.5	2.4	1.7	.0	.1	.3	.8	.8	.9	1.0	.3	.1	.0	.0	.0	.0
35.	1.9	1.9	1.6	2.2	2.5	2.2	1.8	.0	.0	.1	.7	.8	.8	.9	.3	.2	.1	.0	.0	.0
40.	1.7	1.4	1.8	2.1	2.3	2.1	1.7	.0	.0	.0	.5	.7	.6	.7	.3	.4	.3	.1	.0	.0
45.	1.6	1.6	1.8	2.0	2.1	2.0	1.8	.0	.0	.0	.4	.5	.5	.5	.7	.5	.7	.4	.0	.0
50.	1.5	1.4	1.4	1.9	2.2	2.1	1.9	.0	.0	.0	.3	.3	.2	.3	.7	.7	.8	.5	.3	.0
55.	1.4	1.5	1.6	1.8	2.3	2.1	2.0	.0	.0	.0	.0	.2	.2	.2	.9	.7	1.1	1.0	.3	.1
60.	1.1	1.1	1.4	2.0	2.4	2.2	1.9	.0	.0	.0	.0	.0	.0	.1	.9	1.0	1.2	.9	.2	.1
65.	.8	.9	1.2	1.9	2.5	2.3	2.2	.0	.0	.0	.0	.0	.0	.0	1.1	1.0	1.3	.9	.4	.2
70.	.8	.8	1.3	2.1	2.5	2.4	2.3	.0	.0	.0	.0	.0	.0	.0	1.0	1.0	1.3	1.0	.6	.5
75.	.7	1.0	1.3	2.2	2.6	2.5	2.2	.0	.0	.0	.0	.0	.0	.0	1.0	1.0	1.3	1.0	.6	.7
80.	.5	1.0	1.3	2.2	2.6	2.5	2.4	.0	.0	.0	.0	.0	.0	.0	1.0	1.3	1.4	1.0	.8	.9
85.	.5	.7	1.2	2.3	2.7	2.6	2.5	.2	.2	.2	.0	.0	.0	.0	.9	1.1	1.4	.9	1.2	1.3
90.	.4	.5	1.1	1.9	2.5	2.7	2.8	.3	.2	.2	.1	.0	.0	.0	1.0	1.0	1.3	1.2	1.6	1.5
95.	.3	.5	.8	1.8	2.5	2.6	2.6	.7	.6	.7	.3	.1	.0	.0	1.0	1.2	1.4	1.4	1.8	2.0
100.	.1	.3	.6	1.6	2.3	2.2	2.2	1.1	1.2	1.0	.4	.1	.1	.1	1.0	1.3	1.6	1.6	2.1	2.3
105.	.1	.2	.4	1.1	1.6	1.7	1.8	1.4	1.5	1.4	1.0	.2	.1	.1	1.0	1.4	1.7	1.8	2.4	2.5
110.	.0	.1	.2	.7	1.2	1.2	1.3	1.6	1.5	1.7	1.1	.4	.2	.1	1.1	1.3	1.9	1.9	2.5	2.4
115.	.0	.0	.1	.4	.7	.7	.8	1.6	1.6	1.9	1.3	.6	.3	.1	1.2	1.5	2.1	2.0	2.3	2.2
120.	.0	.0	.0	.1	.5	.5	.6	1.8	1.8	1.8	1.4	.7	.4	.2	1.1	1.6	2.1	2.2	2.2	2.0
125.	.0	.0	.0	.1	.3	.3	.3	1.8	1.6	1.9	1.5	.6	.6	.2	1.0	1.7	2.1	2.0	1.9	1.9
130.	.0	.0	.0	.0	.2	.2	.2	1.7	1.6	2.0	1.6	.6	.5	.3	1.0	1.9	2.3	1.7	1.7	1.8
135.	.0	.0	.0	.0	.1	.2	.2	1.7	1.5	2.1	1.7	.6	.3	.3	1.1	2.0	2.2	1.6	1.7	2.0
140.	.0	.0	.0	.0	.1	.1	.1	1.6	1.5	2.0	1.7	.7	.4	.5	1.2	2.1	2.3	1.6	1.7	1.8
145.	.0	.0	.0	.0	.1	.1	.1	1.5	1.4	2.1	1.7	.7	.5	.3	1.3	2.1	2.3	1.4	1.5	1.9
150.	.0	.0	.0	.0	.1	.1	.1	1.5	1.4	2.0	1.6	.8	.5	.3	1.5	2.0	2.1	1.4	1.5	2.2
155.	.0	.0	.0	.0	.1	.1	.1	1.5	1.4	2.0	1.6	.7	.4	.3	1.3	2.0	1.9	1.3	1.4	2.4
160.	.0	.0	.0	.0	.1	.1	.1	1.4	1.3	2.0	1.6	.7	.4	.4	1.3	1.8	1.9	1.3	1.4	2.3
165.	.0	.0	.0	.0	.0	.1	.1	1.4	1.3	2.0	1.6	.7	.6	.4	1.6	1.9	1.8	1.4	1.5	2.4
170.	.0	.0	.0	.0	.0	.0	.0	1.3	1.2	2.0	1.6	.7	.6	.4	1.6	2.0	1.8	1.4	1.5	2.4
175.	.0	.0	.0	.0	.0	.0	.0	1.3	1.3	2.0	1.5	.7	.6	.4	1.5	2.0	1.8	1.4	1.7	2.4
180.	.0	.0	.0	.0	.0	.0	.0	1.3	1.2	2.0	1.6	.8	.6	.6	1.5	2.0	1.7	1.4	1.7	2.4

(DEGR)	*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
185.	*	.0	.0	.0	.0	.0	.0	.0	1.3	1.3	2.0	1.6	.8	.7	.5	1.5	1.9	1.6	1.4	1.9	2.3
190.	*	.0	.0	.0	.0	.0	.0	.0	1.4	1.3	2.0	1.6	.8	.7	.6	1.6	1.9	1.6	1.5	1.9	2.4
195.	*	.0	.0	.0	.0	.0	.0	.0	1.4	1.4	2.0	1.6	.8	.7	.6	1.5	1.9	1.3	1.7	1.9	2.4
200.	*	.0	.0	.0	.0	.0	.0	.0	1.3	1.4	2.0	1.6	.8	.7	.6	1.5	1.8	1.4	1.6	2.1	2.4
205.	*	.0	.0	.1	.0	.0	.0	.0	1.3	1.5	2.0	1.6	.8	.7	.7	1.5	1.7	1.4	1.7	2.2	2.3

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JOB: Pellissippi Site 8 NB PM 2015 RUN: Pellissippi Site 8 NB PM 2015

WIND * CONCENTRATION
ANGLE * (PPM)

(DEGR)	*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	.1	.2	.2	.0	.0	.0	.0	1.3	1.5	2.0	1.5	.7	.7	.6	1.7	1.7	1.6	1.8	2.2	2.5
215.	*	.2	.3	.3	.0	.0	.0	.1	1.3	1.6	2.0	1.6	.7	.8	.8	1.5	1.8	1.6	2.1	2.5	2.5
220.	*	.4	.5	.6	.2	.1	.1	.1	1.3	1.7	2.0	1.5	1.0	.8	.8	1.4	1.8	1.7	1.9	2.5	2.5
225.	*	.8	.9	.9	.2	.1	.1	.1	1.6	1.7	2.0	1.6	1.1	.9	1.0	1.4	1.6	1.6	2.0	2.5	2.3
230.	*	1.3	1.4	1.3	.6	.3	.1	.1	1.6	1.9	2.2	1.5	1.0	1.3	1.4	1.3	1.5	1.4	2.0	2.3	2.2
235.	*	1.5	1.5	1.7	.8	.3	.3	.1	1.5	2.2	2.4	1.7	1.1	1.5	1.7	1.2	1.4	1.3	1.7	2.4	2.3
240.	*	1.7	2.0	1.8	1.0	.5	.3	.3	1.8	2.3	2.5	1.6	1.3	1.3	1.9	1.0	1.1	1.2	1.8	2.3	2.3
245.	*	1.8	2.1	1.8	1.0	.6	.4	.3	2.0	2.4	2.5	1.8	1.3	1.7	1.8	.8	.9	1.1	1.6	2.3	2.3
250.	*	1.9	2.1	1.7	1.1	.5	.5	.5	2.1	2.5	2.6	1.7	1.4	1.5	1.7	.4	.7	.9	1.5	2.2	2.3
255.	*	2.0	1.8	1.6	1.3	.9	.5	.5	2.1	2.7	2.6	2.1	1.5	1.4	1.6	.3	.4	.9	1.2	2.1	2.1
260.	*	1.7	1.8	1.6	1.3	1.4	.7	.6	2.3	3.1	2.6	1.7	1.4	1.4	1.3	.2	.3	.7	1.2	1.8	1.5
265.	*	1.6	1.8	1.7	1.6	1.4	1.2	1.1	2.5	2.6	2.4	1.4	1.2	1.2	1.1	.1	.2	.4	.9	1.4	1.3
270.	*	1.6	1.9	1.6	1.9	1.7	1.3	1.4	2.4	2.4	2.3	1.4	1.0	1.0	1.0	.0	.1	.1	.6	1.1	1.1
275.	*	1.7	1.9	1.8	1.8	2.0	1.5	1.5	2.0	2.0	2.0	1.0	.9	1.0	1.0	.0	.0	.0	.2	.7	.6
280.	*	1.8	2.1	2.0	2.1	2.3	1.9	2.1	1.6	1.6	1.3	.7	.9	.7	.9	.0	.0	.0	.1	.4	.3
285.	*	1.8	2.0	2.0	2.1	2.3	2.0	2.2	1.0	1.0	.8	.6	.9	.7	.9	.0	.0	.0	.0	.3	.2
290.	*	1.8	2.1	2.0	2.1	2.2	2.2	2.4	.8	.7	.6	.5	.8	.8	.8	.0	.0	.0	.0	.1	.1
295.	*	1.8	2.3	2.0	1.8	2.0	2.4	2.5	.4	.5	.6	.5	.8	.8	.8	.0	.0	.0	.0	.0	.1
300.	*	1.9	2.4	1.9	1.9	2.0	2.2	2.7	.4	.4	.4	.6	.7	.7	.8	.0	.0	.0	.0	.0	.1
305.	*	1.8	2.3	1.9	2.0	1.9	2.3	2.7	.2	.3	.4	.6	.8	.7	.8	.0	.0	.0	.0	.0	.1
310.	*	1.8	2.3	1.9	1.7	1.8	2.4	2.7	.2	.3	.4	.7	.8	.8	.8	.0	.0	.0	.0	.0	.0
315.	*	1.8	2.4	1.7	1.7	1.8	2.4	2.8	.1	.2	.4	.7	.8	.8	.8	.0	.0	.0	.0	.0	.0
320.	*	1.8	2.3	1.6	1.8	1.9	2.6	2.7	.2	.2	.4	.7	.6	.7	.8	.0	.0	.0	.0	.0	.0
325.	*	1.9	2.3	1.7	1.8	2.0	2.7	2.7	.2	.2	.4	.7	.7	.7	.8	.0	.0	.0	.0	.0	.0
330.	*	2.0	2.3	1.6	1.8	1.9	2.6	2.6	.2	.2	.3	.7	.7	.7	.8	.0	.0	.0	.0	.0	.0
335.	*	1.8	2.1	1.3	1.7	2.2	2.6	2.5	.3	.2	.2	.7	.7	.7	.8	.0	.0	.0	.0	.0	.0
340.	*	1.7	2.1	1.3	1.6	2.1	2.4	2.5	.3	.2	.2	.7	.7	.7	.8	.0	.0	.0	.0	.0	.0
345.	*	1.8	2.1	1.2	1.6	2.2	2.4	2.3	.2	.3	.4	.6	.7	.7	1.0	.0	.0	.0	.0	.0	.0
350.	*	1.8	2.1	1.3	1.6	2.2	2.3	2.4	.2	.3	.4	.6	.8	.7	1.0	.0	.0	.0	.0	.0	.0
355.	*	1.9	2.1	1.3	1.5	2.3	2.3	2.3	.3	.3	.3	.6	.9	.7	1.0	.0	.0	.0	.0	.0	.0
360.	*	2.0	1.8	1.2	1.5	2.4	2.4	2.3	.3	.5	.3	.7	.9	.7	1.1	.0	.0	.0	.0	.0	.0
MAX	*	2.1	2.4	2.0	2.3	2.7	2.7	2.8	2.5	3.1	2.6	2.1	1.5	1.7	1.9	1.7	2.1	2.3	2.2	2.5	2.5
DEGR.	*	5	300	280	85	85	325	90	265	260	250	255	255	245	240	210	140	130	120	110	105

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PAGE 6

JOB: Pellissippi Site 8 NB PM 2015 RUN: Pellissippi Site 8 NB PM 2015

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	.0	1.2	1.9	2.4	1.5	.8	.6	.3
5.	.0	1.2	1.9	2.2	1.5	1.0	.7	.4
10.	.0	1.3	1.9	2.2	1.5	.9	.7	.5
15.	.0	1.3	2.0	2.4	1.4	.9	.7	.7
20.	.0	1.3	1.9	2.4	1.5	.8	.7	.6
25.	.0	1.3	2.0	2.3	1.5	.9	.6	.7
30.	.0	1.5	2.1	2.4	1.5	.9	.7	.8
35.	.0	1.4	2.2	2.5	1.5	1.0	.9	.8
40.	.0	1.6	2.3	2.6	1.4	1.1	1.1	1.0
45.	.1	1.8	2.3	2.6	1.4	1.3	1.0	1.3
50.	.1	1.9	2.5	2.7	1.4	1.6	1.5	1.5
55.	.1	2.0	2.6	2.8	1.5	1.7	1.8	1.9
60.	.2	2.1	2.8	2.7	1.4	2.1	2.1	2.0
65.	.2	2.4	2.7	3.0	1.7	2.4	2.2	2.1
70.	.4	2.8	2.8	3.0	1.7	2.2	2.3	2.3
75.	.5	2.7	2.5	2.9	1.6	2.0	2.3	2.2
80.	.8	2.6	2.5	2.7	1.6	2.3	2.3	2.0
85.	1.3	2.2	2.3	2.5	1.7	2.2	1.8	1.9
90.	1.7	1.9	2.0	2.2	1.8	2.1	1.9	1.9
95.	2.4	1.3	1.6	1.9	1.5	1.9	1.9	1.8
100.	2.5	1.1	1.3	1.4	1.3	1.8	1.7	1.7
105.	2.6	.7	1.0	1.1	1.2	1.5	1.6	1.6
110.	2.6	.5	.8	.9	1.0	1.4	1.5	1.4
115.	2.4	.5	.5	.6	.8	1.3	1.3	1.4
120.	2.5	.4	.6	.6	.9	1.3	1.4	1.4
125.	2.2	.4	.6	.5	.9	1.3	1.4	1.4
130.	2.2	.4	.6	.5	.9	1.3	1.4	1.4
135.	2.5	.4	.5	.4	.9	1.3	1.3	1.4
140.	2.5	.4	.5	.5	.9	1.4	1.4	1.4
145.	2.4	.4	.5	.5	.9	1.4	1.4	1.3
150.	2.4	.4	.5	.5	.9	1.3	1.3	1.3
155.	2.3	.4	.5	.5	.9	1.3	1.4	1.4
160.	2.3	.4	.4	.5	.8	1.3	1.4	1.4
165.	2.3	.4	.5	.5	.9	1.3	1.3	1.3
170.	2.3	.5	.4	.5	.9	1.3	1.3	1.4
175.	2.5	.5	.4	.5	1.0	1.4	1.4	1.4
180.	2.5	.4	.5	.5	1.0	1.5	1.4	1.4
185.	2.3	.4	.6	.5	1.0	1.6	1.6	1.6
190.	2.4	.4	.5	.5	1.0	1.7	1.7	1.7
195.	2.3	.4	.5	.6	1.0	1.7	1.7	1.8
200.	2.3	.5	.4	.7	1.0	1.8	1.7	1.7
205.	2.5	.5	.4	.6	1.0	1.9	1.9	1.8

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WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	2.4	.3	.4	.5	1.1	1.9	1.9	1.9
215.	2.4	.3	.3	.5	1.2	2.1	2.0	2.1
220.	2.2	.2	.3	.5	1.0	1.8	1.9	2.0
225.	2.3	.1	.2	.4	1.0	1.8	2.0	1.9
230.	2.2	.1	.1	.2	.8	1.5	1.7	1.6
235.	2.0	.2	.1	.1	.5	1.3	1.2	1.3
240.	2.2	.3	.2	.1	.2	.9	.8	.9
245.	2.2	.4	.2	.3	.0	.6	.6	.5
250.	1.9	.5	.4	.5	.1	.2	.3	.2
255.	2.0	.8	.7	.7	.1	.2	.1	.2
260.	1.5	1.1	.9	1.2	.5	.1	.1	.1
265.	1.2	1.4	1.2	1.5	.5	.2	.1	.1
270.	.8	1.6	1.4	1.8	.8	.3	.2	.1
275.	.6	1.7	1.5	2.1	.9	.4	.2	.1
280.	.3	1.8	1.6	2.3	1.1	.4	.2	.1
285.	.2	1.7	1.6	2.3	1.4	.4	.3	.2
290.	.2	1.7	1.6	2.3	1.5	.4	.3	.2
295.	.1	1.6	1.7	2.4	1.6	.5	.3	.3
300.	.1	1.5	1.6	2.4	1.6	.6	.4	.3
305.	.1	1.5	1.6	2.3	1.6	.5	.4	.3
310.	.1	1.4	1.7	2.4	1.6	.6	.4	.3
315.	.0	1.3	1.7	2.4	1.5	.7	.5	.3
320.	.0	1.3	1.6	2.2	1.5	.6	.4	.3
325.	.0	1.3	1.7	2.2	1.5	.6	.5	.3
330.	.0	1.2	1.7	2.2	1.6	.7	.5	.3
335.	.0	1.2	1.8	2.3	1.5	.8	.3	.2
340.	.0	1.2	1.8	2.3	1.5	.8	.5	.3
345.	.0	1.2	1.8	2.3	1.5	.9	.5	.3

350.	*	.0	1.3	2.0	2.2	1.5	.8	.5	.4
355.	*	.0	1.3	2.0	2.4	1.5	.7	.6	.3
360.	*	.0	1.2	1.9	2.4	1.5	.8	.6	.3
MAX	*	2.6	2.8	2.8	3.0	1.8	2.4	2.3	2.3
DEGR.	*	105	70	60	70	90	65	75	70

THE HIGHEST CONCENTRATION IS 3.10 PPM AT 260 DEGREES FROM REC9 .
THE 2ND HIGHEST CONCENTRATION IS 3.00 PPM AT 70 DEGREES FROM REC24.
THE 3RD HIGHEST CONCENTRATION IS 2.80 PPM AT 90 DEGREES FROM REC7 .

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Pellissippi Site 8 BD AM 2015           60.0321.0.0000.000280.30480000    1    1
SE MID S                549556.   519307.       5.0
SE 164 S                549623.   519358.       5.0
SE 82 S                 549690.   519410.       5.0
SE CNR                  549780.   519444.       5.0
SE 82 E                 549877.   519436.       5.0
SE 164 E                549957.   519419.       5.0
SE MID E                550037.   519403.       5.0
NE MID E                550161.   519479.       5.0
NE 164 E                550081.   519498.       5.0
NE 82 E                 550002.   519516.       5.0
NE CNR                  549919.   519561.       5.0
NE 82 N                 549979.   519642.       5.0
NE 164 N                550037.   519701.       5.0
NE MID N                550088.   519765.       5.0
NW MID N                549939.   519739.       5.0
NW 164 N                549875.   519688.       5.0
NW 82 N                 549809.   519638.       5.0
NW CNR                  549728.   519588.       5.0
NW 82 W                 549633.   519562.       5.0
NW 164 W                549551.   519558.       5.0
NW MID W                549468.   519552.       5.0
SW MID W                549264.   519444.       5.0
SW 164 W                549345.   519451.       5.0
SW 82 W                 549427.   519459.       5.0
SW CNR                  549524.   519433.       5.0
SW 82 S                 549465.   519343.       5.0
SW 164 S                549401.   519293.       5.0
SW MID S                549336.   519242.       5.0
Pellissippi Site 8 BD AM 2015            50  1   0
  1
0         SR33nb    AG548974.518884.549121.519014.    146613.8   0  32   30.
  1
0         SR33nb    AG549121.519014.549343.519192.    146613.8   0  32   30.
  1
0         SR33nb    AG549343.519192.549527.519330.    146613.8   0  32   30.
  1
0         SR33nbT   AG549528.519333.549744.519507.     65113.8   0  32   30.
  2
0         33nbTQ    AG549633.519417.549529.519334.      0.  12   1
       100        68       2.0  651   92.3 1600 1 3
  1
0         SR33nbL   AG549394.519249.549726.519511.      7013.8   0  32   30.
  2
0         33nbLQ    AG549622.519429.549515.519345.      0.  12   1
       100        77       2.0   70   92.3 1600 1 3
  1
0         SR33nbD   AG549745.519507.549965.519682.     96513.8   0  32   30.
  1
0         SR33nbD   AG549965.519682.550092.519820.     96513.8   0  44   30.
  1
0         SR33nbD   AG550092.519820.550418.520254.     96513.8   0  44   30.
  1
0         SR33nbR   AG549563.519333.549692.519433.     74513.8   0  32   30.
  2
0         33nbRQ    AG549647.519399.549566.519336.      0.  12   1
       100        68       2.0  745   92.3 1600 1 3
  1
0         SR33nbR   AG549692.519433.549790.519470.     74513.8   0  32   30.
  1
0         SR33sb    AG550393.520276.550090.519858.     35413.8   0  44   30.
  1
0         SR33sb    AG550090.519858.549985.519733.     35413.8   0  44   30.
  1
0         SR33sb    AG549985.519733.549936.519687.     35413.8   0  44   30.
  1
0         SR33sbT   AG549936.519686.549718.519520.     23713.8   0  32   30.
  2
0         33sbTQ    AG549804.519585.549932.519683.      0.  12   1
       100        68       2.0  237   92.3 1600 1 3
  1
0         SR33sbL   AG549935.519676.549739.519524.       213.8   0  32   30.
  2
0         33sbLQ    AG549811.519580.549927.519670.      0.  12   1
       100        77       2.0    2   92.3 1600 1 3
  1
0         SR33sbR   AG549915.519691.549781.519587.     11513.8   0  32   30.
  2
0         33sbRQ    AG549796.519598.549909.519686.      0.  12   1
       100        68       2.0  115   92.3 1600 1 3
  1
0         SR33sbR   AG549781.519587.549679.519542.     11513.8   0  32   30.
  1
0         SR33sbD   AG549718.519520.549294.519186.     79713.8   0  32   30.
  1
0         SR33sbD   AG549294.519186.549118.519041.     79713.8   0  32   30.
  1
0         SR33sbD   AG549118.519041.548963.518904.     79713.8   0  32   30.
  1
0         321eb     AG548761.519421.549272.519466.    127114.6   0  44   30.
  1
0         321ebT    AG549271.519468.549452.519486.     88114.6   0  44   30.
  1
0         321ebT    AG549452.519486.549687.519496.     88114.6   0  44   30.
  2
0         321ebTQ   AG549600.519492.549449.519486.      0.  24   2
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       100        58       2.0  881   92.3 3200 1 3
  1
0         321ebR    AG549507.519484.549542.519448.      8114.6   0  32   30.
  1
0         321ebR    AG549542.519448.549540.519382.      8114.6   0  32   30.
  1
0         321ebL    AG549275.519487.549457.519506.     30914.6   0  32   30.
  1
0         321ebL    AG549457.519506.549675.519517.     30914.6   0  32   30.
  2
0         321ebLQ   AG549600.519513.549456.519506.      0.  12   1
       100        77       2.0  309   92.3 1600 1 3
  1
0         321ebD    AG549693.519499.550395.519347.    162814.2   0  44   30.
  1
0         321ebD    AG550395.519347.550538.519325.    162814.2   0  44   30.
  1
0         321ebD    AG550538.519325.550787.519348.    162814.2   0  44   30.
  1
0         321wb     AG550748.519394.550570.519368.    132214.2   0  44   30.
  1
0         321wb     AG550570.519368.550393.519392.    132214.2   0  44   30.
  1
0         321wb     AG550393.519392.550105.519453.    132214.2   0  44   30.
  1
0         321wbT    AG550105.519454.549803.519526.     83814.2   0  44   30.
  2
0         321wbTQ   AG549852.519514.550090.519457.      0.  24   2
       100        58       2.0  838   92.3 3200 1 3
  1
0         321wbL    AG550101.519439.549798.519507.     47914.2   0  32   30.
  2
0         321wbLQ   AG549851.519495.550080.519444.      0.  12   1
       100        89       2.0  479   92.3 1600 1 3
  1
0         321wbR    AG549946.519502.549888.519552.       514.2   0  32   30.
  1
0         321wbR    AG549888.519552.549892.519619.       514.2   0  32   30.
  1
0         321wbD    AG549803.519526.549584.519535.    102314.6   0  44   30.
  1
0         321wbD    AG549584.519535.549409.519523.    102314.6   0  44   30.
  1
0         321wbD    AG549409.519523.548759.519461.    102314.6   0  44   30.
1.0   04  1000   0Y  5  0 72
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1 CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.2, JUNE 2000

PAGE 1

JOB: Pellissippi Site 8 BD AM 2015 RUN: Pellissippi Site 8 BD AM 2015

DATE: 12/15/2008 TIME: 14:10:16.61

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM

U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK	DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	SR33nb	548974.0	518884.0	549121.0	519014.0	196.	49.	AG	1466.	13.8	.0	32.0		
2. 0	SR33nb	549121.0	519014.0	549343.0	519192.0	285.	51.	AG	1466.	13.8	.0	32.0		
3. 0	SR33nb	549343.0	519192.0	549527.0	519330.0	230.	53.	AG	1466.	13.8	.0	32.0		
4. 0	SR33nbT	549528.0	519333.0	549744.0	519507.0	277.	51.	AG	651.	13.8	.0	32.0		
5. 0	33nbTQ	549633.0	519417.0	547764.9	517926.4	2390.	231.	AG	168.	100.0	.0	12.0	1.45	121.4
6. 0	SR33nbL	549394.0	519249.0	549726.0	519511.0	423.	52.	AG	70.	13.8	.0	32.0		
7. 0	33nbLQ	549622.0	519429.0	549598.8	519410.8	29.	232.	AG	191.	100.0	.0	12.0	.23	1.5
8. 0	SR33nbD	549745.0	519507.0	549965.0	519682.0	281.	51.	AG	965.	13.8	.0	32.0		
9. 0	SR33nbD	549965.0	519682.0	550092.0	519820.0	188.	43.	AG	965.	13.8	.0	44.0		
10. 0	SR33nbD	550092.0	519820.0	550418.0	520254.0	543.	37.	AG	965.	13.8	.0	44.0		
11. 0	SR33nbR	549563.0	519333.0	549692.0	519433.0	163.	52.	AG	745.	13.8	.0	32.0		
12. 0	33nbRQ	549647.0	519399.0	546985.6	517328.8	3372.	232.	AG	168.	100.0	.0	12.0	1.66	171.3
13. 0	SR33nbR	549692.0	519433.0	549790.0	519470.0	105.	69.	AG	745.	13.8	.0	32.0		
14. 0	SR33sb	550393.0	520276.0	550090.0	519858.0	516.	216.	AG	354.	13.8	.0	44.0		
15. 0	SR33sb	550090.0	519858.0	549985.0	519733.0	163.	220.	AG	354.	13.8	.0	44.0		
16. 0	SR33sb	549985.0	519733.0	549936.0	519687.0	67.	227.	AG	354.	13.8	.0	44.0		
17. 0	SR33sbT	549936.0	519686.0	549718.0	519520.0	274.	233.	AG	237.	13.8	.0	32.0		
18. 0	33sbTQ	549804.0	519585.0	549874.0	519638.6	88.	53.	AG	168.	100.0	.0	12.0	.53	4.5
19. 0	SR33sbL	549935.0	519676.0	549739.0	519524.0	248.	232.	AG	2.	13.8	.0	32.0		
20. 0	33sbLQ	549811.0	519580.0	549811.7	519580.5	1.	52.	AG	191.	100.0	.0	12.0	.01	.0
21. 0	SR33sbR	549915.0	519691.0	549781.0	519587.0	170.	232.	AG	115.	13.8	.0	32.0		
22. 0	33sbRQ	549796.0	519598.0	549829.8	519624.3	43.	52.	AG	168.	100.0	.0	12.0	.26	2.2
23. 0	SR33sbR	549781.0	519587.0	549679.0	519542.0	112.	246.	AG	115.	13.8	.0	32.0		
24. 0	SR33sbD	549718.0	519520.0	549294.0	519186.0	540.	232.	AG	797.	13.8	.0	32.0		
25. 0	SR33sbD	549294.0	519186.0	549118.0	519041.0	228.	231.	AG	797.	13.8	.0	32.0		
26. 0	SR33sbD	549118.0	519041.0	548963.0	518904.0	207.	229.	AG	797.	13.8	.0	32.0		
27. 0	321eb	548761.0	519421.0	549272.0	519466.0	513.	85.	AG	1271.	14.6	.0	44.0		
28. 0	321ebT	549271.0	519468.0	549452.0	519486.0	182.	84.	AG	881.	14.6	.0	44.0		
29. 0	321ebT	549452.0	519486.0	549687.0	519496.0	235.	88.	AG	881.	14.6	.0	44.0		
30. 0	321ebTQ	549600.0	519492.0	549460.6	519486.4	140.	268.	AG	287.	100.0	.0	24.0	.36	7.1
31. 0	321ebR	549507.0	519484.0	549542.0	519448.0	50.	136.	AG	81.	14.6	.0	32.0		
32. 0	321ebR	549542.0	519448.0	549540.0	519382.0	66.	182.	AG	81.	14.6	.0	32.0		
33. 0	321ebL	549275.0	519487.0	549457.0	519506.0	183.	84.	AG	309.	14.6	.0	32.0		
34. 0	321ebL	549457.0	519506.0	549675.0	519517.0	218.	87.	AG	309.	14.6	.0	32.0		
35. 0	321ebLQ	549600.0	519513.0	549334.6	519500.1	266.	267.	AG	191.	100.0	.0	12.0	1.02	13.5
36. 0	321ebD	549693.0	519499.0	550395.0	519347.0	718.	102.	AG	1628.	14.2	.0	44.0		
37. 0	321ebD	550395.0	519347.0	550538.0	519325.0	145.	99.	AG	1628.	14.2	.0	44.0		
38. 0	321ebD	550538.0	519325.0	550787.0	519348.0	250.	85.	AG	1628.	14.2	.0			

44.0

LINK DESCRIPTION		X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
39. 0	321wb	550748.0	519394.0	550570.0	519368.0	180.	262.	AG	1322.	14.2	.0	44.0		
40. 0	321wb	550570.0	519368.0	550393.0	519392.0	179.	278.	AG	1322.	14.2	.0	44.0		
41. 0	321wb	550393.0	519392.0	550105.0	519453.0	294.	282.	AG	1322.	14.2	.0	44.0		
42. 0	321wbT	550105.0	519454.0	549803.0	519526.0	310.	283.	AG	838.	14.2	.0	44.0		
43. 0	321wbTQ	549852.0	519514.0	549981.2	519483.1	133.	103.	AG	287.	100.0	.0	24.0	.34	6.8
44. 0	321wbL	550101.0	519439.0	549798.0	519507.0	310.	283.	AG	479.	14.2	.0	32.0		

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JOB: Pellissippi Site 8 BD AM 2015 RUN: Pellissippi Site 8 BD AM 2015
DATE: 12/15/2008 TIME: 14:10:16.61

LINK VARIABLES

LINK DESCRIPTION		X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. 0	321wbLQ	549851.0	519495.0	553820.3	518610.9	4067.	103.	AG	220.	100.0	.0	12.0	4.28	206.6
46. 0	321wbR	549946.0	519502.0	549888.0	519552.0	77.	311.	AG	5.	14.2	.0	32.0		
47. 0	321wbR	549888.0	519552.0	549892.0	519619.0	67.	3.	AG	5.	14.2	.0	32.0		
48. 0	321wbD	549803.0	519526.0	549584.0	519535.0	219.	272.	AG	1023.	14.6	.0	44.0		
49. 0	321wbD	549584.0	519535.0	549409.0	519523.0	175.	266.	AG	1023.	14.6	.0	44.0		
50. 0	321wbD	549409.0	519523.0	548759.0	519461.0	653.	265.	AG	1023.	14.6	.0	44.0		

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JOB: Pellissippi Site 8 BD AM 2015 RUN: Pellissippi Site 8 BD AM 2015
DATE: 12/15/2008 TIME: 14:10:16.61

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
5. 0	33nbTQ	100	68	2.0	651	1600	92.30	1	3
7. 0	33nbLQ	100	77	2.0	70	1600	92.30	1	3
12. 0	33nbRQ	100	68	2.0	745	1600	92.30	1	3
18. 0	33sbTQ	100	68	2.0	237	1600	92.30	1	3
20. 0	33sbLQ	100	77	2.0	2	1600	92.30	1	3
22. 0	33sbRQ	100	68	2.0	115	1600	92.30	1	3
30. 0	321ebTQ	100	58	2.0	881	3200	92.30	1	3
35. 0	321ebLQ	100	77	2.0	309	1600	92.30	1	3
43. 0	321wbTQ	100	58	2.0	838	3200	92.30	1	3
45. 0	321wbLQ	100	89	2.0	479	1600	92.30	1	3

RECEPTOR LOCATIONS

RECEPTOR	X (FT)	Y (FT)	Z (FT)
1. SE MID S	549556.0	519307.0	5.0
2. SE 164 S	549623.0	519358.0	5.0
3. SE 82 S	549690.0	519410.0	5.0
4. SE CNR	549780.0	519444.0	5.0
5. SE 82 E	549877.0	519436.0	5.0
6. SE 164 E	549957.0	519419.0	5.0
7. SE MID E	550037.0	519403.0	5.0
8. NE MID E	550161.0	519479.0	5.0
9. NE 164 E	550081.0	519498.0	5.0
10. NE 82 E	550002.0	519516.0	5.0
11. NE CNR	549919.0	519561.0	5.0
12. NE 82 N	549979.0	519642.0	5.0
13. NE 164 N	550037.0	519701.0	5.0
14. NE MID N	550088.0	519765.0	5.0
15. NW MID N	549939.0	519739.0	5.0
16. NW 164 N	549875.0	519688.0	5.0
17. NW 82 N	549809.0	519638.0	5.0
18. NW CNR	549728.0	519588.0	5.0
19. NW 82 W	549633.0	519562.0	5.0
20. NW 164 W	549551.0	519558.0	5.0
21. NW MID W	549468.0	519552.0	5.0
22. SW MID W	549264.0	519444.0	5.0
23. SW 164 W	549345.0	519451.0	5.0
24. SW 82 W	549427.0	519459.0	5.0
25. SW CNR	549524.0	519433.0	5.0
26. SW 82 S	549465.0	519343.0	5.0
27. SW 164 S	549401.0	519293.0	5.0
28. SW MID S	549336.0	519242.0	5.0

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JOB: Pellissippi Site 8 BD AM 2015 RUN: Pellissippi Site 8 BD AM 2015

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	1.8	1.8	1.2	1.3	2.0	2.0	1.5	.1	.2	.1	.2	.5	.5	.7	.0	.0	.0	.0	.0	.0
5.	1.9	1.7	1.2	1.4	1.9	1.8	1.6	.1	.2	.1	.3	.5	.6	.6	.0	.0	.0	.0	.0	.0
10.	1.8	1.6	1.1	1.3	1.9	1.8	1.5	.1	.1	.2	.3	.4	.6	.6	.0	.0	.0	.0	.0	.0
15.	1.8	1.6	1.3	1.4	2.0	1.9	1.5	.1	.1	.2	.3	.6	.5	.6	.0	.0	.0	.0	.0	.0
20.	1.9	1.7	1.4	1.4	2.0	1.8	1.5	.1	.1	.2	.3	.6	.7	.7	.0	.0	.0	.0	.0	.0
25.	1.8	1.6	1.4	1.4	2.0	1.7	1.5	.0	.1	.2	.3	.6	.6	.6	.0	.0	.0	.0	.0	.0
30.	1.7	1.5	1.3	1.5	1.9	1.5	1.4	.0	.1	.1	.4	.5	.5	.6	.1	.0	.0	.0	.0	.0
35.	1.8	1.5	1.1	1.6	1.9	1.5	1.5	.0	.0	.1	.3	.5	.5	.6	.1	.1	.1	.0	.0	.0
40.	1.6	1.4	1.4	1.5	1.9	1.5	1.5	.0	.0	.0	.2	.3	.3	.4	.3	.1	.1	.1	.0	.0
45.	1.4	1.1	1.5	1.7	1.8	1.4	1.5	.0	.0	.0	.2	.3	.2	.2	.5	.2	.2	.1	.0	.0
50.	1.4	1.3	1.4	1.5	1.8	1.4	1.6	.0	.0	.0	.2	.2	.1	.1	.5	.3	.2	.2	.1	.0
55.	1.3	1.3	1.4	1.6	1.8	1.5	1.6	.0	.0	.0	.0	.1	.1	.1	.4	.3	.2	.5	.1	.1
60.	1.0	1.0	1.3	1.6	1.8	1.6	1.7	.0	.0	.0	.0	.0	.0	.0	.4	.4	.3	.5	.2	.0
65.	.8	.9	1.1	1.6	1.9	1.8	1.9	.0	.0	.0	.0	.0	.0	.0	.4	.4	.4	.5	.1	.0
70.	.7	.8	1.1	1.7	2.0	1.9	1.9	.0	.0	.0	.0	.0	.0	.0	.4	.3	.4	.6	.3	.2
75.	.4	.9	1.1	1.7	2.0	2.0	1.8	.0	.0	.0	.0	.0	.0	.0	.5	.3	.6	.5	.3	.3
80.	.4	.9	1.1	1.8	2.1	2.0	1.9	.0	.0	.0	.0	.0	.0	.0	.4	.4	.6	.5	.3	.5
85.	.3	.6	1.2	1.9	2.0	2.0	2.2	.2	.2	.1	.0	.0	.0	.0	.5	.4	.6	.5	.9	.9
90.	.3	.5	1.0	1.7	2.2	2.1	2.4	.2	.2	.2	.1	.0	.0	.0	.5	.3	.6	.6	.9	1.2
95.	.2	.3	.7	1.6	1.9	2.0	2.2	.6	.5	.4	.2	.1	.0	.0	.5	.4	.7	1.0	1.4	1.4
100.	.1	.3	.5	1.1	1.8	1.9	2.0	1.1	.9	.9	.4	.1	.1	.0	.6	.5	.7	1.1	1.6	1.7
105.	.1	.1	.3	.9	1.3	1.3	1.6	1.3	1.2	1.1	.6	.2	.1	.1	.5	.5	1.1	1.6	1.7	2.0
110.	.0	.1	.2	.5	1.0	1.0	1.1	1.2	1.3	1.4	.8	.3	.1	.1	.5	.5	1.1	1.7	2.0	1.9
115.	.0	.0	.0	.3	.6	.6	.7	1.5	1.5	1.3	.8	.4	.2	.1	.6	.7	1.5	1.7	1.8	1.7
120.	.0	.0	.0	.1	.5	.5	.5	1.6	1.4	1.5	1.1	.4	.3	.1	.6	.7	1.5	1.8	1.8	1.7
125.	.0	.0	.0	.1	.2	.2	.3	1.4	1.4	1.4	1.1	.4	.3	.2	.8	.7	1.5	1.7	1.6	1.5
130.	.0	.0	.0	.0	.2	.2	.2	1.5	1.4	1.4	1.1	.5	.3	.2	.7	.8	1.7	1.5	1.3	1.4
135.	.0	.0	.0	.0	.1	.1	.2	1.4	1.3	1.3	1.2	.5	.3	.1	.6	1.0	1.9	1.3	1.2	1.6
140.	.0	.0	.0	.0	.1	.1	.1	1.4	1.2	1.2	1.2	.5	.3	.3	.6	1.0	2.0	1.3	1.2	1.6
145.	.0	.0	.0	.0	.1	.1	.1	1.3	1.2	1.1	1.3	.6	.3	.3	.8	.9	2.0	1.1	1.3	1.5
150.	.0	.0	.0	.0	.1	.1	.1	1.3	1.2	1.1	1.4	.6	.4	.3	.9	.9	1.9	1.1	1.3	1.8
155.	.0	.0	.0	.0	.1	.1	.1	1.2	1.2	1.1	1.2	.6	.4	.3	.8	1.0	1.7	1.2	1.3	1.8
160.	.0	.0	.0	.0	.1	.1	.1	1.2	1.2	1.1	1.2	.4	.4	.3	.7	1.0	1.5	1.0	1.1	2.0
165.	.0	.0	.0	.0	.0	.0	.1	1.2	1.1	1.1	1.2	.5	.5	.3	.9	1.1	1.4	1.1	1.1	2.0
170.	.0	.0	.0	.0	.0	.0	.0	1.2	1.2	1.1	1.2	.6	.5	.3	.9	1.2	1.4	1.0	1.1	2.0
175.	.0	.0	.0	.0	.0	.0	.0	1.2	1.2	1.1	1.2	.6	.4	.3	.8	1.2	1.4	1.1	1.4	1.9
180.	.0	.0	.0	.0	.0	.0	.0	1.2	1.1	1.1	1.2	.6	.4	.2	.8	1.2	1.3	1.1	1.4	2.0

185. *	.0	.0	.0	.0	.0	.0	.0	1.2	1.1	1.1	1.2	.7	.4	.3	.8	1.2	1.2	1.0	1.4	1.9
190. *	.0	.0	.0	.0	.0	.0	.0	1.2	1.1	1.2	1.2	.7	.5	.3	1.0	1.2	1.3	1.1	1.5	1.9
195. *	.0	.0	.0	.0	.0	.0	.0	1.2	1.1	1.2	1.2	.7	.5	.4	1.0	1.1	1.0	1.3	1.5	1.9
200. *	.0	.0	.1	.0	.0	.0	.0	1.2	1.1	1.3	1.2	.7	.5	.4	1.1	1.1	1.2	1.3	1.8	1.9
205. *	.0	.1	.1	.0	.0	.0	.0	1.2	1.1	1.3	1.2	.7	.5	.4	.8	1.1	1.3	1.2	1.8	2.0

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JOB: Pellissippi Site 8 BD AM 2015 RUN: Pellissippi Site 8 BD AM 2015

WIND ANGLE (DEGR) * CONCENTRATION (PPM)

WIND ANGLE (DEGR) *	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210. *	.1	.2	.2	.0	.0	.0	.0	1.2	1.1	1.4	1.2	.7	.5	.5	.6	1.3	1.1	1.3	1.8	2.1
215. *	.3	.4	.3	.0	.0	.0	.0	1.2	1.1	1.4	1.2	.7	.6	.6	.9	1.3	1.2	1.6	2.0	2.1
220. *	.6	.6	.6	.2	.0	.0	.1	1.2	1.1	1.5	1.3	1.0	.8	.8	.9	1.1	1.5	1.4	2.0	2.2
225. *	.8	1.0	1.1	.3	.3	.1	.1	1.2	1.1	1.8	1.2	.8	.6	.8	.8	1.3	1.3	1.6	2.1	1.9
230. *	1.1	1.4	1.6	.6	.3	.3	.2	1.4	1.3	1.8	1.5	.9	1.0	.9	.9	1.1	1.2	1.6	2.1	1.8
235. *	1.5	1.7	1.7	1.0	.4	.3	.3	1.5	1.4	2.0	1.8	1.1	.8	1.0	.8	.8	.8	1.4	1.8	1.7
240. *	1.8	2.0	1.9	1.1	.6	.3	.3	1.5	1.5	2.0	1.8	1.1	1.0	1.0	.7	.8	.9	1.3	1.9	1.6
245. *	1.9	2.2	2.1	1.1	.7	.3	.3	1.5	1.5	2.2	1.6	1.1	1.1	.8	.4	.7	.8	1.2	1.8	1.7
250. *	1.9	2.1	1.8	1.0	.8	.5	.4	1.6	1.7	2.3	1.4	1.2	.9	.7	.2	.6	.7	1.2	1.6	1.5
255. *	1.9	1.9	1.6	1.1	.8	.6	.4	1.7	1.7	2.3	1.6	1.2	.7	.7	.2	.3	.7	.9	1.7	1.4
260. *	1.8	1.9	1.7	1.3	.9	.6	.6	1.7	1.8	2.4	1.3	1.0	.7	.5	.1	.2	.4	.8	1.3	1.2
265. *	1.7	1.8	1.6	1.5	1.3	.8	.7	1.5	1.7	2.3	1.3	.8	.5	.5	.0	.1	.2	.6	1.2	.9
270. *	1.6	1.9	1.6	1.6	1.4	1.3	1.1	1.5	1.6	2.0	1.2	.6	.5	.5	.0	.0	.1	.4	.6	.7
275. *	1.7	1.9	1.8	1.8	1.6	1.6	1.2	1.3	1.4	1.7	.5	.5	.5	.5	.0	.0	.0	.2	.6	.5
280. *	1.7	1.8	1.7	1.8	1.8	1.7	1.7	1.0	.9	.9	.4	.4	.4	.5	.0	.0	.0	.0	.3	.3
285. *	1.6	1.9	1.8	1.6	1.8	1.7	1.8	.7	.8	.6	.5	.4	.4	.5	.0	.0	.0	.0	.1	.2
290. *	1.6	1.9	1.7	1.7	1.9	1.7	1.8	.5	.3	.5	.4	.4	.4	.5	.0	.0	.0	.0	.0	.1
295. *	1.7	2.0	1.7	1.7	1.9	1.8	2.1	.3	.3	.4	.4	.4	.4	.5	.0	.0	.0	.0	.0	.1
300. *	1.6	1.9	1.7	1.7	1.5	1.8	2.3	.1	.1	.2	.4	.3	.4	.5	.0	.0	.0	.0	.0	.0
305. *	1.6	2.0	1.5	1.5	1.6	1.9	2.3	.1	.1	.2	.4	.3	.4	.5	.0	.0	.0	.0	.0	.0
310. *	1.5	2.2	1.6	1.4	1.5	2.0	2.2	.1	.1	.2	.3	.3	.4	.5	.0	.0	.0	.0	.0	.0
315. *	1.5	2.0	1.6	1.4	1.5	2.1	2.2	.0	.1	.1	.3	.3	.4	.5	.0	.0	.0	.0	.0	.0
320. *	1.4	2.0	1.5	1.5	1.5	2.0	2.1	.1	.1	.1	.3	.5	.4	.5	.0	.0	.0	.0	.0	.0
325. *	1.7	2.1	1.5	1.5	1.5	2.0	2.0	.1	.1	.1	.3	.4	.4	.5	.0	.0	.0	.0	.0	.0
330. *	1.7	2.1	1.3	1.4	1.6	2.1	1.8	.1	.1	.1	.3	.4	.4	.4	.0	.0	.0	.0	.0	.0
335. *	1.5	2.1	1.1	1.4	1.5	1.9	1.7	.1	.1	.1	.3	.4	.4	.4	.0	.0	.0	.0	.0	.0
340. *	1.6	1.9	1.1	1.3	1.7	1.9	1.6	.1	.1	.1	.2	.5	.4	.4	.0	.0	.0	.0	.0	.0
345. *	1.6	2.1	1.3	1.3	1.7	1.9	1.5	.1	.1	.2	.2	.4	.5	.5	.0	.0	.0	.0	.0	.0
350. *	1.8	2.0	1.2	1.3	1.7	1.8	1.5	.1	.1	.2	.2	.4	.5	.5	.0	.0	.0	.0	.0	.0
355. *	1.8	1.9	1.2	1.3	1.8	1.8	1.5	.1	.1	.1	.2	.5	.5	.5	.0	.0	.0	.0	.0	.0
360. *	1.8	1.8	1.2	1.3	2.0	2.0	1.5	.1	.2	.1	.2	.5	.5	.7	.0	.0	.0	.0	.0	.0
MAX *	1.9	2.2	2.1	1.9	2.2	2.1	2.4	1.7	1.8	2.4	1.8	1.2	1.1	1.0	1.1	1.3	2.0	1.8	2.1	2.2
DEGR. *	5	245	245	85	90	90	90	255	260	260	235	250	245	235	200	225	140	120	225	220

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JOB: Pellissippi Site 8 BD AM 2015 RUN: Pellissippi Site 8 BD AM 2015

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	.0	.9	1.0	1.1	1.3	.5	.4	.2
5.	.0	.9	1.0	1.0	1.3	.5	.3	.3
10.	.0	.9	1.0	1.1	1.3	.5	.4	.3
15.	.0	1.0	1.0	1.1	1.3	.5	.5	.4
20.	.0	.9	1.1	1.2	1.4	.6	.5	.5
25.	.0	1.0	1.0	1.3	1.3	.6	.5	.5
30.	.0	1.0	1.1	1.2	1.2	.7	.6	.5
35.	.0	1.0	1.2	1.5	1.2	.8	.7	.6
40.	.0	1.1	1.2	1.5	1.1	.8	.8	.7
45.	.0	1.1	1.2	1.5	1.1	.8	.9	1.0
50.	.0	1.2	1.3	1.7	1.2	1.2	1.1	1.3
55.	.1	1.3	1.4	1.8	1.3	1.2	1.4	1.6
60.	.1	1.4	1.4	1.9	.9	1.5	1.4	1.4
65.	.1	1.5	1.5	2.0	1.0	1.8	1.5	1.7
70.	.2	1.5	1.8	1.9	1.3	1.7	1.7	1.8
75.	.4	1.5	1.6	2.1	1.2	1.7	1.9	1.7
80.	.6	1.5	1.6	2.1	1.3	1.7	1.9	1.7
85.	.8	1.3	1.4	1.9	1.4	1.8	1.6	1.7
90.	1.4	1.1	1.3	1.8	1.5	1.6	1.6	1.7
95.	1.8	.9	1.0	1.1	1.1	1.7	1.6	1.6
100.	2.0	.8	.9	1.1	1.1	1.5	1.4	1.5
105.	2.3	.6	.9	.9	.9	1.5	1.4	1.3
110.	2.0	.6	.7	.8	.9	1.2	1.2	1.2
115.	2.1	.4	.4	.5	.7	1.1	1.2	1.2
120.	1.9	.4	.4	.5	.7	1.2	1.2	1.2
125.	2.1	.4	.4	.5	.7	1.2	1.2	1.2
130.	2.0	.4	.4	.4	.7	1.2	1.2	1.2
135.	2.1	.4	.4	.5	.7	1.2	1.2	1.2
140.	2.0	.4	.4	.4	.7	1.2	1.2	1.2
145.	2.0	.4	.4	.4	.7	1.2	1.2	1.2
150.	1.9	.4	.4	.4	.7	1.2	1.2	1.3
155.	1.9	.4	.4	.4	.7	1.2	1.2	1.3
160.	1.9	.5	.4	.5	.7	1.2	1.2	1.2
165.	1.9	.5	.4	.5	.8	1.2	1.2	1.3
170.	1.9	.3	.4	.5	.8	1.2	1.2	1.2
175.	1.8	.3	.5	.5	.8	1.3	1.2	1.2
180.	1.9	.4	.5	.5	.9	1.3	1.3	1.4
185.	1.8	.4	.5	.5	.8	1.3	1.3	1.3
190.	1.7	.4	.4	.5	.8	1.5	1.5	1.4
195.	1.7	.4	.4	.5	.9	1.5	1.5	1.5
200.	1.8	.4	.4	.5	1.0	1.5	1.5	1.5
205.	1.8	.4	.4	.5	1.0	1.6	1.6	1.6

1

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	1.4	.3	.3	.6	1.0	1.7	1.7	1.7
215.	1.4	.3	.3	.6	1.0	1.9	1.7	1.8
220.	1.5	.3	.2	.3	.9	1.9	1.8	1.7
225.	1.4	.3	.2	.3	.8	1.6	1.7	1.5
230.	1.5	.3	.2	.2	.7	1.5	1.4	1.4
235.	1.5	.1	.1	.3	.4	1.1	1.0	1.1
240.	1.5	.2	.2	.1	.2	.8	.7	.6
245.	1.4	.3	.2	.2	.0	.5	.6	.5
250.	1.4	.4	.3	.3	.0	.2	.1	.2
255.	1.3	.7	.5	.5	.1	.1	.1	.1
260.	1.1	.8	.7	.6	.2	.1	.1	.0
265.	1.0	1.1	.9	.9	.4	.2	.0	.0
270.	.6	1.2	1.0	1.0	.4	.1	.0	.0
275.	.4	1.3	1.2	1.2	.6	.2	.1	.0
280.	.3	1.3	1.1	1.2	.7	.3	.2	.1
285.	.2	1.3	1.0	1.1	.6	.3	.2	.1
290.	.1	1.3	1.0	1.1	.9	.3	.3	.2
295.	.0	1.2	1.1	1.2	1.0	.4	.3	.2
300.	.0	1.2	1.0	1.1	1.1	.4	.3	.2
305.	.0	1.1	1.0	1.1	1.0	.4	.3	.3
310.	.0	1.0	1.0	1.2	1.0	.3	.3	.3
315.	.0	1.0	.8	1.2	1.1	.2	.2	.3
320.	.0	1.0	.8	1.1	1.2	.3	.3	.2
325.	.0	1.0	.8	1.0	1.0	.3	.3	.2
330.	.0	.9	.8	1.1	1.2	.3	.3	.2
335.	.0	.9	.9	1.1	1.3	.3	.2	.2
340.	.0	.9	.9	1.1	1.3	.4	.2	.2
345.	.0	.9	.9	1.0	1.3	.4	.3	.3

```
350.  *    .0    .9    .9   1.1   1.3    .5    .3    .2
355.  *    .0   1.0   1.0   1.1   1.3    .5    .3    .2
360.  *    .0    .9   1.0   1.1   1.3    .5    .4    .2
------*-----------------------------------------------
MAX   *   2.3   1.5   1.8   2.1   1.5   1.9   1.9   1.8
DEGR. *  105    75    70    75    90   220    75    70
```

THE HIGHEST CONCENTRATION IS 2.40 PPM AT 90 DEGREES FROM REC7 .
THE 2ND HIGHEST CONCENTRATION IS 2.40 PPM AT 260 DEGREES FROM REC10.
THE 3RD HIGHEST CONCENTRATION IS 2.30 PPM AT 105 DEGREES FROM REC21.

```
Pellissippi Site 8 BD PM 2015          60.0321.0.0000.000280.30480000    1    1
SE MID S              549556.   519307.       5.0
SE 164 S              549623.   519358.       5.0
SE 82 S               549690.   519410.       5.0
SE CNR                549780.   519444.       5.0
SE 82 E               549877.   519436.       5.0
SE 164 E              549957.   519419.       5.0
SE MID E              550037.   519403.       5.0
NE MID E              550161.   519479.       5.0
NE 164 E              550081.   519498.       5.0
NE 82 E               550002.   519516.       5.0
NE CNR                549919.   519561.       5.0
NE 82 N               549979.   519642.       5.0
NE 164 N              550037.   519701.       5.0
NE MID N              550088.   519765.       5.0
NW MID N              549939.   519739.       5.0
NW 164 N              549875.   519688.       5.0
NW 82 N               549809.   519638.       5.0
NW CNR                549728.   519588.       5.0
NW 82 W               549633.   519562.       5.0
NW 164 W              549551.   519558.       5.0
NW MID W              549468.   519552.       5.0
SW MID W              549264.   519444.       5.0
SW 164 W              549345.   519451.       5.0
SW 82 W               549427.   519459.       5.0
SW CNR                549524.   519433.       5.0
SW 82 S               549465.   519343.       5.0
SW 164 S              549401.   519293.       5.0
SW MID S              549336.   519242.       5.0
Pellissippi Site 8 BD PM 2015           50  1   0
  1
0         SR33nb    AG548974.518884.549121.519014.    116713.8   0  32   30.
  1
0         SR33nb    AG549121.519014.549343.519192.    116713.8   0  32   30.
  1
0         SR33nb    AG549343.519192.549527.519330.    116713.8   0  32   30.
  1
0         SR33nbT   AG549528.519333.549744.519507.     56713.8   0  32   30.
  2
0         33nbTQ    AG549633.519417.549529.519334.      0.  12   1
       120        79       2.0  567   92.3 1600 1 3
  1
0         SR33nbL   AG549394.519249.549726.519511.      2413.8   0  32   30.
  2
0         33nbLQ    AG549622.519429.549515.519345.      0.  12   1
       120        92       2.0   24   92.3 1600 1 3
  1
0         SR33nbD   AG549745.519507.549965.519682.     86713.8   0  32   30.
  1
0         SR33nbD   AG549965.519682.550092.519820.     86713.8   0  44   30.
  1
0         SR33nbD   AG550092.519820.550418.520254.     86713.8   0  44   30.
  1
0         SR33nbR   AG549563.519333.549692.519433.     57613.8   0  32   30.
  2
0         33nbRQ    AG549647.519399.549566.519336.      0.  12   1
       120        79       2.0  576   92.3 1600 1 3
  1
0         SR33nbR   AG549692.519433.549790.519470.     57613.8   0  32   30.
  1
0         SR33sb    AG550393.520276.550090.519858.     83413.8   0  44   30.
  1
0         SR33sb    AG550090.519858.549985.519733.     83413.8   0  44   30.
  1
0         SR33sb    AG549985.519733.549936.519687.     83413.8   0  44   30.
  1
0         SR33sbT   AG549936.519686.549718.519520.     49113.8   0  32   30.
  2
0         33sbTQ    AG549804.519585.549932.519683.      0.  12   1
       120        79       2.0  491   92.3 1600 1 3
  1
0         SR33sbL   AG549935.519676.549739.519524.      1213.8   0  32   30.
  2
0         33sbLQ    AG549811.519580.549927.519670.      0.  12   1
       120        92       2.0   12   92.3 1600 1 3
  1
0         SR33sbR   AG549915.519691.549781.519587.     33113.8   0  32   30.
  2
0         33sbRQ    AG549796.519598.549909.519686.      0.  12   1
       120        79       2.0  331   92.3 1600 1 3
  1
0         SR33sbR   AG549781.519587.549679.519542.     33113.8   0  32   30.
  1
0         SR33sbD   AG549718.519520.549294.519186.    127613.8   0  32   30.
  1
0         SR33sbD   AG549294.519186.549118.519041.    127613.8   0  32   30.
  1
0         SR33sbD   AG549118.519041.548963.518904.    127613.8   0  32   30.
  1
0         321eb     AG548761.519421.549272.519466.    160614.6   0  44   30.
  1
0         321ebT    AG549271.519468.549452.519486.    126114.6   0  44   30.
  1
0         321ebT    AG549452.519486.549687.519496.    126114.6   0  44   30.
  2
0         321ebTQ   AG549600.519492.549449.519486.      0.  24   2
```

```
       120         79         2.0 1261   92.3 3200 1 3
  1
0         321ebR    AG549507.519484.549542.519448.      4714.6   0  32   30.
  1
0         321ebR    AG549542.519448.549540.519382.      4714.6   0  32   30.
  1
0         321ebL    AG549275.519487.549457.519506.     29814.6   0  32   30.
  1
0         321ebL    AG549457.519506.549675.519517.     29814.6   0  32   30.
  2
0         321ebLQ   AG549600.519513.549456.519506.      0.  12   1
       120         92         2.0  298   92.3 1600 1 3
  1
0         321ebD    AG549693.519499.550395.519347.    184914.2   0  44   30.
  1
0         321ebD    AG550395.519347.550538.519325.    184914.2   0  44   30.
  1
0         321ebD    AG550538.519325.550787.519348.    184914.2   0  44   30.
  1
0         321wb     AG550748.519394.550570.519368.    166514.2   0  44   30.
  1
0         321wb     AG550570.519368.550393.519392.    166514.2   0  44   30.
  1
0         321wb     AG550393.519392.550105.519453.    166514.2   0  44   30.
  1
0         321wbT    AG550105.519454.549803.519526.     92514.2   0  44   30.
  2
0         321wbTQ   AG549852.519514.550090.519457.      0.  24   2
       120         79         2.0  925   92.3 3200 1 3
  1
0         321wbL    AG550101.519439.549798.519507.     73814.2   0  32   30.
  2
0         321wbLQ   AG549851.519495.550080.519444.      0.  12   1
       120        104         2.0  738   92.3 1600 1 3
  1
0         321wbR    AG549946.519502.549888.519552.       214.2   0  32   30.
  1
0         321wbR    AG549888.519552.549892.519619.       214.2   0  32   30.
  1
0         321wbD    AG549803.519526.549584.519535.    128014.6   0  44   30.
  1
0         321wbD    AG549584.519535.549409.519523.    128014.6   0  44   30.
  1
0         321wbD    AG549409.519523.548759.519461.    128014.6   0  44   30.
1.0   04  1000   0Y  5  0 72
```

JOB: Pellissippi Site 8 BD PM 2015 RUN: Pellissippi Site 8 BD PM 2015
DATE: 12/15/2008 TIME: 14:10:33.63

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK	LINK DESCRIPTION	* X1 (FT)	Y1 (FT)	X2 (FT)	Y2 (FT) *	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	SR33nb	548974.0	518884.0	549121.0	519014.0	196.	49.	AG	1167.	13.8	.0	32.0		
2. 0	SR33nb	549121.0	519014.0	549343.0	519192.0	285.	51.	AG	1167.	13.8	.0	32.0		
3. 0	SR33nb	549343.0	519192.0	549527.0	519330.0	230.	53.	AG	1167.	13.8	.0	32.0		
4. 0	SR33nbT	549528.0	519333.0	549744.0	519507.0	277.	51.	AG	567.	13.8	.0	32.0		
5. 0	33nbTQ	549633.0	519417.0	548775.2	518732.5	1097.	231.	AG	163.	100.0	.0	12.0	1.15	55.7
6. 0	SR33nbL	549394.0	519249.0	549726.0	519511.0	423.	52.	AG	24.	13.8	.0	32.0		
7. 0	33nbLQ	549622.0	519429.0	549612.5	519421.6	12.	232.	AG	190.	100.0	.0	12.0	.08	.6
8. 0	SR33nbD	549745.0	519507.0	549965.0	519682.0	281.	51.	AG	867.	13.8	.0	32.0		
9. 0	SR33nbD	549965.0	519682.0	550092.0	519820.0	188.	43.	AG	867.	13.8	.0	44.0		
10. 0	SR33nbD	550092.0	519820.0	550418.0	520254.0	543.	37.	AG	867.	13.8	.0	44.0		
11. 0	SR33nbR	549563.0	519333.0	549692.0	519433.0	163.	52.	AG	576.	13.8	.0	32.0		
12. 0	33nbRQ	549647.0	519399.0	548706.2	518667.2	1192.	232.	AG	163.	100.0	.0	12.0	1.17	60.5
13. 0	SR33nbR	549692.0	519433.0	549790.0	519470.0	105.	69.	AG	576.	13.8	.0	32.0		
14. 0	SR33sb	550393.0	520276.0	550090.0	519858.0	516.	216.	AG	834.	13.8	.0	44.0		
15. 0	SR33sb	550090.0	519858.0	549985.0	519733.0	163.	220.	AG	834.	13.8	.0	44.0		
16. 0	SR33sb	549985.0	519733.0	549936.0	519687.0	67.	227.	AG	834.	13.8	.0	44.0		
17. 0	SR33sbT	549936.0	519686.0	549718.0	519520.0	274.	233.	AG	491.	13.8	.0	32.0		
18. 0	33sbTQ	549804.0	519585.0	550054.9	519777.0	316.	53.	AG	163.	100.0	.0	12.0	1.00	16.0
19. 0	SR33sbL	549935.0	519676.0	549739.0	519524.0	248.	232.	AG	12.	13.8	.0	32.0		
20. 0	33sbLQ	549811.0	519580.0	549815.8	519583.7	6.	52.	AG	190.	100.0	.0	12.0	.04	.3
21. 0	SR33sbR	549915.0	519691.0	549781.0	519587.0	170.	232.	AG	331.	13.8	.0	32.0		
22. 0	33sbRQ	549796.0	519598.0	549908.8	519685.9	143.	52.	AG	163.	100.0	.0	12.0	.67	7.3
23. 0	SR33sbR	549781.0	519587.0	549679.0	519542.0	112.	246.	AG	331.	13.8	.0	32.0		
24. 0	SR33sbD	549718.0	519520.0	549294.0	519186.0	540.	232.	AG	1276.	13.8	.0	32.0		
25. 0	SR33sbD	549294.0	519186.0	549118.0	519041.0	228.	231.	AG	1276.	13.8	.0	32.0		
26. 0	SR33sbD	549118.0	519041.0	548963.0	518904.0	207.	229.	AG	1276.	13.8	.0	32.0		
27. 0	321eb	548761.0	519421.0	549272.0	519466.0	513.	85.	AG	1606.	14.6	.0	44.0		
28. 0	321ebT	549271.0	519468.0	549452.0	519486.0	182.	84.	AG	1261.	14.6	.0	44.0		
29. 0	321ebT	549452.0	519486.0	549687.0	519496.0	235.	88.	AG	1261.	14.6	.0	44.0		
30. 0	321ebTQ	549600.0	519492.0	549328.0	519481.2	272.	268.	AG	326.	100.0	.0	24.0	.64	13.8
31. 0	321ebR	549507.0	519484.0	549542.0	519448.0	50.	136.	AG	47.	14.6	.0	32.0		
32. 0	321ebR	549542.0	519448.0	549540.0	519382.0	66.	182.	AG	47.	14.6	.0	32.0		
33. 0	321ebL	549275.0	519487.0	549457.0	519506.0	183.	84.	AG	298.	14.6	.0	32.0		
34. 0	321ebL	549457.0	519506.0	549675.0	519517.0	218.	87.	AG	298.	14.6	.0	32.0		
35. 0	321ebLQ	549600.0	519513.0	549401.4	519503.4	199.	267.	AG	190.	100.0	.0	12.0	.93	10.1
36. 0	321ebD	549693.0	519499.0	550395.0	519347.0	718.	102.	AG	1849.	14.2	.0	44.0		
37. 0	321ebD	550395.0	519347.0	550538.0	519325.0	145.	99.	AG	1849.	14.2	.0	44.0		
38. 0	321ebD	550538.0	519325.0	550787.0	519348.0	250.	85.	AG	1849.	14.2	.0			

```
44.0
     39. 0         321wb     * 550748.0  519394.0  550570.0  519368.0 *     180.   262. AG   1665.  14.2    .0
44.0
     40. 0         321wb     * 550570.0  519368.0  550393.0  519392.0 *     179.   278. AG   1665.  14.2    .0
44.0
     41. 0         321wb     * 550393.0  519392.0  550105.0  519453.0 *     294.   282. AG   1665.  14.2    .0
44.0
     42. 0         321wbT    * 550105.0  519454.0  549803.0  519526.0 *     310.   283. AG    925.  14.2    .0
44.0
     43. 0         321wbTQ   * 549852.0  519514.0  550046.1  519467.5 *     200.   103. AG    326. 100.0    .0
24.0  .47  10.1
     44. 0         321wbL    * 550101.0  519439.0  549798.0  519507.0 *     310.   283. AG    738.  14.2    .0
32.0
1

 PAGE  2
     JOB: Pellissippi Site 8 BD PM 2015                         RUN: Pellissippi Site 8 BD PM 2015
     DATE: 12/15/2008   TIME: 14:10:33.63

      LINK VARIABLES
      --------------
        LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H
  W    V/C QUEUE
                             *   X1        Y1        X2        Y2     *     (FT)  (DEG)          (G/MI)

(FT) (FT)       (VEH)

------------------------*---------------------------------------*-------------------------------------------
-------------
     45. 0         321wbLQ   * 549851.0  519495.0  556101.8  518102.7 *    6404.   103. AG    215. 100.0    .0
12.0 4.64 325.3
     46. 0         321wbR    * 549946.0  519502.0  549888.0  519552.0 *      77.   311. AG      2.  14.2    .0
32.0
     47. 0         321wbR    * 549888.0  519552.0  549892.0  519619.0 *      67.     3. AG      2.  14.2    .0
32.0
     48. 0         321wbD    * 549803.0  519526.0  549584.0  519535.0 *     219.   272. AG   1280.  14.6    .0
44.0
     49. 0         321wbD    * 549584.0  519535.0  549409.0  519523.0 *     175.   266. AG   1280.  14.6    .0
44.0
     50. 0         321wbD    * 549409.0  519523.0  548759.0  519461.0 *     653.   265. AG   1280.  14.6    .0
44.0
1

 PAGE  3
     JOB: Pellissippi Site 8 BD PM 2015                         RUN: Pellissippi Site 8 BD PM 2015
     DATE: 12/15/2008   TIME: 14:10:33.63

      ADDITIONAL QUEUE LINK PARAMETERS
      --------------------------------
        LINK DESCRIPTION     *   CYCLE    RED    CLEARANCE  APPROACH  SATURATION   IDLE   SIGNAL   ARRIVAL
                             *   LENGTH   TIME   LOST TIME    VOL     FLOW RATE   EM FAC   TYPE     RATE
                             *   (SEC)   (SEC)    (SEC)      (VPH)      (VPH)    (gm/hr)
     ------------------------*------------------------------------------------------------------------------
      5. 0         33nbTQ    *    120      79      2.0        567       1600      92.30     1         3
      7. 0         33nbLQ    *    120      92      2.0         24       1600      92.30     1         3
     12. 0         33nbRQ    *    120      79      2.0        576       1600      92.30     1         3
     18. 0         33sbTQ    *    120      79      2.0        491       1600      92.30     1         3
     20. 0         33sbLQ    *    120      92      2.0         12       1600      92.30     1         3
     22. 0         33sbRQ    *    120      79      2.0        331       1600      92.30     1         3
     30. 0         321ebTQ   *    120      79      2.0       1261       3200      92.30     1         3
     35. 0         321ebLQ   *    120      92      2.0        298       1600      92.30     1         3
     43. 0         321wbTQ   *    120      79      2.0        925       3200      92.30     1         3
     45. 0         321wbLQ   *    120     104      2.0        738       1600      92.30     1         3

      RECEPTOR LOCATIONS
      ------------------
                             *          COORDINATES (FT)          *
        RECEPTOR             *      X          Y            Z     *
     ------------------------*------------------------------------*
      1. SE MID S            *    549556.0   519307.0       5.0   *
      2. SE 164 S            *    549623.0   519358.0       5.0   *
      3. SE 82 S             *    549690.0   519410.0       5.0   *
      4. SE CNR              *    549780.0   519444.0       5.0   *
      5. SE 82 E             *    549877.0   519436.0       5.0   *
      6. SE 164 E            *    549957.0   519419.0       5.0   *
      7. SE MID E            *    550037.0   519403.0       5.0   *
      8. NE MID E            *    550161.0   519479.0       5.0   *
      9. NE 164 E            *    550081.0   519498.0       5.0   *
     10. NE 82 E             *    550002.0   519516.0       5.0   *
     11. NE CNR              *    549919.0   519561.0       5.0   *
     12. NE 82 N             *    549979.0   519642.0       5.0   *
     13. NE 164 N            *    550037.0   519701.0       5.0   *
     14. NE MID N            *    550088.0   519765.0       5.0   *
     15. NW MID N            *    549939.0   519739.0       5.0   *
     16. NW 164 N            *    549875.0   519688.0       5.0   *
     17. NW 82 N             *    549809.0   519638.0       5.0   *
     18. NW CNR              *    549728.0   519588.0       5.0   *
     19. NW 82 W             *    549633.0   519562.0       5.0   *
     20. NW 164 W            *    549551.0   519558.0       5.0   *
     21. NW MID W            *    549468.0   519552.0       5.0   *
     22. SW MID W            *    549264.0   519444.0       5.0   *
     23. SW 164 W            *    549345.0   519451.0       5.0   *
     24. SW 82 W             *    549427.0   519459.0       5.0   *
     25. SW CNR              *    549524.0   519433.0       5.0   *
     26. SW 82 S             *    549465.0   519343.0       5.0   *
     27. SW 164 S            *    549401.0   519293.0       5.0   *
     28. SW MID S            *    549336.0   519242.0       5.0   *
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JOB: Pellissippi Site 8 BD PM 2015 RUN: Pellissippi Site 8 BD PM 2015

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (PPM)

(DEGR)*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0. *	2.0	1.8	1.2	1.4	2.4	2.3	2.0	.2	.3	.3	.6	.8	.7	.7	.0	.0	.0	.0	.0	.0
5. *	2.1	1.9	1.2	1.7	2.3	2.3	2.0	.2	.2	.3	.6	.7	.8	.7	.0	.0	.0	.0	.0	.0
10. *	2.0	1.7	1.4	1.8	2.2	2.3	2.0	.2	.2	.5	.6	.8	.8	.8	.0	.0	.0	.0	.0	.0
15. *	1.9	1.8	1.5	1.8	2.3	2.4	2.0	.2	.2	.4	.7	1.0	.8	.8	.0	.0	.0	.0	.0	.0
20. *	1.8	1.8	1.3	1.7	2.4	2.4	1.9	.1	.2	.3	.8	1.0	.8	.7	.0	.0	.0	.0	.0	.0
25. *	1.9	1.6	1.5	1.6	2.6	2.3	1.8	.0	.2	.2	.7	.9	.8	.7	.1	.0	.0	.0	.0	.0
30. *	1.7	1.8	1.5	1.8	2.4	2.2	1.6	.0	.0	.2	.7	.7	.7	.7	.3	.1	.0	.0	.0	.0
35. *	1.8	1.8	1.6	2.1	2.3	2.0	1.7	.0	.0	.1	.6	.6	.5	.6	.3	.2	.1	.0	.0	.0
40. *	1.7	1.4	1.7	2.0	2.2	2.0	1.7	.0	.0	.0	.5	.6	.4	.4	.3	.3	.2	.1	.0	.0
45. *	1.5	1.5	1.5	1.9	2.1	2.0	1.7	.0	.0	.0	.2	.3	.3	.3	.6	.5	.6	.4	.0	.0
50. *	1.5	1.4	1.4	1.9	2.2	2.1	1.9	.0	.0	.0	.1	.2	.1	.1	.6	.6	.7	.5	.1	.0
55. *	1.3	1.5	1.5	1.7	2.2	2.0	1.8	.0	.0	.0	.0	.1	.1	.1	.8	.6	1.1	.8	.2	.0
60. *	1.0	1.1	1.2	1.9	2.3	2.2	1.9	.0	.0	.0	.0	.0	.0	.0	.8	.9	1.1	.9	.2	.1
65. *	.8	.9	1.2	1.9	2.3	2.1	2.2	.0	.0	.0	.0	.0	.0	.0	.9	.8	1.2	.8	.4	.2
70. *	.8	.8	1.3	2.0	2.5	2.4	2.2	.0	.0	.0	.0	.0	.0	.0	.9	1.0	1.2	.9	.5	.4
75. *	.7	1.0	1.3	2.2	2.6	2.4	2.2	.0	.0	.0	.0	.0	.0	.0	.8	1.0	1.3	.9	.6	.7
80. *	.5	1.0	1.3	2.1	2.5	2.4	2.2	.0	.0	.0	.0	.0	.0	.0	.8	1.1	1.4	1.0	.7	.9
85. *	.5	.7	1.2	2.2	2.6	2.4	2.4	.2	.2	.2	.0	.0	.0	.0	.9	1.0	1.3	.9	1.1	1.2
90. *	.3	.5	1.1	1.9	2.4	2.6	2.6	.3	.2	.2	.1	.0	.0	.0	.9	1.0	1.3	1.2	1.4	1.4
95. *	.3	.5	.8	1.7	2.5	2.5	2.5	.7	.6	.5	.3	.1	.0	.0	.9	1.1	1.4	1.4	1.8	2.0
100. *	.1	.3	.5	1.5	2.3	2.2	2.2	1.1	1.1	1.0	.4	.1	.1	.1	.9	1.1	1.6	1.5	2.1	2.3
105. *	.1	.2	.4	1.0	1.6	1.6	1.8	1.3	1.5	1.3	1.0	.2	.1	.1	.9	1.4	1.7	1.6	2.3	2.4
110. *	.0	.1	.2	.7	1.1	1.1	1.3	1.6	1.5	1.6	1.1	.4	.2	.1	1.0	1.3	1.7	1.8	2.5	2.3
115. *	.0	.0	.1	.3	.7	.7	.7	1.6	1.6	1.7	1.2	.6	.3	.1	1.1	1.4	2.0	1.9	2.3	2.1
120. *	.0	.0	.0	.1	.5	.5	.6	1.7	1.8	1.7	1.3	.6	.4	.2	1.1	1.5	2.1	2.0	2.1	2.0
125. *	.0	.0	.0	.1	.3	.3	.3	1.8	1.6	1.8	1.4	.5	.6	.2	1.0	1.6	2.1	1.8	1.9	1.9
130. *	.0	.0	.0	.0	.2	.2	.2	1.7	1.6	1.9	1.5	.6	.5	.3	1.0	1.9	2.3	1.7	1.6	1.8
135. *	.0	.0	.0	.0	.1	.1	.2	1.6	1.5	2.0	1.6	.6	.3	.3	1.1	1.9	2.2	1.5	1.6	1.9
140. *	.0	.0	.0	.0	.1	.1	.1	1.5	1.5	2.0	1.7	.7	.4	.4	1.2	2.0	2.2	1.5	1.6	1.8
145. *	.0	.0	.0	.0	.1	.1	.1	1.5	1.4	2.0	1.7	.7	.5	.3	1.3	2.0	2.2	1.3	1.5	1.9
150. *	.0	.0	.0	.0	.1	.1	.1	1.5	1.4	2.0	1.6	.8	.5	.3	1.5	1.9	2.1	1.3	1.3	2.1
155. *	.0	.0	.0	.0	.1	.1	.1	1.4	1.3	1.9	1.6	.7	.4	.3	1.3	1.9	1.9	1.1	1.4	2.3
160. *	.0	.0	.0	.0	.1	.1	.1	1.4	1.3	2.0	1.6	.7	.4	.3	1.3	1.8	1.9	1.2	1.4	2.2
165. *	.0	.0	.0	.0	.0	.1	.1	1.3	1.3	2.0	1.6	.7	.5	.4	1.4	1.9	1.7	1.3	1.3	2.3
170. *	.0	.0	.0	.0	.0	.0	.0	1.3	1.2	2.0	1.5	.7	.6	.4	1.6	1.9	1.7	1.4	1.5	2.3
175. *	.0	.0	.0	.0	.0	.0	.0	1.3	1.3	1.9	1.4	.7	.6	.4	1.5	2.0	1.7	1.4	1.7	2.3
180. *	.0	.0	.0	.0	.0	.0	.0	1.3	1.2	1.9	1.5	.8	.6	.6	1.5	2.0	1.6	1.2	1.7	2.4

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JOB: Pellissippi Site 8 BD PM 2015 RUN: Pellissippi Site 8 BD PM 2015

WIND ANGLE (DEGR) * CONCENTRATION (PPM)

WIND ANGLE (DEGR)	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
185.	.0	.0	.0	.0	.0	.0	.0	1.3	1.2	1.9	1.5	.8	.7	.5	1.5	1.9	1.5	1.3	1.8	2.3
190.	.0	.0	.0	.0	.0	.0	.0	1.3	1.2	2.0	1.5	.8	.7	.5	1.6	1.9	1.5	1.5	1.8	2.3
195.	.0	.0	.0	.0	.0	.0	.0	1.3	1.2	2.0	1.5	.8	.7	.6	1.4	1.8	1.3	1.6	1.8	2.3
200.	.0	.0	.0	.0	.0	.0	.0	1.3	1.2	2.0	1.5	.8	.7	.6	1.5	1.8	1.4	1.6	2.0	2.3
205.	.0	.0	.1	.0	.0	.0	.0	1.3	1.3	1.9	1.5	.8	.7	.6	1.5	1.6	1.4	1.7	2.1	2.3
210.	.1	.2	.2	.0	.0	.0	.0	1.3	1.3	2.0	1.5	.7	.7	.6	1.7	1.7	1.4	1.7	2.1	2.4
215.	.2	.3	.3	.0	.0	.0	.0	1.3	1.4	1.9	1.5	.7	.8	.7	1.5	1.8	1.5	2.1	2.2	2.5
220.	.4	.5	.5	.2	.0	.1	.1	1.3	1.5	2.0	1.3	.8	.8	.8	1.4	1.7	1.4	1.9	2.4	2.5
225.	.8	.9	.9	.2	.1	.1	.1	1.5	1.6	2.0	1.6	1.1	.9	1.0	1.4	1.6	1.5	2.0	2.3	2.3
230.	1.2	1.3	1.3	.6	.3	.1	.1	1.5	1.7	2.2	1.5	1.0	1.3	1.3	1.3	1.5	1.3	1.8	2.2	2.1
235.	1.4	1.5	1.6	.8	.3	.3	.1	1.5	2.1	2.4	1.5	1.1	1.3	1.7	1.1	1.0	1.3	1.7	2.4	2.3
240.	1.6	1.9	1.8	1.0	.4	.3	.3	1.8	2.1	2.5	1.6	1.3	1.3	1.8	.8	1.0	1.2	1.7	2.2	2.3
245.	1.8	2.0	1.6	1.0	.6	.4	.3	1.9	2.3	2.5	1.7	1.3	1.5	1.8	.8	.9	1.1	1.6	2.3	2.2
250.	1.9	2.0	1.7	1.1	.5	.4	.5	2.0	2.4	2.4	1.7	1.3	1.5	1.7	.4	.7	.9	1.5	2.1	2.1
255.	2.0	1.8	1.6	1.2	.9	.5	.5	2.1	2.5	2.5	1.7	1.5	1.4	1.5	.3	.4	.8	1.2	1.9	1.9
260.	1.7	1.8	1.6	1.3	1.2	.6	.6	2.3	2.8	2.6	1.5	1.4	1.2	1.2	.2	.3	.6	1.1	1.8	1.5
265.	1.6	1.8	1.6	1.6	1.3	1.1	1.0	2.2	2.6	2.4	1.4	1.2	1.1	1.0	.1	.2	.4	.9	1.4	1.3
270.	1.6	1.9	1.6	1.9	1.4	1.3	1.4	2.4	2.3	2.2	1.4	1.0	1.0	.9	.0	.0	.1	.6	1.1	1.0
275.	1.7	1.8	1.7	1.7	2.0	1.5	1.5	2.0	2.0	1.9	1.0	.9	.9	.9	.0	.0	.0	.2	.6	.6
280.	1.7	2.1	2.0	2.0	2.2	1.8	2.0	1.5	1.6	1.3	.6	.9	.7	.7	.0	.0	.0	.1	.4	.3
285.	1.7	2.0	2.0	1.9	2.1	1.8	2.2	1.0	1.0	.8	.6	.8	.7	.7	.0	.0	.0	.0	.1	.2
290.	1.7	2.1	2.0	2.0	2.1	2.2	2.4	.7	.7	.6	.5	.8	.8	.7	.0	.0	.0	.0	.1	.1
295.	1.8	2.2	1.8	1.8	2.0	2.3	2.4	.4	.5	.6	.5	.8	.7	.6	.0	.0	.0	.0	.0	.1
300.	1.8	2.3	1.9	1.9	1.8	2.0	2.6	.4	.4	.4	.6	.7	.7	.6	.0	.0	.0	.0	.0	.1
305.	1.8	2.3	1.7	1.9	1.8	2.3	2.6	.2	.3	.4	.6	.8	.7	.6	.0	.0	.0	.0	.0	.0
310.	1.8	2.3	1.9	1.7	1.7	2.3	2.7	.1	.3	.4	.7	.8	.8	.5	.0	.0	.0	.0	.0	.0
315.	1.6	2.4	1.7	1.6	1.7	2.4	2.7	.1	.2	.4	.7	.7	.8	.5	.0	.0	.0	.0	.0	.0
320.	1.8	2.2	1.6	1.6	1.9	2.4	2.6	.1	.2	.4	.7	.5	.7	.5	.0	.0	.0	.0	.0	.0
325.	1.9	2.3	1.7	1.8	1.9	2.5	2.6	.2	.2	.3	.7	.6	.7	.5	.0	.0	.0	.0	.0	.0
330.	1.9	2.2	1.5	1.8	1.9	2.5	2.5	.2	.2	.3	.7	.7	.7	.5	.0	.0	.0	.0	.0	.0
335.	1.8	2.1	1.3	1.6	2.1	2.5	2.5	.1	.2	.2	.7	.7	.7	.5	.0	.0	.0	.0	.0	.0
340.	1.7	2.1	1.1	1.5	2.1	2.4	2.3	.1	.2	.2	.6	.7	.7	.5	.0	.0	.0	.0	.0	.0
345.	1.7	2.1	1.2	1.5	2.2	2.4	2.2	.1	.3	.3	.6	.7	.7	.6	.0	.0	.0	.0	.0	.0
350.	1.8	2.1	1.3	1.6	2.1	2.2	2.2	.0	.3	.3	.6	.8	.7	.7	.0	.0	.0	.0	.0	.0
355.	1.9	2.0	1.3	1.5	2.2	2.2	2.2	.2	.2	.3	.6	.8	.7	.7	.0	.0	.0	.0	.0	.0
360.	2.0	1.8	1.2	1.4	2.4	2.3	2.0	.2	.3	.3	.6	.8	.7	.7	.0	.0	.0	.0	.0	.0
MAX	2.1	2.4	2.0	2.2	2.6	2.6	2.7	2.4	2.8	2.6	1.7	1.5	1.5	1.8	1.7	2.0	2.3	2.1	2.5	2.5
DEGR.	5	315	280	85	75	90	310	270	260	260	245	255	245	240	210	140	130	215	110	215

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JOB: Pellissippi Site 8 BD PM 2015 RUN: Pellissippi Site 8 BD PM 2015

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	.0	1.2	1.7	2.3	1.5	.7	.6	.3
5.	.0	1.2	1.8	2.2	1.5	.9	.6	.3
10.	.0	1.2	1.8	2.2	1.4	.9	.7	.5
15.	.0	1.3	1.8	2.3	1.4	.9	.7	.6
20.	.0	1.2	1.8	2.2	1.5	.8	.7	.6
25.	.0	1.3	1.9	2.3	1.5	.9	.6	.7
30.	.0	1.2	1.9	2.4	1.4	.9	.7	.8
35.	.0	1.4	2.1	2.3	1.5	1.0	.9	.8
40.	.0	1.4	2.2	2.5	1.4	1.1	1.0	1.0
45.	.1	1.6	2.2	2.5	1.3	1.1	1.1	1.3
50.	.1	1.6	2.3	2.6	1.4	1.5	1.3	1.5
55.	.1	1.8	2.4	2.6	1.5	1.6	1.7	1.8
60.	.1	2.0	2.6	2.6	1.4	1.9	1.8	1.9
65.	.1	2.2	2.5	2.8	1.6	2.4	2.2	2.1
70.	.4	2.3	2.5	3.0	1.6	2.2	2.2	2.2
75.	.5	2.3	2.5	2.8	1.6	2.0	2.2	2.0
80.	.8	2.4	2.4	2.7	1.4	2.3	2.2	2.0
85.	1.2	2.1	2.1	2.3	1.7	2.2	1.8	1.9
90.	1.6	1.8	1.9	2.2	1.7	2.1	1.8	1.9
95.	2.4	1.2	1.4	1.8	1.4	1.8	1.8	1.7
100.	2.4	1.0	1.3	1.3	1.2	1.8	1.7	1.7
105.	2.6	.7	1.0	1.1	1.1	1.5	1.5	1.6
110.	2.5	.5	.7	1.0	.9	1.3	1.3	1.4
115.	2.2	.5	.5	.6	.7	1.3	1.3	1.4
120.	2.4	.4	.6	.6	.8	1.3	1.3	1.4
125.	2.2	.4	.5	.5	.8	1.3	1.3	1.4
130.	2.2	.4	.5	.5	.8	1.3	1.3	1.4
135.	2.4	.4	.4	.4	.8	1.3	1.3	1.3
140.	2.3	.4	.5	.5	.8	1.3	1.3	1.3
145.	2.2	.4	.5	.5	.8	1.3	1.3	1.3
150.	2.2	.4	.4	.5	.8	1.3	1.3	1.3
155.	2.1	.4	.4	.5	.8	1.3	1.3	1.4
160.	2.1	.4	.4	.5	.7	1.3	1.3	1.4
165.	2.3	.4	.4	.5	.8	1.3	1.3	1.3
170.	2.3	.5	.4	.5	.8	1.3	1.3	1.4
175.	2.3	.5	.4	.5	1.0	1.3	1.3	1.4
180.	2.4	.4	.5	.5	1.0	1.4	1.4	1.4
185.	2.3	.4	.6	.5	1.0	1.6	1.5	1.6
190.	2.3	.4	.5	.5	1.0	1.6	1.5	1.7
195.	2.2	.4	.5	.6	1.0	1.7	1.7	1.7
200.	2.3	.4	.4	.6	1.0	1.7	1.7	1.7
205.	2.3	.5	.4	.6	1.0	1.8	1.9	1.8

1

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	2.4	.3	.4	.5	1.1	1.8	1.8	1.9
215.	2.2	.3	.3	.5	1.2	2.0	1.8	2.0
220.	2.0	.1	.3	.5	1.0	1.8	1.8	1.9
225.	2.0	.1	.1	.4	.9	1.8	1.8	1.9
230.	2.0	.1	.1	.1	.7	1.5	1.7	1.5
235.	2.0	.2	.1	.1	.5	1.2	1.2	1.1
240.	2.0	.2	.2	.1	.2	.9	.8	.9
245.	1.9	.4	.2	.3	.0	.6	.6	.5
250.	1.9	.5	.4	.3	.1	.2	.3	.2
255.	1.7	.8	.7	.7	.1	.2	.1	.2
260.	1.3	1.0	.9	1.1	.3	.1	.1	.1
265.	1.2	1.3	1.2	1.3	.5	.2	.1	.1
270.	.7	1.6	1.3	1.6	.8	.3	.2	.1
275.	.6	1.6	1.4	2.0	.8	.4	.2	.0
280.	.3	1.7	1.5	2.2	1.1	.3	.2	.1
285.	.2	1.7	1.4	2.2	1.2	.4	.3	.2
290.	.2	1.6	1.3	2.2	1.5	.4	.3	.2
295.	.1	1.5	1.4	2.3	1.5	.5	.3	.3
300.	.1	1.5	1.5	2.1	1.5	.5	.4	.3
305.	.0	1.4	1.4	2.2	1.5	.5	.4	.3
310.	.0	1.3	1.5	2.2	1.6	.6	.4	.3
315.	.0	1.3	1.3	2.2	1.5	.7	.5	.3
320.	.0	1.3	1.4	2.0	1.5	.6	.4	.3
325.	.0	1.2	1.4	2.1	1.5	.6	.4	.3
330.	.0	1.2	1.5	2.1	1.5	.6	.4	.3
335.	.0	1.2	1.6	2.1	1.5	.8	.3	.2
340.	.0	1.2	1.6	2.1	1.5	.8	.3	.3
345.	.0	1.2	1.7	2.2	1.5	.8	.5	.3

350.	*	.0	1.3	1.7	2.1	1.5	.8	.5	.4
355.	*	.0	1.1	1.7	2.3	1.5	.7	.5	.3
360.	*	.0	1.2	1.7	2.3	1.5	.7	.6	.3
MAX	*	2.6	2.4	2.6	3.0	1.7	2.4	2.2	2.2
DEGR.	*	105	80	60	70	90	65	65	70

THE HIGHEST CONCENTRATION IS 3.00 PPM AT 70 DEGREES FROM REC24.
THE 2ND HIGHEST CONCENTRATION IS 2.80 PPM AT 260 DEGREES FROM REC9 .
THE 3RD HIGHEST CONCENTRATION IS 2.70 PPM AT 310 DEGREES FROM REC7 .

```
Pellissippi Site 8 NB AM 2035          60.0321.0.0000.000280.30480000    1    1
SE MID S               549556.   519307.       5.0
SE 164 S               549623.   519358.       5.0
SE 82 S                549690.   519410.       5.0
SE CNR                 549780.   519444.       5.0
SE 82 E                549877.   519436.       5.0
SE 164 E               549957.   519419.       5.0
SE MID E               550037.   519403.       5.0
NE MID E               550161.   519479.       5.0
NE 164 E               550081.   519498.       5.0
NE 82 E                550002.   519516.       5.0
NE CNR                 549919.   519561.       5.0
NE 82 N                549979.   519642.       5.0
NE 164 N               550037.   519701.       5.0
NE MID N               550088.   519765.       5.0
NW MID N               549939.   519739.       5.0
NW 164 N               549875.   519688.       5.0
NW 82 N                549809.   519638.       5.0
NW CNR                 549728.   519588.       5.0
NW 82 W                549633.   519562.       5.0
NW 164 W               549551.   519558.       5.0
NW MID W               549468.   519552.       5.0
SW MID W               549264.   519444.       5.0
SW 164 W               549345.   519451.       5.0
SW 82 W                549427.   519459.       5.0
SW CNR                 549524.   519433.       5.0
SW 82 S                549465.   519343.       5.0
SW 164 S               549401.   519293.       5.0
SW MID S               549336.   519242.       5.0
Pellissippi Site 8 NB AM 2035           50  1   0
  1
0         SR33nb    AG548974.518884.549121.519014.    193711.3   0  32   30.
  1
0         SR33nb    AG549121.519014.549343.519192.    193711.3   0  32   30.
  1
0         SR33nb    AG549343.519192.549527.519330.    193711.3   0  32   30.
  1
0         SR33nbT   AG549528.519333.549744.519507.     87411.3   0  32   30.
  2
0         33nbTQ    AG549633.519417.549529.519334.      0.  12   1
       100        68       2.0  874   76.0 1600 1 3
  1
0         SR33nbL   AG549394.519249.549726.519511.      9411.3   0  32   30.
  2
0         33nbLQ    AG549622.519429.549515.519345.      0.  12   1
       100        77       2.0   94   76.0 1600 1 3
  1
0         SR33nbD   AG549745.519507.549965.519682.    129511.3   0  32   30.
  1
0         SR33nbD   AG549965.519682.550092.519820.    129511.3   0  44   30.
  1
0         SR33nbD   AG550092.519820.550418.520254.    129511.3   0  44   30.
  1
0         SR33nbR   AG549563.519333.549692.519433.     96911.3   0  32   30.
  2
0         33nbRQ    AG549647.519399.549566.519336.      0.  12   1
       100        68       2.0  969   76.0 1600 1 3
  1
0         SR33nbR   AG549692.519433.549790.519470.     96911.3   0  32   30.
  1
0         SR33sb    AG550393.520276.550090.519858.     47511.3   0  44   30.
  1
0         SR33sb    AG550090.519858.549985.519733.     47511.3   0  44   30.
  1
0         SR33sb    AG549985.519733.549936.519687.     47511.3   0  44   30.
  1
0         SR33sbT   AG549936.519686.549718.519520.     31911.3   0  32   30.
  2
0         33sbTQ    AG549804.519585.549932.519683.      0.  12   1
       100        68       2.0  319   76.0 1600 1 3
  1
0         SR33sbL   AG549935.519676.549739.519524.       211.3   0  32   30.
  2
0         33sbLQ    AG549811.519580.549927.519670.      0.  12   1
       100        77       2.0    2   76.0 1600 1 3
  1
0         SR33sbR   AG549915.519691.549781.519587.     15411.3   0  32   30.
  2
0         33sbRQ    AG549796.519598.549909.519686.      0.  12   1
       100        68       2.0  154   76.0 1600 1 3
  1
0         SR33sbR   AG549781.519587.549679.519542.     15411.3   0  32   30.
  1
0         SR33sbD   AG549718.519520.549294.519186.    105211.3   0  32   30.
  1
0         SR33sbD   AG549294.519186.549118.519041.    105211.3   0  32   30.
  1
0         SR33sbD   AG549118.519041.548963.518904.    105211.3   0  32   30.
  1
0         321eb     AG548761.519421.549272.519466.    170712.0   0  44   30.
  1
0         321ebT    AG549271.519468.549452.519486.    118312.0   0  44   30.
  1
0         321ebT    AG549452.519486.549687.519496.    118312.0   0  44   30.
  2
0         321ebTQ   AG549600.519492.549449.519486.      0.  24   2
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       100        58       2.0 1183   76.0 3200 1 3
  1
0         321ebR    AG549507.519484.549542.519448.     10912.0   0  32   30.
  1
0         321ebR    AG549542.519448.549540.519382.     10912.0   0  32   30.
  1
0         321ebL    AG549275.519487.549457.519506.     41512.0   0  32   30.
  1
0         321ebL    AG549457.519506.549675.519517.     41512.0   0  32   30.
  2
0         321ebLQ   AG549600.519513.549456.519506.      0.  12   1
       100        77       2.0  415   76.0 1600 1 3
  1
0         321ebD    AG549693.519499.550395.519347.    215411.7   0  44   30.
  1
0         321ebD    AG550395.519347.550538.519325.    215411.7   0  44   30.
  1
0         321ebD    AG550538.519325.550787.519348.    215411.7   0  44   30.
  1
0         321wb     AG550748.519394.550570.519368.    191611.7   0  44   30.
  1
0         321wb     AG550570.519368.550393.519392.    191611.7   0  44   30.
  1
0         321wb     AG550393.519392.550105.519453.    191611.7   0  44   30.
  1
0         321wbT    AG550105.519454.549803.519526.    112511.7   0  44   30.
  2
0         321wbTQ   AG549852.519514.550090.519457.      0.  24   2
       100        58       2.0 1125   76.0 3200 1 3
  1
0         321wbL    AG550101.519439.549798.519507.     62411.7   0  32   30.
  2
0         321wbLQ   AG549851.519495.550080.519444.      0.  12   1
       100        89       2.0  624   76.0 1600 1 3
  1
0         321wbR    AG549946.519502.549888.519552.       611.7   0  32   30.
  1
0         321wbR    AG549888.519552.549892.519619.       611.7   0  32   30.
  1
0         321wbD    AG549803.519526.549584.519535.    137312.0   0  44   30.
  1
0         321wbD    AG549584.519535.549409.519523.    137312.0   0  44   30.
  1
0         321wbD    AG549409.519523.548759.519461.    137312.0   0  44   30.
1.0   04  1000   0Y  5  0 72
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1 CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.2, JUNE 2000

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JOB: Pellissippi Site 8 NB AM 2035 RUN: Pellissippi Site 8 NB AM 2035

DATE: 12/15/2008 TIME: 14:09:23.82

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM

U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION		* X1	Y1	X2	Y2 *	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	SR33nb	* 548974.0	518884.0	549121.0	519014.0 *	196.	49.	AG	1937.	11.3	.0	32.0		
2. 0	SR33nb	* 549121.0	519014.0	549343.0	519192.0 *	285.	51.	AG	1937.	11.3	.0	32.0		
3. 0	SR33nb	* 549343.0	519192.0	549527.0	519330.0 *	230.	53.	AG	1937.	11.3	.0	32.0		
4. 0	SR33nbT	* 549528.0	519333.0	549744.0	519507.0 *	277.	51.	AG	874.	11.3	.0	32.0		
5. 0	33nbTQ	* 549633.0	519417.0	545944.3	516473.7 *	4719.	231.	AG	139.	100.0	.0	12.0	1.95	239.7
6. 0	SR33nbL	* 549394.0	519249.0	549726.0	519511.0 *	423.	52.	AG	94.	11.3	.0	32.0		
7. 0	33nbLQ	* 549622.0	519429.0	549590.9	519404.6 *	40.	232.	AG	157.	100.0	.0	12.0	.31	2.0
8. 0	SR33nbD	* 549745.0	519507.0	549965.0	519682.0 *	281.	51.	AG	1295.	11.3	.0	32.0		
9. 0	SR33nbD	* 549965.0	519682.0	550092.0	519820.0 *	188.	43.	AG	1295.	11.3	.0	44.0		
10. 0	SR33nbD	* 550092.0	519820.0	550418.0	520254.0 *	543.	37.	AG	1295.	11.3	.0	44.0		
11. 0	SR33nbR	* 549563.0	519333.0	549692.0	519433.0 *	163.	52.	AG	969.	11.3	.0	32.0		
12. 0	33nbRQ	* 549647.0	519399.0	545138.9	515892.4 *	5711.	232.	AG	139.	100.0	.0	12.0	2.16	290.1
13. 0	SR33nbR	* 549692.0	519433.0	549790.0	519470.0 *	105.	69.	AG	969.	11.3	.0	32.0		
14. 0	SR33sb	* 550393.0	520276.0	550090.0	519858.0 *	516.	216.	AG	475.	11.3	.0	44.0		
15. 0	SR33sb	* 550090.0	519858.0	549985.0	519733.0 *	163.	220.	AG	475.	11.3	.0	44.0		
16. 0	SR33sb	* 549985.0	519733.0	549936.0	519687.0 *	67.	227.	AG	475.	11.3	.0	44.0		
17. 0	SR33sbT	* 549936.0	519686.0	549718.0	519520.0 *	274.	233.	AG	319.	11.3	.0	32.0		
18. 0	33sbTQ	* 549804.0	519585.0	549898.6	519657.4 *	119.	53.	AG	139.	100.0	.0	12.0	.71	6.1
19. 0	SR33sbL	* 549935.0	519676.0	549739.0	519524.0 *	248.	232.	AG	2.	11.3	.0	32.0		
20. 0	33sbLQ	* 549811.0	519580.0	549811.7	519580.5 *	1.	52.	AG	157.	100.0	.0	12.0	.01	.0
21. 0	SR33sbR	* 549915.0	519691.0	549781.0	519587.0 *	170.	232.	AG	154.	11.3	.0	32.0		
22. 0	33sbRQ	* 549796.0	519598.0	549841.2	519633.2 *	57.	52.	AG	139.	100.0	.0	12.0	.34	2.9
23. 0	SR33sbR	* 549781.0	519587.0	549679.0	519542.0 *	112.	246.	AG	154.	11.3	.0	32.0		
24. 0	SR33sbD	* 549718.0	519520.0	549294.0	519186.0 *	540.	232.	AG	1052.	11.3	.0	32.0		
25. 0	SR33sbD	* 549294.0	519186.0	549118.0	519041.0 *	228.	231.	AG	1052.	11.3	.0	32.0		
26. 0	SR33sbD	* 549118.0	519041.0	548963.0	518904.0 *	207.	229.	AG	1052.	11.3	.0	32.0		
27. 0	321eb	* 548761.0	519421.0	549272.0	519466.0 *	513.	85.	AG	1707.	12.0	.0	44.0		
28. 0	321ebT	* 549271.0	519468.0	549452.0	519486.0 *	182.	84.	AG	1183.	12.0	.0	44.0		
29. 0	321ebT	* 549452.0	519486.0	549687.0	519496.0 *	235.	88.	AG	1183.	12.0	.0	44.0		
30. 0	321ebTQ	* 549600.0	519492.0	549412.7	519484.6 *	187.	268.	AG	236.	100.0	.0	24.0	.49	9.5
31. 0	321ebR	* 549507.0	519484.0	549542.0	519448.0 *	50.	136.	AG	109.	12.0	.0	32.0		
32. 0	321ebR	* 549542.0	519448.0	549540.0	519382.0 *	66.	182.	AG	109.	12.0	.0	32.0		
33. 0	321ebL	* 549275.0	519487.0	549457.0	519506.0 *	183.	84.	AG	415.	12.0	.0	32.0		
34. 0	321ebL	* 549457.0	519506.0	549675.0	519517.0 *	218.	87.	AG	415.	12.0	.0	32.0		
35. 0	321ebLQ	* 549600.0	519513.0	548218.4	519446.1 *	1383.	267.	AG	157.	100.0	.0	12.0	1.37	70.3
36. 0	321ebD	* 549693.0	519499.0	550395.0	519347.0 *	718.	102.	AG	2154.	11.7	.0	44.0		
37. 0	321ebD	* 550395.0	519347.0	550538.0	519325.0 *	145.	99.	AG	2154.	11.7	.0	44.0		
38. 0	321ebD	* 550538.0	519325.0	550787.0	519348.0 *	250.	85.	AG	2154.	11.7	.0			

44.0

LINK DESCRIPTION		X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
39. 0	321wb	550748.0	519394.0	550570.0	519368.0	180.	262.	AG	1916.	11.7	.0	44.0		
40. 0	321wb	550570.0	519368.0	550393.0	519392.0	179.	278.	AG	1916.	11.7	.0	44.0		
41. 0	321wb	550393.0	519392.0	550105.0	519453.0	294.	282.	AG	1916.	11.7	.0	44.0		
42. 0	321wbT	550105.0	519454.0	549803.0	519526.0	310.	283.	AG	1125.	11.7	.0	44.0		
43. 0	321wbTQ	549852.0	519514.0	550025.3	519472.5	178.	103.	AG	236.	100.0	.0	24.0	.46	9.1
44. 0	321wbL	550101.0	519439.0	549798.0	519507.0	310.	283.	AG	624.	11.7	.0	32.0		

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JOB: Pellissippi Site 8 NB AM 2035 RUN: Pellissippi Site 8 NB AM 2035
DATE: 12/15/2008 TIME: 14:09:23.82

LINK VARIABLES

LINK DESCRIPTION		X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. 0	321wbLQ	549851.0	519495.0	555347.6	518270.7	5631.	103.	AG	181.	100.0	.0	12.0	5.57	286.1
46. 0	321wbR	549946.0	519502.0	549888.0	519552.0	77.	311.	AG	6.	11.7	.0	32.0		
47. 0	321wbR	549888.0	519552.0	549892.0	519619.0	67.	3.	AG	6.	11.7	.0	32.0		
48. 0	321wbD	549803.0	519526.0	549584.0	519535.0	219.	272.	AG	1373.	12.0	.0	44.0		
49. 0	321wbD	549584.0	519535.0	549409.0	519523.0	175.	266.	AG	1373.	12.0	.0	44.0		
50. 0	321wbD	549409.0	519523.0	548759.0	519461.0	653.	265.	AG	1373.	12.0	.0	44.0		

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JOB: Pellissippi Site 8 NB AM 2035 RUN: Pellissippi Site 8 NB AM 2035
DATE: 12/15/2008 TIME: 14:09:23.82

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
5. 0	33nbTQ	100	68	2.0	874	1600	76.00	1	3
7. 0	33nbLQ	100	77	2.0	94	1600	76.00	1	3
12. 0	33nbRQ	100	68	2.0	969	1600	76.00	1	3
18. 0	33sbTQ	100	68	2.0	319	1600	76.00	1	3
20. 0	33sbLQ	100	77	2.0	2	1600	76.00	1	3
22. 0	33sbRQ	100	68	2.0	154	1600	76.00	1	3
30. 0	321ebTQ	100	58	2.0	1183	3200	76.00	1	3
35. 0	321ebLQ	100	77	2.0	415	1600	76.00	1	3
43. 0	321wbTQ	100	58	2.0	1125	3200	76.00	1	3
45. 0	321wbLQ	100	89	2.0	624	1600	76.00	1	3

RECEPTOR LOCATIONS

RECEPTOR	X	Y	Z
1. SE MID S	549556.0	519307.0	5.0
2. SE 164 S	549623.0	519358.0	5.0
3. SE 82 S	549690.0	519410.0	5.0
4. SE CNR	549780.0	519444.0	5.0
5. SE 82 E	549877.0	519436.0	5.0
6. SE 164 E	549957.0	519419.0	5.0
7. SE MID E	550037.0	519403.0	5.0
8. NE MID E	550161.0	519479.0	5.0
9. NE 164 E	550081.0	519498.0	5.0
10. NE 82 E	550002.0	519516.0	5.0
11. NE CNR	549919.0	519561.0	5.0
12. NE 82 N	549979.0	519642.0	5.0
13. NE 164 N	550037.0	519701.0	5.0
14. NE MID N	550088.0	519765.0	5.0
15. NW MID N	549939.0	519739.0	5.0
16. NW 164 N	549875.0	519688.0	5.0
17. NW 82 N	549809.0	519638.0	5.0
18. NW CNR	549728.0	519588.0	5.0
19. NW 82 W	549633.0	519562.0	5.0
20. NW 164 W	549551.0	519558.0	5.0
21. NW MID W	549468.0	519552.0	5.0
22. SW MID W	549264.0	519444.0	5.0
23. SW 164 W	549345.0	519451.0	5.0
24. SW 82 W	549427.0	519459.0	5.0
25. SW CNR	549524.0	519433.0	5.0
26. SW 82 S	549465.0	519343.0	5.0
27. SW 164 S	549401.0	519293.0	5.0
28. SW MID S	549336.0	519242.0	5.0

JOB: Pellissippi Site 8 NB AM 2035 RUN: Pellissippi Site 8 NB AM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) * CONCENTRATION (PPM)

WIND ANGLE (DEGR)	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	1.5	1.9	1.4	1.4	1.8	1.8	1.5	.1	.2	.1	.2	.5	.5	.7	.0	.0	.0	.0	.0	.0
5.	1.8	1.6	1.3	1.5	1.8	1.9	1.7	.1	.2	.1	.3	.6	.6	.8	.0	.0	.0	.0	.0	.0
10.	1.7	1.8	1.3	1.7	1.8	1.8	1.6	.1	.1	.2	.3	.5	.6	.6	.0	.0	.0	.0	.0	.0
15.	1.6	1.7	1.3	1.6	1.9	1.9	1.5	.1	.1	.2	.3	.6	.7	.7	.0	.0	.0	.0	.0	.0
20.	1.8	1.7	1.4	1.6	1.9	1.8	1.5	.1	.1	.2	.4	.6	.7	.7	.0	.0	.0	.0	.0	.0
25.	1.7	1.7	1.5	1.5	1.9	1.7	1.4	.0	.1	.2	.4	.6	.7	.7	.0	.0	.0	.0	.0	.0
30.	1.8	1.5	1.4	1.9	1.8	1.7	1.4	.0	.1	.1	.4	.8	.6	.6	.1	.0	.0	.0	.0	.0
35.	1.9	1.5	1.4	1.8	1.8	1.7	1.5	.0	.0	.1	.4	.7	.5	.6	.2	.1	.1	.0	.0	.0
40.	1.6	1.6	1.5	1.6	1.7	1.7	1.6	.0	.0	.1	.2	.4	.3	.4	.4	.1	.1	.1	.0	.0
45.	1.5	1.2	1.5	1.6	1.8	1.7	1.6	.0	.0	.0	.2	.3	.3	.2	.5	.2	.2	.1	.1	.0
50.	1.5	1.4	1.5	1.5	1.8	1.7	1.7	.0	.0	.0	.2	.2	.1	.2	.5	.3	.2	.2	.1	.0
55.	1.2	1.3	1.5	1.5	2.0	1.9	1.7	.0	.0	.0	.0	.2	.1	.1	.5	.4	.2	.5	.1	.1
60.	1.0	1.0	1.3	1.7	2.0	1.8	1.8	.0	.0	.0	.0	.0	.0	.0	.5	.5	.3	.5	.3	.1
65.	.8	1.0	1.1	1.7	2.1	1.9	1.9	.0	.0	.0	.0	.0	.0	.0	.4	.5	.6	.5	.2	.0
70.	.6	.9	1.1	1.7	2.2	2.0	2.1	.0	.0	.0	.0	.0	.0	.0	.5	.4	.5	.6	.4	.2
75.	.7	.8	1.3	1.9	2.2	2.0	1.9	.0	.0	.0	.0	.0	.0	.0	.5	.3	.6	.6	.3	.3
80.	.4	.8	1.2	1.9	2.2	2.0	2.1	.0	.0	.0	.0	.0	.0	.0	.4	.4	.8	.5	.5	.5
85.	.4	.7	1.1	1.9	2.4	2.3	2.3	.1	.1	.1	.0	.0	.0	.0	.5	.4	.8	.5	1.0	.9
90.	.2	.5	.9	1.6	2.3	2.5	2.5	.3	.2	.2	.1	.0	.0	.0	.5	.5	.7	.7	1.1	1.2
95.	.2	.4	.6	1.5	2.3	2.2	2.3	.7	.6	.5	.2	.1	.0	.0	.5	.4	.9	1.0	1.5	1.6
100.	.1	.2	.5	1.4	1.9	2.0	2.1	1.1	1.0	.9	.4	.1	.1	.1	.6	.5	1.1	1.1	1.7	2.0
105.	.1	.2	.3	.8	1.4	1.5	1.7	1.2	1.1	1.2	.8	.1	.1	.1	.6	.5	1.3	1.6	1.9	2.2
110.	.0	.1	.2	.6	1.1	1.1	1.2	1.5	1.4	1.5	1.0	.4	.1	.1	.5	.7	1.3	1.7	2.0	2.0
115.	.0	.0	.0	.3	.7	.7	.7	1.5	1.6	1.4	1.0	.6	.2	.1	.5	.8	1.6	1.8	2.0	1.9
120.	.0	.0	.0	.1	.4	.4	.5	1.7	1.7	1.5	1.2	.5	.3	.1	.6	.8	1.7	1.7	1.9	1.8
125.	.0	.0	.0	.1	.3	.3	.3	1.6	1.5	1.3	1.3	.5	.4	.2	.7	.9	1.8	1.7	1.6	1.7
130.	.0	.0	.0	.0	.2	.2	.2	1.5	1.4	1.6	1.2	.6	.4	.3	.7	1.1	2.1	1.5	1.4	1.5
135.	.0	.0	.0	.0	.1	.1	.2	1.4	1.3	1.5	1.4	.5	.3	.3	.7	1.2	2.0	1.4	1.4	1.6
140.	.0	.0	.0	.0	.1	.1	.1	1.4	1.4	1.6	1.3	.6	.3	.3	.7	1.2	2.0	1.5	1.5	1.7
145.	.0	.0	.0	.0	.1	.1	.1	1.4	1.3	1.4	1.4	.5	.5	.3	.8	1.2	1.9	1.2	1.4	1.7
150.	.0	.0	.0	.0	.1	.1	.1	1.4	1.2	1.5	1.4	.5	.4	.3	.9	1.2	1.9	1.2	1.3	1.7
155.	.0	.0	.0	.0	.1	.1	.1	1.3	1.3	1.5	1.3	.6	.4	.3	.9	1.4	1.9	1.2	1.4	2.0
160.	.0	.0	.0	.0	.1	.1	.1	1.3	1.3	1.6	1.3	.6	.4	.3	.8	1.4	1.7	1.2	1.3	1.9
165.	.0	.0	.0	.0	.0	.0	.1	1.3	1.2	1.5	1.3	.6	.5	.3	.9	1.4	1.7	1.2	1.2	1.9
170.	.0	.0	.0	.0	.0	.0	.0	1.2	1.1	1.5	1.3	.6	.5	.3	.9	1.4	1.6	1.2	1.2	1.9
175.	.0	.0	.0	.0	.0	.0	.0	1.2	1.1	1.5	1.3	.7	.4	.3	.9	1.3	1.5	1.2	1.4	2.0
180.	.0	.0	.0	.0	.0	.0	.0	1.2	1.0	1.5	1.3	.7	.5	.4	.8	1.3	1.3	1.2	1.5	1.9

WIND ANGLE (DEGR)	*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
185.	*	.0	.0	.0	.0	.0	.0	.0	1.2	1.0	1.6	1.3	.7	.5	.3	.9	1.3	1.3	1.0	1.5	1.9
190.	*	.0	.0	.0	.0	.0	.0	.0	1.2	1.0	1.6	1.3	.7	.5	.4	1.0	1.1	1.2	1.1	1.6	1.8
195.	*	.0	.0	.0	.0	.0	.0	.0	1.2	1.0	1.6	1.3	.7	.5	.4	1.1	1.2	1.2	1.3	1.7	1.8
200.	*	.0	.0	.1	.0	.0	.0	.0	1.2	1.0	1.6	1.3	.7	.5	.4	1.0	1.2	1.3	1.4	1.8	1.8
205.	*	.0	.1	.1	.0	.0	.0	.0	1.2	1.0	1.6	1.3	.7	.5	.4	.9	1.2	1.1	1.4	1.8	2.0

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JOB: Pellissippi Site 8 NB AM 2035 RUN: Pellissippi Site 8 NB AM 2035

WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	* .1	.2	.2	.0	.0	.0	.0	1.2	1.0	1.6	1.2	.7	.5	.5	.8	1.3	1.3	1.4	1.9	2.1
215.	* .2	.3	.4	.0	.0	.0	.0	1.2	1.0	1.6	1.1	.7	.6	.6	.9	1.4	1.4	1.7	2.2	2.0
220.	* .5	.5	.6	.2	.0	.1	.1	1.3	1.1	1.6	1.3	.9	.8	.7	1.0	1.2	1.3	1.8	2.2	2.1
225.	* .8	.9	1.0	.3	.3	.1	.1	1.3	1.3	1.8	1.3	.8	.8	.8	.9	1.3	1.3	1.7	2.2	1.9
230.	* 1.1	1.4	1.5	.8	.3	.3	.3	1.5	1.5	1.9	1.6	1.1	1.0	1.0	.9	1.2	1.3	1.6	2.0	1.8
235.	* 1.4	1.6	1.6	1.0	.4	.3	.3	1.6	1.7	2.1	1.8	1.2	1.1	1.1	.9	.8	1.1	1.4	1.7	2.0
240.	* 1.7	1.8	1.7	1.0	.6	.3	.3	1.7	1.7	2.2	1.6	1.2	1.0	1.1	.7	.8	.9	1.3	2.0	1.9
245.	* 1.7	1.9	1.9	1.1	.7	.4	.3	1.7	1.9	2.2	1.6	1.3	1.4	.8	.5	.7	.8	1.5	1.9	2.0
250.	* 1.7	1.9	1.6	1.2	.7	.5	.4	1.8	2.0	2.2	1.7	1.4	1.2	.9	.3	.7	.7	1.2	1.8	1.9
255.	* 1.7	1.9	1.7	1.0	.8	.6	.6	1.9	2.0	2.2	1.6	1.3	1.1	.9	.3	.4	.7	1.2	1.8	1.7
260.	* 1.6	1.8	1.7	1.6	1.1	.8	.7	2.1	1.9	2.4	1.5	1.1	1.0	.8	.2	.3	.5	.9	1.6	1.6
265.	* 1.6	1.9	1.6	1.6	1.4	1.1	.9	1.7	2.1	2.2	1.3	1.0	.7	.6	.1	.2	.4	.7	1.3	1.2
270.	* 1.6	2.0	1.8	1.8	1.4	1.3	1.0	1.6	2.2	2.0	1.2	.8	.5	.6	.0	.0	.2	.5	1.0	.9
275.	* 1.8	1.8	1.9	2.0	1.6	1.6	1.6	1.6	1.5	1.6	.6	.6	.6	.5	.0	.0	.0	.3	.6	.7
280.	* 1.6	1.8	1.8	2.1	1.8	1.8	1.8	1.3	1.3	.8	.6	.6	.5	.5	.0	.0	.0	.0	.4	.4
285.	* 1.6	1.8	1.9	1.9	1.9	2.0	2.1	.9	.8	.6	.6	.6	.5	.5	.0	.0	.0	.0	.1	.2
290.	* 1.5	1.9	2.0	1.9	2.0	2.1	2.0	.5	.3	.4	.5	.5	.5	.5	.0	.0	.0	.0	.0	.1
295.	* 1.6	1.9	1.8	1.9	2.1	1.9	2.3	.3	.3	.3	.4	.4	.5	.5	.0	.0	.0	.0	.0	.1
300.	* 1.7	2.0	1.6	1.8	1.7	1.9	2.3	.2	.1	.2	.4	.4	.5	.5	.0	.0	.0	.0	.0	.1
305.	* 1.6	2.1	1.5	1.6	1.7	2.0	2.4	.1	.1	.2	.4	.3	.5	.5	.0	.0	.0	.0	.0	.0
310.	* 1.5	2.1	1.6	1.7	1.6	2.1	2.4	.1	.1	.2	.4	.3	.5	.5	.0	.0	.0	.0	.0	.0
315.	* 1.5	2.0	1.5	1.7	1.6	2.0	2.5	.0	.1	.2	.4	.3	.5	.5	.0	.0	.0	.0	.0	.0
320.	* 1.5	1.9	1.5	1.7	1.5	2.1	2.4	.1	.1	.2	.3	.5	.5	.5	.0	.0	.0	.0	.0	.0
325.	* 1.7	2.0	1.4	1.7	1.7	2.1	2.3	.1	.1	.1	.3	.5	.5	.5	.0	.0	.0	.0	.0	.0
330.	* 1.6	2.1	1.3	1.6	1.7	2.3	2.2	.1	.1	.1	.3	.4	.5	.5	.0	.0	.0	.0	.0	.0
335.	* 1.5	2.1	1.3	1.6	1.6	2.0	2.1	.1	.1	.1	.3	.5	.5	.5	.0	.0	.0	.0	.0	.0
340.	* 1.5	2.1	1.1	1.6	1.7	2.0	2.0	.1	.1	.2	.3	.5	.5	.6	.0	.0	.0	.0	.0	.0
345.	* 1.5	2.1	1.3	1.6	1.7	1.8	1.7	.1	.1	.2	.3	.4	.5	.6	.0	.0	.0	.0	.0	.0
350.	* 1.6	2.1	1.3	1.4	1.7	1.7	1.7	.1	.1	.2	.3	.5	.5	.5	.0	.0	.0	.0	.0	.0
355.	* 1.6	1.9	1.2	1.4	1.8	1.7	1.5	.1	.1	.1	.2	.5	.5	.6	.0	.0	.0	.0	.0	.0
360.	* 1.5	1.9	1.4	1.4	1.8	1.8	1.5	.1	.2	.1	.2	.5	.5	.7	.0	.0	.0	.0	.0	.0
MAX	* 1.9	2.1	2.0	2.1	2.4	2.5	2.5	2.1	2.2	2.4	1.8	1.4	1.4	1.1	1.1	1.4	2.1	1.8	2.2	2.2
DEGR.	* 35	305	290	280	85	90	90	260	270	260	235	250	245	235	195	155	130	220	215	105

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JOB: Pellissippi Site 8 NB AM 2035 RUN: Pellissippi Site 8 NB AM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	.0	1.2	1.1	1.8	1.2	.6	.5	.3
5.	.0	1.1	1.1	1.7	1.2	.5	.5	.3
10.	.0	1.2	1.0	1.6	1.2	.5	.4	.3
15.	.0	1.2	1.0	1.7	1.2	.5	.5	.5
20.	.0	1.3	1.1	1.7	1.3	.6	.5	.5
25.	.0	1.2	1.2	1.8	1.2	.7	.6	.6
30.	.0	1.2	1.2	1.8	1.1	.8	.6	.5
35.	.0	1.3	1.1	2.0	1.1	.9	.7	.6
40.	.0	1.3	1.2	1.9	1.1	.7	.8	.7
45.	.0	1.3	1.3	2.0	1.1	.9	.8	.9
50.	.0	1.4	1.4	2.1	1.2	1.1	1.2	1.2
55.	.1	1.6	1.6	2.2	1.1	1.2	1.5	1.4
60.	.1	1.5	1.7	2.0	1.0	1.4	1.5	1.6
65.	.1	1.6	1.6	2.1	1.1	1.8	1.7	1.7
70.	.2	1.8	2.0	2.2	1.3	1.7	1.8	1.8
75.	.4	1.7	1.9	2.1	1.3	1.7	1.8	1.7
80.	.6	1.8	1.8	2.3	1.3	1.7	1.9	1.7
85.	.9	1.5	1.6	2.0	1.6	1.8	1.7	1.7
90.	1.5	1.4	1.4	1.6	1.5	1.6	1.6	1.6
95.	2.0	.9	1.0	1.2	1.4	1.5	1.6	1.5
100.	2.3	.8	1.0	1.0	1.2	1.5	1.5	1.5
105.	2.2	.6	.9	.8	.9	1.4	1.4	1.3
110.	2.1	.6	.8	.8	.9	1.2	1.3	1.3
115.	2.0	.4	.5	.5	.7	1.2	1.3	1.3
120.	1.9	.4	.4	.5	.7	1.2	1.3	1.3
125.	1.9	.4	.4	.5	.6	1.2	1.3	1.3
130.	1.8	.4	.4	.5	.6	1.2	1.3	1.3
135.	2.0	.4	.4	.5	.6	1.2	1.3	1.3
140.	2.1	.4	.4	.4	.6	1.2	1.3	1.3
145.	2.0	.4	.5	.4	.6	1.2	1.3	1.2
150.	2.0	.4	.5	.4	.6	1.3	1.3	1.3
155.	1.9	.4	.5	.5	.6	1.3	1.3	1.3
160.	1.8	.5	.5	.5	.6	1.3	1.3	1.3
165.	1.9	.5	.4	.5	.6	1.3	1.3	1.3
170.	1.8	.4	.4	.5	.6	1.3	1.3	1.3
175.	1.9	.3	.5	.5	.6	1.3	1.3	1.3
180.	2.0	.4	.5	.5	.8	1.4	1.4	1.3
185.	1.8	.4	.5	.5	.9	1.4	1.4	1.4
190.	1.8	.4	.4	.6	.8	1.4	1.5	1.4
195.	1.8	.4	.4	.5	.9	1.4	1.4	1.6
200.	1.9	.5	.4	.5	1.0	1.6	1.5	1.5
205.	1.9	.5	.4	.5	1.1	1.7	1.7	1.6

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WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	1.7	.4	.5	.5	1.1	1.6	1.8	1.8
215.	1.6	.3	.3	.4	.9	1.7	1.7	1.7
220.	1.9	.3	.2	.3	.9	1.7	1.7	1.7
225.	1.7	.3	.2	.3	.8	1.7	1.6	1.7
230.	1.9	.3	.2	.3	.7	1.6	1.4	1.5
235.	1.8	.2	.3	.3	.4	1.1	1.2	1.1
240.	1.5	.2	.2	.1	.3	.8	.7	.6
245.	1.7	.3	.2	.2	.0	.5	.6	.5
250.	1.6	.4	.3	.3	.0	.2	.1	.2
255.	1.6	.8	.7	.6	.1	.1	.1	.1
260.	1.5	1.0	.8	.8	.4	.1	.1	.1
265.	1.3	1.4	1.2	1.1	.5	.2	.1	.0
270.	.9	1.5	1.2	1.4	.7	.2	.0	.0
275.	.7	1.7	1.5	1.6	.9	.3	.2	.0
280.	.4	1.8	1.5	1.6	.9	.4	.3	.2
285.	.2	1.8	1.6	1.6	.9	.4	.4	.2
290.	.2	1.8	1.6	1.5	1.1	.5	.4	.3
295.	.1	1.7	1.5	1.5	1.3	.6	.4	.3
300.	.0	1.6	1.4	1.5	1.2	.5	.4	.4
305.	.0	1.4	1.3	1.4	1.2	.5	.4	.4
310.	.0	1.3	1.2	1.3	1.2	.5	.4	.4
315.	.0	1.3	1.1	1.4	1.2	.4	.3	.4
320.	.0	1.3	1.1	1.3	1.3	.3	.4	.4
325.	.0	1.2	1.1	1.4	1.2	.3	.4	.3
330.	.0	1.2	1.0	1.4	1.2	.4	.4	.3
335.	.0	1.2	1.0	1.4	1.2	.4	.3	.3
340.	.0	1.2	1.0	1.5	1.2	.5	.3	.3
345.	.0	1.2	1.1	1.7	1.2	.5	.3	.4

350.	*	.0	1.2	1.1	1.6	1.2	.6	.3	.4
355.	*	.0	1.3	1.1	1.7	1.2	.6	.4	.3
360.	*	.0	1.2	1.1	1.8	1.2	.6	.5	.3
MAX	*	2.3	1.8	2.0	2.3	1.6	1.8	1.9	1.8
DEGR.	*	100	70	70	80	85	65	80	210

THE HIGHEST CONCENTRATION IS 2.50 PPM AT 90 DEGREES FROM REC7 .
THE 2ND HIGHEST CONCENTRATION IS 2.50 PPM AT 90 DEGREES FROM REC6 .
THE 3RD HIGHEST CONCENTRATION IS 2.40 PPM AT 85 DEGREES FROM REC5 .

```
Pellissippi Site 8 NB PM 2035           60.0321.0.0000.000280.30480000    1    1
SE MID S               549556.   519307.       5.0
SE 164 S               549623.   519358.       5.0
SE 82 S                549690.   519410.       5.0
SE CNR                 549780.   519444.       5.0
SE 82 E                549877.   519436.       5.0
SE 164 E               549957.   519419.       5.0
SE MID E               550037.   519403.       5.0
NE MID E               550161.   519479.       5.0
NE 164 E               550081.   519498.       5.0
NE 82 E                550002.   519516.       5.0
NE CNR                 549919.   519561.       5.0
NE 82 N                549979.   519642.       5.0
NE 164 N               550037.   519701.       5.0
NE MID N               550088.   519765.       5.0
NW MID N               549939.   519739.       5.0
NW 164 N               549875.   519688.       5.0
NW 82 N                549809.   519638.       5.0
NW CNR                 549728.   519588.       5.0
NW 82 W                549633.   519562.       5.0
NW 164 W               549551.   519558.       5.0
NW MID W               549468.   519552.       5.0
SW MID W               549264.   519444.       5.0
SW 164 W               549345.   519451.       5.0
SW 82 W                549427.   519459.       5.0
SW CNR                 549524.   519433.       5.0
SW 82 S                549465.   519343.       5.0
SW 164 S               549401.   519293.       5.0
SW MID S               549336.   519242.       5.0
Pellissippi Site 8 NB PM 2035            50  1   0
  1
0         SR33nb    AG548974.518884.549121.519014.    154311.3   0  32   30.
  1
0         SR33nb    AG549121.519014.549343.519192.    154311.3   0  32   30.
  1
0         SR33nb    AG549343.519192.549527.519330.    154311.3   0  32   30.
  1
0         SR33nbT   AG549528.519333.549744.519507.     76211.3   0  32   30.
  2
0         33nbTQ    AG549633.519417.549529.519334.      0.  12   1
       120        79       2.0  762   76.0 1600 1 3
  1
0         SR33nbL   AG549394.519249.549726.519511.      3211.3   0  32   30.
  2
0         33nbLQ    AG549622.519429.549515.519345.      0.  12   1
       120        92       2.0   32   76.0 1600 1 3
  1
0         SR33nbD   AG549745.519507.549965.519682.    116411.3   0  32   30.
  1
0         SR33nbD   AG549965.519682.550092.519820.    116411.3   0  44   30.
  1
0         SR33nbD   AG550092.519820.550418.520254.    116411.3   0  44   30.
  1
0         SR33nbR   AG549563.519333.549692.519433.     74911.3   0  32   30.
  2
0         33nbRQ    AG549647.519399.549566.519336.      0.  12   1
       120        79       2.0  749   76.0 1600 1 3
  1
0         SR33nbR   AG549692.519433.549790.519470.     74911.3   0  32   30.
  1
0         SR33sb    AG550393.520276.550090.519858.    112011.3   0  44   30.
  1
0         SR33sb    AG550090.519858.549985.519733.    112011.3   0  44   30.
  1
0         SR33sb    AG549985.519733.549936.519687.    112011.3   0  44   30.
  1
0         SR33sbT   AG549936.519686.549718.519520.     65911.3   0  32   30.
  2
0         33sbTQ    AG549804.519585.549932.519683.      0.  12   1
       120        79       2.0  659   76.0 1600 1 3
  1
0         SR33sbL   AG549935.519676.549739.519524.      1611.3   0  32   30.
  2
0         33sbLQ    AG549811.519580.549927.519670.      0.  12   1
       120        92       2.0   16   76.0 1600 1 3
  1
0         SR33sbR   AG549915.519691.549781.519587.     44511.3   0  32   30.
  2
0         33sbRQ    AG549796.519598.549909.519686.      0.  12   1
       120        79       2.0  445   76.0 1600 1 3
  1
0         SR33sbR   AG549781.519587.549679.519542.     44511.3   0  32   30.
  1
0         SR33sbD   AG549718.519520.549294.519186.    168411.3   0  32   30.
  1
0         SR33sbD   AG549294.519186.549118.519041.    168411.3   0  32   30.
  1
0         SR33sbD   AG549118.519041.548963.518904.    168411.3   0  32   30.
  1
0         321eb     AG548761.519421.549272.519466.    215712.0   0  44   30.
  1
0         321ebT    AG549271.519468.549452.519486.    169312.0   0  44   30.
  1
0         321ebT    AG549452.519486.549687.519496.    169312.0   0  44   30.
  2
0         321ebTQ   AG549600.519492.549449.519486.      0.  24   2
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       120        79       2.0 1693   76.0 3200 1 3
  1
0         321ebR    AG549507.519484.549542.519448.      6412.0   0  32   30.
  1
0         321ebR    AG549542.519448.549540.519382.      6412.0   0  32   30.
  1
0         321ebL    AG549275.519487.549457.519506.     40012.0   0  32   30.
  1
0         321ebL    AG549457.519506.549675.519517.     40012.0   0  32   30.
  2
0         321ebLQ   AG549600.519513.549456.519506.      0.  12   1
       120        92       2.0  400   76.0 1600 1 3
  1
0         321ebD    AG549693.519499.550395.519347.    245811.7   0  44   30.
  1
0         321ebD    AG550395.519347.550538.519325.    245811.7   0  44   30.
  1
0         321ebD    AG550538.519325.550787.519348.    245811.7   0  44   30.
  1
0         321wb     AG550748.519394.550570.519368.    220611.7   0  44   30.
  1
0         321wb     AG550570.519368.550393.519392.    220611.7   0  44   30.
  1
0         321wb     AG550393.519392.550105.519453.    220611.7   0  44   30.
  1
0         321wbT    AG550105.519454.549803.519526.    124311.7   0  44   30.
  2
0         321wbTQ   AG549852.519514.550090.519457.      0.  24   2
       120        79       2.0 1243   76.0 3200 1 3
  1
0         321wbL    AG550101.519439.549798.519507.     96111.7   0  32   30.
  2
0         321wbLQ   AG549851.519495.550080.519444.      0.  12   1
       120       104       2.0  961   76.0 1600 1 3
  1
0         321wbR    AG549946.519502.549888.519552.       211.7   0  32   30.
  1
0         321wbR    AG549888.519552.549892.519619.       211.7   0  32   30.
  1
0         321wbD    AG549803.519526.549584.519535.    172012.0   0  44   30.
  1
0         321wbD    AG549584.519535.549409.519523.    172012.0   0  44   30.
  1
0         321wbD    AG549409.519523.548759.519461.    172012.0   0  44   30.
1.0   04  1000   0Y  5  0 72
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JOB: Pellissippi Site 8 NB PM 2035 RUN: Pellissippi Site 8 NB PM 2035
DATE: 12/15/2008 TIME: 14:09:42.33

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK	DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	SR33nb	548974.0	518884.0	549121.0	519014.0	196.	49.	AG	1543.	11.3	.0	32.0		
2. 0	SR33nb	549121.0	519014.0	549343.0	519192.0	285.	51.	AG	1543.	11.3	.0	32.0		
3. 0	SR33nb	549343.0	519192.0	549527.0	519330.0	230.	53.	AG	1543.	11.3	.0	32.0		
4. 0	SR33nbT	549528.0	519333.0	549744.0	519507.0	277.	51.	AG	762.	11.3	.0	32.0		
5. 0	33nbTQ	549633.0	519417.0	547175.8	517456.3	3144.	231.	AG	134.	100.0	.0	12.0	1.55	159.7
6. 0	SR33nbL	549394.0	519249.0	549726.0	519511.0	423.	52.	AG	32.	11.3	.0	32.0		
7. 0	33nbLQ	549622.0	519429.0	549609.3	519419.1	16.	232.	AG	156.	100.0	.0	12.0	.10	.8
8. 0	SR33nbD	549745.0	519507.0	549965.0	519682.0	281.	51.	AG	1164.	11.3	.0	32.0		
9. 0	SR33nbD	549965.0	519682.0	550092.0	519820.0	188.	43.	AG	1164.	11.3	.0	44.0		
10. 0	SR33nbD	550092.0	519820.0	550418.0	520254.0	543.	37.	AG	1164.	11.3	.0	44.0		
11. 0	SR33nbR	549563.0	519333.0	549692.0	519433.0	163.	52.	AG	749.	11.3	.0	32.0		
12. 0	33nbRQ	549647.0	519399.0	547273.3	517552.7	3007.	232.	AG	134.	100.0	.0	12.0	1.52	152.8
13. 0	SR33nbR	549692.0	519433.0	549790.0	519470.0	105.	69.	AG	749.	11.3	.0	32.0		
14. 0	SR33sb	550393.0	520276.0	550090.0	519858.0	516.	216.	AG	1120.	11.3	.0	44.0		
15. 0	SR33sb	550090.0	519858.0	549985.0	519733.0	163.	220.	AG	1120.	11.3	.0	44.0		
16. 0	SR33sb	549985.0	519733.0	549936.0	519687.0	67.	227.	AG	1120.	11.3	.0	44.0		
17. 0	SR33sbT	549936.0	519686.0	549718.0	519520.0	274.	233.	AG	659.	11.3	.0	32.0		
18. 0	33sbTQ	549804.0	519585.0	551442.1	520838.7	2063.	53.	AG	134.	100.0	.0	12.0	1.34	104.8
19. 0	SR33sbL	549935.0	519676.0	549739.0	519524.0	248.	232.	AG	16.	11.3	.0	32.0		
20. 0	33sbLQ	549811.0	519580.0	549817.4	519584.9	8.	52.	AG	156.	100.0	.0	12.0	.05	.4
21. 0	SR33sbR	549915.0	519691.0	549781.0	519587.0	170.	232.	AG	445.	11.3	.0	32.0		
22. 0	33sbRQ	549796.0	519598.0	549978.2	519739.9	231.	52.	AG	134.	100.0	.0	12.0	.90	11.7
23. 0	SR33sbR	549781.0	519587.0	549679.0	519542.0	112.	246.	AG	445.	11.3	.0	32.0		
24. 0	SR33sbD	549718.0	519520.0	549294.0	519186.0	540.	232.	AG	1684.	11.3	.0	32.0		
25. 0	SR33sbD	549294.0	519186.0	549118.0	519041.0	228.	231.	AG	1684.	11.3	.0	32.0		
26. 0	SR33sbD	549118.0	519041.0	548963.0	518904.0	207.	229.	AG	1684.	11.3	.0	32.0		
27. 0	321eb	548761.0	519421.0	549272.0	519466.0	513.	85.	AG	2157.	12.0	.0	44.0		
28. 0	321ebT	549271.0	519468.0	549452.0	519486.0	182.	84.	AG	1693.	12.0	.0	44.0		
29. 0	321ebT	549452.0	519486.0	549687.0	519496.0	235.	88.	AG	1693.	12.0	.0	44.0		
30. 0	321ebTQ	549600.0	519492.0	549216.8	519476.8	384.	268.	AG	268.	100.0	.0	24.0	.86	19.5
31. 0	321ebR	549507.0	519484.0	549542.0	519448.0	50.	136.	AG	64.	12.0	.0	32.0		
32. 0	321ebR	549542.0	519448.0	549540.0	519382.0	66.	182.	AG	64.	12.0	.0	32.0		
33. 0	321ebL	549275.0	519487.0	549457.0	519506.0	183.	84.	AG	400.	12.0	.0	32.0		
34. 0	321ebL	549457.0	519506.0	549675.0	519517.0	218.	87.	AG	400.	12.0	.0	32.0		
35. 0	321ebLQ	549600.0	519513.0	548493.8	519459.4	1107.	267.	AG	156.	100.0	.0	12.0	1.25	56.3
36. 0	321ebD	549693.0	519499.0	550395.0	519347.0	718.	102.	AG	2458.	11.7	.0	44.0		
37. 0	321ebD	550395.0	519347.0	550538.0	519325.0	145.	99.	AG	2458.	11.7	.0	44.0		
38. 0	321ebD	550538.0	519325.0	550787.0	519348.0	250.	85.	AG	2458.	11.7	.0			

44.0

Link Description		X1	Y1	X2	Y2	Length (FT)	BRG (DEG)	Type	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	Queue (VEH)
39. 0	321wb	550748.0	519394.0	550570.0	519368.0	180.	262.	AG	2206.	11.7	.0	44.0		
40. 0	321wb	550570.0	519368.0	550393.0	519392.0	179.	278.	AG	2206.	11.7	.0	44.0		
41. 0	321wb	550393.0	519392.0	550105.0	519453.0	294.	282.	AG	2206.	11.7	.0	44.0		
42. 0	321wbT	550105.0	519454.0	549803.0	519526.0	310.	283.	AG	1243.	11.7	.0	44.0		
43. 0	321wbTQ	549852.0	519514.0	550112.9	519451.5	268.	103.	AG	268.	100.0	.0	24.0	.63	13.6
44. 0	321wbL	550101.0	519439.0	549798.0	519507.0	310.	283.	AG	961.	11.7	.0	32.0		

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PAGE 2
JOB: Pellissippi Site 8 NB PM 2035 RUN: Pellissippi Site 8 NB PM 2035
DATE: 12/15/2008 TIME: 14:09:42.33

LINK VARIABLES

LINK DESCRIPTION		X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. 0	321wbLQ	549851.0	519495.0	558452.1	517579.2	8812.	103.	AG	177.	100.0	.0	12.0	6.04	447.6
46. 0	321wbR	549946.0	519502.0	549888.0	519552.0	77.	311.	AG	2.	11.7	.0	32.0		
47. 0	321wbR	549888.0	519552.0	549892.0	519619.0	67.	3.	AG	2.	11.7	.0	32.0		
48. 0	321wbD	549803.0	519526.0	549584.0	519535.0	219.	272.	AG	1720.	12.0	.0	44.0		
49. 0	321wbD	549584.0	519535.0	549409.0	519523.0	175.	266.	AG	1720.	12.0	.0	44.0		
50. 0	321wbD	549409.0	519523.0	548759.0	519461.0	653.	265.	AG	1720.	12.0	.0	44.0		

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JOB: Pellissippi Site 8 NB PM 2035 RUN: Pellissippi Site 8 NB PM 2035
DATE: 12/15/2008 TIME: 14:09:42.33

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
5. 0	33nbTQ	120	79	2.0	762	1600	76.00	1	3
7. 0	33nbLQ	120	92	2.0	32	1600	76.00	1	3
12. 0	33nbRQ	120	79	2.0	749	1600	76.00	1	3
18. 0	33sbTQ	120	79	2.0	659	1600	76.00	1	3
20. 0	33sbLQ	120	92	2.0	16	1600	76.00	1	3
22. 0	33sbRQ	120	79	2.0	445	1600	76.00	1	3
30. 0	321ebTQ	120	79	2.0	1693	3200	76.00	1	3
35. 0	321ebLQ	120	92	2.0	400	1600	76.00	1	3
43. 0	321wbTQ	120	79	2.0	1243	3200	76.00	1	3
45. 0	321wbLQ	120	104	2.0	961	1600	76.00	1	3

RECEPTOR LOCATIONS

RECEPTOR	X (FT)	Y (FT)	Z (FT)
1. SE MID S	549556.0	519307.0	5.0
2. SE 164 S	549623.0	519358.0	5.0
3. SE 82 S	549690.0	519410.0	5.0
4. SE CNR	549780.0	519444.0	5.0
5. SE 82 E	549877.0	519436.0	5.0
6. SE 164 E	549957.0	519419.0	5.0
7. SE MID E	550037.0	519403.0	5.0
8. NE MID E	550161.0	519479.0	5.0
9. NE 164 E	550081.0	519498.0	5.0
10. NE 82 E	550002.0	519516.0	5.0
11. NE CNR	549919.0	519561.0	5.0
12. NE 82 N	549979.0	519642.0	5.0
13. NE 164 N	550037.0	519701.0	5.0
14. NE MID N	550088.0	519765.0	5.0
15. NW MID N	549939.0	519739.0	5.0
16. NW 164 N	549875.0	519688.0	5.0
17. NW 82 N	549809.0	519638.0	5.0
18. NW CNR	549728.0	519588.0	5.0
19. NW 82 W	549633.0	519562.0	5.0
20. NW 164 W	549551.0	519558.0	5.0
21. NW MID W	549468.0	519552.0	5.0
22. SW MID W	549264.0	519444.0	5.0
23. SW 164 W	549345.0	519451.0	5.0
24. SW 82 W	549427.0	519459.0	5.0
25. SW CNR	549524.0	519433.0	5.0
26. SW 82 S	549465.0	519343.0	5.0
27. SW 164 S	549401.0	519293.0	5.0
28. SW MID S	549336.0	519242.0	5.0

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JOB: Pellissippi Site 8 NB PM 2035 RUN: Pellissippi Site 8 NB PM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (PPM)

(DEGR)*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0. *	1.9	1.9	1.4	1.6	2.3	2.3	2.3	.3	.5	.3	.6	1.0	.9	1.1	.0	.0	.0	.0	.0	.0
5. *	1.8	1.6	1.4	1.8	2.5	2.3	2.3	.3	.4	.3	.7	.8	1.0	1.0	.0	.0	.0	.0	.0	.0
10. *	1.8	1.7	1.6	1.9	2.4	2.3	2.4	.3	.3	.5	.8	.8	1.0	1.1	.0	.0	.0	.0	.0	.0
15. *	1.7	1.8	1.5	1.9	2.5	2.5	2.4	.3	.3	.5	.8	1.1	.9	1.1	.0	.0	.0	.0	.0	.0
20. *	1.7	1.7	1.4	1.8	2.4	2.5	2.4	.2	.3	.5	.9	1.1	1.1	1.3	.0	.0	.0	.0	.0	.0
25. *	1.6	1.7	1.6	1.9	2.5	2.3	2.3	.1	.3	.4	.8	1.0	1.0	1.1	.1	.0	.0	.0	.0	.0
30. *	1.7	1.8	1.7	2.2	2.4	2.3	2.1	.1	.2	.3	.8	.9	1.0	1.1	.3	.1	.0	.0	.0	.0
35. *	1.8	1.9	1.6	2.3	2.4	2.2	2.1	.1	.1	.3	.7	.9	1.0	1.1	.3	.3	.2	.0	.0	.0
40. *	1.7	1.6	1.9	2.1	2.3	2.2	2.3	.1	.1	.1	.6	.7	.7	.8	.4	.4	.4	.3	.0	.0
45. *	1.5	1.5	2.0	2.1	2.2	2.2	2.3	.0	.1	.1	.5	.7	.6	.7	.8	.6	.7	.4	.1	.0
50. *	1.6	1.4	1.7	1.8	2.3	2.3	2.3	.0	.0	.1	.3	.4	.3	.4	.8	.8	.9	.7	.3	.1
55. *	1.3	1.4	1.6	1.9	2.4	2.3	2.2	.0	.0	.0	.1	.2	.3	.4	1.0	1.0	1.2	1.1	.4	.2
60. *	1.1	1.2	1.4	2.0	2.4	2.5	2.2	.0	.0	.0	.1	.1	.1	.2	1.0	1.2	1.3	1.1	.5	.1
65. *	.9	.9	1.3	1.9	2.4	2.4	2.4	.0	.0	.0	.0	.1	.1	.1	1.1	1.3	1.4	.9	.5	.3
70. *	.9	.9	1.3	1.9	2.6	2.5	2.3	.0	.0	.0	.0	.0	.0	.1	1.1	1.2	1.3	1.1	.7	.5
75. *	.7	.9	1.3	2.1	2.6	2.6	2.4	.0	.0	.0	.0	.0	.0	.0	1.2	1.2	1.4	1.0	.6	.7
80. *	.5	.9	1.3	2.2	2.7	2.6	2.4	.0	.0	.0	.0	.0	.0	.0	1.1	1.4	1.4	1.0	.7	.9
85. *	.4	.7	1.3	2.2	2.9	2.7	2.8	.1	.1	.1	.0	.0	.0	.0	1.1	1.3	1.3	.9	1.3	1.3
90. *	.3	.5	1.0	1.9	2.8	2.8	2.8	.4	.3	.2	.1	.0	.0	.0	1.2	1.1	1.2	1.1	1.6	1.5
95. *	.2	.5	.8	1.8	2.7	2.7	2.6	.7	.9	.9	.2	.1	.0	.0	1.1	1.1	1.2	1.4	1.8	2.2
100. *	.2	.2	.6	1.5	2.5	2.2	2.3	1.1	1.2	1.1	.6	.1	.1	.1	1.2	1.2	1.3	1.7	2.1	2.2
105. *	.1	.2	.4	1.1	1.8	2.0	2.0	1.3	1.4	1.4	1.0	.2	.1	.1	1.1	1.2	1.5	1.9	2.6	2.4
110. *	.0	.1	.2	.7	1.2	1.2	1.3	1.6	1.5	1.8	1.3	.5	.1	.1	1.3	1.3	1.7	2.0	2.5	2.6
115. *	.0	.0	.0	.4	.8	.8	.8	1.7	1.7	2.2	1.5	.6	.2	.1	1.3	1.4	1.8	2.3	2.5	2.3
120. *	.0	.0	.0	.1	.4	.4	.5	1.8	1.9	2.0	1.5	.8	.4	.2	1.4	1.4	2.0	2.4	2.4	2.1
125. *	.0	.0	.0	.1	.3	.3	.4	1.7	1.8	2.1	1.6	.8	.6	.2	1.4	1.6	2.1	2.1	2.0	2.0
130. *	.0	.0	.0	.0	.2	.2	.3	1.8	1.6	2.2	1.5	.5	.5	.3	1.3	1.7	2.3	2.0	1.8	1.9
135. *	.0	.0	.0	.0	.2	.2	.2	1.6	1.7	2.1	1.6	.6	.4	.5	1.3	1.7	2.3	1.9	1.8	1.9
140. *	.0	.0	.0	.0	.1	.1	.2	1.6	1.8	2.1	1.6	.8	.5	.5	1.5	1.9	2.2	1.8	1.7	2.1
145. *	.0	.0	.0	.0	.1	.1	.1	1.6	1.8	2.1	1.6	.7	.5	.3	1.6	1.9	2.1	1.7	1.7	2.1
150. *	.0	.0	.0	.0	.1	.1	.1	1.6	1.9	2.0	1.6	.9	.5	.3	1.7	1.8	2.0	1.6	1.7	2.1
155. *	.0	.0	.0	.0	.1	.1	.1	1.5	1.8	1.9	1.5	.9	.6	.3	1.6	1.8	2.0	1.3	1.5	2.3
160. *	.0	.0	.0	.0	.1	.1	.1	1.4	1.8	1.9	1.5	.8	.5	.4	1.6	1.8	2.0	1.3	1.5	2.2
165. *	.0	.0	.0	.0	.1	.1	.1	1.4	1.8	1.9	1.5	.8	.6	.4	1.8	1.8	1.9	1.4	1.5	2.4
170. *	.0	.0	.0	.0	.0	.0	.1	1.4	1.8	1.9	1.5	.8	.6	.5	1.8	1.8	1.8	1.5	1.6	2.3
175. *	.0	.0	.0	.0	.0	.0	.0	1.4	1.9	1.9	1.5	.7	.6	.5	1.8	1.8	1.8	1.5	1.7	2.3
180. *	.0	.0	.0	.0	.0	.0	.0	1.4	2.0	1.9	1.5	.7	.7	.6	1.7	1.7	1.6	1.5	1.8	2.4

185.	.0	.0	.0	.0	.0	.0	.0	1.4	1.9	1.9	1.5	.7	.7	.5	1.6	1.7	1.5	1.5	1.8	2.3
190.	.0	.0	.0	.0	.0	.0	.0	1.4	1.9	1.9	1.5	.8	.7	.6	1.6	1.7	1.5	1.5	1.9	2.2
195.	.0	.0	.0	.0	.0	.0	.0	1.4	1.9	1.9	1.5	.8	.7	.6	1.8	1.8	1.4	1.6	1.9	2.2
200.	.0	.0	.0	.0	.0	.0	.0	1.4	1.9	1.9	1.5	.7	.7	.6	1.8	1.6	1.6	1.7	2.0	2.3
205.	.0	.0	.1	.0	.0	.0	.0	1.4	1.9	1.9	1.5	.7	.7	.6	1.8	1.6	1.3	1.8	2.1	2.3

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JOB: Pellissippi Site 8 NB PM 2035 RUN: Pellissippi Site 8 NB PM 2035

WIND ANGLE (DEGR) * CONCENTRATION (PPM)

WIND ANGLE (DEGR)	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	.1	.2	.2	.0	.0	.0	.0	1.4	1.9	1.9	1.5	.7	.7	.7	1.7	1.6	1.7	1.8	2.1	2.4
215.	.2	.3	.3	.0	.0	.0	.1	1.4	1.9	1.9	1.4	.7	.7	.8	1.7	1.8	1.6	1.8	2.4	2.4
220.	.4	.5	.6	.2	.1	.1	.1	1.4	1.9	1.9	1.6	.9	.9	.9	1.6	1.7	1.6	2.1	2.4	2.4
225.	.7	1.0	.9	.2	.3	.1	.1	1.6	1.9	2.0	1.6	1.0	1.0	1.1	1.3	1.7	1.6	2.0	2.6	2.3
230.	1.1	1.3	1.3	.7	.3	.3	.1	1.8	2.1	2.1	1.5	1.0	1.3	1.5	1.3	1.6	1.7	2.0	2.2	2.3
235.	1.4	1.6	1.6	.9	.3	.3	.3	2.0	2.2	2.2	1.7	1.3	1.3	1.7	1.4	1.4	1.2	1.7	2.3	2.5
240.	1.5	1.8	1.7	1.1	.5	.3	.3	2.1	2.2	2.2	2.0	1.6	1.4	1.9	1.2	1.1	1.4	1.7	2.4	2.2
245.	1.6	2.0	1.7	1.0	.5	.4	.4	2.3	2.5	2.3	1.7	1.3	1.9	1.9	.9	.9	1.2	1.9	2.2	2.3
250.	1.8	1.9	1.6	1.2	.5	.6	.5	2.4	2.5	2.3	1.9	1.5	1.8	1.7	.6	.8	1.0	1.6	2.3	2.4
255.	1.8	1.7	1.7	1.2	.9	.6	.6	2.5	2.6	2.9	2.1	1.6	1.6	1.6	.4	.5	.9	1.6	2.4	2.3
260.	1.6	2.0	1.8	1.5	1.5	.8	.7	2.5	2.7	2.7	1.7	1.5	1.6	1.4	.3	.5	.7	1.3	2.0	2.0
265.	1.6	1.8	1.8	1.7	1.6	1.3	1.2	2.9	2.6	2.5	1.5	1.4	1.4	1.1	.1	.3	.5	1.2	1.5	1.6
270.	1.6	1.9	2.0	1.8	1.7	1.3	1.3	2.7	2.4	2.3	1.4	1.1	1.1	.9	.0	.1	.3	.6	1.2	1.2
275.	1.6	2.1	1.9	2.0	2.1	1.7	1.7	2.3	2.1	2.0	1.1	.8	1.0	.9	.0	.0	.1	.5	.8	.8
280.	1.7	2.1	2.0	2.2	2.3	2.0	2.2	1.7	1.6	1.3	.8	.8	.9	1.0	.0	.0	.0	.1	.5	.4
285.	1.7	2.2	2.1	2.3	2.2	2.1	2.5	1.0	.9	.8	.6	.8	.8	1.0	.0	.0	.0	.0	.3	.3
290.	2.0	2.1	2.0	2.1	2.2	2.4	2.4	.8	.6	.5	.5	.8	.9	1.0	.0	.0	.0	.0	.1	.1
295.	1.9	2.1	2.0	2.0	2.4	2.4	2.6	.3	.4	.5	.6	.8	.9	1.0	.0	.0	.0	.0	.0	.1
300.	1.9	2.2	1.9	2.0	2.1	2.3	2.7	.4	.3	.4	.6	.7	.8	1.0	.0	.0	.0	.0	.0	.1
305.	2.0	2.1	1.9	1.9	2.0	2.4	2.7	.2	.3	.4	.6	.8	.8	.9	.0	.0	.0	.0	.0	.1
310.	1.9	2.2	1.8	1.8	1.9	2.3	2.9	.2	.3	.4	.6	.8	.9	.9	.0	.0	.0	.0	.0	.1
315.	1.7	2.2	1.7	1.8	2.0	2.5	2.7	.1	.3	.4	.6	.8	.8	.9	.0	.0	.0	.0	.0	.0
320.	1.7	2.1	1.6	1.8	2.0	2.4	2.8	.2	.3	.4	.6	.8	.7	1.0	.0	.0	.0	.0	.0	.0
325.	1.7	2.0	1.6	1.8	2.0	2.6	2.8	.2	.3	.4	.6	.8	.7	1.0	.0	.0	.0	.0	.0	.0
330.	1.9	2.0	1.5	1.8	2.0	2.6	2.6	.2	.2	.3	.6	.8	.7	.8	.0	.0	.0	.0	.0	.0
335.	1.7	2.0	1.3	1.7	1.9	2.5	2.6	.3	.2	.3	.6	.8	.7	.7	.0	.0	.0	.0	.0	.0
340.	1.6	2.0	1.3	1.6	2.1	2.4	2.4	.3	.3	.3	.6	.9	.7	.7	.0	.0	.0	.0	.0	.0
345.	1.7	2.0	1.2	1.7	2.2	2.4	2.3	.2	.3	.5	.5	.8	.8	1.0	.0	.0	.0	.0	.0	.0
350.	1.8	2.0	1.3	1.7	2.3	2.3	2.2	.2	.3	.5	.5	.9	.9	1.0	.0	.0	.0	.0	.0	.0
355.	1.8	1.9	1.5	1.7	2.3	2.3	2.2	.3	.3	.3	.5	1.0	.9	1.0	.0	.0	.0	.0	.0	.0
360.	1.9	1.9	1.4	1.6	2.3	2.3	2.3	.3	.5	.3	.6	1.0	.9	1.1	.0	.0	.0	.0	.0	.0
MAX	2.0	2.2	2.1	2.3	2.9	2.8	2.9	2.9	2.7	2.9	2.1	1.6	1.9	1.9	1.8	1.9	2.3	2.4	2.6	2.6
DEGR.	290	285	285	35	85	90	310	265	260	255	255	240	245	240	165	140	130	120	105	110

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JOB: Pellissippi Site 8 NB PM 2035 RUN: Pellissippi Site 8 NB PM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	.0	2.2	2.0	2.1	1.4	.7	.7	.5
5.	.0	2.1	2.1	2.0	1.4	.9	.7	.6
10.	.0	2.1	2.0	2.0	1.4	.8	.7	.7
15.	.0	2.1	2.0	2.1	1.3	.8	.7	.7
20.	.0	2.2	2.0	2.1	1.4	.8	.7	.8
25.	.0	2.1	2.1	2.2	1.3	.8	.6	.7
30.	.0	2.2	2.1	2.1	1.3	.9	.8	.8
35.	.0	2.2	2.1	2.4	1.3	1.0	1.0	.7
40.	.1	2.3	2.2	2.3	1.3	1.2	1.1	1.0
45.	.1	2.4	2.2	2.4	1.5	1.3	1.3	1.3
50.	.1	2.5	2.5	2.6	1.5	1.6	1.5	1.6
55.	.2	2.5	2.6	2.6	1.5	1.7	1.9	2.0
60.	.2	2.7	2.6	2.6	1.5	2.0	2.0	2.0
65.	.2	2.7	2.6	2.8	1.5	2.3	2.5	2.1
70.	.4	2.8	2.8	2.9	1.6	2.2	2.2	2.3
75.	.6	2.9	2.7	2.8	1.7	2.3	2.4	2.2
80.	.9	2.7	2.5	2.6	1.7	2.2	2.2	1.9
85.	1.4	2.2	2.2	2.6	1.6	2.1	2.0	1.9
90.	1.8	1.9	2.0	2.2	1.7	1.9	1.8	1.8
95.	2.6	1.1	1.6	1.8	1.5	1.8	1.8	1.7
100.	2.5	.7	1.0	1.2	1.3	1.8	1.7	1.6
105.	2.6	.8	1.0	1.0	1.1	1.5	1.6	1.6
110.	2.5	.5	.8	.9	1.0	1.5	1.5	1.5
115.	2.4	.5	.5	.6	.8	1.4	1.5	1.5
120.	2.4	.4	.6	.6	.8	1.3	1.4	1.4
125.	2.4	.4	.6	.5	.8	1.3	1.4	1.4
130.	2.2	.4	.6	.5	.8	1.4	1.4	1.4
135.	2.2	.4	.5	.5	.8	1.4	1.5	1.5
140.	2.3	.4	.5	.5	.8	1.5	1.5	1.5
145.	2.3	.4	.5	.5	.8	1.5	1.5	1.5
150.	2.3	.4	.5	.5	.8	1.5	1.5	1.4
155.	2.1	.4	.5	.5	.8	1.4	1.4	1.4
160.	2.1	.5	.5	.5	.7	1.4	1.4	1.4
165.	2.3	.5	.5	.5	.8	1.4	1.4	1.3
170.	2.2	.5	.5	.6	.8	1.5	1.5	1.5
175.	2.3	.5	.5	.6	.8	1.5	1.5	1.5
180.	2.3	.4	.5	.5	.8	1.5	1.5	1.4
185.	2.3	.4	.6	.5	.9	1.6	1.6	1.5
190.	2.2	.4	.5	.6	.9	1.6	1.7	1.7
195.	2.1	.4	.5	.6	.9	1.7	1.7	1.8
200.	2.1	.6	.4	.7	.9	1.7	1.7	1.8
205.	2.4	.5	.4	.6	1.0	1.9	2.0	1.8

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WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	2.3	.4	.4	.5	1.1	2.0	1.9	1.9
215.	2.2	.3	.4	.6	1.2	2.0	1.9	2.1
220.	2.2	.3	.3	.5	1.0	2.0	2.0	2.1
225.	2.2	.3	.3	.4	1.0	1.9	2.0	2.0
230.	2.4	.2	.3	.3	.8	1.6	1.8	1.7
235.	2.3	.2	.1	.3	.5	1.3	1.3	1.4
240.	2.3	.3	.2	.1	.3	1.0	.8	.9
245.	2.4	.4	.3	.3	.0	.6	.6	.6
250.	2.3	.6	.5	.5	.1	.3	.3	.2
255.	2.3	1.0	.9	1.0	.1	.2	.2	.2
260.	1.9	1.2	1.2	1.4	.6	.1	.1	.1
265.	1.5	1.6	1.6	1.8	.6	.2	.1	.1
270.	1.2	1.9	2.0	2.1	1.0	.4	.2	.1
275.	.7	2.0	2.4	2.6	1.2	.5	.2	.1
280.	.4	2.3	2.4	2.7	1.4	.5	.4	.1
285.	.2	2.2	2.6	2.8	1.6	.7	.4	.3
290.	.2	2.3	2.5	2.8	1.6	.7	.4	.4
295.	.1	2.3	2.6	2.7	1.8	.7	.5	.4
300.	.1	2.2	2.4	2.5	1.6	.8	.5	.4
305.	.1	2.1	2.3	2.5	1.6	.7	.6	.4
310.	.1	2.0	2.2	2.4	1.5	.8	.6	.4
315.	.0	2.1	2.1	2.3	1.4	.8	.7	.4
320.	.0	2.0	2.1	2.2	1.5	.7	.6	.4
325.	.0	2.1	2.1	2.1	1.6	.7	.7	.4
330.	.0	2.1	2.0	2.1	1.5	.7	.7	.5
335.	.0	2.1	2.0	2.0	1.5	.7	.7	.4
340.	.0	2.1	2.0	2.0	1.4	.7	.7	.5
345.	.0	2.0	2.1	2.1	1.4	.8	.6	.5

350.	*	.0	2.1	2.1	2.0	1.4	.7	.6	.6
355.	*	.0	2.1	2.0	2.1	1.4	.7	.7	.5
360.	*	.0	2.2	2.0	2.1	1.4	.7	.7	.5
MAX	*	2.6	2.9	2.8	2.9	1.8	2.3	2.5	2.3
DEGR.	*	95	75	70	70	295	65	65	70

THE HIGHEST CONCENTRATION IS 2.90 PPM AT 85 DEGREES FROM REC5 .
THE 2ND HIGHEST CONCENTRATION IS 2.90 PPM AT 255 DEGREES FROM REC10.
THE 3RD HIGHEST CONCENTRATION IS 2.90 PPM AT 310 DEGREES FROM REC7 .

```
Pellissippi Site 8 BD AM 2035          60.0321.0.0000.000280.30480000    1    1
SE MID S               549556.   519307.       5.0
SE 164 S               549623.   519358.       5.0
SE 82 S                549690.   519410.       5.0
SE CNR                 549780.   519444.       5.0
SE 82 E                549877.   519436.       5.0
SE 164 E               549957.   519419.       5.0
SE MID E               550037.   519403.       5.0
NE MID E               550161.   519479.       5.0
NE 164 E               550081.   519498.       5.0
NE 82 E                550002.   519516.       5.0
NE CNR                 549919.   519561.       5.0
NE 82 N                549979.   519642.       5.0
NE 164 N               550037.   519701.       5.0
NE MID N               550088.   519765.       5.0
NW MID N               549939.   519739.       5.0
NW 164 N               549875.   519688.       5.0
NW 82 N                549809.   519638.       5.0
NW CNR                 549728.   519588.       5.0
NW 82 W                549633.   519562.       5.0
NW 164 W               549551.   519558.       5.0
NW MID W               549468.   519552.       5.0
SW MID W               549264.   519444.       5.0
SW 164 W               549345.   519451.       5.0
SW 82 W                549427.   519459.       5.0
SW CNR                 549524.   519433.       5.0
SW 82 S                549465.   519343.       5.0
SW 164 S               549401.   519293.       5.0
SW MID S               549336.   519242.       5.0
Pellissippi Site 8 BD AM 2035            50  1   0
  1
0         SR33nb    AG548974.518884.549121.519014.    194611.3   0  32   30.
  1
0         SR33nb    AG549121.519014.549343.519192.    194611.3   0  32   30.
  1
0         SR33nb    AG549343.519192.549527.519330.    194611.3   0  32   30.
  1
0         SR33nbT   AG549528.519333.549744.519507.     87211.3   0  32   30.
  2
0         33nbTQ    AG549633.519417.549529.519334.      0.  12   1
       100        68       2.0  872   76.0 1600 1 3
  1
0         SR33nbL   AG549394.519249.549726.519511.      9311.3   0  32   30.
  2
0         33nbLQ    AG549622.519429.549515.519345.      0.  12   1
       100        85       2.0   93   76.0 1600 1 3
  1
0         SR33nbD   AG549745.519507.549965.519682.    129111.3   0  32   30.
  1
0         SR33nbD   AG549965.519682.550092.519820.    129111.3   0  44   30.
  1
0         SR33nbD   AG550092.519820.550418.520254.    129111.3   0  44   30.
  1
0         SR33nbR   AG549563.519333.549692.519433.     98111.3   0  32   30.
  2
0         33nbRQ    AG549647.519399.549566.519336.      0.  12   1
       100        68       2.0  981   76.0 1600 1 3
  1
0         SR33nbR   AG549692.519433.549790.519470.     98111.3   0  32   30.
  1
0         SR33sb    AG550393.520276.550090.519858.     47311.3   0  44   30.
  1
0         SR33sb    AG550090.519858.549985.519733.     47311.3   0  44   30.
  1
0         SR33sb    AG549985.519733.549936.519687.     47311.3   0  44   30.
  1
0         SR33sbT   AG549936.519686.549718.519520.     31811.3   0  32   30.
  2
0         33sbTQ    AG549804.519585.549932.519683.      0.  12   1
       100        68       2.0  318   76.0 1600 1 3
  1
0         SR33sbL   AG549935.519676.549739.519524.       211.3   0  32   30.
  2
0         33sbLQ    AG549811.519580.549927.519670.      0.  12   1
       100        85       2.0    2   76.0 1600 1 3
  1
0         SR33sbR   AG549915.519691.549781.519587.     15311.3   0  32   30.
  2
0         33sbRQ    AG549796.519598.549909.519686.      0.  12   1
       100        68       2.0  153   76.0 1600 1 3
  1
0         SR33sbR   AG549781.519587.549679.519542.     15311.3   0  32   30.
  1
0         SR33sbD   AG549718.519520.549294.519186.    105811.3   0  32   30.
  1
0         SR33sbD   AG549294.519186.549118.519041.    105811.3   0  32   30.
  1
0         SR33sbD   AG549118.519041.548963.518904.    105811.3   0  32   30.
  1
0         321eb     AG548761.519421.549272.519466.    170112.0   0  44   30.
  1
0         321ebT    AG549271.519468.549452.519486.    118012.0   0  44   30.
  1
0         321ebT    AG549452.519486.549687.519496.    118012.0   0  44   30.
  2
0         321ebTQ   AG549600.519492.549449.519486.      0.  24   2
```

```
        100         58        2.0 1180   76.0 3200 1 3
  1
0          321ebR    AG549507.519484.549542.519448.     10812.0   0  32   30.
  1
0          321ebR    AG549542.519448.549540.519382.     10812.0   0  32   30.
  1
0          321ebL    AG549275.519487.549457.519506.     41312.0   0  32   30.
  1
0          321ebL    AG549457.519506.549675.519517.     41312.0   0  32   30.
  2
0          321ebLQ   AG549600.519513.549456.519506.      0.  12   1
        100         85        2.0  413   76.0 1600 1 3
  1
0          321ebD    AG549693.519499.550395.519347.    216311.7   0  44   30.
  1
0          321ebD    AG550395.519347.550538.519325.    216311.7   0  44   30.
  1
0          321ebD    AG550538.519325.550787.519348.    216311.7   0  44   30.
  1
0          321wb     AG550748.519394.550570.519368.    175911.7   0  44   30.
  1
0          321wb     AG550570.519368.550393.519392.    175911.7   0  44   30.
  1
0          321wb     AG550393.519392.550105.519453.    175911.7   0  44   30.
  1
0          321wbT    AG550105.519454.549803.519526.    112111.7   0  44   30.
  2
0          321wbTQ   AG549852.519514.550090.519457.      0.  24   2
        100         58        2.0 1121   76.0 3200 1 3
  1
0          321wbL    AG550101.519439.549798.519507.     63211.7   0  32   30.
  2
0          321wbLQ   AG549851.519495.550080.519444.      0.  12   1
        100         81        2.0  632   76.0 1600 1 3
  1
0          321wbR    AG549946.519502.549888.519552.       611.7   0  32   30.
  1
0          321wbR    AG549888.519552.549892.519619.       611.7   0  32   30.
  1
0          321wbD    AG549803.519526.549584.519535.    136712.0   0  44   30.
  1
0          321wbD    AG549584.519535.549409.519523.    136712.0   0  44   30.
  1
0          321wbD    AG549409.519523.548759.519461.    136712.0   0  44   30.
1.0   04  1000   0Y  5  0 72
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1 CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.2, JUNE 2000

PAGE 1

JOB: Pellissippi Site 8 BD AM 2035 RUN: Pellissippi Site 8 BD AM 2035

DATE: 12/15/2008 TIME: 14:10:49.34

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM

U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION		* X1	Y1	X2	Y2 *	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	SR33nb	* 548974.0	518884.0	549121.0	519014.0 *	196.	49.	AG	1946.	11.3	.0	32.0		
2. 0	SR33nb	* 549121.0	519014.0	549343.0	519192.0 *	285.	51.	AG	1946.	11.3	.0	32.0		
3. 0	SR33nb	* 549343.0	519192.0	549527.0	519330.0 *	230.	53.	AG	1946.	11.3	.0	32.0		
4. 0	SR33nbT	* 549528.0	519333.0	549744.0	519507.0 *	277.	51.	AG	872.	11.3	.0	32.0		
5. 0	33nbTQ	* 549633.0	519417.0	545960.6	516486.7 *	4698.	231.	AG	139.	100.0	.0	12.0	1.95	238.7
6. 0	SR33nbL	* 549394.0	519249.0	549726.0	519511.0 *	423.	52.	AG	93.	11.3	.0	32.0		
7. 0	33nbLQ	* 549622.0	519429.0	549588.0	519402.3 *	43.	232.	AG	173.	100.0	.0	12.0	.53	2.2
8. 0	SR33nbD	* 549745.0	519507.0	549965.0	519682.0 *	281.	51.	AG	1291.	11.3	.0	32.0		
9. 0	SR33nbD	* 549965.0	519682.0	550092.0	519820.0 *	188.	43.	AG	1291.	11.3	.0	44.0		
10. 0	SR33nbD	* 550092.0	519820.0	550418.0	520254.0 *	543.	37.	AG	1291.	11.3	.0	44.0		
11. 0	SR33nbR	* 549563.0	519333.0	549692.0	519433.0 *	163.	52.	AG	981.	11.3	.0	32.0		
12. 0	33nbRQ	* 549647.0	519399.0	545040.0	515815.4 *	5837.	232.	AG	139.	100.0	.0	12.0	2.19	296.5
13. 0	SR33nbR	* 549692.0	519433.0	549790.0	519470.0 *	105.	69.	AG	981.	11.3	.0	32.0		
14. 0	SR33sb	* 550393.0	520276.0	550090.0	519858.0 *	516.	216.	AG	473.	11.3	.0	44.0		
15. 0	SR33sb	* 550090.0	519858.0	549985.0	519733.0 *	163.	220.	AG	473.	11.3	.0	44.0		
16. 0	SR33sb	* 549985.0	519733.0	549936.0	519687.0 *	67.	227.	AG	473.	11.3	.0	44.0		
17. 0	SR33sbT	* 549936.0	519686.0	549718.0	519520.0 *	274.	233.	AG	318.	11.3	.0	32.0		
18. 0	33sbTQ	* 549804.0	519585.0	549898.2	519657.1 *	119.	53.	AG	139.	100.0	.0	12.0	.71	6.0
19. 0	SR33sbL	* 549935.0	519676.0	549739.0	519524.0 *	248.	232.	AG	2.	11.3	.0	32.0		
20. 0	33sbLQ	* 549811.0	519580.0	549811.7	519580.6 *	1.	51.	AG	173.	100.0	.0	12.0	.01	.0
21. 0	SR33sbR	* 549915.0	519691.0	549781.0	519587.0 *	170.	232.	AG	153.	11.3	.0	32.0		
22. 0	33sbRQ	* 549796.0	519598.0	549840.9	519633.0 *	57.	52.	AG	139.	100.0	.0	12.0	.34	2.9
23. 0	SR33sbR	* 549781.0	519587.0	549679.0	519542.0 *	112.	246.	AG	153.	11.3	.0	32.0		
24. 0	SR33sbD	* 549718.0	519520.0	549294.0	519186.0 *	540.	232.	AG	1058.	11.3	.0	32.0		
25. 0	SR33sbD	* 549294.0	519186.0	549118.0	519041.0 *	228.	231.	AG	1058.	11.3	.0	32.0		
26. 0	SR33sbD	* 549118.0	519041.0	548963.0	518904.0 *	207.	229.	AG	1058.	11.3	.0	32.0		
27. 0	321eb	* 548761.0	519421.0	549272.0	519466.0 *	513.	85.	AG	1701.	12.0	.0	44.0		
28. 0	321ebT	* 549271.0	519468.0	549452.0	519486.0 *	182.	84.	AG	1180.	12.0	.0	44.0		
29. 0	321ebT	* 549452.0	519486.0	549687.0	519496.0 *	235.	88.	AG	1180.	12.0	.0	44.0		
30. 0	321ebTQ	* 549600.0	519492.0	549413.0	519484.6 *	187.	268.	AG	236.	100.0	.0	24.0	.49	9.5
31. 0	321ebR	* 549507.0	519484.0	549542.0	519448.0 *	50.	136.	AG	108.	12.0	.0	32.0		
32. 0	321ebR	* 549542.0	519448.0	549540.0	519382.0 *	66.	182.	AG	108.	12.0	.0	32.0		
33. 0	321ebL	* 549275.0	519487.0	549457.0	519506.0 *	183.	84.	AG	413.	12.0	.0	32.0		
34. 0	321ebL	* 549457.0	519506.0	549675.0	519517.0 *	218.	87.	AG	413.	12.0	.0	32.0		
35. 0	321ebLQ	* 549600.0	519513.0	546926.5	519383.6 *	2677.	267.	AG	173.	100.0	.0	12.0	2.35	136.0
36. 0	321ebD	* 549693.0	519499.0	550395.0	519347.0 *	718.	102.	AG	2163.	11.7	.0	44.0		
37. 0	321ebD	* 550395.0	519347.0	550538.0	519325.0 *	145.	99.	AG	2163.	11.7	.0	44.0		
38. 0	321ebD	* 550538.0	519325.0	550787.0	519348.0 *	250.	85.	AG	2163.	11.7	.0			

44.0

LINK DESCRIPTION		X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
39. 0	321wb	550748.0	519394.0	550570.0	519368.0	180.	262.	AG	1759.	11.7	.0	44.0		
40. 0	321wb	550570.0	519368.0	550393.0	519392.0	179.	278.	AG	1759.	11.7	.0	44.0		
41. 0	321wb	550393.0	519392.0	550105.0	519453.0	294.	282.	AG	1759.	11.7	.0	44.0		
42. 0	321wbT	550105.0	519454.0	549803.0	519526.0	310.	283.	AG	1121.	11.7	.0	44.0		
43. 0	321wbTQ	549852.0	519514.0	550024.7	519472.7	178.	103.	AG	236.	100.0	.0	24.0	.46	9.0
44. 0	321wbL	550101.0	519439.0	549798.0	519507.0	310.	283.	AG	632.	11.7	.0	32.0		

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PAGE 2
JOB: Pellissippi Site 8 BD AM 2035 RUN: Pellissippi Site 8 BD AM 2035
DATE: 12/15/2008 TIME: 14:10:49.34

LINK VARIABLES

LINK DESCRIPTION		X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. 0	321wbLQ	549851.0	519495.0	554084.4	518552.0	4337.	103.	AG	165.	100.0	.0	12.0	2.63	220.3
46. 0	321wbR	549946.0	519502.0	549888.0	519552.0	77.	311.	AG	6.	11.7	.0	32.0		
47. 0	321wbR	549888.0	519552.0	549892.0	519619.0	67.	3.	AG	6.	11.7	.0	32.0		
48. 0	321wbD	549803.0	519526.0	549584.0	519535.0	219.	272.	AG	1367.	12.0	.0	44.0		
49. 0	321wbD	549584.0	519535.0	549409.0	519523.0	175.	266.	AG	1367.	12.0	.0	44.0		
50. 0	321wbD	549409.0	519523.0	548759.0	519461.0	653.	265.	AG	1367.	12.0	.0	44.0		

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JOB: Pellissippi Site 8 BD AM 2035 RUN: Pellissippi Site 8 BD AM 2035
DATE: 12/15/2008 TIME: 14:10:49.34

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
5. 0	33nbTQ	100	68	2.0	872	1600	76.00	1	3
7. 0	33nbLQ	100	85	2.0	93	1600	76.00	1	3
12. 0	33nbRQ	100	68	2.0	981	1600	76.00	1	3
18. 0	33sbTQ	100	68	2.0	318	1600	76.00	1	3
20. 0	33sbLQ	100	85	2.0	2	1600	76.00	1	3
22. 0	33sbRQ	100	68	2.0	153	1600	76.00	1	3
30. 0	321ebTQ	100	58	2.0	1180	3200	76.00	1	3
35. 0	321ebLQ	100	85	2.0	413	1600	76.00	1	3
43. 0	321wbTQ	100	58	2.0	1121	3200	76.00	1	3
45. 0	321wbLQ	100	81	2.0	632	1600	76.00	1	3

RECEPTOR LOCATIONS

RECEPTOR	X (FT)	Y (FT)	Z (FT)
1. SE MID S	549556.0	519307.0	5.0
2. SE 164 S	549623.0	519358.0	5.0
3. SE 82 S	549690.0	519410.0	5.0
4. SE CNR	549780.0	519444.0	5.0
5. SE 82 E	549877.0	519436.0	5.0
6. SE 164 E	549957.0	519419.0	5.0
7. SE MID E	550037.0	519403.0	5.0
8. NE MID E	550161.0	519479.0	5.0
9. NE 164 E	550081.0	519498.0	5.0
10. NE 82 E	550002.0	519516.0	5.0
11. NE CNR	549919.0	519561.0	5.0
12. NE 82 N	549979.0	519642.0	5.0
13. NE 164 N	550037.0	519701.0	5.0
14. NE MID N	550088.0	519765.0	5.0
15. NW MID N	549939.0	519739.0	5.0
16. NW 164 N	549875.0	519688.0	5.0
17. NW 82 N	549809.0	519638.0	5.0
18. NW CNR	549728.0	519588.0	5.0
19. NW 82 W	549633.0	519562.0	5.0
20. NW 164 W	549551.0	519558.0	5.0
21. NW MID W	549468.0	519552.0	5.0
22. SW MID W	549264.0	519444.0	5.0
23. SW 164 W	549345.0	519451.0	5.0
24. SW 82 W	549427.0	519459.0	5.0
25. SW CNR	549524.0	519433.0	5.0
26. SW 82 S	549465.0	519343.0	5.0
27. SW 164 S	549401.0	519293.0	5.0
28. SW MID S	549336.0	519242.0	5.0

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JOB: Pellissippi Site 8 BD AM 2035 RUN: Pellissippi Site 8 BD AM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) *	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0. *	1.5	1.9	1.4	1.4	1.8	1.8	1.6	.1	.2	.1	.2	.5	.5	.7	.0	.0	.0	.0	.0	.0
5. *	1.8	1.6	1.3	1.5	1.9	1.9	1.8	.1	.2	.1	.3	.6	.6	.8	.0	.0	.0	.0	.0	.0
10. *	1.9	1.8	1.3	1.7	1.8	1.8	1.6	.1	.1	.2	.3	.5	.6	.6	.0	.0	.0	.0	.0	.0
15. *	1.7	1.7	1.3	1.6	1.9	1.9	1.5	.1	.1	.2	.3	.6	.7	.7	.0	.0	.0	.0	.0	.0
20. *	1.8	1.7	1.4	1.6	1.9	1.9	1.5	.1	.1	.2	.4	.6	.7	.7	.0	.0	.0	.0	.0	.0
25. *	1.7	1.7	1.5	1.5	1.9	1.7	1.4	.0	.1	.2	.4	.6	.7	.7	.0	.0	.0	.0	.0	.0
30. *	1.8	1.5	1.4	1.9	1.8	1.7	1.4	.0	.1	.1	.4	.8	.6	.6	.1	.0	.0	.0	.0	.0
35. *	2.0	1.5	1.6	1.8	1.8	1.7	1.4	.0	.0	.1	.4	.7	.5	.6	.2	.1	.1	.0	.0	.0
40. *	1.6	1.6	1.5	1.6	1.7	1.6	1.5	.0	.0	.1	.2	.4	.3	.4	.4	.1	.1	.1	.0	.0
45. *	1.5	1.2	1.5	1.6	1.7	1.6	1.5	.0	.0	.0	.2	.3	.3	.2	.5	.2	.2	.1	.1	.0
50. *	1.5	1.4	1.5	1.5	1.7	1.6	1.6	.0	.0	.0	.2	.2	.1	.2	.5	.3	.2	.2	.1	.0
55. *	1.2	1.3	1.4	1.5	1.9	1.8	1.7	.0	.0	.0	.0	.2	.1	.1	.5	.4	.2	.5	.1	.1
60. *	1.0	1.0	1.3	1.6	2.0	1.9	1.8	.0	.0	.0	.0	.0	.0	.0	.5	.5	.3	.5	.3	.1
65. *	.8	1.0	1.1	1.7	2.1	1.9	1.9	.0	.0	.0	.0	.0	.0	.0	.4	.5	.6	.5	.2	.0
70. *	.6	.9	1.1	1.7	2.2	2.0	2.1	.0	.0	.0	.0	.0	.0	.0	.5	.4	.5	.6	.4	.2
75. *	.7	.8	1.2	1.8	2.2	2.0	1.9	.0	.0	.0	.0	.0	.0	.0	.5	.3	.6	.6	.3	.3
80. *	.4	.8	1.2	1.9	2.2	2.0	2.0	.0	.0	.0	.0	.0	.0	.0	.4	.4	.8	.5	.5	.5
85. *	.4	.6	1.1	1.9	2.3	2.1	2.2	.1	.1	.1	.0	.0	.0	.0	.5	.4	.8	.5	1.0	.9
90. *	.2	.5	.9	1.6	2.2	2.3	2.4	.3	.2	.2	.1	.0	.0	.0	.5	.5	.7	.7	1.1	1.2
95. *	.2	.2	.6	1.5	2.2	2.1	2.2	.7	.6	.5	.2	.0	.0	.0	.5	.4	.9	1.0	1.5	1.6
100. *	.1	.2	.5	1.4	1.9	2.0	2.0	1.0	.9	.8	.4	.1	.1	.0	.6	.5	1.0	1.1	1.7	2.0
105. *	.1	.2	.3	.8	1.3	1.4	1.6	1.2	1.1	1.2	.6	.1	.1	.1	.6	.5	1.3	1.5	1.8	2.2
110. *	.0	.0	.2	.5	1.1	1.1	1.2	1.3	1.3	1.4	.9	.3	.1	.1	.5	.6	1.3	1.7	2.0	2.0
115. *	.0	.0	.0	.3	.7	.7	.7	1.4	1.4	1.2	1.0	.5	.2	.1	.5	.7	1.6	1.7	2.0	1.9
120. *	.0	.0	.0	.1	.4	.4	.4	1.6	1.5	1.4	1.2	.4	.2	.1	.6	.7	1.7	1.7	1.9	1.8
125. *	.0	.0	.0	.1	.3	.3	.3	1.6	1.4	1.3	1.2	.3	.4	.2	.7	.8	1.8	1.7	1.6	1.7
130. *	.0	.0	.0	.0	.2	.2	.2	1.5	1.3	1.6	1.2	.5	.3	.2	.7	1.1	2.1	1.5	1.4	1.5
135. *	.0	.0	.0	.0	.1	.1	.2	1.4	1.3	1.5	1.4	.5	.3	.2	.7	1.2	2.0	1.4	1.5	1.6
140. *	.0	.0	.0	.0	.1	.1	.1	1.4	1.4	1.6	1.3	.5	.3	.3	.7	1.2	1.9	1.5	1.5	1.7
145. *	.0	.0	.0	.0	.1	.1	.1	1.3	1.2	1.4	1.4	.5	.4	.3	.8	1.1	1.8	1.3	1.4	1.7
150. *	.0	.0	.0	.0	.1	.1	.1	1.2	1.1	1.4	1.4	.5	.4	.3	.9	1.2	1.9	1.2	1.3	1.7
155. *	.0	.0	.0	.0	.1	.1	.1	1.2	1.1	1.4	1.3	.6	.4	.3	.9	1.4	1.9	1.2	1.4	2.0
160. *	.0	.0	.0	.0	.1	.1	.1	1.2	1.2	1.5	1.3	.6	.4	.3	.8	1.4	1.7	1.2	1.3	1.9
165. *	.0	.0	.0	.0	.0	.0	.1	1.2	1.1	1.5	1.3	.6	.5	.3	.9	1.4	1.6	1.2	1.2	1.9
170. *	.0	.0	.0	.0	.0	.0	.0	1.1	1.1	1.5	1.3	.6	.5	.3	.9	1.4	1.5	1.2	1.2	1.9
175. *	.0	.0	.0	.0	.0	.0	.0	1.1	1.1	1.5	1.3	.7	.4	.3	.9	1.3	1.5	1.2	1.4	2.0
180. *	.0	.0	.0	.0	.0	.0	.0	1.1	1.0	1.5	1.3	.7	.5	.4	.8	1.3	1.3	1.2	1.5	1.9

WIND ANGLE (DEGR)	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
185.	.0	.0	.0	.0	.0	.0	.0	1.1	1.0	1.5	1.3	.7	.5	.3	.9	1.3	1.3	1.0	1.5	1.9
190.	.0	.0	.0	.0	.0	.0	.0	1.2	1.0	1.6	1.3	.7	.5	.4	1.0	1.1	1.3	1.1	1.7	1.8
195.	.0	.0	.0	.0	.0	.0	.0	1.1	1.0	1.6	1.3	.7	.6	.4	1.1	1.2	1.2	1.3	1.7	1.8
200.	.0	.0	.1	.0	.0	.0	.0	1.1	1.0	1.6	1.3	.7	.6	.4	1.0	1.2	1.3	1.4	1.8	1.8
205.	.0	.1	.1	.0	.0	.0	.0	1.1	1.0	1.5	1.3	.7	.5	.4	.9	1.2	1.1	1.4	1.8	2.1

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JOB: Pellissippi Site 8 BD AM 2035 RUN: Pellissippi Site 8 BD AM 2035

WIND * CONCENTRATION (PPM)

WIND ANGLE (DEGR)	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	.1	.2	.2	.0	.0	.0	.0	1.1	1.0	1.5	1.1	.7	.5	.5	.8	1.3	1.3	1.4	1.9	2.2
215.	.2	.3	.4	.0	.0	.0	.0	1.1	1.0	1.5	1.1	.7	.6	.6	.9	1.4	1.4	1.7	2.2	2.1
220.	.5	.5	.6	.2	.0	.1	.1	1.1	1.1	1.6	1.3	.9	.7	.7	1.0	1.2	1.3	1.8	2.2	2.2
225.	.9	.9	1.0	.3	.3	.1	.1	1.2	1.2	1.8	1.3	.8	.8	.8	.9	1.3	1.3	1.7	2.2	1.9
230.	1.1	1.4	1.5	.8	.3	.3	.3	1.4	1.4	1.8	1.6	1.1	1.0	1.0	.9	1.2	1.3	1.6	2.0	1.8
235.	1.4	1.6	1.7	1.0	.4	.3	.3	1.5	1.6	2.0	1.8	1.2	1.1	1.1	.9	.8	1.1	1.4	1.8	2.0
240.	1.7	1.9	1.8	1.0	.6	.3	.3	1.6	1.7	2.1	1.6	1.2	1.0	1.2	.7	.8	.9	1.3	2.0	1.9
245.	1.7	2.0	1.9	1.1	.7	.4	.3	1.7	1.8	2.2	1.6	1.3	1.4	.8	.5	.7	.8	1.5	1.9	2.0
250.	1.8	1.9	1.7	1.2	.7	.5	.4	1.7	1.9	2.3	1.7	1.3	1.2	.9	.3	.7	.8	1.2	1.9	1.9
255.	1.7	1.9	1.7	1.1	.8	.6	.6	1.9	2.0	2.2	1.6	1.4	1.0	.9	.3	.4	.8	1.3	1.9	1.8
260.	1.6	1.9	1.7	1.6	1.1	.9	.8	1.9	2.0	2.4	1.6	1.1	1.0	.8	.2	.3	.6	1.0	1.7	1.7
265.	1.7	2.0	1.6	1.7	1.4	1.1	.9	1.6	2.1	2.2	1.4	1.0	.7	.7	.1	.2	.5	.7	1.3	1.3
270.	1.7	2.0	1.9	1.8	1.5	1.3	1.0	1.6	2.2	2.0	1.3	.8	.6	.7	.1	.1	.2	.6	.9	.9
275.	1.8	1.9	1.9	1.9	1.7	1.6	1.6	1.6	1.5	1.6	.6	.7	.6	.5	.0	.0	.1	.3	.7	.8
280.	1.6	1.9	1.7	2.1	1.9	1.8	1.8	1.2	1.3	.8	.6	.6	.5	.5	.0	.0	.0	.1	.4	.4
285.	1.6	1.9	1.9	1.9	1.9	2.0	2.1	.9	.9	.7	.6	.6	.5	.5	.0	.0	.0	.0	.1	.2
290.	1.5	2.0	2.0	1.9	2.0	2.1	2.0	.4	.4	.4	.4	.5	.5	.5	.0	.0	.0	.0	.0	.1
295.	1.6	2.0	1.8	1.9	2.1	1.9	2.3	.3	.3	.3	.4	.4	.5	.5	.0	.0	.0	.0	.0	.1
300.	1.7	2.0	1.7	1.8	1.7	1.9	2.3	.2	.1	.2	.4	.4	.5	.5	.0	.0	.0	.0	.0	.1
305.	1.6	2.1	1.5	1.6	1.7	1.9	2.4	.1	.1	.2	.4	.3	.5	.5	.0	.0	.0	.0	.0	.0
310.	1.5	2.2	1.6	1.7	1.6	2.1	2.3	.1	.1	.2	.4	.3	.5	.5	.0	.0	.0	.0	.0	.0
315.	1.5	2.0	1.5	1.7	1.6	2.1	2.5	.0	.1	.2	.3	.3	.5	.5	.0	.0	.0	.0	.0	.0
320.	1.5	1.9	1.5	1.7	1.5	2.1	2.4	.1	.1	.2	.3	.5	.5	.5	.0	.0	.0	.0	.0	.0
325.	1.7	2.0	1.5	1.7	1.7	2.0	2.3	.1	.1	.1	.3	.5	.5	.5	.0	.0	.0	.0	.0	.0
330.	1.6	2.1	1.3	1.6	1.7	2.1	2.2	.1	.1	.1	.3	.4	.5	.5	.0	.0	.0	.0	.0	.0
335.	1.5	2.2	1.3	1.6	1.6	1.9	2.0	.1	.1	.1	.3	.5	.5	.5	.0	.0	.0	.0	.0	.0
340.	1.5	2.2	1.1	1.6	1.7	1.9	1.9	.1	.1	.2	.3	.5	.5	.6	.0	.0	.0	.0	.0	.0
345.	1.5	2.2	1.3	1.6	1.7	1.8	1.8	.1	.1	.2	.3	.4	.5	.6	.0	.0	.0	.0	.0	.0
350.	1.6	2.1	1.3	1.5	1.7	1.7	1.7	.1	.1	.2	.3	.5	.5	.5	.0	.0	.0	.0	.0	.0
355.	1.6	1.9	1.2	1.4	1.8	1.7	1.6	.1	.1	.1	.2	.5	.5	.6	.0	.0	.0	.0	.0	.0
360.	1.5	1.9	1.4	1.4	1.8	1.8	1.6	.1	.2	.1	.2	.5	.5	.7	.0	.0	.0	.0	.0	.0
MAX	2.0	2.2	2.0	2.1	2.3	2.3	2.5	1.9	2.2	2.4	1.8	1.4	1.4	1.2	1.1	1.4	2.1	1.8	2.2	2.2
DEGR.	35	310	290	280	85	90	315	255	270	260	235	255	245	240	195	155	130	220	215	210

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JOB: Pellissippi Site 8 BD AM 2035 RUN: Pellissippi Site 8 BD AM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	.0	1.2	1.1	1.8	1.2	.6	.5	.3
5.	.0	1.1	1.1	1.7	1.2	.5	.5	.3
10.	.0	1.2	1.0	1.6	1.2	.5	.4	.3
15.	.0	1.2	1.0	1.7	1.2	.5	.5	.5
20.	.0	1.3	1.1	1.8	1.3	.6	.5	.5
25.	.0	1.2	1.2	1.9	1.3	.7	.6	.6
30.	.0	1.2	1.2	1.9	1.2	.8	.6	.5
35.	.0	1.3	1.2	2.1	1.1	.9	.7	.6
40.	.0	1.4	1.3	1.9	1.1	.7	.8	.7
45.	.0	1.3	1.4	2.0	1.0	.9	.8	.9
50.	.0	1.5	1.4	2.1	1.2	1.1	1.2	1.2
55.	.1	1.6	1.6	2.3	1.2	1.3	1.5	1.4
60.	.1	1.5	1.7	2.1	1.0	1.4	1.5	1.6
65.	.1	1.7	1.7	2.1	1.1	1.8	1.6	1.7
70.	.2	1.9	2.0	2.2	1.3	1.8	1.8	1.9
75.	.4	1.7	1.9	2.1	1.3	1.7	1.8	1.7
80.	.6	1.8	1.9	2.3	1.4	1.7	1.9	1.7
85.	.9	1.5	1.6	2.0	1.6	1.7	1.6	1.7
90.	1.5	1.3	1.4	1.7	1.5	1.6	1.6	1.6
95.	1.8	1.0	1.0	1.2	1.4	1.5	1.6	1.5
100.	2.2	.8	1.0	.9	1.1	1.5	1.5	1.5
105.	2.3	.6	.9	.8	.9	1.5	1.3	1.3
110.	2.1	.5	.8	.8	.9	1.2	1.3	1.3
115.	2.0	.4	.5	.5	.7	1.2	1.3	1.3
120.	2.0	.4	.4	.5	.7	1.2	1.3	1.3
125.	2.0	.4	.4	.5	.7	1.2	1.3	1.3
130.	1.9	.4	.4	.5	.6	1.2	1.3	1.3
135.	2.1	.4	.4	.5	.6	1.2	1.3	1.3
140.	2.2	.4	.4	.4	.6	1.2	1.3	1.3
145.	2.1	.4	.5	.4	.6	1.3	1.3	1.2
150.	2.1	.4	.5	.4	.6	1.3	1.3	1.3
155.	2.0	.4	.5	.5	.6	1.3	1.3	1.3
160.	1.8	.5	.5	.5	.6	1.3	1.3	1.3
165.	1.9	.5	.4	.5	.6	1.3	1.3	1.3
170.	1.8	.4	.4	.5	.6	1.3	1.3	1.3
175.	2.0	.3	.5	.5	.6	1.3	1.3	1.3
180.	2.0	.4	.5	.5	.8	1.4	1.4	1.3
185.	1.8	.4	.5	.5	.9	1.4	1.4	1.4
190.	1.8	.4	.4	.6	.8	1.4	1.5	1.4
195.	1.8	.4	.4	.5	.9	1.4	1.4	1.6
200.	2.0	.5	.4	.5	1.0	1.6	1.5	1.5
205.	2.0	.5	.4	.5	1.1	1.7	1.7	1.6

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WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	1.8	.4	.5	.5	1.1	1.6	1.8	1.8
215.	1.6	.3	.3	.4	.9	1.7	1.7	1.7
220.	1.9	.3	.2	.3	.9	1.7	1.7	1.7
225.	1.7	.3	.2	.3	.8	1.7	1.6	1.7
230.	1.8	.3	.2	.3	.7	1.6	1.4	1.5
235.	1.8	.2	.3	.3	.4	1.1	1.2	1.1
240.	1.5	.2	.2	.1	.3	.8	.7	.6
245.	1.8	.3	.2	.2	.0	.5	.6	.5
250.	1.7	.4	.3	.4	.0	.2	.1	.2
255.	1.7	.8	.7	.6	.2	.1	.1	.1
260.	1.6	1.1	.9	.9	.4	.1	.1	.1
265.	1.3	1.4	1.2	1.2	.6	.3	.2	.0
270.	1.0	1.6	1.3	1.4	.7	.2	.1	.1
275.	.8	1.7	1.5	1.7	1.0	.3	.2	.1
280.	.4	1.7	1.6	1.7	1.0	.5	.3	.2
285.	.2	1.8	1.6	1.7	1.0	.5	.4	.2
290.	.2	1.7	1.6	1.5	1.2	.6	.4	.3
295.	.0	1.7	1.5	1.5	1.3	.6	.4	.3
300.	.0	1.6	1.4	1.5	1.2	.5	.4	.4
305.	.0	1.5	1.3	1.3	1.2	.5	.4	.4
310.	.0	1.4	1.3	1.3	1.2	.5	.4	.4
315.	.0	1.4	1.2	1.4	1.2	.4	.3	.4
320.	.0	1.2	1.2	1.4	1.3	.3	.4	.4
325.	.0	1.2	1.1	1.5	1.2	.3	.4	.3
330.	.0	1.2	1.0	1.5	1.2	.4	.4	.3
335.	.0	1.2	1.0	1.5	1.2	.4	.3	.3
340.	.0	1.2	1.0	1.5	1.2	.5	.3	.3
345.	.0	1.2	1.1	1.7	1.2	.5	.3	.4

350.	*	.0	1.2	1.1	1.6	1.2	.6	.3	.4
355.	*	.0	1.2	1.1	1.8	1.2	.6	.3	.3
360.	*	.0	1.2	1.1	1.8	1.2	.6	.5	.3
MAX	*	2.3	1.9	2.0	2.3	1.6	1.8	1.9	1.9
DEGR.	*	105	70	70	55	85	65	80	70

THE HIGHEST CONCENTRATION IS 2.50 PPM AT 315 DEGREES FROM REC7 .
THE 2ND HIGHEST CONCENTRATION IS 2.40 PPM AT 260 DEGREES FROM REC10.
THE 3RD HIGHEST CONCENTRATION IS 2.30 PPM AT 105 DEGREES FROM REC21.

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Pellissippi Site 8 BD PM 2035           60.0321.0.0000.000280.30480000    1    1
SE MID S                549556.   519307.       5.0
SE 164 S                549623.   519358.       5.0
SE 82 S                 549690.   519410.       5.0
SE CNR                  549780.   519444.       5.0
SE 82 E                 549877.   519436.       5.0
SE 164 E                549957.   519419.       5.0
SE MID E                550037.   519403.       5.0
NE MID E                550161.   519479.       5.0
NE 164 E                550081.   519498.       5.0
NE 82 E                 550002.   519516.       5.0
NE CNR                  549919.   519561.       5.0
NE 82 N                 549979.   519642.       5.0
NE 164 N                550037.   519701.       5.0
NE MID N                550088.   519765.       5.0
NW MID N                549939.   519739.       5.0
NW 164 N                549875.   519688.       5.0
NW 82 N                 549809.   519638.       5.0
NW CNR                  549728.   519588.       5.0
NW 82 W                 549633.   519562.       5.0
NW 164 W                549551.   519558.       5.0
NW MID W                549468.   519552.       5.0
SW MID W                549264.   519444.       5.0
SW 164 W                549345.   519451.       5.0
SW 82 W                 549427.   519459.       5.0
SW CNR                  549524.   519433.       5.0
SW 82 S                 549465.   519343.       5.0
SW 164 S                549401.   519293.       5.0
SW MID S                549336.   519242.       5.0
Pellissippi Site 8 BD PM 2035            50  1   0
  1
0         SR33nb    AG548974.518884.549121.519014.    155011.3   0  32   30.
  1
0         SR33nb    AG549121.519014.549343.519192.    155011.3   0  32   30.
  1
0         SR33nb    AG549343.519192.549527.519330.    155011.3   0  32   30.
  1
0         SR33nbT   AG549528.519333.549744.519507.     75911.3   0  32   30.
  2
0         33nbTQ    AG549633.519417.549529.519334.      0.  12   1
       120        78       2.0  759   76.0 1600 1 3
  1
0         SR33nbL   AG549394.519249.549726.519511.      3211.3   0  32   30.
  2
0         33nbLQ    AG549622.519429.549515.519345.      0.  12   1
       120        92       2.0   32   76.0 1600 1 3
  1
0         SR33nbD   AG549745.519507.549965.519682.    115911.3   0  32   30.
  1
0         SR33nbD   AG549965.519682.550092.519820.    115911.3   0  44   30.
  1
0         SR33nbD   AG550092.519820.550418.520254.    115911.3   0  44   30.
  1
0         SR33nbR   AG549563.519333.549692.519433.     75911.3   0  32   30.
  2
0         33nbRQ    AG549647.519399.549566.519336.      0.  12   1
       120        78       2.0  759   76.0 1600 1 3
  1
0         SR33nbR   AG549692.519433.549790.519470.     75911.3   0  32   30.
  1
0         SR33sb    AG550393.520276.550090.519858.    111611.3   0  44   30.
  1
0         SR33sb    AG550090.519858.549985.519733.    111611.3   0  44   30.
  1
0         SR33sb    AG549985.519733.549936.519687.    111611.3   0  44   30.
  1
0         SR33sbT   AG549936.519686.549718.519520.     65711.3   0  32   30.
  2
0         33sbTQ    AG549804.519585.549932.519683.      0.  12   1
       120        78       2.0  657   76.0 1600 1 3
  1
0         SR33sbL   AG549935.519676.549739.519524.      1611.3   0  32   30.
  2
0         33sbLQ    AG549811.519580.549927.519670.      0.  12   1
       120        92       2.0   16   76.0 1600 1 3
  1
0         SR33sbR   AG549915.519691.549781.519587.     44311.3   0  32   30.
  2
0         33sbRQ    AG549796.519598.549909.519686.      0.  12   1
       120        78       2.0  443   76.0 1600 1 3
  1
0         SR33sbR   AG549781.519587.549679.519542.     44311.3   0  32   30.
  1
0         SR33sbD   AG549718.519520.549294.519186.    169311.3   0  32   30.
  1
0         SR33sbD   AG549294.519186.549118.519041.    169311.3   0  32   30.
  1
0         SR33sbD   AG549118.519041.548963.518904.    169311.3   0  32   30.
  1
0         321eb     AG548761.519421.549272.519466.    214912.0   0  44   30.
  1
0         321ebT    AG549271.519468.549452.519486.    168812.0   0  44   30.
  1
0         321ebT    AG549452.519486.549687.519496.    168812.0   0  44   30.
  2
0         321ebTQ   AG549600.519492.549449.519486.      0.  24   2
```

```
        120        78       2.0 1688   76.0 3200 1 3
  1
0          321ebR    AG549507.519484.549542.519448.      6312.0   0  32   30.
  1
0          321ebR    AG549542.519448.549540.519382.      6312.0   0  32   30.
  1
0          321ebL    AG549275.519487.549457.519506.     39812.0   0  32   30.
  1
0          321ebL    AG549457.519506.549675.519517.     39812.0   0  32   30.
  2
0          321ebLQ   AG549600.519513.549456.519506.      0.  12   1
        120        92       2.0  398   76.0 1600 1 3
  1
0          321ebD    AG549693.519499.550395.519347.    246311.7   0  44   30.
  1
0          321ebD    AG550395.519347.550538.519325.    246311.7   0  44   30.
  1
0          321ebD    AG550538.519325.550787.519348.    246311.7   0  44   30.
  1
0          321wb     AG550748.519394.550570.519368.    221311.7   0  44   30.
  1
0          321wb     AG550570.519368.550393.519392.    221311.7   0  44   30.
  1
0          321wb     AG550393.519392.550105.519453.    221311.7   0  44   30.
  1
0          321wbT    AG550105.519454.549803.519526.    123811.7   0  44   30.
  2
0          321wbTQ   AG549852.519514.550090.519457.      0.  24   2
        120        78       2.0 1238   76.0 3200 1 3
  1
0          321wbL    AG550101.519439.549798.519507.     97311.7   0  32   30.
  2
0          321wbLQ   AG549851.519495.550080.519444.      0.  12   1
        120       104       2.0  973   76.0 1600 1 3
  1
0          321wbR    AG549946.519502.549888.519552.       211.7   0  32   30.
  1
0          321wbR    AG549888.519552.549892.519619.       211.7   0  32   30.
  1
0          321wbD    AG549803.519526.549584.519535.    171312.0   0  44   30.
  1
0          321wbD    AG549584.519535.549409.519523.    171312.0   0  44   30.
  1
0          321wbD    AG549409.519523.548759.519461.    171312.0   0  44   30.
1.0   04  1000   0Y  5  0 72
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JOB: Pellissippi Site 8 BD PM 2035 RUN: Pellissippi Site 8 BD PM 2035
DATE: 12/15/2008 TIME: 14:11:06.70

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION		*	X1	Y1	X2	Y2	*	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	SR33nb	*	548974.0	518884.0	549121.0	519014.0	*	196.	49.	AG	1550.	11.3	.0	32.0		
2. 0	SR33nb	*	549121.0	519014.0	549343.0	519192.0	*	285.	51.	AG	1550.	11.3	.0	32.0		
3. 0	SR33nb	*	549343.0	519192.0	549527.0	519330.0	*	230.	53.	AG	1550.	11.3	.0	32.0		
4. 0	SR33nbT	*	549528.0	519333.0	549744.0	519507.0	*	277.	51.	AG	759.	11.3	.0	32.0		
5. 0	33nbTQ	*	549633.0	519417.0	547305.3	517559.6	*	2978.	231.	AG	133.	100.0	.0	12.0	1.50	151.3
6. 0	SR33nbL	*	549394.0	519249.0	549726.0	519511.0	*	423.	52.	AG	32.	11.3	.0	32.0		
7. 0	33nbLQ	*	549622.0	519429.0	549609.3	519419.1	*	16.	232.	AG	156.	100.0	.0	12.0	.10	.8
8. 0	SR33nbD	*	549745.0	519507.0	549965.0	519682.0	*	281.	51.	AG	1159.	11.3	.0	32.0		
9. 0	SR33nbD	*	549965.0	519682.0	550092.0	519820.0	*	188.	43.	AG	1159.	11.3	.0	44.0		
10. 0	SR33nbD	*	550092.0	519820.0	550418.0	520254.0	*	543.	37.	AG	1159.	11.3	.0	44.0		
11. 0	SR33nbR	*	549563.0	519333.0	549692.0	519433.0	*	163.	52.	AG	759.	11.3	.0	32.0		
12. 0	33nbRQ	*	549647.0	519399.0	547296.5	517570.6	*	2978.	232.	AG	133.	100.0	.0	12.0	1.50	151.3
13. 0	SR33nbR	*	549692.0	519433.0	549790.0	519470.0	*	105.	69.	AG	759.	11.3	.0	32.0		
14. 0	SR33sb	*	550393.0	520276.0	550090.0	519858.0	*	516.	216.	AG	1116.	11.3	.0	44.0		
15. 0	SR33sb	*	550090.0	519858.0	549985.0	519733.0	*	163.	220.	AG	1116.	11.3	.0	44.0		
16. 0	SR33sb	*	549985.0	519733.0	549936.0	519687.0	*	67.	227.	AG	1116.	11.3	.0	44.0		
17. 0	SR33sbT	*	549936.0	519686.0	549718.0	519520.0	*	274.	233.	AG	657.	11.3	.0	32.0		
18. 0	33sbTQ	*	549804.0	519585.0	551319.6	520744.9	*	1908.	53.	AG	133.	100.0	.0	12.0	1.30	96.9
19. 0	SR33sbL	*	549935.0	519676.0	549739.0	519524.0	*	248.	232.	AG	16.	11.3	.0	32.0		
20. 0	33sbLQ	*	549811.0	519580.0	549817.4	519584.9	*	8.	52.	AG	156.	100.0	.0	12.0	.05	.4
21. 0	SR33sbR	*	549915.0	519691.0	549781.0	519587.0	*	170.	232.	AG	443.	11.3	.0	32.0		
22. 0	33sbRQ	*	549796.0	519598.0	549967.0	519731.2	*	217.	52.	AG	133.	100.0	.0	12.0	.88	11.0
23. 0	SR33sbR	*	549781.0	519587.0	549679.0	519542.0	*	112.	246.	AG	443.	11.3	.0	32.0		
24. 0	SR33sbD	*	549718.0	519520.0	549294.0	519186.0	*	540.	232.	AG	1693.	11.3	.0	32.0		
25. 0	SR33sbD	*	549294.0	519186.0	549118.0	519041.0	*	228.	231.	AG	1693.	11.3	.0	32.0		
26. 0	SR33sbD	*	549118.0	519041.0	548963.0	518904.0	*	207.	229.	AG	1693.	11.3	.0	32.0		
27. 0	321eb	*	548761.0	519421.0	549272.0	519466.0	*	513.	85.	AG	2149.	12.0	.0	44.0		
28. 0	321ebT	*	549271.0	519468.0	549452.0	519486.0	*	182.	84.	AG	1688.	12.0	.0	44.0		
29. 0	321ebT	*	549452.0	519486.0	549687.0	519496.0	*	235.	88.	AG	1688.	12.0	.0	44.0		
30. 0	321ebTQ	*	549600.0	519492.0	549231.5	519477.3	*	369.	268.	AG	265.	100.0	.0	24.0	.83	18.7
31. 0	321ebR	*	549507.0	519484.0	549542.0	519448.0	*	50.	136.	AG	63.	12.0	.0	32.0		
32. 0	321ebR	*	549542.0	519448.0	549540.0	519382.0	*	66.	182.	AG	63.	12.0	.0	32.0		
33. 0	321ebL	*	549275.0	519487.0	549457.0	519506.0	*	183.	84.	AG	398.	12.0	.0	32.0		
34. 0	321ebL	*	549457.0	519506.0	549675.0	519517.0	*	218.	87.	AG	398.	12.0	.0	32.0		
35. 0	321ebLQ	*	549600.0	519513.0	548515.1	519460.5	*	1086.	267.	AG	156.	100.0	.0	12.0	1.25	55.2
36. 0	321ebD	*	549693.0	519499.0	550395.0	519347.0	*	718.	102.	AG	2463.	11.7	.0	44.0		
37. 0	321ebD	*	550395.0	519347.0	550538.0	519325.0	*	145.	99.	AG	2463.	11.7	.0	44.0		
38. 0	321ebD	*	550538.0	519325.0	550787.0	519348.0	*	250.	85.	AG	2463.	11.7	.0			

44.0

LINK	DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
39. 0	321wb	550748.0	519394.0	550570.0	519368.0	180.	262.	AG	2213.	11.7	.0	44.0		
40. 0	321wb	550570.0	519368.0	550393.0	519392.0	179.	278.	AG	2213.	11.7	.0	44.0		
41. 0	321wb	550393.0	519392.0	550105.0	519453.0	294.	282.	AG	2213.	11.7	.0	44.0		
42. 0	321wbT	550105.0	519454.0	549803.0	519526.0	310.	283.	AG	1238.	11.7	.0	44.0		
43. 0	321wbTQ	549852.0	519514.0	550108.7	519452.5	264.	103.	AG	265.	100.0	.0	24.0	.61	13.4
44. 0	321wbL	550101.0	519439.0	549798.0	519507.0	310.	283.	AG	973.	11.7	.0	32.0		

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JOB: Pellissippi Site 8 BD PM 2035 RUN: Pellissippi Site 8 BD PM 2035
DATE: 12/15/2008 TIME: 14:11:06.70

LINK VARIABLES

LINK DESCRIPTION		* X1	Y1	X2	Y2 *	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
45. 0	321wbLQ	549851.0	519495.0	558578.5	517551.0	8941.	103.	AG	177.	100.0	.0	12.0	6.12	454.2
46. 0	321wbR	549946.0	519502.0	549888.0	519552.0	77.	311.	AG	2.	11.7	.0	32.0		
47. 0	321wbR	549888.0	519552.0	549892.0	519619.0	67.	3.	AG	2.	11.7	.0	32.0		
48. 0	321wbD	549803.0	519526.0	549584.0	519535.0	219.	272.	AG	1713.	12.0	.0	44.0		
49. 0	321wbD	549584.0	519535.0	549409.0	519523.0	175.	266.	AG	1713.	12.0	.0	44.0		
50. 0	321wbD	549409.0	519523.0	548759.0	519461.0	653.	265.	AG	1713.	12.0	.0	44.0		

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JOB: Pellissippi Site 8 BD PM 2035 RUN: Pellissippi Site 8 BD PM 2035
DATE: 12/15/2008 TIME: 14:11:06.70

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
5. 0	33nbTQ	120	78	2.0	759	1600	76.00	1	3
7. 0	33nbLQ	120	92	2.0	32	1600	76.00	1	3
12. 0	33nbRQ	120	78	2.0	759	1600	76.00	1	3
18. 0	33sbTQ	120	78	2.0	657	1600	76.00	1	3
20. 0	33sbLQ	120	92	2.0	16	1600	76.00	1	3
22. 0	33sbRQ	120	78	2.0	443	1600	76.00	1	3
30. 0	321ebTQ	120	78	2.0	1688	3200	76.00	1	3
35. 0	321ebLQ	120	92	2.0	398	1600	76.00	1	3
43. 0	321wbTQ	120	78	2.0	1238	3200	76.00	1	3
45. 0	321wbLQ	120	104	2.0	973	1600	76.00	1	3

RECEPTOR LOCATIONS

RECEPTOR	X (FT)	Y (FT)	Z (FT)
1. SE MID S	549556.0	519307.0	5.0
2. SE 164 S	549623.0	519358.0	5.0
3. SE 82 S	549690.0	519410.0	5.0
4. SE CNR	549780.0	519444.0	5.0
5. SE 82 E	549877.0	519436.0	5.0
6. SE 164 E	549957.0	519419.0	5.0
7. SE MID E	550037.0	519403.0	5.0
8. NE MID E	550161.0	519479.0	5.0
9. NE 164 E	550081.0	519498.0	5.0
10. NE 82 E	550002.0	519516.0	5.0
11. NE CNR	549919.0	519561.0	5.0
12. NE 82 N	549979.0	519642.0	5.0
13. NE 164 N	550037.0	519701.0	5.0
14. NE MID N	550088.0	519765.0	5.0
15. NW MID N	549939.0	519739.0	5.0
16. NW 164 N	549875.0	519688.0	5.0
17. NW 82 N	549809.0	519638.0	5.0
18. NW CNR	549728.0	519588.0	5.0
19. NW 82 W	549633.0	519562.0	5.0
20. NW 164 W	549551.0	519558.0	5.0
21. NW MID W	549468.0	519552.0	5.0
22. SW MID W	549264.0	519444.0	5.0
23. SW 164 W	549345.0	519451.0	5.0
24. SW 82 W	549427.0	519459.0	5.0
25. SW CNR	549524.0	519433.0	5.0
26. SW 82 S	549465.0	519343.0	5.0
27. SW 164 S	549401.0	519293.0	5.0
28. SW MID S	549336.0	519242.0	5.0

JOB: Pellissippi Site 8 BD PM 2035 RUN: Pellissippi Site 8 BD PM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) *	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0. *	1.9	1.9	1.4	1.6	2.3	2.3	2.3	.3	.5	.3	.6	.9	.9	1.1	.0	.0	.0	.0	.0	.0
5. *	1.8	1.6	1.4	1.8	2.4	2.3	2.3	.3	.4	.3	.7	.7	1.0	1.0	.0	.0	.0	.0	.0	.0
10. *	1.8	1.7	1.6	1.9	2.4	2.3	2.4	.3	.3	.5	.8	.8	1.0	1.1	.0	.0	.0	.0	.0	.0
15. *	1.7	1.8	1.5	1.9	2.5	2.5	2.4	.3	.3	.5	.8	1.1	.9	1.1	.0	.0	.0	.0	.0	.0
20. *	1.7	1.7	1.5	1.8	2.4	2.5	2.4	.2	.3	.5	.9	1.1	1.1	1.3	.0	.0	.0	.0	.0	.0
25. *	1.6	1.7	1.6	1.9	2.5	2.3	2.3	.1	.3	.4	.8	1.0	1.0	1.1	.1	.0	.0	.0	.0	.0
30. *	1.7	1.8	1.7	2.2	2.4	2.3	2.0	.1	.2	.3	.8	.9	1.0	1.0	.3	.1	.0	.0	.0	.0
35. *	1.8	1.9	1.6	2.3	2.4	2.2	2.1	.1	.1	.3	.7	.9	1.0	1.1	.3	.3	.2	.0	.0	.0
40. *	1.7	1.5	1.8	2.0	2.3	2.2	2.2	.1	.1	.1	.6	.7	.7	.8	.4	.4	.4	.3	.0	.0
45. *	1.5	1.5	2.1	2.1	2.2	2.2	2.2	.0	.1	.1	.5	.7	.5	.6	.8	.6	.7	.4	.1	.0
50. *	1.6	1.5	1.7	1.9	2.3	2.3	2.3	.0	.0	.1	.3	.4	.3	.4	.8	.8	.9	.7	.3	.1
55. *	1.3	1.4	1.6	1.9	2.3	2.3	2.2	.0	.0	.0	.1	.2	.3	.4	1.0	.9	1.2	1.0	.4	.2
60. *	1.1	1.2	1.4	2.0	2.4	2.5	2.2	.0	.0	.0	.1	.1	.1	.2	1.0	1.2	1.3	1.1	.5	.1
65. *	.9	.9	1.3	1.9	2.4	2.4	2.3	.0	.0	.0	.0	.1	.1	.1	1.1	1.2	1.4	.9	.5	.2
70. *	.9	.9	1.3	1.9	2.6	2.5	2.3	.0	.0	.0	.0	.0	.0	.1	1.0	1.2	1.3	1.0	.7	.5
75. *	.8	.9	1.3	2.1	2.6	2.6	2.4	.0	.0	.0	.0	.0	.0	.0	1.1	1.2	1.4	1.0	.6	.7
80. *	.5	.9	1.3	2.2	2.7	2.6	2.4	.0	.0	.0	.0	.0	.0	.0	1.0	1.4	1.3	.9	.7	.9
85. *	.4	.7	1.2	2.2	2.9	2.7	2.8	.1	.1	.1	.0	.0	.0	.0	1.0	1.3	1.3	.9	1.3	1.3
90. *	.3	.5	1.0	1.9	2.8	2.8	2.8	.4	.3	.2	.2	.0	.0	.0	1.0	1.1	1.2	1.1	1.6	1.6
95. *	.2	.5	.8	1.8	2.7	2.7	2.6	.7	.9	.9	.2	.1	.0	.0	1.0	1.1	1.2	1.4	1.8	2.2
100. *	.2	.2	.6	1.5	2.5	2.2	2.3	1.1	1.2	1.1	.6	.1	.1	.1	1.1	1.2	1.3	1.7	2.1	2.2
105. *	.1	.2	.4	1.1	1.8	2.0	2.0	1.3	1.4	1.4	1.0	.2	.1	.1	1.1	1.2	1.5	1.9	2.6	2.4
110. *	.0	.1	.2	.7	1.2	1.2	1.3	1.6	1.5	1.8	1.3	.5	.1	.1	1.2	1.3	1.7	2.0	2.5	2.6
115. *	.0	.0	.0	.4	.8	.8	.8	1.7	1.7	2.2	1.5	.6	.2	.1	1.2	1.4	1.8	2.3	2.5	2.3
120. *	.0	.0	.0	.1	.4	.5	.5	1.8	1.8	2.0	1.5	.8	.4	.2	1.3	1.4	2.0	2.4	2.4	2.1
125. *	.0	.0	.0	.1	.3	.3	.4	1.7	1.8	2.1	1.6	.8	.6	.2	1.3	1.6	2.1	2.1	2.0	2.0
130. *	.0	.0	.0	.0	.2	.2	.3	1.8	1.6	2.1	1.5	.5	.5	.3	1.3	1.7	2.3	2.1	1.8	1.9
135. *	.0	.0	.0	.0	.2	.2	.2	1.6	1.7	2.1	1.6	.6	.5	.5	1.3	1.7	2.3	1.9	1.8	1.9
140. *	.0	.0	.0	.0	.1	.1	.2	1.6	1.7	2.1	1.5	.8	.5	.5	1.4	1.9	2.2	1.8	1.7	2.1
145. *	.0	.0	.0	.0	.1	.1	.1	1.6	1.8	2.1	1.6	.7	.5	.3	1.6	1.9	2.1	1.7	1.7	2.1
150. *	.0	.0	.0	.0	.1	.1	.1	1.6	1.8	2.0	1.6	.9	.5	.3	1.7	1.8	2.0	1.5	1.7	2.1
155. *	.0	.0	.0	.0	.1	.1	.1	1.5	1.9	1.9	1.5	.9	.5	.4	1.6	1.8	2.0	1.4	1.5	2.3
160. *	.0	.0	.0	.0	.1	.1	.1	1.4	1.7	1.9	1.5	.8	.5	.4	1.6	1.8	1.9	1.3	1.5	2.2
165. *	.0	.0	.0	.0	.1	.1	.1	1.4	1.8	1.9	1.5	.8	.6	.4	1.8	1.8	1.9	1.4	1.5	2.3
170. *	.0	.0	.0	.0	.0	.0	.1	1.4	1.8	1.9	1.5	.8	.6	.4	1.8	1.8	1.8	1.5	1.6	2.4
175. *	.0	.0	.0	.0	.0	.0	.0	1.4	1.8	1.9	1.5	.7	.6	.5	1.8	1.8	1.8	1.5	1.7	2.3
180. *	.0	.0	.0	.0	.0	.0	.0	1.4	1.9	1.9	1.5	.7	.7	.6	1.7	1.7	1.5	1.5	1.8	2.4

WIND ANGLE (DEGR)	*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
185.	*	.0	.0	.0	.0	.0	.0	.0	1.4	1.9	1.9	1.5	.7	.7	.5	1.6	1.7	1.5	1.5	1.8	2.3
190.	*	.0	.0	.0	.0	.0	.0	.0	1.4	1.9	1.9	1.5	.8	.7	.6	1.6	1.7	1.5	1.5	1.9	2.2
195.	*	.0	.0	.0	.0	.0	.0	.0	1.4	1.9	1.9	1.5	.8	.7	.6	1.8	1.7	1.4	1.6	1.9	2.2
200.	*	.0	.0	.0	.0	.0	.0	.0	1.4	1.9	1.9	1.5	.7	.7	.6	1.7	1.6	1.6	1.7	2.0	2.3
205.	*	.0	.0	.1	.0	.0	.0	.0	1.4	1.9	1.9	1.5	.7	.7	.6	1.8	1.6	1.3	1.8	2.1	2.3

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JOB: Pellissippi Site 8 BD PM 2035 RUN: Pellissippi Site 8 BD PM 2035

WIND ANGLE * (DEGR)*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210. *	.1	.2	.2	.0	.0	.0	.0	1.4	1.9	1.9	1.5	.7	.7	.7	1.6	1.6	1.7	1.8	2.1	2.4
215. *	.2	.3	.3	.0	.0	.0	.1	1.3	1.9	1.9	1.4	.7	.7	.8	1.7	1.8	1.6	1.9	2.4	2.4
220. *	.4	.5	.6	.2	.1	.1	.1	1.4	1.9	1.9	1.5	.9	.9	.9	1.6	1.7	1.6	2.1	2.4	2.3
225. *	.7	1.0	.9	.2	.3	.1	.1	1.6	1.9	1.9	1.6	1.0	1.0	1.1	1.3	1.7	1.6	2.0	2.5	2.3
230. *	1.1	1.3	1.3	.6	.3	.3	.1	1.8	2.1	2.1	1.5	1.0	1.3	1.5	1.3	1.6	1.7	2.0	2.2	2.3
235. *	1.4	1.6	1.7	.9	.3	.3	.3	2.0	2.2	2.2	1.7	1.3	1.2	1.6	1.4	1.4	1.2	1.7	2.3	2.4
240. *	1.5	1.8	1.7	1.1	.5	.3	.3	2.1	2.2	2.2	2.0	1.6	1.4	1.9	1.2	1.1	1.4	1.7	2.3	2.2
245. *	1.6	2.0	1.7	1.0	.5	.4	.4	2.2	2.4	2.3	1.7	1.3	1.9	1.9	.9	.9	1.2	1.9	2.2	2.3
250. *	1.8	1.9	1.6	1.2	.6	.6	.5	2.3	2.5	2.3	1.9	1.5	1.8	1.7	.6	.8	1.0	1.6	2.3	2.4
255. *	1.8	1.7	1.7	1.2	.9	.6	.6	2.5	2.6	2.9	2.1	1.6	1.6	1.6	.4	.5	.9	1.5	2.3	2.3
260. *	1.6	2.0	1.7	1.5	1.5	.7	.7	2.3	2.7	2.7	1.7	1.5	1.5	1.4	.3	.5	.7	1.3	1.9	2.0
265. *	1.5	1.9	1.8	1.6	1.6	1.3	1.2	2.9	2.6	2.5	1.5	1.4	1.4	1.1	.1	.3	.5	1.1	1.5	1.6
270. *	1.6	2.0	1.9	1.8	1.6	1.3	1.3	2.6	2.4	2.3	1.4	1.0	1.1	.9	.0	.1	.3	.6	1.2	1.2
275. *	1.6	2.1	1.9	1.9	2.1	1.7	1.7	2.3	2.1	2.0	1.1	.8	.9	.9	.0	.0	.1	.3	.8	.8
280. *	1.7	2.1	2.0	2.2	2.3	2.0	2.2	1.7	1.6	1.3	.7	.8	.8	1.0	.0	.0	.0	.1	.5	.4
285. *	1.7	2.1	2.1	2.3	2.2	2.1	2.4	1.0	.9	.8	.6	.8	.8	1.0	.0	.0	.0	.0	.3	.3
290. *	2.0	2.0	2.0	2.1	2.2	2.4	2.5	.8	.6	.5	.5	.8	.9	1.0	.0	.0	.0	.0	.1	.1
295. *	1.9	2.1	2.0	2.0	2.4	2.4	2.6	.3	.4	.5	.6	.8	.9	1.0	.0	.0	.0	.0	.0	.1
300. *	1.9	2.2	1.9	2.0	2.1	2.3	2.7	.4	.3	.4	.6	.7	.8	1.0	.0	.0	.0	.0	.0	.1
305. *	2.0	2.1	1.9	1.9	2.0	2.4	2.7	.2	.3	.4	.6	.8	.7	.9	.0	.0	.0	.0	.0	.1
310. *	1.9	2.2	1.8	1.8	1.9	2.4	2.9	.2	.3	.4	.6	.8	.8	.9	.0	.0	.0	.0	.0	.1
315. *	1.7	2.2	1.7	1.8	2.0	2.5	2.7	.1	.3	.4	.6	.8	.8	.9	.0	.0	.0	.0	.0	.0
320. *	1.7	2.1	1.6	1.8	2.0	2.4	2.7	.2	.3	.4	.6	.8	.7	.9	.0	.0	.0	.0	.0	.0
325. *	1.7	2.0	1.6	1.9	2.0	2.6	2.8	.2	.2	.4	.6	.8	.7	.9	.0	.0	.0	.0	.0	.0
330. *	1.9	2.0	1.5	1.9	2.0	2.6	2.7	.2	.2	.3	.6	.8	.7	.7	.0	.0	.0	.0	.0	.0
335. *	1.7	2.0	1.3	1.7	1.9	2.4	2.5	.3	.2	.3	.6	.8	.7	.7	.0	.0	.0	.0	.0	.0
340. *	1.6	2.0	1.3	1.6	2.1	2.4	2.4	.3	.3	.3	.6	.9	.7	.7	.0	.0	.0	.0	.0	.0
345. *	1.7	2.0	1.3	1.7	2.2	2.4	2.3	.2	.3	.5	.5	.8	.8	1.0	.0	.0	.0	.0	.0	.0
350. *	1.8	2.0	1.3	1.7	2.3	2.3	2.2	.2	.3	.4	.5	.9	.9	1.0	.0	.0	.0	.0	.0	.0
355. *	1.8	1.9	1.5	1.7	2.3	2.3	2.2	.3	.3	.3	.5	1.0	.9	1.0	.0	.0	.0	.0	.0	.0
360. *	1.9	1.9	1.4	1.6	2.3	2.3	2.3	.3	.5	.3	.6	.9	.9	1.1	.0	.0	.0	.0	.0	.0
MAX *	2.0	2.2	2.1	2.3	2.9	2.8	2.9	2.9	2.7	2.9	2.1	1.6	1.9	1.9	1.8	1.9	2.3	2.4	2.6	2.6
DEGR. *	290	300	285	35	85	90	310	265	260	255	255	240	245	240	165	140	130	120	105	110

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JOB: Pellissippi Site 8 BD PM 2035 RUN: Pellissippi Site 8 BD PM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	.0	2.2	2.0	2.1	1.4	.7	.7	.5
5.	.0	2.1	1.9	2.0	1.4	.9	.7	.6
10.	.0	2.1	2.0	2.0	1.4	.8	.7	.7
15.	.0	2.1	2.0	2.1	1.3	.8	.7	.7
20.	.0	2.2	1.9	2.1	1.4	.8	.7	.8
25.	.0	2.1	2.1	2.2	1.3	.8	.6	.7
30.	.0	2.2	2.1	2.1	1.3	.9	.8	.8
35.	.0	2.2	2.1	2.3	1.3	1.0	1.0	.7
40.	.1	2.3	2.2	2.3	1.3	1.2	1.1	1.0
45.	.1	2.4	2.2	2.4	1.4	1.3	1.3	1.3
50.	.1	2.5	2.5	2.6	1.5	1.6	1.5	1.6
55.	.2	2.5	2.6	2.5	1.5	1.7	1.9	2.0
60.	.2	2.7	2.6	2.6	1.5	2.0	1.9	2.0
65.	.2	2.7	2.6	2.8	1.5	2.3	2.5	2.1
70.	.4	2.8	2.7	2.9	1.6	2.2	2.3	2.3
75.	.6	2.9	2.6	2.8	1.7	2.3	2.3	2.2
80.	.9	2.6	2.5	2.6	1.7	2.2	2.2	1.9
85.	1.4	2.2	2.2	2.7	1.6	2.1	2.0	1.9
90.	1.8	1.8	2.0	2.1	1.7	1.9	1.8	1.8
95.	2.6	1.1	1.6	1.8	1.5	1.8	1.8	1.7
100.	2.5	.7	1.0	1.2	1.2	1.8	1.7	1.7
105.	2.6	.8	.9	1.0	1.1	1.5	1.6	1.6
110.	2.5	.6	.8	.9	1.0	1.5	1.5	1.5
115.	2.4	.5	.5	.6	.8	1.4	1.5	1.5
120.	2.4	.4	.6	.6	.8	1.3	1.4	1.4
125.	2.4	.4	.6	.5	.8	1.3	1.4	1.4
130.	2.2	.4	.6	.5	.8	1.3	1.5	1.5
135.	2.2	.4	.5	.5	.8	1.5	1.5	1.5
140.	2.4	.4	.5	.5	.8	1.5	1.5	1.5
145.	2.3	.4	.5	.5	.8	1.5	1.5	1.5
150.	2.3	.4	.5	.5	.8	1.5	1.5	1.4
155.	2.1	.4	.5	.5	.8	1.5	1.4	1.4
160.	2.1	.5	.5	.5	.7	1.4	1.4	1.4
165.	2.3	.5	.5	.5	.8	1.4	1.4	1.3
170.	2.2	.5	.5	.6	.8	1.5	1.5	1.5
175.	2.3	.5	.5	.6	.8	1.5	1.5	1.5
180.	2.3	.4	.5	.5	.8	1.5	1.5	1.4
185.	2.3	.4	.6	.5	.9	1.6	1.6	1.5
190.	2.2	.4	.5	.6	.9	1.6	1.7	1.7
195.	2.2	.4	.5	.6	.9	1.7	1.7	1.8
200.	2.1	.6	.4	.7	.9	1.7	1.7	1.8
205.	2.3	.5	.4	.6	1.0	1.9	1.9	1.8

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WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	2.3	.4	.4	.5	1.1	2.0	1.9	1.9
215.	2.2	.3	.4	.6	1.2	2.0	1.9	2.1
220.	2.2	.3	.3	.5	1.0	2.0	2.0	2.1
225.	2.2	.3	.3	.4	1.0	1.9	2.0	2.0
230.	2.4	.1	.3	.3	.8	1.6	1.8	1.7
235.	2.3	.2	.1	.2	.5	1.3	1.3	1.4
240.	2.3	.3	.2	.1	.3	1.0	.8	.9
245.	2.4	.4	.3	.3	.0	.6	.6	.6
250.	2.3	.6	.5	.5	.1	.3	.3	.2
255.	2.3	1.0	.8	.9	.1	.2	.2	.2
260.	1.9	1.2	1.2	1.3	.6	.1	.1	.1
265.	1.5	1.6	1.6	1.8	.6	.2	.1	.1
270.	1.2	1.9	1.9	2.1	.9	.4	.2	.1
275.	.7	2.0	2.3	2.6	1.2	.5	.2	.1
280.	.4	2.2	2.3	2.7	1.4	.5	.4	.1
285.	.2	2.1	2.5	2.8	1.6	.6	.4	.3
290.	.2	2.2	2.5	2.7	1.6	.7	.4	.4
295.	.1	2.2	2.5	2.7	1.8	.7	.5	.4
300.	.1	2.1	2.4	2.5	1.6	.7	.5	.4
305.	.1	1.9	2.3	2.4	1.6	.7	.5	.4
310.	.1	1.9	2.2	2.4	1.5	.8	.6	.4
315.	.0	1.9	2.1	2.3	1.4	.8	.7	.4
320.	.0	1.9	2.1	2.1	1.5	.7	.6	.4
325.	.0	1.9	2.1	2.1	1.6	.7	.6	.4
330.	.0	2.0	1.9	2.1	1.4	.7	.7	.5
335.	.0	2.0	1.9	2.0	1.4	.7	.7	.4
340.	.0	2.0	2.0	2.0	1.4	.7	.6	.5
345.	.0	2.0	2.1	2.1	1.4	.8	.6	.5

350.	*	.0	2.1	2.0	2.0	1.4	.7	.6	.5
355.	*	.0	2.1	2.0	2.1	1.4	.7	.7	.5
360.	*	.0	2.2	2.0	2.1	1.4	.7	.7	.5
MAX	*	2.6	2.9	2.7	2.9	1.8	2.3	2.5	2.3
DEGR.	*	95	75	70	70	295	65	65	70

THE HIGHEST CONCENTRATION IS 2.90 PPM AT 85 DEGREES FROM REC5 .
THE 2ND HIGHEST CONCENTRATION IS 2.90 PPM AT 255 DEGREES FROM REC10.
THE 3RD HIGHEST CONCENTRATION IS 2.90 PPM AT 310 DEGREES FROM REC7 .

CAL3QHC

<u>Input and output files</u>

SR 73 / US 321 at SR 335 / Old Glory Road

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Pellissippi Site 12 NB AM 2015          60.0321.0.0000.000280.30480000    1    1
SE MID S               549763.   518934.       5.0
SE 164 S               549782.   519013.       5.0
SE 82 S                549815.   519090.       5.0
SE CNR                 549882.   519144.       5.0
SE 82 E                549963.   519167.       5.0
SE 164 E               550045.   519168.       5.0
SE MID E               550127.   519167.       5.0
NE MID E               550182.   519343.       5.0
NE 164 E               550099.   519350.       5.0
NE 82 E                550017.   519363.       5.0
NE CNR                 549952.   519418.       5.0
NE 82 N                549926.   519501.       5.0
NE 164 N               549944.   519580.       5.0
NE MID N               549967.   519659.       5.0
NW MID N               549872.   519635.       5.0
NW 164 N               549850.   519555.       5.0
NW 82 N                549817.   519479.       5.0
NW CNR                 549763.   519424.       5.0
NW 82 W                549688.   519393.       5.0
NW 164 W               549606.   519390.       5.0
NW MID W               549524.   519390.       5.0
SW MID W               549417.   519215.       5.0
SW 164 W               549499.   519210.       5.0
SW 82 W                549581.   519201.       5.0
SW CNR                 549653.   519165.       5.0
SW 82 S                549693.   519101.       5.0
SW 164 S               549693.   519015.       5.0
SW MID S               549670.   518935.       5.0
Pellissippi Site 12 NB AM 2015           44  1   0
  1
0         OGnb      AG549548.518327.549690.518773.     72713.8   0  32   30.
  1
0         OGnb      AG549690.518773.549746.518996.     72713.8   0  32   30.
  1
0         OGnbT     AG549748.518996.549818.519243.     32513.8   0  32   30.
  2
0         OGnbTQ    AG549806.519201.549751.519006.      0.  12   1
       114        61       2.0  325   92.3 1600 1 3
  1
0         OGnbL     AG549734.519000.549804.519244.      6513.8   0  32   30.
  2
0         OGnbLQ    AG549792.519202.549736.519008.      0.  12   1
       114        86       2.0   65   92.3 1600 1 3
  1
0         OGnbR     AG549759.518996.549801.519113.     33713.8   0  32   30.
  2
0         OGnbRQ    AG549800.519109.549761.519001.      0.  12   1
       114        61       2.0  337   92.3 1600 1 3
  1
0         OGnbR     AG549801.519113.549860.519169.     33713.8   0  32   30.
  1
0         OGnbR     AG549860.519169.550079.519208.     33713.8   0  32   30.
  1
0         OGnbD     AG549819.519244.550004.519895.     80113.8   0  32   30.
  1
0         OGnbD     AG550004.519896.550098.520248.     80113.8   0  32   30.
  1
0         OGsb      AG550084.520250.549898.519596.     67813.8   0  32   30.
  1
0         OGsbT     AG549892.519596.549802.519285.     28813.8   0  32   30.
  2
0         OGsbTQ    AG549822.519355.549888.519580.      0.  12   1
       114        61       2.0  288   92.3 1600 1 3
  1
0         OGsbL     AG549903.519589.549814.519285.     13313.8   0  32   30.
  2
0         OGsbLQ    AG549835.519357.549900.519577.      0.  12   1
       114        86       2.0  133   92.3 1600 1 3
  1
0         OGsbR     AG549851.519487.549799.519410.     25713.8   0  32   30.
  2
0         OGsbRQ    AG549801.519413.549850.519486.      0.  12   1
       114        61       2.0  257   92.3 1600 1 3
  1
0         OGsbR     AG549799.519410.549704.519371.     25713.8   0  32   30.
  1
0         OGsbR     AG549704.519371.549599.519362.     25713.8   0  32   30.
  1
0         OGsbR     AG549599.519362.549372.519363.     25713.8   0  32   30.
  1
0         OGsbD     AG549802.519285.549662.518778.     52513.8   0  32   30.
  1
0         OGsbD     AG549662.518778.549532.518333.     52513.8   0  32   30.
  1
0         321eb     AG548821.519283.549546.519253.    160815.6   0  44   30.
  1
0         321ebT    AG549546.519253.549830.519241.    114015.6   0  44   30.
  2
0         321ebTQ   AG549760.519244.549559.519252.      0.  24   2
       114        75       2.0 1140   92.3 3200 1 3
  1
0         321ebL    AG549641.519269.549810.519262.     39915.6   0  32   30.
  2
0         321ebLQ   AG549763.519264.549647.519269.      0.  12   1
       114        86       2.0  399   92.3 1600 1 3
```

```
  1
0        321ebR    AG549505.519242.549655.519197.      6915.6   0  32   30.
  2
0        321ebRQ   AG549649.519198.549517.519239.      0.  12   1
       114        75       2.0   69   92.3 1600 1 3
  1
0        321ebR    AG549655.519197.549705.519145.      6915.6   0  32   30.
  1
0        321ebR    AG549705.519145.549731.519050.      6915.6   0  32   30.
  1
0        321ebD    AG549831.519239.550815.519193.    161015.6   0  44   30.
  1
0        321wb     AG550818.519272.550021.519309.     79115.6   0  44   30.
  1
0        321wbT    AG550021.519309.549782.519322.     54615.6   0  44   30.
  2
0        321wbTQ   AG549883.519316.549994.519311.      0.  24   2
       114        75       2.0  546   92.3 3200 1 3
  1
0        321wbL    AG550029.519292.549825.519295.     16815.6   0  32   30.
  2
0        321wbLQ   AG549883.519294.550024.519292.      0.  12   1
       114        86       2.0  168   92.3 1600 1 3
  1
0        321wbR    AG550125.519315.549978.519348.      7715.6   0  32   30.
  2
0        321wbRQ   AG549986.519346.550115.519317.      0.  12   1
       114        75       2.0   77   92.3 1600 1 3
  1
0        321wbR    AG549978.519348.549918.519412.      7715.6   0  32   30.
  1
0        321wbR    AG549918.519412.549897.519502.      7715.6   0  32   30.
  1
0        321wbD    AG549779.519322.548825.519364.     86815.6   0  44   30.
1.0   04  1000   0Y  5  0 72
```

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1                         CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.2, JUNE 2000
PAGE  1

      JOB: Pellissippi Site 12 NB AM 2015                       RUN: Pellissippi Site 12 NB AM 2015
      DATE: 12/15/2008   TIME: 14:18:51.04


       SITE & METEOROLOGICAL VARIABLES
       -------------------------------
       VS =    .0 CM/S       VD =    .0 CM/S       Z0 = 321. CM
        U =  1.0 M/S         CLAS =   4  (D)     ATIM =  60. MINUTES     MIXH =  1000. M   AMB =   .0 PPM

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *        LINK COORDINATES (FT)         *    LENGTH  BRG TYPE   VPH    EF      H
  W    V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)
(FT) (FT)       (VEH)

------------------------*-----------------------------------------*------------------------------------------
-------------
      1. 0          OGnb      * 549548.0  518327.0  549690.0  518773.0 *     468.    18. AG    727.  13.8    .0
32.0
      2. 0          OGnb      * 549690.0  518773.0  549746.0  518996.0 *     230.    14. AG    727.  13.8    .0
32.0
      3. 0          OGnbT     * 549748.0  518996.0  549818.0  519243.0 *     257.    16. AG    325.  13.8    .0
32.0
      4. 0          OGnbTQ    * 549806.0  519201.0  549776.6  519096.7 *     108.   196. AG    132. 100.0    .0
12.0  .47   5.5
      5. 0          OGnbL     * 549734.0  519000.0  549804.0  519244.0 *     254.    16. AG     65.  13.8    .0
32.0
      6. 0          OGnbLQ    * 549792.0  519202.0  549783.6  519172.6 *      31.   196. AG    187. 100.0    .0
12.0  .19   1.6
      7. 0          OGnbR     * 549759.0  518996.0  549801.0  519113.0 *     124.    20. AG    337.  13.8    .0
32.0
      8. 0          OGnbRQ    * 549800.0  519109.0  549761.8  519003.3 *     112.   200. AG    132. 100.0    .0
12.0  .49   5.7
      9. 0          OGnbR     * 549801.0  519113.0  549860.0  519169.0 *      81.    46. AG    337.  13.8    .0
32.0
     10. 0          OGnbR     * 549860.0  519169.0  550079.0  519208.0 *     222.    80. AG    337.  13.8    .0
32.0
     11. 0          OGnbD     * 549819.0  519244.0  550004.0  519895.0 *     677.    16. AG    801.  13.8    .0
32.0
     12. 0          OGnbD     * 550004.0  519896.0  550098.0  520248.0 *     364.    15. AG    801.  13.8    .0
32.0
     13. 0          OGsb      * 550084.0  520250.0  549898.0  519596.0 *     680.   196. AG    678.  13.8    .0
32.0
     14. 0          OGsbT     * 549892.0  519596.0  549802.0  519285.0 *     324.   196. AG    288.  13.8    .0
32.0
     15. 0          OGsbTQ    * 549822.0  519355.0  549849.0  519447.2 *      96.    16. AG    132. 100.0    .0
12.0  .42   4.9
     16. 0          OGsbL     * 549903.0  519589.0  549814.0  519285.0 *     317.   196. AG    133.  13.8    .0
32.0
     17. 0          OGsbLQ    * 549835.0  519357.0  549852.7  519417.0 *      63.    16. AG    187. 100.0    .0
12.0  .40   3.2
     18. 0          OGsbR     * 549851.0  519487.0  549799.0  519410.0 *      93.   214. AG    257.  13.8    .0
32.0
     19. 0          OGsbRQ    * 549801.0  519413.0  549848.8  519484.1 *      86.    34. AG    132. 100.0    .0
12.0  .37   4.4
     20. 0          OGsbR     * 549799.0  519410.0  549704.0  519371.0 *     103.   248. AG    257.  13.8    .0
32.0
     21. 0          OGsbR     * 549704.0  519371.0  549599.0  519362.0 *     105.   265. AG    257.  13.8    .0
32.0
     22. 0          OGsbR     * 549599.0  519362.0  549372.0  519363.0 *     227.   270. AG    257.  13.8    .0
32.0
     23. 0          OGsbD     * 549802.0  519285.0  549662.0  518778.0 *     526.   195. AG    525.  13.8    .0
32.0
     24. 0          OGsbD     * 549662.0  518778.0  549532.0  518333.0 *     464.   196. AG    525.  13.8    .0
32.0
     25. 0          321eb     * 548821.0  519283.0  549546.0  519253.0 *     726.    92. AG   1608.  15.6    .0
44.0
     26. 0          321ebT    * 549546.0  519253.0  549830.0  519241.0 *     284.    92. AG   1140.  15.6    .0
44.0
     27. 0          321ebTQ   * 549760.0  519244.0  549526.4  519253.3 *     234.   272. AG    326. 100.0    .0
24.0  .58  11.9
     28. 0          321ebL    * 549641.0  519269.0  549810.0  519262.0 *     169.    92. AG    399.  15.6    .0
32.0
     29. 0          321ebLQ   * 549763.0  519264.0  548850.2  519303.1 *     914.   272. AG    187. 100.0    .0
12.0 1.19  46.4
     30. 0          321ebR    * 549505.0  519242.0  549655.0  519197.0 *     157.   107. AG     69.  15.6    .0
32.0
     31. 0          321ebRQ   * 549649.0  519198.0  549622.0  519206.4 *      28.   287. AG    163. 100.0    .0
12.0  .14   1.4
     32. 0          321ebR    * 549655.0  519197.0  549705.0  519145.0 *      72.   136. AG     69.  15.6    .0
32.0
     33. 0          321ebR    * 549705.0  519145.0  549731.0  519050.0 *      98.   165. AG     69.  15.6    .0
32.0
     34. 0          321ebD    * 549831.0  519239.0  550815.0  519193.0 *     985.    93. AG   1610.  15.6    .0
44.0
     35. 0          321wb     * 550818.0  519272.0  550021.0  519309.0 *     798.   273. AG    791.  15.6    .0
44.0
     36. 0          321wbT    * 550021.0  519309.0  549782.0  519322.0 *     239.   273. AG    546.  15.6    .0
44.0
     37. 0          321wbTQ   * 549883.0  519316.0  549994.9  519311.0 *     112.    92. AG    326. 100.0    .0
24.0  .28   5.7
     38. 0          321wbL    * 550029.0  519292.0  549825.0  519295.0 *     204.   271. AG    168.  15.6    .0
```

```
32.0
     39. 0          321wbLQ   * 549883.0  519294.0  549962.0  519292.9 *      79.    91. AG    187. 100.0    .0
12.0  .50   4.0
     40. 0          321wbR    * 550125.0  519315.0  549978.0  519348.0 *     151.   283. AG     77.  15.6    .0
32.0
     41. 0          321wbRQ   * 549986.0  519346.0  550016.8  519339.1 *      32.   103. AG    163. 100.0    .0
12.0  .16   1.6
     42. 0          321wbR    * 549978.0  519348.0  549918.0  519412.0 *      88.   317. AG     77.  15.6    .0
32.0
     43. 0          321wbR    * 549918.0  519412.0  549897.0  519502.0 *      92.   347. AG     77.  15.6    .0
32.0
     44. 0          321wbD    * 549779.0  519322.0  548825.0  519364.0 *     955.   273. AG    868.  15.6    .0
44.0
1
```

PAGE 2
JOB: Pellissippi Site 12 NB AM 2015 RUN: Pellissippi Site 12 NB AM 2015
DATE: 12/15/2008 TIME: 14:18:51.04

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. 0	OGnbTQ	*	114	61	2.0	325	1600	92.30	1	3
6. 0	OGnbLQ	*	114	86	2.0	65	1600	92.30	1	3
8. 0	OGnbRQ	*	114	61	2.0	337	1600	92.30	1	3
15. 0	OGsbTQ	*	114	61	2.0	288	1600	92.30	1	3
17. 0	OGsbLQ	*	114	86	2.0	133	1600	92.30	1	3
19. 0	OGsbRQ	*	114	61	2.0	257	1600	92.30	1	3
27. 0	321ebTQ	*	114	75	2.0	1140	3200	92.30	1	3
29. 0	321ebLQ	*	114	86	2.0	399	1600	92.30	1	3
31. 0	321ebRQ	*	114	75	2.0	69	1600	92.30	1	3
37. 0	321wbTQ	*	114	75	2.0	546	3200	92.30	1	3
39. 0	321wbLQ	*	114	86	2.0	168	1600	92.30	1	3
41. 0	321wbRQ	*	114	75	2.0	77	1600	92.30	1	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. SE MID S	*	549763.0	518934.0	5.0	*
2. SE 164 S	*	549782.0	519013.0	5.0	*
3. SE 82 S	*	549815.0	519090.0	5.0	*
4. SE CNR	*	549882.0	519144.0	5.0	*
5. SE 82 E	*	549963.0	519167.0	5.0	*
6. SE 164 E	*	550045.0	519168.0	5.0	*
7. SE MID E	*	550127.0	519167.0	5.0	*
8. NE MID E	*	550182.0	519343.0	5.0	*
9. NE 164 E	*	550099.0	519350.0	5.0	*
10. NE 82 E	*	550017.0	519363.0	5.0	*
11. NE CNR	*	549952.0	519418.0	5.0	*
12. NE 82 N	*	549926.0	519501.0	5.0	*
13. NE 164 N	*	549944.0	519580.0	5.0	*
14. NE MID N	*	549967.0	519659.0	5.0	*
15. NW MID N	*	549872.0	519635.0	5.0	*
16. NW 164 N	*	549850.0	519555.0	5.0	*
17. NW 82 N	*	549817.0	519479.0	5.0	*
18. NW CNR	*	549763.0	519424.0	5.0	*
19. NW 82 W	*	549688.0	519393.0	5.0	*
20. NW 164 W	*	549606.0	519390.0	5.0	*
21. NW MID W	*	549524.0	519390.0	5.0	*
22. SW MID W	*	549417.0	519215.0	5.0	*
23. SW 164 W	*	549499.0	519210.0	5.0	*
24. SW 82 W	*	549581.0	519201.0	5.0	*
25. SW CNR	*	549653.0	519165.0	5.0	*
26. SW 82 S	*	549693.0	519101.0	5.0	*
27. SW 164 S	*	549693.0	519015.0	5.0	*
28. SW MID S	*	549670.0	518935.0	5.0	*

1

PAGE 3
JOB: Pellissippi Site 12 NB AM 2015 RUN: Pellissippi Site 12 NB AM 2015

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

```
 WIND  * CONCENTRATION
 ANGLE *       (PPM)
 (DEGR)* REC1  REC2  REC3  REC4  REC5  REC6  REC7  REC8  REC9  REC10 REC11 REC12 REC13 REC14 REC15 REC16 REC17
REC18 REC19 REC20

------*---------------------------------------------------------------------------------------------------
----------------
   0.  *    .9  1.3    .7   1.0   1.3    .7    .6    .0    .0    .2    .3    .6    .6    .7    .0    .1    .0
  .0    .0    .0
   5.  *    .9  1.3    .9   1.2   1.3    .7    .6    .0    .0    .1    .2    .5    .7    .6    .1    .1    .1
```

```
  .0    .0    .0
  10.  *    .8  1.1   1.0   1.1    .9    .7    .6    .0    .0    .0    .2    .6    .6    .6    .1    .2    .1
  .0    .0    .0
  15.  *    .8  1.2    .7   1.0    .9    .7    .6    .0    .0    .0    .2    .3    .5    .4    .4    .3    .2
  .1    .0    .0
  20.  *    .6   .9    .6   1.0   1.0    .7    .6    .0    .0    .0    .0    .3    .4    .4    .4    .4    .2
  .2    .0    .0
  25.  *    .4   .6    .7    .9    .9    .7    .6    .0    .0    .0    .0    .2    .2    .3    .5    .6    .3
  .2    .1    .0
  30.  *    .3   .5    .8    .9    .8    .7    .6    .0    .0    .0    .0    .1    .1    .1    .6    .5    .4
  .2    .2    .0
  35.  *    .2   .5    .6    .7    .8    .7    .6    .0    .0    .0    .0    .0    .0    .0    .5    .5    .4
  .2    .2    .1
  40.  *    .2   .4    .6    .8    .8    .7    .6    .0    .0    .0    .0    .0    .0    .0    .5    .5    .4
  .4    .2    .2
  45.  *    .3   .3    .7    .8    .8    .7    .8    .0    .0    .0    .0    .0    .0    .0    .5    .5    .4
  .5    .2    .2
  50.  *    .3   .3    .5    .7    .8    .9    .8    .0    .0    .0    .0    .0    .0    .0    .5    .4    .3
  .5    .1    .1
  55.  *    .3   .3    .5    .7    .9    .8    .8    .0    .0    .0    .0    .0    .0    .0    .5    .4    .3
  .5    .2    .1
  60.  *    .3   .3    .5    .7   1.0    .8    .8    .0    .0    .0    .0    .0    .0    .0    .5    .4    .4
  .6    .2    .1
  65.  *    .3   .3    .5    .6   1.0    .8    .8    .0    .0    .0    .0    .0    .0    .0    .5    .4    .5
  .5    .2    .1
  70.  *    .2   .3    .4    .7   1.0    .8    .7    .0    .0    .0    .0    .0    .0    .0    .4    .3    .5
  .6    .3    .1
  75.  *    .1   .3    .4    .6    .8    .7    .7    .0    .0    .0    .0    .0    .0    .0    .4    .3    .5
  .6    .4    .1
  80.  *    .1   .1    .4    .6    .7    .7    .7    .1    .1    .1    .0    .0    .0    .0    .4    .3    .6
  .6    .5    .1
  85.  *    .1   .1    .2    .5    .7    .6    .6    .1    .1    .1    .0    .0    .0    .0    .4    .3    .6
  .7    .5    .3
  90.  *    .0   .1    .1    .3    .6    .5    .5    .3    .3    .3    .1    .0    .0    .0    .4    .3    .6
  .9    .7    .5
  95.  *    .0   .0    .1    .2    .3    .3    .3    .4    .4    .3    .2    .0    .0    .0    .4    .3    .8
  .9    .9    .8
 100.  *    .0   .0    .0    .1    .2    .2    .2    .5    .5    .5    .2    .2    .0    .0    .4    .3    .8
 1.0    .9    .8
 105.  *    .0   .0    .0    .1    .1    .1    .1    .7    .7    .6    .4    .2    .0    .0    .4    .5    .9
 1.1    .9    .9
 110.  *    .0   .0    .0    .0    .0    .0    .0    .7    .7    .6    .4    .2    .2    .0    .5    .5   1.0
 1.1    .8   1.0
 115.  *    .0   .0    .0    .0    .0    .0    .0    .7    .7    .6    .4    .3    .2    .1    .6    .5   1.0
 1.3    .9    .9
 120.  *    .0   .0    .0    .0    .0    .0    .0    .8    .8    .6    .5    .3    .2    .2    .6    .6   1.1
 1.4    .8    .8
 125.  *    .0   .0    .0    .0    .0    .0    .0    .8    .8    .6    .5    .3    .2    .2    .6    .6   1.2
 1.2    .7    .9
 130.  *    .0   .0    .0    .0    .0    .0    .0    .8    .7    .6    .5    .3    .3    .2    .6    .6   1.3
 1.2    .8   1.0
 135.  *    .0   .0    .0    .0    .0    .0    .0    .7    .6    .6    .5    .3    .3    .2    .6    .6   1.2
 1.0    .8   1.1
 140.  *    .0   .0    .0    .0    .0    .0    .0    .6    .6    .6    .4    .3    .3    .2    .6    .7   1.4
  .9    .7   1.1
 145.  *    .0   .0    .0    .0    .0    .0    .0    .6    .6    .6    .6    .3    .3    .2    .5    .7   1.6
  .8    .9   1.1
 150.  *    .0   .0    .0    .0    .0    .0    .0    .6    .6    .5    .6    .4    .3    .2    .5    .6   1.6
  .6   1.0   1.2
 155.  *    .0   .0    .0    .0    .0    .0    .0    .6    .6    .5    .7    .4    .3    .2    .6    .7   1.5
  .5   1.0   1.1
 160.  *    .0   .0    .0    .0    .0    .0    .0    .6    .6    .6    .6    .4    .2    .2    .6    .7   1.4
  .6   1.0   1.2
 165.  *    .0   .0    .0    .0    .0    .0    .0    .6    .6    .7    .5    .5    .2    .2    .6    .6   1.4
  .7   1.0   1.1
 170.  *    .0   .0    .0    .0    .0    .0    .0    .6    .6    .7    .7    .5    .2    .2    .5    .9   1.3
  .8   1.0   1.0
 175.  *    .0   .0    .0    .0    .0    .0    .0    .6    .6    .6    .7    .6    .2    .2    .5    .9   1.3
  .5   1.1   1.0
 180.  *    .0   .1    .0    .0    .0    .0    .0    .6    .6    .8    .7    .6    .4    .3    .5    .9   1.2
  .7   1.1   1.0
 185.  *    .2   .1    .0    .0    .0    .0    .0    .6    .6    .8    .7    .7    .4    .3    .4   1.0   1.2
 1.0   1.0   1.0
 190.  *    .2   .2    .3    .0    .0    .0    .0    .6    .6    .8    .7    .4    .5    .4    .6    .8   1.0
 1.0   1.1   1.2
 195.  *    .3   .4    .4    .0    .0    .0    .0    .6    .6   1.0    .7    .6    .5    .5    .5    .7    .8
 1.0   1.0   1.1
 200.  *    .4   .6    .5    .0    .0    .0    .0    .6    .6   1.0    .7    .8    .7    .4    .6    .9    .7
  .9   1.0    .9
 205.  *    .5   .7    .6    .2    .0    .0    .0    .6    .6   1.1    .8   1.1    .7    .7    .4    .5    .7
  .8   1.0   1.1
1

 PAGE  4
     JOB: Pellissippi Site 12 NB AM 2015                           RUN: Pellissippi Site 12 NB AM 2015

 WIND  * CONCENTRATION
 ANGLE *       (PPM)
 (DEGR)* REC1  REC2  REC3  REC4  REC5  REC6  REC7  REC8  REC9  REC10 REC11 REC12 REC13 REC14 REC15 REC16 REC17
REC18 REC19 REC20

------*----------------------------------------------------------------------------------------------------------
----------------
 210.  *    .6   .7    .7    .3    .0    .0    .0    .6    .6   1.3    .8   1.0    .8    .7    .4    .5    .7
  .8   1.0   1.1
 215.  *    .6   .5    .8    .3    .0    .0    .0    .6    .6   1.3    .8   1.0   1.1   1.0    .4    .4    .6
```

																			.8	1.2	.9
220.	*	.5	.6	.8	.3	.1	.0	.0	.6	.6	1.5	.7	1.1	1.0	1.0	.5	.5	.5	.8	1.0	.9
225.	*	.4	.6	.8	.4	.2	.0	.0	.6	.6	1.4	.7	1.2	1.1	1.1	.4	.5	.6	.8	1.0	1.0
230.	*	.4	.7	.7	.4	.1	.0	.0	.6	.8	1.5	.7	1.2	1.1	.9	.3	.4	.6	.8	1.1	.9
235.	*	.4	.8	.7	.4	.2	.0	.0	.6	.7	1.5	.9	1.1	.9	.8	.3	.4	.6	.8	1.0	.9
240.	*	.4	.8	.7	.6	.2	.0	.0	.6	1.1	1.5	1.0	1.1	.8	.9	.3	.3	.6	.9	1.0	.9
245.	*	.4	.6	.7	.5	.2	.0	.0	.7	1.0	1.7	1.1	.9	.7	.8	.3	.3	.5	.7	.9	.9
250.	*	.4	.6	.7	.5	.2	.0	.0	1.0	1.3	1.6	1.0	.8	.7	.8	.3	.3	.5	.5	.9	.9
255.	*	.4	.8	.7	.5	.3	.0	.0	1.2	1.5	1.4	1.1	.8	.7	.7	.2	.3	.4	.5	1.0	.9
260.	*	.4	.8	.7	.4	.4	.2	.0	1.1	1.4	1.1	1.0	.8	.6	.5	.0	.2	.3	.5	.8	.7
265.	*	.4	.7	.7	.5	.7	.5	.6	1.1	1.2	1.0	.8	.7	.4	.5	.0	.0	.3	.4	.8	.7
270.	*	.4	.7	.9	.7	.9	.7	.8	1.0	1.0	.9	.8	.5	.4	.5	.0	.0	.1	.3	.4	.5
275.	*	.4	.8	.9	1.0	1.1	.8	.8	.7	.7	.7	.7	.4	.4	.5	.0	.0	.0	.1	.2	.4
280.	*	.4	.8	1.2	1.1	1.3	.8	.9	.4	.5	.5	.5	.4	.4	.5	.0	.0	.0	.0	.1	.1
285.	*	.5	.9	1.3	1.4	1.2	.9	1.0	.1	.2	.4	.4	.4	.4	.5	.0	.0	.0	.0	.0	.1
290.	*	.5	1.2	1.4	1.5	1.4	1.0	1.2	.1	.1	.1	.3	.4	.4	.5	.0	.0	.0	.0	.0	.0
295.	*	.6	1.2	1.5	1.4	1.2	1.0	1.3	.1	.1	.1	.3	.4	.4	.5	.0	.0	.0	.0	.0	.0
300.	*	.8	1.2	1.5	1.5	1.1	1.3	1.1	.1	.1	.1	.3	.4	.4	.5	.0	.0	.0	.0	.0	.0
305.	*	.8	1.3	1.3	1.3	1.1	1.1	1.0	.1	.1	.1	.2	.4	.5	.5	.0	.0	.0	.0	.0	.0
310.	*	.8	1.3	1.4	1.3	1.0	1.0	.9	.1	.1	.1	.2	.4	.5	.5	.0	.0	.0	.0	.0	.0
315.	*	.7	1.3	1.4	1.1	1.1	1.1	.9	.1	.1	.1	.2	.4	.5	.5	.0	.0	.0	.0	.0	.0
320.	*	.8	1.4	1.4	1.1	1.0	1.1	1.0	.1	.1	.1	.2	.4	.5	.5	.0	.0	.0	.0	.0	.0
325.	*	.9	1.4	1.3	.8	1.1	1.1	.8	.1	.1	.1	.2	.4	.5	.5	.0	.0	.0	.0	.0	.0
330.	*	.8	1.4	1.3	.6	1.0	1.1	.8	.2	.2	.1	.2	.4	.6	.5	.0	.0	.0	.0	.0	.0
335.	*	.8	1.4	1.4	.6	1.2	1.0	.7	.2	.2	.1	.2	.5	.6	.6	.0	.0	.0	.0	.0	.0
340.	*	.9	1.5	1.3	.7	1.2	.9	.7	.1	.2	.2	.3	.4	.6	.6	.0	.0	.0	.0	.0	.0
345.	*	1.0	1.6	1.3	.8	1.2	1.0	.7	.0	.2	.2	.3	.5	.6	.6	.0	.0	.0	.0	.0	.0
350.	*	1.1	1.5	1.2	.8	1.2	.9	.6	.0	.1	.2	.3	.5	.6	.6	.0	.0	.0	.0	.0	.0
355.	*	.9	1.4	.8	.8	1.2	.9	.6	.0	.1	.2	.3	.6	.6	.6	.0	.0	.0	.0	.0	.0
360.	*	.9	1.3	.7	1.0	1.3	.7	.6	.0	.0	.2	.3	.6	.6	.7	.0	.1	.0	.0	.0	.0
MAX	*	1.1	1.6	1.5	1.5	1.4	1.3	1.3	1.2	1.5	1.7	1.1	1.2	1.1	1.1	.6	1.0	1.6	1.4	1.2	1.2
DEGR.	*	350	345	300	290	290	300	295	255	255	245	255	225	215	225	30	185	145	120	215	150

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JOB: Pellissippi Site 12 NB AM 2015　　RUN: Pellissippi Site 12 NB AM 2015

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
		CONCENTRATION (PPM)							
0.	*	.0	1.0	1.0	1.4	1.2	.7	.5	.4
5.	*	.0	1.0	1.0	1.4	1.2	.8	.6	.5
10.	*	.0	1.0	1.1	1.4	1.2	.8	.6	.5
15.	*	.0	1.0	1.1	1.4	1.1	.8	.4	.4
20.	*	.0	1.0	1.2	1.4	1.2	.8	.5	.5
25.	*	.0	1.0	1.1	1.4	1.2	.6	.8	.6
30.	*	.0	1.0	1.3	1.5	1.1	.5	.8	.8
35.	*	.0	1.0	1.3	1.5	1.1	.7	.8	.7
40.	*	.0	1.0	1.4	1.5	1.1	.7	.7	.7
45.	*	.1	1.1	1.6	1.5	1.1	.7	.8	.7

50. *	.1	1.4	1.6	1.5	1.2	.9	.9	.7
55. *	.1	1.4	1.7	1.5	1.2	.7	.8	.7
60. *	.1	1.5	1.6	1.6	.9	.8	.8	.7
65. *	.1	1.6	1.7	1.9	1.0	.8	.8	.7
70. *	.1	1.5	1.8	1.6	.9	.7	.8	.7
75. *	.1	1.4	1.9	1.7	.7	.7	.8	.5
80. *	.1	1.5	1.5	1.5	.8	.7	.7	.5
85. *	.2	1.3	1.2	1.4	.7	.7	.6	.5
90. *	.4	1.1	1.0	1.0	.6	.6	.6	.4
95. *	.6	.8	.6	.7	.4	.5	.5	.4
100. *	.9	.5	.4	.6	.3	.5	.5	.4
105. *	1.0	.3	.3	.3	.3	.4	.4	.4
110. *	1.0	.0	.1	.3	.2	.4	.3	.4
115. *	.9	.0	.0	.2	.3	.4	.3	.4
120. *	1.0	.0	.0	.1	.2	.4	.3	.4
125. *	1.0	.0	.0	.1	.2	.4	.3	.4
130. *	1.1	.0	.0	.1	.2	.4	.4	.4
135. *	1.1	.0	.0	.1	.2	.3	.4	.4
140. *	1.1	.0	.0	.1	.2	.3	.4	.4
145. *	1.1	.0	.0	.1	.1	.2	.4	.4
150. *	1.1	.0	.0	.2	.2	.2	.4	.4
155. *	1.1	.0	.0	.2	.2	.3	.4	.4
160. *	1.2	.0	.0	.2	.2	.3	.4	.4
165. *	1.0	.0	.0	.0	.2	.3	.4	.5
170. *	1.0	.0	.0	.0	.2	.3	.4	.4
175. *	1.1	.0	.0	.0	.2	.2	.5	.5
180. *	1.0	.0	.0	.0	.2	.3	.4	.5
185. *	.9	.0	.0	.0	.1	.3	.5	.4
190. *	1.0	.0	.0	.0	.0	.3	.4	.3
195. *	.9	.0	.0	.0	.0	.2	.4	.3
200. *	.9	.0	.0	.0	.0	.0	.3	.3
205. *	.9	.0	.0	.0	.0	.0	.0	.1

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JOB: Pellissippi Site 12 NB AM 2015 RUN: Pellissippi Site 12 NB AM 2015

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210. *	.9	.0	.0	.0	.0	.0	.0	.0
215. *	.9	.0	.0	.0	.0	.0	.0	.0
220. *	.9	.0	.0	.0	.0	.0	.0	.0
225. *	.9	.0	.0	.0	.0	.0	.0	.0
230. *	.9	.0	.0	.0	.0	.0	.0	.0
235. *	.9	.0	.0	.0	.0	.0	.0	.0
240. *	.9	.0	.0	.0	.0	.0	.0	.0
245. *	.9	.0	.0	.0	.0	.0	.0	.0
250. *	.9	.0	.0	.0	.0	.0	.0	.0
255. *	.9	.1	.1	.1	.0	.0	.0	.0
260. *	.7	.2	.2	.1	.1	.0	.0	.0
265. *	.7	.4	.4	.3	.1	.0	.0	.0
270. *	.5	.5	.5	.5	.3	.1	.0	.0
275. *	.3	.8	.8	.8	.5	.2	.0	.0
280. *	.1	1.0	1.0	.9	.6	.3	.1	.0
285. *	.1	1.1	1.1	1.0	.8	.4	.2	.1
290. *	.0	1.3	1.3	1.3	.8	.5	.3	.1
295. *	.0	1.3	1.3	1.3	.9	.5	.4	.2
300. *	.0	1.3	1.3	1.4	1.0	.6	.4	.3
305. *	.0	1.3	1.2	1.3	1.2	.6	.4	.4
310. *	.0	1.2	1.2	1.3	1.2	.6	.4	.4
315. *	.0	1.2	1.1	1.2	1.3	.7	.5	.4
320. *	.0	1.1	1.1	1.4	1.1	.6	.5	.4
325. *	.0	1.0	1.0	1.4	1.2	.7	.5	.3
330. *	.0	1.0	1.0	1.3	1.2	.7	.5	.4
335. *	.0	1.0	1.0	1.4	1.2	.7	.6	.4
340. *	.0	1.0	1.0	1.4	1.2	.7	.5	.5
345. *	.0	1.0	1.0	1.4	1.2	.7	.5	.5
350. *	.0	1.0	1.0	1.5	1.2	.7	.5	.4
355. *	.0	1.0	1.0	1.4	1.1	.7	.5	.5
360. *	.0	1.0	1.0	1.4	1.2	.7	.5	.4
MAX *	1.2	1.6	1.9	1.9	1.3	.9	.9	.8
DEGR. *	160	65	75	65	315	50	50	30

THE HIGHEST CONCENTRATION IS 1.90 PPM AT 75 DEGREES FROM REC23.
THE 2ND HIGHEST CONCENTRATION IS 1.90 PPM AT 65 DEGREES FROM REC24.
THE 3RD HIGHEST CONCENTRATION IS 1.70 PPM AT 245 DEGREES FROM REC10.

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Pellissippi Site 12 NB PM 2015          60.0321.0.0000.000280.30480000    1    1
SE MID S              549763.   518934.       5.0
SE 164 S              549782.   519013.       5.0
SE 82 S               549815.   519090.       5.0
SE CNR                549882.   519144.       5.0
SE 82 E               549963.   519167.       5.0
SE 164 E              550045.   519168.       5.0
SE MID E              550127.   519167.       5.0
NE MID E              550182.   519343.       5.0
NE 164 E              550099.   519350.       5.0
NE 82 E               550017.   519363.       5.0
NE CNR                549952.   519418.       5.0
NE 82 N               549926.   519501.       5.0
NE 164 N              549944.   519580.       5.0
NE MID N              549967.   519659.       5.0
NW MID N              549872.   519635.       5.0
NW 164 N              549850.   519555.       5.0
NW 82 N               549817.   519479.       5.0
NW CNR                549763.   519424.       5.0
NW 82 W               549688.   519393.       5.0
NW 164 W              549606.   519390.       5.0
NW MID W              549524.   519390.       5.0
SW MID W              549417.   519215.       5.0
SW 164 W              549499.   519210.       5.0
SW 82 W               549581.   519201.       5.0
SW CNR                549653.   519165.       5.0
SW 82 S               549693.   519101.       5.0
SW 164 S              549693.   519015.       5.0
SW MID S              549670.   518935.       5.0
Pellissippi Site 12 NB PM 2015           44  1   0
  1
0         OGnb      AG549548.518327.549690.518773.     49913.8   0  32   30.
  1
0         OGnb      AG549690.518773.549746.518996.     49913.8   0  32   30.
  1
0         OGnbT     AG549748.518996.549818.519243.     22613.8   0  32   30.
  2
0         OGnbTQ    AG549806.519201.549751.519006.      0.  12   1
       114        61       2.0  226   92.3 1600 1 3
  1
0         OGnbL     AG549734.519000.549804.519244.      4013.8   0  32   30.
  2
0         OGnbLQ    AG549792.519202.549736.519008.      0.  12   1
       114        86       2.0   40   92.3 1600 1 3
  1
0         OGnbR     AG549759.518996.549801.519113.     23313.8   0  32   30.
  2
0         OGnbRQ    AG549800.519109.549761.519001.      0.  12   1
       114        61       2.0  233   92.3 1600 1 3
  1
0         OGnbR     AG549801.519113.549860.519169.     23313.8   0  32   30.
  1
0         OGnbR     AG549860.519169.550079.519208.     23313.8   0  32   30.
  1
0         OGnbD     AG549819.519244.550004.519895.     57213.8   0  32   30.
  1
0         OGnbD     AG550004.519896.550098.520248.     57213.8   0  32   30.
  1
0         OGsb      AG550084.520250.549898.519596.     93513.8   0  32   30.
  1
0         OGsbT     AG549892.519596.549802.519285.     34213.8   0  32   30.
  2
0         OGsbTQ    AG549822.519355.549888.519580.      0.  12   1
       114        61       2.0  342   92.3 1600 1 3
  1
0         OGsbL     AG549903.519589.549814.519285.     19513.8   0  32   30.
  2
0         OGsbLQ    AG549835.519357.549900.519577.      0.  12   1
       114        86       2.0  195   92.3 1600 1 3
  1
0         OGsbR     AG549851.519487.549799.519410.     39813.8   0  32   30.
  2
0         OGsbRQ    AG549801.519413.549850.519486.      0.  12   1
       114        61       2.0  398   92.3 1600 1 3
  1
0         OGsbR     AG549799.519410.549704.519371.     39813.8   0  32   30.
  1
0         OGsbR     AG549704.519371.549599.519362.     39813.8   0  32   30.
  1
0         OGsbR     AG549599.519362.549372.519363.     39813.8   0  32   30.
  1
0         OGsbD     AG549802.519285.549662.518778.     58413.8   0  32   30.
  1
0         OGsbD     AG549662.518778.549532.518333.     58413.8   0  32   30.
  1
0         321eb     AG548821.519283.549546.519253.     94315.6   0  44   30.
  1
0         321ebT    AG549546.519253.549830.519241.     74315.6   0  44   30.
  2
0         321ebTQ   AG549760.519244.549559.519252.      0.  24   2
       114        75       2.0  743   92.3 3200 1 3
  1
0         321ebL    AG549641.519269.549810.519262.     17115.6   0  32   30.
  2
0         321ebLQ   AG549763.519264.549647.519269.      0.  12   1
       114        86       2.0  171   92.3 1600 1 3
```

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  1
0         321ebR    AG549505.519242.549655.519197.      2915.6   0  32   30.
  2
0         321ebRQ   AG549649.519198.549517.519239.      0.  12   1
       114        75       2.0   29   92.3 1600 1 3
  1
0         321ebR    AG549655.519197.549705.519145.      2915.6   0  32   30.
  1
0         321ebR    AG549705.519145.549731.519050.      2915.6   0  32   30.
  1
0         321ebD    AG549831.519239.550815.519193.    117115.6   0  44   30.
  1
0         321wb     AG550818.519272.550021.519309.    155015.6   0  44   30.
  1
0         321wbT    AG550021.519309.549782.519322.    116215.6   0  44   30.
  2
0         321wbTQ   AG549883.519316.549994.519311.      0.  24   2
       114        75       2.0 1162   92.3 3200 1 3
  1
0         321wbL    AG550029.519292.549825.519295.     21315.6   0  32   30.
  2
0         321wbLQ   AG549883.519294.550024.519292.      0.  12   1
       114        86       2.0  213   92.3 1600 1 3
  1
0         321wbR    AG550125.519315.549978.519348.     17515.6   0  32   30.
  2
0         321wbRQ   AG549986.519346.550115.519317.      0.  12   1
       114        75       2.0  175   92.3 1600 1 3
  1
0         321wbR    AG549978.519348.549918.519412.     17515.6   0  32   30.
  1
0         321wbR    AG549918.519412.549897.519502.     17515.6   0  32   30.
  1
0         321wbD    AG549779.519322.548825.519364.    160015.6   0  44   30.
1.0   04  1000   0Y  5  0 72
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S12NB15P

1 CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.2, JUNE 2000

PAGE 1

JOB: Pellissippi Site 12 NB PM 2015 RUN: Pellissippi Site 12 NB PM 2015

DATE: 12/15/2008 TIME: 14:19:12.51

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM

U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION		*	X1	Y1	X2	Y2	*	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	OGnb	*	549548.0	518327.0	549690.0	518773.0	*	468.	18.	AG	499.	13.8	.0	32.0		
2. 0	OGnb	*	549690.0	518773.0	549746.0	518996.0	*	230.	14.	AG	499.	13.8	.0	32.0		
3. 0	OGnbT	*	549748.0	518996.0	549818.0	519243.0	*	257.	16.	AG	226.	13.8	.0	32.0		
4. 0	OGnbTQ	*	549806.0	519201.0	549785.6	519128.5	*	75.	196.	AG	132.	100.0	.0	12.0	.33	3.8
5. 0	OGnbL	*	549734.0	519000.0	549804.0	519244.0	*	254.	16.	AG	40.	13.8	.0	32.0		
6. 0	OGnbLQ	*	549792.0	519202.0	549786.8	519183.9	*	19.	196.	AG	187.	100.0	.0	12.0	.12	1.0
7. 0	OGnbR	*	549759.0	518996.0	549801.0	519113.0	*	124.	20.	AG	233.	13.8	.0	32.0		
8. 0	OGnbRQ	*	549800.0	519109.0	549773.6	519035.9	*	78.	200.	AG	132.	100.0	.0	12.0	.34	3.9
9. 0	OGnbR	*	549801.0	519113.0	549860.0	519169.0	*	81.	46.	AG	233.	13.8	.0	32.0		
10. 0	OGnbR	*	549860.0	519169.0	550079.0	519208.0	*	222.	80.	AG	233.	13.8	.0	32.0		
11. 0	OGnbD	*	549819.0	519244.0	550004.0	519895.0	*	677.	16.	AG	572.	13.8	.0	32.0		
12. 0	OGnbD	*	550004.0	519896.0	550098.0	520248.0	*	364.	15.	AG	572.	13.8	.0	32.0		
13. 0	OGsb	*	550084.0	520250.0	549898.0	519596.0	*	680.	196.	AG	935.	13.8	.0	32.0		
14. 0	OGsbT	*	549892.0	519596.0	549802.0	519285.0	*	324.	196.	AG	342.	13.8	.0	32.0		
15. 0	OGsbTQ	*	549822.0	519355.0	549854.1	519464.5	*	114.	16.	AG	132.	100.0	.0	12.0	.50	5.8
16. 0	OGsbL	*	549903.0	519589.0	549814.0	519285.0	*	317.	196.	AG	195.	13.8	.0	32.0		
17. 0	OGsbLQ	*	549835.0	519357.0	549861.0	519445.0	*	92.	16.	AG	187.	100.0	.0	12.0	.58	4.7
18. 0	OGsbR	*	549851.0	519487.0	549799.0	519410.0	*	93.	214.	AG	398.	13.8	.0	32.0		
19. 0	OGsbRQ	*	549801.0	519413.0	549875.0	519523.2	*	133.	34.	AG	132.	100.0	.0	12.0	.58	6.7
20. 0	OGsbR	*	549799.0	519410.0	549704.0	519371.0	*	103.	248.	AG	398.	13.8	.0	32.0		
21. 0	OGsbR	*	549704.0	519371.0	549599.0	519362.0	*	105.	265.	AG	398.	13.8	.0	32.0		
22. 0	OGsbR	*	549599.0	519362.0	549372.0	519363.0	*	227.	270.	AG	398.	13.8	.0	32.0		
23. 0	OGsbD	*	549802.0	519285.0	549662.0	518778.0	*	526.	195.	AG	584.	13.8	.0	32.0		
24. 0	OGsbD	*	549662.0	518778.0	549532.0	518333.0	*	464.	196.	AG	584.	13.8	.0	32.0		
25. 0	321eb	*	548821.0	519283.0	549546.0	519253.0	*	726.	92.	AG	943.	15.6	.0	44.0		
26. 0	321ebT	*	549546.0	519253.0	549830.0	519241.0	*	284.	92.	AG	743.	15.6	.0	44.0		
27. 0	321ebTQ	*	549760.0	519244.0	549607.9	519250.1	*	152.	272.	AG	326.	100.0	.0	24.0	.38	7.7
28. 0	321ebL	*	549641.0	519269.0	549810.0	519262.0	*	169.	92.	AG	171.	15.6	.0	32.0		
29. 0	321ebLQ	*	549763.0	519264.0	549682.7	519267.5	*	80.	273.	AG	187.	100.0	.0	12.0	.51	4.1
30. 0	321ebR	*	549505.0	519242.0	549655.0	519197.0	*	157.	107.	AG	29.	15.6	.0	32.0		
31. 0	321ebRQ	*	549649.0	519198.0	549637.6	519201.5	*	12.	287.	AG	163.	100.0	.0	12.0	.06	.6
32. 0	321ebR	*	549655.0	519197.0	549705.0	519145.0	*	72.	136.	AG	29.	15.6	.0	32.0		
33. 0	321ebR	*	549705.0	519145.0	549731.0	519050.0	*	98.	165.	AG	29.	15.6	.0	32.0		
34. 0	321ebD	*	549831.0	519239.0	550815.0	519193.0	*	985.	93.	AG	1171.	15.6	.0	44.0		
35. 0	321wb	*	550818.0	519272.0	550021.0	519309.0	*	798.	273.	AG	1550.	15.6	.0	44.0		
36. 0	321wbT	*	550021.0	519309.0	549782.0	519322.0	*	239.	273.	AG	1162.	15.6	.0	44.0		
37. 0	321wbTQ	*	549883.0	519316.0	550121.0	519305.3	*	238.	93.	AG	326.	100.0	.0	24.0	.59	12.1
38. 0	321wbL	*	550029.0	519292.0	549825.0	519295.0	*	204.	271.	AG	213.	15.6	.0			

32.0																
39. 0	321wbLQ	*	549883.0	519294.0	549983.2	519292.6	*	100.	90.	AG	187.	100.0	.0	12.0	.63	5.1
40. 0	321wbR	*	550125.0	519315.0	549978.0	519348.0	*	151.	283.	AG	175.	15.6	.0	32.0		
41. 0	321wbRQ	*	549986.0	519346.0	550056.0	519330.3	*	72.	103.	AG	163.	100.0	.0	12.0	.36	3.6
42. 0	321wbR	*	549978.0	519348.0	549918.0	519412.0	*	88.	317.	AG	175.	15.6	.0	32.0		
43. 0	321wbR	*	549918.0	519412.0	549897.0	519502.0	*	92.	347.	AG	175.	15.6	.0	32.0		
44. 0	321wbD	*	549779.0	519322.0	548825.0	519364.0	*	955.	273.	AG	1600.	15.6	.0	44.0		

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JOB: Pellissippi Site 12 NB PM 2015 RUN: Pellissippi Site 12 NB PM 2015
DATE: 12/15/2008 TIME: 14:19:12.51

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. 0	OGnbTQ	*	114	61	2.0	226	1600	92.30	1	3
6. 0	OGnbLQ	*	114	86	2.0	40	1600	92.30	1	3
8. 0	OGnbRQ	*	114	61	2.0	233	1600	92.30	1	3
15. 0	OGsbTQ	*	114	61	2.0	342	1600	92.30	1	3
17. 0	OGsbLQ	*	114	86	2.0	195	1600	92.30	1	3
19. 0	OGsbRQ	*	114	61	2.0	398	1600	92.30	1	3
27. 0	321ebTQ	*	114	75	2.0	743	3200	92.30	1	3
29. 0	321ebLQ	*	114	86	2.0	171	1600	92.30	1	3
31. 0	321ebRQ	*	114	75	2.0	29	1600	92.30	1	3
37. 0	321wbTQ	*	114	75	2.0	1162	3200	92.30	1	3
39. 0	321wbLQ	*	114	86	2.0	213	1600	92.30	1	3
41. 0	321wbRQ	*	114	75	2.0	175	1600	92.30	1	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. SE MID S	*	549763.0	518934.0	5.0	*
2. SE 164 S	*	549782.0	519013.0	5.0	*
3. SE 82 S	*	549815.0	519090.0	5.0	*
4. SE CNR	*	549882.0	519144.0	5.0	*
5. SE 82 E	*	549963.0	519167.0	5.0	*
6. SE 164 E	*	550045.0	519168.0	5.0	*
7. SE MID E	*	550127.0	519167.0	5.0	*
8. NE MID E	*	550182.0	519343.0	5.0	*
9. NE 164 E	*	550099.0	519350.0	5.0	*
10. NE 82 E	*	550017.0	519363.0	5.0	*
11. NE CNR	*	549952.0	519418.0	5.0	*
12. NE 82 N	*	549926.0	519501.0	5.0	*
13. NE 164 N	*	549944.0	519580.0	5.0	*
14. NE MID N	*	549967.0	519659.0	5.0	*
15. NW MID N	*	549872.0	519635.0	5.0	*
16. NW 164 N	*	549850.0	519555.0	5.0	*
17. NW 82 N	*	549817.0	519479.0	5.0	*
18. NW CNR	*	549763.0	519424.0	5.0	*
19. NW 82 W	*	549688.0	519393.0	5.0	*
20. NW 164 W	*	549606.0	519390.0	5.0	*
21. NW MID W	*	549524.0	519390.0	5.0	*
22. SW MID W	*	549417.0	519215.0	5.0	*
23. SW 164 W	*	549499.0	519210.0	5.0	*
24. SW 82 W	*	549581.0	519201.0	5.0	*
25. SW CNR	*	549653.0	519165.0	5.0	*
26. SW 82 S	*	549693.0	519101.0	5.0	*
27. SW 164 S	*	549693.0	519015.0	5.0	*
28. SW MID S	*	549670.0	518935.0	5.0	*

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JOB: Pellissippi Site 12 NB PM 2015 RUN: Pellissippi Site 12 NB PM 2015

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	*	.9	1.3	.9	1.0	1.2	1.3	.8	.0	.1	.1	.3	.6	.6	.6	.1	.1	.0	.0	.0	.0
5.	*	.9	1.1	.8	1.1	1.1	1.0	.8	.0	.0	.1	.2	.5	.6	.6	.1	.1	.1			

																			.0	.0	.0
10.	*	.6	1.1	.7	1.1	1.2	1.0	.8	.0	.0	.1	.2	.4	.5	.5	.2	.2	.1	.1	.0	.0
15.	*	.7	1.1	.6	1.1	1.0	1.0	.7	.0	.0	.0	.2	.4	.4	.5	.4	.4	.3	.1	.0	.0
20.	*	.5	.7	.8	.9	1.0	1.0	.7	.0	.0	.0	.1	.2	.2	.3	.5	.4	.3	.1	.1	.0
25.	*	.4	.6	.8	.8	1.1	1.0	.7	.0	.0	.0	.0	.2	.2	.2	.6	.4	.4	.2	.1	.1
30.	*	.3	.5	.7	1.0	1.0	.9	.7	.0	.0	.0	.0	.0	.1	.0	.5	.4	.4	.2	.1	.1
35.	*	.3	.6	.8	1.0	.9	.9	.7	.0	.0	.0	.0	.0	.0	.0	.5	.6	.5	.3	.2	.1
40.	*	.3	.4	.7	.8	.9	.9	.7	.0	.0	.0	.0	.0	.0	.0	.6	.6	.5	.4	.2	.1
45.	*	.3	.4	.6	.9	1.0	.7	.7	.0	.0	.0	.0	.0	.0	.0	.6	.5	.5	.5	.2	.1
50.	*	.3	.4	.5	.8	1.0	.7	.7	.0	.0	.0	.0	.0	.0	.0	.6	.5	.6	.5	.3	.2
55.	*	.2	.5	.5	.8	.9	.7	.7	.0	.0	.0	.0	.0	.0	.0	.6	.4	.6	.5	.2	.2
60.	*	.2	.4	.5	.7	.9	.7	.7	.0	.0	.0	.0	.0	.0	.0	.6	.4	.6	.6	.2	.1
65.	*	.2	.4	.5	.8	.8	.7	.8	.0	.0	.0	.0	.0	.0	.0	.5	.4	.7	.6	.3	.1
70.	*	.2	.3	.4	.7	.8	.7	.8	.0	.0	.0	.0	.0	.0	.0	.5	.4	.7	.7	.5	.2
75.	*	.2	.2	.4	.6	.8	.7	.8	.1	.1	.1	.0	.0	.0	.0	.4	.3	.7	.7	.5	.2
80.	*	.1	.2	.3	.6	.7	.6	.6	.2	.2	.1	.0	.0	.0	.0	.4	.3	.7	.7	.6	.2
85.	*	.0	.1	.2	.4	.7	.6	.6	.3	.3	.2	.1	.0	.0	.0	.4	.3	.7	.8	.9	.7
90.	*	.0	.0	.2	.3	.4	.4	.4	.5	.5	.4	.1	.0	.0	.0	.4	.3	.8	.9	1.0	.9
95.	*	.0	.0	.1	.2	.3	.3	.3	.7	.6	.7	.3	.1	.0	.0	.4	.3	.8	1.3	1.1	.9
100.	*	.0	.0	.0	.1	.1	.1	.1	.8	.7	.8	.4	.1	.1	.0	.4	.4	1.1	1.3	1.3	1.2
105.	*	.0	.0	.0	.0	.1	.1	.1	1.0	.9	1.1	.4	.3	.1	.0	.5	.4	1.2	1.4	1.4	1.0
110.	*	.0	.0	.0	.0	.0	.0	.0	1.0	1.0	1.3	.7	.3	.2	.1	.5	.6	1.3	1.5	1.3	1.1
115.	*	.0	.0	.0	.0	.0	.0	.0	1.0	1.0	1.4	.7	.3	.3	.1	.6	.6	1.4	1.8	1.2	1.1
120.	*	.0	.0	.0	.0	.0	.0	.0	1.1	1.0	1.4	.9	.3	.3	.2	.6	.6	1.7	1.5	1.0	1.2
125.	*	.0	.0	.0	.0	.0	.0	.0	1.1	1.0	1.5	.8	.4	.3	.2	.7	.7	1.8	1.4	1.0	1.2
130.	*	.0	.0	.0	.0	.0	.0	.0	1.0	1.1	1.6	.9	.4	.3	.2	.7	.8	1.7	1.3	1.1	1.1
135.	*	.0	.0	.0	.0	.0	.0	.0	.9	1.0	1.7	1.0	.4	.3	.3	.7	.8	1.8	1.3	.9	1.2
140.	*	.0	.0	.0	.0	.0	.0	.0	.9	1.0	1.7	.9	.5	.4	.3	.7	1.0	2.0	1.2	1.1	1.2
145.	*	.0	.0	.0	.0	.0	.0	.0	.8	1.1	1.7	.9	.6	.4	.2	.7	1.0	1.8	.9	1.2	1.2
150.	*	.0	.0	.0	.0	.0	.0	.0	.8	1.2	1.7	1.0	.6	.3	.3	.8	1.0	1.8	.8	1.0	1.3
155.	*	.0	.0	.0	.0	.0	.0	.0	.8	1.2	1.7	1.0	.6	.3	.3	.8	1.1	1.8	.8	1.1	1.2
160.	*	.0	.0	.0	.0	.0	.0	.0	.8	1.3	1.7	1.2	.5	.4	.3	.9	1.2	1.6	1.0	1.1	1.1
165.	*	.0	.0	.0	.0	.0	.0	.0	.8	1.4	1.7	1.0	.6	.5	.3	.8	1.2	1.6	.8	1.1	1.0
170.	*	.0	.0	.0	.0	.0	.0	.0	.8	1.4	1.6	1.0	.5	.5	.3	.9	1.2	1.6	.8	1.2	.9
175.	*	.0	.0	.0	.0	.0	.0	.0	.8	1.5	1.7	1.0	.6	.4	.4	.8	1.3	1.4	.8	1.3	.9
180.	*	.0	.0	.0	.0	.0	.0	.0	.8	1.5	1.7	1.0	.7	.4	.4	1.0	1.2	1.3	.9	1.3	.8
185.	*	.0	.1	.0	.0	.0	.0	.0	.8	1.5	1.8	.9	.8	.4	.4	.9	1.1	1.4	1.0	1.3	.9
190.	*	.2	.1	.0	.0	.0	.0	.0	.8	1.5	1.6	.9	.7	.4	.4	.7	1.1	1.1	1.0	1.1	.9
195.	*	.3	.4	.3	.0	.0	.0	.0	.8	1.5	1.7	.9	.8	.6	.5	.9	1.2	.9	1.0	1.0	.8
200.	*	.3	.6	.4	.0	.0	.0	.0	.8	1.5	1.6	.9	.8	.7	.5	.6	1.0	.9	.9	1.0	.9
205.	*	.5	.6	.4	.0	.0	.0	.0	.8	1.5	1.8	.9	1.0	1.2	.8	.5	.5	.8	.9	1.0	.9

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JOB: Pellissippi Site 12 NB PM 2015 RUN: Pellissippi Site 12 NB PM 2015

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	.5	.5	.5	.1	.0	.0	.0	.8	1.5	1.8	.8	1.1	1.2	.9	.2	.5	.8	.9	.9	.7
215.	*	.5	.5	.6	.2	.0	.0	.0	.9	1.6	2.0	1.0	1.3	1.2	.8	.2	.5	.7			

```
  .9    .9    .7
 220.  *    .4   .5    .7    .2    .0    .0    .0    .9   1.7   2.0    .9   1.2   1.1    .8    .2    .4    .6
  .8   1.0    .7
 225.  *    .3   .5    .7    .2    .1    .0    .0   1.1   1.7   2.0    .9   1.4    .9    .7    .3    .3    .6
  .7    .9    .9
 230.  *    .4   .5    .7    .2    .1    .0    .0   1.1   1.8   2.0    .9   1.3    .9    .8    .3    .3    .7
  .9    .9   1.0
 235.  *    .4   .4    .7    .2    .1    .0    .0   1.2   2.0   2.0    .8   1.4    .9    .8    .3    .3    .4
  .8    .8   1.0
 240.  *    .4   .4    .7    .2    .1    .1    .0   1.4   1.9   1.8    .9   1.3    .9    .8    .3    .3    .4
  .7    .9   1.0
 245.  *    .4   .5    .6    .3    .1    .1    .0   1.5   2.2   1.8   1.1   1.4    .8    .7    .3    .3    .4
  .7   1.1   1.0
 250.  *    .4   .5    .6    .3    .1    .1    .0   1.7   2.1   1.7   1.2   1.3    .7    .6    .2    .3    .4
  .6   1.1   1.0
 255.  *    .4   .5    .6    .3    .2    .1    .0   1.9   2.0   1.6   1.0   1.1    .7    .6    .1    .3    .4
  .6   1.0   1.0
 260.  *    .3   .4    .6    .3    .2    .1    .0   2.1   2.0   1.3    .8   1.0    .5    .6    .1    .1    .3
  .5    .8    .9
 265.  *    .3   .4    .6    .3    .5    .4    .2   1.7   1.7   1.0    .8    .9    .4    .5    .0    .1    .3
  .4    .8    .7
 270.  *    .4   .4    .6    .5    .7    .7    .4   1.3   1.4   1.0    .8    .7    .3    .5    .0    .1    .1
  .3    .7    .6
 275.  *    .4   .4    .8    .6    .7    .7    .8    .9    .9    .9    .8    .7    .4    .5    .0    .0    .1
  .2    .4    .4
 280.  *    .3   .5    .8    .8    .8    .8    .8    .6    .6    .7    .7    .5    .4    .5    .0    .0    .0
  .1    .2    .3
 285.  *    .3   .6    .8    .9   1.0    .8   1.0    .4    .5    .5    .6    .5    .3    .5    .0    .0    .0
  .0    .1    .1
 290.  *    .5   .6    .9   1.0   1.0    .9   1.1    .1    .2    .6    .6    .5    .3    .5    .0    .0    .0
  .0    .0    .0
 295.  *    .6   .6   1.1   1.1    .9    .9    .9    .0    .1    .4    .6    .5    .4    .5    .0    .0    .0
  .0    .0    .0
 300.  *    .6   .7   1.1   1.1    .8   1.0   1.1    .0    .1    .3    .4    .5    .4    .5    .0    .0    .0
  .0    .0    .0
 305.  *    .5   .7   1.0   1.1    .9   1.0   1.0    .0    .1    .2    .4    .4    .4    .5    .0    .0    .0
  .0    .0    .0
 310.  *    .6   .7   1.1   1.0    .9   1.1   1.1    .0    .1    .2    .4    .4    .4    .5    .0    .0    .0
  .0    .0    .0
 315.  *    .6   .8   1.1    .7    .7   1.1    .9    .0    .1    .1    .4    .4    .4    .5    .0    .0    .0
  .0    .0    .0
 320.  *    .6   .9   1.1    .6   1.0   1.1    .9    .1    .1    .1    .4    .4    .5    .5    .0    .0    .0
  .0    .0    .0
 325.  *    .5   .9   1.1    .8    .9   1.2   1.0    .1    .2    .1    .3    .4    .5    .5    .0    .0    .0
  .0    .0    .0
 330.  *    .6   .9   1.1    .7    .9   1.2   1.0    .1    .2    .2    .1    .5    .6    .5    .0    .0    .0
  .0    .0    .0
 335.  *    .7  1.1   1.3    .7   1.1   1.2    .9    .1    .2    .2    .2    .4    .6    .6    .0    .0    .0
  .0    .0    .0
 340.  *    .6  1.0   1.1    .7   1.0   1.2   1.0    .1    .2    .2    .2    .4    .6    .6    .0    .0    .0
  .0    .0    .0
 345.  *    .6   .9    .9    .5   1.0   1.3   1.0    .1    .1    .2    .2    .5    .6    .6    .0    .0    .0
  .0    .0    .0
 350.  *    .7  1.0   1.0    .8   1.2   1.2   1.0    .1    .1    .2    .2    .5    .6    .6    .0    .0    .0
  .0    .0    .0
 355.  *    .8  1.2    .8    .8   1.2   1.3   1.0    .0    .1    .2    .2    .5    .6    .6    .0    .0    .0
  .0    .0    .0
 360.  *    .9  1.3    .9   1.0   1.2   1.3    .8    .0    .1    .1    .3    .6    .6    .6    .1    .1    .0
  .0    .0    .0

------*----------------------------------------------------------------------------------------------------
----------------
 MAX   *    .9  1.3   1.3   1.1   1.2   1.3   1.1   2.1   2.2   2.0   1.2   1.4   1.2    .9   1.0   1.3   2.0
 1.8   1.4   1.3
 DEGR. *    0     0   335     5     0     0   290   260   245   215   160   225   205   210   180   175   140
115   105   150

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 PAGE  5
      JOB: Pellissippi Site 12 NB PM 2015                        RUN: Pellissippi Site 12 NB PM 2015

       MODEL RESULTS
       -------------

       REMARKS : In search of the angle corresponding to
                 the maximum concentration, only the first
                 angle, of the angles with same maximum
                 concentrations, is indicated as maximum.

 WIND ANGLE RANGE:   0.-360.

 WIND   * CONCENTRATION
 ANGLE *      (PPM)
 (DEGR)* REC21 REC22 REC23 REC24 REC25 REC26 REC27 REC28
 ------*------------------------------------------------
   0.  *    .0    .7    .7    .6    .9    .7    .4    .3
   5.  *    .0    .7    .7    .7    .9    .7    .5    .4
  10.  *    .0    .8    .6    .7    .9    .6    .4    .4
  15.  *    .0    .8    .6    .7    .9    .7    .7    .5
  20.  *    .0    .8    .6    .8   1.0    .9    .8    .7
  25.  *    .0    .8    .6    .9   1.1    .8    .7    .5
  30.  *    .0    .8    .7   1.0   1.1    .6    .7    .5
  35.  *    .1    .7    .8   1.1   1.1    .6    .9    .7
  40.  *    .1    .8    .8   1.1   1.0    .6    .8    .8
  45.  *    .1    .7    .6   1.2   1.0    .8    .9    .8
```

50.	*	.1	.7	.8	1.4	1.1	.8	.9	.6
55.	*	.1	.7	.9	1.4	1.0	.9	.8	.6
60.	*	.0	.9	.9	1.5	1.0	.8	.8	.5
65.	*	.0	.8	.9	1.6	.9	.9	.7	.5
70.	*	.0	1.0	1.4	1.4	.9	.8	.8	.5
75.	*	.0	1.2	1.3	1.2	.8	.8	.6	.5
80.	*	.1	1.1	1.2	1.3	.8	.4	.6	.5
85.	*	.4	1.0	1.0	1.2	.8	.5	.5	.3
90.	*	.6	.7	.9	.8	.5	.4	.2	.3
95.	*	.8	.5	.6	.6	.5	.4	.2	.3
100.	*	1.0	.4	.4	.4	.3	.2	.2	.3
105.	*	1.1	.2	.3	.2	.2	.2	.3	.3
110.	*	1.4	.0	.1	.1	.1	.2	.3	.3
115.	*	1.2	.0	.1	.1	.1	.2	.3	.3
120.	*	1.3	.0	.1	.1	.2	.2	.3	.3
125.	*	1.3	.0	.1	.1	.2	.2	.3	.3
130.	*	1.1	.0	.1	.1	.2	.2	.3	.3
135.	*	1.1	.0	.1	.1	.1	.2	.3	.3
140.	*	1.1	.0	.1	.1	.1	.2	.3	.3
145.	*	1.0	.0	.0	.1	.1	.2	.3	.3
150.	*	.9	.0	.0	.1	.1	.2	.3	.3
155.	*	.9	.0	.0	.1	.1	.3	.3	.3
160.	*	.9	.0	.0	.1	.2	.3	.3	.3
165.	*	.9	.0	.0	.0	.2	.3	.4	.3
170.	*	.9	.0	.0	.0	.2	.3	.4	.4
175.	*	.9	.0	.0	.0	.1	.3	.3	.5
180.	*	.8	.0	.0	.0	.1	.2	.5	.5
185.	*	.8	.0	.0	.0	.0	.3	.5	.3
190.	*	.8	.0	.0	.0	.0	.2	.5	.3
195.	*	.9	.0	.0	.0	.0	.1	.3	.3
200.	*	.9	.0	.0	.0	.0	.0	.2	.2
205.	*	.9	.0	.0	.0	.0	.0	.1	.1

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JOB: Pellissippi Site 12 NB PM 2015 RUN: Pellissippi Site 12 NB PM 2015

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	*	.9	.0	.0	.0	.0	.0	.0	.0
215.	*	.9	.0	.0	.0	.0	.0	.0	.0
220.	*	.9	.0	.0	.0	.0	.0	.0	.0
225.	*	1.0	.0	.0	.0	.0	.0	.0	.0
230.	*	1.0	.0	.0	.0	.0	.0	.0	.0
235.	*	1.0	.0	.0	.0	.0	.0	.0	.0
240.	*	1.0	.0	.0	.0	.0	.0	.0	.0
245.	*	1.0	.0	.0	.0	.0	.0	.0	.0
250.	*	1.0	.0	.0	.0	.0	.0	.0	.0
255.	*	1.0	.0	.0	.0	.0	.0	.0	.0
260.	*	.8	.1	.1	.1	.0	.0	.0	.0
265.	*	.7	.2	.2	.1	.1	.0	.0	.0
270.	*	.6	.3	.3	.3	.2	.0	.0	.0
275.	*	.4	.4	.4	.4	.3	.1	.0	.0
280.	*	.2	.6	.6	.6	.3	.2	.0	.0
285.	*	.1	.6	.7	.7	.4	.2	.2	.0
290.	*	.0	.8	.8	.7	.4	.4	.2	.1
295.	*	.0	.8	.8	.7	.5	.4	.2	.2
300.	*	.0	.8	.7	.7	.6	.4	.2	.2
305.	*	.0	.7	.7	.7	.6	.3	.3	.2
310.	*	.0	.7	.7	.7	.5	.3	.3	.2
315.	*	.0	.7	.7	.6	.6	.4	.3	.2
320.	*	.0	.7	.7	.6	.7	.5	.3	.2
325.	*	.0	.7	.7	.6	.8	.4	.3	.2
330.	*	.0	.7	.7	.6	.8	.5	.5	.2
335.	*	.0	.7	.7	.6	.8	.5	.4	.2
340.	*	.0	.7	.7	.6	.9	.5	.4	.1
345.	*	.0	.7	.7	.6	.8	.5	.4	.3
350.	*	.0	.7	.8	.5	.9	.6	.5	.3
355.	*	.0	.7	.7	.5	.9	.7	.4	.3
360.	*	.0	.7	.7	.6	.9	.7	.4	.3
MAX	*	1.4	1.2	1.4	1.6	1.1	.9	.9	.8
DEGR.	*	110	75	70	65	35	20	35	40

THE HIGHEST CONCENTRATION IS 2.20 PPM AT 245 DEGREES FROM REC9 .
THE 2ND HIGHEST CONCENTRATION IS 2.10 PPM AT 260 DEGREES FROM REC8 .
THE 3RD HIGHEST CONCENTRATION IS 2.00 PPM AT 215 DEGREES FROM REC10.

```
Pellissippi Site 12 BD AM 2015          60.0321.0.0000.000280.30480000    1    1
SE MID S              549763.   518934.       5.0
SE 164 S              549782.   519013.       5.0
SE 82 S               549815.   519090.       5.0
SE CNR                549882.   519144.       5.0
SE 82 E               549963.   519167.       5.0
SE 164 E              550045.   519168.       5.0
SE MID E              550127.   519167.       5.0
NE MID E              550182.   519343.       5.0
NE 164 E              550099.   519350.       5.0
NE 82 E               550017.   519363.       5.0
NE CNR                549952.   519418.       5.0
NE 82 N               549926.   519501.       5.0
NE 164 N              549944.   519580.       5.0
NE MID N              549967.   519659.       5.0
NW MID N              549872.   519635.       5.0
NW 164 N              549850.   519555.       5.0
NW 82 N               549817.   519479.       5.0
NW CNR                549763.   519424.       5.0
NW 82 W               549688.   519393.       5.0
NW 164 W              549606.   519390.       5.0
NW MID W              549524.   519390.       5.0
SW MID W              549417.   519215.       5.0
SW 164 W              549499.   519210.       5.0
SW 82 W               549581.   519201.       5.0
SW CNR                549653.   519165.       5.0
SW 82 S               549693.   519101.       5.0
SW 164 S              549693.   519015.       5.0
SW MID S              549670.   518935.       5.0
Pellissippi Site 12 BD AM 2015           44  1   0
  1
0        OGnb      AG549548.518327.549690.518773.     71513.8   0  32   30.
  1
0        OGnb      AG549690.518773.549746.518996.     71513.8   0  32   30.
  1
0        OGnbT     AG549748.518996.549818.519243.     32013.8   0  32   30.
  2
0        OGnbTQ    AG549806.519201.549751.519006.      0.  12   1
       114        61       2.0  320   92.3 1600 1 3
  1
0        OGnbL     AG549734.519000.549804.519244.      6413.8   0  32   30.
  2
0        OGnbLQ    AG549792.519202.549736.519008.      0.  12   1
       114        86       2.0   64   92.3 1600 1 3
  1
0        OGnbR     AG549759.518996.549801.519113.     33113.8   0  32   30.
  2
0        OGnbRQ    AG549800.519109.549761.519001.      0.  12   1
       114        61       2.0  331   92.3 1600 1 3
  1
0        OGnbR     AG549801.519113.549860.519169.     33113.8   0  32   30.
  1
0        OGnbR     AG549860.519169.550079.519208.     33113.8   0  32   30.
  1
0        OGnbD     AG549819.519244.550004.519895.     78713.8   0  32   30.
  1
0        OGnbD     AG550004.519896.550098.520248.     78713.8   0  32   30.
  1
0        OGsb      AG550084.520250.549898.519596.     66713.8   0  32   30.
  1
0        OGsbT     AG549892.519596.549802.519285.     28313.8   0  32   30.
  2
0        OGsbTQ    AG549822.519355.549888.519580.      0.  12   1
       114        61       2.0  283   92.3 1600 1 3
  1
0        OGsbL     AG549903.519589.549814.519285.     13113.8   0  32   30.
  2
0        OGsbLQ    AG549835.519357.549900.519577.      0.  12   1
       114        86       2.0  131   92.3 1600 1 3
  1
0        OGsbR     AG549851.519487.549799.519410.     25313.8   0  32   30.
  2
0        OGsbRQ    AG549801.519413.549850.519486.      0.  12   1
       114        61       2.0  253   92.3 1600 1 3
  1
0        OGsbR     AG549799.519410.549704.519371.     25313.8   0  32   30.
  1
0        OGsbR     AG549704.519371.549599.519362.     25313.8   0  32   30.
  1
0        OGsbR     AG549599.519362.549372.519363.     25313.8   0  32   30.
  1
0        OGsbD     AG549802.519285.549662.518778.     51613.8   0  32   30.
  1
0        OGsbD     AG549662.518778.549532.518333.     51613.8   0  32   30.
  1
0        321eb     AG548821.519283.549546.519253.    158115.6   0  44   30.
  1
0        321ebT    AG549546.519253.549830.519241.    112115.6   0  44   30.
  2
0        321ebTQ   AG549760.519244.549559.519252.      0.  24   2
       114        75       2.0 1121   92.3 3200 1 3
  1
0        321ebL    AG549641.519269.549810.519262.     39215.6   0  32   30.
  2
0        321ebLQ   AG549763.519264.549647.519269.      0.  12   1
       114        86       2.0  392   92.3 1600 1 3
```

```
  1
0         321ebR    AG549505.519242.549655.519197.      6815.6   0  32   30.
  2
0         321ebRQ   AG549649.519198.549517.519239.      0.  12   1
       114        75       2.0   68   92.3 1600 1 3
  1
0         321ebR    AG549655.519197.549705.519145.      6815.6   0  32   30.
  1
0         321ebR    AG549705.519145.549731.519050.      6815.6   0  32   30.
  1
0         321ebD    AG549831.519239.550815.519193.    158315.6   0  44   30.
  1
0         321wb     AG550818.519272.550021.519309.     77815.6   0  44   30.
  1
0         321wbT    AG550021.519309.549782.519322.     53815.6   0  44   30.
  2
0         321wbTQ   AG549883.519316.549994.519311.      0.  24   2
       114        75       2.0  538   92.3 3200 1 3
  1
0         321wbL    AG550029.519292.549825.519295.     16515.6   0  32   30.
  2
0         321wbLQ   AG549883.519294.550024.519292.      0.  12   1
       114        86       2.0  165   92.3 1600 1 3
  1
0         321wbR    AG550125.519315.549978.519348.      7515.6   0  32   30.
  2
0         321wbRQ   AG549986.519346.550115.519317.      0.  12   1
       114        75       2.0   75   92.3 1600 1 3
  1
0         321wbR    AG549978.519348.549918.519412.      7515.6   0  32   30.
  1
0         321wbR    AG549918.519412.549897.519502.      7515.6   0  32   30.
  1
0         321wbD    AG549779.519322.548825.519364.     85515.6   0  44   30.
1.0   04  1000   0Y  5  0 72
```

1 CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.2, JUNE 2000

PAGE 1

JOB: Pellissippi Site 12 BD AM 2015 RUN: Pellissippi Site 12 BD AM 2015

DATE: 12/15/2008 TIME: 14:20:25.07

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM

U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION		* X1	Y1	X2	Y2 *	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	OGnb	549548.0	518327.0	549690.0	518773.0	468.	18.	AG	715.	13.8	.0	32.0		
2. 0	OGnb	549690.0	518773.0	549746.0	518996.0	230.	14.	AG	715.	13.8	.0	32.0		
3. 0	OGnbT	549748.0	518996.0	549818.0	519243.0	257.	16.	AG	320.	13.8	.0	32.0		
4. 0	OGnbTQ	549806.0	519201.0	549777.1	519098.3	107.	196.	AG	132.	100.0	.0	12.0	.47	5.4
5. 0	OGnbL	549734.0	519000.0	549804.0	519244.0	254.	16.	AG	64.	13.8	.0	32.0		
6. 0	OGnbLQ	549792.0	519202.0	549783.7	519173.1	30.	196.	AG	187.	100.0	.0	12.0	.19	1.5
7. 0	OGnbR	549759.0	518996.0	549801.0	519113.0	124.	20.	AG	331.	13.8	.0	32.0		
8. 0	OGnbRQ	549800.0	519109.0	549762.5	519005.1	110.	200.	AG	132.	100.0	.0	12.0	.48	5.6
9. 0	OGnbR	549801.0	519113.0	549860.0	519169.0	81.	46.	AG	331.	13.8	.0	32.0		
10. 0	OGnbR	549860.0	519169.0	550079.0	519208.0	222.	80.	AG	331.	13.8	.0	32.0		
11. 0	OGnbD	549819.0	519244.0	550004.0	519895.0	677.	16.	AG	787.	13.8	.0	32.0		
12. 0	OGnbD	550004.0	519896.0	550098.0	520248.0	364.	15.	AG	787.	13.8	.0	32.0		
13. 0	OGsb	550084.0	520250.0	549898.0	519596.0	680.	196.	AG	667.	13.8	.0	32.0		
14. 0	OGsbT	549892.0	519596.0	549802.0	519285.0	324.	196.	AG	283.	13.8	.0	32.0		
15. 0	OGsbTQ	549822.0	519355.0	549848.6	519445.6	94.	16.	AG	132.	100.0	.0	12.0	.41	4.8
16. 0	OGsbL	549903.0	519589.0	549814.0	519285.0	317.	196.	AG	131.	13.8	.0	32.0		
17. 0	OGsbLQ	549835.0	519357.0	549852.4	519416.1	62.	16.	AG	187.	100.0	.0	12.0	.39	3.1
18. 0	OGsbR	549851.0	519487.0	549799.0	519410.0	93.	214.	AG	253.	13.8	.0	32.0		
19. 0	OGsbRQ	549801.0	519413.0	549848.1	519483.1	84.	34.	AG	132.	100.0	.0	12.0	.37	4.3
20. 0	OGsbR	549799.0	519410.0	549704.0	519371.0	103.	248.	AG	253.	13.8	.0	32.0		
21. 0	OGsbR	549704.0	519371.0	549599.0	519362.0	105.	265.	AG	253.	13.8	.0	32.0		
22. 0	OGsbR	549599.0	519362.0	549372.0	519363.0	227.	270.	AG	253.	13.8	.0	32.0		
23. 0	OGsbD	549802.0	519285.0	549662.0	518778.0	526.	195.	AG	516.	13.8	.0	32.0		
24. 0	OGsbD	549662.0	518778.0	549532.0	518333.0	464.	196.	AG	516.	13.8	.0	32.0		
25. 0	321eb	548821.0	519283.0	549546.0	519253.0	726.	92.	AG	1581.	15.6	.0	44.0		
26. 0	321ebT	549546.0	519253.0	549830.0	519241.0	284.	92.	AG	1121.	15.6	.0	44.0		
27. 0	321ebTQ	549760.0	519244.0	549530.5	519253.2	230.	272.	AG	326.	100.0	.0	24.0	.57	11.7
28. 0	321ebL	549641.0	519269.0	549810.0	519262.0	169.	92.	AG	392.	15.6	.0	32.0		
29. 0	321ebLQ	549763.0	519264.0	548924.2	519300.0	840.	272.	AG	187.	100.0	.0	12.0	1.17	42.7
30. 0	321ebR	549505.0	519242.0	549655.0	519197.0	157.	107.	AG	68.	15.6	.0	32.0		
31. 0	321ebRQ	549649.0	519198.0	549622.3	519206.2	28.	287.	AG	163.	100.0	.0	12.0	.14	1.4
32. 0	321ebR	549655.0	519197.0	549705.0	519145.0	72.	136.	AG	68.	15.6	.0	32.0		
33. 0	321ebR	549705.0	519145.0	549731.0	519050.0	98.	165.	AG	68.	15.6	.0	32.0		
34. 0	321ebD	549831.0	519239.0	550815.0	519193.0	985.	93.	AG	1583.	15.6	.0	44.0		
35. 0	321wb	550818.0	519272.0	550021.0	519309.0	798.	273.	AG	778.	15.6	.0	44.0		
36. 0	321wbT	550021.0	519309.0	549782.0	519322.0	239.	273.	AG	538.	15.6	.0	44.0		
37. 0	321wbTQ	549883.0	519316.0	549993.2	519311.1	110.	92.	AG	326.	100.0	.0	24.0	.27	5.6
38. 0	321wbL	550029.0	519292.0	549825.0	519295.0	204.	271.	AG	165.	15.6	.0			

32.0
39. 0 321wbLQ * 549883.0 519294.0 549960.6 519292.9 * 78. 92. AG 187. 100.0 .0
12.0 .49 3.9
40. 0 321wbR * 550125.0 519315.0 549978.0 519348.0 * 151. 283. AG 75. 15.6 .0
32.0
41. 0 321wbRQ * 549986.0 519346.0 550016.0 519339.3 * 31. 103. AG 163. 100.0 .0
12.0 .15 1.6
42. 0 321wbR * 549978.0 519348.0 549918.0 519412.0 * 88. 317. AG 75. 15.6 .0
32.0
43. 0 321wbR * 549918.0 519412.0 549897.0 519502.0 * 92. 347. AG 75. 15.6 .0
32.0
44. 0 321wbD * 549779.0 519322.0 548825.0 519364.0 * 955. 273. AG 855. 15.6 .0
44.0
1

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JOB: Pellissippi Site 12 BD AM 2015 RUN: Pellissippi Site 12 BD AM 2015
DATE: 12/15/2008 TIME: 14:20:25.07

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. 0	OGnbTQ	*	114	61	2.0	320	1600	92.30	1	3
6. 0	OGnbLQ	*	114	86	2.0	64	1600	92.30	1	3
8. 0	OGnbRQ	*	114	61	2.0	331	1600	92.30	1	3
15. 0	OGsbTQ	*	114	61	2.0	283	1600	92.30	1	3
17. 0	OGsbLQ	*	114	86	2.0	131	1600	92.30	1	3
19. 0	OGsbRQ	*	114	61	2.0	253	1600	92.30	1	3
27. 0	321ebTQ	*	114	75	2.0	1121	3200	92.30	1	3
29. 0	321ebLQ	*	114	86	2.0	392	1600	92.30	1	3
31. 0	321ebRQ	*	114	75	2.0	68	1600	92.30	1	3
37. 0	321wbTQ	*	114	75	2.0	538	3200	92.30	1	3
39. 0	321wbLQ	*	114	86	2.0	165	1600	92.30	1	3
41. 0	321wbRQ	*	114	75	2.0	75	1600	92.30	1	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. SE MID S	*	549763.0	518934.0	5.0	*
2. SE 164 S	*	549782.0	519013.0	5.0	*
3. SE 82 S	*	549815.0	519090.0	5.0	*
4. SE CNR	*	549882.0	519144.0	5.0	*
5. SE 82 E	*	549963.0	519167.0	5.0	*
6. SE 164 E	*	550045.0	519168.0	5.0	*
7. SE MID E	*	550127.0	519167.0	5.0	*
8. NE MID E	*	550182.0	519343.0	5.0	*
9. NE 164 E	*	550099.0	519350.0	5.0	*
10. NE 82 E	*	550017.0	519363.0	5.0	*
11. NE CNR	*	549952.0	519418.0	5.0	*
12. NE 82 N	*	549926.0	519501.0	5.0	*
13. NE 164 N	*	549944.0	519580.0	5.0	*
14. NE MID N	*	549967.0	519659.0	5.0	*
15. NW MID N	*	549872.0	519635.0	5.0	*
16. NW 164 N	*	549850.0	519555.0	5.0	*
17. NW 82 N	*	549817.0	519479.0	5.0	*
18. NW CNR	*	549763.0	519424.0	5.0	*
19. NW 82 W	*	549688.0	519393.0	5.0	*
20. NW 164 W	*	549606.0	519390.0	5.0	*
21. NW MID W	*	549524.0	519390.0	5.0	*
22. SW MID W	*	549417.0	519215.0	5.0	*
23. SW 164 W	*	549499.0	519210.0	5.0	*
24. SW 82 W	*	549581.0	519201.0	5.0	*
25. SW CNR	*	549653.0	519165.0	5.0	*
26. SW 82 S	*	549693.0	519101.0	5.0	*
27. SW 164 S	*	549693.0	519015.0	5.0	*
28. SW MID S	*	549670.0	518935.0	5.0	*

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JOB: Pellissippi Site 12 BD AM 2015 RUN: Pellissippi Site 12 BD AM 2015

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND * CONCENTRATION
ANGLE * (PPM)
(DEGR)* REC1 REC2 REC3 REC4 REC5 REC6 REC7 REC8 REC9 REC10 REC11 REC12 REC13 REC14 REC15 REC16 REC17
REC18 REC19 REC20

0. * .9 1.3 .7 1.0 1.3 .7 .6 .0 .0 .2 .3 .6 .6 .7 .0 .0 .0
.0 .0 .0
5. * .9 1.3 .8 1.1 1.2 .7 .6 .0 .0 .1 .2 .5 .7 .6 .1 .1 .1

.0 .0 .0

WIND ANGLE (DEGR)	*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
10.	*	.8	1.1	.9	1.1	.9	.7	.6	.0	.0	.0	.2	.5	.6	.6	.1	.2	.1	.0	.0	.0
15.	*	.8	1.2	.7	1.0	.9	.7	.6	.0	.0	.0	.2	.3	.4	.4	.4	.3	.2	.1	.0	.0
20.	*	.6	.9	.6	1.0	1.0	.7	.6	.0	.0	.0	.0	.3	.4	.4	.4	.4	.2	.2	.0	.0
25.	*	.4	.6	.6	.9	.9	.7	.6	.0	.0	.0	.0	.2	.2	.3	.5	.5	.3	.2	.1	.0
30.	*	.3	.5	.7	.9	.8	.7	.6	.0	.0	.0	.0	.1	.1	.1	.6	.4	.4	.2	.2	.0
35.	*	.2	.5	.6	.7	.8	.7	.6	.0	.0	.0	.0	.0	.0	.0	.5	.5	.4	.2	.2	.1
40.	*	.2	.4	.6	.8	.8	.7	.6	.0	.0	.0	.0	.0	.0	.0	.5	.5	.4	.3	.2	.2
45.	*	.3	.3	.7	.8	.8	.7	.6	.0	.0	.0	.0	.0	.0	.0	.5	.5	.4	.5	.2	.2
50.	*	.3	.3	.5	.7	.8	.7	.8	.0	.0	.0	.0	.0	.0	.0	.5	.4	.3	.4	.1	.1
55.	*	.3	.3	.5	.7	.8	.8	.8	.0	.0	.0	.0	.0	.0	.0	.5	.4	.3	.5	.2	.1
60.	*	.3	.3	.5	.7	.9	.8	.8	.0	.0	.0	.0	.0	.0	.0	.5	.4	.3	.5	.2	.1
65.	*	.3	.3	.5	.6	1.0	.8	.8	.0	.0	.0	.0	.0	.0	.0	.4	.4	.5	.5	.2	.1
70.	*	.1	.3	.4	.6	.9	.7	.7	.0	.0	.0	.0	.0	.0	.0	.4	.3	.5	.6	.3	.1
75.	*	.1	.3	.4	.6	.8	.7	.7	.0	.0	.0	.0	.0	.0	.0	.4	.3	.5	.6	.4	.1
80.	*	.1	.1	.3	.6	.7	.7	.7	.1	.1	.1	.0	.0	.0	.0	.4	.3	.5	.6	.5	.1
85.	*	.0	.1	.2	.5	.7	.6	.6	.1	.1	.1	.0	.0	.0	.0	.4	.3	.6	.6	.5	.3
90.	*	.0	.1	.1	.3	.6	.5	.5	.3	.3	.3	.1	.0	.0	.0	.4	.3	.6	.9	.7	.5
95.	*	.0	.0	.1	.2	.3	.3	.3	.4	.4	.3	.2	.0	.0	.0	.4	.3	.7	.9	.9	.8
100.	*	.0	.0	.0	.1	.2	.2	.2	.5	.5	.5	.2	.2	.0	.0	.4	.3	.8	.9	.9	.8
105.	*	.0	.0	.0	.1	.1	.1	.1	.6	.7	.6	.4	.2	.0	.0	.4	.5	.9	1.1	.9	.9
110.	*	.0	.0	.0	.0	.0	.0	.0	.7	.7	.6	.4	.2	.2	.0	.5	.5	1.0	1.1	.8	1.0
115.	*	.0	.0	.0	.0	.0	.0	.0	.7	.7	.6	.4	.3	.2	.1	.6	.5	1.0	1.3	.8	.9
120.	*	.0	.0	.0	.0	.0	.0	.0	.7	.7	.6	.5	.3	.2	.2	.6	.6	1.1	1.3	.8	.8
125.	*	.0	.0	.0	.0	.0	.0	.0	.7	.7	.6	.5	.3	.2	.2	.6	.6	1.2	1.2	.7	.8
130.	*	.0	.0	.0	.0	.0	.0	.0	.7	.6	.6	.5	.3	.3	.2	.6	.6	1.3	1.2	.8	1.0
135.	*	.0	.0	.0	.0	.0	.0	.0	.7	.6	.6	.5	.3	.3	.2	.6	.6	1.2	1.0	.8	1.1
140.	*	.0	.0	.0	.0	.0	.0	.0	.6	.6	.6	.4	.3	.3	.2	.6	.7	1.4	1.0	.7	1.1
145.	*	.0	.0	.0	.0	.0	.0	.0	.6	.6	.6	.6	.3	.3	.2	.5	.6	1.5	.8	.9	1.1
150.	*	.0	.0	.0	.0	.0	.0	.0	.6	.6	.5	.6	.4	.3	.2	.5	.6	1.6	.6	1.0	1.2
155.	*	.0	.0	.0	.0	.0	.0	.0	.6	.6	.5	.6	.4	.2	.2	.6	.7	1.5	.5	1.0	1.1
160.	*	.0	.0	.0	.0	.0	.0	.0	.6	.6	.5	.6	.4	.2	.2	.6	.7	1.4	.6	1.0	1.2
165.	*	.0	.0	.0	.0	.0	.0	.0	.6	.6	.7	.5	.4	.2	.1	.6	.6	1.3	.7	1.0	1.1
170.	*	.0	.0	.0	.0	.0	.0	.0	.6	.6	.7	.6	.5	.2	.1	.5	.9	1.3	.8	1.0	1.0
175.	*	.0	.0	.0	.0	.0	.0	.0	.6	.6	.6	.7	.6	.2	.2	.5	.9	1.3	.5	1.1	1.0
180.	*	.0	.1	.0	.0	.0	.0	.0	.6	.6	.7	.7	.6	.4	.3	.5	.9	1.2	.6	1.1	1.0
185.	*	.2	.1	.0	.0	.0	.0	.0	.6	.6	.8	.7	.7	.4	.3	.4	1.0	1.2	.9	1.0	1.0
190.	*	.2	.2	.3	.0	.0	.0	.0	.6	.6	.8	.7	.5	.5	.4	.4	.8	1.0	1.0	.9	1.2
195.	*	.3	.4	.4	.0	.0	.0	.0	.6	.6	1.0	.7	.6	.5	.4	.5	.7	.8	1.0	.9	1.0
200.	*	.4	.6	.5	.0	.0	.0	.0	.6	.6	1.0	.7	.8	.6	.4	.5	.9	.7	.8	.9	.9
205.	*	.5	.7	.6	.2	.0	.0	.0	.6	.6	1.1	.8	1.1	.7	.7	.4	.5	.7	.8	.9	1.0

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WIND ANGLE (DEGR)	* CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210. *	.6	.7	.7	.3	.0	.0	.0	.6	.6	1.2	.8	1.0	.8	.7	.4	.5	.7	.8	.9	1.0
215. *	.6	.5	.8	.3	.0	.0	.0	.6	.6	1.3	.8	.9	1.1	1.0	.4	.4	.6			

																			.8	1.1	.9
220.	*	.4	.5	.8	.3	.1	.0	.0	.6	.6	1.5	.7	1.0	1.0	1.0	.5	.5	.5	.8	1.0	.9
225.	*	.4	.6	.8	.4	.1	.0	.0	.6	.6	1.4	.7	1.1	1.1	1.1	.4	.5	.6	.8	1.0	.9
230.	*	.4	.7	.7	.4	.1	.0	.0	.6	.8	1.5	.7	1.2	1.1	.9	.3	.4	.6	.8	1.0	.9
235.	*	.4	.7	.7	.4	.2	.0	.0	.6	.7	1.5	.9	1.1	.9	.8	.3	.4	.6	.8	1.0	.9
240.	*	.4	.8	.7	.5	.2	.0	.0	.6	1.1	1.5	1.0	1.1	.8	.8	.3	.3	.6	.9	1.0	.9
245.	*	.4	.6	.7	.5	.2	.0	.0	.7	1.0	1.6	1.1	.9	.7	.8	.3	.3	.5	.7	.9	.9
250.	*	.4	.6	.7	.5	.2	.0	.0	1.0	1.1	1.6	1.0	.8	.7	.8	.3	.3	.5	.5	.9	.9
255.	*	.4	.6	.7	.5	.3	.0	.0	1.2	1.4	1.4	1.1	.8	.7	.7	.2	.3	.4	.5	1.0	.9
260.	*	.4	.8	.7	.4	.4	.1	.0	1.0	1.4	1.1	1.0	.8	.6	.5	.0	.2	.3	.5	.8	.7
265.	*	.4	.7	.7	.5	.7	.5	.6	1.0	1.2	1.0	.8	.7	.4	.5	.0	.0	.2	.4	.8	.7
270.	*	.4	.7	.8	.7	.9	.7	.8	.9	1.0	.9	.8	.5	.4	.5	.0	.0	.1	.3	.4	.5
275.	*	.4	.8	.9	1.0	1.1	.7	.8	.7	.7	.7	.7	.4	.4	.5	.0	.0	.0	.1	.2	.3
280.	*	.4	.8	1.1	1.1	1.3	.8	.9	.4	.5	.4	.5	.4	.4	.5	.0	.0	.0	.0	.1	.1
285.	*	.5	.9	1.1	1.4	1.2	.9	1.0	.1	.2	.4	.4	.4	.4	.5	.0	.0	.0	.0	.0	.1
290.	*	.5	1.2	1.3	1.5	1.4	1.0	1.2	.1	.1	.1	.3	.4	.4	.5	.0	.0	.0	.0	.0	.0
295.	*	.6	1.2	1.4	1.4	1.2	1.0	1.2	.1	.1	.1	.3	.4	.4	.5	.0	.0	.0	.0	.0	.0
300.	*	.8	1.2	1.5	1.4	1.1	1.3	1.1	.1	.1	.1	.3	.4	.4	.5	.0	.0	.0	.0	.0	.0
305.	*	.8	1.3	1.3	1.3	1.1	1.1	1.0	.1	.1	.1	.2	.4	.4	.5	.0	.0	.0	.0	.0	.0
310.	*	.8	1.3	1.4	1.2	1.0	1.0	.9	.1	.1	.1	.2	.4	.5	.5	.0	.0	.0	.0	.0	.0
315.	*	.7	1.3	1.4	1.1	1.0	1.1	.9	.1	.1	.1	.2	.4	.5	.5	.0	.0	.0	.0	.0	.0
320.	*	.8	1.4	1.4	.9	1.0	1.1	.9	.1	.1	.1	.2	.4	.5	.5	.0	.0	.0	.0	.0	.0
325.	*	.9	1.4	1.3	.8	1.0	1.1	.8	.1	.1	.1	.2	.4	.5	.5	.0	.0	.0	.0	.0	.0
330.	*	.8	1.4	1.3	.6	1.0	1.1	.8	.1	.1	.1	.2	.4	.5	.5	.0	.0	.0	.0	.0	.0
335.	*	.7	1.4	1.4	.6	1.1	1.0	.7	.2	.2	.1	.2	.5	.6	.6	.0	.0	.0	.0	.0	.0
340.	*	.9	1.5	1.3	.7	1.2	.9	.7	.1	.2	.2	.3	.4	.6	.6	.0	.0	.0	.0	.0	.0
345.	*	1.0	1.6	1.2	.8	1.2	.9	.7	.0	.2	.2	.3	.5	.6	.6	.0	.0	.0	.0	.0	.0
350.	*	1.1	1.4	1.2	.8	1.2	.9	.6	.0	.1	.2	.3	.5	.6	.6	.0	.0	.0	.0	.0	.0
355.	*	.9	1.4	.8	.8	1.2	.8	.6	.0	.1	.2	.3	.6	.6	.6	.0	.0	.0	.0	.0	.0
360.	*	.9	1.3	.7	1.0	1.3	.7	.6	.0	.0	.2	.3	.6	.6	.7	.0	.0	.0	.0	.0	.0
MAX	*	1.1	1.6	1.5	1.5	1.4	1.3	1.2	1.2	1.4	1.6	1.1	1.2	1.1	1.1	.6	1.0	1.6	1.3	1.1	1.2
DEGR.	*	350	345	300	290	290	300	290	255	255	250	255	230	215	225	30	185	150	115	175	150

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PAGE 5
JOB: Pellissippi Site 12 BD AM 2015 RUN: Pellissippi Site 12 BD AM 2015

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	*	.0	1.0	1.0	1.4	1.1	.7	.5	.4
5.	*	.0	1.0	1.0	1.4	1.2	.8	.6	.5
10.	*	.0	1.0	1.0	1.4	1.2	.8	.6	.5
15.	*	.0	1.0	1.1	1.4	1.1	.8	.4	.4
20.	*	.0	1.0	1.0	1.4	1.2	.7	.5	.5
25.	*	.0	1.0	1.1	1.4	1.2	.6	.7	.6
30.	*	.0	1.0	1.2	1.5	1.1	.5	.8	.7
35.	*	.0	1.0	1.3	1.5	1.1	.7	.8	.6
40.	*	.0	1.0	1.4	1.5	1.1	.7	.7	.7
45.	*	.1	1.0	1.6	1.5	1.0	.7	.8	.7

50.	*	.1	1.3	1.5	1.5	1.2	.9	.9	.6
55.	*	.1	1.4	1.7	1.5	1.2	.7	.8	.7
60.	*	.1	1.5	1.5	1.6	.9	.8	.8	.7
65.	*	.1	1.4	1.7	1.9	1.0	.7	.8	.7
70.	*	.1	1.5	1.8	1.6	.9	.7	.8	.7
75.	*	.1	1.4	1.8	1.7	.7	.7	.8	.5
80.	*	.1	1.5	1.6	1.5	.8	.7	.7	.5
85.	*	.2	1.4	1.2	1.3	.6	.7	.6	.5
90.	*	.4	1.1	1.0	1.0	.6	.6	.6	.4
95.	*	.6	.8	.6	.7	.4	.5	.5	.4
100.	*	.9	.5	.4	.6	.3	.4	.5	.4
105.	*	.8	.3	.3	.3	.3	.4	.4	.4
110.	*	.9	.0	.1	.3	.2	.4	.3	.4
115.	*	.9	.0	.0	.2	.3	.4	.3	.4
120.	*	1.0	.0	.0	.1	.2	.4	.3	.4
125.	*	1.0	.0	.0	.1	.2	.4	.3	.4
130.	*	1.1	.0	.0	.1	.2	.4	.4	.4
135.	*	1.1	.0	.0	.1	.2	.3	.4	.4
140.	*	1.1	.0	.0	.1	.2	.3	.4	.4
145.	*	1.1	.0	.0	.1	.1	.2	.4	.4
150.	*	1.1	.0	.0	.2	.2	.2	.4	.4
155.	*	1.1	.0	.0	.2	.2	.2	.4	.4
160.	*	1.1	.0	.0	.2	.2	.3	.4	.4
165.	*	1.0	.0	.0	.0	.2	.3	.4	.5
170.	*	1.0	.0	.0	.0	.2	.2	.4	.4
175.	*	1.1	.0	.0	.0	.2	.2	.5	.5
180.	*	1.0	.0	.0	.0	.2	.3	.4	.5
185.	*	.9	.0	.0	.0	.1	.3	.5	.4
190.	*	.9	.0	.0	.0	.0	.3	.4	.3
195.	*	.9	.0	.0	.0	.0	.2	.4	.3
200.	*	.9	.0	.0	.0	.0	.0	.3	.2
205.	*	.9	.0	.0	.0	.0	.0	.0	.1

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JOB: Pellissippi Site 12 BD AM 2015 RUN: Pellissippi Site 12 BD AM 2015

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	*	.9	.0	.0	.0	.0	.0	.0	.0
215.	*	.9	.0	.0	.0	.0	.0	.0	.0
220.	*	.9	.0	.0	.0	.0	.0	.0	.0
225.	*	.9	.0	.0	.0	.0	.0	.0	.0
230.	*	.9	.0	.0	.0	.0	.0	.0	.0
235.	*	.9	.0	.0	.0	.0	.0	.0	.0
240.	*	.9	.0	.0	.0	.0	.0	.0	.0
245.	*	.9	.0	.0	.0	.0	.0	.0	.0
250.	*	.9	.0	.0	.0	.0	.0	.0	.0
255.	*	.9	.1	.1	.1	.0	.0	.0	.0
260.	*	.7	.2	.2	.1	.1	.0	.0	.0
265.	*	.7	.4	.4	.3	.1	.0	.0	.0
270.	*	.5	.5	.5	.5	.3	.1	.0	.0
275.	*	.3	.7	.8	.8	.5	.1	.0	.0
280.	*	.1	1.0	.9	.9	.5	.3	.1	.0
285.	*	.1	1.0	1.0	1.0	.7	.4	.1	.1
290.	*	.0	1.3	1.3	1.2	.8	.5	.3	.1
295.	*	.0	1.3	1.3	1.2	.9	.5	.4	.1
300.	*	.0	1.3	1.2	1.3	1.0	.6	.4	.3
305.	*	.0	1.2	1.2	1.3	1.1	.6	.4	.4
310.	*	.0	1.2	1.2	1.3	1.2	.6	.4	.4
315.	*	.0	1.2	1.1	1.2	1.1	.7	.5	.4
320.	*	.0	1.1	1.1	1.3	1.1	.6	.4	.4
325.	*	.0	1.0	1.0	1.3	1.2	.6	.5	.3
330.	*	.0	1.0	1.0	1.3	1.2	.7	.5	.4
335.	*	.0	1.0	1.0	1.4	1.2	.7	.6	.4
340.	*	.0	1.0	1.0	1.3	1.2	.7	.5	.5
345.	*	.0	1.0	1.0	1.4	1.2	.7	.5	.5
350.	*	.0	1.0	1.0	1.5	1.2	.7	.5	.4
355.	*	.0	1.0	1.0	1.4	1.1	.7	.5	.5
360.	*	.0	1.0	1.0	1.4	1.1	.7	.5	.4
MAX	*	1.1	1.5	1.8	1.9	1.2	.9	.9	.7
DEGR.	*	130	60	75	65	5	50	50	30

THE HIGHEST CONCENTRATION IS 1.90 PPM AT 65 DEGREES FROM REC24.
THE 2ND HIGHEST CONCENTRATION IS 1.80 PPM AT 75 DEGREES FROM REC23.
THE 3RD HIGHEST CONCENTRATION IS 1.60 PPM AT 345 DEGREES FROM REC2 .

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Pellissippi Site 12 BD PM 2015          60.0321.0.0000.000280.30480000    1    1
SE MID S               549763.   518934.       5.0
SE 164 S               549782.   519013.       5.0
SE 82 S                549815.   519090.       5.0
SE CNR                 549882.   519144.       5.0
SE 82 E                549963.   519167.       5.0
SE 164 E               550045.   519168.       5.0
SE MID E               550127.   519167.       5.0
NE MID E               550182.   519343.       5.0
NE 164 E               550099.   519350.       5.0
NE 82 E                550017.   519363.       5.0
NE CNR                 549952.   519418.       5.0
NE 82 N                549926.   519501.       5.0
NE 164 N               549944.   519580.       5.0
NE MID N               549967.   519659.       5.0
NW MID N               549872.   519635.       5.0
NW 164 N               549850.   519555.       5.0
NW 82 N                549817.   519479.       5.0
NW CNR                 549763.   519424.       5.0
NW 82 W                549688.   519393.       5.0
NW 164 W               549606.   519390.       5.0
NW MID W               549524.   519390.       5.0
SW MID W               549417.   519215.       5.0
SW 164 W               549499.   519210.       5.0
SW 82 W                549581.   519201.       5.0
SW CNR                 549653.   519165.       5.0
SW 82 S                549693.   519101.       5.0
SW 164 S               549693.   519015.       5.0
SW MID S               549670.   518935.       5.0
Pellissippi Site 12 BD PM 2015           44  1   0
  1
0         OGnb      AG549548.518327.549690.518773.     49013.8   0  32   30.
  1
0         OGnb      AG549690.518773.549746.518996.     49013.8   0  32   30.
  1
0         OGnbT     AG549748.518996.549818.519243.     22113.8   0  32   30.
  2
0         OGnbTQ    AG549806.519201.549751.519006.      0.  12   1
       114        61       2.0  221   92.3 1600 1 3
  1
0         OGnbL     AG549734.519000.549804.519244.      4013.8   0  32   30.
  2
0         OGnbLQ    AG549792.519202.549736.519008.      0.  12   1
       114        86       2.0   40   92.3 1600 1 3
  1
0         OGnbR     AG549759.518996.549801.519113.     22913.8   0  32   30.
  2
0         OGnbRQ    AG549800.519109.549761.519001.      0.  12   1
       114        61       2.0  229   92.3 1600 1 3
  1
0         OGnbR     AG549801.519113.549860.519169.     22913.8   0  32   30.
  1
0         OGnbR     AG549860.519169.550079.519208.     22913.8   0  32   30.
  1
0         OGnbD     AG549819.519244.550004.519895.     56113.8   0  32   30.
  1
0         OGnbD     AG550004.519896.550098.520248.     56113.8   0  32   30.
  1
0         OGsb      AG550084.520250.549898.519596.     92013.8   0  32   30.
  1
0         OGsbT     AG549892.519596.549802.519285.     33713.8   0  32   30.
  2
0         OGsbTQ    AG549822.519355.549888.519580.      0.  12   1
       114        61       2.0  337   92.3 1600 1 3
  1
0         OGsbL     AG549903.519589.549814.519285.     19213.8   0  32   30.
  2
0         OGsbLQ    AG549835.519357.549900.519577.      0.  12   1
       114        86       2.0  192   92.3 1600 1 3
  1
0         OGsbR     AG549851.519487.549799.519410.     39113.8   0  32   30.
  2
0         OGsbRQ    AG549801.519413.549850.519486.      0.  12   1
       114        61       2.0  391   92.3 1600 1 3
  1
0         OGsbR     AG549799.519410.549704.519371.     39113.8   0  32   30.
  1
0         OGsbR     AG549704.519371.549599.519362.     39113.8   0  32   30.
  1
0         OGsbR     AG549599.519362.549372.519363.     39113.8   0  32   30.
  1
0         OGsbD     AG549802.519285.549662.518778.     57413.8   0  32   30.
  1
0         OGsbD     AG549662.518778.549532.518333.     57413.8   0  32   30.
  1
0         321eb     AG548821.519283.549546.519253.     92715.6   0  44   30.
  1
0         321ebT    AG549546.519253.549830.519241.     73115.6   0  44   30.
  2
0         321ebTQ   AG549760.519244.549559.519252.      0.  24   2
       114        75       2.0  731   92.3 3200 1 3
  1
0         321ebL    AG549641.519269.549810.519262.     16815.6   0  32   30.
  2
0         321ebLQ   AG549763.519264.549647.519269.      0.  12   1
       114        86       2.0  168   92.3 1600 1 3
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  1
0        321ebR    AG549505.519242.549655.519197.      2815.6   0  32   30.
  2
0        321ebRQ   AG549649.519198.549517.519239.      0.  12   1
       114        75       2.0   28   92.3 1600 1 3
  1
0        321ebR    AG549655.519197.549705.519145.      2815.6   0  32   30.
  1
0        321ebR    AG549705.519145.549731.519050.      2815.6   0  32   30.
  1
0        321ebD    AG549831.519239.550815.519193.    115215.6   0  44   30.
  1
0        321wb     AG550818.519272.550021.519309.    152415.6   0  44   30.
  1
0        321wbT    AG550021.519309.549782.519322.    114315.6   0  44   30.
  2
0        321wbTQ   AG549883.519316.549994.519311.      0.  24   2
       114        75       2.0 1143   92.3 3200 1 3
  1
0        321wbL    AG550029.519292.549825.519295.     20915.6   0  32   30.
  2
0        321wbLQ   AG549883.519294.550024.519292.      0.  12   1
       114        86       2.0  209   92.3 1600 1 3
  1
0        321wbR    AG550125.519315.549978.519348.     17215.6   0  32   30.
  2
0        321wbRQ   AG549986.519346.550115.519317.      0.  12   1
       114        75       2.0  172   92.3 1600 1 3
  1
0        321wbR    AG549978.519348.549918.519412.     17215.6   0  32   30.
  1
0        321wbR    AG549918.519412.549897.519502.     17215.6   0  32   30.
  1
0        321wbD    AG549779.519322.548825.519364.    157415.6   0  44   30.
1.0   04  1000   0Y  5  0 72
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1 CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.2, JUNE 2000

PAGE 1

JOB: Pellissippi Site 12 BD PM 2015 RUN: Pellissippi Site 12 BD PM 2015

DATE: 12/15/2008 TIME: 14:20:45.12

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM

U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK	DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	OGnb	549548.0	518327.0	549690.0	518773.0	468.	18.	AG	490.	13.8	.0	32.0		
2. 0	OGnb	549690.0	518773.0	549746.0	518996.0	230.	14.	AG	490.	13.8	.0	32.0		
3. 0	OGnbT	549748.0	518996.0	549818.0	519243.0	257.	16.	AG	221.	13.8	.0	32.0		
4. 0	OGnbTQ	549806.0	519201.0	549786.0	519130.1	74.	196.	AG	132.	100.0	.0	12.0	.32	3.7
5. 0	OGnbL	549734.0	519000.0	549804.0	519244.0	254.	16.	AG	40.	13.8	.0	32.0		
6. 0	OGnbLQ	549792.0	519202.0	549786.8	519183.9	19.	196.	AG	187.	100.0	.0	12.0	.12	1.0
7. 0	OGnbR	549759.0	518996.0	549801.0	519113.0	124.	20.	AG	229.	13.8	.0	32.0		
8. 0	OGnbRQ	549800.0	519109.0	549774.1	519037.2	76.	200.	AG	132.	100.0	.0	12.0	.33	3.9
9. 0	OGnbR	549801.0	519113.0	549860.0	519169.0	81.	46.	AG	229.	13.8	.0	32.0		
10. 0	OGnbR	549860.0	519169.0	550079.0	519208.0	222.	80.	AG	229.	13.8	.0	32.0		
11. 0	OGnbD	549819.0	519244.0	550004.0	519895.0	677.	16.	AG	561.	13.8	.0	32.0		
12. 0	OGnbD	550004.0	519896.0	550098.0	520248.0	364.	15.	AG	561.	13.8	.0	32.0		
13. 0	OGsb	550084.0	520250.0	549898.0	519596.0	680.	196.	AG	920.	13.8	.0	32.0		
14. 0	OGsbT	549892.0	519596.0	549802.0	519285.0	324.	196.	AG	337.	13.8	.0	32.0		
15. 0	OGsbTQ	549822.0	519355.0	549853.6	519462.9	112.	16.	AG	132.	100.0	.0	12.0	.49	5.7
16. 0	OGsbL	549903.0	519589.0	549814.0	519285.0	317.	196.	AG	192.	13.8	.0	32.0		
17. 0	OGsbLQ	549835.0	519357.0	549860.6	519443.6	90.	16.	AG	187.	100.0	.0	12.0	.57	4.6
18. 0	OGsbR	549851.0	519487.0	549799.0	519410.0	93.	214.	AG	391.	13.8	.0	32.0		
19. 0	OGsbRQ	549801.0	519413.0	549873.7	519521.3	130.	34.	AG	132.	100.0	.0	12.0	.57	6.6
20. 0	OGsbR	549799.0	519410.0	549704.0	519371.0	103.	248.	AG	391.	13.8	.0	32.0		
21. 0	OGsbR	549704.0	519371.0	549599.0	519362.0	105.	265.	AG	391.	13.8	.0	32.0		
22. 0	OGsbR	549599.0	519362.0	549372.0	519363.0	227.	270.	AG	391.	13.8	.0	32.0		
23. 0	OGsbD	549802.0	519285.0	549662.0	518778.0	526.	195.	AG	574.	13.8	.0	32.0		
24. 0	OGsbD	549662.0	518778.0	549532.0	518333.0	464.	196.	AG	574.	13.8	.0	32.0		
25. 0	321eb	548821.0	519283.0	549546.0	519253.0	726.	92.	AG	927.	15.6	.0	44.0		
26. 0	321ebT	549546.0	519253.0	549830.0	519241.0	284.	92.	AG	731.	15.6	.0	44.0		
27. 0	321ebTQ	549760.0	519244.0	549610.4	519250.0	150.	272.	AG	326.	100.0	.0	24.0	.37	7.6
28. 0	321ebL	549641.0	519269.0	549810.0	519262.0	169.	92.	AG	168.	15.6	.0	32.0		
29. 0	321ebLQ	549763.0	519264.0	549684.1	519267.4	79.	272.	AG	187.	100.0	.0	12.0	.50	4.0
30. 0	321ebR	549505.0	519242.0	549655.0	519197.0	157.	107.	AG	28.	15.6	.0	32.0		
31. 0	321ebRQ	549649.0	519198.0	549638.0	519201.4	11.	287.	AG	163.	100.0	.0	12.0	.06	.6
32. 0	321ebR	549655.0	519197.0	549705.0	519145.0	72.	136.	AG	28.	15.6	.0	32.0		
33. 0	321ebR	549705.0	519145.0	549731.0	519050.0	98.	165.	AG	28.	15.6	.0	32.0		
34. 0	321ebD	549831.0	519239.0	550815.0	519193.0	985.	93.	AG	1152.	15.6	.0	44.0		
35. 0	321wb	550818.0	519272.0	550021.0	519309.0	798.	273.	AG	1524.	15.6	.0	44.0		
36. 0	321wbT	550021.0	519309.0	549782.0	519322.0	239.	273.	AG	1143.	15.6	.0	44.0		
37. 0	321wbTQ	549883.0	519316.0	550116.9	519305.5	234.	93.	AG	326.	100.0	.0	24.0	.58	11.9
38. 0	321wbL	550029.0	519292.0	549825.0	519295.0	204.	271.	AG	209.	15.6	.0			

32.0
39. 0 321wbLQ * 549883.0 519294.0 549981.3 519292.6 * 98. 91. AG 187. 100.0 .0
12.0 .62 5.0
40. 0 321wbR * 550125.0 519315.0 549978.0 519348.0 * 151. 283. AG 172. 15.6 .0
32.0
41. 0 321wbRQ * 549986.0 519346.0 550054.9 519330.6 * 71. 103. AG 163. 100.0 .0
12.0 .35 3.6
42. 0 321wbR * 549978.0 519348.0 549918.0 519412.0 * 88. 317. AG 172. 15.6 .0
32.0
43. 0 321wbR * 549918.0 519412.0 549897.0 519502.0 * 92. 347. AG 172. 15.6 .0
32.0
44. 0 321wbD * 549779.0 519322.0 548825.0 519364.0 * 955. 273. AG 1574. 15.6 .0
44.0
1

PAGE 2
JOB: Pellissippi Site 12 BD PM 2015 RUN: Pellissippi Site 12 BD PM 2015
DATE: 12/15/2008 TIME: 14:20:45.12

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. 0	OGnbTQ	114	61	2.0	221	1600	92.30	1	3
6. 0	OGnbLQ	114	86	2.0	40	1600	92.30	1	3
8. 0	OGnbRQ	114	61	2.0	229	1600	92.30	1	3
15. 0	OGsbTQ	114	61	2.0	337	1600	92.30	1	3
17. 0	OGsbLQ	114	86	2.0	192	1600	92.30	1	3
19. 0	OGsbRQ	114	61	2.0	391	1600	92.30	1	3
27. 0	321ebTQ	114	75	2.0	731	3200	92.30	1	3
29. 0	321ebLQ	114	86	2.0	168	1600	92.30	1	3
31. 0	321ebRQ	114	75	2.0	28	1600	92.30	1	3
37. 0	321wbTQ	114	75	2.0	1143	3200	92.30	1	3
39. 0	321wbLQ	114	86	2.0	209	1600	92.30	1	3
41. 0	321wbRQ	114	75	2.0	172	1600	92.30	1	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. SE MID S	549763.0	518934.0	5.0
2. SE 164 S	549782.0	519013.0	5.0
3. SE 82 S	549815.0	519090.0	5.0
4. SE CNR	549882.0	519144.0	5.0
5. SE 82 E	549963.0	519167.0	5.0
6. SE 164 E	550045.0	519168.0	5.0
7. SE MID E	550127.0	519167.0	5.0
8. NE MID E	550182.0	519343.0	5.0
9. NE 164 E	550099.0	519350.0	5.0
10. NE 82 E	550017.0	519363.0	5.0
11. NE CNR	549952.0	519418.0	5.0
12. NE 82 N	549926.0	519501.0	5.0
13. NE 164 N	549944.0	519580.0	5.0
14. NE MID N	549967.0	519659.0	5.0
15. NW MID N	549872.0	519635.0	5.0
16. NW 164 N	549850.0	519555.0	5.0
17. NW 82 N	549817.0	519479.0	5.0
18. NW CNR	549763.0	519424.0	5.0
19. NW 82 W	549688.0	519393.0	5.0
20. NW 164 W	549606.0	519390.0	5.0
21. NW MID W	549524.0	519390.0	5.0
22. SW MID W	549417.0	519215.0	5.0
23. SW 164 W	549499.0	519210.0	5.0
24. SW 82 W	549581.0	519201.0	5.0
25. SW CNR	549653.0	519165.0	5.0
26. SW 82 S	549693.0	519101.0	5.0
27. SW 164 S	549693.0	519015.0	5.0
28. SW MID S	549670.0	518935.0	5.0

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PAGE 3
JOB: Pellissippi Site 12 BD PM 2015 RUN: Pellissippi Site 12 BD PM 2015

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) * CONCENTRATION (PPM)

WIND ANGLE (DEGR)	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	.8	1.2	.9	1.0	1.2	1.3	.8	.0	.1	.1	.3	.6	.6	.6	.1	.1	.0	.0	.0	.0
5.	.9	1.1	.8	1.1	1.1	1.0	.8	.0	.0	.1	.2	.4	.6	.6	.1	.1	.1			

.0 .0 .0

10.	*	.6	1.1	.7	1.1	1.2	1.0	.8	.0	.0	.1	.2	.4	.5	.5	.2	.2	.1	.1	.0	.0
15.	*	.7	1.1	.6	1.1	1.0	.9	.7	.0	.0	.0	.1	.4	.4	.4	.4	.4	.3	.1	.0	.0
20.	*	.5	.7	.6	.9	1.0	.9	.7	.0	.0	.0	.1	.2	.2	.3	.4	.4	.3	.1	.1	.0
25.	*	.3	.6	.8	.8	1.0	1.0	.7	.0	.0	.0	.0	.2	.2	.2	.6	.4	.4	.2	.1	.0
30.	*	.3	.5	.7	1.0	1.0	.9	.7	.0	.0	.0	.0	.0	.1	.0	.5	.4	.4	.2	.1	.1
35.	*	.3	.6	.8	1.0	.8	.9	.7	.0	.0	.0	.0	.0	.0	.0	.5	.6	.5	.3	.2	.1
40.	*	.3	.4	.7	.8	.8	.9	.7	.0	.0	.0	.0	.0	.0	.0	.6	.6	.4	.4	.2	.1
45.	*	.3	.4	.6	.9	1.0	.7	.7	.0	.0	.0	.0	.0	.0	.0	.6	.5	.5	.5	.2	.1
50.	*	.3	.4	.5	.8	.9	.7	.7	.0	.0	.0	.0	.0	.0	.0	.6	.5	.5	.5	.3	.2
55.	*	.2	.4	.5	.8	.9	.7	.7	.0	.0	.0	.0	.0	.0	.0	.6	.4	.6	.5	.2	.2
60.	*	.2	.4	.5	.7	.9	.7	.7	.0	.0	.0	.0	.0	.0	.0	.6	.4	.6	.6	.2	.1
65.	*	.2	.4	.5	.8	.8	.7	.7	.0	.0	.0	.0	.0	.0	.0	.5	.4	.7	.6	.3	.1
70.	*	.2	.3	.4	.7	.8	.7	.7	.0	.0	.0	.0	.0	.0	.0	.4	.2	.7	.7	.5	.2
75.	*	.2	.2	.4	.6	.8	.7	.7	.1	.1	.1	.0	.0	.0	.0	.4	.3	.7	.7	.5	.2
80.	*	.1	.2	.3	.6	.7	.6	.6	.2	.2	.1	.0	.0	.0	.0	.4	.3	.7	.7	.6	.2
85.	*	.0	.1	.2	.3	.6	.6	.6	.3	.3	.2	.1	.0	.0	.0	.4	.3	.7	.8	.7	.7
90.	*	.0	.0	.2	.3	.4	.4	.4	.5	.5	.4	.1	.0	.0	.0	.4	.3	.8	.9	1.0	.9
95.	*	.0	.0	.1	.2	.3	.3	.3	.6	.6	.5	.3	.1	.0	.0	.4	.3	.8	1.3	1.1	.9
100.	*	.0	.0	.0	.1	.1	.1	.1	.8	.7	.7	.4	.1	.1	.0	.4	.4	1.0	1.3	1.3	1.1
105.	*	.0	.0	.0	.0	.1	.1	.1	1.0	.9	1.0	.4	.3	.1	.0	.5	.4	1.2	1.4	1.3	1.0
110.	*	.0	.0	.0	.0	.0	.0	.0	1.0	1.0	1.2	.7	.3	.2	.1	.5	.6	1.3	1.5	1.2	1.1
115.	*	.0	.0	.0	.0	.0	.0	.0	1.0	.9	1.3	.7	.3	.2	.1	.6	.6	1.4	1.7	1.1	1.1
120.	*	.0	.0	.0	.0	.0	.0	.0	1.1	1.0	1.4	.9	.3	.3	.2	.6	.6	1.7	1.5	1.0	1.1
125.	*	.0	.0	.0	.0	.0	.0	.0	1.0	1.0	1.5	.8	.4	.3	.2	.7	.7	1.7	1.4	1.0	1.2
130.	*	.0	.0	.0	.0	.0	.0	.0	1.0	.9	1.6	.9	.4	.3	.2	.7	.7	1.7	1.3	1.0	1.1
135.	*	.0	.0	.0	.0	.0	.0	.0	.9	1.0	1.7	1.0	.4	.3	.2	.6	.8	1.8	1.3	.8	1.2
140.	*	.0	.0	.0	.0	.0	.0	.0	.9	.9	1.7	.9	.5	.4	.2	.6	.9	1.9	1.2	1.1	1.2
145.	*	.0	.0	.0	.0	.0	.0	.0	.8	1.1	1.7	.9	.6	.4	.2	.7	1.0	1.8	.9	1.2	1.2
150.	*	.0	.0	.0	.0	.0	.0	.0	.8	1.1	1.7	.9	.6	.3	.3	.8	1.0	1.8	.8	1.0	1.3
155.	*	.0	.0	.0	.0	.0	.0	.0	.8	1.2	1.7	1.0	.6	.3	.3	.8	1.1	1.8	.8	1.0	1.2
160.	*	.0	.0	.0	.0	.0	.0	.0	.8	1.3	1.7	1.1	.5	.4	.3	.9	1.2	1.7	1.0	1.0	1.1
165.	*	.0	.0	.0	.0	.0	.0	.0	.8	1.3	1.7	1.0	.4	.5	.3	.8	1.2	1.6	.8	1.1	1.0
170.	*	.0	.0	.0	.0	.0	.0	.0	.8	1.4	1.6	1.0	.5	.5	.3	.8	1.2	1.6	.8	1.2	.9
175.	*	.0	.0	.0	.0	.0	.0	.0	.8	1.4	1.7	1.0	.6	.4	.4	.8	1.3	1.4	.8	1.2	.9
180.	*	.0	.0	.0	.0	.0	.0	.0	.8	1.5	1.7	1.0	.7	.4	.3	.9	1.2	1.3	.9	1.2	.8
185.	*	.0	.1	.0	.0	.0	.0	.0	.8	1.5	1.8	.9	.8	.4	.4	.9	1.1	1.4	1.0	1.2	.9
190.	*	.2	.1	.0	.0	.0	.0	.0	.8	1.5	1.6	.9	.7	.4	.4	.7	1.1	1.1	1.0	1.1	.9
195.	*	.3	.4	.3	.0	.0	.0	.0	.8	1.5	1.7	.8	.8	.6	.5	.8	1.2	.8	1.0	1.0	.8
200.	*	.3	.6	.4	.0	.0	.0	.0	.8	1.5	1.5	.9	.8	.7	.5	.6	1.0	.9	.9	1.0	.9
205.	*	.5	.6	.4	.0	.0	.0	.0	.8	1.5	1.8	.9	1.0	1.2	.8	.5	.5	.7	.9	1.0	.8

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JOB: Pellissippi Site 12 BD PM 2015 RUN: Pellissippi Site 12 BD PM 2015

WIND * CONCENTRATION
ANGLE * (PPM)

(DEGR)	*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	.5	.5	.5	.1	.0	.0	.0	.8	1.5	1.8	.8	1.1	1.2	.9	.2	.5	.8	.9	.9	.7
215.	*	.5	.5	.5	.1	.0	.0	.0	.9	1.6	1.9	1.0	1.2	1.2	.8	.2	.5	.7			

																		.8	.9	.7
220. *	.4	.5	.6	.2	.0	.0	.0	.9	1.6	2.0	.9	1.1	1.1	.8	.2	.4	.6	.8	1.0	.7
225. *	.3	.5	.7	.2	.1	.0	.0	1.0	1.7	2.0	.9	1.3	.9	.7	.3	.3	.6	.7	.9	.9
230. *	.4	.5	.7	.2	.1	.0	.0	1.1	1.8	2.0	.8	1.2	.9	.7	.3	.3	.6	.9	.9	.9
235. *	.4	.4	.7	.2	.1	.0	.0	1.2	2.0	2.0	.8	1.4	.9	.8	.3	.3	.4	.8	.8	1.0
240. *	.4	.4	.6	.2	.1	.1	.0	1.4	1.8	1.8	.9	1.3	.9	.7	.3	.3	.4	.7	.8	1.0
245. *	.4	.5	.6	.3	.1	.1	.0	1.4	2.2	1.8	1.1	1.3	.8	.6	.3	.3	.4	.7	1.1	1.0
250. *	.3	.5	.6	.3	.1	.1	.0	1.6	2.1	1.6	1.2	1.3	.7	.6	.2	.3	.4	.6	1.1	1.0
255. *	.3	.5	.6	.3	.2	.1	.0	1.9	2.0	1.5	1.0	1.1	.7	.6	.1	.3	.4	.6	1.0	1.0
260. *	.3	.4	.6	.3	.2	.1	.0	1.9	2.0	1.3	.8	1.0	.5	.6	.1	.1	.3	.5	.8	.9
265. *	.3	.4	.6	.3	.4	.3	.2	1.7	1.7	1.0	.8	.8	.4	.5	.0	.1	.2	.4	.8	.7
270. *	.3	.4	.6	.5	.7	.7	.4	1.2	1.3	1.0	.8	.7	.3	.5	.0	.1	.1	.3	.7	.6
275. *	.3	.4	.8	.6	.7	.7	.8	.9	.8	.8	.8	.6	.4	.5	.0	.0	.1	.2	.4	.4
280. *	.3	.5	.8	.8	.8	.8	.8	.6	.6	.7	.7	.5	.4	.5	.0	.0	.0	.1	.2	.3
285. *	.3	.6	.8	.9	1.0	.8	1.0	.4	.5	.5	.6	.5	.3	.5	.0	.0	.0	.0	.1	.1
290. *	.5	.6	.9	1.0	1.0	.9	1.1	.1	.2	.6	.6	.5	.3	.5	.0	.0	.0	.0	.0	.0
295. *	.5	.6	1.1	1.0	.9	.9	.9	.0	.1	.4	.5	.5	.4	.5	.0	.0	.0	.0	.0	.0
300. *	.5	.7	1.1	1.1	.8	.9	1.0	.0	.1	.2	.4	.5	.4	.5	.0	.0	.0	.0	.0	.0
305. *	.5	.7	1.0	1.1	.9	1.0	1.0	.0	.1	.2	.4	.4	.4	.5	.0	.0	.0	.0	.0	.0
310. *	.5	.7	1.0	1.0	.8	1.1	1.1	.0	.1	.2	.4	.4	.4	.5	.0	.0	.0	.0	.0	.0
315. *	.5	.8	1.1	.6	.7	1.1	.9	.0	.1	.1	.4	.4	.4	.5	.0	.0	.0	.0	.0	.0
320. *	.6	.9	1.1	.6	.9	1.1	.9	.1	.1	.1	.4	.4	.5	.5	.0	.0	.0	.0	.0	.0
325. *	.5	.9	1.1	.7	.9	1.2	1.0	.1	.2	.1	.3	.4	.5	.5	.0	.0	.0	.0	.0	.0
330. *	.6	.9	1.1	.7	.9	1.2	1.0	.1	.2	.2	.1	.4	.5	.5	.0	.0	.0	.0	.0	.0
335. *	.7	1.1	1.3	.7	1.0	1.2	.9	.1	.2	.2	.2	.4	.6	.6	.0	.0	.0	.0	.0	.0
340. *	.6	1.0	1.1	.7	1.0	1.1	1.0	.1	.1	.2	.2	.4	.6	.6	.0	.0	.0	.0	.0	.0
345. *	.6	.9	.9	.5	1.0	1.3	.9	.1	.1	.2	.2	.5	.6	.6	.0	.0	.0	.0	.0	.0
350. *	.7	1.0	1.0	.8	1.2	1.2	1.0	.1	.1	.2	.2	.5	.6	.6	.0	.0	.0	.0	.0	.0
355. *	.8	1.1	.8	.8	1.2	1.3	1.0	.0	.1	.2	.2	.5	.6	.6	.0	.0	.0	.0	.0	.0
360. *	.8	1.2	.9	1.0	1.2	1.3	.8	.0	.1	.1	.3	.6	.6	.6	.1	.1	.0	.0	.0	.0
MAX *	.9	1.2	1.3	1.1	1.2	1.3	1.1	1.9	2.2	2.0	1.2	1.4	1.2	.9	.9	1.3	1.9	1.7	1.3	1.3
DEGR. *	5	0	335	5	0	0	290	255	245	220	250	235	205	210	160	175	140	115	100	150

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JOB: Pellissippi Site 12 BD PM 2015 RUN: Pellissippi Site 12 BD PM 2015

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0. *	.0	.7	.7	.5	.9	.7	.4	.3
5. *	.0	.7	.6	.5	.9	.7	.5	.4
10. *	.0	.6	.6	.7	.9	.6	.4	.4
15. *	.0	.6	.6	.7	.9	.7	.7	.5
20. *	.0	.6	.6	.8	1.0	.9	.8	.6
25. *	.0	.8	.6	.9	1.1	.8	.6	.5
30. *	.0	.8	.7	1.0	1.1	.6	.6	.5
35. *	.1	.7	.8	1.0	1.1	.6	.9	.6
40. *	.1	.8	.8	1.1	1.0	.6	.8	.8
45. *	.1	.7	.6	1.2	1.0	.8	.9	.8

50.	*	.1	.7	.8	1.3	1.1	.7	.8	.6
55.	*	.1	.7	.8	1.4	1.0	.9	.8	.6
60.	*	.0	.9	.9	1.5	.9	.8	.8	.5
65.	*	.0	.8	.9	1.6	.8	.8	.7	.5
70.	*	.0	1.0	1.3	1.4	.9	.8	.7	.5
75.	*	.0	1.2	1.3	1.2	.8	.7	.6	.5
80.	*	.1	1.1	1.2	1.3	.8	.4	.6	.5
85.	*	.4	.9	1.0	1.2	.8	.5	.5	.3
90.	*	.6	.7	.8	.8	.5	.4	.2	.3
95.	*	.8	.5	.6	.6	.5	.3	.2	.3
100.	*	.9	.4	.4	.4	.3	.2	.2	.3
105.	*	1.1	.2	.2	.2	.2	.2	.2	.3
110.	*	1.4	.0	.1	.1	.1	.2	.3	.3
115.	*	1.1	.0	.1	.1	.1	.2	.3	.3
120.	*	1.1	.0	.1	.1	.2	.2	.3	.3
125.	*	1.2	.0	.1	.1	.2	.2	.3	.3
130.	*	1.1	.0	.1	.1	.2	.2	.3	.3
135.	*	1.1	.0	.1	.1	.1	.1	.3	.3
140.	*	1.0	.0	.1	.1	.1	.2	.3	.3
145.	*	1.0	.0	.0	.1	.1	.2	.3	.3
150.	*	.9	.0	.0	.1	.1	.2	.3	.3
155.	*	.9	.0	.0	.1	.1	.3	.3	.3
160.	*	.9	.0	.0	.1	.1	.3	.3	.3
165.	*	.9	.0	.0	.0	.2	.3	.3	.3
170.	*	.9	.0	.0	.0	.1	.3	.3	.4
175.	*	.9	.0	.0	.0	.1	.3	.3	.5
180.	*	.8	.0	.0	.0	.1	.2	.5	.5
185.	*	.8	.0	.0	.0	.0	.3	.5	.3
190.	*	.8	.0	.0	.0	.0	.2	.5	.3
195.	*	.9	.0	.0	.0	.0	.1	.3	.3
200.	*	.9	.0	.0	.0	.0	.0	.2	.2
205.	*	.9	.0	.0	.0	.0	.0	.1	.1

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JOB: Pellissippi Site 12 BD PM 2015 RUN: Pellissippi Site 12 BD PM 2015

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	*	.9	.0	.0	.0	.0	.0	.0	.0
215.	*	.9	.0	.0	.0	.0	.0	.0	.0
220.	*	.9	.0	.0	.0	.0	.0	.0	.0
225.	*	1.0	.0	.0	.0	.0	.0	.0	.0
230.	*	1.0	.0	.0	.0	.0	.0	.0	.0
235.	*	1.0	.0	.0	.0	.0	.0	.0	.0
240.	*	1.0	.0	.0	.0	.0	.0	.0	.0
245.	*	1.0	.0	.0	.0	.0	.0	.0	.0
250.	*	1.0	.0	.0	.0	.0	.0	.0	.0
255.	*	1.0	.0	.0	.0	.0	.0	.0	.0
260.	*	.8	.1	.1	.1	.0	.0	.0	.0
265.	*	.7	.2	.2	.1	.1	.0	.0	.0
270.	*	.6	.3	.3	.3	.2	.0	.0	.0
275.	*	.4	.4	.4	.4	.3	.1	.0	.0
280.	*	.2	.6	.6	.5	.3	.2	.0	.0
285.	*	.1	.6	.6	.7	.4	.2	.2	.0
290.	*	.0	.8	.8	.7	.4	.4	.2	.1
295.	*	.0	.8	.7	.7	.5	.4	.2	.2
300.	*	.0	.8	.7	.6	.6	.4	.2	.2
305.	*	.0	.7	.7	.7	.6	.3	.3	.2
310.	*	.0	.7	.7	.7	.5	.3	.3	.2
315.	*	.0	.7	.7	.6	.6	.4	.3	.2
320.	*	.0	.7	.7	.6	.6	.5	.3	.2
325.	*	.0	.7	.7	.6	.7	.4	.3	.2
330.	*	.0	.7	.7	.6	.8	.4	.5	.2
335.	*	.0	.7	.7	.6	.8	.5	.4	.2
340.	*	.0	.7	.6	.6	.8	.5	.4	.1
345.	*	.0	.7	.6	.6	.8	.5	.4	.2
350.	*	.0	.7	.6	.5	.9	.6	.5	.3
355.	*	.0	.7	.7	.5	.9	.7	.4	.3
360.	*	.0	.7	.7	.5	.9	.7	.4	.3
MAX	*	1.4	1.2	1.3	1.6	1.1	.9	.9	.8
DEGR.	*	110	75	70	65	35	20	35	40

THE HIGHEST CONCENTRATION IS 2.20 PPM AT 245 DEGREES FROM REC9 .
THE 2ND HIGHEST CONCENTRATION IS 2.00 PPM AT 220 DEGREES FROM REC10.
THE 3RD HIGHEST CONCENTRATION IS 1.90 PPM AT 140 DEGREES FROM REC17.

```
Pellissippi Site 12 NB AM 2035          60.0321.0.0000.000280.30480000    1    1
SE MID S               549763.   518934.       5.0
SE 164 S               549782.   519013.       5.0
SE 82 S                549815.   519090.       5.0
SE CNR                 549882.   519144.       5.0
SE 82 E                549963.   519167.       5.0
SE 164 E               550045.   519168.       5.0
SE MID E               550127.   519167.       5.0
NE MID E               550182.   519343.       5.0
NE 164 E               550099.   519350.       5.0
NE 82 E                550017.   519363.       5.0
NE CNR                 549952.   519418.       5.0
NE 82 N                549926.   519501.       5.0
NE 164 N               549944.   519580.       5.0
NE MID N               549967.   519659.       5.0
NW MID N               549872.   519635.       5.0
NW 164 N               549850.   519555.       5.0
NW 82 N                549817.   519479.       5.0
NW CNR                 549763.   519424.       5.0
NW 82 W                549688.   519393.       5.0
NW 164 W               549606.   519390.       5.0
NW MID W               549524.   519390.       5.0
SW MID W               549417.   519215.       5.0
SW 164 W               549499.   519210.       5.0
SW 82 W                549581.   519201.       5.0
SW CNR                 549653.   519165.       5.0
SW 82 S                549693.   519101.       5.0
SW 164 S               549693.   519015.       5.0
SW MID S               549670.   518935.       5.0
Pellissippi Site 12 NB AM 2035           44  1   0
  1
0         OGnb      AG549548.518327.549690.518773.    107911.3   0  32   30.
  1
0         OGnb      AG549690.518773.549746.518996.    107911.3   0  32   30.
  1
0         OGnbT     AG549748.518996.549818.519243.     48211.3   0  32   30.
  2
0         OGnbTQ    AG549806.519201.549751.519006.      0.  12   1
       114        61       2.0  482   76.0 1600 1 3
  1
0         OGnbL     AG549734.519000.549804.519244.      9711.3   0  32   30.
  2
0         OGnbLQ    AG549792.519202.549736.519008.      0.  12   1
       114        86       2.0   97   76.0 1600 1 3
  1
0         OGnbR     AG549759.518996.549801.519113.     50011.3   0  32   30.
  2
0         OGnbRQ    AG549800.519109.549761.519001.      0.  12   1
       114        61       2.0  500   76.0 1600 1 3
  1
0         OGnbR     AG549801.519113.549860.519169.     50011.3   0  32   30.
  1
0         OGnbR     AG549860.519169.550079.519208.     50011.3   0  32   30.
  1
0         OGnbD     AG549819.519244.550004.519895.    118811.3   0  32   30.
  1
0         OGnbD     AG550004.519896.550098.520248.    118811.3   0  32   30.
  1
0         OGsb      AG550084.520250.549898.519596.    100611.3   0  32   30.
  1
0         OGsbT     AG549892.519596.549802.519285.     42711.3   0  32   30.
  2
0         OGsbTQ    AG549822.519355.549888.519580.      0.  12   1
       114        61       2.0  427   76.0 1600 1 3
  1
0         OGsbL     AG549903.519589.549814.519285.     19711.3   0  32   30.
  2
0         OGsbLQ    AG549835.519357.549900.519577.      0.  12   1
       114        86       2.0  197   76.0 1600 1 3
  1
0         OGsbR     AG549851.519487.549799.519410.     38211.3   0  32   30.
  2
0         OGsbRQ    AG549801.519413.549850.519486.      0.  12   1
       114        61       2.0  382   76.0 1600 1 3
  1
0         OGsbR     AG549799.519410.549704.519371.     38211.3   0  32   30.
  1
0         OGsbR     AG549704.519371.549599.519362.     38211.3   0  32   30.
  1
0         OGsbR     AG549599.519362.549372.519363.     38211.3   0  32   30.
  1
0         OGsbD     AG549802.519285.549662.518778.     77911.3   0  32   30.
  1
0         OGsbD     AG549662.518778.549532.518333.     77911.3   0  32   30.
  1
0         321eb     AG548821.519283.549546.519253.    238512.8   0  44   30.
  1
0         321ebT    AG549546.519253.549830.519241.    169012.8   0  44   30.
  2
0         321ebTQ   AG549760.519244.549559.519252.      0.  24   2
       114        75       2.0 1690   76.0 3200 1 3
  1
0         321ebL    AG549641.519269.549810.519262.     59212.8   0  32   30.
  2
0         321ebLQ   AG549763.519264.549647.519269.      0.  12   1
       114        86       2.0  592   76.0 1600 1 3
```

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  1
0         321ebR    AG549505.519242.549655.519197.     10312.8   0  32   30.
  2
0         321ebRQ   AG549649.519198.549517.519239.      0.  12   1
       114        75       2.0  103   76.0 1600 1 3
  1
0         321ebR    AG549655.519197.549705.519145.     10312.8   0  32   30.
  1
0         321ebR    AG549705.519145.549731.519050.     10312.8   0  32   30.
  1
0         321ebD    AG549831.519239.550815.519193.    238712.8   0  44   30.
  1
0         321wb     AG550818.519272.550021.519309.    117312.8   0  44   30.
  1
0         321wbT    AG550021.519309.549782.519322.     81012.8   0  44   30.
  2
0         321wbTQ   AG549883.519316.549994.519311.      0.  24   2
       114        75       2.0  810   76.0 3200 1 3
  1
0         321wbL    AG550029.519292.549825.519295.     24912.8   0  32   30.
  2
0         321wbLQ   AG549883.519294.550024.519292.      0.  12   1
       114        86       2.0  249   76.0 1600 1 3
  1
0         321wbR    AG550125.519315.549978.519348.     11412.8   0  32   30.
  2
0         321wbRQ   AG549986.519346.550115.519317.      0.  12   1
       114        75       2.0  114   76.0 1600 1 3
  1
0         321wbR    AG549978.519348.549918.519412.     11412.8   0  32   30.
  1
0         321wbR    AG549918.519412.549897.519502.     11412.8   0  32   30.
  1
0         321wbD    AG549779.519322.548825.519364.    128912.8   0  44   30.
1.0   04  1000   0Y  5  0 72
```

JOB: Pellissippi Site 12 NB AM 2035 RUN: Pellissippi Site 12 NB AM 2035
DATE: 12/15/2008 TIME: 14:19:41.07

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK DESCRIPTION		*	X1	Y1	X2	Y2	*	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	OGnb	*	549548.0	518327.0	549690.0	518773.0	*	468.	18.	AG	1079.	11.3	.0	32.0		
2. 0	OGnb	*	549690.0	518773.0	549746.0	518996.0	*	230.	14.	AG	1079.	11.3	.0	32.0		
3. 0	OGnbT	*	549748.0	518996.0	549818.0	519243.0	*	257.	16.	AG	482.	11.3	.0	32.0		
4. 0	OGnbTQ	*	549806.0	519201.0	549762.4	519046.3	*	161.	196.	AG	109.	100.0	.0	12.0	.70	8.2
5. 0	OGnbL	*	549734.0	519000.0	549804.0	519244.0	*	254.	16.	AG	97.	11.3	.0	32.0		
6. 0	OGnbLQ	*	549792.0	519202.0	549779.4	519158.2	*	46.	196.	AG	154.	100.0	.0	12.0	.29	2.3
7. 0	OGnbR	*	549759.0	518996.0	549801.0	519113.0	*	124.	20.	AG	500.	11.3	.0	32.0		
8. 0	OGnbRQ	*	549800.0	519109.0	549743.4	518952.1	*	167.	200.	AG	109.	100.0	.0	12.0	.73	8.5
9. 0	OGnbR	*	549801.0	519113.0	549860.0	519169.0	*	81.	46.	AG	500.	11.3	.0	32.0		
10. 0	OGnbR	*	549860.0	519169.0	550079.0	519208.0	*	222.	80.	AG	500.	11.3	.0	32.0		
11. 0	OGnbD	*	549819.0	519244.0	550004.0	519895.0	*	677.	16.	AG	1188.	11.3	.0	32.0		
12. 0	OGnbD	*	550004.0	519896.0	550098.0	520248.0	*	364.	15.	AG	1188.	11.3	.0	32.0		
13. 0	OGsb	*	550084.0	520250.0	549898.0	519596.0	*	680.	196.	AG	1006.	11.3	.0	32.0		
14. 0	OGsbT	*	549892.0	519596.0	549802.0	519285.0	*	324.	196.	AG	427.	11.3	.0	32.0		
15. 0	OGsbTQ	*	549822.0	519355.0	549862.1	519491.7	*	142.	16.	AG	109.	100.0	.0	12.0	.62	7.2
16. 0	OGsbL	*	549903.0	519589.0	549814.0	519285.0	*	317.	196.	AG	197.	11.3	.0	32.0		
17. 0	OGsbLQ	*	549835.0	519357.0	549861.2	519445.8	*	93.	16.	AG	154.	100.0	.0	12.0	.59	4.7
18. 0	OGsbR	*	549851.0	519487.0	549799.0	519410.0	*	93.	214.	AG	382.	11.3	.0	32.0		
19. 0	OGsbRQ	*	549801.0	519413.0	549872.0	519518.8	*	127.	34.	AG	109.	100.0	.0	12.0	.56	6.5
20. 0	OGsbR	*	549799.0	519410.0	549704.0	519371.0	*	103.	248.	AG	382.	11.3	.0	32.0		
21. 0	OGsbR	*	549704.0	519371.0	549599.0	519362.0	*	105.	265.	AG	382.	11.3	.0	32.0		
22. 0	OGsbR	*	549599.0	519362.0	549372.0	519363.0	*	227.	270.	AG	382.	11.3	.0	32.0		
23. 0	OGsbD	*	549802.0	519285.0	549662.0	518778.0	*	526.	195.	AG	779.	11.3	.0	32.0		
24. 0	OGsbD	*	549662.0	518778.0	549532.0	518333.0	*	464.	196.	AG	779.	11.3	.0	32.0		
25. 0	321eb	*	548821.0	519283.0	549546.0	519253.0	*	726.	92.	AG	2385.	12.8	.0	44.0		
26. 0	321ebT	*	549546.0	519253.0	549830.0	519241.0	*	284.	92.	AG	1690.	12.8	.0	44.0		
27. 0	321ebTQ	*	549760.0	519244.0	549394.0	519258.6	*	366.	272.	AG	268.	100.0	.0	24.0	.86	18.6
28. 0	321ebL	*	549641.0	519269.0	549810.0	519262.0	*	169.	92.	AG	592.	12.8	.0	32.0		
29. 0	321ebLQ	*	549763.0	519264.0	546810.5	519390.6	*	2955.	272.	AG	154.	100.0	.0	12.0	1.76	150.1
30. 0	321ebR	*	549505.0	519242.0	549655.0	519197.0	*	157.	107.	AG	103.	12.8	.0	32.0		
31. 0	321ebRQ	*	549649.0	519198.0	549608.7	519210.5	*	42.	287.	AG	134.	100.0	.0	12.0	.21	2.1
32. 0	321ebR	*	549655.0	519197.0	549705.0	519145.0	*	72.	136.	AG	103.	12.8	.0	32.0		
33. 0	321ebR	*	549705.0	519145.0	549731.0	519050.0	*	98.	165.	AG	103.	12.8	.0	32.0		
34. 0	321ebD	*	549831.0	519239.0	550815.0	519193.0	*	985.	93.	AG	2387.	12.8	.0	44.0		
35. 0	321wb	*	550818.0	519272.0	550021.0	519309.0	*	798.	273.	AG	1173.	12.8	.0	44.0		
36. 0	321wbT	*	550021.0	519309.0	549782.0	519322.0	*	239.	273.	AG	810.	12.8	.0	44.0		
37. 0	321wbTQ	*	549883.0	519316.0	550049.0	519308.6	*	166.	92.	AG	268.	100.0	.0	24.0	.41	8.4
38. 0	321wbL	*	550029.0	519292.0	549825.0	519295.0	*	204.	271.	AG	249.	12.8	.0			

```
32.0
     39. 0         321wbLQ   * 549883.0  519294.0  550005.1  519292.3 *     122.    91. AG    154. 100.0    .0
12.0  .74   6.2
     40. 0         321wbR    * 550125.0  519315.0  549978.0  519348.0 *     151.   283. AG    114.  12.8    .0
32.0
     41. 0         321wbRQ   * 549986.0  519346.0  550031.6  519335.7 *      47.   103. AG    134. 100.0    .0
12.0  .23   2.4
     42. 0         321wbR    * 549978.0  519348.0  549918.0  519412.0 *      88.   317. AG    114.  12.8    .0
32.0
     43. 0         321wbR    * 549918.0  519412.0  549897.0  519502.0 *      92.   347. AG    114.  12.8    .0
32.0
     44. 0         321wbD    * 549779.0  519322.0  548825.0  519364.0 *     955.   273. AG   1289.  12.8    .0
44.0
1
```

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JOB: Pellissippi Site 12 NB AM 2035 RUN: Pellissippi Site 12 NB AM 2035

DATE: 12/15/2008 TIME: 14:19:41.07

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. 0	OGnbTQ	*	114	61	2.0	482	1600	76.00	1	3
6. 0	OGnbLQ	*	114	86	2.0	97	1600	76.00	1	3
8. 0	OGnbRQ	*	114	61	2.0	500	1600	76.00	1	3
15. 0	OGsbTQ	*	114	61	2.0	427	1600	76.00	1	3
17. 0	OGsbLQ	*	114	86	2.0	197	1600	76.00	1	3
19. 0	OGsbRQ	*	114	61	2.0	382	1600	76.00	1	3
27. 0	321ebTQ	*	114	75	2.0	1690	3200	76.00	1	3
29. 0	321ebLQ	*	114	86	2.0	592	1600	76.00	1	3
31. 0	321ebRQ	*	114	75	2.0	103	1600	76.00	1	3
37. 0	321wbTQ	*	114	75	2.0	810	3200	76.00	1	3
39. 0	321wbLQ	*	114	86	2.0	249	1600	76.00	1	3
41. 0	321wbRQ	*	114	75	2.0	114	1600	76.00	1	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. SE MID S	*	549763.0	518934.0	5.0	*
2. SE 164 S	*	549782.0	519013.0	5.0	*
3. SE 82 S	*	549815.0	519090.0	5.0	*
4. SE CNR	*	549882.0	519144.0	5.0	*
5. SE 82 E	*	549963.0	519167.0	5.0	*
6. SE 164 E	*	550045.0	519168.0	5.0	*
7. SE MID E	*	550127.0	519167.0	5.0	*
8. NE MID E	*	550182.0	519343.0	5.0	*
9. NE 164 E	*	550099.0	519350.0	5.0	*
10. NE 82 E	*	550017.0	519363.0	5.0	*
11. NE CNR	*	549952.0	519418.0	5.0	*
12. NE 82 N	*	549926.0	519501.0	5.0	*
13. NE 164 N	*	549944.0	519580.0	5.0	*
14. NE MID N	*	549967.0	519659.0	5.0	*
15. NW MID N	*	549872.0	519635.0	5.0	*
16. NW 164 N	*	549850.0	519555.0	5.0	*
17. NW 82 N	*	549817.0	519479.0	5.0	*
18. NW CNR	*	549763.0	519424.0	5.0	*
19. NW 82 W	*	549688.0	519393.0	5.0	*
20. NW 164 W	*	549606.0	519390.0	5.0	*
21. NW MID W	*	549524.0	519390.0	5.0	*
22. SW MID W	*	549417.0	519215.0	5.0	*
23. SW 164 W	*	549499.0	519210.0	5.0	*
24. SW 82 W	*	549581.0	519201.0	5.0	*
25. SW CNR	*	549653.0	519165.0	5.0	*
26. SW 82 S	*	549693.0	519101.0	5.0	*
27. SW 164 S	*	549693.0	519015.0	5.0	*
28. SW MID S	*	549670.0	518935.0	5.0	*

1

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JOB: Pellissippi Site 12 NB AM 2035 RUN: Pellissippi Site 12 NB AM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

```
 WIND  * CONCENTRATION
 ANGLE *      (PPM)
 (DEGR)* REC1  REC2  REC3  REC4  REC5  REC6  REC7  REC8  REC9  REC10 REC11 REC12 REC13 REC14 REC15 REC16 REC17
REC18 REC19 REC20

------*--------------------------------------------------------------------------------------------------------
----------------
   0.  *   1.3   1.6   1.1   1.2   1.4   1.1    .8    .0    .0    .2    .3    .6    .9    .8    .1    .1    .0
  .0    .0    .0
   5.  *   1.0   1.4   1.2   1.2   1.4    .9    .8    .0    .0    .2    .3    .7    .8    .8    .1    .1    .1
```

WIND ANGLE (DEGR)	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
																		.0	.0	.0
10.	.9	1.2	1.1	1.3	1.3	.9	.8	.0	.0	.0	.2	.6	.7	.6	.4	.3	.2	.1	.0	.0
15.	.9	1.2	1.0	1.3	1.2	.9	.8	.0	.0	.0	.2	.6	.6	.6	.4	.4	.2	.1	.0	.0
20.	.7	1.1	.8	1.1	1.3	.9	.8	.0	.0	.0	.1	.4	.4	.4	.5	.6	.4	.2	.1	.0
25.	.6	1.0	.8	1.1	1.1	.9	.8	.0	.0	.0	.0	.2	.3	.3	.6	.6	.6	.2	.1	.0
30.	.4	.7	.8	1.1	1.0	.9	.8	.0	.0	.0	.0	.1	.1	.1	.7	.8	.5	.2	.2	.1
35.	.3	.4	.8	1.2	1.0	.9	.8	.0	.0	.0	.0	.0	.0	.0	.8	.7	.5	.4	.2	.1
40.	.4	.5	.9	1.1	1.0	.9	.8	.0	.0	.0	.0	.0	.0	.0	.7	.6	.6	.5	.2	.2
45.	.3	.6	.7	.9	1.0	1.0	.9	.0	.0	.0	.0	.0	.0	.0	.7	.6	.6	.5	.2	.2
50.	.3	.4	.7	.9	1.0	1.0	.9	.0	.0	.0	.0	.0	.0	.0	.6	.6	.5	.5	.1	.2
55.	.3	.4	.7	.9	1.1	1.0	.9	.0	.0	.0	.0	.0	.0	.0	.6	.5	.6	.7	.2	.1
60.	.3	.4	.6	.9	1.1	.9	.9	.0	.0	.0	.0	.0	.0	.0	.6	.5	.6	.7	.2	.1
65.	.3	.4	.6	.9	1.1	.9	1.0	.0	.0	.0	.0	.0	.0	.0	.6	.5	.7	.7	.3	.1
70.	.3	.4	.6	1.0	1.1	.9	1.0	.0	.0	.0	.0	.0	.0	.0	.6	.4	.7	.8	.4	.1
75.	.1	.3	.5	.7	1.1	.9	1.0	.1	.0	.0	.0	.0	.0	.0	.6	.4	.7	.8	.5	.1
80.	.1	.2	.4	.7	.9	.8	.8	.1	.1	.1	.0	.0	.0	.0	.6	.4	.7	.8	.5	.1
85.	.1	.1	.3	.6	.8	.7	.7	.2	.3	.1	.0	.0	.0	.0	.6	.4	.7	.8	.6	.3
90.	.0	.1	.2	.4	.7	.6	.6	.4	.3	.3	.1	.0	.0	.0	.5	.4	.7	.9	.8	.6
95.	.0	.0	.1	.2	.4	.4	.4	.5	.5	.5	.2	.0	.0	.0	.6	.4	.9	.9	.9	.8
100.	.0	.0	.1	.1	.2	.2	.2	.6	.6	.5	.3	.2	.0	.0	.5	.5	1.0	1.2	1.0	.9
105.	.0	.0	.0	.1	.1	.1	.1	.8	.7	.7	.4	.2	.2	.0	.5	.5	1.1	1.4	.8	1.0
110.	.0	.0	.0	.0	.1	.1	.1	.9	.9	.8	.5	.3	.2	.0	.7	.7	1.1	1.5	1.1	1.1
115.	.0	.0	.0	.0	.0	.0	.0	.9	.9	.8	.5	.3	.2	.2	.8	.8	1.3	1.5	1.1	1.1
120.	.0	.0	.0	.0	.0	.0	.0	.9	.9	.9	.5	.4	.3	.2	.8	.8	1.4	1.4	.8	1.0
125.	.0	.0	.0	.0	.0	.0	.0	.9	.8	.9	.6	.4	.3	.2	.7	.7	1.4	1.4	1.0	1.1
130.	.0	.0	.0	.0	.0	.0	.0	.9	.8	1.0	.7	.3	.3	.2	.8	.8	1.6	1.3	.9	1.1
135.	.0	.0	.0	.0	.0	.0	.0	.8	.8	1.0	.7	.3	.3	.3	.8	.9	1.6	1.2	.9	1.1
140.	.0	.0	.0	.0	.0	.0	.0	.8	.8	1.1	.7	.4	.3	.3	.8	1.0	1.7	1.2	1.1	1.1
145.	.0	.0	.0	.0	.0	.0	.0	.8	.8	1.1	.8	.4	.3	.3	.8	1.0	1.6	.8	1.1	1.1
150.	.0	.0	.0	.0	.0	.0	.0	.8	.8	1.2	.8	.4	.3	.3	.9	1.1	1.6	.7	1.1	1.1
155.	.0	.0	.0	.0	.0	.0	.0	.8	.8	1.2	1.0	.5	.4	.3	.8	1.2	1.5	.7	1.0	1.1
160.	.0	.0	.0	.0	.0	.0	.0	.8	.8	1.2	.9	.5	.4	.3	.8	1.2	1.4	.8	1.1	1.1
165.	.0	.0	.0	.0	.0	.0	.0	.8	.8	1.2	.8	.6	.4	.4	.8	1.4	1.4	.7	1.1	1.0
170.	.0	.0	.0	.0	.0	.0	.0	.8	.8	1.2	.8	.6	.3	.3	.9	1.4	1.3	.8	1.1	1.0
175.	.0	.0	.0	.0	.0	.0	.0	.8	.8	1.3	.8	.6	.4	.3	.9	1.3	1.2	.8	1.1	.9
180.	.0	.1	.0	.0	.0	.0	.0	.8	.8	1.3	.8	.7	.5	.3	1.0	1.2	1.2	.9	1.1	.9
185.	.2	.2	.1	.0	.0	.0	.0	.8	.8	1.6	.8	.6	.5	.4	.9	1.3	1.1	.9	1.1	.9
190.	.3	.5	.4	.0	.0	.0	.0	.8	.8	1.6	.8	.5	.5	.5	.8	1.2	1.1	1.0	1.0	1.1
195.	.4	.7	.5	.0	.0	.0	.0	.8	.8	1.4	.8	.7	.8	.6	.7	1.0	.8	1.0	1.0	1.1
200.	.5	.8	.7	.2	.0	.0	.0	.8	.8	1.4	.7	.9	1.1	.7	.6	.9	.8	.9	.9	.9
205.	.6	.9	1.0	.2	.0	.0	.0	.8	.8	1.4	.9	.8	1.2	.7	.6	.6	.9	.9	.9	1.0

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JOB: Pellissippi Site 12 NB AM 2035 RUN: Pellissippi Site 12 NB AM 2035

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	.6	.9	.9	.4	.1	.0	.0	.8	1.0	1.6	.9	1.2	1.4	1.0	.4	.5	.9	.9	1.0	1.0
215.	.7	1.0	.9	.3	.1	.0	.0	.8	1.0	1.7	.6	1.2	1.3	1.1	.5	.4	.8			

																			.8	1.0	1.1
220.	*	.7	.9	1.0	.4	.2	.0	.0	.8	1.1	1.7	.7	1.1	1.3	1.2	.5	.5	.8	.9	1.0	1.0
225.	*	.6	1.0	1.0	.5	.2	.0	.0	.8	1.0	1.7	.9	1.3	1.4	1.2	.4	.5	.8	.9	1.1	1.1
230.	*	.6	1.0	1.0	.6	.3	.0	.0	.8	1.3	1.7	1.0	1.4	1.3	1.2	.4	.5	.7	.9	1.1	1.2
235.	*	.6	1.0	.9	.6	.2	.1	.0	.9	1.2	1.7	1.1	1.4	1.3	1.0	.5	.5	.7	1.1	1.2	1.2
240.	*	.6	1.0	.9	.6	.2	.1	.0	.9	1.5	1.5	1.2	1.6	1.1	.9	.4	.5	.6	1.1	1.1	1.2
245.	*	.5	1.0	1.0	.6	.3	.1	.0	1.0	1.4	1.6	1.3	1.6	1.1	.9	.3	.4	.6	.9	1.2	1.2
250.	*	.5	.9	1.0	.5	.3	.1	.0	1.4	1.8	1.6	1.3	1.4	.8	.9	.3	.4	.6	.8	1.3	1.2
255.	*	.5	.9	1.0	.4	.3	.1	.0	1.4	1.6	1.5	1.2	1.2	.8	.9	.3	.3	.5	.8	1.2	1.0
260.	*	.5	.9	.9	.5	.4	.3	.2	1.5	1.6	1.5	1.1	1.0	.8	.7	.1	.3	.5	.5	1.1	1.0
265.	*	.5	.9	.9	.6	.8	.7	.6	1.3	1.7	1.1	1.1	.9	.7	.7	.1	.3	.3	.5	.9	.8
270.	*	.5	.8	1.1	.8	1.0	.8	.8	1.2	1.1	1.0	.9	.9	.5	.6	.0	.1	.3	.4	.5	.6
275.	*	.5	1.0	1.2	1.1	1.3	1.1	.9	.9	.9	.7	.9	.6	.6	.6	.0	.0	.0	.3	.4	.5
280.	*	.7	1.1	1.4	1.3	1.3	1.4	1.0	.7	.7	.6	.7	.5	.6	.6	.0	.0	.0	.1	.2	.2
285.	*	.7	1.2	1.4	1.4	1.5	1.4	1.1	.3	.2	.4	.6	.5	.5	.6	.0	.0	.0	.0	.1	.1
290.	*	.7	1.3	1.5	1.6	1.6	1.5	1.5	.1	.1	.3	.6	.5	.5	.6	.0	.0	.0	.0	.0	.0
295.	*	.9	1.4	1.5	1.6	1.6	1.4	1.6	.1	.1	.3	.5	.4	.5	.6	.0	.0	.0	.0	.0	.0
300.	*	1.0	1.4	1.5	1.6	1.3	1.4	1.3	.1	.1	.1	.5	.5	.6	.6	.0	.0	.0	.0	.0	.0
305.	*	1.1	1.4	1.5	1.6	1.2	1.4	1.3	.1	.1	.1	.5	.5	.6	.6	.0	.0	.0	.0	.0	.0
310.	*	1.1	1.5	1.5	1.3	1.1	1.3	1.3	.1	.1	.1	.4	.5	.6	.6	.0	.0	.0	.0	.0	.0
315.	*	1.1	1.6	1.4	1.2	1.1	1.4	1.3	.1	.1	.1	.4	.5	.6	.6	.0	.0	.0	.0	.0	.0
320.	*	1.0	1.6	1.4	1.3	1.1	1.2	1.2	.1	.1	.1	.3	.5	.6	.6	.0	.0	.0	.0	.0	.0
325.	*	1.2	1.6	1.6	1.0	1.2	1.2	1.1	.2	.1	.1	.3	.5	.6	.6	.0	.0	.0	.0	.0	.0
330.	*	1.2	1.6	1.6	.9	1.2	1.2	.9	.2	.2	.1	.2	.6	.7	.7	.0	.0	.0	.0	.0	.0
335.	*	1.2	1.7	1.6	.8	1.2	1.2	.9	.2	.2	.2	.2	.6	.7	.7	.0	.0	.0	.0	.0	.0
340.	*	1.2	1.7	1.5	.8	1.3	1.2	.9	.2	.2	.2	.3	.6	.8	.8	.0	.0	.0	.0	.0	.0
345.	*	1.3	1.7	1.3	.9	1.3	1.4	1.0	.1	.2	.2	.3	.5	.8	.8	.0	.0	.0	.0	.0	.0
350.	*	1.4	1.7	1.1	1.0	1.3	1.3	.9	.0	.2	.2	.3	.6	.8	.8	.0	.0	.0	.0	.0	.0
355.	*	1.3	1.6	1.1	1.0	1.4	1.2	.8	.0	.1	.2	.3	.6	.8	.9	.0	.0	.0	.0	.0	.0
360.	*	1.3	1.6	1.1	1.2	1.4	1.1	.8	.0	.0	.2	.3	.6	.9	.8	.1	.1	.0	.0	.0	.0
MAX	*	1.4	1.7	1.6	1.6	1.6	1.5	1.6	1.5	1.8	1.7	1.3	1.6	1.4	1.2	1.0	1.4	1.7	1.5	1.3	1.2
DEGR.	*	350	335	325	290	290	290	295	260	250	225	245	240	210	220	180	165	140	110	250	230

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JOB: Pellissippi Site 12 NB AM 2035 RUN: Pellissippi Site 12 NB AM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	*	.0	1.6	1.6	1.4	1.1	.7	.6	.4
5.	*	.0	1.6	1.6	1.4	1.1	.7	.6	.5
10.	*	.0	1.6	1.6	1.4	1.0	.8	.7	.5
15.	*	.0	1.6	1.6	1.4	1.0	.8	.5	.5
20.	*	.0	1.6	1.6	1.4	1.1	1.0	.6	.8
25.	*	.0	1.6	1.6	1.5	1.1	.9	.7	.7
30.	*	.0	1.7	1.6	1.6	1.1	.8	1.0	1.0
35.	*	.1	1.7	1.7	1.6	1.0	.9	1.0	1.0
40.	*	.1	1.8	1.7	1.6	1.1	.9	.9	1.1
45.	*	.2	1.9	1.8	1.6	1.1	1.1	1.0	1.1

50.	*	.2	1.9	1.8	1.7	1.2	1.1	1.1	1.0
55.	*	.2	2.0	1.9	1.6	1.2	1.2	1.2	.8
60.	*	.1	2.0	1.8	2.0	1.1	1.0	1.1	.9
65.	*	.1	2.0	1.9	1.9	1.1	1.0	1.0	.8
70.	*	.1	2.0	2.1	2.1	1.1	.9	1.0	.8
75.	*	.1	2.1	2.1	2.1	.8	.9	.8	.7
80.	*	.1	1.9	2.0	2.0	.9	.8	.8	.6
85.	*	.4	1.6	1.5	1.5	1.0	.8	.6	.5
90.	*	.5	1.2	1.1	1.2	.9	.7	.6	.4
95.	*	.8	1.0	.9	1.0	.6	.7	.5	.4
100.	*	1.1	.6	.6	.6	.5	.7	.6	.4
105.	*	1.3	.3	.4	.3	.4	.6	.5	.4
110.	*	1.3	.1	.2	.4	.3	.6	.4	.4
115.	*	1.1	.0	.1	.3	.3	.6	.4	.4
120.	*	1.2	.0	.1	.1	.4	.6	.5	.4
125.	*	1.2	.0	.1	.1	.4	.6	.5	.4
130.	*	1.2	.0	.1	.1	.4	.6	.5	.4
135.	*	1.2	.0	.1	.1	.2	.5	.5	.4
140.	*	1.2	.0	.2	.1	.2	.5	.5	.4
145.	*	1.2	.0	.2	.2	.2	.5	.5	.4
150.	*	1.1	.0	.1	.2	.3	.4	.5	.4
155.	*	1.2	.0	.0	.2	.2	.4	.5	.5
160.	*	1.1	.0	.0	.2	.2	.4	.5	.5
165.	*	.9	.0	.1	.2	.2	.3	.5	.6
170.	*	1.0	.0	.1	.1	.2	.3	.5	.5
175.	*	1.0	.0	.0	.1	.3	.4	.6	.5
180.	*	1.0	.0	.0	.1	.3	.4	.6	.5
185.	*	1.0	.0	.0	.0	.1	.4	.5	.6
190.	*	1.0	.0	.0	.0	.1	.4	.5	.3
195.	*	1.0	.0	.0	.0	.0	.3	.4	.3
200.	*	1.0	.0	.0	.0	.0	.0	.3	.3
205.	*	1.0	.0	.0	.0	.0	.0	.1	.2

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JOB: Pellissippi Site 12 NB AM 2035 RUN: Pellissippi Site 12 NB AM 2035

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	*	1.1	.0	.0	.0	.0	.0	.0	.0
215.	*	1.1	.0	.0	.0	.0	.0	.0	.0
220.	*	1.2	.0	.0	.0	.0	.0	.0	.0
225.	*	1.1	.0	.0	.0	.0	.0	.0	.0
230.	*	1.1	.0	.0	.0	.0	.0	.0	.0
235.	*	1.2	.0	.0	.0	.0	.0	.0	.0
240.	*	1.1	.0	.0	.0	.0	.0	.0	.0
245.	*	1.1	.0	.0	.0	.0	.0	.0	.0
250.	*	1.1	.1	.0	.0	.0	.0	.0	.0
255.	*	1.0	.1	.1	.1	.0	.0	.0	.0
260.	*	1.0	.3	.3	.3	.1	.0	.0	.0
265.	*	.8	.4	.4	.5	.2	.0	.0	.0
270.	*	.6	.7	.8	.9	.3	.2	.0	.0
275.	*	.4	1.0	1.1	1.1	.7	.3	.2	.0
280.	*	.2	1.2	1.3	1.2	.8	.4	.2	.1
285.	*	.1	1.4	1.6	1.6	1.0	.6	.2	.2
290.	*	.0	1.5	1.8	1.7	1.2	.6	.4	.2
295.	*	.0	1.5	1.6	1.6	1.3	.6	.4	.2
300.	*	.0	1.4	1.7	1.8	1.3	.7	.6	.4
305.	*	.0	1.3	1.8	1.8	1.4	.8	.6	.4
310.	*	.0	1.4	1.8	1.7	1.4	.7	.5	.4
315.	*	.0	1.4	1.7	1.7	1.3	.7	.5	.5
320.	*	.0	1.4	1.7	1.6	1.3	.7	.7	.5
325.	*	.0	1.4	1.7	1.6	1.3	.8	.6	.5
330.	*	.0	1.5	1.7	1.6	1.3	.8	.6	.4
335.	*	.0	1.5	1.6	1.5	1.2	.6	.6	.5
340.	*	.0	1.5	1.6	1.5	1.1	.6	.5	.5
345.	*	.0	1.5	1.6	1.4	1.1	.6	.5	.5
350.	*	.0	1.5	1.6	1.4	1.0	.6	.6	.4
355.	*	.0	1.6	1.6	1.4	1.0	.7	.6	.4
360.	*	.0	1.6	1.6	1.4	1.1	.7	.6	.4
MAX	*	1.3	2.1	2.1	2.1	1.4	1.2	1.2	1.1
DEGR.	*	105	75	70	70	305	55	55	40

THE HIGHEST CONCENTRATION IS 2.10 PPM AT 70 DEGREES FROM REC23.
THE 2ND HIGHEST CONCENTRATION IS 2.10 PPM AT 70 DEGREES FROM REC24.
THE 3RD HIGHEST CONCENTRATION IS 2.10 PPM AT 75 DEGREES FROM REC22.

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Pellissippi Site 12 NB PM 2035          60.0321.0.0000.000280.30480000    1    1
SE MID S               549763.   518934.       5.0
SE 164 S               549782.   519013.       5.0
SE 82 S                549815.   519090.       5.0
SE CNR                 549882.   519144.       5.0
SE 82 E                549963.   519167.       5.0
SE 164 E               550045.   519168.       5.0
SE MID E               550127.   519167.       5.0
NE MID E               550182.   519343.       5.0
NE 164 E               550099.   519350.       5.0
NE 82 E                550017.   519363.       5.0
NE CNR                 549952.   519418.       5.0
NE 82 N                549926.   519501.       5.0
NE 164 N               549944.   519580.       5.0
NE MID N               549967.   519659.       5.0
NW MID N               549872.   519635.       5.0
NW 164 N               549850.   519555.       5.0
NW 82 N                549817.   519479.       5.0
NW CNR                 549763.   519424.       5.0
NW 82 W                549688.   519393.       5.0
NW 164 W               549606.   519390.       5.0
NW MID W               549524.   519390.       5.0
SW MID W               549417.   519215.       5.0
SW 164 W               549499.   519210.       5.0
SW 82 W                549581.   519201.       5.0
SW CNR                 549653.   519165.       5.0
SW 82 S                549693.   519101.       5.0
SW 164 S               549693.   519015.       5.0
SW MID S               549670.   518935.       5.0
Pellissippi Site 12 NB PM 2035           44  1   0
  1
0         OGnb      AG549548.518327.549690.518773.     74011.3   0  32   30.
  1
0         OGnb      AG549690.518773.549746.518996.     74011.3   0  32   30.
  1
0         OGnbT     AG549748.518996.549818.519243.     33511.3   0  32   30.
  2
0         OGnbTQ    AG549806.519201.549751.519006.      0.  12   1
       114        61        2.0  335   76.0 1600 1 3
  1
0         OGnbL     AG549734.519000.549804.519244.      6011.3   0  32   30.
  2
0         OGnbLQ    AG549792.519202.549736.519008.      0.  12   1
       114        86        2.0   60   76.0 1600 1 3
  1
0         OGnbR     AG549759.518996.549801.519113.     34511.3   0  32   30.
  2
0         OGnbRQ    AG549800.519109.549761.519001.      0.  12   1
       114        61        2.0  345   76.0 1600 1 3
  1
0         OGnbR     AG549801.519113.549860.519169.     34511.3   0  32   30.
  1
0         OGnbR     AG549860.519169.550079.519208.     34511.3   0  32   30.
  1
0         OGnbD     AG549819.519244.550004.519895.     84711.3   0  32   30.
  1
0         OGnbD     AG550004.519896.550098.520248.     84711.3   0  32   30.
  1
0         OGsb      AG550084.520250.549898.519596.    138811.3   0  32   30.
  1
0         OGsbT     AG549892.519596.549802.519285.     50811.3   0  32   30.
  2
0         OGsbTQ    AG549822.519355.549888.519580.      0.  12   1
       114        61        2.0  508   76.0 1600 1 3
  1
0         OGsbL     AG549903.519589.549814.519285.     29011.3   0  32   30.
  2
0         OGsbLQ    AG549835.519357.549900.519577.      0.  12   1
       114        86        2.0  290   76.0 1600 1 3
  1
0         OGsbR     AG549851.519487.549799.519410.     59011.3   0  32   30.
  2
0         OGsbRQ    AG549801.519413.549850.519486.      0.  12   1
       114        61        2.0  590   76.0 1600 1 3
  1
0         OGsbR     AG549799.519410.549704.519371.     59011.3   0  32   30.
  1
0         OGsbR     AG549704.519371.549599.519362.     59011.3   0  32   30.
  1
0         OGsbR     AG549599.519362.549372.519363.     59011.3   0  32   30.
  1
0         OGsbD     AG549802.519285.549662.518778.     86611.3   0  32   30.
  1
0         OGsbD     AG549662.518778.549532.518333.     86611.3   0  32   30.
  1
0         321eb     AG548821.519283.549546.519253.    139812.8   0  44   30.
  1
0         321ebT    AG549546.519253.549830.519241.    110212.8   0  44   30.
  2
0         321ebTQ   AG549760.519244.549559.519252.      0.  24   2
       114        75        2.0 1102   76.0 3200 1 3
  1
0         321ebL    AG549641.519269.549810.519262.     25312.8   0  32   30.
  2
0         321ebLQ   AG549763.519264.549647.519269.      0.  12   1
       114        86        2.0  253   76.0 1600 1 3
```

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  1
0        321ebR    AG549505.519242.549655.519197.      4312.8   0  32   30.
  2
0        321ebRQ   AG549649.519198.549517.519239.      0.  12   1
       114        75       2.0   43   76.0 1600 1 3
  1
0        321ebR    AG549655.519197.549705.519145.      4312.8   0  32   30.
  1
0        321ebR    AG549705.519145.549731.519050.      4312.8   0  32   30.
  1
0        321ebD    AG549831.519239.550815.519193.    173712.8   0  44   30.
  1
0        321wb     AG550818.519272.550021.519309.    229912.8   0  44   30.
  1
0        321wbT    AG550021.519309.549782.519322.    172512.8   0  44   30.
  2
0        321wbTQ   AG549883.519316.549994.519311.      0.  24   2
       114        75       2.0 1725   76.0 3200 1 3
  1
0        321wbL    AG550029.519292.549825.519295.     31512.8   0  32   30.
  2
0        321wbLQ   AG549883.519294.550024.519292.      0.  12   1
       114        86       2.0  315   76.0 1600 1 3
  1
0        321wbR    AG550125.519315.549978.519348.     25912.8   0  32   30.
  2
0        321wbRQ   AG549986.519346.550115.519317.      0.  12   1
       114        75       2.0  259   76.0 1600 1 3
  1
0        321wbR    AG549978.519348.549918.519412.     25912.8   0  32   30.
  1
0        321wbR    AG549918.519412.549897.519502.     25912.8   0  32   30.
  1
0        321wbD    AG549779.519322.548825.519364.    237512.8   0  44   30.
1.0   04  1000   0Y  5  0 72
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JOB: Pellissippi Site 12 NB PM 2035 RUN: Pellissippi Site 12 NB PM 2035
DATE: 12/15/2008 TIME: 14:20:03.76

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK	DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	OGnb	549548.0	518327.0	549690.0	518773.0	468.	18.	AG	740.	11.3	.0	32.0		
2. 0	OGnb	549690.0	518773.0	549746.0	518996.0	230.	14.	AG	740.	11.3	.0	32.0		
3. 0	OGnbT	549748.0	518996.0	549818.0	519243.0	257.	16.	AG	335.	11.3	.0	32.0		
4. 0	OGnbTQ	549806.0	519201.0	549775.7	519093.5	112.	196.	AG	109.	100.0	.0	12.0	.49	5.7
5. 0	OGnbL	549734.0	519000.0	549804.0	519244.0	254.	16.	AG	60.	11.3	.0	32.0		
6. 0	OGnbLQ	549792.0	519202.0	549784.2	519174.9	28.	196.	AG	154.	100.0	.0	12.0	.18	1.4
7. 0	OGnbR	549759.0	518996.0	549801.0	519113.0	124.	20.	AG	345.	11.3	.0	32.0		
8. 0	OGnbRQ	549800.0	519109.0	549760.9	519000.8	115.	200.	AG	109.	100.0	.0	12.0	.50	5.8
9. 0	OGnbR	549801.0	519113.0	549860.0	519169.0	81.	46.	AG	345.	11.3	.0	32.0		
10. 0	OGnbR	549860.0	519169.0	550079.0	519208.0	222.	80.	AG	345.	11.3	.0	32.0		
11. 0	OGnbD	549819.0	519244.0	550004.0	519895.0	677.	16.	AG	847.	11.3	.0	32.0		
12. 0	OGnbD	550004.0	519896.0	550098.0	520248.0	364.	15.	AG	847.	11.3	.0	32.0		
13. 0	OGsb	550084.0	520250.0	549898.0	519596.0	680.	196.	AG	1388.	11.3	.0	32.0		
14. 0	OGsbT	549892.0	519596.0	549802.0	519285.0	324.	196.	AG	508.	11.3	.0	32.0		
15. 0	OGsbTQ	549822.0	519355.0	549869.7	519517.6	169.	16.	AG	109.	100.0	.0	12.0	.74	8.6
16. 0	OGsbL	549903.0	519589.0	549814.0	519285.0	317.	196.	AG	290.	11.3	.0	32.0		
17. 0	OGsbLQ	549835.0	519357.0	549880.7	519511.7	161.	16.	AG	154.	100.0	.0	12.0	.86	8.2
18. 0	OGsbR	549851.0	519487.0	549799.0	519410.0	93.	214.	AG	590.	11.3	.0	32.0		
19. 0	OGsbRQ	549801.0	519413.0	549921.6	519592.6	216.	34.	AG	109.	100.0	.0	12.0	.86	11.0
20. 0	OGsbR	549799.0	519410.0	549704.0	519371.0	103.	248.	AG	590.	11.3	.0	32.0		
21. 0	OGsbR	549704.0	519371.0	549599.0	519362.0	105.	265.	AG	590.	11.3	.0	32.0		
22. 0	OGsbR	549599.0	519362.0	549372.0	519363.0	227.	270.	AG	590.	11.3	.0	32.0		
23. 0	OGsbD	549802.0	519285.0	549662.0	518778.0	526.	195.	AG	866.	11.3	.0	32.0		
24. 0	OGsbD	549662.0	518778.0	549532.0	518333.0	464.	196.	AG	866.	11.3	.0	32.0		
25. 0	321eb	548821.0	519283.0	549546.0	519253.0	726.	92.	AG	1398.	12.8	.0	44.0		
26. 0	321ebT	549546.0	519253.0	549830.0	519241.0	284.	92.	AG	1102.	12.8	.0	44.0		
27. 0	321ebTQ	549760.0	519244.0	549534.2	519253.0	226.	272.	AG	268.	100.0	.0	24.0	.56	11.5
28. 0	321ebL	549641.0	519269.0	549810.0	519262.0	169.	92.	AG	253.	12.8	.0	32.0		
29. 0	321ebLQ	549763.0	519264.0	549637.9	519269.4	125.	273.	AG	154.	100.0	.0	12.0	.75	6.4
30. 0	321ebR	549505.0	519242.0	549655.0	519197.0	157.	107.	AG	43.	12.8	.0	32.0		
31. 0	321ebRQ	549649.0	519198.0	549632.1	519203.2	18.	287.	AG	134.	100.0	.0	12.0	.09	.9
32. 0	321ebR	549655.0	519197.0	549705.0	519145.0	72.	136.	AG	43.	12.8	.0	32.0		
33. 0	321ebR	549705.0	519145.0	549731.0	519050.0	98.	165.	AG	43.	12.8	.0	32.0		
34. 0	321ebD	549831.0	519239.0	550815.0	519193.0	985.	93.	AG	1737.	12.8	.0	44.0		
35. 0	321wb	550818.0	519272.0	550021.0	519309.0	798.	273.	AG	2299.	12.8	.0	44.0		
36. 0	321wbT	550021.0	519309.0	549782.0	519322.0	239.	273.	AG	1725.	12.8	.0	44.0		
37. 0	321wbTQ	549883.0	519316.0	550263.4	519299.0	381.	93.	AG	268.	100.0	.0	24.0	.88	19.3
38. 0	321wbL	550029.0	519292.0	549825.0	519295.0	204.	271.	AG	315.	12.8	.0			

32.0

39. 0	321wbLQ	* 549883.0	519294.0	550082.5	519291.2 *	200.	90. AG	154.	100.0	.0	12.0	.94	10.1	
40. 0	321wbR	* 550125.0	519315.0	549978.0	519348.0 *	151.	283. AG	259.	12.8	.0	32.0			
41. 0	321wbRQ	* 549986.0	519346.0	550089.7	519322.7 *	106.	103. AG	134.	100.0	.0	12.0	.53	5.4	
42. 0	321wbR	* 549978.0	519348.0	549918.0	519412.0 *	88.	317. AG	259.	12.8	.0	32.0			
43. 0	321wbR	* 549918.0	519412.0	549897.0	519502.0 *	92.	347. AG	259.	12.8	.0	32.0			
44. 0	321wbD	* 549779.0	519322.0	548825.0	519364.0 *	955.	273. AG	2375.	12.8	.0	44.0			

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JOB: Pellissippi Site 12 NB PM 2035 RUN: Pellissippi Site 12 NB PM 2035
DATE: 12/15/2008 TIME: 14:20:03.76

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. 0	OGnbTQ	*	114	61	2.0	335	1600	76.00	1	3
6. 0	OGnbLQ	*	114	86	2.0	60	1600	76.00	1	3
8. 0	OGnbRQ	*	114	61	2.0	345	1600	76.00	1	3
15. 0	OGsbTQ	*	114	61	2.0	508	1600	76.00	1	3
17. 0	OGsbLQ	*	114	86	2.0	290	1600	76.00	1	3
19. 0	OGsbRQ	*	114	61	2.0	590	1600	76.00	1	3
27. 0	321ebTQ	*	114	75	2.0	1102	3200	76.00	1	3
29. 0	321ebLQ	*	114	86	2.0	253	1600	76.00	1	3
31. 0	321ebRQ	*	114	75	2.0	43	1600	76.00	1	3
37. 0	321wbTQ	*	114	75	2.0	1725	3200	76.00	1	3
39. 0	321wbLQ	*	114	86	2.0	315	1600	76.00	1	3
41. 0	321wbRQ	*	114	75	2.0	259	1600	76.00	1	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. SE MID S	*	549763.0	518934.0	5.0	*
2. SE 164 S	*	549782.0	519013.0	5.0	*
3. SE 82 S	*	549815.0	519090.0	5.0	*
4. SE CNR	*	549882.0	519144.0	5.0	*
5. SE 82 E	*	549963.0	519167.0	5.0	*
6. SE 164 E	*	550045.0	519168.0	5.0	*
7. SE MID E	*	550127.0	519167.0	5.0	*
8. NE MID E	*	550182.0	519343.0	5.0	*
9. NE 164 E	*	550099.0	519350.0	5.0	*
10. NE 82 E	*	550017.0	519363.0	5.0	*
11. NE CNR	*	549952.0	519418.0	5.0	*
12. NE 82 N	*	549926.0	519501.0	5.0	*
13. NE 164 N	*	549944.0	519580.0	5.0	*
14. NE MID N	*	549967.0	519659.0	5.0	*
15. NW MID N	*	549872.0	519635.0	5.0	*
16. NW 164 N	*	549850.0	519555.0	5.0	*
17. NW 82 N	*	549817.0	519479.0	5.0	*
18. NW CNR	*	549763.0	519424.0	5.0	*
19. NW 82 W	*	549688.0	519393.0	5.0	*
20. NW 164 W	*	549606.0	519390.0	5.0	*
21. NW MID W	*	549524.0	519390.0	5.0	*
22. SW MID W	*	549417.0	519215.0	5.0	*
23. SW 164 W	*	549499.0	519210.0	5.0	*
24. SW 82 W	*	549581.0	519201.0	5.0	*
25. SW CNR	*	549653.0	519165.0	5.0	*
26. SW 82 S	*	549693.0	519101.0	5.0	*
27. SW 164 S	*	549693.0	519015.0	5.0	*
28. SW MID S	*	549670.0	518935.0	5.0	*

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PAGE 3
JOB: Pellissippi Site 12 NB PM 2035 RUN: Pellissippi Site 12 NB PM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) * CONCENTRATION (PPM)

WIND ANGLE (DEGR)	*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	*	.9	1.4	1.1	1.1	1.2	1.3	.9	.0	.1	.2	.3	.7	.7	.8	.1	.1	.1	.0	.0	.0
5.	*	1.1	1.4	1.1	1.0	1.2	1.3	.9	.0	.0	.1	.3	.7	.7	.8	.1	.2	.1			

																			.0	.0	.0
10.	*	.9	1.3	.8	1.1	1.2	1.2	1.0	.0	.0	.1	.2	.5	.7	.6	.2	.3	.1	.1	.0	.0
15.	*	.9	1.2	.8	1.1	1.2	1.1	1.0	.0	.0	.0	.2	.4	.6	.5	.5	.4	.3	.1	.1	.0
20.	*	.7	1.0	.8	1.0	1.1	1.0	1.0	.0	.0	.0	.1	.3	.4	.4	.6	.5	.3	.2	.1	.0
25.	*	.4	.6	.8	.9	1.2	1.0	1.0	.0	.0	.0	.0	.2	.2	.2	.7	.5	.6	.3	.1	.1
30.	*	.4	.8	.6	1.0	1.2	1.0	1.0	.0	.0	.0	.0	.2	.2	.2	.8	.7	.6	.4	.2	.1
35.	*	.4	.7	.8	.9	1.2	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.7	.7	.6	.5	.2	.1
40.	*	.3	.6	.8	.9	1.2	1.1	1.0	.0	.0	.0	.0	.0	.0	.0	.7	.6	.6	.5	.2	.1
45.	*	.4	.4	.9	1.1	1.3	1.2	1.0	.0	.0	.0	.0	.0	.0	.0	.7	.6	.8	.8	.3	.2
50.	*	.5	.5	1.0	1.1	1.2	1.1	1.0	.0	.0	.0	.0	.0	.0	.0	.7	.6	1.0	.8	.3	.2
55.	*	.5	.5	.8	1.1	1.3	1.1	1.0	.0	.0	.0	.0	.0	.0	.0	.7	.6	1.0	.7	.3	.2
60.	*	.4	.5	.7	1.0	1.3	1.0	.9	.0	.0	.0	.0	.0	.0	.0	.6	.6	1.0	.7	.5	.2
65.	*	.2	.5	.6	1.0	1.3	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.6	.7	1.0	.7	.7	.2
70.	*	.2	.4	.6	.9	1.1	1.0	1.0	.1	.0	.0	.0	.0	.0	.0	.6	.7	1.1	.8	.7	.3
75.	*	.2	.3	.5	.9	1.0	.8	.9	.1	.1	.1	.0	.0	.0	.0	.6	.7	1.2	.8	.7	.3
80.	*	.2	.2	.4	.8	.9	.8	.8	.2	.2	.1	.0	.0	.0	.0	.6	.7	1.2	.8	.8	.4
85.	*	.0	.2	.3	.5	.7	.6	.7	.3	.4	.4	.1	.0	.0	.0	.6	.7	1.3	.8	.9	.7
90.	*	.0	.1	.2	.3	.5	.5	.5	.6	.7	.6	.2	.0	.0	.0	.6	.7	1.3	1.1	1.1	1.0
95.	*	.0	.0	.1	.3	.3	.4	.4	.9	.9	.8	.4	.1	.0	.0	.6	.8	1.3	1.1	1.3	1.1
100.	*	.0	.0	.0	.1	.2	.2	.2	1.1	1.3	1.4	.5	.1	.1	.0	.6	.8	1.6	1.4	1.6	1.5
105.	*	.0	.0	.0	.0	.1	.1	.1	1.3	1.4	1.6	.7	.3	.1	.0	.7	.9	1.7	1.5	1.5	1.5
110.	*	.0	.0	.0	.0	.0	.0	.0	1.5	1.6	1.7	.9	.5	.2	.1	.8	1.0	1.7	1.8	1.6	1.3
115.	*	.0	.0	.0	.0	.0	.0	.0	1.6	1.7	1.9	1.0	.5	.3	.2	.9	1.1	1.9	1.7	1.6	1.4
120.	*	.0	.0	.0	.0	.0	.0	.0	1.7	1.7	1.9	1.1	.6	.3	.2	.9	1.1	2.0	1.7	1.4	1.3
125.	*	.0	.0	.0	.0	.0	.0	.0	1.6	1.8	1.9	1.0	.7	.4	.3	.9	1.1	2.0	1.5	1.2	1.4
130.	*	.0	.0	.0	.0	.0	.0	.0	1.7	1.7	2.0	1.1	.7	.4	.3	1.0	1.3	2.0	1.5	1.2	1.3
135.	*	.0	.0	.0	.0	.0	.0	.0	1.7	1.7	2.0	1.2	.7	.4	.3	1.0	1.4	2.0	1.3	1.1	1.4
140.	*	.0	.0	.0	.0	.0	.0	.0	1.6	1.8	2.0	1.2	.7	.4	.4	1.0	1.6	2.0	1.3	1.1	1.3
145.	*	.0	.0	.0	.0	.0	.0	.0	1.6	1.6	1.9	1.0	.9	.4	.4	.9	1.5	1.9	1.0	1.2	1.4
150.	*	.0	.0	.0	.0	.0	.0	.0	1.6	1.6	1.9	1.1	.9	.5	.4	.9	1.6	1.9	.9	1.1	1.4
155.	*	.0	.0	.0	.0	.0	.0	.0	1.6	1.6	2.0	1.1	.8	.5	.4	1.1	1.6	1.8	.9	1.2	1.4
160.	*	.0	.0	.0	.0	.0	.0	.0	1.5	1.6	2.0	1.1	.7	.5	.3	1.0	1.5	1.8	1.0	1.3	1.4
165.	*	.0	.0	.0	.0	.0	.0	.0	1.6	1.6	1.9	1.1	.8	.6	.3	1.0	1.6	1.7	1.1	1.3	1.4
170.	*	.0	.0	.0	.0	.0	.0	.0	1.6	1.6	2.0	1.0	.7	.6	.4	1.1	1.6	1.5	.8	1.3	1.3
175.	*	.0	.0	.0	.0	.0	.0	.0	1.5	1.6	1.9	1.0	.7	.4	.4	1.1	1.6	1.3	.8	1.4	1.2
180.	*	.0	.0	.0	.0	.0	.0	.0	1.5	1.6	2.0	1.0	.7	.5	.4	1.1	1.6	1.4	1.0	1.4	1.0
185.	*	.2	.1	.0	.0	.0	.0	.0	1.5	1.8	2.0	1.0	.7	.4	.4	1.1	1.4	1.3	1.0	1.4	1.1
190.	*	.3	.3	.1	.0	.0	.0	.0	1.6	1.8	2.0	1.0	.7	.5	.5	.9	1.4	1.2	1.1	1.3	1.1
195.	*	.3	.6	.5	.0	.0	.0	.0	1.6	1.8	2.0	1.0	.8	.7	.7	1.0	1.1	1.2	1.1	1.2	1.2
200.	*	.5	.6	.6	.0	.0	.0	.0	1.5	1.8	1.9	1.0	.9	1.0	.9	1.0	1.1	1.0	1.1	1.2	1.2
205.	*	.5	.6	.7	.2	.0	.0	.0	1.6	1.9	1.9	1.0	1.0	1.3	1.2	.5	.9	.9	1.0	1.2	1.1

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JOB: Pellissippi Site 12 NB PM 2035 RUN: Pellissippi Site 12 NB PM 2035

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	.5	.7	.6	.2	.0	.0	.0	1.6	2.0	2.1	1.0	1.4	1.4	1.4	.4	.6	.9	1.0	1.1	1.0
215.	*	.5	.6	.7	.3	.0	.0	.0	1.7	2.0	2.0	.9	1.4	1.5	1.3	.4	.4	.9			

																		1.0	1.1	1.1
220.	*	.6	.6	.9	.3	.1	.0	.0	1.7	2.1	2.0	1.0	1.3	1.4	1.1	.3	.4	.6	1.0	1.2	1.1
225.	*	.5	.6	.9	.2	.1	.0	.0	1.7	2.3	1.9	1.1	1.5	1.3	1.0	.4	.4	.7	1.2	1.1	1.1
230.	*	.5	.6	.8	.2	.1	.1	.0	1.8	2.3	2.0	1.0	1.5	1.4	1.0	.3	.5	.7	1.1	1.1	1.1
235.	*	.5	.8	.8	.2	.1	.1	.0	1.8	2.4	2.0	1.0	1.7	1.4	.9	.3	.4	.6	1.0	1.1	1.1
240.	*	.4	.7	.7	.3	.1	.1	.0	2.1	2.4	2.0	1.1	1.6	1.1	.9	.3	.4	.6	.9	1.3	1.1
245.	*	.4	.7	.7	.5	.1	.1	.1	2.1	2.6	1.9	1.2	1.6	1.1	.9	.3	.4	.5	.9	1.2	1.1
250.	*	.4	.7	.7	.5	.1	.1	.1	2.3	2.5	1.8	1.3	1.5	1.1	.9	.3	.3	.5	.9	1.2	1.1
255.	*	.4	.7	.7	.4	.2	.1	.1	2.4	2.4	1.5	1.2	1.5	1.1	.7	.1	.3	.4	.9	1.2	1.1
260.	*	.4	.8	.7	.4	.3	.1	.1	2.1	2.1	1.6	.9	1.5	.8	.7	.1	.3	.4	.7	1.1	1.1
265.	*	.4	.7	.8	.5	.6	.5	.4	2.0	1.9	1.4	.9	1.2	.8	.7	.1	.1	.3	.5	.9	.9
270.	*	.4	.7	.9	.6	.7	.7	.6	1.6	1.5	1.2	.9	1.1	.8	.6	.0	.1	.1	.4	.8	.7
275.	*	.4	.7	1.0	.8	.7	.8	.8	1.3	1.1	.8	.9	.8	.7	.6	.0	.0	.1	.2	.5	.5
280.	*	.4	.9	1.0	.9	1.1	1.0	1.0	.8	.7	.7	.8	.7	.7	.6	.0	.0	.0	.1	.2	.3
285.	*	.5	.9	1.0	1.1	1.2	1.0	1.2	.6	.5	.5	.8	.7	.7	.6	.0	.0	.0	.1	.1	.1
290.	*	.6	.9	1.2	1.2	1.4	1.1	1.1	.2	.3	.5	.7	.7	.6	.6	.0	.0	.0	.0	.0	.1
295.	*	.6	1.0	1.2	1.3	1.2	1.0	1.2	.1	.2	.4	.7	.6	.6	.6	.0	.0	.0	.0	.0	.0
300.	*	.6	1.0	1.4	1.2	1.2	1.2	1.1	.1	.2	.4	.6	.6	.6	.6	.0	.0	.0	.0	.0	.0
305.	*	.7	1.1	1.5	1.1	1.0	1.2	1.3	.1	.1	.4	.6	.6	.7	.6	.0	.0	.0	.0	.0	.0
310.	*	.7	1.1	1.5	1.0	1.0	1.2	1.2	.1	.1	.3	.6	.6	.7	.6	.0	.0	.0	.0	.0	.0
315.	*	.7	1.2	1.5	1.1	.9	1.3	1.2	.2	.1	.3	.6	.6	.6	.6	.0	.0	.0	.0	.0	.0
320.	*	.8	1.2	1.4	.9	1.0	1.2	1.2	.2	.2	.2	.6	.6	.6	.6	.0	.0	.0	.0	.0	.0
325.	*	.8	1.2	1.3	.9	1.1	1.1	1.4	.2	.2	.2	.5	.6	.6	.6	.0	.0	.0	.0	.0	.0
330.	*	.8	1.3	1.5	.8	1.1	1.1	1.4	.2	.2	.2	.5	.7	.6	.6	.0	.0	.0	.0	.0	.0
335.	*	.8	1.3	1.3	.7	1.1	1.2	1.6	.1	.2	.2	.5	.7	.7	.7	.0	.0	.0	.0	.0	.0
340.	*	.8	1.2	1.3	.9	1.2	1.3	1.4	.1	.2	.2	.4	.7	.7	.7	.0	.0	.0	.0	.0	.0
345.	*	1.0	1.3	1.3	.9	1.2	1.3	1.1	.1	.2	.2	.4	.7	.7	.7	.0	.0	.0	.0	.0	.0
350.	*	.8	1.2	.9	1.0	1.2	1.4	1.1	.1	.1	.2	.4	.6	.8	.7	.0	.0	.0	.0	.0	.0
355.	*	.9	1.3	.9	1.2	1.2	1.3	1.1	.1	.1	.2	.4	.7	.8	.7	.0	.0	.0	.0	.0	.0
360.	*	.9	1.4	1.1	1.1	1.2	1.3	.9	.0	.1	.2	.3	.7	.7	.8	.1	.1	.1	.0	.0	.0
MAX	*	1.1	1.4	1.5	1.3	1.4	1.4	1.6	2.4	2.6	2.1	1.3	1.7	1.5	1.4	1.1	1.6	2.0	1.8	1.6	1.5
DEGR.	*	5	0	330	295	290	350	335	255	245	210	250	235	215	210	155	140	125	110	115	100

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JOB: Pellissippi Site 12 NB PM 2035 RUN: Pellissippi Site 12 NB PM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	*	.0	.9	.9	1.2	1.0	.7	.6	.3
5.	*	.0	.9	.9	1.2	1.0	.7	.6	.4
10.	*	.0	.9	.9	1.2	.9	.8	.6	.4
15.	*	.0	.9	1.0	1.1	1.0	.9	.8	.8
20.	*	.0	.9	1.0	1.2	1.1	.8	.8	.8
25.	*	.0	.9	.9	1.3	1.1	.7	.9	.7
30.	*	.1	.9	1.2	1.4	1.1	.7	1.0	.9
35.	*	.1	1.0	1.1	1.5	1.3	.8	.9	.8
40.	*	.1	1.1	1.2	1.4	1.2	.7	.8	1.0
45.	*	.1	1.0	1.5	1.3	1.0	.8	1.1	.9

50.	.1	1.0	1.3	1.5	1.2	1.0	1.1	.8
55.	.2	1.0	1.4	1.4	1.2	1.1	1.0	.9
60.	.2	1.1	1.6	1.5	1.1	1.2	1.1	.9
65.	.1	1.1	1.7	1.5	1.3	1.1	1.1	.7
70.	.1	1.4	1.7	1.5	1.1	1.0	1.1	.6
75.	.1	1.4	1.6	1.6	1.1	1.0	.9	.6
80.	.2	1.4	1.6	1.5	.9	.9	.8	.6
85.	.7	1.3	1.5	1.3	.8	.7	.8	.4
90.	.9	1.1	1.1	1.1	.7	.7	.7	.4
95.	1.1	.8	.9	.8	.5	.6	.5	.3
100.	1.2	.4	.5	.6	.3	.4	.4	.3
105.	1.2	.4	.4	.2	.3	.4	.5	.3
110.	1.6	.1	.1	.2	.2	.4	.4	.4
115.	1.7	.1	.1	.1	.2	.4	.4	.4
120.	1.4	.1	.1	.1	.2	.4	.4	.4
125.	1.5	.1	.1	.1	.2	.4	.4	.4
130.	1.5	.1	.1	.1	.2	.4	.4	.4
135.	1.5	.0	.1	.1	.2	.3	.4	.5
140.	1.5	.0	.1	.1	.2	.3	.5	.5
145.	1.3	.0	.1	.1	.1	.3	.5	.5
150.	1.2	.0	.1	.1	.1	.3	.5	.5
155.	1.2	.0	.0	.1	.2	.3	.5	.5
160.	1.2	.0	.0	.1	.2	.3	.5	.4
165.	1.2	.0	.0	.1	.2	.3	.5	.4
170.	1.2	.0	.0	.0	.2	.3	.5	.6
175.	1.1	.0	.0	.0	.2	.3	.4	.5
180.	1.0	.0	.0	.0	.2	.4	.6	.5
185.	1.1	.0	.0	.0	.2	.4	.5	.4
190.	1.0	.0	.0	.0	.0	.3	.5	.3
195.	1.0	.0	.0	.0	.0	.2	.3	.3
200.	1.0	.0	.0	.0	.0	.0	.2	.3
205.	1.0	.0	.0	.0	.0	.0	.2	.1

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JOB: Pellissippi Site 12 NB PM 2035 RUN: Pellissippi Site 12 NB PM 2035

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	1.0	.0	.0	.0	.0	.0	.0	.0
215.	1.0	.0	.0	.0	.0	.0	.0	.0
220.	1.0	.0	.0	.0	.0	.0	.0	.0
225.	1.1	.0	.0	.0	.0	.0	.0	.0
230.	1.1	.0	.0	.0	.0	.0	.0	.0
235.	1.1	.0	.0	.0	.0	.0	.0	.0
240.	1.1	.0	.0	.0	.0	.0	.0	.0
245.	1.2	.0	.0	.0	.0	.0	.0	.0
250.	1.2	.0	.0	.0	.0	.0	.0	.0
255.	1.2	.1	.1	.0	.0	.0	.0	.0
260.	1.1	.1	.1	.1	.0	.0	.0	.0
265.	.8	.2	.2	.2	.1	.0	.0	.0
270.	.7	.4	.4	.4	.2	.1	.0	.0
275.	.5	.5	.6	.6	.3	.2	.0	.0
280.	.2	.7	.7	.6	.5	.2	.1	.0
285.	.1	.8	.8	.8	.5	.4	.2	.0
290.	.1	.9	1.0	.9	.7	.4	.2	.2
295.	.0	1.0	1.0	1.0	.8	.4	.3	.2
300.	.0	1.0	.9	.9	.7	.5	.3	.2
305.	.0	.9	.9	1.0	.8	.6	.3	.2
310.	.0	.9	.9	1.0	.8	.6	.3	.3
315.	.0	.9	.9	1.0	1.0	.6	.3	.3
320.	.0	.9	.9	1.2	1.0	.7	.4	.3
325.	.0	.9	.9	1.2	1.0	.7	.4	.3
330.	.0	.9	.8	1.3	.9	.5	.5	.3
335.	.0	.8	.9	1.2	.9	.5	.4	.4
340.	.0	.8	.9	1.2	.9	.5	.4	.4
345.	.0	.8	.9	1.3	.9	.6	.5	.4
350.	.0	.8	.9	1.2	1.0	.6	.5	.4
355.	.0	.9	.9	1.2	1.0	.7	.5	.4
360.	.0	.9	.9	1.2	1.0	.7	.6	.3
MAX	1.7	1.4	1.7	1.6	1.3	1.2	1.1	1.0
DEGR.	115	80	70	75	35	60	45	40

THE HIGHEST CONCENTRATION IS 2.60 PPM AT 245 DEGREES FROM REC9 .
THE 2ND HIGHEST CONCENTRATION IS 2.40 PPM AT 255 DEGREES FROM REC8 .
THE 3RD HIGHEST CONCENTRATION IS 2.10 PPM AT 210 DEGREES FROM REC10.

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Pellissippi Site 12 BD AM 2035          60.0321.0.0000.000280.30480000    1    1
SE MID S              549763.   518934.       5.0
SE 164 S              549782.   519013.       5.0
SE 82 S               549815.   519090.       5.0
SE CNR                549882.   519144.       5.0
SE 82 E               549963.   519167.       5.0
SE 164 E              550045.   519168.       5.0
SE MID E              550127.   519167.       5.0
NE MID E              550182.   519343.       5.0
NE 164 E              550099.   519350.       5.0
NE 82 E               550017.   519363.       5.0
NE CNR                549952.   519418.       5.0
NE 82 N               549926.   519501.       5.0
NE 164 N              549944.   519580.       5.0
NE MID N              549967.   519659.       5.0
NW MID N              549872.   519635.       5.0
NW 164 N              549850.   519555.       5.0
NW 82 N               549817.   519479.       5.0
NW CNR                549763.   519424.       5.0
NW 82 W               549688.   519393.       5.0
NW 164 W              549606.   519390.       5.0
NW MID W              549524.   519390.       5.0
SW MID W              549417.   519215.       5.0
SW 164 W              549499.   519210.       5.0
SW 82 W               549581.   519201.       5.0
SW CNR                549653.   519165.       5.0
SW 82 S               549693.   519101.       5.0
SW 164 S              549693.   519015.       5.0
SW MID S              549670.   518935.       5.0
Pellissippi Site 12 BD AM 2035           44  1   0
  1
0         OGnb      AG549548.518327.549690.518773.    109611.3   0  32   30.
  1
0         OGnb      AG549690.518773.549746.518996.    109611.3   0  32   30.
  1
0         OGnbT     AG549748.518996.549818.519243.     49011.3   0  32   30.
  2
0         OGnbTQ    AG549806.519201.549751.519006.      0.  12   1
       114        61       2.0  490   76.0 1600 1 3
  1
0         OGnbL     AG549734.519000.549804.519244.      9811.3   0  32   30.
  2
0         OGnbLQ    AG549792.519202.549736.519008.      0.  12   1
       114        86       2.0   98   76.0 1600 1 3
  1
0         OGnbR     AG549759.518996.549801.519113.     50811.3   0  32   30.
  2
0         OGnbRQ    AG549800.519109.549761.519001.      0.  12   1
       114        61       2.0  508   76.0 1600 1 3
  1
0         OGnbR     AG549801.519113.549860.519169.     50811.3   0  32   30.
  1
0         OGnbR     AG549860.519169.550079.519208.     50811.3   0  32   30.
  1
0         OGnbD     AG549819.519244.550004.519895.    120611.3   0  32   30.
  1
0         OGnbD     AG550004.519896.550098.520248.    120611.3   0  32   30.
  1
0         OGsb      AG550084.520250.549898.519596.    102211.3   0  32   30.
  1
0         OGsbT     AG549892.519596.549802.519285.     43411.3   0  32   30.
  2
0         OGsbTQ    AG549822.519355.549888.519580.      0.  12   1
       114        61       2.0  434   76.0 1600 1 3
  1
0         OGsbL     AG549903.519589.549814.519285.     20011.3   0  32   30.
  2
0         OGsbLQ    AG549835.519357.549900.519577.      0.  12   1
       114        86       2.0  200   76.0 1600 1 3
  1
0         OGsbR     AG549851.519487.549799.519410.     38811.3   0  32   30.
  2
0         OGsbRQ    AG549801.519413.549850.519486.      0.  12   1
       114        61       2.0  388   76.0 1600 1 3
  1
0         OGsbR     AG549799.519410.549704.519371.     38811.3   0  32   30.
  1
0         OGsbR     AG549704.519371.549599.519362.     38811.3   0  32   30.
  1
0         OGsbR     AG549599.519362.549372.519363.     38811.3   0  32   30.
  1
0         OGsbD     AG549802.519285.549662.518778.     79211.3   0  32   30.
  1
0         OGsbD     AG549662.518778.549532.518333.     79211.3   0  32   30.
  1
0         321eb     AG548821.519283.549546.519253.    242312.8   0  44   30.
  1
0         321ebT    AG549546.519253.549830.519241.    171712.8   0  44   30.
  2
0         321ebTQ   AG549760.519244.549559.519252.      0.  24   2
       114        75       2.0 1717   76.0 3200 1 3
  1
0         321ebL    AG549641.519269.549810.519262.     60112.8   0  32   30.
  2
0         321ebLQ   AG549763.519264.549647.519269.      0.  12   1
       114        86       2.0  601   76.0 1600 1 3
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  1
0         321ebR    AG549505.519242.549655.519197.     10512.8   0  32   30.
  2
0         321ebRQ   AG549649.519198.549517.519239.      0.  12   1
       114        75       2.0  105   76.0 1600 1 3
  1
0         321ebR    AG549655.519197.549705.519145.     10512.8   0  32   30.
  1
0         321ebR    AG549705.519145.549731.519050.     10512.8   0  32   30.
  1
0         321ebD    AG549831.519239.550815.519193.    242512.8   0  44   30.
  1
0         321wb     AG550818.519272.550021.519309.    119212.8   0  44   30.
  1
0         321wbT    AG550021.519309.549782.519322.     82412.8   0  44   30.
  2
0         321wbTQ   AG549883.519316.549994.519311.      0.  24   2
       114        75       2.0  824   76.0 3200 1 3
  1
0         321wbL    AG550029.519292.549825.519295.     25312.8   0  32   30.
  2
0         321wbLQ   AG549883.519294.550024.519292.      0.  12   1
       114        86       2.0  253   76.0 1600 1 3
  1
0         321wbR    AG550125.519315.549978.519348.     11512.8   0  32   30.
  2
0         321wbRQ   AG549986.519346.550115.519317.      0.  12   1
       114        75       2.0  115   76.0 1600 1 3
  1
0         321wbR    AG549978.519348.549918.519412.     11512.8   0  32   30.
  1
0         321wbR    AG549918.519412.549897.519502.     11512.8   0  32   30.
  1
0         321wbD    AG549779.519322.548825.519364.    131012.8   0  44   30.
1.0   04  1000   0Y  5  0 72
```

1 CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.2, JUNE 2000
PAGE 1

JOB: Pellissippi Site 12 BD AM 2035 RUN: Pellissippi Site 12 BD AM 2035
DATE: 12/15/2008 TIME: 14:21:00.55

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK	DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	OGnb	549548.0	518327.0	549690.0	518773.0	468.	18.	AG	1096.	11.3	.0	32.0		
2. 0	OGnb	549690.0	518773.0	549746.0	518996.0	230.	14.	AG	1096.	11.3	.0	32.0		
3. 0	OGnbT	549748.0	518996.0	549818.0	519243.0	257.	16.	AG	490.	11.3	.0	32.0		
4. 0	OGnbTQ	549806.0	519201.0	549761.6	519043.7	163.	196.	AG	109.	100.0	.0	12.0	.71	8.3
5. 0	OGnbL	549734.0	519000.0	549804.0	519244.0	254.	16.	AG	98.	11.3	.0	32.0		
6. 0	OGnbLQ	549792.0	519202.0	549779.3	519157.7	46.	196.	AG	154.	100.0	.0	12.0	.29	2.3
7. 0	OGnbR	549759.0	518996.0	549801.0	519113.0	124.	20.	AG	508.	11.3	.0	32.0		
8. 0	OGnbRQ	549800.0	519109.0	549742.5	518949.6	169.	200.	AG	109.	100.0	.0	12.0	.74	8.6
9. 0	OGnbR	549801.0	519113.0	549860.0	519169.0	81.	46.	AG	508.	11.3	.0	32.0		
10. 0	OGnbR	549860.0	519169.0	550079.0	519208.0	222.	80.	AG	508.	11.3	.0	32.0		
11. 0	OGnbD	549819.0	519244.0	550004.0	519895.0	677.	16.	AG	1206.	11.3	.0	32.0		
12. 0	OGnbD	550004.0	519896.0	550098.0	520248.0	364.	15.	AG	1206.	11.3	.0	32.0		
13. 0	OGsb	550084.0	520250.0	549898.0	519596.0	680.	196.	AG	1022.	11.3	.0	32.0		
14. 0	OGsbT	549892.0	519596.0	549802.0	519285.0	324.	196.	AG	434.	11.3	.0	32.0		
15. 0	OGsbTQ	549822.0	519355.0	549862.8	519493.9	145.	16.	AG	109.	100.0	.0	12.0	.63	7.4
16. 0	OGsbL	549903.0	519589.0	549814.0	519285.0	317.	196.	AG	200.	11.3	.0	32.0		
17. 0	OGsbLQ	549835.0	519357.0	549861.6	519447.2	94.	16.	AG	154.	100.0	.0	12.0	.60	4.8
18. 0	OGsbR	549851.0	519487.0	549799.0	519410.0	93.	214.	AG	388.	11.3	.0	32.0		
19. 0	OGsbRQ	549801.0	519413.0	549873.1	519520.4	129.	34.	AG	109.	100.0	.0	12.0	.56	6.6
20. 0	OGsbR	549799.0	519410.0	549704.0	519371.0	103.	248.	AG	388.	11.3	.0	32.0		
21. 0	OGsbR	549704.0	519371.0	549599.0	519362.0	105.	265.	AG	388.	11.3	.0	32.0		
22. 0	OGsbR	549599.0	519362.0	549372.0	519363.0	227.	270.	AG	388.	11.3	.0	32.0		
23. 0	OGsbD	549802.0	519285.0	549662.0	518778.0	526.	195.	AG	792.	11.3	.0	32.0		
24. 0	OGsbD	549662.0	518778.0	549532.0	518333.0	464.	196.	AG	792.	11.3	.0	32.0		
25. 0	321eb	548821.0	519283.0	549546.0	519253.0	726.	92.	AG	2423.	12.8	.0	44.0		
26. 0	321ebT	549546.0	519253.0	549830.0	519241.0	284.	92.	AG	1717.	12.8	.0	44.0		
27. 0	321ebTQ	549760.0	519244.0	549383.0	519259.0	377.	272.	AG	268.	100.0	.0	24.0	.87	19.2
28. 0	321ebL	549641.0	519269.0	549810.0	519262.0	169.	92.	AG	601.	12.8	.0	32.0		
29. 0	321ebLQ	549763.0	519264.0	546715.3	519394.6	3050.	272.	AG	154.	100.0	.0	12.0	1.79	155.0
30. 0	321ebR	549505.0	519242.0	549655.0	519197.0	157.	107.	AG	105.	12.8	.0	32.0		
31. 0	321ebRQ	549649.0	519198.0	549607.9	519210.8	43.	287.	AG	134.	100.0	.0	12.0	.21	2.2
32. 0	321ebR	549655.0	519197.0	549705.0	519145.0	72.	136.	AG	105.	12.8	.0	32.0		
33. 0	321ebR	549705.0	519145.0	549731.0	519050.0	98.	165.	AG	105.	12.8	.0	32.0		
34. 0	321ebD	549831.0	519239.0	550815.0	519193.0	985.	93.	AG	2425.	12.8	.0	44.0		
35. 0	321wb	550818.0	519272.0	550021.0	519309.0	798.	273.	AG	1192.	12.8	.0	44.0		
36. 0	321wbT	550021.0	519309.0	549782.0	519322.0	239.	273.	AG	824.	12.8	.0	44.0		
37. 0	321wbTQ	549883.0	519316.0	550051.8	519308.4	169.	92.	AG	268.	100.0	.0	24.0	.42	8.6
38. 0	321wbL	550029.0	519292.0	549825.0	519295.0	204.	271.	AG	253.	12.8	.0			

32.0

39. 0	321wbLQ	* 549883.0	519294.0	550008.2	519292.2 *	125.	91. AG	154.	100.0	.0	12.0	.75	6.4
40. 0	321wbR	* 550125.0	519315.0	549978.0	519348.0 *	151.	283. AG	115.	12.8	.0	32.0		
41. 0	321wbRQ	* 549986.0	519346.0	550032.0	519335.6 *	47.	103. AG	134.	100.0	.0	12.0	.23	2.4
42. 0	321wbR	* 549978.0	519348.0	549918.0	519412.0 *	88.	317. AG	115.	12.8	.0	32.0		
43. 0	321wbR	* 549918.0	519412.0	549897.0	519502.0 *	92.	347. AG	115.	12.8	.0	32.0		
44. 0	321wbD	* 549779.0	519322.0	548825.0	519364.0 *	955.	273. AG	1310.	12.8	.0	44.0		

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JOB: Pellissippi Site 12 BD AM 2035 RUN: Pellissippi Site 12 BD AM 2035
DATE: 12/15/2008 TIME: 14:21:00.55

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. 0	OGnbTQ	*	114	61	2.0	490	1600	76.00	1	3
6. 0	OGnbLQ	*	114	86	2.0	98	1600	76.00	1	3
8. 0	OGnbRQ	*	114	61	2.0	508	1600	76.00	1	3
15. 0	OGsbTQ	*	114	61	2.0	434	1600	76.00	1	3
17. 0	OGsbLQ	*	114	86	2.0	200	1600	76.00	1	3
19. 0	OGsbRQ	*	114	61	2.0	388	1600	76.00	1	3
27. 0	321ebTQ	*	114	75	2.0	1717	3200	76.00	1	3
29. 0	321ebLQ	*	114	86	2.0	601	1600	76.00	1	3
31. 0	321ebRQ	*	114	75	2.0	105	1600	76.00	1	3
37. 0	321wbTQ	*	114	75	2.0	824	3200	76.00	1	3
39. 0	321wbLQ	*	114	86	2.0	253	1600	76.00	1	3
41. 0	321wbRQ	*	114	75	2.0	115	1600	76.00	1	3

RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (FT) X	Y	Z	*
1. SE MID S	*	549763.0	518934.0	5.0	*
2. SE 164 S	*	549782.0	519013.0	5.0	*
3. SE 82 S	*	549815.0	519090.0	5.0	*
4. SE CNR	*	549882.0	519144.0	5.0	*
5. SE 82 E	*	549963.0	519167.0	5.0	*
6. SE 164 E	*	550045.0	519168.0	5.0	*
7. SE MID E	*	550127.0	519167.0	5.0	*
8. NE MID E	*	550182.0	519343.0	5.0	*
9. NE 164 E	*	550099.0	519350.0	5.0	*
10. NE 82 E	*	550017.0	519363.0	5.0	*
11. NE CNR	*	549952.0	519418.0	5.0	*
12. NE 82 N	*	549926.0	519501.0	5.0	*
13. NE 164 N	*	549944.0	519580.0	5.0	*
14. NE MID N	*	549967.0	519659.0	5.0	*
15. NW MID N	*	549872.0	519635.0	5.0	*
16. NW 164 N	*	549850.0	519555.0	5.0	*
17. NW 82 N	*	549817.0	519479.0	5.0	*
18. NW CNR	*	549763.0	519424.0	5.0	*
19. NW 82 W	*	549688.0	519393.0	5.0	*
20. NW 164 W	*	549606.0	519390.0	5.0	*
21. NW MID W	*	549524.0	519390.0	5.0	*
22. SW MID W	*	549417.0	519215.0	5.0	*
23. SW 164 W	*	549499.0	519210.0	5.0	*
24. SW 82 W	*	549581.0	519201.0	5.0	*
25. SW CNR	*	549653.0	519165.0	5.0	*
26. SW 82 S	*	549693.0	519101.0	5.0	*
27. SW 164 S	*	549693.0	519015.0	5.0	*
28. SW MID S	*	549670.0	518935.0	5.0	*

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PAGE 3
JOB: Pellissippi Site 12 BD AM 2035 RUN: Pellissippi Site 12 BD AM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	*	1.3	1.6	1.1	1.2	1.4	1.1	.8	.0	.0	.2	.3	.6	.9	.9	.1	.1	.0	.0	.0	.0
5.	*	1.0	1.4	1.2	1.3	1.4	.9	.8	.0	.0	.2	.3	.7	.9	.8	.1	.1	.1			

```
   .0    .0    .0
  10.  *   .9  1.4   1.1   1.4   1.4   1.0    .8    .0    .0    .0    .3    .7    .7    .6    .4    .3    .2
   .1    .0    .0
  15.  *   .9  1.2   1.0   1.3   1.3   1.0    .8    .0    .0    .0    .2    .6    .6    .6    .4    .4    .2
   .1    .0    .0
  20.  *   .8  1.1    .9   1.2   1.3    .9    .8    .0    .0    .0    .1    .4    .4    .4    .5    .6    .4
   .2    .1    .0
  25.  *   .6  1.0    .9   1.1   1.2    .9    .8    .0    .0    .0    .0    .2    .3    .3    .6    .6    .6
   .2    .2    .0
  30.  *   .4   .7    .8   1.1   1.0    .9    .8    .0    .0    .0    .0    .1    .1    .1    .7    .8    .5
   .2    .2    .1
  35.  *   .3   .4    .8   1.2   1.0    .9    .8    .0    .0    .0    .0    .0    .0    .0    .8    .7    .6
   .4    .2    .1
  40.  *   .4   .6    .9   1.2   1.1    .9    .9    .0    .0    .0    .0    .0    .0    .0    .7    .6    .6
   .5    .2    .2
  45.  *   .3   .6    .8    .9   1.0   1.0    .9    .0    .0    .0    .0    .0    .0    .0    .7    .6    .6
   .5    .2    .2
  50.  *   .3   .4    .7    .9   1.0   1.0    .9    .0    .0    .0    .0    .0    .0    .0    .6    .6    .5
   .6    .2    .2
  55.  *   .3   .4    .7    .9   1.1   1.0    .9    .0    .0    .0    .0    .0    .0    .0    .6    .5    .6
   .7    .2    .1
  60.  *   .3   .4    .6    .9   1.1    .9    .9    .0    .0    .0    .0    .0    .0    .0    .6    .5    .7
   .7    .2    .1
  65.  *   .3   .4    .6   1.0   1.1    .9   1.0    .0    .0    .0    .0    .0    .0    .0    .6    .5    .7
   .7    .3    .1
  70.  *   .3   .4    .6   1.0   1.1   1.0   1.0    .0    .0    .0    .0    .0    .0    .0    .6    .4    .7
   .8    .4    .1
  75.  *   .1   .3    .5    .8   1.1   1.0   1.0    .1    .0    .0    .0    .0    .0    .0    .6    .4    .7
   .8    .5    .1
  80.  *   .1   .2    .4    .7   1.0    .8    .8    .1    .1    .1    .0    .0    .0    .0    .6    .4    .7
   .8    .5    .1
  85.  *   .1   .1    .3    .6    .8    .7    .7    .2    .3    .1    .0    .0    .0    .0    .6    .4    .7
   .9    .6    .3
  90.  *   .0   .1    .2    .4    .7    .6    .6    .4    .4    .3    .1    .0    .0    .0    .6    .4    .7
   .9    .8    .6
  95.  *   .0   .0    .1    .2    .4    .4    .4    .6    .5    .5    .2    .0    .0    .0    .6    .5   1.0
  1.0    .9    .8
 100.  *   .0   .0    .1    .1    .2    .2    .2    .6    .7    .5    .4    .2    .0    .0    .6    .6   1.0
  1.2   1.0    .9
 105.  *   .0   .0    .0    .1    .1    .1    .1    .8    .8    .7    .4    .2    .2    .0    .6    .7   1.1
  1.5    .8   1.0
 110.  *   .0   .0    .0    .0    .1    .1    .1    .9    .9    .8    .5    .3    .2    .0    .8    .7   1.2
  1.5   1.1   1.1
 115.  *   .0   .0    .0    .0    .0    .0    .0    .9    .9    .8    .5    .3    .2    .2    .8    .8   1.3
  1.5   1.1   1.1
 120.  *   .0   .0    .0    .0    .0    .0    .0    .9    .9    .9    .5    .4    .3    .2    .8    .8   1.4
  1.4    .8   1.0
 125.  *   .0   .0    .0    .0    .0    .0    .0    .9    .9   1.0    .6    .4    .3    .2    .8    .8   1.4
  1.4   1.0   1.1
 130.  *   .0   .0    .0    .0    .0    .0    .0    .9    .8   1.0    .7    .3    .3    .3    .8    .8   1.6
  1.3   1.0   1.1
 135.  *   .0   .0    .0    .0    .0    .0    .0    .8    .8   1.1    .7    .3    .3    .3    .8    .9   1.6
  1.3    .9   1.2
 140.  *   .0   .0    .0    .0    .0    .0    .0    .8    .8   1.1    .8    .4    .3    .3    .8   1.0   1.7
  1.2   1.2   1.2
 145.  *   .0   .0    .0    .0    .0    .0    .0    .8    .8   1.1    .8    .4    .3    .3    .8   1.0   1.6
   .8   1.1   1.1
 150.  *   .0   .0    .0    .0    .0    .0    .0    .8    .8   1.3    .8    .4    .3    .3    .9   1.1   1.6
   .7   1.1   1.1
 155.  *   .0   .0    .0    .0    .0    .0    .0    .8    .8   1.2   1.0    .5    .4    .3    .9   1.2   1.5
   .7   1.0   1.1
 160.  *   .0   .0    .0    .0    .0    .0    .0    .8    .8   1.3    .9    .5    .4    .3    .8   1.2   1.4
   .8   1.1   1.1
 165.  *   .0   .0    .0    .0    .0    .0    .0    .8    .8   1.2    .8    .6    .4    .4    .9   1.4   1.4
   .7   1.1   1.0
 170.  *   .0   .0    .0    .0    .0    .0    .0    .8    .8   1.3    .8    .6    .3    .3    .9   1.4   1.3
   .8   1.1   1.0
 175.  *   .0   .0    .0    .0    .0    .0    .0    .8    .8   1.4    .8    .6    .4    .3    .9   1.3   1.2
   .8   1.1    .9
 180.  *   .0   .1    .0    .0    .0    .0    .0    .8    .8   1.4    .8    .7    .5    .3   1.0   1.3   1.2
   .9   1.1    .9
 185.  *   .2   .2    .1    .0    .0    .0    .0    .8    .8   1.6    .8    .6    .5    .4    .9   1.3   1.1
   .9   1.1    .9
 190.  *   .3   .5    .4    .0    .0    .0    .0    .8    .8   1.7    .8    .6    .5    .5    .9   1.2   1.1
  1.0   1.0   1.1
 195.  *   .4   .7    .5    .0    .0    .0    .0    .8    .8   1.6    .8    .7    .8    .6    .7   1.0    .8
  1.0   1.0   1.1
 200.  *   .5   .8    .7    .2    .0    .0    .0    .8    .8   1.4    .7    .9   1.1    .8    .6    .9    .8
   .9    .9   1.0
 205.  *   .6   .9   1.0    .2    .1    .0    .0    .8   1.0   1.6    .9    .9   1.2    .8    .6    .7    .9
   .9    .9   1.0
1

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     JOB: Pellissippi Site 12 BD AM 2035                          RUN: Pellissippi Site 12 BD AM 2035

 WIND  * CONCENTRATION
 ANGLE *      (PPM)
 (DEGR)* REC1  REC2  REC3  REC4  REC5  REC6  REC7  REC8  REC9  REC10 REC11 REC12 REC13 REC14 REC15 REC16 REC17
REC18 REC19 REC20

------*-----------------------------------------------------------------------------------------------------
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 210.  *   .6  1.0    .9    .4    .1    .0    .0    .8   1.0   1.7    .9   1.2   1.4   1.1    .4    .5    .9
   .9   1.0   1.0
 215.  *   .7  1.1    .9    .3    .2    .0    .0    .8   1.0   1.7    .6   1.2   1.3   1.1    .5    .4    .8
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																			.8	1.0	1.1
220.	*	.7	.9	1.0	.4	.2	.0	.0	.8	1.1	1.7	.7	1.2	1.3	1.2	.5	.5	.8	.9	1.1	1.0
225.	*	.6	1.0	1.0	.5	.2	.0	.0	.8	1.1	1.7	.9	1.3	1.4	1.2	.4	.5	.8	1.0	1.1	1.1
230.	*	.6	1.0	1.0	.6	.3	.1	.0	.8	1.3	1.7	1.0	1.4	1.4	1.2	.4	.5	.7	.9	1.1	1.2
235.	*	.6	1.0	.9	.6	.2	.1	.0	.9	1.5	1.8	1.1	1.4	1.3	1.1	.5	.5	.7	1.1	1.3	1.2
240.	*	.6	1.0	.9	.6	.2	.1	.0	.9	1.5	1.5	1.2	1.6	1.1	.9	.4	.5	.6	1.1	1.1	1.2
245.	*	.5	1.0	1.0	.6	.3	.1	.0	1.0	1.6	1.7	1.3	1.6	1.1	.9	.3	.4	.6	.9	1.2	1.3
250.	*	.5	.9	1.0	.5	.3	.1	.0	1.4	1.9	1.6	1.3	1.4	.8	.9	.3	.4	.6	.8	1.3	1.2
255.	*	.5	.9	1.0	.4	.3	.1	.0	1.4	1.6	1.5	1.2	1.2	.8	.9	.3	.3	.5	.8	1.2	1.1
260.	*	.5	.9	1.0	.5	.5	.3	.2	1.5	1.6	1.5	1.1	1.0	.8	.7	.3	.3	.5	.5	1.1	1.0
265.	*	.5	.9	1.0	.6	.9	.7	.6	1.3	1.7	1.1	1.1	1.0	.8	.7	.1	.3	.3	.5	.9	.8
270.	*	.5	.8	1.2	.8	1.0	.8	.8	1.2	1.1	1.1	.9	1.0	.5	.6	.0	.1	.3	.4	.7	.6
275.	*	.5	1.0	1.3	1.2	1.3	1.1	.9	.9	.9	.8	.9	.6	.6	.6	.0	.0	.1	.3	.4	.5
280.	*	.7	1.1	1.5	1.3	1.3	1.5	1.0	.7	.7	.6	.7	.6	.6	.6	.0	.0	.0	.1	.2	.2
285.	*	.7	1.2	1.5	1.4	1.6	1.4	1.1	.3	.2	.4	.6	.6	.6	.6	.0	.0	.0	.0	.1	.1
290.	*	.7	1.3	1.6	1.6	1.6	1.5	1.5	.1	.1	.3	.6	.6	.5	.6	.0	.0	.0	.0	.0	.0
295.	*	1.0	1.4	1.6	1.6	1.6	1.4	1.6	.1	.1	.3	.5	.6	.5	.6	.0	.0	.0	.0	.0	.0
300.	*	1.0	1.4	1.6	1.6	1.3	1.4	1.3	.1	.1	.2	.5	.5	.6	.6	.0	.0	.0	.0	.0	.0
305.	*	1.1	1.4	1.5	1.6	1.3	1.4	1.3	.1	.1	.1	.5	.5	.6	.6	.0	.0	.0	.0	.0	.0
310.	*	1.1	1.6	1.6	1.3	1.1	1.4	1.3	.1	.1	.1	.4	.5	.6	.6	.0	.0	.0	.0	.0	.0
315.	*	1.1	1.6	1.5	1.3	1.2	1.4	1.3	.1	.1	.1	.4	.5	.6	.6	.0	.0	.0	.0	.0	.0
320.	*	1.2	1.6	1.4	1.3	1.1	1.4	1.2	.1	.1	.1	.3	.5	.6	.6	.0	.0	.0	.0	.0	.0
325.	*	1.2	1.6	1.6	1.1	1.2	1.2	1.2	.2	.1	.1	.3	.5	.6	.6	.0	.0	.0	.0	.0	.0
330.	*	1.2	1.6	1.6	.9	1.2	1.2	.9	.2	.2	.1	.3	.6	.7	.7	.0	.0	.0	.0	.0	.0
335.	*	1.2	1.7	1.6	.8	1.2	1.2	.9	.2	.2	.2	.2	.6	.8	.7	.0	.0	.0	.0	.0	.0
340.	*	1.3	1.8	1.5	.8	1.3	1.2	1.1	.2	.2	.2	.3	.6	.8	.8	.0	.0	.0	.0	.0	.0
345.	*	1.3	1.7	1.3	.9	1.3	1.4	1.1	.1	.2	.2	.3	.5	.8	.8	.0	.0	.0	.0	.0	.0
350.	*	1.4	1.7	1.1	1.1	1.3	1.3	1.0	.1	.2	.2	.3	.7	.8	.8	.0	.0	.0	.0	.0	.0
355.	*	1.3	1.7	1.1	1.0	1.4	1.2	.8	.0	.1	.2	.3	.7	.8	.9	.0	.0	.0	.0	.0	.0
360.	*	1.3	1.6	1.1	1.2	1.4	1.1	.8	.0	.0	.2	.3	.6	.9	.9	.1	.1	.0	.0	.0	.0
MAX	*	1.4	1.8	1.6	1.6	1.6	1.5	1.6	1.5	1.9	1.8	1.3	1.6	1.4	1.2	1.0	1.4	1.7	1.5	1.3	1.3
DEGR.	*	350	340	290	290	285	280	295	260	250	235	245	240	210	220	180	165	140	105	235	245

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JOB: Pellissippi Site 12 BD AM 2035 RUN: Pellissippi Site 12 BD AM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	*	.0	1.7	1.6	1.4	1.1	.7	.6	.4
5.	*	.0	1.7	1.6	1.4	1.1	.7	.6	.5
10.	*	.0	1.6	1.6	1.4	1.0	.8	.7	.5
15.	*	.0	1.6	1.6	1.4	1.1	.9	.6	.5
20.	*	.0	1.6	1.6	1.4	1.2	.9	.6	.8
25.	*	.0	1.7	1.7	1.5	1.1	.9	.7	.7
30.	*	.0	1.7	1.6	1.6	1.1	.8	1.0	1.0
35.	*	.1	1.7	1.7	1.6	1.0	.9	1.0	1.1
40.	*	.1	1.8	1.7	1.6	1.2	.9	.9	1.1
45.	*	.2	1.9	1.8	1.6	1.2	1.1	1.0	1.1

50.	*	.2	1.9	1.8	1.7	1.2	1.1	1.1	1.0
55.	*	.2	2.0	1.9	1.8	1.2	1.2	1.2	.9
60.	*	.1	2.0	1.8	2.1	1.1	1.0	1.1	.9
65.	*	.1	2.0	1.9	1.9	1.1	1.0	1.1	.8
70.	*	.1	2.0	2.1	2.1	1.1	.9	1.0	.8
75.	*	.1	2.1	2.1	2.2	.8	.9	.8	.7
80.	*	.1	1.9	2.0	2.0	1.0	.8	.8	.6
85.	*	.4	1.6	1.5	1.5	1.0	.8	.6	.5
90.	*	.5	1.3	1.1	1.2	.9	.7	.6	.4
95.	*	.8	.9	.9	1.0	.6	.7	.5	.4
100.	*	1.1	.6	.6	.6	.5	.7	.6	.4
105.	*	1.3	.3	.4	.3	.4	.6	.5	.4
110.	*	1.3	.1	.2	.4	.3	.6	.4	.4
115.	*	1.2	.0	.1	.3	.3	.6	.4	.4
120.	*	1.2	.0	.1	.1	.4	.6	.5	.4
125.	*	1.2	.0	.1	.1	.4	.6	.5	.4
130.	*	1.3	.0	.1	.1	.4	.6	.5	.4
135.	*	1.2	.0	.1	.1	.3	.5	.5	.4
140.	*	1.2	.0	.2	.1	.2	.5	.5	.4
145.	*	1.2	.0	.2	.2	.2	.5	.5	.4
150.	*	1.2	.0	.1	.2	.3	.5	.5	.5
155.	*	1.2	.0	.0	.2	.2	.4	.6	.5
160.	*	1.1	.0	.0	.2	.2	.4	.6	.5
165.	*	.9	.0	.1	.2	.2	.3	.5	.6
170.	*	1.0	.0	.1	.1	.2	.4	.6	.5
175.	*	1.0	.0	.0	.1	.3	.4	.6	.5
180.	*	1.1	.0	.0	.1	.3	.4	.7	.5
185.	*	1.0	.0	.0	.0	.1	.4	.5	.6
190.	*	1.0	.0	.0	.0	.1	.4	.5	.3
195.	*	1.0	.0	.0	.0	.0	.3	.4	.3
200.	*	1.0	.0	.0	.0	.0	.0	.3	.3
205.	*	1.1	.0	.0	.0	.0	.0	.1	.2

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JOB: Pellissippi Site 12 BD AM 2035 RUN: Pellissippi Site 12 BD AM 2035

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	*	1.1	.0	.0	.0	.0	.0	.0	.0
215.	*	1.2	.0	.0	.0	.0	.0	.0	.0
220.	*	1.2	.0	.0	.0	.0	.0	.0	.0
225.	*	1.2	.0	.0	.0	.0	.0	.0	.0
230.	*	1.1	.0	.0	.0	.0	.0	.0	.0
235.	*	1.1	.0	.0	.0	.0	.0	.0	.0
240.	*	1.2	.0	.0	.0	.0	.0	.0	.0
245.	*	1.1	.0	.0	.0	.0	.0	.0	.0
250.	*	1.1	.1	.0	.0	.0	.0	.0	.0
255.	*	1.0	.1	.1	.1	.0	.0	.0	.0
260.	*	1.0	.3	.3	.3	.1	.0	.0	.0
265.	*	.8	.4	.4	.5	.2	.0	.0	.0
270.	*	.6	.7	.9	.9	.3	.2	.0	.0
275.	*	.4	1.0	1.1	1.1	.7	.3	.2	.0
280.	*	.2	1.2	1.4	1.3	.8	.4	.2	.1
285.	*	.1	1.4	1.6	1.6	1.0	.6	.2	.2
290.	*	.0	1.5	1.8	1.8	1.2	.6	.4	.2
295.	*	.0	1.5	1.8	1.7	1.3	.6	.4	.4
300.	*	.0	1.5	1.7	1.8	1.3	.7	.6	.4
305.	*	.0	1.4	1.8	1.8	1.4	.8	.6	.4
310.	*	.0	1.5	1.8	1.7	1.4	.7	.5	.4
315.	*	.0	1.5	1.7	1.7	1.4	.7	.5	.5
320.	*	.0	1.5	1.7	1.6	1.3	.7	.7	.5
325.	*	.0	1.5	1.7	1.6	1.3	.8	.6	.5
330.	*	.0	1.6	1.7	1.6	1.3	.8	.6	.4
335.	*	.0	1.6	1.7	1.5	1.2	.6	.6	.5
340.	*	.0	1.7	1.6	1.6	1.1	.6	.5	.5
345.	*	.0	1.7	1.6	1.4	1.1	.6	.6	.5
350.	*	.0	1.7	1.6	1.4	1.0	.6	.6	.4
355.	*	.0	1.7	1.6	1.4	1.1	.7	.6	.4
360.	*	.0	1.7	1.6	1.4	1.1	.7	.6	.4
MAX	*	1.3	2.1	2.1	2.2	1.4	1.2	1.2	1.1
DEGR.	*	105	75	70	75	305	55	55	35

THE HIGHEST CONCENTRATION IS 2.20 PPM AT 75 DEGREES FROM REC24.
THE 2ND HIGHEST CONCENTRATION IS 2.10 PPM AT 70 DEGREES FROM REC23.
THE 3RD HIGHEST CONCENTRATION IS 2.10 PPM AT 75 DEGREES FROM REC22.

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1                       CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.2, JUNE 2000
PAGE  1

      JOB: Pellissippi Site 12 BD AM 2035                   RUN: Pellissippi Site 12 BD AM 2035
      DATE: 12/15/2008   TIME: 14:21:00.55


       SITE & METEOROLOGICAL VARIABLES
       -------------------------------
       VS =    .0 CM/S      VD =    .0 CM/S      Z0 = 321. CM
        U =  1.0 M/S        CLAS =   4  (D)     ATIM =  60. MINUTES     MIXH =  1000. M   AMB =   .0 PPM

       LINK VARIABLES
       --------------
         LINK DESCRIPTION     *         LINK COORDINATES (FT)          *    LENGTH  BRG TYPE   VPH    EF      H
  W    V/C QUEUE
                              *   X1        Y1        X2        Y2     *     (FT)  (DEG)           (G/MI)
(FT) (FT)       (VEH)

------------------------*-----------------------------------------*------------------------------------------
-------------
       1. 0         OGnb      * 549548.0  518327.0  549690.0  518773.0 *     468.    18. AG   1096.  11.3    .0
32.0
       2. 0         OGnb      * 549690.0  518773.0  549746.0  518996.0 *     230.    14. AG   1096.  11.3    .0
32.0
       3. 0         OGnbT     * 549748.0  518996.0  549818.0  519243.0 *     257.    16. AG    490.  11.3    .0
32.0
       4. 0         OGnbTQ    * 549806.0  519201.0  549761.6  519043.7 *     163.   196. AG    109. 100.0    .0
12.0  .71   8.3
       5. 0         OGnbL     * 549734.0  519000.0  549804.0  519244.0 *     254.    16. AG     98.  11.3    .0
32.0
       6. 0         OGnbLQ    * 549792.0  519202.0  549779.3  519157.7 *      46.   196. AG    154. 100.0    .0
12.0  .29   2.3
       7. 0         OGnbR     * 549759.0  518996.0  549801.0  519113.0 *     124.    20. AG    508.  11.3    .0
32.0
       8. 0         OGnbRQ    * 549800.0  519109.0  549742.5  518949.6 *     169.   200. AG    109. 100.0    .0
12.0  .74   8.6
       9. 0         OGnbR     * 549801.0  519113.0  549860.0  519169.0 *      81.    46. AG    508.  11.3    .0
32.0
      10. 0         OGnbR     * 549860.0  519169.0  550079.0  519208.0 *     222.    80. AG    508.  11.3    .0
32.0
      11. 0         OGnbD     * 549819.0  519244.0  550004.0  519895.0 *     677.    16. AG   1206.  11.3    .0
32.0
      12. 0         OGnbD     * 550004.0  519896.0  550098.0  520248.0 *     364.    15. AG   1206.  11.3    .0
32.0
      13. 0         OGsb      * 550084.0  520250.0  549898.0  519596.0 *     680.   196. AG   1022.  11.3    .0
32.0
      14. 0         OGsbT     * 549892.0  519596.0  549802.0  519285.0 *     324.   196. AG    434.  11.3    .0
32.0
      15. 0         OGsbTQ    * 549822.0  519355.0  549862.8  519493.9 *     145.    16. AG    109. 100.0    .0
12.0  .63   7.4
      16. 0         OGsbL     * 549903.0  519589.0  549814.0  519285.0 *     317.   196. AG    200.  11.3    .0
32.0
      17. 0         OGsbLQ    * 549835.0  519357.0  549861.6  519447.2 *      94.    16. AG    154. 100.0    .0
12.0  .60   4.8
      18. 0         OGsbR     * 549851.0  519487.0  549799.0  519410.0 *      93.   214. AG    388.  11.3    .0
32.0
      19. 0         OGsbRQ    * 549801.0  519413.0  549873.1  519520.4 *     129.    34. AG    109. 100.0    .0
12.0  .56   6.6
      20. 0         OGsbR     * 549799.0  519410.0  549704.0  519371.0 *     103.   248. AG    388.  11.3    .0
32.0
      21. 0         OGsbR     * 549704.0  519371.0  549599.0  519362.0 *     105.   265. AG    388.  11.3    .0
32.0
      22. 0         OGsbR     * 549599.0  519362.0  549372.0  519363.0 *     227.   270. AG    388.  11.3    .0
32.0
      23. 0         OGsbD     * 549802.0  519285.0  549662.0  518778.0 *     526.   195. AG    792.  11.3    .0
32.0
      24. 0         OGsbD     * 549662.0  518778.0  549532.0  518333.0 *     464.   196. AG    792.  11.3    .0
32.0
      25. 0         321eb     * 548821.0  519283.0  549546.0  519253.0 *     726.    92. AG   2423.  12.8    .0
44.0
      26. 0         321ebT    * 549546.0  519253.0  549830.0  519241.0 *     284.    92. AG   1717.  12.8    .0
44.0
      27. 0         321ebTQ   * 549760.0  519244.0  549383.0  519259.0 *     377.   272. AG    268. 100.0    .0
24.0  .87  19.2
      28. 0         321ebL    * 549641.0  519269.0  549810.0  519262.0 *     169.    92. AG    601.  12.8    .0
32.0
      29. 0         321ebLQ   * 549763.0  519264.0  546715.3  519394.6 *    3050.   272. AG    154. 100.0    .0
12.0 1.79 155.0
      30. 0         321ebR    * 549505.0  519242.0  549655.0  519197.0 *     157.   107. AG    105.  12.8    .0
32.0
      31. 0         321ebRQ   * 549649.0  519198.0  549607.9  519210.8 *      43.   287. AG    134. 100.0    .0
12.0  .21   2.2
      32. 0         321ebR    * 549655.0  519197.0  549705.0  519145.0 *      72.   136. AG    105.  12.8    .0
32.0
      33. 0         321ebR    * 549705.0  519145.0  549731.0  519050.0 *      98.   165. AG    105.  12.8    .0
32.0
      34. 0         321ebD    * 549831.0  519239.0  550815.0  519193.0 *     985.    93. AG   2425.  12.8    .0
44.0
      35. 0         321wb     * 550818.0  519272.0  550021.0  519309.0 *     798.   273. AG   1192.  12.8    .0
44.0
      36. 0         321wbT    * 550021.0  519309.0  549782.0  519322.0 *     239.   273. AG    824.  12.8    .0
44.0
      37. 0         321wbTQ   * 549883.0  519316.0  550051.8  519308.4 *     169.    92. AG    268. 100.0    .0
24.0  .42   8.6
      38. 0         321wbL    * 550029.0  519292.0  549825.0  519295.0 *     204.   271. AG    253.  12.8    .0
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32.0													
39. 0	321wbLQ	*	549883.0	519294.0	550008.2	519292.2	*	125.	91.	AG	154.	100.0	.0
12.0	.75	6.4											
40. 0	321wbR	*	550125.0	519315.0	549978.0	519348.0	*	151.	283.	AG	115.	12.8	.0
32.0													
41. 0	321wbRQ	*	549986.0	519346.0	550032.0	519335.6	*	47.	103.	AG	134.	100.0	.0
12.0	.23	2.4											
42. 0	321wbR	*	549978.0	519348.0	549918.0	519412.0	*	88.	317.	AG	115.	12.8	.0
32.0													
43. 0	321wbR	*	549918.0	519412.0	549897.0	519502.0	*	92.	347.	AG	115.	12.8	.0
32.0													
44. 0	321wbD	*	549779.0	519322.0	548825.0	519364.0	*	955.	273.	AG	1310.	12.8	.0
44.0													

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JOB: Pellissippi Site 12 BD AM 2035 RUN: Pellissippi Site 12 BD AM 2035
DATE: 12/15/2008 TIME: 14:21:00.55

ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		*	CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. 0	OGnbTQ	*	114	61	2.0	490	1600	76.00	1	3
6. 0	OGnbLQ	*	114	86	2.0	98	1600	76.00	1	3
8. 0	OGnbRQ	*	114	61	2.0	508	1600	76.00	1	3
15. 0	OGsbTQ	*	114	61	2.0	434	1600	76.00	1	3
17. 0	OGsbLQ	*	114	86	2.0	200	1600	76.00	1	3
19. 0	OGsbRQ	*	114	61	2.0	388	1600	76.00	1	3
27. 0	321ebTQ	*	114	75	2.0	1717	3200	76.00	1	3
29. 0	321ebLQ	*	114	86	2.0	601	1600	76.00	1	3
31. 0	321ebRQ	*	114	75	2.0	105	1600	76.00	1	3
37. 0	321wbTQ	*	114	75	2.0	824	3200	76.00	1	3
39. 0	321wbLQ	*	114	86	2.0	253	1600	76.00	1	3
41. 0	321wbRQ	*	114	75	2.0	115	1600	76.00	1	3

RECEPTOR LOCATIONS

RECEPTOR	*	X	Y	Z	*
1. SE MID S	*	549763.0	518934.0	5.0	*
2. SE 164 S	*	549782.0	519013.0	5.0	*
3. SE 82 S	*	549815.0	519090.0	5.0	*
4. SE CNR	*	549882.0	519144.0	5.0	*
5. SE 82 E	*	549963.0	519167.0	5.0	*
6. SE 164 E	*	550045.0	519168.0	5.0	*
7. SE MID E	*	550127.0	519167.0	5.0	*
8. NE MID E	*	550182.0	519343.0	5.0	*
9. NE 164 E	*	550099.0	519350.0	5.0	*
10. NE 82 E	*	550017.0	519363.0	5.0	*
11. NE CNR	*	549952.0	519418.0	5.0	*
12. NE 82 N	*	549926.0	519501.0	5.0	*
13. NE 164 N	*	549944.0	519580.0	5.0	*
14. NE MID N	*	549967.0	519659.0	5.0	*
15. NW MID N	*	549872.0	519635.0	5.0	*
16. NW 164 N	*	549850.0	519555.0	5.0	*
17. NW 82 N	*	549817.0	519479.0	5.0	*
18. NW CNR	*	549763.0	519424.0	5.0	*
19. NW 82 W	*	549688.0	519393.0	5.0	*
20. NW 164 W	*	549606.0	519390.0	5.0	*
21. NW MID W	*	549524.0	519390.0	5.0	*
22. SW MID W	*	549417.0	519215.0	5.0	*
23. SW 164 W	*	549499.0	519210.0	5.0	*
24. SW 82 W	*	549581.0	519201.0	5.0	*
25. SW CNR	*	549653.0	519165.0	5.0	*
26. SW 82 S	*	549693.0	519101.0	5.0	*
27. SW 164 S	*	549693.0	519015.0	5.0	*
28. SW MID S	*	549670.0	518935.0	5.0	*

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PAGE 3
JOB: Pellissippi Site 12 BD AM 2035 RUN: Pellissippi Site 12 BD AM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR) * CONCENTRATION (PPM)

WIND ANGLE (DEGR)	*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	*	1.3	1.6	1.1	1.2	1.4	1.1	.8	.0	.0	.2	.3	.6	.9	.9	.1	.1	.0	.0	.0	.0
5.	*	1.0	1.4	1.2	1.3	1.4	.9	.8	.0	.0	.2	.3	.7	.9	.8	.1	.1	.1			

WIND ANGLE (DEGR)	*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
																			.0	.0	.0
10.	*	.9	1.4	1.1	1.4	1.4	1.0	.8	.0	.0	.0	.3	.7	.7	.6	.4	.3	.2	.1	.0	.0
15.	*	.9	1.2	1.0	1.3	1.3	1.0	.8	.0	.0	.0	.2	.6	.6	.6	.4	.4	.2	.1	.0	.0
20.	*	.8	1.1	.9	1.2	1.3	.9	.8	.0	.0	.0	.1	.4	.4	.4	.5	.6	.4	.2	.1	.0
25.	*	.6	1.0	.9	1.1	1.2	.9	.8	.0	.0	.0	.0	.2	.3	.3	.6	.6	.6	.2	.2	.0
30.	*	.4	.7	.8	1.1	1.0	.9	.8	.0	.0	.0	.0	.1	.1	.1	.7	.8	.5	.2	.2	.1
35.	*	.3	.4	.8	1.2	1.0	.9	.8	.0	.0	.0	.0	.0	.0	.0	.8	.7	.6	.4	.2	.1
40.	*	.4	.6	.9	1.2	1.1	.9	.9	.0	.0	.0	.0	.0	.0	.0	.7	.6	.6	.5	.2	.2
45.	*	.3	.6	.8	.9	1.0	1.0	.9	.0	.0	.0	.0	.0	.0	.0	.7	.6	.6	.5	.2	.2
50.	*	.3	.4	.7	.9	1.0	1.0	.9	.0	.0	.0	.0	.0	.0	.0	.6	.6	.5	.6	.2	.2
55.	*	.3	.4	.7	.9	1.1	1.0	.9	.0	.0	.0	.0	.0	.0	.0	.6	.5	.6	.7	.2	.1
60.	*	.3	.4	.6	.9	1.1	.9	.9	.0	.0	.0	.0	.0	.0	.0	.6	.5	.7	.7	.2	.1
65.	*	.3	.4	.6	1.0	1.1	.9	1.0	.0	.0	.0	.0	.0	.0	.0	.6	.5	.7	.7	.3	.1
70.	*	.3	.4	.6	1.0	1.1	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.6	.4	.7	.8	.4	.1
75.	*	.1	.3	.5	.8	1.1	1.0	1.0	.1	.0	.0	.0	.0	.0	.0	.6	.4	.7	.8	.5	.1
80.	*	.1	.2	.4	.7	1.0	.8	.8	.1	.1	.1	.0	.0	.0	.0	.6	.4	.7	.8	.5	.1
85.	*	.1	.1	.3	.6	.8	.7	.7	.2	.3	.1	.0	.0	.0	.0	.6	.4	.7	.9	.6	.3
90.	*	.0	.1	.2	.4	.7	.6	.6	.4	.4	.3	.1	.0	.0	.0	.6	.4	.7	.9	.8	.6
95.	*	.0	.0	.1	.2	.4	.4	.4	.6	.5	.5	.2	.0	.0	.0	.6	.5	1.0	1.0	.9	.8
100.	*	.0	.0	.1	.1	.2	.2	.2	.6	.7	.5	.4	.2	.0	.0	.6	.6	1.0	1.2	1.0	.9
105.	*	.0	.0	.0	.1	.1	.1	.1	.8	.8	.7	.4	.2	.2	.0	.6	.7	1.1	1.5	.8	1.0
110.	*	.0	.0	.0	.0	.1	.1	.1	.9	.9	.8	.5	.3	.2	.0	.8	.7	1.2	1.5	1.1	1.1
115.	*	.0	.0	.0	.0	.0	.0	.0	.9	.9	.8	.5	.3	.2	.2	.8	.8	1.3	1.5	1.1	1.1
120.	*	.0	.0	.0	.0	.0	.0	.0	.9	.9	.9	.5	.4	.3	.2	.8	.8	1.4	1.4	.8	1.0
125.	*	.0	.0	.0	.0	.0	.0	.0	.9	.9	1.0	.6	.4	.3	.2	.8	.8	1.4	1.4	1.0	1.1
130.	*	.0	.0	.0	.0	.0	.0	.0	.9	.8	1.0	.7	.3	.3	.3	.8	.8	1.6	1.3	1.0	1.1
135.	*	.0	.0	.0	.0	.0	.0	.0	.8	.8	1.1	.7	.3	.3	.3	.8	.9	1.6	1.3	.9	1.2
140.	*	.0	.0	.0	.0	.0	.0	.0	.8	.8	1.1	.8	.4	.3	.3	.8	1.0	1.7	1.2	1.2	1.2
145.	*	.0	.0	.0	.0	.0	.0	.0	.8	.8	1.1	.8	.4	.3	.3	.8	1.0	1.6	.8	1.1	1.1
150.	*	.0	.0	.0	.0	.0	.0	.0	.8	.8	1.3	.8	.4	.3	.3	.9	1.1	1.6	.7	1.1	1.1
155.	*	.0	.0	.0	.0	.0	.0	.0	.8	.8	1.2	1.0	.5	.4	.3	.9	1.2	1.5	.7	1.0	1.1
160.	*	.0	.0	.0	.0	.0	.0	.0	.8	.8	1.3	.9	.5	.4	.3	.8	1.2	1.4	.8	1.1	1.1
165.	*	.0	.0	.0	.0	.0	.0	.0	.8	.8	1.2	.8	.6	.4	.4	.9	1.4	1.4	.7	1.1	1.0
170.	*	.0	.0	.0	.0	.0	.0	.0	.8	.8	1.3	.8	.6	.3	.3	.9	1.4	1.3	.8	1.1	1.0
175.	*	.0	.0	.0	.0	.0	.0	.0	.8	.8	1.4	.8	.6	.4	.3	.9	1.3	1.2	.8	1.1	.9
180.	*	.0	.1	.0	.0	.0	.0	.0	.8	.8	1.4	.8	.7	.5	.3	1.0	1.3	1.2	.9	1.1	.9
185.	*	.2	.2	.1	.0	.0	.0	.0	.8	.8	1.6	.8	.6	.5	.4	.9	1.3	1.1	.9	1.1	.9
190.	*	.3	.5	.4	.0	.0	.0	.0	.8	.8	1.7	.8	.6	.5	.5	.9	1.2	1.1	1.0	1.0	1.1
195.	*	.4	.7	.5	.0	.0	.0	.0	.8	.8	1.6	.8	.7	.8	.6	.7	1.0	.8	1.0	1.0	1.1
200.	*	.5	.8	.7	.2	.0	.0	.0	.8	.8	1.4	.7	.9	1.1	.8	.6	.9	.8	.9	.9	1.0
205.	*	.6	.9	1.0	.2	.1	.0	.0	.8	1.0	1.6	.9	.9	1.2	.8	.6	.7	.9	.9	.9	1.0

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JOB: Pellissippi Site 12 BD AM 2035 RUN: Pellissippi Site 12 BD AM 2035

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	.6	1.0	.9	.4	.1	.0	.0	.8	1.0	1.7	.9	1.2	1.4	1.1	.4	.5	.9	.9	1.0	1.0
215.	*	.7	1.1	.9	.3	.2	.0	.0	.8	1.0	1.7	.6	1.2	1.3	1.1	.5	.4	.8			

																			.8	1.0	1.1
220.	*	.7	.9	1.0	.4	.2	.0	.0	.8	1.1	1.7	.7	1.2	1.3	1.2	.5	.5	.8	.9	1.1	1.0
225.	*	.6	1.0	1.0	.5	.2	.0	.0	.8	1.1	1.7	.9	1.3	1.4	1.2	.4	.5	.8	1.0	1.1	1.1
230.	*	.6	1.0	1.0	.6	.3	.1	.0	.8	1.3	1.7	1.0	1.4	1.4	1.2	.4	.5	.7	.9	1.1	1.2
235.	*	.6	1.0	.9	.6	.2	.1	.0	.9	1.5	1.8	1.1	1.4	1.3	1.1	.5	.5	.7	1.1	1.3	1.2
240.	*	.6	1.0	.9	.6	.2	.1	.0	.9	1.5	1.5	1.2	1.6	1.1	.9	.4	.5	.6	1.1	1.1	1.2
245.	*	.5	1.0	1.0	.6	.3	.1	.0	1.0	1.6	1.7	1.3	1.6	1.1	.9	.3	.4	.6	.9	1.2	1.3
250.	*	.5	.9	1.0	.5	.3	.1	.0	1.4	1.9	1.6	1.3	1.4	.8	.9	.3	.4	.6	.8	1.3	1.2
255.	*	.5	.9	1.0	.4	.3	.1	.0	1.4	1.6	1.5	1.2	1.2	.8	.9	.3	.3	.5	.8	1.2	1.1
260.	*	.5	.9	1.0	.5	.5	.3	.2	1.5	1.6	1.5	1.1	1.0	.8	.7	.3	.3	.5	.5	1.1	1.0
265.	*	.5	.9	1.0	.6	.9	.7	.6	1.3	1.7	1.1	1.1	1.0	.8	.7	.1	.3	.3	.5	.9	.8
270.	*	.5	.8	1.2	.8	1.0	.8	.8	1.2	1.1	1.1	.9	1.0	.5	.6	.0	.1	.3	.4	.7	.6
275.	*	.5	1.0	1.3	1.2	1.3	1.1	.9	.9	.9	.8	.9	.6	.6	.6	.0	.0	.1	.3	.4	.5
280.	*	.7	1.1	1.5	1.3	1.3	1.5	1.0	.7	.7	.6	.7	.6	.6	.6	.0	.0	.0	.1	.2	.2
285.	*	.7	1.2	1.5	1.4	1.6	1.4	1.1	.3	.2	.4	.6	.6	.6	.6	.0	.0	.0	.0	.1	.1
290.	*	.7	1.3	1.6	1.6	1.6	1.5	1.5	.1	.1	.3	.6	.6	.5	.6	.0	.0	.0	.0	.0	.0
295.	*	1.0	1.4	1.6	1.6	1.6	1.4	1.6	.1	.1	.3	.5	.6	.5	.6	.0	.0	.0	.0	.0	.0
300.	*	1.0	1.4	1.6	1.6	1.3	1.4	1.3	.1	.1	.2	.5	.5	.6	.6	.0	.0	.0	.0	.0	.0
305.	*	1.1	1.4	1.5	1.6	1.3	1.4	1.3	.1	.1	.1	.5	.5	.6	.6	.0	.0	.0	.0	.0	.0
310.	*	1.1	1.6	1.6	1.3	1.1	1.4	1.3	.1	.1	.1	.4	.5	.6	.6	.0	.0	.0	.0	.0	.0
315.	*	1.1	1.6	1.5	1.3	1.2	1.4	1.3	.1	.1	.1	.4	.5	.6	.6	.0	.0	.0	.0	.0	.0
320.	*	1.2	1.6	1.4	1.3	1.1	1.4	1.2	.1	.1	.1	.3	.5	.6	.6	.0	.0	.0	.0	.0	.0
325.	*	1.2	1.6	1.6	1.1	1.2	1.2	1.2	.2	.1	.1	.3	.5	.6	.6	.0	.0	.0	.0	.0	.0
330.	*	1.2	1.6	1.6	.9	1.2	1.2	.9	.2	.2	.1	.3	.6	.7	.7	.0	.0	.0	.0	.0	.0
335.	*	1.2	1.7	1.6	.8	1.2	1.2	.9	.2	.2	.2	.2	.6	.8	.7	.0	.0	.0	.0	.0	.0
340.	*	1.3	1.8	1.5	.8	1.3	1.2	1.1	.2	.2	.2	.3	.6	.8	.8	.0	.0	.0	.0	.0	.0
345.	*	1.3	1.7	1.3	.9	1.3	1.4	1.1	.1	.2	.2	.3	.5	.8	.8	.0	.0	.0	.0	.0	.0
350.	*	1.4	1.7	1.1	1.1	1.3	1.3	1.0	.1	.2	.2	.3	.7	.8	.8	.0	.0	.0	.0	.0	.0
355.	*	1.3	1.7	1.1	1.0	1.4	1.2	.8	.0	.1	.2	.3	.7	.8	.9	.0	.0	.0	.0	.0	.0
360.	*	1.3	1.6	1.1	1.2	1.4	1.1	.8	.0	.0	.2	.3	.6	.9	.9	.1	.1	.0	.0	.0	.0
MAX	*	1.4	1.8	1.6	1.6	1.6	1.5	1.6	1.5	1.9	1.8	1.3	1.6	1.4	1.2	1.0	1.4	1.7	1.5	1.3	1.3
DEGR.	*	350	340	290	290	285	280	295	260	250	235	245	240	210	220	180	165	140	105	235	245

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JOB: Pellissippi Site 12 BD AM 2035 RUN: Pellissippi Site 12 BD AM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to
the maximum concentration, only the first
angle, of the angles with same maximum
concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	*	.0	1.7	1.6	1.4	1.1	.7	.6	.4
5.	*	.0	1.7	1.6	1.4	1.1	.7	.6	.5
10.	*	.0	1.6	1.6	1.4	1.0	.8	.7	.5
15.	*	.0	1.6	1.6	1.4	1.1	.9	.6	.5
20.	*	.0	1.6	1.6	1.4	1.2	.9	.6	.8
25.	*	.0	1.7	1.7	1.5	1.1	.9	.7	.7
30.	*	.0	1.7	1.6	1.6	1.1	.8	1.0	1.0
35.	*	.1	1.7	1.7	1.6	1.0	.9	1.0	1.1
40.	*	.1	1.8	1.7	1.6	1.2	.9	.9	1.1
45.	*	.2	1.9	1.8	1.6	1.2	1.1	1.0	1.1

50.	*	.2	1.9	1.8	1.7	1.2	1.1	1.1	1.0
55.	*	.2	2.0	1.9	1.8	1.2	1.2	1.2	.9
60.	*	.1	2.0	1.8	2.1	1.1	1.0	1.1	.9
65.	*	.1	2.0	1.9	1.9	1.1	1.0	1.1	.8
70.	*	.1	2.0	2.1	2.1	1.1	.9	1.0	.8
75.	*	.1	2.1	2.1	2.2	.8	.9	.8	.7
80.	*	.1	1.9	2.0	2.0	1.0	.8	.8	.6
85.	*	.4	1.6	1.5	1.5	1.0	.8	.6	.5
90.	*	.5	1.3	1.1	1.2	.9	.7	.6	.4
95.	*	.8	.9	.9	1.0	.6	.7	.5	.4
100.	*	1.1	.6	.6	.6	.5	.7	.6	.4
105.	*	1.3	.3	.4	.3	.4	.6	.5	.4
110.	*	1.3	.1	.2	.4	.3	.6	.4	.4
115.	*	1.2	.0	.1	.3	.3	.6	.4	.4
120.	*	1.2	.0	.1	.1	.4	.6	.5	.4
125.	*	1.2	.0	.1	.1	.4	.6	.5	.4
130.	*	1.3	.0	.1	.1	.4	.6	.5	.4
135.	*	1.2	.0	.1	.1	.3	.5	.5	.4
140.	*	1.2	.0	.2	.1	.2	.5	.5	.4
145.	*	1.2	.0	.2	.2	.2	.5	.5	.4
150.	*	1.2	.0	.1	.2	.3	.5	.5	.5
155.	*	1.2	.0	.0	.2	.2	.4	.6	.5
160.	*	1.1	.0	.0	.2	.2	.4	.6	.5
165.	*	.9	.0	.1	.2	.2	.3	.5	.6
170.	*	1.0	.0	.1	.1	.2	.4	.6	.5
175.	*	1.0	.0	.0	.1	.3	.4	.6	.5
180.	*	1.1	.0	.0	.1	.3	.4	.7	.5
185.	*	1.0	.0	.0	.0	.1	.4	.5	.6
190.	*	1.0	.0	.0	.0	.1	.4	.5	.3
195.	*	1.0	.0	.0	.0	.0	.3	.4	.3
200.	*	1.0	.0	.0	.0	.0	.0	.3	.3
205.	*	1.1	.0	.0	.0	.0	.0	.1	.2

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JOB: Pellissippi Site 12 BD AM 2035 RUN: Pellissippi Site 12 BD AM 2035

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	*	1.1	.0	.0	.0	.0	.0	.0	.0
215.	*	1.2	.0	.0	.0	.0	.0	.0	.0
220.	*	1.2	.0	.0	.0	.0	.0	.0	.0
225.	*	1.2	.0	.0	.0	.0	.0	.0	.0
230.	*	1.1	.0	.0	.0	.0	.0	.0	.0
235.	*	1.1	.0	.0	.0	.0	.0	.0	.0
240.	*	1.2	.0	.0	.0	.0	.0	.0	.0
245.	*	1.1	.0	.0	.0	.0	.0	.0	.0
250.	*	1.1	.1	.0	.0	.0	.0	.0	.0
255.	*	1.0	.1	.1	.1	.0	.0	.0	.0
260.	*	1.0	.3	.3	.3	.1	.0	.0	.0
265.	*	.8	.4	.4	.5	.2	.0	.0	.0
270.	*	.6	.7	.9	.9	.3	.2	.0	.0
275.	*	.4	1.0	1.1	1.1	.7	.3	.2	.0
280.	*	.2	1.2	1.4	1.3	.8	.4	.2	.1
285.	*	.1	1.4	1.6	1.6	1.0	.6	.2	.2
290.	*	.0	1.5	1.8	1.8	1.2	.6	.4	.2
295.	*	.0	1.5	1.8	1.7	1.3	.6	.4	.4
300.	*	.0	1.5	1.7	1.8	1.3	.7	.6	.4
305.	*	.0	1.4	1.8	1.8	1.4	.8	.6	.4
310.	*	.0	1.5	1.8	1.7	1.4	.7	.5	.4
315.	*	.0	1.5	1.7	1.7	1.4	.7	.5	.5
320.	*	.0	1.5	1.7	1.6	1.3	.7	.7	.5
325.	*	.0	1.5	1.7	1.6	1.3	.8	.6	.5
330.	*	.0	1.6	1.7	1.6	1.3	.8	.6	.4
335.	*	.0	1.6	1.7	1.5	1.2	.6	.6	.5
340.	*	.0	1.7	1.6	1.6	1.1	.6	.5	.5
345.	*	.0	1.7	1.6	1.4	1.1	.6	.6	.5
350.	*	.0	1.7	1.6	1.4	1.0	.6	.6	.4
355.	*	.0	1.7	1.6	1.4	1.1	.7	.6	.4
360.	*	.0	1.7	1.6	1.4	1.1	.7	.6	.4
MAX	*	1.3	2.1	2.1	2.2	1.4	1.2	1.2	1.1
DEGR.	*	105	75	70	75	305	55	55	35

THE HIGHEST CONCENTRATION IS 2.20 PPM AT 75 DEGREES FROM REC24.
THE 2ND HIGHEST CONCENTRATION IS 2.10 PPM AT 70 DEGREES FROM REC23.
THE 3RD HIGHEST CONCENTRATION IS 2.10 PPM AT 75 DEGREES FROM REC22.

```
Pellissippi Site 12 BD PM 2035          60.0321.0.0000.000280.30480000    1    1
SE MID S               549763.   518934.       5.0
SE 164 S               549782.   519013.       5.0
SE 82 S                549815.   519090.       5.0
SE CNR                 549882.   519144.       5.0
SE 82 E                549963.   519167.       5.0
SE 164 E               550045.   519168.       5.0
SE MID E               550127.   519167.       5.0
NE MID E               550182.   519343.       5.0
NE 164 E               550099.   519350.       5.0
NE 82 E                550017.   519363.       5.0
NE CNR                 549952.   519418.       5.0
NE 82 N                549926.   519501.       5.0
NE 164 N               549944.   519580.       5.0
NE MID N               549967.   519659.       5.0
NW MID N               549872.   519635.       5.0
NW 164 N               549850.   519555.       5.0
NW 82 N                549817.   519479.       5.0
NW CNR                 549763.   519424.       5.0
NW 82 W                549688.   519393.       5.0
NW 164 W               549606.   519390.       5.0
NW MID W               549524.   519390.       5.0
SW MID W               549417.   519215.       5.0
SW 164 W               549499.   519210.       5.0
SW 82 W                549581.   519201.       5.0
SW CNR                 549653.   519165.       5.0
SW 82 S                549693.   519101.       5.0
SW 164 S               549693.   519015.       5.0
SW MID S               549670.   518935.       5.0
Pellissippi Site 12 BD PM 2035           44  1   0
  1
0         OGnb      AG549548.518327.549690.518773.     75211.3   0  32   30.
  1
0         OGnb      AG549690.518773.549746.518996.     75211.3   0  32   30.
  1
0         OGnbT     AG549748.518996.549818.519243.     34011.3   0  32   30.
  2
0         OGnbTQ    AG549806.519201.549751.519006.      0.  12   1
       114        61       2.0  340   76.0 1600 1 3
  1
0         OGnbL     AG549734.519000.549804.519244.      6111.3   0  32   30.
  2
0         OGnbLQ    AG549792.519202.549736.519008.      0.  12   1
       114        86       2.0   61   76.0 1600 1 3
  1
0         OGnbR     AG549759.518996.549801.519113.     35111.3   0  32   30.
  2
0         OGnbRQ    AG549800.519109.549761.519001.      0.  12   1
       114        61       2.0  351   76.0 1600 1 3
  1
0         OGnbR     AG549801.519113.549860.519169.     35111.3   0  32   30.
  1
0         OGnbR     AG549860.519169.550079.519208.     35111.3   0  32   30.
  1
0         OGnbD     AG549819.519244.550004.519895.     70411.3   0  32   30.
  1
0         OGnbD     AG550004.519896.550098.520248.     70411.3   0  32   30.
  1
0         OGsb      AG550084.520250.549898.519596.    141011.3   0  32   30.
  1
0         OGsbT     AG549892.519596.549802.519285.     51711.3   0  32   30.
  2
0         OGsbTQ    AG549822.519355.549888.519580.      0.  12   1
       114        61       2.0  517   76.0 1600 1 3
  1
0         OGsbL     AG549903.519589.549814.519285.     29411.3   0  32   30.
  2
0         OGsbLQ    AG549835.519357.549900.519577.      0.  12   1
       114        86       2.0  294   76.0 1600 1 3
  1
0         OGsbR     AG549851.519487.549799.519410.     59911.3   0  32   30.
  2
0         OGsbRQ    AG549801.519413.549850.519486.      0.  12   1
       114        61       2.0  599   76.0 1600 1 3
  1
0         OGsbR     AG549799.519410.549704.519371.     59911.3   0  32   30.
  1
0         OGsbR     AG549704.519371.549599.519362.     59911.3   0  32   30.
  1
0         OGsbR     AG549599.519362.549372.519363.     59911.3   0  32   30.
  1
0         OGsbD     AG549802.519285.549662.518778.     88111.3   0  32   30.
  1
0         OGsbD     AG549662.518778.549532.518333.     88111.3   0  32   30.
  1
0         321eb     AG548821.519283.549546.519253.    142012.8   0  44   30.
  1
0         321ebT    AG549546.519253.549830.519241.    111912.8   0  44   30.
  2
0         321ebTQ   AG549760.519244.549559.519252.      0.  24   2
       114        75       2.0 1119   76.0 3200 1 3
  1
0         321ebL    AG549641.519269.549810.519262.     25712.8   0  32   30.
  2
0         321ebLQ   AG549763.519264.549647.519269.      0.  12   1
       114        86       2.0  257   76.0 1600 1 3
```

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  1
0         321ebR    AG549505.519242.549655.519197.      4412.8   0  32   30.
  2
0         321ebRQ   AG549649.519198.549517.519239.      0.  12   1
       114        75       2.0   44   76.0 1600 1 3
  1
0         321ebR    AG549655.519197.549705.519145.      4412.8   0  32   30.
  1
0         321ebR    AG549705.519145.549731.519050.      4412.8   0  32   30.
  1
0         321ebD    AG549831.519239.550815.519193.    176412.8   0  44   30.
  1
0         321wb     AG550818.519272.550021.519309.    233612.8   0  44   30.
  1
0         321wbT    AG550021.519309.549782.519322.    175212.8   0  44   30.
  2
0         321wbTQ   AG549883.519316.549994.519311.      0.  24   2
       114        75       2.0 1752   76.0 3200 1 3
  1
0         321wbL    AG550029.519292.549825.519295.     32012.8   0  32   30.
  2
0         321wbLQ   AG549883.519294.550024.519292.      0.  12   1
       114        86       2.0  320   76.0 1600 1 3
  1
0         321wbR    AG550125.519315.549978.519348.     26412.8   0  32   30.
  2
0         321wbRQ   AG549986.519346.550115.519317.      0.  12   1
       114        75       2.0  264   76.0 1600 1 3
  1
0         321wbR    AG549978.519348.549918.519412.     26412.8   0  32   30.
  1
0         321wbR    AG549918.519412.549897.519502.     26412.8   0  32   30.
  1
0         321wbD    AG549779.519322.548825.519364.    241212.8   0  44   30.
1.0   04  1000   0Y  5  0 72
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1 CAL3QHC: LINE SOURCE DISPERSION MODEL - VERSION 2.2, JUNE 2000
PAGE 1

JOB: Pellissippi Site 12 BD PM 2035 RUN: Pellissippi Site 12 BD PM 2035
DATE: 12/15/2008 TIME: 14:21:15.38

SITE & METEOROLOGICAL VARIABLES

VS = .0 CM/S VD = .0 CM/S Z0 = 321. CM
U = 1.0 M/S CLAS = 4 (D) ATIM = 60. MINUTES MIXH = 1000. M AMB = .0 PPM

LINK VARIABLES

LINK	DESCRIPTION	X1	Y1	X2	Y2	LENGTH (FT)	BRG (DEG)	TYPE	VPH	EF (G/MI)	H (FT)	W (FT)	V/C	QUEUE (VEH)
1. 0	OGnb	549548.0	518327.0	549690.0	518773.0	468.	18.	AG	752.	11.3	.0	32.0		
2. 0	OGnb	549690.0	518773.0	549746.0	518996.0	230.	14.	AG	752.	11.3	.0	32.0		
3. 0	OGnbT	549748.0	518996.0	549818.0	519243.0	257.	16.	AG	340.	11.3	.0	32.0		
4. 0	OGnbTQ	549806.0	519201.0	549775.2	519091.9	113.	196.	AG	109.	100.0	.0	12.0	.49	5.8
5. 0	OGnbL	549734.0	519000.0	549804.0	519244.0	254.	16.	AG	61.	11.3	.0	32.0		
6. 0	OGnbLQ	549792.0	519202.0	549784.1	519174.4	29.	196.	AG	154.	100.0	.0	12.0	.18	1.5
7. 0	OGnbR	549759.0	518996.0	549801.0	519113.0	124.	20.	AG	351.	11.3	.0	32.0		
8. 0	OGnbRQ	549800.0	519109.0	549760.2	518998.9	117.	200.	AG	109.	100.0	.0	12.0	.51	5.9
9. 0	OGnbR	549801.0	519113.0	549860.0	519169.0	81.	46.	AG	351.	11.3	.0	32.0		
10. 0	OGnbR	549860.0	519169.0	550079.0	519208.0	222.	80.	AG	351.	11.3	.0	32.0		
11. 0	OGnbD	549819.0	519244.0	550004.0	519895.0	677.	16.	AG	704.	11.3	.0	32.0		
12. 0	OGnbD	550004.0	519896.0	550098.0	520248.0	364.	15.	AG	704.	11.3	.0	32.0		
13. 0	OGsb	550084.0	520250.0	549898.0	519596.0	680.	196.	AG	1410.	11.3	.0	32.0		
14. 0	OGsbT	549892.0	519596.0	549802.0	519285.0	324.	196.	AG	517.	11.3	.0	32.0		
15. 0	OGsbTQ	549822.0	519355.0	549870.6	519520.5	172.	16.	AG	109.	100.0	.0	12.0	.75	8.8
16. 0	OGsbL	549903.0	519589.0	549814.0	519285.0	317.	196.	AG	294.	11.3	.0	32.0		
17. 0	OGsbLQ	549835.0	519357.0	549882.2	519516.6	166.	16.	AG	154.	100.0	.0	12.0	.88	8.5
18. 0	OGsbR	549851.0	519487.0	549799.0	519410.0	93.	214.	AG	599.	11.3	.0	32.0		
19. 0	OGsbRQ	549801.0	519413.0	549926.0	519599.2	224.	34.	AG	109.	100.0	.0	12.0	.87	11.4
20. 0	OGsbR	549799.0	519410.0	549704.0	519371.0	103.	248.	AG	599.	11.3	.0	32.0		
21. 0	OGsbR	549704.0	519371.0	549599.0	519362.0	105.	265.	AG	599.	11.3	.0	32.0		
22. 0	OGsbR	549599.0	519362.0	549372.0	519363.0	227.	270.	AG	599.	11.3	.0	32.0		
23. 0	OGsbD	549802.0	519285.0	549662.0	518778.0	526.	195.	AG	881.	11.3	.0	32.0		
24. 0	OGsbD	549662.0	518778.0	549532.0	518333.0	464.	196.	AG	881.	11.3	.0	32.0		
25. 0	321eb	548821.0	519283.0	549546.0	519253.0	726.	92.	AG	1420.	12.8	.0	44.0		
26. 0	321ebT	549546.0	519253.0	549830.0	519241.0	284.	92.	AG	1119.	12.8	.0	44.0		
27. 0	321ebTQ	549760.0	519244.0	549530.9	519253.2	229.	272.	AG	268.	100.0	.0	24.0	.57	11.6
28. 0	321ebL	549641.0	519269.0	549810.0	519262.0	169.	92.	AG	257.	12.8	.0	32.0		
29. 0	321ebLQ	549763.0	519264.0	549634.7	519269.5	128.	272.	AG	154.	100.0	.0	12.0	.76	6.5
30. 0	321ebR	549505.0	519242.0	549655.0	519197.0	157.	107.	AG	44.	12.8	.0	32.0		
31. 0	321ebRQ	549649.0	519198.0	549631.8	519203.3	18.	287.	AG	134.	100.0	.0	12.0	.09	.9
32. 0	321ebR	549655.0	519197.0	549705.0	519145.0	72.	136.	AG	44.	12.8	.0	32.0		
33. 0	321ebR	549705.0	519145.0	549731.0	519050.0	98.	165.	AG	44.	12.8	.0	32.0		
34. 0	321ebD	549831.0	519239.0	550815.0	519193.0	985.	93.	AG	1764.	12.8	.0	44.0		
35. 0	321wb	550818.0	519272.0	550021.0	519309.0	798.	273.	AG	2336.	12.8	.0	44.0		
36. 0	321wbT	550021.0	519309.0	549782.0	519322.0	239.	273.	AG	1752.	12.8	.0	44.0		
37. 0	321wbTQ	549883.0	519316.0	550276.5	519298.4	394.	93.	AG	268.	100.0	.0	24.0	.89	20.0
38. 0	321wbL	550029.0	519292.0	549825.0	519295.0	204.	271.	AG	320.	12.8	.0			

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32.0
    39. 0       321wbLQ   * 549883.0  519294.0  550092.3  519291.0 *    209.    91. AG    154. 100.0    .0
12.0  .95  10.6
    40. 0       321wbR    * 550125.0  519315.0  549978.0  519348.0 *    151.   283. AG    264.  12.8    .0
32.0
    41. 0       321wbRQ   * 549986.0  519346.0  550091.7  519322.3 *    108.   103. AG    134. 100.0    .0
12.0  .54   5.5
    42. 0       321wbR    * 549978.0  519348.0  549918.0  519412.0 *     88.   317. AG    264.  12.8    .0
32.0
    43. 0       321wbR    * 549918.0  519412.0  549897.0  519502.0 *     92.   347. AG    264.  12.8    .0
32.0
    44. 0       321wbD    * 549779.0  519322.0  548825.0  519364.0 *    955.   273. AG   2412.  12.8    .0
44.0
1
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ADDITIONAL QUEUE LINK PARAMETERS

LINK DESCRIPTION		CYCLE LENGTH (SEC)	RED TIME (SEC)	CLEARANCE LOST TIME (SEC)	APPROACH VOL (VPH)	SATURATION FLOW RATE (VPH)	IDLE EM FAC (gm/hr)	SIGNAL TYPE	ARRIVAL RATE
4. 0	OGnbTQ	114	61	2.0	340	1600	76.00	1	3
6. 0	OGnbLQ	114	86	2.0	61	1600	76.00	1	3
8. 0	OGnbRQ	114	61	2.0	351	1600	76.00	1	3
15. 0	OGsbTQ	114	61	2.0	517	1600	76.00	1	3
17. 0	OGsbLQ	114	86	2.0	294	1600	76.00	1	3
19. 0	OGsbRQ	114	61	2.0	599	1600	76.00	1	3
27. 0	321ebTQ	114	75	2.0	1119	3200	76.00	1	3
29. 0	321ebLQ	114	86	2.0	257	1600	76.00	1	3
31. 0	321ebRQ	114	75	2.0	44	1600	76.00	1	3
37. 0	321wbTQ	114	75	2.0	1752	3200	76.00	1	3
39. 0	321wbLQ	114	86	2.0	320	1600	76.00	1	3
41. 0	321wbRQ	114	75	2.0	264	1600	76.00	1	3

RECEPTOR LOCATIONS

RECEPTOR	COORDINATES (FT) X	Y	Z
1. SE MID S	549763.0	518934.0	5.0
2. SE 164 S	549782.0	519013.0	5.0
3. SE 82 S	549815.0	519090.0	5.0
4. SE CNR	549882.0	519144.0	5.0
5. SE 82 E	549963.0	519167.0	5.0
6. SE 164 E	550045.0	519168.0	5.0
7. SE MID E	550127.0	519167.0	5.0
8. NE MID E	550182.0	519343.0	5.0
9. NE 164 E	550099.0	519350.0	5.0
10. NE 82 E	550017.0	519363.0	5.0
11. NE CNR	549952.0	519418.0	5.0
12. NE 82 N	549926.0	519501.0	5.0
13. NE 164 N	549944.0	519580.0	5.0
14. NE MID N	549967.0	519659.0	5.0
15. NW MID N	549872.0	519635.0	5.0
16. NW 164 N	549850.0	519555.0	5.0
17. NW 82 N	549817.0	519479.0	5.0
18. NW CNR	549763.0	519424.0	5.0
19. NW 82 W	549688.0	519393.0	5.0
20. NW 164 W	549606.0	519390.0	5.0
21. NW MID W	549524.0	519390.0	5.0
22. SW MID W	549417.0	519215.0	5.0
23. SW 164 W	549499.0	519210.0	5.0
24. SW 82 W	549581.0	519201.0	5.0
25. SW CNR	549653.0	519165.0	5.0
26. SW 82 S	549693.0	519101.0	5.0
27. SW 164 S	549693.0	519015.0	5.0
28. SW MID S	549670.0	518935.0	5.0

1

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	CONCENTRATION (PPM) REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
0.	1.0	1.4	1.1	1.1	1.2	1.3	1.0	.0	.1	.1	.3	.7	.7	.7	.1	.1	.1	.0	.0	.0
5.	1.1	1.4	1.1	1.1	1.1	1.3	1.0	.0	.0	.1	.3	.6	.7	.7	.1	.2	.1			

WIND ANGLE (DEGR)	*	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
																			.0	.0	.0
10.	*	1.0	1.3	.9	1.1	1.2	1.2	1.0	.0	.0	.1	.2	.5	.5	.6	.2	.2	.1	.1	.0	.0
15.	*	.9	1.2	.8	1.1	1.2	1.1	1.0	.0	.0	.0	.2	.4	.5	.5	.4	.4	.3	.1	.1	.0
20.	*	.7	1.0	.8	1.0	1.1	1.1	1.0	.0	.0	.0	.1	.3	.3	.4	.6	.5	.3	.2	.1	.0
25.	*	.4	.6	.8	.9	1.2	1.0	1.0	.0	.0	.0	.0	.2	.2	.2	.7	.5	.6	.3	.1	.1
30.	*	.4	.8	.7	1.0	1.2	1.0	1.0	.0	.0	.0	.0	.1	.2	.1	.6	.6	.5	.4	.1	.1
35.	*	.4	.7	.8	.9	1.4	1.1	1.0	.0	.0	.0	.0	.0	.0	.0	.6	.7	.5	.5	.2	.1
40.	*	.3	.6	.8	.9	1.2	1.1	1.1	.0	.0	.0	.0	.0	.0	.0	.7	.6	.8	.5	.2	.1
45.	*	.4	.5	.9	1.1	1.3	1.2	1.1	.0	.0	.0	.0	.0	.0	.0	.7	.6	.8	.8	.3	.1
50.	*	.5	.5	1.0	1.1	1.3	1.1	1.0	.0	.0	.0	.0	.0	.0	.0	.7	.6	1.0	.8	.3	.2
55.	*	.5	.5	.8	1.1	1.3	1.1	1.0	.0	.0	.0	.0	.0	.0	.0	.7	.6	1.0	.7	.4	.2
60.	*	.4	.5	.7	1.0	1.3	1.1	1.0	.0	.0	.0	.0	.0	.0	.0	.6	.7	.9	.7	.6	.2
65.	*	.2	.5	.6	1.0	1.3	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.6	.7	.9	.7	.7	.2
70.	*	.2	.4	.6	.9	1.1	1.0	1.0	.1	.0	.0	.0	.0	.0	.0	.6	.8	1.1	.8	.7	.3
75.	*	.2	.3	.6	.9	1.0	.9	.9	.1	.1	.1	.0	.0	.0	.0	.5	.7	1.1	.8	.7	.3
80.	*	.2	.2	.4	.8	1.0	.8	.8	.2	.2	.1	.0	.0	.0	.0	.5	.6	1.1	.8	.8	.4
85.	*	.0	.2	.3	.5	.7	.7	.7	.4	.4	.4	.1	.0	.0	.0	.5	.6	1.2	.8	.9	.8
90.	*	.0	.1	.2	.3	.5	.5	.5	.7	.7	.6	.2	.0	.0	.0	.5	.6	1.2	1.2	1.1	1.0
95.	*	.0	.0	.1	.3	.3	.4	.4	.9	1.0	.9	.4	.1	.0	.0	.5	.7	1.2	1.1	1.3	1.1
100.	*	.0	.0	.0	.1	.2	.2	.2	1.1	1.3	1.4	.5	.2	.1	.0	.5	.7	1.5	1.4	1.6	1.5
105.	*	.0	.0	.0	.0	.1	.1	.1	1.3	1.5	1.6	.7	.3	.1	.0	.6	.8	1.6	1.5	1.5	1.5
110.	*	.0	.0	.0	.0	.0	.0	.0	1.6	1.6	1.7	.9	.5	.2	.1	.7	.9	1.7	1.8	1.6	1.3
115.	*	.0	.0	.0	.0	.0	.0	.0	1.7	1.7	1.9	1.0	.5	.3	.2	.8	1.0	1.8	1.7	1.6	1.4
120.	*	.0	.0	.0	.0	.0	.0	.0	1.7	1.8	1.9	1.1	.6	.3	.2	.9	1.0	1.9	1.7	1.5	1.4
125.	*	.0	.0	.0	.0	.0	.0	.0	1.7	1.8	2.1	1.0	.7	.4	.3	.9	1.2	1.9	1.5	1.2	1.4
130.	*	.0	.0	.0	.0	.0	.0	.0	1.7	1.8	2.0	1.2	.7	.4	.3	.9	1.3	1.9	1.5	1.2	1.4
135.	*	.0	.0	.0	.0	.0	.0	.0	1.8	1.7	2.0	1.2	.7	.4	.4	.9	1.5	1.9	1.3	1.0	1.3
140.	*	.0	.0	.0	.0	.0	.0	.0	1.7	1.8	2.0	1.2	.7	.4	.4	1.0	1.6	1.9	1.3	1.1	1.4
145.	*	.0	.0	.0	.0	.0	.0	.0	1.7	1.7	1.9	1.0	.9	.4	.4	1.0	1.6	1.8	1.0	1.2	1.4
150.	*	.0	.0	.0	.0	.0	.0	.0	1.7	1.6	1.9	1.1	.9	.5	.4	1.0	1.6	1.8	.9	1.1	1.4
155.	*	.0	.0	.0	.0	.0	.0	.0	1.6	1.6	2.1	1.1	.8	.5	.4	1.1	1.6	1.8	.9	1.2	1.4
160.	*	.0	.0	.0	.0	.0	.0	.0	1.6	1.6	2.0	1.1	.7	.6	.3	1.0	1.6	1.7	1.0	1.3	1.4
165.	*	.0	.0	.0	.0	.0	.0	.0	1.7	1.6	2.0	1.1	.8	.6	.3	1.0	1.6	1.6	1.1	1.3	1.4
170.	*	.0	.0	.0	.0	.0	.0	.0	1.6	1.6	2.0	1.0	.7	.6	.4	1.1	1.6	1.4	.8	1.4	1.4
175.	*	.0	.0	.0	.0	.0	.0	.0	1.5	1.6	1.9	1.0	.7	.4	.4	1.2	1.6	1.3	.9	1.4	1.2
180.	*	.0	.0	.0	.0	.0	.0	.0	1.5	1.8	2.0	1.0	.7	.4	.4	1.1	1.6	1.4	1.0	1.4	1.1
185.	*	.2	.1	.0	.0	.0	.0	.0	1.5	1.8	2.0	1.0	.7	.4	.4	1.0	1.4	1.3	1.0	1.4	1.1
190.	*	.3	.3	.2	.0	.0	.0	.0	1.6	1.8	2.0	1.0	.7	.5	.4	1.0	1.4	1.1	1.0	1.3	1.1
195.	*	.3	.6	.6	.0	.0	.0	.0	1.6	1.8	2.0	1.0	.7	.7	.8	1.0	1.1	1.2	1.1	1.3	1.2
200.	*	.5	.6	.6	.0	.0	.0	.0	1.6	1.9	2.0	1.0	.9	.9	.9	1.0	1.0	1.1	1.1	1.2	1.2
205.	*	.5	.6	.7	.2	.0	.0	.0	1.6	2.0	2.0	1.0	1.0	1.2	1.1	.5	.9	.9	1.0	1.2	1.1

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JOB: Pellissippi Site 12 BD PM 2035 RUN: Pellissippi Site 12 BD PM 2035

WIND ANGLE (DEGR)	* CONCENTRATION (PPM)	REC1	REC2	REC3	REC4	REC5	REC6	REC7	REC8	REC9	REC10	REC11	REC12	REC13	REC14	REC15	REC16	REC17	REC18	REC19	REC20
210.	*	.5	.7	.7	.2	.0	.0	.0	1.7	2.0	2.1	.9	1.3	1.4	1.4	.4	.6	.9	1.0	1.1	1.1
215.	*	.5	.7	.7	.3	.0	.0	.0	1.7	2.0	2.1	.9	1.4	1.4	1.3	.4	.4	.9			

																			1.0	1.1	1.1
220.	*	.6	.6	.9	.3	.1	.0	.0	1.7	2.1	2.0	1.0	1.3	1.3	1.1	.3	.4	.6	1.0	1.2	1.1
225.	*	.5	.6	.9	.2	.1	.0	.0	1.7	2.4	1.9	1.1	1.5	1.3	1.0	.4	.5	.7	1.2	1.2	1.1
230.	*	.5	.6	.8	.2	.1	.1	.0	1.8	2.4	2.0	1.0	1.5	1.4	1.1	.3	.5	.7	1.1	1.1	1.1
235.	*	.5	.8	.8	.2	.1	.1	.0	1.9	2.4	2.0	1.0	1.6	1.4	.9	.3	.4	.7	1.0	1.2	1.1
240.	*	.5	.7	.8	.3	.1	.1	.0	2.1	2.5	1.9	1.1	1.5	1.2	.9	.3	.4	.6	.9	1.3	1.1
245.	*	.4	.7	.7	.5	.1	.1	.1	2.2	2.7	1.9	1.2	1.5	1.0	.8	.3	.4	.5	1.0	1.2	1.1
250.	*	.4	.7	.7	.5	.2	.1	.1	2.5	2.5	1.8	1.3	1.4	1.0	.8	.3	.3	.5	.9	1.2	1.2
255.	*	.4	.8	.7	.4	.2	.1	.1	2.5	2.4	1.5	1.3	1.4	1.0	.6	.1	.3	.4	.9	1.2	1.2
260.	*	.4	.8	.7	.4	.3	.1	.1	2.3	2.0	1.7	1.1	1.4	.8	.6	.1	.3	.4	.7	1.1	1.1
265.	*	.4	.7	.8	.5	.6	.5	.4	2.0	1.8	1.4	1.0	1.2	.7	.6	.1	.1	.3	.5	.9	.9
270.	*	.4	.7	.9	.6	.7	.7	.7	1.6	1.6	1.2	.9	1.0	.7	.5	.0	.1	.1	.4	.8	.7
275.	*	.4	.7	1.0	.8	.7	.8	.8	1.2	1.1	.8	.9	.9	.6	.5	.0	.0	.1	.2	.5	.6
280.	*	.4	.9	1.0	.9	1.1	1.0	1.0	.7	.7	.7	.8	.8	.6	.5	.0	.0	.0	.1	.2	.3
285.	*	.5	.9	1.1	1.1	1.2	1.1	1.2	.5	.6	.5	.8	.7	.6	.5	.0	.0	.0	.1	.1	.1
290.	*	.6	1.0	1.2	1.2	1.4	1.1	1.1	.1	.3	.5	.7	.7	.6	.5	.0	.0	.0	.0	.0	.1
295.	*	.6	1.0	1.4	1.3	1.2	1.1	1.2	.0	.2	.4	.7	.7	.6	.5	.0	.0	.0	.0	.0	.0
300.	*	.6	1.0	1.4	1.3	1.2	1.2	1.1	.0	.2	.4	.6	.6	.6	.5	.0	.0	.0	.0	.0	.0
305.	*	.7	1.1	1.5	1.1	1.0	1.1	1.2	.0	.1	.4	.6	.5	.7	.5	.0	.0	.0	.0	.0	.0
310.	*	.7	1.1	1.5	1.0	1.0	1.2	1.1	.0	.1	.3	.6	.5	.6	.5	.0	.0	.0	.0	.0	.0
315.	*	.7	1.2	1.5	1.1	.9	1.3	1.1	.1	.1	.3	.6	.5	.6	.5	.0	.0	.0	.0	.0	.0
320.	*	.8	1.2	1.5	.9	1.0	1.2	1.2	.1	.2	.2	.6	.5	.6	.5	.0	.0	.0	.0	.0	.0
325.	*	.8	1.2	1.4	.8	1.1	1.3	1.3	.1	.2	.2	.5	.5	.6	.5	.0	.0	.0	.0	.0	.0
330.	*	.8	1.3	1.5	.8	1.1	1.1	1.3	.1	.2	.2	.5	.6	.8	.7	.0	.0	.0	.0	.0	.0
335.	*	.8	1.3	1.4	.7	1.1	1.2	1.5	.1	.2	.2	.4	.6	.7	.7	.0	.0	.0	.0	.0	.0
340.	*	.8	1.3	1.4	.9	1.2	1.3	1.3	.1	.2	.2	.3	.7	.7	.7	.0	.0	.0	.0	.0	.0
345.	*	1.0	1.3	1.3	.9	1.2	1.3	1.2	.1	.1	.2	.3	.7	.7	.7	.0	.0	.0	.0	.0	.0
350.	*	.8	1.2	.9	1.0	1.2	1.4	1.1	.1	.1	.2	.4	.6	.7	.7	.0	.0	.0	.0	.0	.0
355.	*	.9	1.3	.9	1.1	1.2	1.3	1.1	.1	.1	.2	.3	.7	.7	.7	.0	.0	.0	.0	.0	.0
360.	*	1.0	1.4	1.1	1.1	1.2	1.3	1.0	.0	.1	.1	.3	.7	.7	.7	.1	.1	.1	.0	.0	.0
MAX	*	1.1	1.4	1.5	1.3	1.4	1.4	1.5	2.5	2.7	2.1	1.3	1.6	1.4	1.4	1.2	1.6	1.9	1.8	1.6	1.5
DEGR.	*	5	0	330	295	35	350	335	250	245	125	250	235	210	210	175	140	120	110	115	100

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JOB: Pellissippi Site 12 BD PM 2035 RUN: Pellissippi Site 12 BD PM 2035

MODEL RESULTS

REMARKS : In search of the angle corresponding to the maximum concentration, only the first angle, of the angles with same maximum concentrations, is indicated as maximum.

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
0.	*	.0	.9	.9	1.2	1.0	.7	.6	.3
5.	*	.0	.9	.9	1.2	1.0	.7	.6	.4
10.	*	.0	.9	.9	1.2	.9	.8	.5	.4
15.	*	.0	.9	1.0	1.2	1.0	1.0	.8	.8
20.	*	.0	.9	1.0	1.2	1.0	.9	.8	.8
25.	*	.0	.9	.9	1.3	1.1	.7	.9	.7
30.	*	.1	1.0	1.2	1.4	1.1	.7	1.0	.8
35.	*	.1	1.1	1.1	1.4	1.3	.8	.9	.8
40.	*	.1	1.1	1.2	1.5	1.2	.7	.9	1.0
45.	*	.1	1.0	1.4	1.3	1.0	.9	1.1	.9

50.	*	.1	1.0	1.3	1.5	1.2	1.0	1.1	.9
55.	*	.1	1.0	1.4	1.5	1.1	1.1	1.0	.9
60.	*	.1	1.1	1.5	1.5	1.1	1.2	1.1	1.0
65.	*	.0	1.1	1.7	1.6	1.2	1.2	1.1	.8
70.	*	.0	1.4	1.7	1.4	1.1	1.0	1.1	.6
75.	*	.0	1.5	1.6	1.8	1.1	1.0	.9	.6
80.	*	.1	1.5	1.6	1.5	.9	.9	.8	.6
85.	*	.6	1.3	1.5	1.3	.8	.7	.8	.6
90.	*	.8	1.2	1.1	1.2	.7	.7	.7	.5
95.	*	1.0	.8	.9	.8	.5	.6	.5	.5
100.	*	1.2	.5	.5	.6	.3	.4	.4	.5
105.	*	1.2	.4	.4	.2	.3	.4	.5	.5
110.	*	1.6	.1	.1	.2	.2	.4	.4	.5
115.	*	1.7	.1	.1	.1	.2	.4	.4	.5
120.	*	1.4	.1	.1	.1	.2	.4	.4	.5
125.	*	1.5	.1	.1	.1	.2	.4	.4	.5
130.	*	1.5	.1	.1	.1	.2	.4	.4	.5
135.	*	1.5	.0	.1	.1	.2	.3	.4	.5
140.	*	1.5	.0	.1	.1	.2	.3	.5	.5
145.	*	1.4	.0	.1	.1	.1	.3	.5	.5
150.	*	1.3	.0	.1	.1	.1	.3	.5	.5
155.	*	1.2	.0	.0	.1	.2	.3	.5	.5
160.	*	1.3	.0	.0	.1	.2	.3	.5	.4
165.	*	1.2	.0	.0	.1	.2	.3	.5	.4
170.	*	1.2	.0	.0	.0	.2	.3	.5	.6
175.	*	1.1	.0	.0	.0	.2	.3	.4	.6
180.	*	1.0	.0	.0	.0	.2	.5	.6	.5
185.	*	1.1	.0	.0	.0	.2	.4	.5	.4
190.	*	1.1	.0	.0	.0	.0	.3	.5	.3
195.	*	1.0	.0	.0	.0	.0	.2	.4	.3
200.	*	1.0	.0	.0	.0	.0	.1	.2	.3
205.	*	1.0	.0	.0	.0	.0	.0	.2	.1

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JOB: Pellissippi Site 12 BD PM 2035 RUN: Pellissippi Site 12 BD PM 2035

WIND ANGLE RANGE: 0.-360.

WIND ANGLE (DEGR)	*	CONCENTRATION (PPM) REC21	REC22	REC23	REC24	REC25	REC26	REC27	REC28
210.	*	1.0	.0	.0	.0	.0	.0	.0	.0
215.	*	1.1	.0	.0	.0	.0	.0	.0	.0
220.	*	1.1	.0	.0	.0	.0	.0	.0	.0
225.	*	1.1	.0	.0	.0	.0	.0	.0	.0
230.	*	1.1	.0	.0	.0	.0	.0	.0	.0
235.	*	1.1	.0	.0	.0	.0	.0	.0	.0
240.	*	1.2	.0	.0	.0	.0	.0	.0	.0
245.	*	1.2	.0	.0	.0	.0	.0	.0	.0
250.	*	1.2	.0	.0	.0	.0	.0	.0	.0
255.	*	1.2	.1	.1	.0	.0	.0	.0	.0
260.	*	1.1	.1	.1	.1	.0	.0	.0	.0
265.	*	.8	.2	.2	.2	.1	.0	.0	.0
270.	*	.7	.4	.4	.4	.2	.1	.0	.0
275.	*	.5	.5	.6	.6	.3	.2	.0	.0
280.	*	.2	.7	.7	.6	.5	.2	.1	.0
285.	*	.1	.8	.8	.8	.5	.4	.2	.0
290.	*	.1	1.0	1.0	.9	.7	.4	.2	.2
295.	*	.0	1.0	1.0	1.0	.8	.4	.3	.2
300.	*	.0	1.0	1.0	.9	.9	.6	.3	.2
305.	*	.0	.9	.9	1.1	.9	.6	.4	.3
310.	*	.0	.9	.9	1.0	.8	.6	.3	.3
315.	*	.0	.9	.9	1.1	1.0	.6	.3	.3
320.	*	.0	.9	.9	1.2	1.0	.7	.4	.3
325.	*	.0	.9	.9	1.3	1.0	.7	.4	.3
330.	*	.0	.9	.9	1.3	.9	.6	.5	.3
335.	*	.0	.9	.9	1.2	.9	.6	.4	.4
340.	*	.0	.8	.9	1.2	.9	.5	.5	.4
345.	*	.0	.8	.9	1.3	1.0	.6	.5	.4
350.	*	.0	.8	.9	1.3	1.0	.7	.5	.4
355.	*	.0	.9	.9	1.2	1.0	.7	.6	.4
360.	*	.0	.9	.9	1.2	1.0	.7	.6	.3
MAX	*	1.7	1.5	1.7	1.8	1.3	1.2	1.1	1.0
DEGR.	*	115	75	70	75	35	60	45	40

THE HIGHEST CONCENTRATION IS 2.70 PPM AT 245 DEGREES FROM REC9 .
THE 2ND HIGHEST CONCENTRATION IS 2.50 PPM AT 250 DEGREES FROM REC8 .
THE 3RD HIGHEST CONCENTRATION IS 2.10 PPM AT 125 DEGREES FROM REC10.

Appendix D: $PM_{2.5}$ Hot Spot Determination by EPA, FHWA, TDEC, TDOT

From: <Sheckler.Kelly@epamail.epa.gov>
To: "Mark McAdoo" <Mark.McAdoo@state.tn.us>
Date: 1/13/2009 11:48 AM
Subject: Re: PM 2.5 Determination for Pellissippi Parkway Project (PIN# 101423.00)- (1 project)
Attachments: PM2 5HotSpotDeterminationQA-Pellissippi- 1-6-08 final.doc

CC: <Smith.Dianna@epamail.epa.gov>
Mark- thank you for providing the updated material. Based upon what you have provided in the write-up, EPA concurs that this projects is not of air quality concern per the Transportation conformity provisions.

Kelly Sheckler
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<jim_renfro@nps.gov>,
<liana_reilly@nps.gov>,
<teresa_cantrell@nps.gov>, "Alan
Jones" <Alan.Jones@state.tn.us>,
"Angela Midgett"
<Angela.Midgett@state.tn.us>,
"Marc Corrigan"

From: <Victor.Otero@dot.gov>
To: <Mark.McAdoo@state.tn.us>, <asmcdaniel@aqm.co.knox.tn.us>, <laliddington...
Date: 1/13/2009 12:58 PM
Subject: RE: PM 2.5 Determination for Pellissippi Parkway Project (PIN#101423.00)- (1 project)

CC: <SkinnerN@pbworld.com>, <Jim.Ozment@state.tn.us>, <Tom.Love@state.tn.us>

FHWA concurs that the Pellissippi Parkway Project (PIN#101423.00)- (1 project is not of air quality concern. Should you require additional information, please contact me at 615.781.5761

Thank you

Victor Otero
FHWA TN DIVISION

-----Original Message-----
From: Mark McAdoo [mailto:Mark.McAdoo@state.tn.us]
Sent: Tuesday, January 13, 2009 12:11 PM
To: asmcdaniel@aqm.co.knox.tn.us; laliddington@aqm.co.knox.tn.us; Rivera, Abigail <FTA>; Anoka, Jeffery <FTA>; Benjamin.Lynorae@epa.gov; Sheckler.Kelly@epa.gov; smith.dianna@epa.gov; Wood.Amanetta@epa.gov; Crenshaw, Cecilia <FHWA>; Oneill, Charles <FHWA>; Tribble, Leigh Ann <FHWA>; Roberts, Michael <FHWA>; Macon, Tameka <FHWA>; Otero, Victor <FHWA>; Jeff.Welch@knoxtrans.org; Mike.Conger@knoxtrans.org; Shannon.Tolliver@knoxtrans.org; richd@mymorristown.com; jim_renfro@nps.gov; liana_reilly@nps.gov; teresa_cantrell@nps.gov; Alan Jones; Angela Midgett; Marc Corrigan; Mark McAdoo; Robert Rock; Ronnie Porter
Cc: Nancy T. Skinner; Jim Ozment; Tom Love
Subject: Re: PM 2.5 Determination for Pellissippi Parkway Project (PIN#101423.00)- (1 project)

Kelly -
Thank you for providing concurrence from EPA. I hope FHWA and the other IAC members can provide concurrence by January 20th.

Mark

TDOT - Environmental Division
615-741-6834

If you want your budget in the black - think green!

>>> <Sheckler.Kelly@epamail.epa.gov> 1/13/2009 11:48 AM >>>
Mark- thank you for providing the updated material. Based upon what you have provided in the write-up, EPA concurs that this projects is not of air quality concern per the Transportation conformity provisions.

Kelly Sheckler
US Environmental Protection Agency- Region 4

Diesel Collaborative and Transportation Outreach Liaison
61 Foryths Street
Atlanta, Georgia 30303
(404) 562-9222
Sheckler.Kelly@epa.gov

"Mark McAdoo"
<Mark.McAdoo@state.tn.us>

01/07/2009 09:53 AM

To
<asmcdaniel@aqm.co.knox.tn.us>, <laliddington@aqm.co.knox.tn.us>, "Abigail Rivera" <Abigail.Rivera@dot.gov>, "Jeffery Anoka" <Jeffery.Anoka@dot.gov>, Lynorae Benjamin/R4/USEPA/US@EPA, Kelly Sheckler/R4/USEPA/US@EPA, Dianna Smith/R4/USEPA/US@EPA, Amanetta Wood/R4/USEPA/US@EPA, <Cecilia.Crenshaw@fhwa.dot.gov>, "Charles Oneill" <Charles.Oneill@fhwa.dot.gov>, <LeighAnn.Tribble@fhwa.dot.gov>, <Michael.Roberts@fhwa.dot.gov>, "Tameka Macon" <Tameka.Macon@fhwa.dot.gov>, "Vic Otero" <Victor.Otero@fhwa.dot.gov>, <Jeff.Welch@knoxtrans.org>, <Mike.Conger@knoxtrans.org>, <Shannon.Tolliver@knoxtrans.org>, <richd@mymorristown.com>, <jim_renfro@nps.gov>, <liana_reilly@nps.gov>, <teresa_cantrell@nps.gov>, "Alan Jones" <Alan.Jones@state.tn.us>, "Angela Midgett" <Angela.Midgett@state.tn.us>, "Marc Corrigan" <Marc.Corrigan@state.tn.us>, "Mark McAdoo" <Mark.McAdoo@state.tn.us>, "Robert Rock" <Robert.Rock@state.tn.us>, "Ronnie Porter" <Ronnie.Porter@state.tn.us>

cc
"Nancy T. Skinner" <SkinnerN@pbworld.com>, "Jim Ozment" <Jim.Ozment@state.tn.us>, "Tom Love" <Tom.Love@state.tn.us>

Subject
PM 2.5 Determination for

Pellissippi Parkway Project (PIN#
101423.00)

Knoxville Area IAC -
This project was previously submitted to the IAC for concurrence. However, on December 19, 2008, Kelly Sheckler (EPA) left a voice message with me requesting us to revise the determination and resubmit. EPA requested truck numbers (not percentages) for the build and no build in the design year.

Our consultant for this project has made those revisions and TDOT is now resubmitting the determination that this project be classified as NOT OF AIR QUALITY CONCERN to the IAC for concurrence. Details are provided in the attached document.

TDOT requests your concurrence with our recommendation that this project be classified as NOT OF AIR QUALITY CONCERN. Please respond no later than close of business (4:30 central time) on January 20, 2009. If TDOT does not receive a response to the contrary within 10 business days of this email then TDOT will assume that you concur with our recommended determination.

Happy New Year,

Mark

TDOT - Environmental Division
615-741-6834

If you want your budget in the black - think green!

(See attached file: PM2 5HotSpotDeterminationQA-Pellissippi- 1-6-08 final.doc)

<Marc.Corrigan@state.tn.us>,
"Mark McAdoo"
<Mark.McAdoo@state.tn.us>,
"Robert Rock"
<Robert.Rock@state.tn.us>,
"Ronnie Porter"
<Ronnie.Porter@state.tn.us>

cc

"Nancy T. Skinner"
<SkinnerN@pbworld.com>, "Jim
Ozment" <Jim.Ozment@state.tn.us>,
"Tom Love" <Tom.Love@state.tn.us>

Subject

PM 2.5 Determination for
Pellissippi Parkway Project (PIN#
101423.00)

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This project was previously submitted to the IAC for concurrence.
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Happy New Year,

Mark

TDOT - Environmental Division
615-741-6834

If you want your budget in the black - think green!

(See attached file: PM2 5HotSpotDeterminationQA-Pellissippi- 1-6-08
final.doc)

Project Name: Pellissippi Parkway (SR-33 to US 321)
Project Number: 05097-1226-04; LRTP # 70; TIP # 101423.00
Location: Pellissippi Parkway from SR 33 to US 321/SR 73 in the cities of Alcoa and Maryville and in unincorporated Blount County

Statement of Purpose and Legal Requirements

Section 176(c) of the Clean Air Act, as amended, requires that transportation agencies, such as the Tennessee Department of Transportation (TDOT), demonstrate that all proposed transportation projects that are located in nonattainment or maintenance areas, and using federal money, are consistent with the air quality goals found in the State Implementation Plan (SIP) and the corresponding Transportation Improvement Program (TIP) or other conforming plan.

The process to ensure this consistency is called Transportation Conformity. Conformity to the SIP means that transportation activities will not cause new violations of the National Ambient Air Quality Standards (NAAQS), will not worsen existing violations, and will not delay attainment of the NAAQS.

Project-level conformity is required by Title 40 Code of Federal Regulations (CFR) Part 93, more commonly known as the Transportation Conformity Rule. When evaluating project-level conformity for $PM_{2.5}$, the process is called a $PM_{2.5}$ Hot Spot Determination.

The Transportation Conformity Rule instructs the U.S. Department of Transportation (DOT) to ensure that all proposed transportation projects are in conformity before releasing federal funds for the project. To accomplish this, the FHWA and/or FTA require that all proposed transportation projects in a nonattainment or maintenance area be classified as: 1) Exempt, 2) Project Not of Air Quality Concern, or 3) Project of Air Quality Concern.

In §93.126 and §93.128, the Transportation Conformity Rule establishes a list of transportation projects that are categorically exempt from a project-level conformity determination. For nonexempt projects in nonattainment areas, TDOT must determine if the project has the potential to adversely impact air quality and FHWA and/or FTA must make the same determination.

This proposed transportation project is located in a jurisdiction currently classified as nonattainment for the $PM_{2.5}$ NAAQS by the U.S. Environmental Protection Agency. This proposed project is not classified as exempt. Therefore, TDOT is presenting the following $PM_{2.5}$ Hot Spot Determination to the Interagency Consultation (IAC) group to demonstrate this project is not of air quality concern and that it does conform to the SIP.

Project Description

Pellissippi Parkway (State Route (SR) 162) is a major northwest/southeast route connecting Interstate 40 (I-40)/I-75 and SR 33 in Knox and Blount Counties, Tennessee.

Pellissippi Parkway (designated as I-140) between I-40/I-75 and SR 33 was designed and built in four sections between 1987 and 2005. The section of Pellissippi Parkway between SR 33 and US 321/SR 73 is the remaining undeveloped portion of the parkway that was identified in the State's 1986 Urgent Highway Needs Plan. TDOT proposes to extend the existing Pellissippi Parkway from SR 33 to US 321/SR 73 in the cities of Alcoa and Maryville and in unincorporated Blount County. The total length of the proposed extension is approximately 4.5 miles.

The project is proposed by TDOT to:

- Provide travel options for motorists to the existing radial roadway network;
- Enhance regional transportation system linkages;
- Assist in achieving acceptable traffic flows (level of service) on the transportation network; and
- Enhance roadway safety on the roadway network, including the Maryville core.

In April 2006, TDOT initiated an Environmental Impact Statement (EIS) for the project with the publication of a formal Notice of Intent (NOI) to prepare an EIS in the Federal Register. Public and agency scoping was conducted in 2006. At that time, TDOT asked the public to provide input on the purpose and need for the project and to identify potential alternatives for consideration in the Draft EIS. Additional public meetings were held in November 2007 and February 2008 to gather public input on the refined purpose and need and potential project corridors and alternatives. An initial range of alternatives and corridors were developed as a result of public input and input from local and regional agencies, including the Knoxville Regional Transportation Planning Organization (TPO). The alternatives and corridors were refined, and TDOT has determined that three build alternatives will be carried forward, refined and evaluated in the DEIS. Alternative A and C would extend the existing Pellissippi Parkway as a four-lane divided highway in one of two alignments, while Alternative D would be an upgraded two-lane network of existing roads to serve as a two-lane connection between SR 33 and US 321.

$PM_{2.5}$ Hot Spot Determination Questions and Answers

1. **Is this project in a conforming Plan/TIP?** Yes**.** This project is included in the Knoxville Regional Transportation Planning Organization’s (Knoxville-TPO) Transportation Improvement Program (TIP) for FY 2008 – 2011. The proposed project has been found to be consistent with the Knoxville/Knox County Metropolitan Planning Organization's 2005-2030 Long Range Transportation Plan (LRTP) and will not be in conflict with the long-range planning activities of any other local or regional planning authority. The project is included in a conforming plan and program in accordance with 40 CFR §93.115

2. **Is the project on a new or expanded highway or expressway that serves a significant volume of diesel truck traffic, such as a facility with greater than 125,000 annual average daily traffic (AADT) and 8% or more of such AADT is diesel truck traffic?** The project is a new highway but does not serve a significant volume of diesel truck traffic. Based on the projections presented in the Traffic Operations Technical Report for this project, the highest AADT on any of the roadway links along the affected Pellissippi corridor (i.e., from the proposed Relocated Alcoa Highway to East Broadway/Old Knoxville Highway [SR 33]) is 76,720 in the design year of 2035; and the highest truck percentage (from Topside Road to Alcoa Highway [SR 115/US 129/MP]) is 7.0 percent. Using the example, a significant volume of diesel truck traffic would be 10,000 trucks (8% of 125,000). The highest number of trucks on the affected corridor would be 4,458 in the year 2035.

   While a few sections of the existing roadways in the project area would have 8, 9, or 10 % truck traffic in 2035, the percentages on these roadways are estimated to be the same as future No Build truck percentages on these roadways, and the projected AADT on these roadways are all less than 60,000. The highest volume of truck traffic is 5,274 vehicles on the Relocated Alcoa Highway.

   Tables 1 and 2 at the end of this documentation show these values along with the rest of the diesel truck volumes for the No Build as well as the Build Scenario for 2015 and 2035. Tables 3 and 4 list truck volumes for the Pellissippi Parkway extension (between SR 33 and SR 73/US 321). Table 3 lists values for the Build Alternatives A/C (extension of the parkway) while Table 4 lists values for Build Alternative D (upgrade of existing 2-lane roadway network). As shown on these tables, the diesel truck percentages are low and the actual volumes represent only a small portion of the expected traffic.

3. **Does the project construct new exit ramps or other highway facility improvements that connect a highway or expressway to a major freight, bus, or intermodal terminal?** No. While new interchanges would be created with the proposed alternatives, none of these would connect to or affect a major freight, bus, or intermodal facility.

4. **Does the project expand an existing highway or other facility that already has a congested intersection (Operates at LOS D, E, or F) and will this project result in a significant increase in the number of diesel trucks?** No. While several of the affected intersections would operate at LOS D, E, or F in 2035 with the proposed alternatives, the LOS of these intersections would be approximately the same (or better) than under the future No Build alternative. In addition, the number of diesel trucks on the affected roadway links is not projected to significantly increase with any of the project alternatives.

5. **Does the highway project involve a significant increase in the number of diesel transit buses and/or diesel trucks?** No. The traffic projections are primarily a function of population growth and land use. Based on the projections presented in the Traffic Operations Technical Report for this project, the highest AADT on any of the roadway links along the affected Pellissippi corridor (i.e., from the proposed Relocated Alcoa Highway to East Broadway/Old Knoxville Highway [SR 33]) is 76,720; and the highest truck percentage (from Topside Road to Alcoa Highway [SR 115/US 129/MP]) is 7.0 percent. The truck percentages on the other roadway segments range from 2 to 10 percent. The highest actual volume of diesel trucks on the affected corridor is 4,458 representing 7.0 percent of the AADT. For the rest of the roadway segments, the majority of them have a reduction in truck volumes as a result of the build alternative with a few experiencing an increase of no more than 1,700 diesel trucks (SR 33 between Hunt Road and Williams Mill Road with an AADT of 74,860). Tables 1 and 2 include a column illustrating the differences between the No Build and build alternatives. The changes resulting from the build alternatives do not cause a significant increase in the number of diesel trucks and buses.

6. **Will this project cause or worsen an existing violation?** No. Any increase in emissions due to overall growth in Tennessee's traffic volumes is expected to be offset by decreases associated with the project's operational improvements and decreases in overall mobile source emission trends. In addition, background concentrations will decrease as stationary source emissions would continue to decrease via on-going reduction measures and measures that will be implemented in the near future. A similar conclusion is supported by scientific journal articles cited in the final hot-spot analysis rule.

   The March 2006 Transportation Conformity Guidance for Qualitative Hot-Spot Analyses in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas issued jointly by the U.S. Environmental Protection Agency and the U.S. Department of Transportation provide examples of projects that are not of localized air quality concern. More specifically, Appendix A of the Guidance states that projects that are not an air quality concern include "any new or expanded highway project that primarily services gasoline vehicle traffic (i.e., does not involve a significant number or increase in the number of diesel vehicles), including such projects involving congested intersections operating at Level-of-Service D, E, or F."

The nearest PM monitoring station is located at 2007 Sequoyah Avenue in Maryville. This monitor is more than three miles from this proposed project and will not likely be impacted by the project.

Conclusion

TDOT's $PM_{2.5}$ hot spot determination is that this project is **NOT A PROJECT OF AIR QUALITY CONERN**, as determined in accordance with 40 CFR §93.123(b)(1), and that this project is in conformity with the SIP. Therefore, it is assumed that the Clean Air Act and 40 CFR §93.116 requirements are met without a qualitative hot spot analysis once FHWA provides concurrence or and the IAC comment period expires without additional information provided by the IAC to cause objection from FHWA.

Table 1: Comparison of Diesel Truck Numbers for the No-Build and Build Scenarios (2015)

Route	Section	Begin Milepoint	End Milepoint	2015 No-Build ADT	2015 Build ADT	2015 No-Build % Trucks and Buses	2015 Build % Trucks and Buses	2015 No-Build # Diesel Trucks	2015 Build # Diesel Trucks	Change in Volume (Build - No-Build)
Wildwood Road	1	E. Broadway/Old Knoxville Hwy (SR 33) MP 0.000	End of Study Area MP 4.740	5,580	4,940	2.0%	2.0%	112	99	-13
Pellissippi Parkway	1	Topside Rd MP 0.810	Alcoa Hwy (SR 115/US 129) MP 2.240	43,560	46,740	7.0%	7.0%	3049	3272	223
	2	Alcoa Hwy (SR 115/US 129) MP 2.240	Relocated Alcoa Highway MP 3.240	25,880	26,440	5.0%	5.0%	1294	1322	28
	3	Relocated Alcoa Highway MP 3.240	E. Broadway/Old Knoxville Hwy (SR 33) MP 4.710	34,420	46,930	5.0%	5.0%	1721	2347	626
Lamar Alexander Parkway (SR 73 / US 321)	1	Beginning of Study Area MP 8.250	Alcoa Hwy (SR 115/US 129) MP 10.570	30,500	30,000	7.0%	7.0%	2135	2100	-35
	2	Alcoa Hwy (SR 115/US 129) MP 10.570	E. Broadway/Old Knoxville Hwy (SR 33) MP 11.650	29,090	27,910	7.0%	6.0%	2036	1675	-362
	3	E. Broadway/Old Knoxville Hwy (SR 33) MP 11.650	Jones Ave MP 12.526	37,720	37,160	7.0%	6.0%	2640	2230	-411
	4	Jones Ave MP 12.520	Merritt Rd MP 13.980	27,240	22,290	4.0%	3.0%	1090	669	-421
	5	Merritt Rd MP 13.980	Tuckaleechee Pk MP 17.020	24,080	24,950	4.0%	3.0%	963	749	-215
	6	Tuckaleechee Pk MP 17.020	MP 19.020	18,720	32,030	5.0%	4.0%	936	1281	345
	7	MP 19.020	Melrose Station Rd MP 20.020	18,720	21,060	5.0%	5.0%	936	1053	117
Hall Road (SR 35)	1	Alcoa Hwy (SR 115/US 129) MP 0.000	Bessemer St MP 1.520	23,220	18,870	2.0%	2.0%	464	377	-87
	2	Bessemer St MP 1.520	E. Broadway/Old Knoxville Hwy (SR 33) MP 2.590	27,460	20,410	2.0%	2.0%	549	408	-141
Washington Street (SR 35)	1	E. Broadway/Old Knoxville Hwy (SR 33) MP 2.590	US 411 (SR 35) MP 2.820	24,450	18,650	3.0%	3.0%	734	560	-174
	2	US 411 (SR 35) MP 0.000	Lamar Alexander Pkwy (SR 73/US 321) MP 0.160	24,620	27,460	2.0%	2.0%	492	549	57

Table 1: Comparison of Diesel Truck Numbers for the No-Build and Build Scenarios (2015) (cont.)

Route	Section	Begin Milepoint	End Milepoint	2015 No-Build ADT	2015 Build ADT	2015 No-Build % Trucks and Buses	2015 Build % Trucks and Buses	2015 No-Build # Diesel Trucks	2015 Build # Diesel Trucks	Change in Volume (Build - No-Build)
US 411 (SR 35)	1	Washington St (SR 35) MP 2.820	Westfield Dr MP 4.510	13,910	13,490	3.0%	3.0%	417	405	-13
	2	Westfield Dr MP 4.510	Near Peppermint Rd 6.510	10,660	12,990	4.0%	3.0%	426	390	-37
	3	Near Peppermint Rd 6.510	End of Study Area 7.930	6,950	8,520	7.0%	7.0%	487	596	110
E. Broadway / Old Knoxville Highway (SR 33)	1	Beginning of Study Area MP 7.854	Montgomery Lane MP 10.201	38,910	38,510	9.0%	9.0%	3502	3466	-36
	2	Montgomery Lane MP 10.201	Hall Rd MP 12.340	19,720	19,900	9.0%	9.0%	1775	1791	16
	3	Hall Rd MP 12.340	Wildwood Rd MP 14.206	13,170	11,300	2.0%	3.0%	263	339	76
	4	Wildwood Rd MP 14.206	Hunt Rd MP 15.470	13,330	11,210	2.0%	3.0%	267	336	70
	5	Hunt Rd MP 15.470	Williams Mill Rd MP 17.420	34,350	38,200	2.0%	4.0%	687	1528	841
	6	Williams Mill Rd MP 17.420	County Line MP 20.640	19,350	15,360	2.0%	2.0%	387	307	-80
Alcoa Highway (SR 115 / US 129)	1	Broadway Ave MP 10.450	Lamar Alexander Pkwy (SR 73/US 321) MP 11.340	32,550	31,840	10.0%	10.0%	3255	3184	-71
	2	Lamar Alexander Pkwy (SR 73/US 321) MP 11.340	Hall Rd (SR 35) MP 14.280	47,740	46,180	10.0%	8.0%	4774	3694	-1080
	3	Hall Rd (SR 35) MP 14.280	Hunt Rd MP 15.020	56,100	52,920	8.0%	8.0%	4488	4234	-254
	4	Hunt Rd MP 15.020	Pellissippi Pky MP 17.660	31,570	35,480	8.0%	8.0%	2526	2838	313
	5	Pellissippi Pky MP 17.660	County Line MP 20.400	22,670	31,870	8.0%	8.0%	1814	2550	736
Relocated Alcoa Highway	1	Alcoa Highway (SR 115 / US 129)	Pellissippi Pky	37,100	30,170	8.0%	8.0%	2968	2414	-554
	2	Pellissippi Pky	Alcoa Highway (SR 115 / US 129)	50,900	50,300	8.0%	8.0%	4072	4024	-48

Table 2: Comparison of Diesel Truck Numbers for the No-Build and Build Scenarios (2035)

Route	Section	Begin Milepoint	End Milepoint	2035 No-Build ADT	2035 Build ADT	2035 No-Build % Trucks and Buses	2035 Build % Trucks and Buses	2035 No-Build # Diesel Trucks	2035 Build # Diesel Trucks	Change in Volume (Build - No-Build)
Wildwood Road	1	E. Broadway/Old Knoxville Hwy (SR 33) MP 0.000	End of Study Area MP 4.740	6,250	4,720	2.0%	2.0%	125	94	-31
Pellissippi Parkway	1	Topside Rd MP 0.810	Alcoa Hwy (SR 115/US 129) MP 2.240	62,310	63,690	7.0%	7.0%	4362	4458	97
	2	Alcoa Hwy (SR 115/US 129) MP 2.240	Relocated Alcoa Highway MP 3.240	39,240	28,410	5.0%	5.0%	1962	1421	-542
	3	Relocated Alcoa Highway MP 3.240	E. Broadway/Old Knoxville Hwy (SR 33) MP 4.710	60,080	76,720	5.0%	5.0%	3004	3836	832
Lamar Alexander Parkway (SR 73 / US 321)	1	Beginning of Study Area MP 8.250	Alcoa Hwy (SR 115/US 129) MP 10.570	45,270	45,980	7.0%	7.0%	3169	3219	50
	2	Alcoa Hwy (SR 115/US 129) MP 10.570	E. Broadway/Old Knoxville Hwy (SR 33) MP 11.650	37,430	37,320	7.0%	6.0%	2620	2239	-381
	3	E. Broadway/Old Knoxville Hwy (SR 33) MP 11.650	Jones Ave MP 12.526	48,380	49,000	7.0%	6.0%	3387	2940	-447
	4	Jones Ave MP 12.520	Merritt Rd MP 13.980	38,610	34,190	4.0%	3.0%	1544	1026	-519
	5	Merritt Rd MP 13.980	Tuckaleechee Pk MP 17.020	41,200	34,560	4.0%	3.0%	1648	1037	-611
	6	Tuckaleechee Pk MP 17.020	MP 19.020	32,620	42,820	5.0%	4.0%	1631	1713	82
	7	MP 19.020	Melrose Station Rd MP 20.020	32,620	37,000	5.0%	5.0%	1631	1850	219
Hall Road (SR 35)	1	Alcoa Hwy (SR 115/US 129) MP 0.000	Bessemer St MP 1.520	23,220	17,730	2.0%	2.0%	464	355	-110
	2	Bessemer St MP 1.520	E. Broadway/Old Knoxville Hwy (SR 33) MP 2.590	27,460	21,520	2.0%	2.0%	549	430	-119
Washington Street (SR 35)	1	E. Broadway/Old Knoxville Hwy (SR 33) MP 2.590	US 411 (SR 35) MP 2.820	25,990	22,090	3.0%	3.0%	780	663	-117
	2	US 411 (SR 35) MP 0.000	Lamar Alexander Pkwy (SR 73/US 321) MP 0.160	37,890	33,060	2.0%	2.0%	758	661	-97

Table 2: Comparison of Diesel Truck Numbers for the No-Build and Build Scenarios (2035) (cont.)

Route	Section	Begin Milepoint	End Milepoint	2035 No-Build ADT	2035 Build ADT	2035 No-Build % Trucks and Buses	2035 Build % Trucks and Buses	2035 No-Build # Diesel Trucks	2035 Build # Diesel Trucks	Change in Volume (Build - No-Build)
US 411 (SR 35)	1	Washington St (SR 35) MP 2.820	Westfield Dr MP 4.510	16,910	14,920	3.0%	3.0%	507	448	-60
	2	Westfield Dr MP 4.510	Near Peppermint Rd 6.510	14,240	13,610	4.0%	3.0%	570	408	-161
	3	Near Peppermint Rd 6.510	End of Study Area 7.930	9,670	10,650	7.0%	7.0%	677	746	69
E. Broadway / Old Knoxville Highway (SR 33)	1	Beginning of Study Area MP 7.854	Montgomery Lane MP 10.201	46,990	46,770	9.0%	9.0%	4229	4209	-20
	2	Montgomery Lane MP 10.201	Hall Rd MP 12.340	30,940	30,080	9.0%	9.0%	2785	2707	-77
	3	Hall Rd MP 12.340	Wildwood Rd MP 14.206	25,060	18,550	2.0%	3.0%	501	557	55
	4	Wildwood Rd MP 14.206	Hunt Rd MP 15.470	24,310	18,350	2.0%	3.0%	486	551	64
	5	Hunt Rd MP 15.470	Williams Mill Rd MP 17.420	65,850	74,860	2.0%	4.0%	1317	2994	1677
	6	Williams Mill Rd MP 17.420	County Line MP 20.640	31,770	27,280	2.0%	2.0%	635	546	-90
Alcoa Highway (SR 115 / US 129)	1	Broadway Ave MP 10.450	Lamar Alexander Pkwy (SR 73/US 321) MP 11.340	37,280	37,250	10.0%	10.0%	3728	3725	-3
	2	Lamar Alexander Pkwy (SR 73/US 321) MP 11.340	Hall Rd (SR 35) MP 14.280	47,740	53,740	10.0%	8.0%	4774	4299	-475
	3	Hall Rd (SR 35) MP 14.280	Hunt Rd MP 15.020	61,120	58,570	8.0%	8.0%	4890	4686	-204
	4	Hunt Rd MP 15.020	Pellissippi Pky MP 17.660	40,280	39,980	8.0%	8.0%	3222	3198	-24
	5	Pellissippi Pky MP 17.660	County Line MP 20.400	26,060	30,120	8.0%	8.0%	2085	2410	325
Relocated Alcoa Highway	1	Alcoa Highway (SR 115 / US 129)	Pellissippi Pky	38,430	36,690	8.0%	8.0%	3074	2935	-139
	2	Pellissippi Pky	Alcoa Highway (SR 115 / US 129)	62,590	65,930	8.0%	8.0%	5007	5274	267

Table 3: Diesel Truck Volumes for Build Alternatives A/C

Begin Milepoint	End Milepoint	2015 ADT	2015 % Trucks and Buses	2015 # Diesel Trucks	2035 ADT	2035 % Trucks and Buses	2035 # Diesel Trucks
E. Broadway/Old Knoxville Hwy (SR 33)	US 411 (SR 35)	36,230	2.0%	725	63,380	2.0%	1268
US 411 (SR 35)	Lamar Alexander Pkwy (SR 73/US 321)	26,780	2.0%	536	52,880	2.0%	1058

Table 4: Diesel Truck Volumes for Build Alternative D

Begin Milepoint	End Milepoint	2015 ADT	2015 % Trucks and Buses	2015 # Diesel Trucks	2035 ADT	2035 % Trucks and Buses	2035 # Diesel Trucks
E. Broadway/Old Knoxville Hwy (SR 33)	US 411 (SR 35)	16,970	5.0%	849	22,390	5.0%	1120
US 411 (SR 35)	Lamar Alexander Pkwy (SR 73/US 321)	12,270	5.0%	614	17,240	5.0%	862

From: Marc Corrigan
To: McAdoo, Mark
Date: 1/9/2009 10:51 AM
Subject: Re: PM 2.5 Determination for Pellissippi Parkway Project (PIN# 101423.00)

Mark,

Based on the information provided, and no new information is provided from other IAC participants, I concur with TDOT's determination.

Marc

>>> Mark McAdoo 12:17 PM 1/8/09 >>>
Marc -
In response to your question, our consultant informs me "the rows in the table were shaded just to make the truck changes in volume stand out from the no-build to the build scenario. We thought that this important with regard to impacts as it shows that most of the volumes decrease in the build scenario."

TDOT requests your concurrence with our recommendation that this project be classified as NOT OF AIR QUALITY CONCERN. Please respond no later than close of business (4:30 central time) on**January 20, 2009**. If TDOT does not receive a response to the contrary within 10 business days of this email then TDOT will assume that you concur with our recommended determination.

Thanks,

Mark

TDOT - Environmental Division
615-741-6834

If you want your budget in the black - think green!

>>> Marc Corrigan 1/8/2009 8:28 AM >>>
Mark,

What is the significance of the of the shaded rows in the tables?

Marc

>>> Mark McAdoo 8:53 AM 1/7/09 >>>
Knoxville Area IAC -
This project was previously submitted to the IAC for concurrence. However, on December 19, 2008, Kelly Sheckler (EPA) left a voice message with me requesting us to revise the determination and resubmit. EPA requested truck numbers (not percentages) for the build and no build in the design year.

Our consultant for this project has made those revisions and TDOT is now resubmitting the determination that this project be classified as NOT OF AIR QUALITY CONCERN to the IAC for concurrence. Details are provided in the attached document.

TDOT requests your concurrence with our recommendation that this project be classified as NOT OF AIR QUALITY CONCERN. Please respond no later than close of business (4:30 central time) on January 20, 2009. If TDOT does not receive a response to the contrary within 10 business days of this email then TDOT will assume that you concur with our recommended determination.

Happy New Year,

Mark

TDOT - Environmental Division
615-741-6834

If you want your budget in the black - think green!

Appendix E: MSAT Prototype Language for Compliance with 40 CFR 1502.22

(The following document is found at http://www.fhwa.dot.gov/environment/airtoxic/100109guidapc.htm as APPENDIX C.)

APPENDIX C-Prototype Language for Compliance with 40 CFR 1502.22

Sec. 1502.22 INCOMPETE OR UNAVAILABLE INFORMATION

When an agency is evaluating reasonably foreseeable significant adverse effects on the human environment in an environmental impact statement and there is incomplete or unavailable information, the agency shall always make clear that such information is lacking.

a. If the incomplete information relevant to reasonably foreseeable significant adverse impacts is essential to a reasoned choice among alternatives and the overall costs of obtaining it are not exorbitant, the agency shall include the information in the environmental impact statement.
b. If the information relevant to reasonably foreseeable significant adverse impacts cannot be obtained because the overall costs of obtaining it are exorbitant or the means to obtain it are not known, the agency shall include within the environmental impact statement:
    1. a statement that such information is incomplete or unavailable;
    2. a statement of the relevance of the incomplete or unavailable information to evaluating reasonably foreseeable significant adverse impacts on the human environment;
    3. a summary of existing credible scientific evidence which is relevant to evaluating the reasonably foreseeable significant adverse impacts on the human environment; and
    4. the agency's evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community. For the purposes of this section, "reasonably foreseeable" includes impacts that have catastrophic consequences, even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason.
c. The amended regulation will be applicable to all environmental impact statements for which a Notice to Intent (40 CFR 1508.22) is published in the Federal Register on or after May 27, 1986. For environmental impact statements in progress, agencies may choose to comply with the requirements of either the original or amended regulation.

INCOMPLETE OR UNAVAILABLE INFORMATION FOR PROJECT-SPECIFIC MSAT HEALTH IMPACTS ANALYSIS

In FHWA's view, information is incomplete or unavailable to credibly predict the project-specific health impacts due to changes in MSAT emissions associated with a proposed set of highway alternatives. The outcome of such an assessment, adverse or not, would be influenced more by the uncertainty introduced into the process through assumption and speculation rather than any genuine insight into the actual health impacts directly attributable to MSAT exposure associated with a proposed action.

The U.S. Environmental Protection Agency (EPA) is responsible for protecting the public health and welfare from any known or anticipated effect of an air pollutant. They are the lead authority for administering the Clean Air Act and its amendments and have specific statutory obligations with respect to hazardous air pollutants and MSAT. The EPA is in the continual process of assessing human health effects, exposures, and risks posed by air pollutants. They maintain the Integrated Risk Information System (IRIS), which is "a compilation of electronic reports on specific substances found in the environment and their potential to cause human health effects" (EPA, http://www.epa.gov/ncea/iris/index.html). Each report contains assessments of non-cancerous and cancerous effects for individual compounds and quantitative estimates of risk levels from lifetime oral and inhalation exposures with uncertainty spanning perhaps an order of magnitude.

Other organizations are also active in the research and analyses of the human health effects of MSAT, including the Health Effects Institute (HEI). Two HEI studies are summarized in Appendix D of FHWA's Interim Guidance Update on Mobile source Air Toxic Analysis in NEPA Documents. Among the adverse health effects linked to MSAT compounds at high exposures are cancer in humans in occupational settings; cancer in animals; and irritation to the respiratory tract, including the exacerbation of asthma. Less obvious is the adverse human health effects of MSAT compounds at current environmental concentrations (HEI, http://pubs.healtheffects.org/view.php?id=282) or in the future as vehicle emissions substantially decrease (HEI, http://pubs.healtheffects.org/view.php?id=306).

The methodologies for forecasting health impacts include emissions modeling; dispersion modeling; exposure modeling; and then final determination of health impacts - each step in the process building on the model predictions obtained in the previous step. All are encumbered by technical shortcomings or uncertain science that prevents a more complete differentiation of the MSAT health impacts among a set of project alternatives. These difficulties are magnified for lifetime (i.e., 70 year) assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology (which affects emissions rates) over that time frame, since such information is unavailable. The results produced by the EPA's MOBILE6.2 model, the California EPA's Emfac2007 model, and the EPA's DraftMOVES2009 model in forecasting MSAT emissions are highly inconsistent. Indications from the development of the MOVES model are that MOBILE6.2 significantly underestimates diesel particulate matter (PM) emissions and significantly overestimates benzene emissions.

Regarding air dispersion modeling, an extensive evaluation of EPA's guideline CAL3QHC model was conducted in an NCHRP study (http://www.epa.gov/scram001/dispersion_alt.htm#hyroad), which documents poor model performance at ten sites across the country - three where intensive monitoring was conducted plus an additional seven with less intensive monitoring. The study indicates a bias of the CAL3QHC model to overestimate concentrations near highly congested intersections and underestimate concentrations near uncongested intersections. The consequence of this is a tendency to overstate the air quality benefits of mitigating congestion at intersections. Such poor model performance is less difficult to man
for f
year lifetime exposure is unavailable. It is particularly difficult to reliably forecast MSAT exposure near roadways, and to determine the portion of time that people are actually exposed at a specific location.

There are considerable uncertainties associated with the existing estimates of toxicity of the various MSAT, because of factors such as low-dose extrapolation and translation of occupational exposure data to the general population, a concern expressed by HEI (http://pubs.healtheffects.org/view.php?id=282). As a result, there is no national consensus on air dose-response values assumed to protect the public health and welfare for MSAT compounds, and in particular for diesel PM. The EPA (http://www.epa.gov/risk/basicinformation.htm#g) and the HEI (http://pubs.healtheffects.org/getfile.php?u=395) have not established a basis for quantitative risk assessment of diesel PM in ambient settings.

There is also the lack of a national consensus on an acceptable level of risk. The current context is the process used by the EPA as provided by the Clean Air Act to determine whether more stringent controls are required in order to provide an ample margin of safety to protect public health or to prevent an adverse environmental effect for industrial sources subject to the maximum achievable control technology standards, such as benzene emissions from refineries. The decision framework is a two-step process. The first step requires EPA to determine a "safe" or "acceptable" level of risk due to emissions from a source, which is generally no greater than approximately 100 in a million. Additional factors are considered in the second step, the goal of which is to maximize the number of people with risks less than 1 in a million due to emissions from a source. The results of this statutory two-step process do not guarantee that cancer risks from exposure to air toxics are less than 1 in a million;in some cases, the residual risk determination could result in maximum individual cancer risks that are as high as approximately 100 in a million. In a June 2008 decision, the U.S. Court of Appeals for the District of Columbia Circuit upheld EPA's approach to addressing risk in its two step decision framework. Information is incomplete or unavailable to establish that even the largest of highway projects would result in levels of risk greater than safe or acceptable.

Because of the limitations in the methodologies for forecasting health impacts described, any predicted difference in health impacts between alternatives is likely to be much smaller than the uncertainties associated with predicting the impacts. Consequently, the results of such assessments would not be useful to decision makers, who would need to weigh this information against project benefits, such as reducing traffic congestion, accident rates, and fatalities plus improved access for emergency response, that are better suited for quantitative analysis.

Due to the limitations cited, a discussion such as the example provided in this Appendix (reflecting any local and project-specific circumstances), should be included regarding incomplete or unavailable information in accordance with Council on Environmental Quality (CEQ) regulations [40 CFR 1502.22(b)]. The FHWA Headquarters and Resource Center staff Victoria Martinez (787) 766-5600 X231, Shari Schaftlein (202) 366-5570, and Michael Claggett (505) 820-2047, are available to provide guidance and technical assistance and support.
